



SHAPE WHAT'S

GOOD

FOR TOMORROW




MEMBER OF
**Dow Jones
Sustainability Indices**

Powered by the S&P Global CSA

Annual Report 2023
(Form 56-1 One Report)
IRPC Public Company Limited



"Embracing a Sustainable Future of Humanity"



At IRPC, our unwavering motivation lies in fostering a sustainable future for all. We are committed to crafting top-tier products that not only cater to the demands of modern living but also drive businesses towards a pathway of exponential growth and sustainability.



▶ Creating Shared Value



Fostering Shared Value for a Flourishing Society and Environmental Sustainability

IRPC pledges to create shared value, ensuring the prosperity of both society and communities. Our dedication is what drives us to seek optimal solutions for enhancing the quality of life, conserving natural resources and practicing environmental stewardship.



▶ Climate Resilience and Adaptation

From Low-carbon Transition to Net Zero Society

IRPC leads the way to introduce a comprehensive range of climate actions in response to imminent threats, steering our businesses towards sustainability in a low-carbon society while implementing bold, innovative solutions for natural resource conservation.



▶ Circular Economy

Driving Circular Economy to Achieve Global Equilibrium

At IRPC, circular economy is an integral part of our business approach that aligns with the Government's BCG Model of National Sustainable Development Strategy aimed at creating added value by advancing a Bio-Circular-Green Economy, balancing productivity and responsible consumption.



VISION

TO SHAPE MATERIAL
AND ENERGY SOLUTIONS
IN HARMONY WITH LIFE

MISSION

TO DELIVER WITH INNOVATIONS
THE BETTER ATTRIBUTES AND
SOLUTIONS OF SUSTAINABLE MATERIAL
AND ENERGY FOR THE FUTURE



- I Individual Ownership
- S Synergy
- P Performance Excellence
- I Innovation
- R Responsibility for Society
- I Integrity & Ethics
- T Trust & Respect



“ดี”

ด้วยใจรับผิดชอบ

“เก่ง”
ทันโลกธุรกิจ



“กล้า”

เพื่อความสำเร็จ



IRPC's strategies and business direction hinge on the Core Uplift of capabilities, propelling expansion beyond our current value chain. This approach enables the company to Step Up & Beyond Business, delivering tangible results that align with our corporate vision.

“Sustainable and Balanced Business Approach to Deliver Innovative Material and Energy Solutions in Harmony with Life”

STEP UP AND BEYOND

Rebalancing Investment Portfolio to Step Up Existing Core Businesses and Beyond in Search of New Opportunities

With a focus on optimal resource allocation mix to go beyond our current capabilities, expertise and value chain in quest for new opportunities through synergistic collaboration with domestic and international suppliers, customers and allies (JV, M&A, New S-Curve, Startup, etc.) to leverage new markets, products or services that are part of the Megatrends.



Medical equipment and devices



Hospital and wellness center



Specialty Paint and coating



Nanotechnology



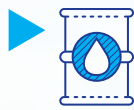
Clean energy



Green and recycling

CORE UPLIFT

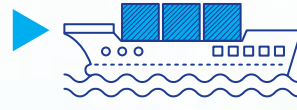
Improve production efficiency to enhance core strengths designed to add value by implementing material and energy innovations in our petroleum, petrochemical, port services and asset management.



Petroleum



Petrochemical



Port Services and
Asset Management

SUSTAINABILITY

IRPC is totally committed to a sustainable development approach to business, with emphasis on social responsibility and environmental stewardship.



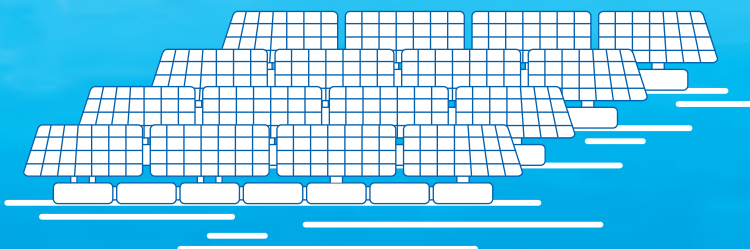
IRPC sets target for **20 percent** reduction of greenhouse gas emissions **by 2030**.



To achieve
Carbon Neutrality by 2050.



To accomplish
Net Zero by 2060.





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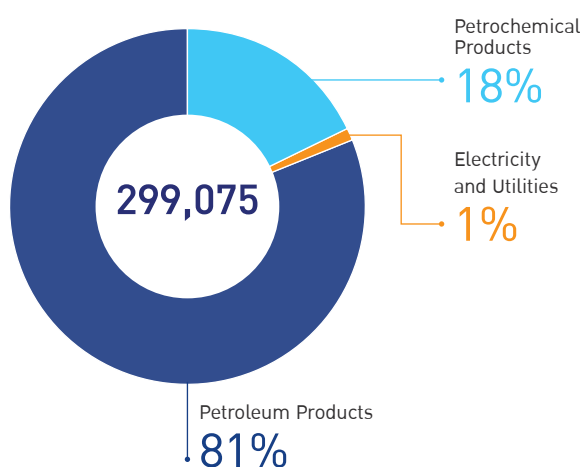
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Key Performance



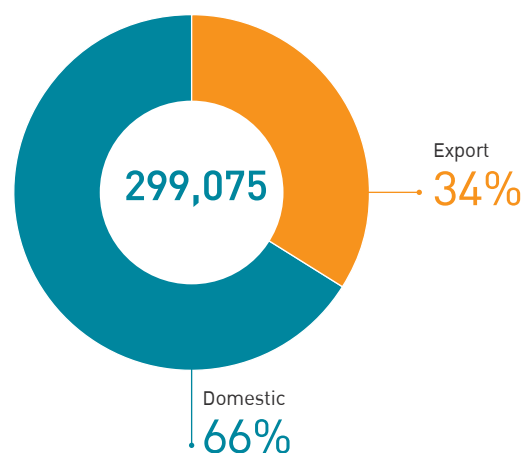
► Net Sales

(Unit: Million Baht)



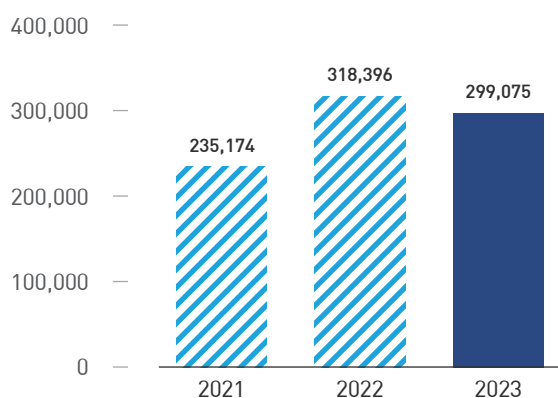
► Sales Distribution

(Unit: Million Baht)



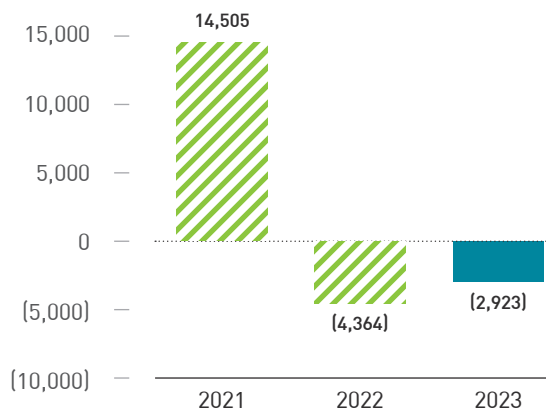
► Net Sales

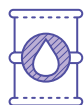
(Unit: Million Baht)



► Net Profit (Net Loss)

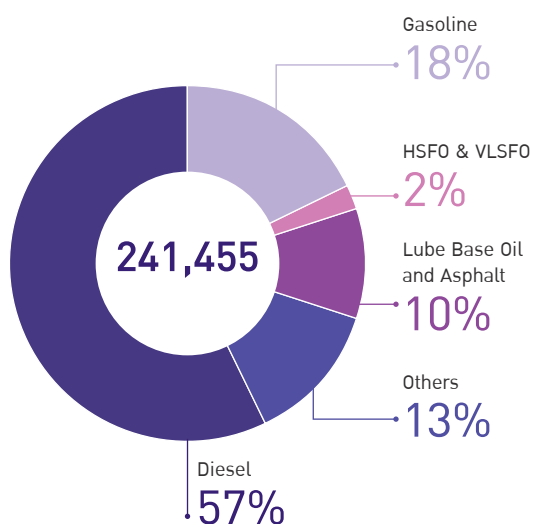
(Unit: Million Baht)





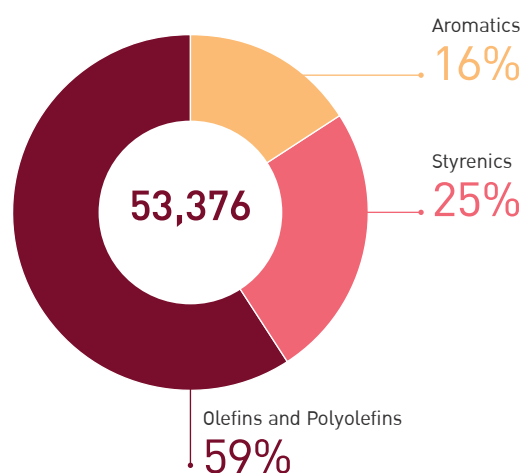
► Petroleum Products

(Unit: Million Baht)



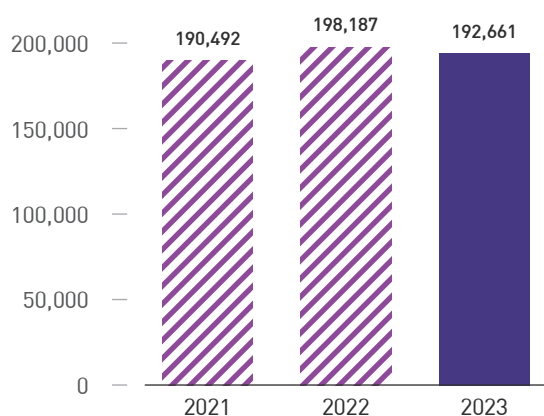
► Petrochemical Products

(Unit: Million Baht)



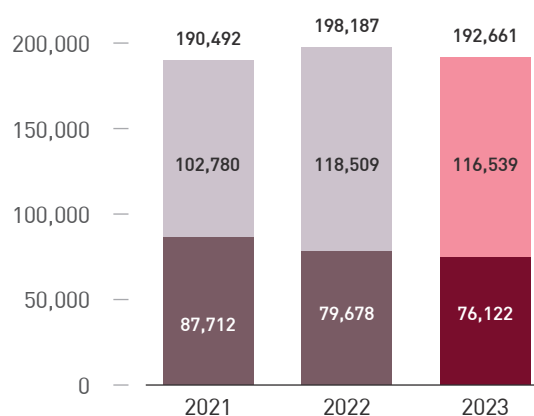
► Total Assets

(Unit: Million Baht)



► Total Liabilities and Equity

(Unit: Million Baht)



Equity
Total Liabilities

Key Developments in Sustainable Growth



CORPORATE

IRPC launched its inaugural batch of eco-friendly Euro 5 diesel

To respond to growing demand for low-sulfur diesel both domestically and in neighboring countries within the ASEAN Economic Community (AEC) through environmentally friendly production process.



IRPC partnered with Bangkok Fuel Pipeline and Logistics Company Limited (BFPL)

To open a new oil depot in Bang Pa-in District, Ayutthaya Province, IRPC's seventh and a vital connection point for oil transportation network and distribution center serving the Central and Northern region through a 99-km pipeline system.



IRPC-Bangkok Hospital Group Co., Ltd. signed a memorandum of understanding for the development of hospital and wellness center business on IRPC properties in Rayong Province

To improve the quality of life and health of people in the area of Rayong Province and nearby provinces providing access to holistic health services.

IRPC and F.T.I. signed a memorandum of understanding for cooperation in project implementation “Innovation One Fund”

To jointly raise the level of development and strengthen competitiveness of Thai startups and SMEs as well as to help them successfully make market entry and grow their businesses.



IRPC and Mahidol University signed a memorandum of understanding in research and innovation

To establish a collaborative partnership in academic endeavors, innovation research and promotion of medical technology innovation, such as the development of Photopolymer Resin for 3D printing.

IRPC, along with VISTEC, PTT, Top Ventures and Beacon Venture Capital, announced a joint venture in VISUP

To support investments in startups and translate research into commercial applications, with emphasis on digital technology, advanced material technology, biotechnology and energy technology.



IRPC collaborated with PTT and Boonrawd to develop innovative renewable materials

Signed a cooperation agreement to develop innovative products from recycled industrial scrap in accordance with the concept of circular economy. Pilot projects include recycling plastic scrap to develop such prototypes as drinking water and soda crates, replaceable soda bottles made from rPET and rHDPE, and pallets made from rHDPE and malt residue.

IRPC - EGAT signed a memorandum of understanding for research and development collaboration and technical cooperation

To explore business opportunities of turning innovations to commercial production, such as innovation in extracting Humic acid, Fulvic acid and Humin from Leonardite for use in agricultural, cosmetic and medical applications.



ENVIRONMENT



IRPC increased solar farm capacity by 8.5 megawatts

As part of its effort to achieve Net Zero Emissions by boosting renewable energy in IRPC industrial zone under the expansion phase of the Floating Solar Farm project, raising power production by another 8.5 megawatts.



IRPC and PTT Group signed an MOU with the government sector and network partners

To develop planting areas, maintain forest ecosystem and accelerate planting in additional 2 million rai of forest area.





IRPC joined Mae Fah Luang Foundation under Royal Patronage and network partners from both government and private sectors

As a partner in forest carbon sequestration projects as carbon credit management for sustainable development, and to provide incentive for communities to take care of forests while enhancing community wellbeing.

IRPC joined the Stock Exchange of Thailand, Royal Forest Department and community forest network partners to pilot tree planting

Under the Care the Wild: “Plant and Protect” project in Ban Khok Phluang community forest area, Chakrat District, Nakhon Ratchasima Province in a 10-rai area, for a period of 10 years, with the aim to generate economic value, promoting livelihood to improve community resilience as well as to mitigate impacts of global warming.



SOCIAL

IRPC signed an agreement with local administrative organizations in Rayong Province

Consisting of Rayong Municipality, Choeng Noen Subdistrict Municipality, Nam Khok Subdistrict Municipality, Thap Ma Subdistrict Municipality, Ban Laeng Subdistrict Administrative Organization, Taphong Subdistrict Administrative Organization, Natakhwon Subdistrict Administrative Organization, and Takhan Subdistrict Administrative Organization to promote livelihood to generate additional income and improve the quality of life of persons with disabilities.



IRPC and Eastern Polypack donated plastic sheets to the Prostheses Foundation, totaling 11,000 sheets

IRPC donated 33 tons of Polimaxx PP Copolymer 3340H plastic pellets delivered to Eastern Polypack Co., Ltd. (EPP) to be injection molded into prosthetic part, including leg sockets, so that the Prostheses Foundation can produce prosthetics for persons with disabilities free of charge for the 13th consecutive year, a total of 39,572 amputees have benefited from the scheme.

IRPC joined partner networks to advance “From Waste to Walk” project

IRPC, Prostheses Foundation, Eastern Polymer Group Public Company Limited and 95 prosthetic leg workshops nationwide, collected plastic scrap from the production prosthetic legs for recycling and repurposed as prosthetic parts. This is to promote equal opportunity for people with disabilities.



IRPC in collaboration with Chulalongkorn Hospital to advance “From Waste to Walk” project

To collect PP (Polypropylene) scrap from prosthetic production workshops for recycling and repurposed as prosthetic devices for patients and people with disabilities.



IRPC delivers recycled PP plastic sheets to Sirindhorn National Institute for Medical Rehabilitation

Under “From Waste to Walk” project by participating in research and development to recycle and reuse PP (Polypropylene) scrap from prosthetic production workshops to produce ankle braces and foot supports so that amputees or individuals with abnormal foot structures, congenital deformities or muscular dystrophy have access to prosthetic devices they need.

IRPC supported humanitarian assistance

For the victims of devastating earthquakes in Turkey and Syria. Donation was made to the Turkish Red Crescent and the Syrian Arab Red Crescent via the Thai Red Cross Society.





GOVERNANCE

IRPC joined to mobilize the country towards achieving national goals

To declare their commitment to drive human capital to realize the full potential of human resource 5.0 towards sustainable knowledge-based society at the UN Global Compact Network Thailand Forum 2023 (GCNT Forum).



IRPC has received certificate of accreditation to renew membership of the Thai Private Sector Collective Action Against Corruption (CAC) for the third time

For conducting business with good corporate governance, adequate risk management, and strictly-enforced measures against all forms of corruption and bribery.

IRPC established a proactive approach to prevent corruption

By addressing key factors affecting corruption in high risk areas, and enlisting the support of all work units and related parties to promote awareness and to collectively resolve issues that may give rise to corruption, according to the goals identified at "Workshop multidisciplinary approach to combat corruption in Bangkok area, organized by Office of the NACC.



IRPC CG DAY: Empowering People, Unlocking Power of Sustainability

Declaration of intent to conduct business with good corporate governance and the commitment to strictly follow the Corporate Governance Policy along the sustainable growth pathway while acting in the best interests of all stakeholders under a balanced approach. We also make sure the body of knowledge is passed down from generation to generation and inspire our people to foster the "Power of Sustainability."

Awards and Recognition



Member of Dow Jones Sustainability Indices (DJSI)

IRPC has been selected as Dow Jones Sustainability Indices, or DJSI, member for the 10th consecutive year in the Oil & Gas Refining and Marketing industry group. This is testament to our commitment to operational approach that adheres to sustainable development approach, with corporate social responsibility, guided by corporate governance and responsibility to all stakeholders.



The Asian Excellence Awards 2023 of Corporate Governance Asia magazine

IRPC won 4 outstanding awards: Asian Excellence Award 2023, Asia's Best CEO Award, Asia's Best CFO Award, Best Investor Relations Company Award, and Best Environmental Responsibility Award.

Thailand Energy Awards 2022 from the Department of Alternative Energy Development and Efficiency (DEPA), Ministry of Energy

In the Creative Energy Project category for the Energy Saving of Cracking and Quenching Processes by Digitalization project at the Ethylene plant (ETP) that promotes exemplary energy conservation.



“Sustainability Awards of Honor” from the Stock Exchange of Thailand

For the fifth consecutive year for operational approach that aligns with the sustainable development approach, guided by corporate governance to achieve business growth that goes together with social development and environmental stewardship.

Green Industry Award 2023 from the Ministry of Industry

Six IRPC factories, PPC, BTX, ABS & SAN, PP, HDPE & UHMWPE, ACB, won the Green Industry Award 2023, Level 4, Green Culture, and Level 5, Green Network. This is testament to the company's continual development and improvement of its production process efficiency under environmentally friendly operational approach.



HUMAN RIGHTS AWARDS 2023

งานประกาศรางวัลองค์กรต้นแบบด้านสิทธิมนุษยชน ประจำปี 2566



Human Rights Model Organization 2023 from the Rights and Liberties Protection Department, Ministry of Justice

Received the plaque and certificate of outstanding achievement: “Human Rights Model Organization” for the 5th consecutive year in the large business organization category. This reflects positively on IRPC as a company that conducts its business with utmost respect to fundamental human rights principles: equality, diversity and inclusion, as well as fair treatment of stakeholders.

Asia Responsible Enterprise Award, or AREA 2023, from Enterprise Asia

In the Circular Economy Leadership category from Enterprise Asia for IRPC's From Waste to Walk project, a project to produce prosthetic devices from recycled plastic.



“Transparent Organization” Award from the National Anti-Corruption Commission (NACC)

In recognition to IRPC's business operational approach guided by corporate governance, transparency, accountability along with effective measures to prevent corruption and conflicts of interest.

CAC Change Agent Award 2023 from the Thai Institute of Directors Association (IOD)

For IRPC's commitment to operate as a transparent organization that promotes sustainability throughout the entire supply chain.



Certificate of honor for Chief Innovation Officer who plays a pivotal role in driving innovation from the National Innovation Agency

In recognition of corporate executive's visionary thinking to drive the organization through sustained innovation development.



Plaque of Appreciation as a member of the private sector network that supports conservation and development of community forests from Ministry of Natural Resources and Environment



In recognition of IRPC joining the SET and government sector partners in implementing Care the Wild: "Plant and Protect" project in Ban Khok Phluang community forest area, Chakrat District, Nakhon Ratchasima Province. The reforestation project covering an area of 10 rai aims to create a community forest over 10 years.

14th Thai Tourism Industry Awards 2023 from the Tourism Authority of Thailand (TAT)

IRPC's Smart Farming Project, Yai Da-Jae Boonchuen Garden, an integrated agro-tourism/learning center, won two outstanding awards for Learning & Doing Destination category, and Low Carbon & Sustainability Destination category of the Thai Tourism Industry.



Message from the Chairman



Our focus has shifted toward accelerating expansion in core businesses, emphasizing our expertise and concentrating on products with significant potential. Additionally, strategic partnerships have been forged to explore new ventures. Simultaneously, IRPC has dedicated efforts to fortify the foundation for digital technology, reshaping the workforce to align with the redefined strategic direction. With unwavering confidence, we are committed to propelling our business with sustainable growth.



Dear shareholders,

The volatility and uncertainty in both the global economy and international conflicts in the year 2023 are continuations of ongoing issues from previous years, exacerbated by factors such as the instability in financial institutions in the United States and Europe, as well as the recent conflict between Israel and Hamas. Additionally, the pronounced economic stagnation in China has had significant impacts on global businesses, all of which have had considerable effects on the Thai economy as well.

In addressing these challenges, IRPC Public Company Limited had undertaken measures to enhance management agility to effectively navigate through rapidly evolving situations. With prudent decision-making and financial discipline as our guiding principles, the company initiated a comprehensive review and prioritization to rebalance its investment portfolio. Our focus has shifted toward accelerating expansion in core businesses, emphasizing our expertise and concentrating on products with significant potential. Additionally, strategic partnerships have been forged to explore new ventures. Simultaneously, IRPC has dedicated efforts to fortify the foundation for digital technology, reshaping the workforce to align with the redefined strategic direction. With unwavering confidence, we are committed to propelling our business with sustainable growth.

Throughout 2023, the Board of Directors diligently fulfilled its duties in alignment with the roles and responsibilities outlined by the charter and sustainability management framework. This commitment was made with a paramount

focus on the best interests of the company, shareholders, and all stakeholders. The Board proactively enhanced internal control, risk management, and organizational development under the guidance of robust corporate governance principles. This strategic approach aims to ensure the company's operations are conducted with integrity, transparency, and fairness, fostering a professional mindset among its workforce. These initiatives collectively contribute to business resilience, fortifying the corporate immune system. The corporate culture and sustainability management framework are not confined to IRPC but are embraced by subsidiary companies within the IRPC Group and its suppliers. Notably, IRPC has achieved inclusion in the Dow Jones Sustainability Index for the 10th consecutive year and has been honored with the "Sustainability Awards of Honor" for the 5th consecutive year. The company has consistently received an Excellent CG Scoring in the Corporate Governance Report of Thai Listed Company (CGR) for 15 years, alongside recognition as a "Model Human Rights Organization" for the fifth consecutive year and the prestigious "Transparent Organization" Award from the Office of the National Anti-Corruption Commission.

On behalf of the Board of Directors, I extend heartfelt appreciation to our shareholders and stakeholders for their unwavering confidence and steadfast support in the company's operations. Our gratitude also extends to the management team and all colleagues, whose dedication and diligence have played a pivotal role in building stability and contributing to the sustainable growth over the years.



Dr. Siri Jirapongphan
Chairman

Message from the President and Chief Executive Officer

Dear shareholders,

In 2023, IRPC navigated through a myriad of challenges and shifts, brought on by escalating geopolitical conflicts that triggered disruptions in the global supply chain and a surge in inflation. Many countries remained susceptible to recessionary pressures. Despite initial optimism surrounding the reopening of China's economy, its recovery was weaker than expected due to unresolved internal issues. Faced with weakened domestic demand, China ramped up its exports, flooding the region's markets with Chinese-manufactured goods, adversely impacting local industries, specifically Thailand's automotive and plastic sectors. Meanwhile, the repercussions of El Niño heightened concerns about global warming, prompting stricter measures to combat climate change. These developments compelled the manufacturing and business sectors to reassess strategies, preparing for accelerated change ahead.

The company has diligently assessed prevailing situations and implemented additional measures to address emerging issues, thereby minimizing potential impacts on our businesses. Our strategic focus centers on enhancing efficiency, augmenting production capabilities, and bolstering competitiveness. We place emphasis on fostering collaboration with strategic allies to implement Core Uplift, particularly in petroleum and petrochemical businesses, as well as Step up & Beyond, actively exploring new opportunities. This strategic approach is designed to position the company to embrace emerging Megatrends and capitalize on opportunities presented by the Eastern Economic Corridor Development projects. It aligns seamlessly with the country's strategy to promote S-Curve industries to drive growth, in accordance with our company's vision to *"Shape Material and Energy Solutions in Harmony with Life."*

Core Uplift

IRPC has achieved a significant milestone with the successful implementation of the Ultra Clean Fuel Project and started the sale of Euro 5-compliant diesel. In collaboration with Bangkok Fuel Pipeline and Logistics Company Limited (BFPL), the company has expanded its fuel transportation logistics to the new fuel depot in Bang Pa-in District, Ayutthaya Province. Additionally, IRPC has accomplished the target to boost the production output of Specialty Products under the brand POLIMAXX™ by 33 percent.

Step Up & Beyond

IRPC is actively cultivating partnerships across industrial sectors, aiming to penetrate new markets and diversify its portfolio with innovative products and services. Notably, the company collaborates with the Bangpakok-Piyavate Hospital Group to explore investment opportunities in the Health & Wellness sector, leveraging its prime properties with great potential in Rayong and nearby provinces. In a separate initiative, the company is spearheading the development of the country's first world-class paint and coating products. This project focuses on providing coating solutions for steel structures of oil refineries, petrochemical production complexes, airports, sea ports, and bridges.

The Sustainable Growth Pathway

IRPC has made a commitment to achieving Net Zero greenhouse gas emissions by 2060 aligning with the Environment, Social, Governance frameworks (ESG). The company has actively engaged in collaborative projects with a network of partners, including its collaboration with the PTT Group and various public and private sector organizations. Together, they are dedicated to planting an additional 2 million rai of forests throughout the country. Furthermore, in partnership with PTT Public Company Limited and Boonrawd Brewery Company Limited, IRPC is pioneering the reuse of industrial waste and developing innovative products. A noteworthy initiative includes collaboration with the Prostheses Foundation of the late HRH Princess Srinagarindra, 95 royally bestowed prosthetic leg factories and various institutions, such as the Sirindhorn National Institute for Medical Rehabilitation, Department of Medical Services, Chulalongkorn Hospital, Thai Red Cross Society, Veterans Hospital, and Eastern Polypack Co., Ltd. Under the "From Waste to Walk" project, waste plastic from prosthetic production is repurposed to create prosthetic devices, like ankle braces and foot supports. These devices are then donated to amputees or individuals with abnormal foot structures, congenital deformities or muscular dystrophy.

With an unwavering commitment to conducting business in alignment with sustainable development principles and corporate social responsibility, IRPC's achievements in

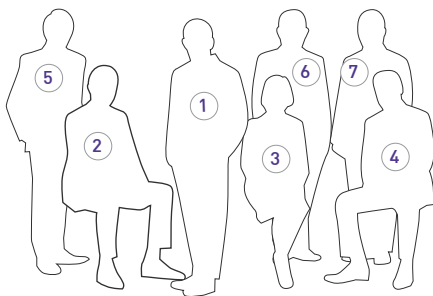


Mr. Krit Imsang
President and
Chief Executive Officer

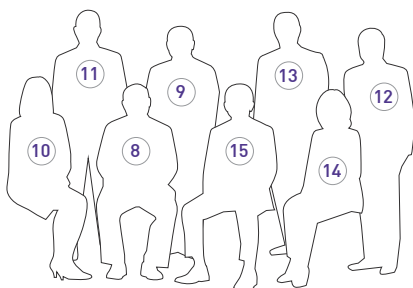
2023 garnered widespread recognition. The company was honored with the Asian Excellence Awards 2023 in four categories: Asia's Best CEO Award, Asia's Best CFO Award, Best Investor Relations Company, and Best Environmental Responsibility. Furthermore, the IRPC Smart Farming Project, an innovative initiative that integrates a learning center with agro-tourism at Suan Yai Da-"Jae Boonchuen" was acknowledged with the prestigious Thailand Tourism Awards. Notably, it received recognition in the Learning & Doing category and Low Carbon & Sustainability category.

The collective achievements underscore the unwavering determination of both the management and employees spanning all departments and business units. Their dedication to achieving objectives and goals within the framework of a robust business code of conduct, prioritizing the best interests of all stakeholders. Our commitment to environmental stewardship and social responsibility underpins the company's core value to make a positive contribution today and in the future along the pathway to sustainable growth.

Boards of Directors



1. **Dr. Siri Jirapongphan**
Independent Director/
Chairman
2. **Mr. Yordchatr Tasarika**
Independent Director/
Chairman of the Audit Committee
3. **Miss Siriwan Chierapong**
Independent Director/
Chairman of the Risk
Management Committee
4. **Mr. Chansak Chuenchom**
Director/
Chairman of the Nomination
and Remuneration Committee
5. **M.D. Korn Pongjitttham**
Independent Director/
Member of the Audit Committee
6. **General Aittipol Suwannarat**
Independent Director/
Member of the Nomination and
Remuneration Committee
7. **Mr. Petai Mudtham**
Director/
Member of the Nomination and
Remuneration Committee



- 8. Mr. Supot Laosuarpha**
Director/Member of the Corporate Governance and Sustainability Committee
[Passed away on December 26, 2023]
- 9. Asst. Prof. Dr. Chaiyaporn Puprasert**
Independent Director/Member of the Corporate Governance and Sustainability Committee
- 10. Mrs. Pranot Tirasai**
Director/Member of the Corporate Governance and Sustainability Committee
- 11. Mr. Somchai Rungsrithananon**
Independent Director/Member of the Audit Committee

- 12. Mr. Prasong Intaranongpai**
Director/Member of the Risk Management Committee
- 13. Mr. Pornchai Thiraveja**
Director/Member of the Risk Management Committee
- 14. Miss Peangpanor Boonklum**
Director/Member of the Risk Management Committee
- 15. Mr. Kris Imsang**
Director/Member of the Risk Management Committee/
President and Chief Executive Officer/Secretary of the Board of Directors

Boards of Directors, IRPC Public Company Limited

Dr. Siri Jirapongphan

Age: 69 Years

Appointed Positions

Independent Director/Chairman

Date of being an Independent Director

19 December 2022

Date of being a Director/Chairman

5 April 2022

Years of being a Director/Chairman

1 Year 7 Months

Possession of IRPC shares (%)

No. of share "IRPC": - Share Possession: - %

Family relationship within the Company, major shareholder or subsidiaries

None

Education/Training

- Bachelor's Degree in Chemical Engineering (Honor), California Institute of Technology, USA
- Doctor's Degree in Chemical Engineering, Massachusetts Institute of Technology, USA
- Director Luncheon Briefing (M-DLB) Class 2/2008, Thai Institute of Directors Association (IOD)
- Director Certification Program (DCP) Class 77/2006, Thai Institute of Directors Association (IOD)

Work experience within the past 5 years

Jun. 2021 - Oct. 2022	Business rehabilitation plan administrator, Thai Airways International Public Company Limited
Apr. 2021 - Apr. 2022	Chairman of The Nomination and Remuneration Committee/Member of the Audit Committee, Bangkok Bank Public Company Limited
Nov. 2017 - Jul. 2019	Minister of Energy
Nov. 2015 - Nov. 2017	Independent Director/Member of the Audit Committee, Thai Oil Public Company Limited
Oct. 2014 - Sep. 2015	Member of the National Reform Council
Sep. 2014 - Apr. 2015	Independent Director/Member of the Risk Management Committee, PTT Global Chemical Public Company Limited
Jan. 2010 - Nov. 2017	Executive Director, Petroleum Institute of Thailand

Current Position

Board member/Management in Listed Company - The Stock Exchange of Thailand

Dec. 2022 - Present	Independent Director, IRPC Public Company Limited
Apr. 2022 - Present	Chairman, IRPC Public Company Limited
Apr. 2022 - Present	Chairman of the Audit Committee, Bangkok Bank Public Company Limited
Jul. 2020 - Present	Independent Director, Bangkok Bank Public Company Limited

Board member/Management in Non-Listed Company - The Stock Exchange of Thailand

Oct. 2021 - Present	Director, Petroleum Institute of Thailand Foundation
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Mr. Chansak Chuenchom

Age: 56 Years

Appointed Positions

Director/Chairman of the Nomination and Remuneration Committee

Date of being a Director

1 October 2021

Date of being the Chairman of the Nomination and Remuneration Committee

1 December 2022

Years of being a Director

2 Years 2 Months

Possession of IRPC shares (%)

No. of share "IRPC": - Share Possession: - %

Family relationship within the Company, major shareholder or subsidiaries

None

Education/Training

- Bachelor of Engineering Program in Mechanical Engineering, Khon Kaen University
- Master of Business Administration Program, Kasetsart University
- Diploma, National Defence Program, Class 65, Thai National Defence College
- 9th Strategy and Innovation for Businesses in Asia (SIBA) Training, The College of Management, Mahidol University, in collaboration with Sloan School of Management, Massachusetts Institute of Technology (MIT)
- Training course for senior anti-corruption strategists (NYPD10), Office of the National Anti-Corruption Commission
- Leadership Development Program, MDP III Business Management, MDP III People Management, Advanced Management Program (AMP) 3 - Business and People Management, PTT Leadership and Learning Institute
- Director Certification Program (DCP), Class 211/2015, Thai Institute of Directors Association (IOD)

Work experience within the past 5 years

Oct. 2021 - Nov. 2022 Director/Member of the Nomination and Remuneration Committee, IRPC Public Company Limited

Apr. 2019 - Nov. 2021 Director, Energy Complex Company Limited

Oct. 2015 - Sep. 2021 Executive Vice President, Engineering and Project Management, PTT Public Company Limited

Current Position

Board member/Management in Listed Company - The Stock Exchange of Thailand

Dec. 2022 - Present Chairman of The Nomination and Remuneration Committee, IRPC Public Company Limited

Oct. 2021 - Present Director, IRPC Public Company Limited

Oct. 2021 - Present Senior Executive Vice President, Engineering and Infrastructure, PTT Public Company Limited

Board member/Management in Non-Listed Company - The Stock Exchange of Thailand

29 Sep. 2022 - Present Chairman, Global Multimodal Logistics Company Limited

23 Nov. 2021 - Present Chairman, Energy Complex Company Limited

Miss Siriwan Chierapong

Age: 69 years

Appointed Positions

Independent Director/Chairman of the Risk Management Committee

Date of being an Independent Director

3 April 2019

Date of being the Chairman of the Risk Management Committee

18 April 2023

Years of being an Independent Director

4 Years 8 Months

Possession of IRPC shares (%)

No. of share "IRPC": - Share Possession: - %

Family relationship within the Company, major shareholder or subsidiaries

None

Education/Training

- Bachelor of Accountancy, Chulalongkorn University
- Master of Business Administration (M.B.A.), Thammasat University
- Senior Executive Program (SEP), Class 16, Sasin Graduate Institute of Business Administration of Chulalongkorn University
- NIDA-Wharton Executive Leaders Program, The Wharton School University of Pennsylvania
- PTT Executive Leadership Program, General Electric, New York, USA
- Advanced Certificate Course in Public Economics Management for Executives, Class 7/2008, King Prajadhipok's Institute
- The Role of the Board in IT Governance, Year 2020, Thai Institute of Directors Association (IOD)
- Director Certificate Program (DCP), Class 102/2008, Thai Institute of Directors Association (IOD)

Work Experience within the past 5 years

Apr. 2019 - Apr. 2023	Member of the Audit Committee, IRPC Public Company Limited
2014 - 2018	Advisor, PTT Polymer Marketing Company Limited
2013 - 2014	President, PTT Polymer Marketing Company Limited
2012 - 2013	Executive Vice President, Strategy and Portfolio Management, Corporate Strategy and Organization Development, PTT Public Company Limited
2009 - 2012	Executive Vice President, Business Development and Project Management, Petrochemicals and Refining Business Unit, PTT Public Company Limited
2005 - 2009	Executive Vice President, Subsidiary Planning and Management, Petrochemicals and Refining Business Unit, PTT Public Company Limited

Current Position

Board member/Management in Listed Company - The Stock Exchange of Thailand

Apr. 2023 - Present	Chairman of the Risk Management Committee, IRPC Public Company Limited
Apr. 2019 - Present	Independent Director, IRPC Public Company Limited

Board member/Management in Non-Listed Company - The Stock Exchange of Thailand

- None -

Mr. Petai Mudtham

Age: 57 Years

Appointed Positions

Director/Member of the Nomination and Remuneration Committee

Date of being a Director

19 January 2022

Date of being the Member of the Nomination and

Remuneration Committee

19 January 2022

Years of being a Director

1 Year 11 Months

Possession of IRPC shares (%)

No. of share "IRPC": - Share Possession: - %

Family relationship within the Company, major shareholder or subsidiaries

None

Education/Training

- Bachelor of Economics, Ramkhamhaeng University, Bangkok, Thailand
- Master of Science Program in Applied Statistics, National Institute of Development Administration, Bangkok, Thailand
- Master of Science in Economics, Murray State University, USA
- Inspector General Program 2021, Government Inspection Development Institute, Office of the Permanent Secretary, Prime Minister Office
- Diploma, National Defence College, Class 62, Thai National Defence College
- The Executive Program in Energy Literacy for a Sustainable Future, TEA 12, Thailand Energy Academy
- Budgeting for Executives Program, BEP 5, Budget Bureau Personnel Development Institution, Budget Bureau
- Director Certificate Program (DCP), Class 329/2022, Thai Institute of Directors Association (IOD)

Work experience within the past 5 years

Dec. 2020 - Jan. 2022	Acting Manager of ENCON Fund Office
Oct. 2017 - Dec. 2020	Deputy Director General, Energy Policy and Planning Office

Current Position

Board member/Management in Listed Company - The Stock Exchange of Thailand

Jan. 2022 - Present	Director/Member of the Nomination and Remuneration Committee, IRPC Public Company Limited
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Board member/Management in Non-Listed Company - The Stock Exchange of Thailand

Dec. 2020 - Present	Inspector General, Ministry of Energy
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Mr. Yordchatr Tasarika

Age: 44 Years

Appointed Positions

Independent Director/Chairman of the Audit Committee

Date of being an Independent Director

5 April 2022

Date of being the Chairman of the Audit Committee

18 April 2023

Years of being an Independent Director

1 Years 7 Months

Possession of IRPC shares (%)

No. of share "IRPC": - Share Possession: - %

Family relationship within the Company, major shareholder or subsidiaries

None

Education/Training

- Bachelor of Laws, Thammasat University
- Bachelor of Laws, University of Bristol
- Master of Laws, University of Bristol
- Master of Laws (Harlan Fiske Stone Scholar), Columbia University School of Law
- Administration of Justice, Advanced Level, Class 14, Office of Justice Affairs
- State Sector Public Lawyer Training Certificate, Office of the Council of State
- Krisdika Lawyer Training Certificate, Office of the Council of State
- New Wave Leaders, Class 9, Office of the Civil Service Commission
- Director Accreditation Program (DAP), Class 197/2022, Thai Institute of Directors Association (IOD)

Work experience within the past 5 years

Apr. 2022 - Apr. 2023	Member of the Nomination and Remuneration Committee, IRPC Public Company Limited
2020 - 2022	Member and Secretary of the Urgent Law Reform Committee
2022	Director of Division 2, Strategic Transformation Office
2016 - 2022	Director of Special Affairs, Thai Law Division, Office of the Council of State
2019 - 2020	Member of the Ad Hoc Committees of the House of Representatives and Senate to Deliberate the Bill on Organization to Assign Radio Frequencies and to Regulate Broadcasting and Telecommunication Services (No. ..) B.E. (Selection of NBTC Commissioners)
2017 - 2020	Member of the Legal Committee, Thai Airways International Public Company Limited
2019	Member of the Ad Hoc Committee of the National Legislative Assembly to Deliberate the Bill on Electronic Transactions (No. ..) B.E. (Digital Identification)
2019	Member of the Ad Hoc Committee of the National Legislative Assembly to Deliberate the Bill on Protection of the Public in Contracts for Sale with Right of Redemption of Land for Agricultural or Residential Purposes B.E.
2019	Member of the Ad Hoc Committee of the National Legislative Assembly to Deliberate the Bill on Leasehold Rights B.E.

Current Position

Board member/Management in Listed Company - The Stock Exchange of Thailand

Apr. 2023 - Present	Chairman of the Audit Committee, IRPC Public Company Limited
Apr. 2022 - Present	Independent Director, IRPC Public Company Limited

Board member/Management in Non-Listed Company - The Stock Exchange of Thailand

Nov. 2023 - Present	Director, National Telecom Public Company Limited
Sep. 2023 - Present	Member of the Law Drafting Committee, Srinakharinwirot University
Sep. 2023 - Present	Member of the Law Revision and Amendment Committee, Ministry of Energy
2022 - Present	Director of Legal Affairs Division, Office of the Permanent Secretary, Ministry of Justice
2022 - Present	Member of the Legal Subcommittee, Tobacco Authority of Thailand

Asst. Prof. Dr. Chaipayorn Puprasert

Age: 55 Years

Appointed Positions

Independent Director/Member of the Corporate Governance and Sustainability Committee

Date of being an Independent Director

31 March 2021

Date of being the Member of the Corporate Governance and Sustainability Committee

19 June 2023

Years of being an Independent Director

2 Years 9 Months

Possession of IRPC shares (%)

No. of share "IRPC": - Share Possession: - %

Family relationship within the Company, major shareholder or subsidiaries

None

Education/Training

- Bachelor of Engineering in Sanitary Engineering, Chulalongkorn University
- Master of Engineering (Environmental Engineering), Chulalongkorn University
- Ph.D. in Environmental Engineering, Institute National de Science Applique'e de Toulouse (INSA-Toulouse), France
- Certification in Top Executives in the Poom Palung Pandin Program, Class 5, Chulalongkorn University
- Director Accreditation Program (DAP), Class 102/2013, Thai Institute of Directors Association (IOD)

Work experience within the past 5 years

Apr. 2021 - Jun. 2023	Member of the Corporate Governance Committee, IRPC Public Company Limited
May 2016 - Apr. 2018	Assistant to the president for Student and Alumni Affairs, Chulalongkorn University
Apr. 2010 - May 2016	Head of Environmental Engineering Department, Faculty of Engineering, Chulalongkorn University
Mar. 2013 - Feb. 2016	Independent Director/Member of the Audit Committee, Daii Group Public Company Limited

Current Position

Board member/Management in Listed Company - The Stock Exchange of Thailand

Jun. 2023 - Present	Member of the Corporate Governance and Sustainability Committee, IRPC Public Company Limited
Mar. 2021 - Present	Independent Director, IRPC Public Company Limited

Board member/Management in Non-Listed Company - The Stock Exchange of Thailand

Apr. 2021 - Present	Director, Chulalongkorn University Alumni Association
Oct. 2019 - Present	Expert member in Water Pollution Control Sub-Committee, Department of Pollution Control, Ministry of Natural Resources and Environment
May 2018 - Present	Vice President for Student Affairs, Chulalongkorn University
Dec. 1995 - Present	Assistant Professor, Department of Environmental Engineering, Faculty of Engineering, Chulalongkorn University

General Aittipol Suwannarat

Age: 61 Years

Appointed Positions

Independent Director/Member of the Nomination and Remuneration Committee

Date of being an Independent Director

5 April 2022

Date of being the Member of the Nomination and Remuneration

18 April 2023

Years of being an Independent Director

1 Year 7 Months

Possession of IRPC shares (%)

No. of share "IRPC": - Share Possession: - %

Family relationship within the Company, major shareholder or subsidiaries

None

Education/Training

- Bachelor of Science Program, Chulachomklao Royal Military Academy, Class 22
- Master of Political Science, Burapha University
- National Defence College (NDC), Class 60/2017

Work experience within the past 5 years

Apr. 2022 - Apr. 2023	Member of the Corporate Governance Committee, IRPC Public Company Limited
Oct. 2021 - Sep. 2022	Army Senior Advisor, Office of the Commander
Oct. 2020 - Sep. 2021	Army Advisor
Apr. 2019 - Sep. 2020	Deputy Commanding General, Territorial Defense Command
Oct. 2018 - Mar. 2018	1st Corps Deputy Commander
Oct. 2016 - Sep. 2018	Commanding General, The 13th Military Circle

Current Position

Board member/Management in Listed Company - The Stock Exchange of Thailand

Apr. 2023 - Present	Member of the Nomination and Remuneration Committee, IRPC Public Company Limited
Apr. 2022 - Present	Independent Director, IRPC Public Company Limited

Board member/Management in Non-Listed Company - The Stock Exchange of Thailand

Dec. 2021 - Present	Director, KTB General Services and Security Company Limited
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Miss Peangpanor Boonklum

Age: 57 Years

Appointed Positions

Director/Member of the Risk Management Committee

Date of being a director

20 January 2021

Date of being the Member of the Risk Management Committee

1 April 2021

Years of being a director

2 Years 11 Months

Possession of IRPC shares (%)

No. of share "IRPC": - Share Possession: - %

Family relationship within the Company, major shareholder or subsidiaries

None

Education/Training

- Bachelor of Laws (Second Class Honor), Chulalongkorn University
- Master of Laws (Business Law), Chulalongkorn University
- Master of Laws (LL.M.), Columbia University School of Law, New York, USA
- Top Executive Program, Class 33/2024, Capital Market Academy (CMA)
- The Cullinan: The Making of the Digital Board, Batch 2, Thailand Management Association (TMA)
- The Executive Program in Energy Literacy for a Sustainable Future, Class 15, Thailand Energy Academy
- Leadership Development Program (LDP 3) Class 4/2019, PTT Leadership and Learning Institute
- TIJ Executive Program the Rule of Law & Development, (TIJ RoLd), class 3, Thailand Institute of Justice (TIJ)
- TIJ Workshop for Emerging Leaders on the Rule of Law and Policy, class 3, Thailand Institute of Justice (TIJ)
- Certificate in Anti-Corruption Strategic Management for Senior Executives, Class 9/2018, Office of the National Anti-Corruption Commission
- TLCA Executive Development Program Class 1/2008, Thai Listed Companies Association (TLCA)
- Director Certification Program (DCP), Class 7/2001, Thai Institute of Directors Association (IOD)
- Anti-Corruption: The Practical Guide (ACPG), Class 38/2017, Thai Institute of Directors Association (IOD)
- Ethical Leadership Program (ELP), Class 15/2019, Thai Institute of Directors Association (IOD)
- Risk Management Program for Corporation Leaders (RCL), Class 18/2019, Thai Institute of Directors Association (IOD)
- Board Nomination and Compensation Program (BNCP), 7/2019, Thai Institute of Directors Association (IOD)

Work experience within the past 5 years

Jan. 2021 - Mar. 2021	Member of The Corporate Governance Committee, IRPC Public Company Limited
Dec. 2019 - Jan. 2023	Director, Energy Complex Company Limited
Dec. 2019 - Nov. 2021	Chairman, Energy Complex Company Limited
Mar. 2018 - Dec. 2020	Director, PTT Oil and Retail Business Public Company Limited
Apr. 2017 - Dec. 2019	Director, Global Power Synergy Public Company Limited

Current Position

Board member/Management in Listed Company - The Stock Exchange of Thailand

Apr. 2021 - Present	Member of the Risk Management Committee, IRPC Public Company Limited
Jan. 2021 - Present	Director, IRPC Public Company Limited
Oct. 2017 - Present	Senior Executive Vice President, Office of General Counsel, PTT Public Company Limited

Board member/Management in Non-Listed Company - The Stock Exchange of Thailand

May 2023 - Present	Director/Member of the Nomination Committee and Compensation Committee, Thai Institute of Directors Association
Feb. 2023 - Present	Chairman, PTT Saving and Credit Cooperative Limited
Nov. 2021 - Present	Director, CU Engineering Enterprise Company Limited
Nov. 2021 - Present	Director, Primate Enterprise Company Limited
Oct. 2021 - Present	Chairman, Global Renewable Power Company Limited

Mr. Prasong Intaranongpai

Age: 55 Years

Appointed Positions

Director/Member of the Risk Management Committee

Date of being a Director

1 December 2022

Date of being the Member of the Risk Management Committee

1 December 2022

Years of being a Director

1 Year

Possession of IRPC shares (%)

No. of share "IRPC": - Share Possession: - %

Family relationship within the Company, major shareholder or subsidiaries

None

Education/Training

- Bachelor of Engineering (Industrial Engineering), Chiang Mai University
- Bachelor of Laws, Sukhothai Thammathirat Open University
- Master of Business Administration (General management), Kasetsart University
- Advanced Strategic Management (ASM) - Advanced SMCP, Class 1/2018, PTT Leadership and Learning Institute (PLLI)
- Advanced Management Program (AMP) 3 (Year 2018), PTT Leadership and Learning Institute (PLLI)
- Leadership Development Program 3 (LDP 3), Class 4 (Year 2019), PTT Leadership and Learning Institute (PLLI)
- Director Development Program (DDP) (Year 2021), PTT Leadership and Learning Institute (PLLI)
- Director Certification Program (DCP), Class 287/2019, Thai Institute of Directors Association (IOD)
- Financial Statement for Directors (FSD), Class 38/2019, Thai Institute of Directors Association (IOD)

Work experience within the past 5 years

Apr. 2022 - Nov. 2022	Chairman, Sport Services Alliance Company Limited
Jan. 2022 - Dec. 2022	Director, NUOVO PLUS Company Limited
Oct. 2021 - Nov. 2022	Director, Alpha Com Company Limited
Oct. 2021 - Nov. 2022	Director, Global Renewable Power Company Limited
Oct. 2021 - Nov. 2022	Chairman, PTT RAISE Company Limited
Jul. 2021 - Nov. 2022	Chairman, EVME PLUS Company Limited
2021 - Sep. 2022	Executive Vice President, New Venture Development, PTT Public Company Limited (and assigned to work for Arun Plus Company Limited)
May 2020 - Oct. 2021	Chairman, PTT Global Management Company Limited
Sep. 2019 - Nov. 2022	Director, Sport Services Alliance Company Limited
2017 - 2021	Executive Vice President, Strategy & Portfolio Management, PTT Public Company Limited

Current Position

Board member/Management in Listed Company - The Stock Exchange of Thailand

Dec. 2022 - Present	Director/Member of the Risk Management Committee, IRPC Public Company Limited
Oct. 2022 - Present	Senior Executive Vice President, Downstream Business Group Alignment, PTT Public Company Limited

Board member/Management in Non-Listed Company - The Stock Exchange of Thailand

Feb. 2023 - Present	Director, PTT Tank Terminal Company Limited
Dec. 2022 - Present	Director, GPC International Terminal Company Limited

M.D. Korn Pongjitdham

Age: 53 Years

Appointed Positions

Independent Director/Member of the Audit Committee

Date of being an Independent Director:

5 April 2023

Date of being the Member of the Audit Committee

18 April 2023

Years of being an Independent Director

8 Months

Possession of IRPC shares (%)

No. of share "IRPC": - Share Possession: - %

Family relationship within the Company, major shareholder or subsidiaries

None

Education/Training

- M.D., Faculty of Medicine, Chiang Mai University
- Master's Degree Medicine, Faculty Medicine, Chiang Mai University
- Diploma in Clinical Science (Medicine)
- Diploma of Thai Board of Internal Medicine, The Medical Council of Thailand
- Diploma of Thai Board of Gastroenterology
- Energy Literacy for a Sustainable Future (TEA), Class 18/2023, Thailand Energy Academy
- Certificate Achievement of Learning Organization and Knowledge Management Program Dr. Worapat Phuchareang and Ariyachon Company Limited, 2017
- Advance Cardiac Life Support Ramathibodi Medical School, 2012, 2016
- Certificate of Advance endoscopy (ESD) Sano Hospital, Kobe, Japan, 2015
- Fellowships: Gastroenterology and Hepatology Department of Internal Medicine, Faculty of Medicine, Chiangmai University, 2004-2005
- Certificate of Clinical Medicine (Internal Medicine), 1995
- Residences: Resident in Internal Medicine, Department of Internal Medicine, Faculty of Medicine, Chiangmai University, 1995-1997
- Director Accreditation Program (DAP), Class 205/2023, Thai Institute of Directors Association (IOD)
- Advanced Audit Committee (AACP), Class 49/2023, Thai Institute of Directors Association (IOD)
- Financial Statements for Directors (FSD), Class 49/2023, Thai Institute of Directors Association (IOD)
- Director Certification Program (DCP), Class 347/2023, Thai Institute of Directors Association (IOD)

Work experience within the past 5 years

2020 - 2023	Advisor to the Deputy Prime Minister, Office of the Permanent Secretary
2020 - 2023	Executive Sub-Committee National Village and Urban Community Fund/ Information technology Sub-Committee National Village and Urban Community Fund
2020 - 2023	Higher Level Expert, Office of the Permanent Secretary, Chairman/Chairman of the Executive Board Committee/Chief Executive Officer/Chief Medical Officer, Thonburi Bamrungmuang Hospital Company Limited
2018 - 2019	Director, Thonburi Bamrungmuang Hospital Company Limited
2017 - 2019	Director, Thonburi Wellbeing Company Limited
2017 - 2019	Medical Director, Thonburi Wellbeing Company Limited
2016 - 2019	Hospital Executive Assistant, Samitivej Sukhumvit Hospital
2014 - 2016	

Current Position

Board member/Management in Listed Company - The Stock Exchange of Thailand

Apr. 2023 - Present	Independent Director/ Member of the Audit Committee, IRPC Public Company Limited
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Board member/Management in Non-Listed Company - The Stock Exchange of Thailand

2018 - Present	Business Development and Healthcare Business Consultant, Cliptip Company Japan
2008 - Present	Internal Medicine Physician, Gastroenterologist, Hepatologist, Samitivej Sukhumvit Hospital

Mr. Somchai Rungsritthananon

Age: 58 Years

Appointed Positions

Independent Director/Member of the Audit Committee

Date of being an Independent Director:

5 April 2023

Date of being the Member of the Audit Committee

18 April 2023

Years of being an Independent Director

8 Months

Possession of IRPC shares (%)

No. of share "IRPC": - Share Possession: - %

Family relationship within the Company, major shareholder or subsidiaries

None

Education/Training

- Bachelor of Accountancy, Dhurakij Pundit University
- Master of Business Administration (Marketing) Chulalongkorn University
- Diploma, National Defence Program, Class 55, Thai National Defence College
- Executive Program in Mass Communication Strategic Management Class 2, ISRA Institute
- Top Executive Program in Commerce and Trade (TEPCoT) Class13, Commerce Academy, The University of the Thai Chamber of Commerce
- Budgeting for Executives Program Class 5, The Bureau Of The Budget
- Political and Electoral Development Institute Class 9 by Office of The Election Commission of Thailand
- Top Executive in Energy Program, Class 10, Thailand Energy Academy (TEA)
- Advanced Security Management Program Class 7, The Association National Defence College
- Urban Leader Training Course Class 4
- Executive Management with Business Development and Investment Class 1
- Director Certification Program Update (DCPU) 281/2019, Thai Institute of Directors Association (IOD)

Work experience within the past 5 years

2022 - Dec. 2023	Honorary Director on Business Management/Member of the Board of Directors/Chairman of the Audit Committee of Thailand Greenhouse Management Organization (Public Organization)
2014 - Mar. 2023	Director, Bright TV Company Limited
2010 - Mar. 2023	Director, Beauty Bene Company Limited
2004 - 2013	President of the Group Executive Committee, 3A Marketing Co., Ltd
2002 - 2003	Managing Director, Media Response Company Limited
2000 - 2001	Managing Director, Priority Marketing Company Limited
1997 - 1999	Managing Director, Tor Tor Bor. 5 Marketing Company Limited

Current Position

Board member/Management in Listed Company - The Stock Exchange of Thailand

Apr. 2023 - Present	Independent Director/ Member of the Audit Committee, IRPC Public Company Limited
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Board member/Management in Non-Listed Company - The Stock Exchange of Thailand

Dec. 2023 - Present	Advisor to the Minister, Office of The Permanent Secretary For Defence
Dec. 2023 - Present	Director, Sakaya Power and Consultant Company Limited
Aug. 2023 - Present	Executive committee Chulalongkorn University Alumni Association under royal patronage
2014 - Present	Chief Executive Officer, Bright TV Company Limited
2010 - Present	Director, Jai Fah Company Limited
2009 - Present	Director, Bencharungsri Company Limited
2009 - Present	Director, Chan Chamchuri Company Limited

Mrs. Pranot Tirasai

Age: 65 Years

Appointed Positions

Director/Member of the Corporate Governance and Sustainability Committee

Date of being a Director

5 April 2023

Date of being a Member of the Corporate Governance and Sustainability Committee

19 June 2023

Years of being a Director

8 Months

Possession of IRPC shares (%)

No. of share "IRPC": - Share Possession: - %

Family relationship within the Company, major shareholder or subsidiaries

None

Education/Training

- LL.B (Laws) Thammasat University
- Climate Governance, Class 1/2023, The Stock Exchange of Thailand
- Top Executive in Energy Program, Class 10, Thailand Energy Academy (TEA)
- Training Course on Administrative Justice for Executives Class 4
- Certificate of E&P Petroleum Management Program, 2011 Texas A&M University, United States of America
- NIDA – Wharton Executive Leadership Program, 2009, The Wharton School of the University of Pennsylvania, United States of America
- SASIN Executive Program
- International Oil & Gas Management, University of Dundee, United Kingdom
- Ethical Leadership Program (ELP), Class 11/2018, Thai Institute of Directors Association (IOD)
- Director Certification Program Update (DCPU), Class 5/2015, Thai Institute of Directors Association (IOD)
- Company Secretary Program (CSP), Class 55/2014, Thai Institute of Directors Association (IOD)
- Director Certification Program (DCP), Class 185/2014, Thai Institute of Directors Association (IOD)

Work experience within the past 5 years

Apr. 2023 - Jun. 2023	Member of the Corporate Governance Committee, IRPC Public Company Limited
Jan. 2019 - Dec. 2021	Secretary to the Board of Directors, PTTEP Public Company Limited
Oct. 2018 - Dec. 2018	Executive Vice President, assigned as Secretary to the Board of Directors, PTTEP Public Company Limited
Jan. 2017 - Sep. 2018	Executive Vice President, Corporate Affairs and Assurance Group, and assigned as Secretary to the Board of Directors, PTTEP Public Company Limited
Oct. 2013 - Dec. 2016	Senior Vice President, Corporate Secretary Division, and assigned as Secretary to the Board of Directors, PTTEP Public Company Limited
Apr. 2010 - Sep. 2013	Senior Vice President, Legal Division, PTTEP Public Company Limited

Current Position

Board member/Management in Listed Company - The Stock Exchange of Thailand

Jun. 2023 - Present	Member of the Corporate Governance and Sustainability Committee, IRPC Public Company Limited
Apr. 2023 - Present	Director, IRPC Public Company Limited

Board member/Management in Non-Listed Company - The Stock Exchange of Thailand

- None -

Mr. Pornchai Thiraveja

Age: 55 Years

Appointed Positions

Director/Member of the Risk Management Committee

Date of being a Director:

5 April 2023

Date of being a Member of the Risk Management Committee

18 April 2023

Years of being a Director

8 Months

Possession of IRPC shares (%)

No. of share "IRPC": - Share Possession: - %

Family relationship within the Company, major shareholder or subsidiaries

None

Education/Training

- Bachelor of Accounting, Thammasat University
- M.B.A (Finance), Notre Dame College, USA
- Master of Political Science (Public Administration), Thammasat University
- Ph.D. (Public Management), Rajabhat Suan Dusit University
- Doctor of Philosophy in Non-Formal Education, Chulalongkorn University
- Diploma, National Defence Program, Class 64, Thai National Defence College
- e-Government for Chief Executive Officer Program: e-GCEO Class 6/2019, Thailand Digital Government Academy (TDGA)
- Leadership Program Class 26/2018 Capital Market Academy
- Advance Budget Management for Executive (Class 4/2017), Bureau of the Budget
- Senior Executive Program 2 (Class 8/2016), Civil Service Development Institute, Office of the Civil Service Commission
- Senior Executive Program 2 (Class 78/2013) Civil Service Development Institute, Office of the Civil Service Commission
- Advanced Audit Committee Program (AACP), Class 40/2021, Thai Institute of Directors Association (IOD)
- Boards that Make a Difference (BMD), Class 10/2020, Thai Institute of Directors Association (IOD)
- Board Matters and Trends (BMT), Class 9/2020, Thai Institute of Directors Association (IOD)
- Director Certification Program (DCP), Class 227/2016, Thai Institute of Directors Association (IOD)

Work experience within the past 5 years

2019 - 2023	Director, Electricity Generating Authority of Thailand
2022 - 2023	Independent Director, Esso (Thailand) Public Company Limited
2021	Deputy Permanent Secretary, Ministry of Finance
2016 - 2021	Fiscal Policy Advisory, Fiscal Policy Office, Ministry of Finance
2015 - 2016	Deputy Director General of the Fiscal Policy Office

Current Position

Board member/Management in Listed Company - The Stock Exchange of Thailand

Apr. 2023 - Present	Director/Member of the Risk Management Committee, IRPC Public Company Limited
Feb. 2023 - Present	Director, Don Muang Tollway Public Company Limited
2021 - Present	The Plan Administrator, Thai Airways International Public Company Limited

Board member/Management in Non-Listed Company - The Stock Exchange of Thailand

2021 - Present	Director - General, Fiscal Policy Office
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Mr. Kris Imsang

Age: 58 Years

Appointed Positions

Director/Member of the Risk Management Committee/
President and Chief Executive Officer/Secretary of the Board
of Directors

Date of being a Director

1 October 2022

Date of being the Member of the Risk Management Committee

19 October 2022

Years of being a Director

1 Year 2 Months

Possession of IRPC shares (%)

No. of share "IRPC": - Share Possession: - %

Family relationship within the Company, major shareholder or
subsidiaries

None

Education/Training

- Bachelor of Engineering (Civil Engineering), Chulalongkorn University
- Certification in Top Executives in the Poom Palung Pandin Program, Class 3, Chulalongkorn University
- Leadership Development Program III (LDP III), Class 2, PTT Leadership and Learning Institute (PLLI)
- Top Executive Program, Class 23, Capital Market Academy (CMA)
- Top Executive in Energy Program, Class 9, Thailand Energy Academy (TEA)
- Diploma, National Defence Program, Class 62, Thai National Defence College
- Certificate Course in Good Governance for Medical Executives, Class 9, King Prajadhipok's Institute and the Medical Council of Thailand
- The Role of the Board in IT Governance, Year 2020 Thai Institute of Directors Association (IOD)
- Director Refreshment Training Program (RFP), Class 1/2021, Thai Institute of Directors Association (IOD)
- Director Certification Program (DCP), Class 139/2010, Thai Institute of Directors Association (IOD)

Work experience within the past 5 years

Oct. 2022 - Mar. 2023	Director, UBE Chemicals (Asia) Public Company Limited
Oct. 2022 - Dec. 2022	Director, IRPC A&L Company Limited
Oct. 2022 - Dec. 2022	Chairman, PTT Energy Solutions Company Limited
Apr. 2022 - Sep. 2022	Chairman of the Nomination and Remuneration Committee, IRPC Public Company Limited
Jan. 2021 - Apr. 2022	Chairman, IRPC Public Company Limited
Jan. 2021 - Sep. 2022	Director/Board of the Nomination and Remuneration Committee, PTT Oil and Retail Business Public Company Limited
Sep. 2020 - Sep. 2022	Chairman, PTT Tank Terminal Company Limited
Jun. 2020 - Sep. 2022	Chief Operating Officer, Downstream Petroleum Business Group, PTT Public Company Limited
Aug. 2020 - Apr. 2022	Vice Chairman – FTI Academy Committee, The Federation of Thai Industries

Mar. 2019 - Jan. 2020	Member of the Nomination and Remuneration Committee, IRPC Public Company Limited
Nov. 2019 - May 2020	Senior Executive Vice President, Down Stream Business Group Alignment, PTT Public Company Limited
Oct. 2018 - Oct. 2019	Senior Executive Vice President, Corporate Governance and Regulatory Affairs, PTT Public Company Limited
Jan. 2018 - Sep. 2018	Senior Executive Vice President, Organization Management and Sustainability, PTT Public Company Limited
Dec. 2017 - Sep. 2022	Director, IRPC Public Company Limited
Dec. 2017 - Feb. 2019	Member of the Corporate Governance Committee, IRPC Public Company Limited
Sep. 2017 - Oct. 2019	Chairman, Sarn Palung Social Enterprise Company Limited
Mar. 2016 - Aug. 2019	Committee, Kamnoetvidya Science Academy (KVIS)
Feb. 2016 - Dec. 2017	Senior Executive Vice President, Human Resources & Organization Excellence, PTT Public Company Limited
Feb. 2015 - Nov. 2019	Chairman, Energy Complex Company Limited
Aug. 2015 - Jan. 2016	Executive Vice President, Retail Marketing, PTT Public Company Limited

Current Position

Board member/Management in Listed Company - The Stock Exchange of Thailand

Oct. 2022 - Present	Director/President and Chief Executive Officer, IRPC Public Company Limited
Oct. 2022 - Present	Chief Operating Officer reporting to Chief Operating Officer, Downstream Petroleum Business Group, PTT, working on a secondment as Chief Executive Officer and President, IRPC Public Company Limited

Board member/Management in Non-Listed Company - The Stock Exchange of Thailand

Jul. 2023 - Present	Director and President of Membership Department, Chulalongkorn University Alumni Association Under the Royal Patronage of His Majesty King
Jan. 2023 - Present	Member of the Council of Honorable Institutions, Vidyasirimedhi Institute of Science and Technology (VISTEC)
Oct. 2022 - Present	Director, IRPC Polyol Company Limited
Oct. 2022 - Present	Council of Trustees, Petroleum Institute of Thailand
Oct. 2022 - Present	Council Member, Thailand Business Council for Sustainable Development
Sep. 2022 - Present	Member and Secretary-General, Industrial Development Foundation
Apr. 2022 - Present	Secretary, The Federation of Thai Industries
Feb. 2021 - Present	Board of Directors, Sirindhorn International Institute of Technology, Thammasat University (SIIT)
Jun. 2020 - Present	Executive Director, Thailand Energy Academy
Aug. 2019 - Present	Qualified Member of the Committee

Mr. Supot Laosuarpha

(Passed away on December 26, 2023)

Education/Training

• Bachelor of Laws, Ramkhamhaeng University	
• Master of Management (Law and Management), College of Management Mahidol University	2018 - 2019
• Lawyer License, Lawyers Council of Thailand	2018 - 2019
• Graduate Diploma Program in Business Law, Thammasat University	2018 - 2019
• Climate Governance, Class 1/2023, The Stock Exchange of Thailand	2018 - 2019
• Advanced Certificate Course in Public Administration and Law for Executives, Class 5, King Prajadhipok's Institute	2018
• The Executive Program by Sasin Graduate Institute of Business Administration of Chulalongkorn University (SEP21)	
• Training Course on Administrative Justice for Executives, Class 1, Administrative Court Office	2018
• Administrative Justice for Executives Course, Class 6, Public Prosecution Official Training Institute, Office of The Attorney General	2018
• Certificate in Anti-Corruption Strategic Management for Senior Executives, Class 4, Office of The National Anti-Corruption Commission	2017 - 2018
• Leadership Succession Program (LSP), Class 3, Institute of Research and Development for Public Enterprise	2016 - Dec. 2023
• Rule of Law for Democracy, Class 5, College of the Constitutional Court	2016 - 2018
• Corporate Governance for Directors and Senior Executives of Regulators, Class 20, King Prajadhipok's Institute	2016 - 2017
• Top Executive in Energy Program, Class 12, Thailand Energy Academy (TEA)	2016 - 2017
• Director Certification Program (DCP), Class 139/2010, Thai Institute of Directors Association (IOD)	2016 - 2017

Work experience within the past 5 years

Jun. 2023 - Dec. 2023	Chairman of the Corporate Governance and Sustainability Committee, IRPC Public Company Limited	2015 - May 2022
Apr. 2022 - Jun. 2023	Chairman of the Corporate Governance Committee, IRPC Public Company Limited	2012 - 2015
Apr. 2021 - Apr. 2022	Member of the Corporate Governance Committee, IRPC Public Company Limited	2011 - 2016
Mar. 2021 - Dec. 2023	Director, IRPC Public Company Limited	
2020 - 2023	Advisor to the Minister of Energy	
2020 - 2022	Subcommittee on Creation and Development of Curriculum and Learning Materials on Anti-Corruption, 2021, Office of the National Anti-Corruption Commission	
2020 - 2022	Subcommittee on Legal and Regulatory, Office of the National Anti-Corruption Commission	
2019 - Feb. 2021	Legal Advisor, IRPC Public Company Limited	
2018 - 2022	Promotion of National Strategy on Anti-Corruption Phase 3 (2017-2021)	

Committee, Committee No. 1, Office of the National Anti-Corruption Commission

Advisor to the Working Group of the Minister of Energy

Director, State Railway of Thailand

Chairman of Subcommittee Corporate Governance and Social Responsibility, State Railway of Thailand

Member of the Audit Committee, State Railway of Thailand

Subcommittee on Agenda Screening to Board of Director, Port Authority of Thailand

Subcommittee on Legal to Board of Director, Port Authority of Thailand

Subcommittee on Asset Reformation, Port Authority of Thailand

Legal Advisor, Business Professional Solutions Recruitment Company Limited

Legal committee Federation of Thai Industries

Chairman, Business Services Alliance Company Limited

Director, East Mediterranean Gas S.A.E. Company Limited

Senior Executive Vice President Taking a Position of Executive Vice President, Office of Corporate Legal, PTT Public Company Limited

Senior Executive Vice President, under Senior Executive Vice President, Human Resources and Organization

Potential Responsible for controlling Office of Corporate Legal, PTT Public Company Limited

Chairman, PTT Green Energy (Thailand) Company Limited

Director, Energy Complex Company Limited

Director, Business Services Alliance Company Limited

Current Position

Board member/Management in Listed Company - The Stock Exchange of Thailand

- None -

Board member/Management in Non-Listed Company - The Stock Exchange of Thailand

- None -

Mr. Somnuk Bomrungsalee

Age: 66 Years

(Complete the agenda of the Annual General Meeting of Shareholders for the year 2023)

Education/Training

- Bachelor of Engineering (Civil Engineering), King Mongkut's University of Technology Thonburi (KMUTT)
- Master of Public and Private Management, The National Institute of Development Administration (NIDA)
- Advanced Master of Management program, Class 2/2018, The National Institute of Development Administration (NIDA)
- The Program for Senior Executive on Justice, Class 20/2015, Administration Batch, National Justice Academy
- The Executive Program in Energy Literacy for a Sustainable Future, Class 5/2014, Thailand Energy Academy (TEA)
- Executive Training Course 2, Class 5/2013, Office of the Civil Service Commission
- Advanced Certificate Course Politics and Governance in Democratic Systems for Executives, Class 16/2012, King Prajadhipok's Institute
- Executive Training Course, Class 65/2009, Office of the Civil Service Commission
- Energy Executive Course, Class 2/2008, Ministry of Energy
- The Role of the Board in IT Governance, Year 2020, Thai Institute of Directors Association (IOD)
- Director Certification Program (DCP), Class 233/2017, Thai Institute of Directors Association (IOD)

Work experience within the past 5 years

Feb. 2018 - 2019	Advisor, Energy Fund Administration Institute
Dec. 2017 - Apr. 2023	Chairman of the Audit Committee, IRPC Public Company Limited
Oct. 2017 - Apr. 2023	Independent Director, IRPC Public Company Limited
Nov. 2017 - 2018	Sub-Committee, State Audit Commission, Office of the Auditor General of Thailand
Apr. 2016 - Nov. 2017	Member of the Nomination and Remuneration Committee, IRPC Public Company Limited
Oct. 2016 - Sep. 2017	Deputy Secretary of Energy
Oct. 2015 - 2019	Sub-Committee, Energy Commission, The National Legislative Assembly
Apr. 2014 - Apr. 2023	Director, IRPC Public Company Limited
Jul. 2014 - Sep. 2016	Inspector General, Ministry of Energy

Current Position

Board member/Management in Listed Company - The Stock Exchange of Thailand

Nov. 2018 - Present	Independent Director/Audit Committee/ Chairman of Nomination and Remuneration Committee, Megachem (Thailand) Public Company Limited
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Board member/Management in Non-Listed Company - The Stock Exchange of Thailand

- None -

Dr. Anusorn Sangnimnuan

Age: 69 Years

(Complete the agenda of the Annual General Meeting of Shareholders for the year 2023)

Education/Training

- B.Sc. (Chemical Engineering), Chulalongkorn University
- M.Eng. (Environmental Engineering), Asian Institute of Technology (AIT)
- Ph.D. (Chemical Engineering), Monash University, Melbourne, Australia
- Diploma, National Defence College, The joint State - Private Sector Course, Class 20, Thai National Defence College
- Top Executive Program, Class 10, Capital Market Academy (CMA)
- Advanced Diploma, Public Administration and Public Law, Class 5, King Prajadhipok's Institute
- The Role of the Board in IT Governance, Year 2020, Thai Institute of Directors Association (IOD)
- Director Refreshment Training Program (RFP), Class 5/2022, Thai Institute of Directors Association (IOD)
- DCP Refresher Course (DCP RE), Class 1/2008, Thai Institute of Directors Association (IOD)
- Director Certification Program (DCP), Class 62/2005, Thai Institute of Directors Association (IOD)
- Director Accreditation Program (DAP), Class 40/2005, Thai Institute of Directors Association (IOD)
- Finance for Non-Finance Directors Program (FND), Class 22/2005, Thai Institute of Directors Association (IOD)

Work experience within the past 5 years

Apr. 2021 - Apr. 2023	Chairman of the Risk Management Committee, IRPC Public Company Limited
Aug. 2016- Apr. 2023	Independent Director, IRPC Public Company Limited
Sep. 2016 - Mar. 2021	Chairman of the Corporate Governance Committee, IRPC Public Company Limited
2014 - 2017	Independent Director, Prukso Real Estate Public Company Limited
2014 - 2015	Director, Loxley Public Company Limited
2014 - 2015	Chairman, Hydrotek Public Company Limited
2014 - 2017	Chairman, The Transport Company Limited
2013 - 2017	Director, Office of The National Economic and Social Development Board
2013 - 2016	Director, The Krungthep Thananakom Company Limited
2013 - 2015	Senior Consultant, Bangchak Petroleum Public Company Limited
2005 - 2012	President, Bangchak Petroleum Public Company Limited

Current Position

Board member/Management in Listed Company - The Stock Exchange of Thailand

2018 - Present	Chairman of Corporate Governance and Sustainability Committee, B.Grimm Power Public Company Limited
2016 - Present	Independent Director/Chairman of the Corporate Governance Committee/Member of the Nomination and Remuneration Committee, Prukso Holding Public Company Limited
2016 - Present	Independent Director/Member of the Audit Committee, B.Grimm Power Public Company Limited

Board member/Management in Non-Listed Company - The Stock Exchange of Thailand

Sep. 2022 - Present	Chairman (Non-Executive Director), B.Grimm LNG Company Limited
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Mr. Jumpol Sumpaopol

Age: 70 years

(Complete the agenda of the Annual General Meeting of Shareholders for the year 2023)

Education/Training

- Bachelor of Sciences Industrial Education and Technology, Civil Engineering, King Mongkut's University of Technology Thonburi
- Bachelor of Engineering, Civil Engineering, King Mongkut's University of Technology Thonburi
- Certificate of Public and Private Management Program, National Institute of Development Administration
- Diploma of Metropolitan Leader, Bangkok Metropolitan and King Prajadhipok's Institute
- Certificate of New Government Budget Management, University of California Los Angeles (UCLA)
- Certificate of Infrastructure and System Development Traffic and Transportation
- Certificate of Corporate Governance for Director and Senior Executive of State Enterprises and Public Organization (Class 11), King Prajadhipok's Institute
- Certificate of Senior Executive Management of Metropolitan Development "Mahanakhon" (Class 1), Bangkok Metropolitan
- Certificate of Systematic Problem Solving and Decision Making: SPSPDM, Office of the Public Sector Development Commission (OPDC)
- Certificate, The Rule of Law and Democracy (Class 3), College Constitution Court
- Certificate, Business Revolution and Innovation Network "BRAINS" (Class 2), The Federation of Thai Industries (F.T.I.)
- Certificate Health Ambassador (Class 1), Chulabhorn Royal Academy
- The Role of the Board in IT Governance, Year 2020, Thai Institute of Directors Association (IOD)
- Director Certification Program (DCP), Class 136/2010, Thai Institute of Directors Association (IOD)

Work Experience within the past 5 years

Oct. 2019 - Apr. 2023	Independent Director/ Member of the Audit Committee, IRPC Public Company Limited
Apr. 2013 - 2016	Deputy Governor of Bangkok, Bangkok Metropolitan Administration
2011 - 2013	Board of Directors, Metropolitan Electricity Authority (MEA)
2011 - 2013	Deputy Permanent Secretary for Bangkok, Bangkok Metropolitan Administration
Oct. 2009 - Sep. 2011	Director General Public Works Department, Bangkok Metropolitan Administration

Current Position

Board member/Management in Listed Company - The Stock Exchange of Thailand

Feb. 2017 - Present	Independent Director/Chairman/ Chairman of Nomination and Remuneration Committee, Stonehenge Inter Public Company Limited
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Board member/Management in Non-Listed Company - The Stock Exchange of Thailand

2007 - Present	University Promotion Committee Board, King Mongkut's University of Technology Thonburi
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Dr. Ekniti Nitithanprapas

Age: 52 Years

(Complete the agenda of the Annual General Meeting of Shareholders for the year 2023)

Education/Training

- B.A. in Economics, (Honor), Thammasat University
- M.S. in Economics/Policy Economics, University of Illinois at Urbana-Champaign, USA
- Ph.D. in Economics/Macroeconomics and International Finance, Claremont Graduate University, USA
- Advanced Certificate Course in Public Administration and Law for Executives, Class 9/2011, King Prajadhipok's Institute
- Oxford Programme On Negotiation in Bangkok, Leadership Focus Institute
- The Role of the Board in IT Governance, Year 2020, Thai Institute of Directors Association (IOD)
- Director Leadership Certification Program (DLCP), Class 2/2021, Thai Institute of Directors Association (IOD)
- Risk Management Program for Corporate Leaders (RCL) Class 25/2021, Thai Institute of Directors Association (IOD)
- Role of the Chairman Program (RCP), Class 45/2019, Thai Institute of Directors Association (IOD)
- Board Matters and Trend (BMT), Class 4/2017, Thai Institute of Directors Association (IOD)
- Role of the Nomination and Governance Committee (RNG), Class 8/2016, Thai Institute of Directors Association (IOD)
- Financial Statements for Directors (FSD), Class 29/2015, Thai Institute of Directors Association (IOD)
- Corporate Governance for Capital Market Intermediaries (CGI), Class 4/2015, Thai Institute of Directors Association (IOD)
- Director Certification Program (DCP), Class 93/2007, Thai Institute of Directors Association (IOD)

Work experience within the past 5 years

Feb. 2020 - Nov. 2021	Chairman, Thanachart Bank Public Company Limited
May 2018 - May 2022	Director-General of the Revenue Department
Jun. 2018 - Jan. 2020	Chairman/Director, Krungthai Bank Public Company Limited
Jul. 2018 - Oct. 2019	Chairman, Thai Airways International Public Company Limited
Jun. 2018 - Oct. 2019	Director, Thai Airways International Public Company Limited
Mar. 2016 - Apr. 2023	Member of the Risk Management Committee, IRPC Public Company Limited
Nov. 2015 - Apr. 2023	Director, IRPC Public Company Limited
Nov. 2015 - May 2018	Director, Siam Commercial Bank Public Company Limited
Nov. 2015 - May 2018	Member of Nomination, Compensation and Corporate Governance Committee, Siam Commercial Bank Public Company Limited
Nov. 2015 - May 2018	Chairman, National Credit Bureau Company Limited
Oct. 2015 - May 2018	Director-General of the State Enterprise Policy Office, Ministry of Finance

Current Position

Board member/Management in Listed Company - The Stock Exchange of Thailand

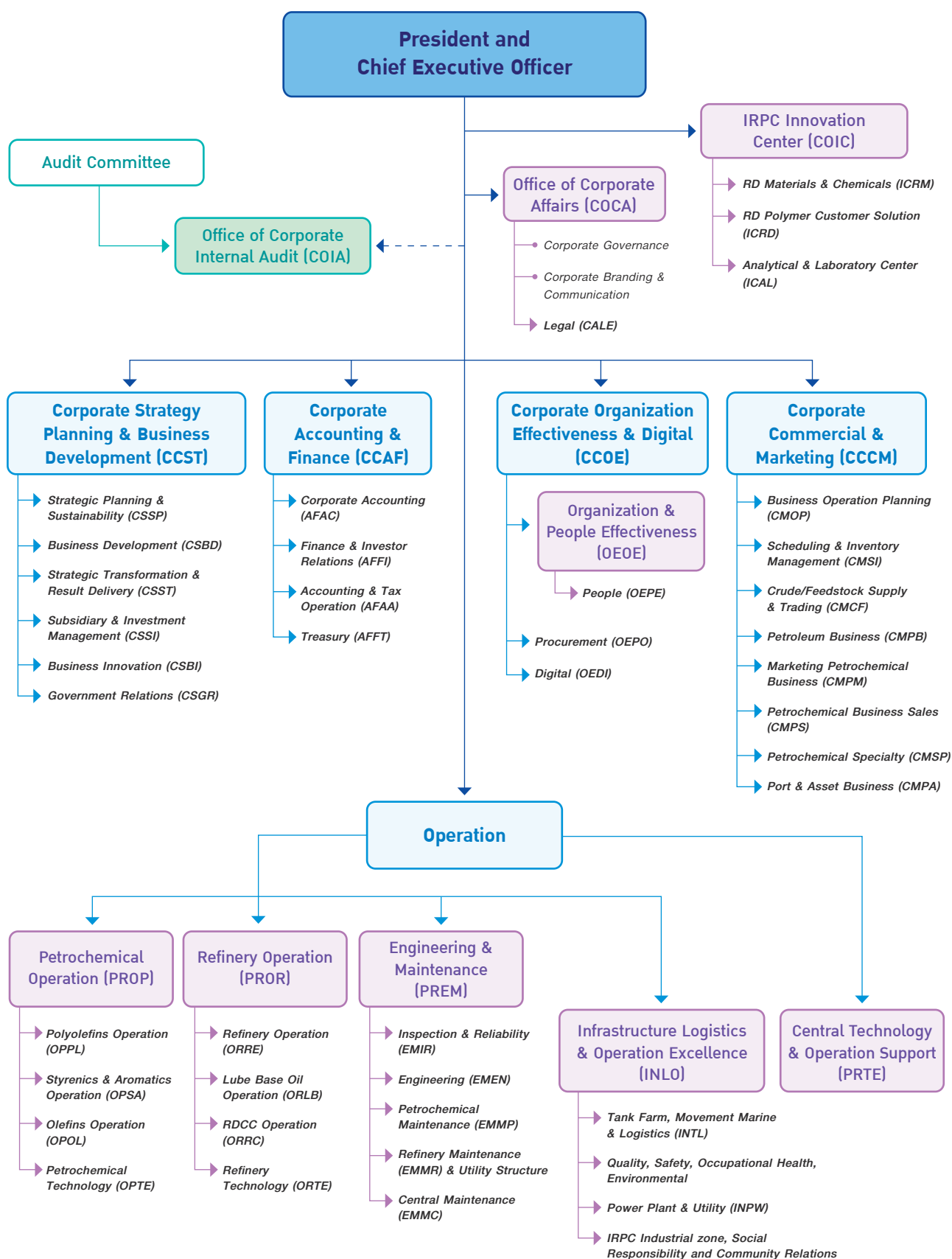
Jan. 2023 - Present	Director, Aeronautical Radio of Thailand Company Limited
Feb. 2020 - Present	Chairman, TMBThanachart Bank Public Company Limited

Board member/Management in Non-Listed Company - The Stock Exchange of Thailand

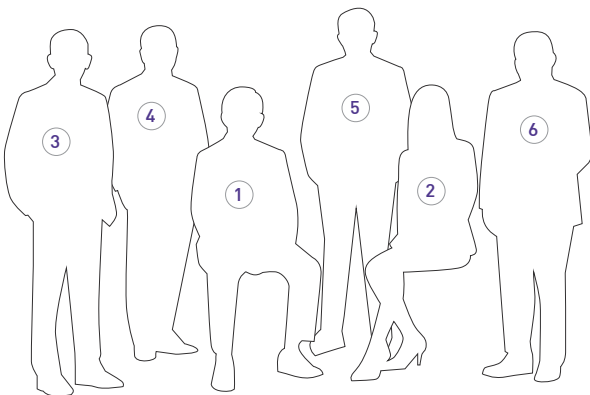
May 2022 - Present	Director-General of the Excise Department
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Organizational Structure

As of January 1, 2024



Management Team



1. **Mr. Kris Imsang**
President and Chief Executive Officer
2. **Miss Wanida Utaisomnapa**
Senior Executive Vice President,
Corporate Commercial and Marketing
3. **Mr. Poramet Junwichit**
Senior Executive Vice President,
Corporate Organization Effectiveness and Digital
4. **Mr. Phichin Aphiwantanaporn**
Senior Executive Vice President,
Corporate Accounting & Finance
5. **Mr. Pranarch Kosayanont**
Senior Executive Vice President, Corporate Strategy
Planning and Business Development
6. **Mr. Woravuth Sivapetranart**
Senior Executive Vice President, Operation

Management Team, IRPC Public Company Limited

Mr. Kris Imsang

Age: 58 Years

Appointed Positions

President and Chief Executive Officer

Date of being a President and Chief Executive Officer

1 October 2022

Years of being a President and Chief Executive Officer

1 Year 2 Months

Possession of IRPC shares (%)

No. of share "IRPC": - Share Possession: - %

Family relationship within the Company, major shareholder or subsidiaries

None

Education/Training

- Bachelor of Engineering (Civil Engineering), Chulalongkorn University
- Certification in Top Executives in the Poom Palung Pandin Program, Class 3, Chulalongkorn University
- Leadership Development Program III (LDP III), Class 2, PTT Leadership and Learning Institute (PLLI)
- Top Executive Program, Class 23, Capital Market Academy (CMA)
- Top Executive in Energy Program, Class 9, Thailand Energy Academy (TEA)
- Diploma, National Defence College, Class 62, Thai National Defence College
- Certificate Course in Good Governance for Medical Executives, Class 9, King Prajadhipok's Institute and the Medical Council of Thailand
- The Role of the Board in IT Governance, Year 2020 Thai Institute of Directors Association (IOD)
- Director Refreshment Training Program (RFP), Class 1/2021, Thai Institute of Directors Association (IOD)
- Director Certification Program (DCP), Class 139/2010, Thai Institute of Directors Association (IOD)

Work experience within the past 5 years

Oct. 2022 - Mar. 2023	Director, UBE Chemicals (Asia) Public Company Limited
Oct. 2022 - Dec. 2022	Director, IRPC A&L Company Limited
Oct. 2022 - Dec. 2022	Chairman, PTT Energy Solutions Company Limited
Apr. 2022 - Sep. 2022	Chairman of the Nomination and Remuneration Committee, IRPC Public Company Limited
Jan. 2021 - Apr. 2022	Chairman, IRPC Public Company Limited
Jan. 2021 - Sep. 2022	Director/Board of the Nomination and Remuneration Committee, PTT Oil and Retail Business Public Company Limited
Sep. 2020 - Sep. 2022	Chairman, PTT Tank Terminal Company Limited
Jun. 2020 - Sep. 2022	Chief Operating Officer, Downstream Petroleum Business Group, PTT Public Company Limited
Aug. 2020 - Apr. 2022	Vice Chairman – FTI Academy Committee, The Federation of Thai Industries
Mar. 2019 - Jan. 2020	Member of the Nomination and Remuneration Committee, IRPC Public Company Limited

Nov. 2019 - May 2020	Senior Executive Vice President, Down Stream Business Group Alignment, PTT Public Company Limited
Oct. 2018 - Oct. 2019	Senior Executive Vice President, Corporate Governance and Regulatory Affairs, PTT Public Company Limited
Jan. 2018 - Sep. 2018	Senior Executive Vice President, Organization Management and Sustainability, PTT Public Company Limited
Dec. 2017 - Sep. 2022	Director, IRPC Public Company Limited
Dec. 2017 - Feb. 2019	Member of the Corporate Governance Committee, IRPC Public Company Limited
Sep. 2017 - Oct. 2019	Chairman, Sarn Palung Social Enterprise Company Limited
Mar. 2016 - Aug. 2019	Committee, Kamnoetvidya Science Academy (KVIS)
Feb. 2016 - Dec. 2017	Senior Executive Vice President, Human Resources & Organization Excellence, PTT Public Company Limited
Feb. 2015 - Nov. 2019	Chairman, Energy Complex Company Limited
Aug. 2015 - Jan. 2016	Executive Vice President, Retail Marketing, PTT Public Company Limited

Current Position

Board member/Management in Listed Company - The Stock Exchange of Thailand

Oct. 2022 - Present	Director/President and Chief Executive Officer, IRPC Public Company Limited
Oct. 2022 - Present	Chief Operating Officer reporting to Chief Operating Officer, Downstream Petroleum Business Group, PTT, working on a secondment as Chief Executive Officer and President, IRPC Public Company Limited

Board member/Management in Non-Listed Company - The Stock Exchange of Thailand

Jul. 2023 - Present	Director and President of Membership Department, Chulalongkorn University Alumni Association Under the Royal Patronage of His Majesty King
Jan. 2023 - Present	Member of the Council of Honorable Institutions, Vidyasirimedhi Institute of Science and Technology (VISTEC)
Oct. 2022 - Present	Director, IRPC Polyol Company Limited
Oct. 2022 - Present	Council of Trustees, Petroleum Institute of Thailand
Oct. 2022 - Present	Council Member, Thailand Business Council for Sustainable Development
Sep. 2022 - Present	Member and Secretary-General, Foundation for Industrial Development
Apr. 2022 - Present	Secretary, The Federation of Thai Industries
Feb. 2021 - Present	Board of Directors, Sirindhorn International Institute of Technology, Thammasat University (SIIT)
Jun. 2020 - Present	Executive Director, Thailand Energy Academy
Aug. 2019 - Present	Qualified Member of the Committee

Mr. Pranarch Kosayanont

Age: 57 Years

Appointed Positions

Senior Executive Vice President,

Corporate Strategy Planning and Business Development

Date of being a Senior Executive Vice President, Corporate Strategy Planning and Business Development

1 July 2023

Years of being a Senior Executive Vice President, Corporate Strategy Planning and Business Development

6 Months

Possession of IRPC shares (%)

No. of share "IRPC": 245,292 Share Possession: 0.00120%

Family relationship within the Company, major shareholder or subsidiaries

None

Education/Training

- Bachelor of Science (Chemistry), King Mongkut's University of Technology Thonburi
- MINI M.B.A. Thammasat University
- Leadership Development Program I Class 1/2013, PTT Leadership Learning Institute (PLLI)/Harvard Business School
- Senior Executive Program (SEP) Class 25/2011, Sasin Graduate Institute of Business Administration of Chulalongkorn University
- Advance Management Program 2 (AMP2) Class 1/2018, PTT Leadership Learning Institute (PLLI)
- Advance Management Program 3 (AMP3) Class 1/2019, PTT Leadership Learning Institute (PLLI)
- Director Certification Program (DCP) Class 340/2023, Thai Institute of Directors (IOD)
- The Executive Program in Energy Literacy for a Sustainable Future (Class 18/2023), Thailand Energy Academy (TEA)

Work experience within the past 5 years

Jan. 2023 - Jun. 2023	Acting Senior Executive Vice President, Corporate Strategy Planning and Business Development, IRPC Public Company Limited
Jan. 2022 - Dec. 2022	Ultra Clean Fuel (UCF) Project Director, IRPC Public Company Limited
Mar. 2020 - Dec. 2021	Executive Vice President, Refinery and Petrochemical Operation, IRPC Public Company Limited
Aug. 2019 - Feb. 2020	Executive Vice President, Production & Operation, IRPC Public Company
Jan. 2017 - Jul. 2019	Acting Executive Vice President, Production & Operation, IRPC Public Company Limited

Current Position

Board member/Management in Listed Company - The Stock Exchange of Thailand

Jul. 2023 - Present	Senior Executive Vice President, Corporate Strategy Planning and Business Development, IRPC Public Company Limited
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Board member/Management in Non-Listed Company - The Stock Exchange of Thailand

Jan. 2023 - Present	Director, IRPC Clean Power Company Limited
Jan. 2023 - Present	Chairman, Mytex Polymers (Thailand) Company
Jan. 2023 - Present	Director, IRPC A&L Company Limited

Mr. Poramet Junwichit

Age: 59 Years

Appointed Positions

Senior Executive Vice President,
Corporate Organization Effectiveness and Digital
Date of being a Senior Executive Vice President, Corporate
Organization Effectiveness
1 January 2022
Years of being a Senior Executive Vice President, Corporate
Organization Effectiveness
2 Years
Possession of IRPC shares (%)
No. of share "IRPC": - Share Possession: - %
Family relationship within the Company, major shareholder or
subsidiaries
None

Education/Training

- MINI MBA, Thammasat University
- M.Ed. (Public Administration), National Institute of Development Administration
- B.Eng. (Engineering), Kasetsart University
- Leadership Development Program II
- Inspiration and Capability Drive
- IRPC Culture Transformation Leading
- Top Executive in Energy Program, Class 17/2023, Thailand Energy Academy (TEA)
- Advanced Certificate Course in Promotion of Peaceful Society, Class 12, Academic Year 2021 – 2022, King Prajdhupok's Institute
- Director Certification Program (DCP), Class 316/2022, Thai Institute of Directors Association (IOD)

Work experience within the past 5 years

Jan. 2023	Acting Senior Vice President, Office of Corporate Internal Audit
Aug. 2020 - Dec. 2021	Executive Vice President, Engineering & Maintenance
Feb. 2020	Acting Executive Vice President, Engineering & Maintenance
Jan. 2018	Vice President, Maintenance Service 2 Department
Oct. 2014	Vice President, Inspection and Reliability Department
Jun. 2010	Vice President, Engineering Department

Current Position

Board member/Management in Listed Company - The Stock Exchange of Thailand

Jan. 2022 - Present	Senior Executive Vice President, Corporate Organization Effectiveness and Digital, IRPC Public Company Limited
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Board member/Management in Non-Listed Company - The Stock Exchange of Thailand

Nov. 2022 - Present	Chairman, IRPC Technology Company Limited
Jan. 2022 - Present	Director, IRPC Technology Company Limited

Miss Wanida Utaisomnapa

Age: 57 Years

Appointed Positions

Senior Executive Vice President, Corporate Commercial and Marketing

Date of being a Senior Executive Vice President, Corporate Commercial and Marketing Starting Date

1 January 2019

Years of being a Senior Executive Vice President, Corporate Commercial and Marketing Starting Date

5 Years

Possession of IRPC shares (%)

No. of share "IRPC": 210,440 Share Possession: 0.00103%

Family relationship within the Company, major shareholder or subsidiaries

None

Education/Training

- Bachelor of Business Administration (Finance with second class honors), Bangkok University
- Master of Business Administration (Finance and Marketing), National University, San Diego, USA
- PLLI Leadership Development Program, IMD, Singapore
- Advance Management Program, DDI
- Leadership/The 7 HABITS of Highly Effective People, PacRim/FranklinCovey
- PTT-HBS Leadership Development Program Class 1, Harvard Business School, India&China
- Refinery Economics, Solomon Associates, Singapore
- Advance Price Risk Management, Invincible Energy, Singapore
- The Board's Role in Strategic Formulation, Governance Matters Australia
- The Role of the Board in IT Governance, Year 2020, Thai Institute of Directors Association (IOD)
- Director Certification Program (DCP), Class 315/2022, Thai Institute of Directors Association (IOD)

Work experience within the past 5 years

Apr. 2019 - Dec. 2021	Director, IRPC Polyol Company Limited
Nov. 2018 - Mar. 2023	Director, IRPC OIL Company Limited
Nov. 2018 - Mar. 2019	Director, IRPC Clean Power Company Limited
Oct. 2018 - Dec. 2018	Executive Vice President, Strategic Transformation and Result Delivery Office, IRPC Public Company Limited
Feb. 2015 - Dec. 2018	Secretary of the Risk Management Committee, IRPC Public Company Limited
Jan. 2015 - Dec. 2018	Executive Vice President, Corporate Business Planning, IRPC Public Company Limited

Current Position

Board member/Management in Listed Company - The Stock Exchange of Thailand

Jan. 2019 - Present	Senior Executive Vice President, Corporate Commercial and Marketing, IRPC Public Company Limited
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Board member/Management in Non-Listed Company - The Stock Exchange of Thailand

Feb. 2022 - Present	Chairman, Ipolymer Company Limited
Jan. 2023 - Present	Director, WHA Industrial Estate Rayong Company Limited
Jan. 2023 - Present	Chairman, IRPC A&L Company Limited
Dec. 2022 - Present	Director, Ipolymer Company Limited
Jul. 2020 - Present	Director, Mytex Polymers (Thailand) Company
Jul. 2019 - Present	Director, Guangzhou Saiju Performance Polymer Company Limited
Mar. 2019 - Present	Director, IRPC A&L Company Limited
Jan. 2019 - Present	Director, UBE Chemicals (Asia) Public Company Limited

Mr. Phichin Aphiwantanaporn

Age: 58 Years

Appointed Positions

Senior Executive Vice President, Corporate Accounting & Finance

Date of being a Senior Executive Vice President, Corporate Accounting & Finance Starting Date

1 October 2022

Years of being a Senior Executive Vice President, Corporate Accounting & Finance Starting Date

1 Year 3 Months

Possession of IRPC shares (%)

No. of share "IRPC": - Share Possession: - %

Family relationship within the Company, major shareholder or subsidiaries

None

Education/Training

- Bachelor in Economics, Thammasat University
- Master of Business Administration (MBA.), Indiana University, Indiana, USA
- Capital Market Academy Leader Program (CMA), Class 32/2022, Capital Market Academy
- Advanced Management Program (AMP) 3 - Business & People Management 2022, PTT Leadership and Learning Institute (PLLI) joint with DDI
- Senior Public Finance Executive Program, Class 7/2020, Institute for Personal Development in Finance and Public Sector Accounting, The Comptroller General's Department
- Leadership Development Program III, Class 4/2019, PTT Leadership and Learning Institute (PLLI) joint with IMD
- Management Development Program III, 2016, PTT Leadership and Learning Institute (PLLI)
- Executive Development Program (EDP), 2015, Thai Listed Companies Association (TLCA)
- Leadership Development Program I, Class 1/ 2013, PTT Leadership and Learning Institute (PLLI) joint with Harvard Business School
- Director Certification Program (DCP), Class 321/2022, Thai Institute of Directors Association (IOD)

Continuing Professional Development in Accounting

2022: Curriculum: Update on financial standards TFRS for NPAEs revised (effective January 1, 2023)

Academy: Dharmniti

Number of hours: 6 hours

2023: CFO Conference 2023

Academy: Federation of Accounting Profession Under The Royal Patronage of His Majesty The King

Number of hours: 3 hours

2023: CFO Refresher Course 2023

Academy: The Stock Exchange of Thailand

Number of hours: 6 hours

Work experience within the past 5 years

Jan. 2022 - Sep. 2022 Chairman, PTT Retail Business Management Company Limited

Jan. 2022 - Sep. 2022 Director, Pertroasia (Thailand) Company Limited

2018 - Sep. 2022 Senior Executive Vice President, Finance, PTT Oil and Retail Business Public Company Limited

2018 - 2018 Vice President - Group Financial Planning (acting), PTT Public Company Limited

2013 - 2018 Vice President - Investor Relations Department, PTT Public Company Limited

Current Position

Board member/Management in Listed Company - The Stock Exchange of Thailand

Oct. 2022 - Present Senior Executive Vice President, Corporate Accounting & Finance, IRPC Public Company Limited

Oct. 2018 - Present Executive Vice President, Corporate Finance & Accounting, PTT Public Company Limited

Board member/Management in Non-Listed Company - The Stock Exchange of Thailand

Oct. 2022 - Present Director, IRPC A&L Company Limited

Oct. 2022 - Present Director, UBE Chemicals (Asia) Public Company Limited

Oct. 2022 - Present Director, WHA Industrial Estate Rayong Company Limited

Oct. 2022 - Present Director, Mytex Polymers (Thailand) Company

Oct. 2022 - Present Director, IRPC Clean Power Company

Oct. 2022 - Present Director, IRPC Polyol Company Limited

Miss Arisara Suthasut

Age: 48 Years

Appointed Positions

Executive Vice President, Corporate Affairs and Company Secretary
 Date of being an Executive Vice President, Corporate Affairs and Company Secretary
 1 October 2019
 Years of being an Executive Vice President, Corporate Affairs and Company Secretary
 4 Years 3 Months
 Possession of IRPC shares (%)
 No. of share "IRPC": 2,200 Share Possession 0.00001%
 Family relationship within the Company, major shareholder or subsidiaries
 None

Education/Training

- Bachelor of Engineering (Chemical Engineering), Kasetsart University
- Master of Science, Petrochemical Technology, The Petroleum and Petrochemical College, Chulalongkorn University
- Leadership Development Program 2, Class 5/2022, PTT Leadership and Learning Institute (PLLI)
- Executive Energy Program (EEP), Class 5/2020, The Institute of Industrial Energy
- The Role of the Board in IT Governance, Year 2020, Thai Institute of Directors Association (IOD)
- Director Certification Program (DCP), Class 323/2022, Thai Institute of Directors Association (IOD)
- Company Secretary Program (CSP), Class 106/2020, Thai Institute of Directors Association (IOD)

Work Experience within the past 5 years

Jan. 2020 - Dec. 2020	Acting Executive Vice President, Corporate Sustainability Management, IRPC Public Company Limited
2018 - Sep. 2019	Director, Corporate Management Department, PTT Tank Terminal Company Limited
2013 - 2019	Division Manager, Downstream Business, PTT Public company Limited
2013 - 2017	Division Manager, Business Development Department, IRPC Public Company Limited

Current Position

Board member/Management in Listed Company - The Stock Exchange of Thailand

Oct. 2019 - Present	Executive Vice President, Corporate Affairs and Company Secretary, IRPC Public Company Limited
2019 - Present	Department Manager, Chief Operation Office Downstream Petroleum Business, PTT Public Company Limited

Board member/Management in Non-Listed Company - The Stock Exchange of Thailand

Oct. 2019 - Present	Director, IRPC Technology Company Limited
Oct. 2019 - Present	Director, Sarn Palung Social Enterprise Company Limited

Mr.Surachai Toaphicharttrakul

Age: 58 Years

Appointed Positions

Senior Vice President, Corporate Accounting

Possession of IRPC shares (%)

No. of share "IRPC": 14,719 Share Possession: 0.00007%

Family relationship within the Company, major shareholder or subsidiaries

None

Education/Training

- Bachelor of Business Administration. (Accounting), Ramkhamhaeng University
- Master of Business Administration (Accounting for Planning and Control), Kasetsart University
- Mini MBA - Faculty of Commerce and Accountancy, Thammasat University
- Advanced Management Program (AMP) 2 – People Management
- Lead Management Program – McKinsey Academy
- Digital Leadership Acceleration Program – BCG
- Director Certification Program (DCP), Class 347/2023, Thai Institute of Directors Association (IOD)
- Subsidiary Governance Program (SGP), Class 5/2023, Thai Institute of Directors Association (IOD)

Continuing Professional Development in Accounting

- 2023 Curriculum : Case studies found from the auditor's audit of accounts, Errors in accounting that accountants must not mistake.
Academy : Dharmniti Seminar and Training Co., Ltd.
Number of hours : 6 hours
- Curriculum : Cost management and measuring strategic performance for sustainability
Academy : NYC Management Co., Ltd.
Number of hours : 7 hours
- 2022 Curriculum : Accounting of hedging instruments and examples of understanding
Academy : NYC Management Co., Ltd.
Number of hours : 7 hours
- Curriculum : TFRS 9 year 2022 (for non-financial organizations) Principles and issues of interest
Academy : NYC Management Co., Ltd.
Number of hours : 7 hours
- 2021 Curriculum : Cost accounting theory
Academy : Department of Business Development, Ministry of Commerce Number of hours : 6 hours
- Curriculum : Accounting, documentation and financial reporting systems
Academy : Dharmniti Seminar and Training Co., Ltd.
Number of hours : 6.30 hours
- Curriculum : Accounting Cryptocurrencies & Update TFRS
Academy : Deloitte touche tohmatsu jaiyos audit Co., Ltd.
Number of hours : 5.30 hours

Work Experience within the past 5 years

- 2013 - 2021 Vice President - Accounting.
IRPC Public Company Limited.
- 1997 - 2013 Department Manager - Financial Statement and Accounting Policy.
IRPC Public Company Limited

Current Position

Board member/Management in Listed Company - The Stock Exchange of Thailand

- 2022 - Present Senior Vice President, Corporate Accounting,
IRPC Public Company Limited
- 2021 - Present Senior Vice President, Accounting and TAX Operation,
IRPC Public Company Limited

Board member/Management in Non-Listed Company - The Stock Exchange of Thailand

- 2023 - Present Director,
IRPC OIL Company Limited
- 2017 - Present Director,
IRPC Technology Company Limited
- 2017 - Present Director, Rakpasak Company Limited

Mr. Lersak Thongruang

Age: 57 Years

Appointed Positions

Acting Senior Executive Vice President, Operation

Date of being an Acting Senior Executive Vice President, Operation

1 January 2024

Possession of IRPC shares (%)

No. of share "IRPC": 70,000 Share Possession: 0.00034%

Family relationship within the Company, major shareholder or subsidiaries

None

Education/Training

- Bachelor of Engineering, Chemical Engineering, Prince of Songkhla University
- Master of Public and Private Management, NIDA
- Leadership Development Program II, Class 2, PTT Leadership and Learning Institute (PLLI)
- Subsidiary Governance Program (SGP), Class 5/2023, Thai Institute of Directors Association (IOD)

Work experience within the past 5 years

Jul. 2023 - Dec. 2023	Senior Project Director, Ultra Clean Fuel (UCF), IRPC Public Company Limited
Jan. 2023 - Jun. 2023	Acting Senior Project Director, Ultra Clean Fuel (UCF), IRPC Public Company Limited
Jan. 2022 - Dec. 2022	Acting Executive Vice President, Refinery, IRPC Public Company Limited
Jan. 2021 - Dec. 2021	Project Director, Ultra Clean Fuel (UCF), IRPC Public Company Limited
Sep. 2018 - Dec. 2020	Operation Department Manager, IRPC Public Company Limited.
Oct. 2014 - Aug. 2018	RDCC Department Manager, IRPC Public Company Limited.
May 2012 - Sep. 2014	Expert of Petrochemical and Petroleum Group, IRPC Public Company Limited.

Current Position

Board member/Management in Listed Company - The Stock Exchange of Thailand

Jan. 2024 - Present	Acting Senior Executive Vice President, Operation, IRPC Public Company Limited
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Board member/Management in Non-Listed Company - The Stock Exchange of Thailand

Jan. 2024 - Present	Director, IRPC A&L Company Limited
Jan. 2024 - Present	Director, IRPC Polyol Company Limited
Jan. 2024 - Present	Director, IRPC Clean Power Company Limited
Jan. 2024 - Present	Director, WHA Industrial Estate Rayong Company Limited
Jan. 2024 - Present	Director, UBE Chemicals (Asia)

Mr. Sirapong Visessuvan

Age: 48 Years

Appointed Positions

Senior Vice President, Office of Corporate Internal Audit and Secretary of Audit Committee

Date of being a Senior Vice President, Office Of Corporate Internal Audit

1 August 2023

Date of being a Secretary of Audit Committee

1 February 2023

Possession of IRPC shares (%)

No. of share "IRPC": - Share Possession: - %

Family relationship within the Company, major shareholder or subsidiaries

None

Education/Training

- Bachelor of Science in Chemical Technology, Chulalongkorn University
- Master of Science in Industrial Engineering, Texas Tech University, USA
- Certificate of Certified Fraud Examiner (CFE), Association of Certified Fraud Examiners (ACFE), USA
- Leadership Development Program 1, Class of 10/2023, PTT Leadership Learning Institute (PLLI)

Work experience within the past 5 years

Feb. 2023 - Jul. 2023	Acting Senior Vice President, Office of Corporate Internal Audit and Secretary of Audit Committee, IRPC Public Company Limited
Jan. 2018 - Jan. 2023	Manager, Office of Corporate Internal Audit, PTT Public Company Limited

Current Position

Board member/Management in Listed Company - The Stock Exchange of Thailand

Aug. 2023 - Present	Senior Vice President, Office Of Corporate Internal Audit and Secretary of Audit Committee, IRPC Public Company Limited
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Board member/Management in Non-Listed Company - The Stock Exchange of Thailand

- None -

Mr. Woravuth Sivapetranart

Age: 60 Years

(Retired)

Education/Training

- Bachelor of Science (Chemistry), Prince of Songkla University
- Master of Business Administration (Business Administration), Chulalongkorn University
- MINI MBA Thammasat University
- Executive Energy Program (EEP), Class 2. The Institute of Industrial Energy, The Federation of Thai Industries
- GE Global Customer Summit, ASEAN Executive Program, Crotonville, USA
- Leadership Development Program III, PTT Leadership and learning Institute
- Senior Executive Program (SEP), Class 32, Sasin Graduate Institute of Business Administration of Chulalongkorn University
- Advanced Management Program 3 (AMP3), PTT Leadership and learning Institute
- Executive Energy Management Program (EEM), Season 3, Ministry of Energy
- The Executive Program in Energy Literacy for a Sustainable Future (TEA), Class 16, Thailand Energy Academy
- The Role of the Board in IT Governance, Year 2020, Thai Institute of Directors Association (IOD)
- Director Certification Program (DCP), Class 281/2019, Thai Institute of Directors Association (IOD)

Work experience within the past 5 years

Jan. 2023 - Dec. 2023	Senior Executive Vice President, Operation, IRPC Public Company Limited
Mar. 2021 - Dec. 2023	Director, Rayong Acetylene Company Limited
May 2021 - Mar. 2023	Director, IRPC OIL Company Limited
May 2021 - Dec. 2022	Acting Senior Executive Vice President, Innovation and Operation Excellence, IRPC Public Company Limited
Mar. 2019 - Dec. 2023	Director, WHA Industrial Estate Rayong Company Limited
Mar. 2019 - Dec. 2023	Director, IRPC Clean Power Company Limited
Mar. 2019 - Dec. 2022	Senior Executive Vice President, Petrochemical and Refinery Operation, IRPC Public Company Limited
Jan. 2019 - Feb. 2019	Senior Executive Vice President, Petrochemical & Refinery Business Unit, IRPC Public Company Limited
Mar. 2017 - Dec. 2023	Director, IRPC Polyol Company Limited
Apr. 2017 - Dec. 2023	Director, IRPC A&L Company Limited
Jan. 2017 - Dec. 2018	Executive Vice President, Refinery and Petrochemical Operation, IRPC Public Company Limited
2014 - 2016	Executive Vice President, Technology & Operational Excellence, IRPC Public Company Limited

Current Position

Board member/Management in Listed Company - The Stock Exchange of Thailand

- None -

Board member/Management in Non-Listed Company - The Stock Exchange of Thailand

- None -

Report of the Audit Committee

Dear Shareholders,

The Audit Committee of IRPC comprises three independent directors who are highly skilled, knowledgeable, and experienced professionals. They bring expertise in diverse areas, ranging from legal, financial accounting, and business administration to IT and innovation.

The Audit Committee executes its responsibilities as assigned by the Board of Directors and in accordance with the charter of the Audit Committee. This aligns seamlessly with the guidelines outlined in the Notification of the SET and adheres to the best practices mandated by the SEC Office. The Audit Committee plays a pivotal role in supporting the company's corporate governance responsibilities, fostering robust risk management, and ensuring compliance with relevant laws, regulations, and industry guidelines. The implementation of effective internal control and internal audit measures, in conjunction with these practices, instills confidence, adds value to the company, and safeguards the best interests of all stakeholders.

In 2023, the Audit Committee conducted a total of 12 meetings, with 100% attendance from all directors. These sessions involved discussions on relevant agendas with the management, internal auditor, and certified public accountants. The key responsibilities of the Audit Committee can be summarized as follows:

1. Review financial reports

The Audit Committee reviewed the company's quarterly and annual financial statements, including related party transactions and transactions with possible conflict of interest together with external auditors and corporate accounting and finance executives on agenda items relating to financial statements where they were expected to clarify and address the Committee's queries as to the accuracy, completeness, and reliability, including adequate disclosure of external auditor's opinion that is useful to financial statement users, in accordance with financial reporting standards and in compliance with relevant laws. The Audit Committee reviewed and approved the financial statements audited by external auditors who gave an unqualified audit report. In addition, the Audit Committee held a meeting with the external auditors specifically, without the participation of the management to discuss the proposed audit plan

and suggestions on how to handle matters of concern in the course of auditing. They also discussed the independence of external auditors, material risks, and key audit matters (KAM).

2. Review risk management

The Audit Committee reviewed risk management based on the internal auditors' and external auditor's reports on the company's risk management and acknowledged the report on corporate risk management performance for which the Risk Management Committee provides oversight. The Risk Management Committee's oversight also covers approval of risk management policy and framework, monitoring of risk assessment, approval of risk management measures, and reporting on the corporate risk management performance to the Board for acknowledgment on a regular basis. This is to ascertain that the company's risk management system is suitable and adequate for its businesses to manage and keep risks within its risk appetite.

3. Review the internal control system

The Audit Committee reviewed the adequacy and suitability of IRPC's internal control system to reasonably ensure the efficiency and effectiveness of IRPC's business operations to achieve objectives and goals. The review was based on the internal and external auditors' reports on internal control, the follow-up reports on implementation of auditors's recommendations as well as results of the assessment on the adequacy of the company's internal control system and its performance. Having detected no issue of concern or deficiency that may materially impact the company's main objectives, the Committee was reasonably assured that the company had a sound internal control system adequate for its business operations.

4. Provide oversight for internal audit

The Audit Committee has provided oversight for the internal audit unit to ensure its independence and ascertain that the internal audit unit reports directly to the Audit Committee as prescribed by the internal audit charter, which is subject to annual review. The Audit Committee also reviewed the internal audit performance in accordance with the pre-determined internal audit strategies, goals, and internal audit plan. The Audit

Committee scrutinized issues arising in the course of auditing and gave recommendations to improve internal audit efficiency and to monitor auditing results on a regular basis. In addition, the Audit Committee also made arrangements for the assessment of as well as regularly following up on the audit results, a preliminary internal audit quality assurance review (Internal QAR) in compliance with the standards for internal audit professionals.

The Audit Committee has undertaken continual development of internal audit personnel by promoting the exchange of audit-related knowledge among PTT Group companies and encouraging internal auditors to obtain professional certificates for internal auditing. This will help them gain additional knowledge and raise internal audit quality to a level comparable to internationally accepted professional standards. In addition, the Audit Committee has underscored the importance and encouraged the use of IT systems in internal audit operations. In 2023, the Internal Audit Office developed Robotic Process Automation (RPA) to support internal audit to increase the efficiency and effectiveness of internal audit.

5. Review corporate governance

The Audit Committee places a strong emphasis on ethical business practices through its review and provision of opinions on material connected transactions involving related parties or companies. This approach serves as a precautionary measure against conflicts of interest. The Committee's reviews are grounded in customary business practices, assessing reasonableness, pricing referenced to reasonable market standards, and ensuring arm's length transactions to safeguard the company's best interests. This reviewing process extends to handling whistleblowers and complaints about corruption, resolution of complaints in line with good corporate governance, and ensuring full information disclosure according to SET-prescribed rules. Moreover, the Audit Committee actively encourages the company and its subsidiaries to maintain and renew their memberships with the Collective Action Against Corruption (CAC).

6. Review corporate compliance

The Audit Committee has meticulously reviewed and overseen the company's operations to ensure full compliance with laws governing securities and the stock exchange, SET-prescribed rules, industry guidelines, environmental regulations, personal data protection, and other relevant laws pertaining to the company's

business operations. Additionally, the committee actively monitors forthcoming legislation that may impact the company in the future. Upon a comprehensive review of corporate compliance, the Audit Committee holds the opinion that the company has an effective internal control process in place, ensuring complete regulatory compliance.


7. Selection and appointment of certified public accountants for 2023

The Audit Committee holds the responsibility of considering, selecting, nominating, and proposing remuneration for the certified public accountant. This ensures that the independent external auditor possesses the requisite qualifications, expertise, and professional skills. The evaluation considers their past performances and professional experience auditing similar businesses, along with the reasonableness of the auditing fee. Following a thorough review of nominated external auditors, the Audit Committee endorsed the nomination of EY Office, subject to the Board's approval and subsequent endorsement by the shareholders. Additionally, the committee scrutinized other services provided by the external auditor to ensure they do not compromise auditing independence.

8. Other matters

The Audit Committee reviewed its own charter to ensure alignment with corporate governance guidelines and the recommended practices outlined by the SEC Office. Additionally, the committee regularly reported its performance to the Board of Directors for acknowledgment quarterly.

In summary, throughout 2023, the Audit Committee diligently executed its duties independently, exercising utmost caution and prudence. The committee provided valuable opinions and recommendations beneficial to the company. It ensured the accuracy, completeness, and credibility of IRPC's financial reports, and verified the company's commitment to good corporate governance, adherence to applicable laws and regulations, and the efficacy of its risk management and internal control systems. These efforts aimed at facilitating IRPC to attain optimal benefits and sustainable growth.



(Mr. Yordchatr Tasarika)

Chairman of the Audit Committee

Message from the Corporate Governance and Sustainability Committee

Dear Shareholders,

The Corporate Governance and Sustainability Committee is resolute in steering IRPC Public Company Limited towards competitiveness. This commitment is anchored in upholding good corporate governance principles and a robust code of business conduct to foster transparency, accountability, and a steadfast rejection of corruption in all its forms. Furthermore, we underscore the company's consistent alignment with Sustainable Development Goals (SDGs) and embrace of the environmental, social, and governance (ESG) framework. These initiatives inspire confidence among all stakeholders, who expect equal treatment and a commitment to fairness.

In 2023, the Corporate Governance and Sustainability Committee consisted of three directors: (1) Mr. Supot Laosuapha, Chairman of the Corporate Governance and Sustainability Committee (deceased December 26, 2023); (2) Mr. Chaiyaporn Phuprasert, Independent Director; and (3) Mrs. Pranot Tirasai, Director. The Committee convened a total of five meetings, achieving full attendance, to provide oversight promoting corporate governance and sustainability practices among the management and employees. We also monitored governance and sustainability performance and outcomes, and reported to the Board of Directors on a quarterly basis as part of continuing efforts to develop and achieve corporate governance practices on par with internationally accepted standards. The Corporate Governance and Sustainability Committee's performance can be summarized as follows:

1. Development and promotion of corporate governance

The Corporate Governance and Sustainability Committee provided oversight and monitored corporate governance practices of IRPC and its subsidiaries to ensure full regulatory compliance in accordance with domestic as well as international standards by undertaking the following measures:

- To improve the Committee effectiveness through reorganizing and incorporating sustainability oversight role and responsibilities into the Corporate Governance and Sustainability Committee.
- To improve performance evaluation forms for the Board of Directors and its subcommittees as well as reviewing the performance of the Corporate Governance and Sustainability Committee's own performance in the past year so as to improve its effectiveness to produce concrete results.
- To ensure continuing director development with respect to corporate governance practices by encouraging them to enroll in training courses of the Thai Institute of Directors Association (IOD) or to attend workshops given by experts in various fields to enable them to perform their duties more effectively in guiding the way the company conducts its businesses.
- To approve the Corporate Governance Plan and Corporate Compliance Plan along with continuous monitoring to ensure they are strictly followed.
- To review the Corporate Governance Handbook and code of business conduct as well as the Corporate Governance Policy to raise the standard of the company's corporate governance practices on par with domestic and international best practices.
- To support Governance, Risk Management & Internal Control, and Compliance (GRC) to develop a holistic approach in improving and rationalizing the work processes.
- To cultivate corporate culture and corporate governance awareness among the management, employees and all stakeholders, internal as well as external, through implementation of projects and activities promoting code of ethical conduct, such as PTT Group CG Day 2023, IRPC CG Day 2023, and IRPC Cubic Academy Season 8, etc.
- To promote and encourage suppliers to join the declaration of intent to combat corruption under the Thai Private Sector Collective Action Against Corruption (CAC). For this, IRPC received the CAC Change Agent Award 2023.

2. Sustainable Development

The Corporate Governance and Sustainability Committee provides oversight for implementation of the company's sustainability practices to align with the business direction and in keeping with the internationally accepted standards based on the ESG framework, which can be summarized as follows:

- To approve the Corporate Sustainability Plan and Corporate Social Responsibility Plan to ensure consistent implementation of such plans that are appropriate and in alignment with the company's vision and business strategy.
- To approve the Climate Change Policy and Biodiversity Policy ensuring they align with the Sustainability Policy and sustainable business operational framework.
- To promote and support sustainability communication on a regular basis to cultivate understanding and develop sustainable corporate culture and mindset.

3. Stakeholder and Minority Shareholders

- To ensure equitable treatment and promote minority shareholders' rights by giving them the opportunity to nominate qualified individuals to be considered for election as directors. Minority shareholders are also encouraged to initiate and propose meeting agenda topics for the 2023 Annual General Shareholders' Meeting in advance of the meeting. Guidelines for the exercise of such rights were disclosed and publicized in a transparent manner through the company's communication channels (www.irpc.co.th) and the SET-Link news bulletin service.
- To oversee the organizing of the 2023 Annual General Meeting of Shareholders in accordance with good governance principles and guidelines prescribed by

regulatory agencies and relevant laws. This is to ensure correct procedures and fairness. All shareholders were given the opportunity to exercise their rights fully. As a result, the company was awarded "excellent" rating for scoring the full mark of 100% for its 2023 Annual General Meeting of Shareholders from the Thai Investors Association (TIA).

- To promote Corporate Social Responsibility (CSR) projects and activities covering such diverse areas as education, health, religion, culture, traditions, quality of life, along with job creation, livelihood and community economy.

IRPC's steadfast commitment to upgrade its corporate governance practices was widely recognized. In 2023, the company was honored through various domestic and international awards for its exemplary governance practices. Notable among them is the Model Human Rights Organization Award 2023 conferred by the Department of Rights and Liberties Protection, Ministry of Justice, marking the fifth consecutive year of recognition. Additional accolades include the Commendation Award for Transparent Organization from the Office of the National Anti-Corruption Commission, and the Golden Peacock Global Award for Excellence in Corporate Governance 2023 from the Institute of Directors (IOD), India, among others. These prestigious awards stand as a testament to the high standards of corporate governance, social responsibility, and sustainability management fostered by the dedicated and unrelenting efforts of the Board of Directors, management, employees, and supportive stakeholders. The Corporate Governance and Sustainability Committee reiterates our commitment to the continual development of the company's corporate governance and sustainability practices. Through these efforts, we aim to create maximum value for shareholders in a sustainable manner over the long term.



(Mr. Chaipayorn Phuprasert)

Member of the Corporate Governance
and Sustainability Committee



(Mrs. Pranot Tirasai)

Member of the Corporate Governance
and Sustainability Committee

Message from the Chairman of the Nomination and Remuneration Committee

Dear Shareholders,

In 2023, IRPC confronted significant challenges stemming from economic, social, environmental, and technological factors, along with legal and other associated risks. The Nomination and Remuneration Committee diligently fulfills its duties and responsibilities as outlined in its charter. In 2023, the Nomination and Remuneration Committee, hereinafter referred to as the “Committee,” consisted of Mr. Chansak Chuenchom, Chairman; Mr. Petai Mudtham, Non-Executive Director; and General Aittipol Suwannarat, Independent Director. All members of the Committee attended meetings, making decisions and giving advice that are beneficial to the company's business operations, summarized as follows:

1. Revision of the Nomination and Remuneration Committee Charter, The Committee proposed updating the charter for clarity and to stay current with corporate governance practices and requirements initiated by the SEC Office, SET and Thai Institute of Directors Association (IOD). The Committee's top priority remains the nomination through transparent selection process of highly qualified directors with suitable expertise as required by the company and its shareholders.
2. Nomination of Directors and Members of the Board's Committees, The Committee selects candidates based on predetermined criteria, taking into account general qualifications, knowledge and specializations, to recruit suitably qualified directors with skill set and expertise beneficial to the company, and in alignment with corporate goals. In 2023, the Committee nominated a total of four candidates for the Board of Directors and/or shareholders (as the case may be) to consider for appointment. The committee also nominated candidates to sit on all four Board's committees: Audit Committee, Nomination and Remuneration Committee, Corporate Governance and Sustainability Committee and Risk Management Committee.
3. Determination of Compensation The Committee determines compensation for directors and members of the Board's committees based on good corporate governance principles, linked to the short- and long-term corporate strategies, and comparable to rates offered by leading corporations of similar size belonging to the same industrial sector. In addition, directors' bonuses are also determined in accordance with good practices established by the Board of Directors that no bonuses will be offered in case the company registered operating losses.
4. Determination of Performance Goals and Compensation for the Chief Executive Officer and President Setting performance goals, evaluating performance, and determining compensation for the CEO and President are integral aspects of the company's business process. In 2023, the Committee established challenging performance criteria aligned with the company's circumstances to evaluate the CEO and President. This included assessing the Corporate KPIs and the yearend evaluation by the Board of Directors.

The process to establish compensation for the CEO and President is conducted in a credible manner that is acceptable to all stakeholders. The Committee defines performance evaluation criteria that are clear and precise, considering factors such as past compensation, industry benchmarks for CEOs, qualifications and experience of the CEO and President, and the scope of their responsibilities. The compensation is designed to be fair, appropriate, and provides incentives for optimal performance.

5. Senior Executive Succession, Planning Succession planning for senior management positions is crucial for the seamless transition of the workforce within an organization. The Committee is tasked with identifying senior executives at the N-1 level, poised to lead the company in achieving future corporate objectives and goals. In 2023, the Committee thoroughly vetted candidates and nominated a senior executive at the N-1 level for promotion. This individual is prepared to succeed one of the top executives due to retire in the near future.

6. Self-evaluation of the Nomination and Remuneration Committee Adhering to corporate governance principles, the Committee approaches its self-evaluation duty with utmost seriousness. In addition to the annual self-evaluation, independent consultants conduct a comprehensive performance assessment of the Committee once every three years. These regular and consistent evaluations foster accountability and serve as motivation for continual improvement by the Committee, responsible for ensuring transparency and delivering maximum value to the company and shareholders. As per the self-assessment results, the Nomination and Remuneration Committee achieved an Excellence rating, scoring 98.83 percent.

In summary, in 2023, the Nomination and Remuneration Committee prioritized human resource strategies, emphasizing the development of a cadre of high-caliber executives with diverse capabilities. This approach aims to enhance readiness in steering corporate strategies and goals into the future, aligning with sustainable development principles and the ESG operational framework. The Committee reiterates its commitment to executing duties with transparency and utmost efficiency, ensuring fairness and prioritizing the best interests of both the company and shareholders. This commitment is geared towards fostering the sustainable growth of IRPC Public Company Limited in the years to come.



(Mr. Chansak Chuenchom)

Chairman of the Nomination and
Remuneration Committee

Message from Chairperson of the Risk Management Committee

Dear Shareholders,

IRPC underscores the importance of and is committed to efficient and effective risk management, thus enabling the company to live up to its vision and mission as well as to achieve goals in alignment with the strategy to deliver sustainable value to all stakeholders. In this regard, the company's Board of Directors has assigned the Risk Management Committee to formulate policy, provide supervision, and give advice on enterprise risk management and investment risk management that corresponds to the company's strategy with a view to ensuring, efficient business operations and sustainable growth. To this end, the company also promotes and enhances enterprise-wide risk management while seeking out new business opportunities to leverage innovations and transform existing businesses. The Risk Management Committee consists of five highly qualified directors with deep knowledge, expertise, and experience in risk management as follows:

- | | |
|--|-------------|
| 1. Ms. Siriwan Chierapong ¹ | Chairperson |
| 2. Mr. Prasong Inthonnongphai | Director |
| 3. Ms. Phiangpanor Boonklam | Director |
| 4. Mr. Phonchai Teerawet | Director |
| 5. Mr. Kris Imsang | Director |

¹⁾ Ms. Siriwan Chierapong and Mr. Phonchai Teerawet assumed their positions on the Risk Management Committee according to the resolution of the Board of Directors on April 18, 2023.

In 2023, the Risk Management Committee held a total of 12 meetings, including 1 joint meeting with the Audit Committee and Corporate Governance and Sustainability Committee.

2023 was another year the company faced great challenges of uncertainty and volatility brought on by factors, such as geopolitical tensions linked to the breakout of wars in several countries, inflation, and economic slowdown as GDP growth missed the forecasts. The market situation was beset by price volatility while global warming and climate change impacts presented risk factors affecting the company's business operations in the past year. The Risk Management Committee kept a tight rein accordingly. The Risk Management Committee's performance is summarized as follows:

1. Reviewed policies, supervised operations, and recommended risk management approaches relevant to the company's operations that corresponded to the business context and environment.
2. Scrutinized risk assessment results and plans to manage risks as well as recommending or proposing risk mitigation approaches to keep corporate risks at an acceptable level to ensure there is an adequate and appropriate risk management system.
3. Provided opinions and recommendations on strategic risk management, such as risk management for sales of petroleum products and readiness to switch to EURO 5-compliant diesel standard, which comes into effect on January 1, 2024. The management of risks associated with raising the share of sales of specialized products to align with the strategic direction of the company and the strategic investment corresponding to the greenhouse gas reduction vision to accomplish the Net Zero Emission goal by 2060, etc.

4. Provided opinions and recommendations on business risk management, such as oil and product price risks, liquidity and exchange rate risks, cyber security risks, etc.
5. Provided opinions and recommendations on operational risk management, such as safety, occupational health, and environmental risks, risks that may impact communities, risks associated with confidence in manufacturing plant, risks relating to water supply in the event of drought, etc.
6. Provided opinions and recommendations on enterprise risk management to working groups, consisting of the Risk Management and Internal Control Committee, which managed corporate risks according to stated policy and guidelines, and Supply Chain Risk Management and Financial Derivatives Committee, which monitored and analyzed the market situation and managed risks associated with prices and supply of crude oil, petroleum, and petrochemical feedstocks as well as making arrangements for trade in financial derivatives to effectively hedge against risks.
7. Followed up on project status and provided opinions and recommendations and laid out risk management approaches for the Ultra Clean Fuel Project (UCF) to achieve EURO 5-compliant diesel standard, and implementation of the Combined Heat and Power Project (CHP-III) to enable the company to produce EURO 5-compliant products as required by applicable laws.
8. Followed up on operations, and provided opinions and recommendations on operational risk management guidelines for IRPC subsidiaries to achieve the targeted return on investment according to the business plan.
9. Submitted reports on results of the supervision of risk assessment and risk mitigation measures to the Board of Directors on a quarterly basis.
10. Scrutinized and commented on the 2024 enterprise risks before presenting them for approval from the company's Board of Directors by identifying those risks to correspond with the enterprise strategy and goals for sustainable growth.

The Risk Management Committee has prudently performed the tasks assigned to us to the best of our ability, with independence in line with corporate governance for the benefits of IRPC and all stakeholders.



(Ms. Siriwan Chierapong)

Independent Director/
Chairperson of the Risk Management Committee

Section

01

BUSINESS OPERATIONS AND PERFORMANCE

- ▶ Structure and Business Operations of IRPC
- ▶ Risk Management
- ▶ Business-Driven Sustainability
- ▶ Financial Highlights
- ▶ Management Discussion and Analysis (MD&A)
- ▶ General Information and Other Important Information



IRPC is the country's third largest petroleum refinery operator and a frontrunner as petrochemical producer with the most comprehensive product portfolio that caters to diverse demands across business value chains. Dedicated to advancing our capabilities, IRPC prioritizes research and development at the IRPC Innovation Center. This commitment aims to elevate our innovative material and energy solutions, aligning them with Megatrends and anticipating the future requirements of our customers and consumers.

Structure and Business Operations of IRPC

Revenue Structure

IRPC and its subsidiaries generated revenues from distribution and sales of products as follows: Revenue from petroleum products accounted for 81 percent of total net sales, primarily from diesel, gasoline, fuel oil, lube base oil and asphalt. Revenue from petrochemical products accounted for 18 percent from olefins, aromatics, and various polymers, or plastic pellets. In addition, the company earned revenue from other businesses, accounting for one percent from electricity and utilities charges. In 2023, IRPC's net sales revenue totaled Baht 299,075 million as detailed below:

Revenue Structure by business							
Type of business	Operated by/shareholding percentage of IRPC	2021		2022		2023	
		Million Baht	%	Million Baht	%	Million Baht	%
1. Petroleum	IRPC Plc.	160,626	68%	243,953	77%	241,455	81%
	IRPC Oil Co., Ltd. (99.99%)						
2. Petrochemical	IRPC Plc.	71,089	30%	70,402	22%	53,376	18%
	Innopolymer Co., Ltd. (60.00%)						
	IRPC A&L Co., Ltd. (57.48%)						
	iPolymer Co., Ltd. (55.00%)						
3. Other businesses ⁽¹⁾	IRPC Plc.	3,459	2%	4,041	1%	4,244	1%
Total revenue from net sales ⁽²⁾		235,174	100 %	318,396	100	299,075	100
Share of profits (losses) from investment in associated companies and interests in joint ventures		713		284		254	

Notes: ⁽¹⁾ Other businesses include revenue from electricity and utilities charges.

⁽²⁾ Revenue from net sales consists of petroleum business (excluding excise tax), petrochemical business, and electricity and public utilities business.

Revenue structure of domestic and international sales						
Source of revenue	2021		2022		2023	
	Value (MB)	%	Value (MB)	%	Value (MB)	%
Domestic sales	137,817	59%	202,717	64%	196,809	66%
International sales	97,357	41%	115,679	36%	102,266	34%
- CLMV countries	23,010	10%	33,439	10%	28,135	9%
- Other countries	74,347	31%	82,240	26%	74,131	25%
Total revenue from net sales	235,174	100%	318,396	100%	299,075	100%



■ Nature of Business

IRPC Public Company Limited is the first fully integrated petrochemical operator in Southeast Asia. Located within the company's own Industrial Zone in Rayong, its production structure comprises petroleum and petrochemical complexes, complete with utilities and infrastructure supporting the operations, including a deep-sea port, oil depots, and power plants.

Petroleum Business

IRPC operates an oil refinery with a total production capacity of 215,000 barrels per day (bpd). Ranked third largest oil refinery in the country, IRPC produces a wide variety of petroleum products, consisting of liquefied petroleum gas (LPG), naphtha, gasoline, diesel and fuel oil. In addition, IRPC has a Lube Base Oil production plant with a capacity of 320,000 tons per year, and its asphalt plant has a total capacity of 600,000 tons per year as the country's largest producer. It is also Thailand's first asphalt plant to sell TIS-certified Bitumen Grade 40/50 in the domestic market. In addition, IRPC produces Rubber Process Oil whose quality meets internationally recognized standards.

► Diesel Quality Improvement Project

The Thai government took a policy initiative to reduce air pollution and dust problem, particularly PM 2.5. As of January 1, 2024, Euro 5-compliant diesel (emission with sulfur content of less than 10 ppm) will become the new standard in Thailand.

The EURO 5 standard refers to permissible limit on sulfur at 10 ppm in fuels, thereby reducing emissions of hydrocarbon gases and nitrogen oxide, among other pollutants. The standard is applicable to both petrol and diesel, which must limit sulfur content at not more than 10 ppm. In diesel, the standard also determines limit on Polycyclic Aromatic Hydrocarbon (PAHs) at 8% by weight, to lower soot from combustion and helps mitigate air pollution caused by PM2.5 pollutants.

IRPC has started adjusting its production processes by implementing the Ultra Clean Fuel project (UCF). The objective is to increase refinery's efficiency and upgrade diesel quality. The UCF project will enhance the company's competitiveness as its refinery has until recently produced large quantities of high-sulfur diesel for export to some Asian markets. In the future, the high-sulfur diesel market is expected to shrink and be confined to operators of oceangoing vessels and fishing trawlers with limited demand. Furthermore, these customers may opt for cheaper low-sulfur fuel oil instead. As a result, the company may face intense price competition going forward, resulting in low profitability.

The project will enable IRPC to improve competitiveness and meet the increase in demand for diesel in the domestic market, as well as export to countries in regions that will be switching from Euro 4- to Euro 5-compliant diesel



IRPC complies with government policy by producing Euro 5 standard diesel fuel and commenced sales on December 25, 2023.

in the foreseeable future. This will put the company in a position to add product value and increase revenue. The launch of EURO 5 standard corresponded with the regional trend linked to the global market, contributes to the country's energy security and sustainability. More widespread use of EURO 5-compliant fuels also helped reduce airborne PM2.5 and carcinogenic pollutants. IRPC oil refinery has been producing low-sulfur fuels under Euro 5 standard since December 25, 2023.

Petrochemical Business

IRPC is a producer of upstream petrochemical products, namely olefins and aromatics, which are mainly used as feedstocks for the company's downstream petrochemical manufacturing, consisting of polyolefin-type plastic pellets (HDPE, PP) and styrenic-type pellets (ABS/SAN, PS, EPS) for sale to manufacturers of finished plastic products in Thailand and overseas under the brand POLIMAXX.

In the meantime, the petrochemical business continues to forge ahead, adapting to the fast-changing world in terms of environmental standards and evolving production technologies. IRPC's research and development efforts have yielded a crop of new and innovative products to increase its competitiveness. These include Bio Composite Resin, Acetylene Black for Li-ion Battery (Pim-L, Pim-AL), Ultra High Molecular Weight Polyethylene (UHMW-PE), PP Spunbond, and PP Meltblown, etc. The implementation of the Eco Solution management approach in a Closed-Loop plastic supply chain, incorporating efficient and sound recycling at all stages of production. Thus eliminating manufacturing waste that would otherwise become a burden to the community and society at large.

Supporting Businesses

▶ Power and Utilities

IRPC provides electricity, steam, infrastructure, utilities as well as wastewater treatment and other services, with an emphasis on service reliability in support of clients in the IRPC industrial zone to ensure uninterrupted business operations. The company produces, distributes and provides electrical and industrial steam systems along with utilities as follows:

Electrical and Steam Systems

IRPC operates a mainly gas-fired power and steam plant, and is in the process of decommissioning a coal-fired power plant in line with our future operational plan and the government's environmental policy. The company's total generating capacity of approximately 323 megawatts. This, when combined with the generating capacity of IRPC Clean Power (IRPCCP), a joint venture between IRPC and GPSC, to be completed within 2024, will amount to total generating capacity of approximately 396 megawatts. In addition, the company also operates a Power Dispatching Center to control the distribution of electricity and steam to ensure uninterrupted power even in the event of contingency, such as maintenance outage.

To promote alternative energy development, IRPC also installed a Floating Solar Farm in its 200-rai reservoir. The solar farm, which has a total generating capacity of 21 megawatts, enhances the stability of power distribution in IRPC Industrial Zone, and represents an eco-friendly innovation that not only increases business opportunities but also mitigates the impacts of global warming. The company is also exploring investments in other renewable energy projects, such as solar farm and solar rooftop, to add about 43 megawatts in generating capacity, to align with Net Zero policy.

Water System: Filtered Water, Demineralized Water, Cooling Water, Raw Water, Fire-fighting Water

IRPC receives raw water under industrial quota from the Royal Irrigation Department and operates 2 water filtration plants located in Ban Khai District. and IRPC Industrial Zone. Thus ensuring stable supply and operational continuity. A plan to increase production capacity is being developed to accommodate growth in number of industrial clients in the future.

Pneumatics: Nitrogen, Instrument Air, Plant Air

IRPC operates its own industrial pneumatic system as well as works in direct partnership with leading manufacturers of industrial pneumatic systems.

Wastewater Treatment

IRPC uses Membrane Bioreactor Plus Activated Carbon Adsorption (MBR Plus AC) system to treat wastewater. This bioprocess is highly efficient and operationally stable. The treated water consistently passes inspection for effluent standards required by law, inspiring trust of surrounding communities and confidence in environmental sustainability.

► Port and Storage Tank Services

IRPC Port

IRPC provides port services to domestic and international clients for vessels to berth at its terminals for loading and unloading, with port services available to outside clients serving different regions as follows:

IRPC Deep Sea Port, Eastern Region, in Mueang Rayong District, Rayong Province, consisting of:

Bulk & Container Terminal (BCT): The terminal, 900 meters long and 44 meters wide, comprises six berths, which accommodate vessels of various sizes, ranging from 800 to 150,000 DWT, with a maximum draft of 13.5 meters.

Liquid & Chemical Terminal (LCT): The terminal is equipped with advanced facilities to handle liquids and gases efficiently and safely. The terminal is approximately 1,623 meters long, consisting of six berths that accommodate vessels from 1,000 to 250,000 DWT.

Storage Tank Services

IRPC provides storage tanks for liquid petroleum and petrochemical products. The company's teams of experienced specialists operate 298 tanks with a combined storage capacity of up to 2.9 million tons (excluding one storage tank that has been sold), using an efficient management system that meets international safety standards. These tanks accommodate IRPC's petroleum-based products and serve external clients as well. Tank services are available in different regions: at Rayong Oil Depot, Phra Pradaeng Oil Depot, Ayutthaya Oil Depot, and Chumphon Oil Depot. Each depot has berths to accommodate sea freights, which make transportation and distribution efficient as well as help clients save costs and time.

► Property Management Business

IRPC manages vast expanses of high-potential land in Rayong and other provinces, totaling 9,862 rai (excluding joint venture areas between IRPC Public Company Limited and WHA Industrial Development Public Company Limited (WHAID) in the WHA Industrial Estate Rayong (WHAIER), Ban Khai District, Rayong Province, totaling 2,152 rai). The company has developed these plots of land into industrial estates and industrial land with potential for future development and expansion of manufacturing industries in connection with the government's Eastern Economic Corridor (EEC) development project, along with projects under other investment promotion policies. IRPC's property management business consists of two units:

Industrial Estate Project: IRPC Industrial Zone, Mueang Rayong District, Rayong Province

The IRPC Industrial Zone offers a complete range of infrastructure and utility systems. The Industrial Zone serves as a hub of industrial ecosystems and supply chain connecting petroleum refinery and its upstream petroleum materials or products to the integrated petrochemical complexes and its downstream and direct downstream industries. This encapsulates the very essence of new petroleum-petrochemical business model, and paves the way for further expansion to accommodate promoted industries under the Eastern Economic Corridor (EEC), such as bio product industry, integrated health, life & science industry, and advanced material industry.

Other High Potential Landbank

IRPC owns a huge landbank with high potential in Chana District, Songkhla Province, with an area of approximately 2,300 rai, that can be developed into an industrial support base and commercial development project alongside a deep sea port project and a renewable energy power project. The company also owns other sizeable plots in other areas in Rayong Province. The company has recently signed a Memorandum of Understanding (MOU) with the Bangpakok-Piyavate Hospital Group to study the feasibility of developing a hospital & wellness center in alignment with the area development plan and to accommodate the demographic shift toward an aging society. The aim is to improve the quality of life and promote health of people in Rayong and neighboring provinces.

► Production Capacity and Volume

(Unit: KTA)

Product ⁽¹⁾	Production Capacity			Volume ⁽²⁾			Utilization Rate		
	2021	2022	2023	2021	2022 ⁽⁴⁾	2023	2021	2022	2023
Petroleum									
Oil Refinery (KBD)	215	215	215	192	175	192	89%	81%	89%
Lube Base Plant	1,282	1,282	1,282	1,151	988	1,111	90%	77%	87%
Lube Base Oil	320	320	320	333	281	323	104%	88%	101%
Asphalt	600	600	600	655	551	621	109%	92%	103%
Petrochemicals									
Polyolefins	915	915	915	863	735	693	94%	80%	76%
- HDPE	140	140	140	119	98	92	85%	70%	66%
- PP	775	775	775	729	624	590	94%	81%	76%
Polystyrenics	433	433	433	408	321	276	94%	74 %	64%
- ABS	119	119	119	89	68	51	75%	58%	43%
- SAN	105	105	105	102	68	51	97%	65%	49%
- PS	125	125	125	148	126	130	118%	101%	104%
- EPS	48	48	48	42	35	24	88%	73%	49%
Olefins ⁽³⁾	696	696	696	664	647	486	95%	93%	70%
- Ethylene	433	433	433	347	345	287	80%	80%	66%
- Propylene	732	732	732	701	595	562	96%	81%	77%
- Butadiene	56	56	56	52	52	36	93%	92%	65%
Aromatics	501	501	501	514	460	369	103%	92%	74%
- Benzene	114	114	114	113	79	87	99%	69%	76%
- Toluene	132	132	132	141	123	104	107%	93%	79%
- Mixed Xylene	121	121	121	146	121	90	120%	100%	75%
Styrenics	260	260	260	263	244	239	101%	94%	92%

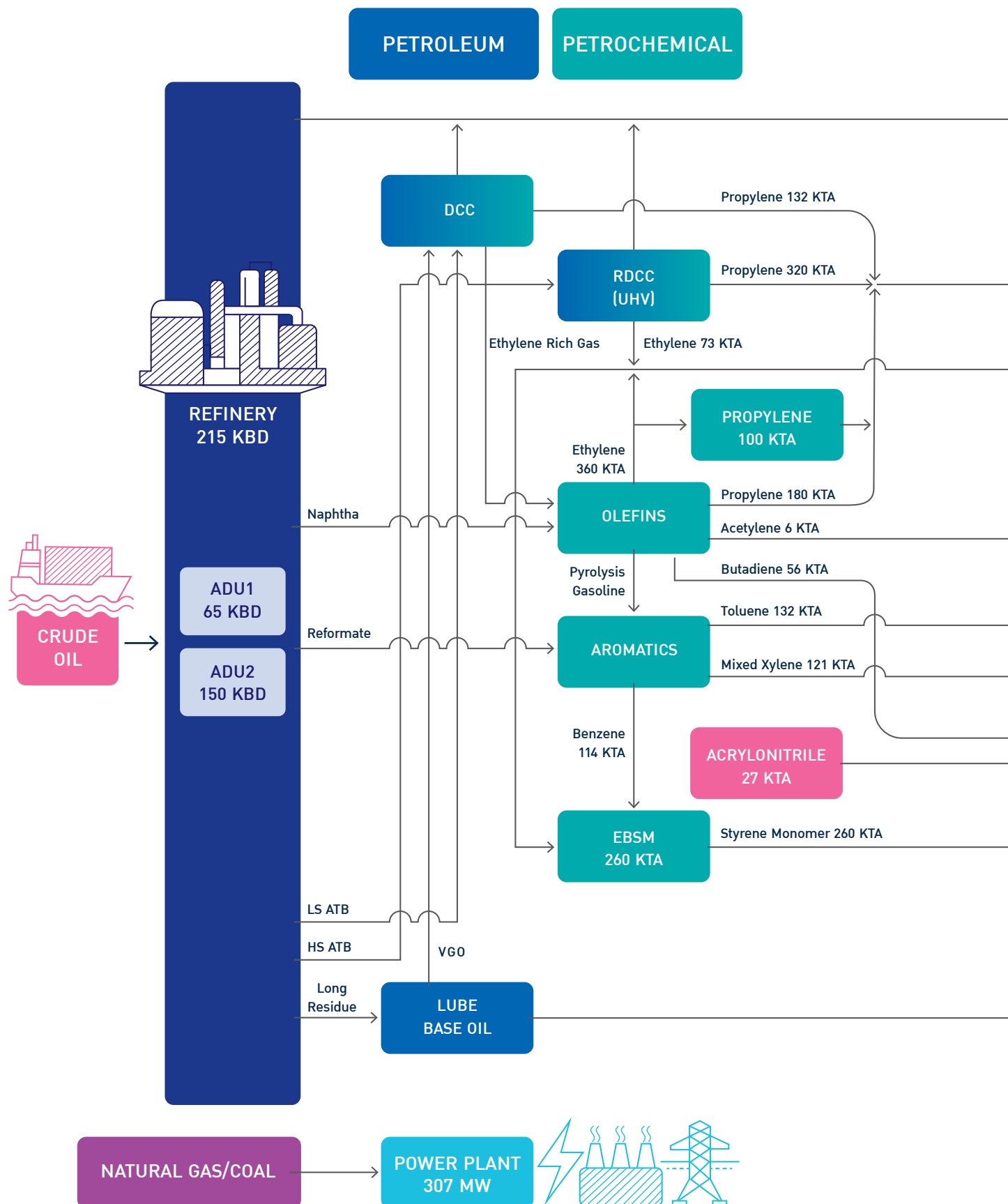
Notes: ⁽¹⁾ Total production capacity and volume of products consist of main products and other products.

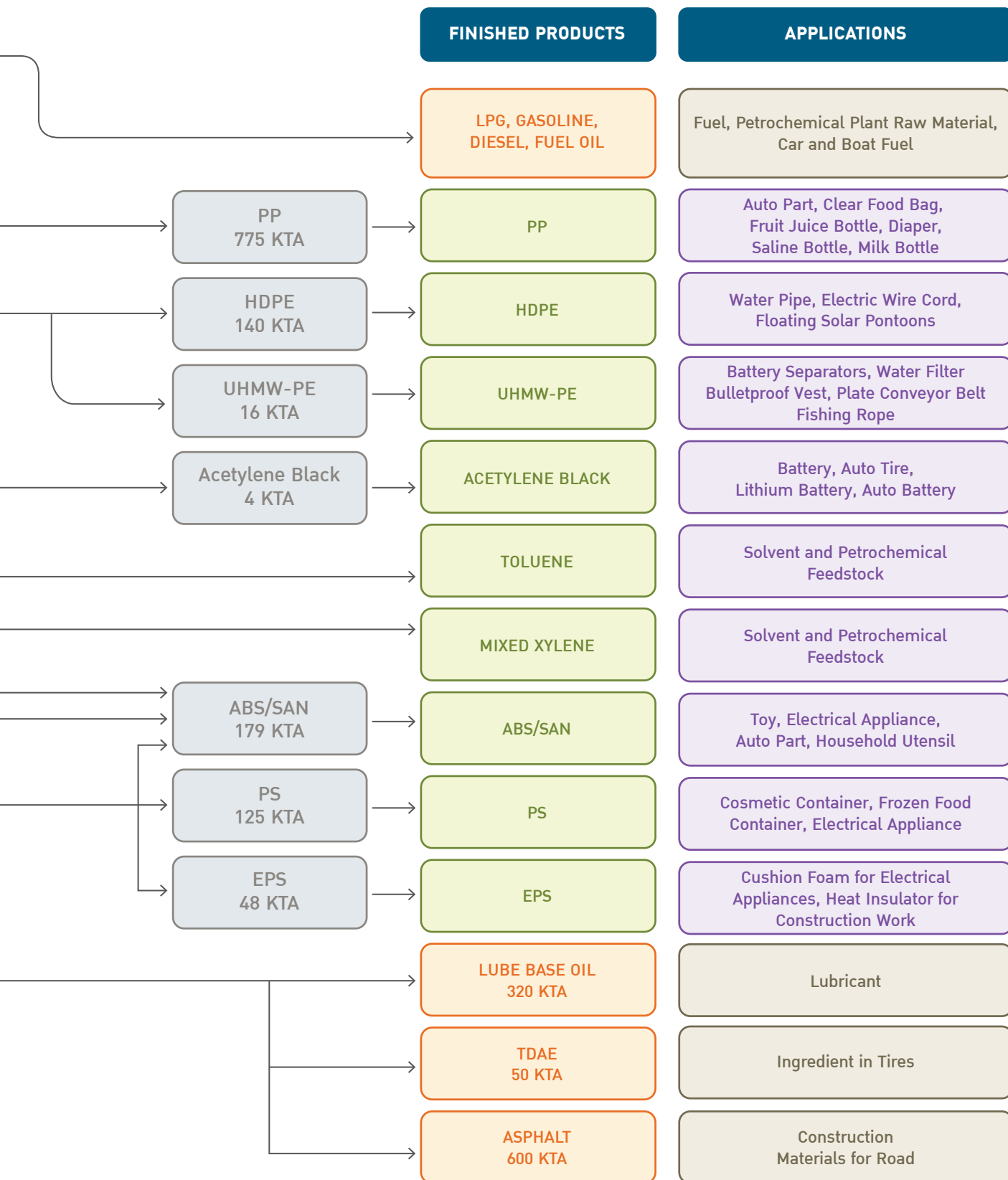
⁽²⁾ Volume includes products used as feedstock in the plants.

⁽³⁾ Olefins production capacity at 696 KTA does not include olefins from DDC and RDCC plants.

⁽⁴⁾ In 2022, approximately 37 days of turnaround--scheduled large-scale maintenance activity.

Integrated Petroleum and Petrochemical Complex Flow Chart





Products

IRPC and its subsidiaries produce and distribute petroleum and petrochemical products, with details as follows:

► Petroleum Products

Fuels

- **Gasoline:** is fuel for gasoline engines. Gasoline is classified by its octane rating, which indicates its resistance to “knocking” during combustion under state regulations. IRPC’s main grades of gasoline consist of lead-free Gasoline 95, Gasohol 91, Gasohol 95, and Gasoline Base Types 1 and 2 used for the production of gasohol.
- **Diesel:** is fuel for high-speed diesel engines used in the industrial sector and vehicles, such as cars, trucks, passenger boats, and tractors. IRPC offers blends of 6-20% biodiesel as per government policy to promote the use of alternative energy and to support and promote use of palm oil. In 2024, the government has set a policy to reduce to 2 types of diesel fuel – regular diesel to be mixed with 7% of B100 biodiesel at 7 percent and B20 diesel an alternative fuel starting from May 1, 2024.
- **Fuel Oil:** is a fraction of crude oil with a high boiling point. Fuel oil is widely used in the industrial sector, transportation, and power generation.
- **Low Sulfur Fuel Oil (LSFO):** is used primarily by cargo ships in compliance with the International Maritime Organization’s (IMO) requirements, which determine that the sulfur content in Bunker Fuel must be reduced from 3.5 percent to 0.5 percent.
- **Liquefied Petroleum Gas (LPG) or Cooking Gas:** is a mixture of hydrocarbon gases, mainly propane and butane. LPG is commonly found in household kitchens and factories in industrial applications. LPG can also be used as a fuel for gasoline engines.

Lube Base Oils

- **Lube Base Oil:** refers to heavy distillates used for producing different grades of lubricants. IRPC produces grades of base oil for various purposes and applications as follows:

150 SN is the feedstock for the production of lubricants for manufacturing industries, such as automotive industry, and transportation industry, etc.

500 SN is the feedstock for the manufacture of lubricants used in most types of vehicles.

150 BS is used in industries and engines involving high friction, such as those in trucks, locomotives, and seagoing vessels, etc.

In addition, IRPC has researched and developed other innovative base oils, namely, Treated Distillate Aromatic Extract (TDAE) and Residue Aromatic Extract (RAE). These are used as feedstocks for the manufacture of automotive tires and contain reduced Polycyclic Aromatic Hydrocarbons (PAHs), which are carcinogenic, thus contributing to consumer safety.

- **Asphalt:** is a compound of hydrocarbons and other organic substances collectively known as bitumen. Thick and viscous, asphalt is the heaviest part from the crude oil distillation process. It is used for road construction and sealant.

Other Petroleum Products

- **Naphtha:** refers to light distillates obtained from the oil refining process. It is a major petrochemical feedstock.

▶ Petrochemical Products

Olefins

IRPC's olefin products, consisting of ethylene, propylene, and butadiene, are feedstocks for the production of various plastic pellets, mainly polyethylene (PE) and polypropylene (PP).

In addition, the company's olefin plant yields Acetylene Black as a by-product. This powder-like pure black substance has high electrical conductivity and is thus commonly used in the manufacture of standard batteries and even lithium-ion batteries for electronics and electric vehicles. It is also an electrically conductive additive for polymers and rubber products.

Aromatics

IRPC's aromatic products consist of Benzene, Toluene, and Xylene. They are used as feedstocks for manufacturing plants of IRPC's subsidiaries and some are sold to other related industries.

Polymer

IRPC produces and markets polymer or plastic pellets, which are downstream petrochemical products under the "POLIMAXX" trademark. These are the feedstocks for the manufacture of a wide range of plastic products through extrusion process, such as packaging, houseware, electrical appliances, auto and motorcycle parts, medical equipment and personal hygiene products, etc.

- **High Density Polyethylene (HDPE)**

IRPC's HDPE resin pellets are high-density polyethylene products with In-line Compounding suitable for pipe extrusion, especially water supply pipes, electrical conduits, and drainage pipes, which require exceptional weather resistance.

- **Polypropylene (PP)**

PP is widely used in industries, from packaging, electrical appliances, automotive parts to medical equipment and apparatuses. IRPC produces PP Homopolymer, PP Impact Copolymer, and extra transparent PP Random Copolymer. The company also produces PP Composite which allows additives and color customization according to the customer requirements.

- **Acrylonitrile-Butadiene-Styrene (ABS)**

IRPC produces several grades of ABS, each with its unique properties, such as high impact and super high impact resistance, high gloss, and high heat resistance, etc. Compatible with Injection Molding and Sheet Extrusion processes, ABS is commonly made into products that require toughness, durability, heat resistance, high tensile strength, chemical resistance, solvent resistance, coating adhesion, surface quality, and luster, such as parts for electrical appliances, interior and exterior auto parts, houseware, sanitaryware, and children's toys, etc.

- **Acrylonitrile Styrene (SAN)**

SAN or AS is a transparent, hard, strong, and tough, and has higher thermal and chemical resistance than PS. It is commonly used to manufacture lenses for headlights and taillights, some parts of turn-signal lenses, household items, such as sanitaryware, lighters and containers as well as electrical appliances, such as fan blades and blenders. In addition to the properties described, SAN also produces glossy surfaces, has high rigidity, thermal and chemical resistance and is particularly resistant to shear force.

- **Polystyrene (PS)**

The company's PS can be divided into 2 types. General Purpose Polystyrene (GPPS) that offers extra transparency and hardness. It is easily molded but has low impact strength and is thus commonly used to make products that require transparency and structural integrity, such as refrigerator shelves and other housewares, etc. And High Impact Polystyrene (HIPS) which can withstand greater impact than GPPS thanks to the addition of Butadiene Rubber. Both types of PS are compatible with Injection Molding and Sheet Extrusion processes.

- **Expandable Polystyrene (EPS)**

IRPC mainly uses Styrene Monomer as feedstock for its EPS, with Pentane gas as the blowing agent. The company uses no ozone-depleting CFCs. EPS has the following applications:

- **Packaging**, such as shock-absorbing material in electrical appliance packaging, etc.
- **Block**, such as insulation blocks in the fishing industry's cold storage and modern construction to save energy consumption in cooling, soundproof against external noise, reduce the structure weight as well as lower construction cost, etc.

Specialty Products

IRPC stresses the importance of continuous research and development through Self-Development to cater to customers' diverse requirements in the rapidly changing economic environment. The company aims to meet customers' every need and expectation through eco-friendly approach.

- **Ultra-High Molecular Weight Polyethylene (UHMW-PE)**

is an opaque white powder with as much as 10 times the molecular density than other PE varieties. It can be subject to a range of treatments, such as Compression, RAM Extrusion, Gel Spinning, etc. Thanks to superior properties to those of iron joints and gears, UHMW-PE is suitable for a range of applications that require toughness, strength, and resistance to abrasion and chemical erosion.

- **Polypropylene Non-woven**

Polypropylene (PP) plastic pellets are developed for molding through a fiber manufacturing process as Non-woven or Spunbond fabric. Due to the properties of PP with lower density than other plastic types, and thus allowing the use of less feedstock and is lightweight. It also saves energy in a manufacturing process because of its low melting point. Therefore, it is popular for use to manufacture daily-life or single-use products such as disposable diapers, face masks, surgical gowns, veils, wet wipes, hospital bedspreads, and industrial shoe covers.

- **Bio Composite Resin** A bio composite resin that contains surplus natural materials for optimal utilization with a view to conserving the environment, such as:

- **Pararene** is a polystyrene pellet consisting of 20 percent natural materials, mainly cassava, corn, sugarcane, etc. This product has passed FDA testing and can be recycled like normal polystyrene plastic, and has been registered as a petty patent with the Department of Intellectual Property.
- **Polypropylene (PP) plastic pellets** mixed with 10-30 percent of "rice husk," which yields a natural feel and appearance to product made therewith, which can be molded into various shapes according to customer requirements. It can also be reused or recycled.

- **Chlorine Resistance Pipe:** Plastic pellets used for the production of high-pressure water supply pipes are resistant to chlorine-associated corrosion. This prolongs the service life of water supply pipes, reduces maintenance cost and ensures that drinking water is free from contaminants from corrosion.

- **Polypropylene Random Co-polymer Medical Grade:**

Transparent Polypropylene (PP) pellets developed specifically for medical equipment and related applications. Certified for international standards, such as FDA US21 CFR 177.1520 of the United States, EU No. 10/2011, and European Pharmacopeia 3.1.6 as well as USP Class VI of the European Union.

- **Pim-L and Pim-AL:** Special-grade Acetylene Black products developed jointly by IRPC and the NSTDA specifically for use as a Carbon Conductive Additive in lithium-ion battery applications.

- **Post-consumer Recycled Compound:** is made with used plastics that have been modified and thus have properties comparable to virgin plastic pellets. Available in PP and PS, this type of compound can help solve plastic waste problems and reduce environmental impact.

Domestic Polymer Producers and Capacities in 2023

Product	Company	Capacity (Unit: Thousand Tons)	%
HDPE	IRPC Public Company Limited	120	6
	Thai Polyethylene Co., Ltd.	1,000	52
	PTT Global Chemical Public Company Limited	800	42
	Total	1,920	100
PP	IRPC Public Company Limited	775	30
	HMC Polymers Co., Ltd.	1,060	42
	Thai Polypropylene Co., Ltd.	720	28
	Total	2,555	100
ABS	IRPC Public Company Limited	180	66
	Ineos ABS (Thailand) Co., Ltd.	95	34
	Total	275	100
EPS	IRPC Public Company Limited	48	100
	Total	48	100
PS	IRPC Public Company Limited	120	33
	Siam Polystyrene Co., Ltd.	150	42
	GC Styrenics Co., Ltd.	90	25
	Total	360	100

► Feedstock Procurement

The main feedstock for IRPC's production is crude oil. The company procures most of the crude oil from the Middle East through PTT. In addition, the company also purchases crude from domestic sources, which offer lower prices and transportation costs. Crude oil from abroad is transported by large tankers to the deep sea port located in the same general area as IRPC's refinery and production complex, and fed into the company's production process, making feedstock management efficient.

In 2023, IRPC's purchase of crude oil accounted for 81 percent of its total raw materials. Sources of its crude oil procurement were as follows: Middle East (Saudi Arabia and UAE, etc.) 70%, the Far East 6%, domestic sources 3%, and from other regions, such as the United States, 21%.

Feedstock Purchased in 2023

Feedstock	Volume		Value		% of Value ⁽¹⁾	
	Metric Ton	%	Million Baht	%	Domestic	Overseas
Crude oil	9,245,678	81.01	211,474	78.20	3.02	96.98
Diesel	534,336	4.68	17,398	6.43	100.00	0.00
Natural gas	476,090	4.17	9,555	3.53	100.00	0.00
Jet fuel	444,726	3.90	13,423	4.96	100.00	0.00
Benzene	109,127	0.96	3,222	1.19	93.96	6.04
Biodiesel B100	94,510	0.83	3,311	1.22	100.00	0.00
Ethanol	45,234	0.40	1,699	0.63	100.00	0.00
Propylene	34,637	0.30	1,156	0.43	17.08	82.92
Light naphtha	32,958	0.29	755	0.28	63.64	36.36
Acrylonitrile	16,992	0.15	736	0.27	100.00	0.00
Others	378,765	3.31	7,696	2.86	78.99	21.01
Total	11,413,053	100.00	270,425	100.00	23.04	76.96

Note: ⁽¹⁾ Share of value of crude oil is by sources while other feedstocks are by supplier countries.

► Privileges under Investment Promotion Certificates

IRPC has been granted promotional privileges from the Board of Investment under the Investment Promotion Act 1977 for the following activities: Production of Compounded Plastic, Combined Heat and Power ("CHP") Project, the Propylene ("PRP") Project, EBSM Upgrading for ABS Specialties ("EBSM") Project, Polypropylene Resin ("PPE") Project, Polypropylene Compound ("PPC") Project, High Pressure HDPE Compound Project, and project to improve production efficiency for energy efficiency of the refinery ("UHV"), the Floating Solar Project, and the PP Melt blown Project. Promotional privileges according to BOI promotion certificate under the conditions prescribed by the Board of Investment can be summarized as follows:

- Exemption from import duties and taxes for raw materials and essential materials, including machinery approved by the Board of Investment.
- Exemption from corporate income tax on net profits derived from the promoted business operation for a period of 5-8 years, from the date of earning income.
- A 50% corporate income tax reduction for net profits derived from the promoted business operation for a period of 5 years from the date of expiration of the benefits under (b), and
- Double deduction from taxable income of the costs of transportation, electricity, and water supply for 10 years from the date of earning income from the promoted business operations.

In 2023, IRPC recorded revenue from sales (according to the separate financial statements) from business operations under investment promotion privileges, totaling Baht 13,106 million, a decrease of 33 percent from the previous year. Of this, domestic sales accounted for Baht 9,554 million and overseas sales Baht 3,552 million.



Market Overview and Industry Outlook

► Crude Oil Market and Situations in 2023

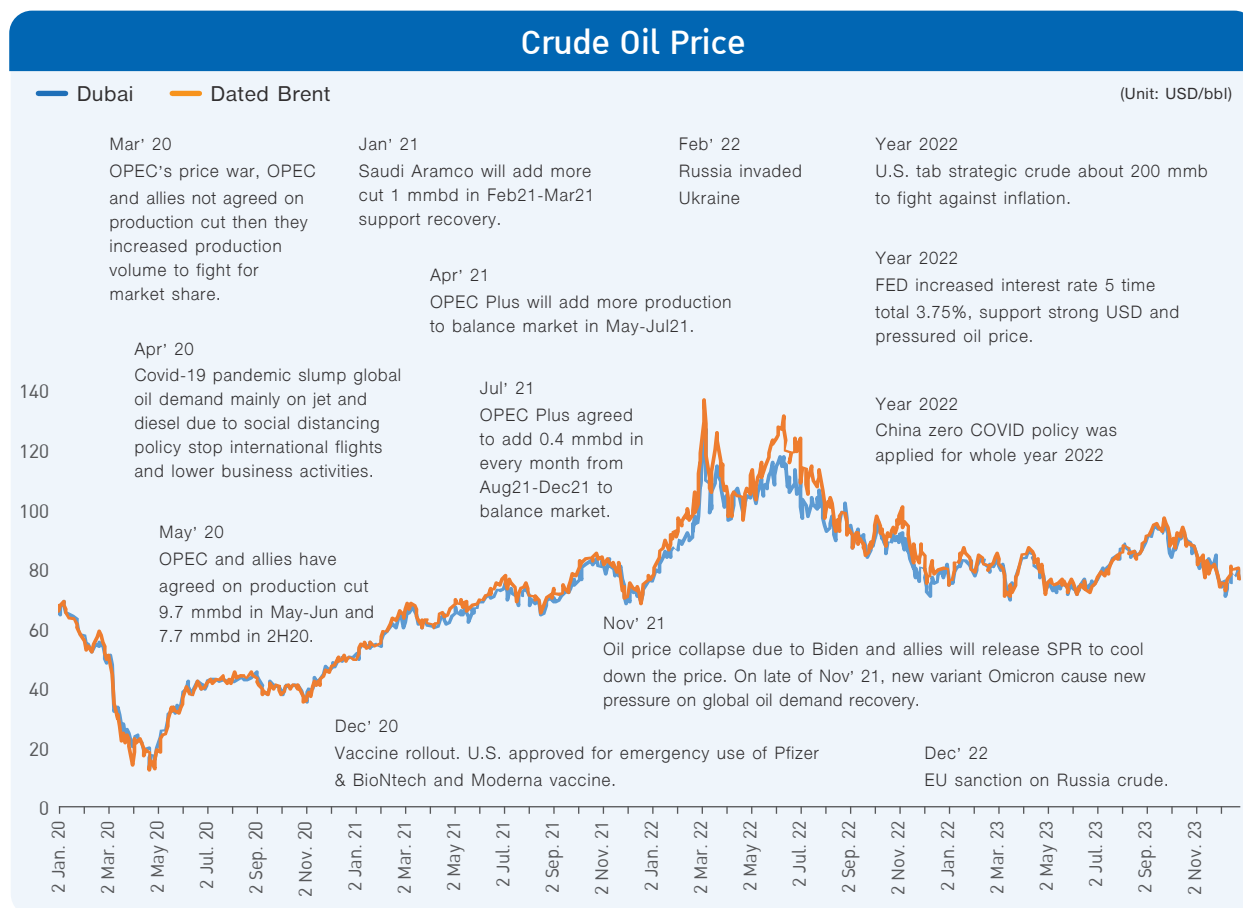
In 2023, the average global price of Dubai crude stood at USD 82.1 per barrel, a decrease of USD 14.24 compared to 2022. The market initially anticipated a significant increase in oil demand with China reopening its borders after COVID-19 isolation, but this expectation did not materialize. China's prolonged real estate crisis continued to exert pressure on the broader economy. Concerns lingered over the collapse of SVB, First Republic, and Signature banks, raising fears of a potential financial crisis. Meanwhile, the Federal Reserve raised and maintained high-interest rates, reaching 5.25-5.50% by the end of 2023, aimed at controlling inflation. This policy put pressure on the economy and commodity prices. In an effort to stabilize oil prices, OPEC+ implemented production cuts, with Saudi Arabia voluntarily reducing output by 1 million barrels per day starting July 2023. The outbreak of the Israel-Hamas war on October 7, 2023, had a brief yet impactful effect on the market. Although the incident did not spread, it resulted in the fluctuation of crude oil prices in Q4 of 2023.

Crude Oil Price Forecast for 2024

The Dubai crude oil price is expected to move within the USD 75-85 per barrel range, projecting a modest increase in global oil demand of approximately 1.5 million barrels per day compared to 2023. China's economic recovery remains hampered by the ongoing property crunch, contributing to the overall moderation in oil demand. The Gross Refining Margin (GRM) is expected to decline in comparison to 2023 due to new refineries coming online at end of 2023. These include Kuwait's Al-Zour with a capacity of 570,000 barrels per day, Oman's Duqm at 230,000 barrels per day, and China's Hebei at 160,000 barrels per day. Simultaneously, the supply from non-OPEC+ producers is projected to increase by over 6 million barrels per day in 2024, resulting in a surplus in the global oil market. This surplus complicates the OPEC+ oil output cut strategy.

A critical factor to monitor for potential impact on crude oil prices is the Fed's forthcoming decisions on interest rates. Easing of the benchmark rate is expected to stimulate economic expansion, consequently increasing oil demand to some extent. However, the US oil output currently at 13.1 million barrels per day will continue to put pressure on oil prices. Additionally, conflicts in the Middle East continue to pose a significant supply risk factor.

Factors Affecting the Price of Crude Oil in 2023



Source: Platts & Reuters

► 2023 Petroleum Market

An Overview of Fuel Consumption in 2023 (January-December)

The overall fuel consumption in 2023 averaged out at 152.30 million liters per day, a 0.4% increase compared to the same period of 2022. Gasoline consumption rose by 3.4%, Jet A1 shot up 50.9%, LPG grew 0.6%. Consumption of fuel oil, diesel and NGV decreased by 15.8%, 5.7% and 2.5%, respectively.

The average gasoline consumption in January-December 2023 stood at 31.67 million liters per day, an increase of 3.4% from the same period of the previous year. Gasohol 95 consumption rose to 17.97 million liters per day while Gasohol E20 increased to 5.88 million liters per day. Meanwhile, daily consumption of Gasohol 91, Gasohol E85 and regular gasoline decreased to 6.89 million liters,

0.16 million liters and 0.46 million liters, respectively. In 2023, the government decided to lower the prices of all types of gasoline for a period of 3 months, effective from November 7, 2023 to January 31, 2024, to help people reduce people's living expenses. Price of Gasohol 91 was down by 2.50 baht per liter while regular gasoline and Gasohol 95 by 1 baht per liter and Gasohol E20 and Gasohol E85 dropped by 80 satang per liter. Such fuel subsidies was made possible through a temporary reduction in excise tax on gasoline and withdrawal from the Oil Fuel Fund.

The diesel consumption in January-December 2023 averaged 68.91 million liters per day, a decline of 5.7% from the same period of the previous year, with daily consumption of ordinary high-speed diesel, B20 high speed diesel and base diesel fell to 0.77 million liters, 0.15 million liters and 3.58 million liters, respectively. Meanwhile, B7 high-speed diesel consumption increased

from the previous year by 0.8%, averaging at 64.41 million liters per day. However, diesel consumption has increased slightly in the past few months following the government's decision on diesel subsidy by slashing excise tax by 2.50 baht per liter according to the type of diesel while cash drawn from the Oil Fuel Fund cover the rest of the subsidy to cap diesel prices at 30 baht per liter until December 31, 2023. The Cabinet has since extended the diesel subsidy to keep diesel price at not more than 30 baht from January 1 to March 31, 2024 to stabilize people's cost of living.

The consumption of Jet A1 fuel from January-December 2023 averaged at 13.50 million liters per day, an increase of 50.9% from the same period of the previous year. This is due to the recovery in tourism, spurred by the government's targeted visa-free policy. Tourists from China and Kazakhstan have been granted visa-free privilege for 5 months (September 2023-February 2024) and those from India and Taiwan are eligible to the same privilege for 6 months (November 2023-May 2024). The number of inbound air passengers were expected to grow considerably as a result.

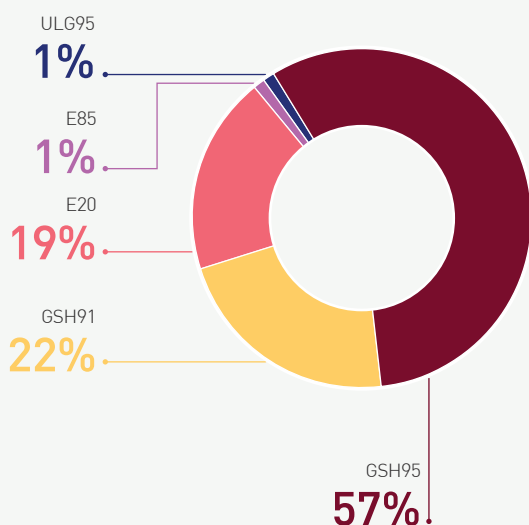
LPG consumption in January-December 2023 averaged at 17.60 million kilograms per day, an increase of 0.6% from the same period of the previous year. Of this, the transportation

sector consumed 3.6% more LPG at 2.27 million kilograms, petrochemical consumed 0.9% more at 7.60 million kilograms per day. Meanwhile, the general household consumed 0.05% less, averaging at 5.74 million kilograms per day and the industrial sector's LPG consumption dropped by 1.6% to 2.00 million kilograms per day.

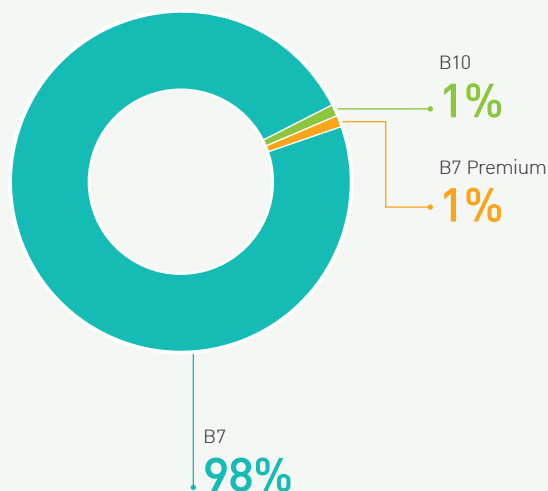
Fuel imports from January-December 2023 averaged at 1,033,556 barrels per day, an increase of 4.3% from the same period of the previous year, representing a total import value of 96,107 million baht per month. Of this, the share of daily crude oil imports averaged at 962,192 barrels per day, an increase of 5.4%, translating into the average monthly value at 90,754 million baht. Meanwhile, the importation of refined petroleum products (regular gasoline, base diesel, fuel oil, jet fuel and LPG) stood at 71,364 barrels per day, down 8.5 percent, representing the average monthly value of 5,354 million baht.

The exportation of refined petroleum products from January-December 2023, comprising gasoline, diesel, fuel oil, jet fuel, kerosene and LPG, registered a combined export volume of 183,304 barrels per day, an increase of 15.0%, representing a total export value of 19,199 million baht per month.

Gasoline consumption by fuel type

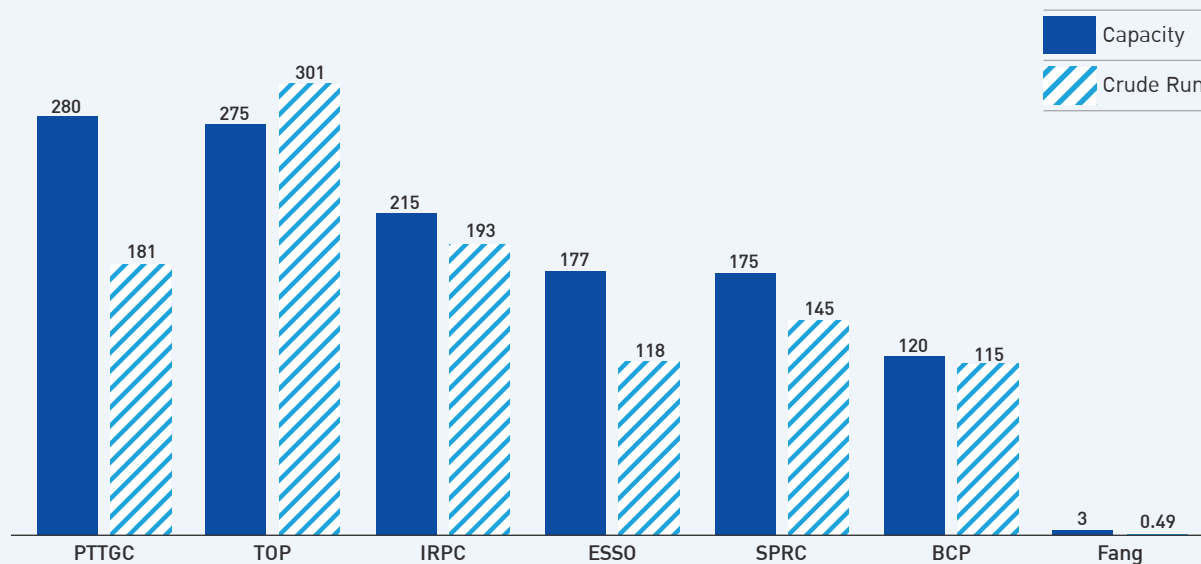


High-speed diesel consumption by fuel type



Source: Department of Energy Business - Jan.-Dec. 2023

Thailand's oil refining capacity by oil refining company in 2023 (Jan.-Dec.) Total production capacity: 1,244.5 thousand barrels per day



Source: Energy Policy and Planning Office

Major operators in Thailand's oil industry include PTT, Bangchak, Esso, Thailoil, Shell and others, with domestic market share as follows:

Operator	Domestic market share
PTT	38.1%
Bangchak	12.5%
Esso	10.2%
Thailoil	6.7%
Shell	6.5%
IRPC	4.3%
Other operators	21.7%

Source: Department of Energy Business (January-December 2023)
IRPC's domestic market share in which only sales of products under self-distribution were calculated - excluding sales to Section 7 traders.

2024 Petroleum Refining Industry Outlook

PTT Group PRISM experts, together with the Petroleum Refining Industry Club of the Federation of Thai Industries, forecast that the average Dubai crude price in 2024 will hover in the range of USD 75-85 per barrel. A close watch must be kept on the OPEC Plus' policy on oil production cuts to bolster prices and China's economic stimulus measures. The experts also advised paying attention to Western governments' tight monetary control to blunt the impact of inflation as well as how energy companies explore new opportunities and how well they adapt during the energy transition.

As for the oil demand forecast for 2024, there is an upward trend in demand growth due to the rise in purchasing power in the United States, an economic rebound in Europe and a surge in oil consumption of China's aviation industry following the post-COVID-19 reopening. At the same time, oil demand is expected to grow space among developing countries that rely on imported fossil energy. However, the switch to clean energy has accelerated in countries that are technologically adept and supported by conducive regulatory policies. This will dampen the Supply growth to a certain extent. The oil supply in 2024 is projected to grow by approximately 1.3 million barrels per day from the current level.

Source: Online Seminar 2023 The Annual Petroleum Outlook Forum: Change for Chance:
Adapt, change, move toward the new era of future energy sources

Petroleum Business

Distribution Channels

IRPC focuses on producing fuels that meet the demand of its customers, in compliance with the standards of the Ministry of Energy. It also emphasizes distribution through the most profitable channels. The prices of IRPC's fuels correspond to the market situation. The company works closely with its subsidiaries to devise the most beneficial marketing and sales strategies.

IRPC's Customers and Distribution Channels

- **Direct sale to industrial operators**, such as land and marine transport companies, public transport companies, construction companies, and others, including IRPC subsidiaries.
- **Wholesales/Jobber**, large and small, for resale to other direct-sale operators and retailers.
- **Section 7 Traders**, large and medium traders with their own oil depots who distribute the fuels through their own networks and distribution channels to the end users.
- **Exports**, categorized into maritime exports to key markets in Asia, such as Singapore, Cambodia, and Vietnam, as well as overland exports to countries in Indochina, like southern China, Cambodia, Laos, and Myanmar. In 2023, IRPC's export sales accounted for 30 percent of its total sales.
- **Bunker**, which refers to sales of Automotive Diesel Oil (ADO) to ships docking at IRPC's terminals.
- **Fishery**, which refers to sales of green diesel to the association of territorial fishing fleet operators.

The following table shows sales of IRPC's fuel products by distribution channels.

Channel	%
1. Wholesales	15
2. Exports	30
3. Section 7 Traders	53
4. Industry	2

Source: Petroleum Business Department, IRPC Public Company Limited

Competition Strategy

IRPC's primary sales strategy is to emphasize the quality of its clean petroleum products manufactured through processes that meet high standards, backed by good services via advanced real-time order processing system, PDA on Mobile, on the IRON platform. In addition, the company strives to increase market share and sales volume while maintaining suitable marketing margins. Services provided by IRPC to its customers are as follows:

- **Oil Depots:** IRPC operates 8 oil depots to cater to customers in all parts of the country, with round-the-clock services (only at Rayong and Phra Pradaeng depots) and has established a new oil depot at Bang Pa-in District, Ayutthaya Province to accommodate demand of the transport sector in the central and northern regions. This helps improve distribution efficiency, thus saving costs and transportation time.
- **Transportation:** IRPC operates fuel tanker trucks throughout the country, along with tanker vessels and berthing terminals for maritime customers.
- **Personnel:** Customers have access to dedicated teams of sales agents, sales coordinators, and sales services department, along with ticketing services for processing of sales orders from customers through SAP software, which allows online data to be updated on real-time basis to ensure accuracy and standardize processes, leading to enhanced efficiency and eliminating redundancies. Executives and operating staff at all levels can use the data obtained for further analysis, decision-making and management. IRPC has also introduced the IRPC Oil on Net via the IRON platform developed to manage the distribution and sales of petroleum products electronically. IRON combines IRPC's sophisticated supply chain management with its total business solution approach to respond to customers' requirements for transaction convenience and augment IRPC's business efficiency. With continuing development, the system will be expanded in phases to cover the company's other sales channels.
- **Quality inspection:** IRPC's technical staff provide solutions and relevant knowledge to customers. They also inspect the quality of products and services at all stations and depots to ensure quality that customers can trust.

► Petrochemical Market and Situation

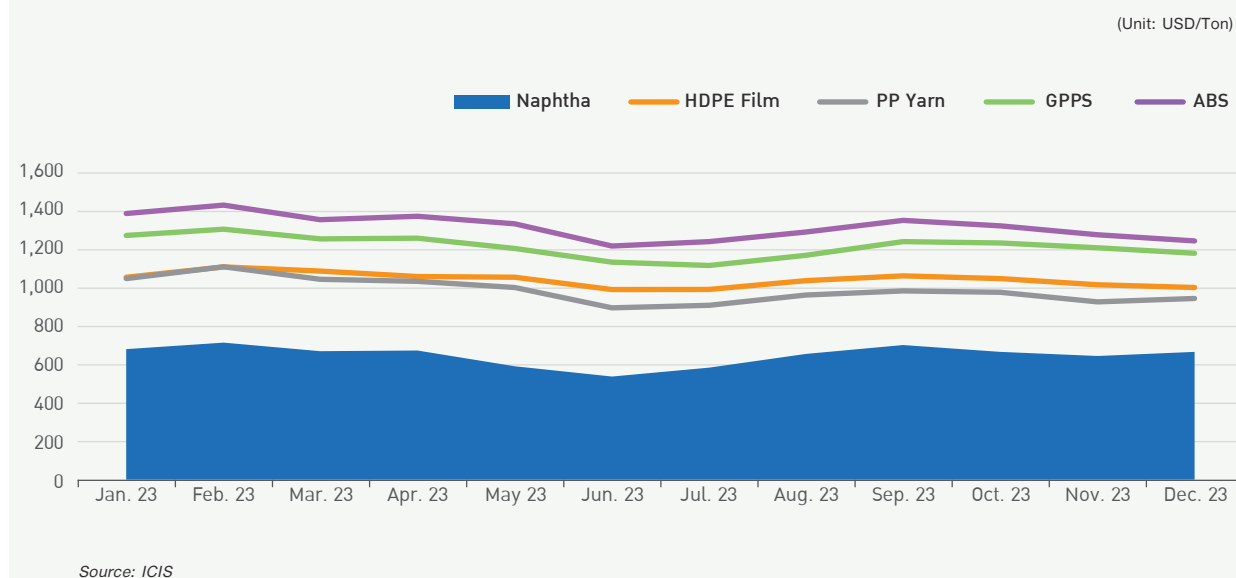
The petrochemical industry in 2023 as a whole saw a slight increase in demand of about one percent, which was attributed to a number of factors. To begin with, the Russia-Ukraine war dragged on, global inflation stabilized at a high level. As a result, central banks around the world continuously increase their policy interest rates, which, in turn, dampened global economic expansion. In particular, the Chinese economy did not fully recover as anticipated by the market even after Beijing changed its approach from zero-COVID policy to adapt and coexist with the virus, the reopening of China for inbound and outbound tourism notwithstanding. The Chinese economy was also weighed down by real estate crisis that threatened to get worse. Economic stimulus packages introduced by the Chinese government failed to achieve intended results. Chinese consumer confidence has not been restored and people were cautious in their spendings. Loss of purchasing power among global consumers led to sluggish global demand for consumer goods, especially durable consumer goods which then had a knock-on effect to the manufacturing and export sectors. Nevertheless, the lifting of travel restrictions in Thailand and elsewhere helped revive the service sector, particularly tourism and related businesses, which registered sustained growth, shoring up demand from certain sectors of the economy, including food packaging and industries relating to personal health, hygiene and medical equipment, etc.

On the supply side, Asian markets were under pressure as new production capacity kept entering the market in 2022-2023, particularly in China, Vietnam, Indonesia, the Middle East, as well as in Thailand. This led to supply glut concerns in the region that put pressure on prices. Many petrochemical producers have chosen to cut production to try to restore balance in the market. At certain periods, due to extremely narrow profit margins, made worse by costs of energy and feedstocks hovering at elevated level, many producers also had to further reduce output.

Prices of petrochemical products and plastic pellets in 2023 were down by approximately 15-20 percent from the previous year. The average price for polypropylene (PP) averaged at USD 987 per metric ton, while high-density polyethylene (HDPE) stood at USD 1,127 per metric ton. Price of standard-grade polystyrene (PS) was USD 1,216 per metric ton, while average price of ABS pellets dropped to USD 1,320 per metric ton, representing the steepest decrease of about 22 percent. Price of naphtha fell by approximately 16 percent, which resulted in the gross margin settling at a low level as in 2022.



The Prices of Petrochemical Products and Polymers



As shown in the above diagram, prices of almost all types of products were in decline throughout the year, particularly in Q2, tracking the fall in prices of crude oil and naphtha. This was brought about also by the weaker than expected recovery in demand in the world market at a time of supply glut as the result of new production capacity being added to the market from early 2023. Prices began to pick up gradually in Q3 from stabilized feedstock cost and a slight increase in demand in the lead up to the seasonal production phase for year-end festivities of 2023. However, the price increase was moderate due to the continued oversupply in the market as producers of finished products were unable to pass on increased costs to the consumers who still felt the pinch of reduced purchasing power.

Such difficult situation posed greater challenges to petrochemical producers. The share of feedstock cost in total production costs remained subdued and below the levels of 2022 as prices of petrochemical products and plastic pellets decreased at a higher rate than the prices of feedstock. Most producers had to keep production output and inventory levels at optimal levels to maintain profit margins.

2024 Petrochemical Industry Outlook

In 2024, the petrochemical and plastic pellet industries are expected to face the same challenges that trace back to 2022. New production capacity will continue be added, especially in the China market, while demand grows at a slower pace. The demand for petrochemical products and plastic pellets is expected to grow by approximately 2-3 percent in 2024 compared to the previous year. That, benefiting from the low base effect. The recovery in global demand will be gradual and become more pronounced in the latter half of the year. Inflation in most countries have started to retreat and central banks are expected to begin adjusting monetary policy by gradually reducing the policy interest rates. Appetite for investment will grow among businesses, enabling consumers to regain their purchasing power.

Demand from downstream industries is set to gradually recover. Industries, such as food and beverage packaging, continue to benefit from the rebounding tourism sector. Electric appliances and electronics have shown signs of a cyclical upswing since late 2023. ASEAN export sector will grow in tandem with recovering global trade. Nevertheless, the petrochemical and plastic pellet industries will still have to deal with risks associated with massive production capacity slated to come online in China. This is expected to alter trade flow in ASEAN and other regions exporting to China. Producers in these regions will have to find additional markets. Moreover, economic uncertainty in China itself plagued by protracted real estate market crisis is a cause for concern. Chinese manufacturing and export sector is likely to be affected by US protectionist trade policy and measures. There are also raging geopolitical conflicts, particularly Russia-Ukraine war and Israel-Hamas war, that represent major risk factors that must be closely monitored. Volatility of energy and feedstock prices will intensify if these wars expand into wider conflicts.

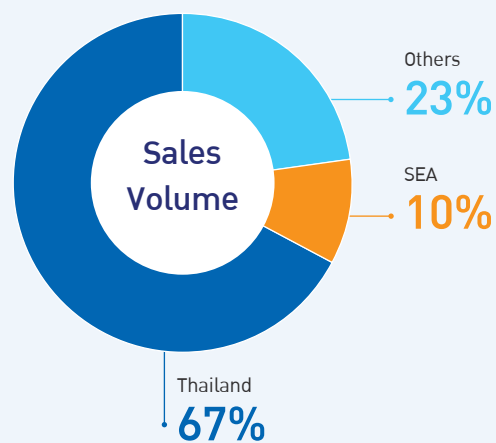
In addition, the industries must also make adjustments to get ready for trade restrictions linked to climate change. Many countries have been compelled to set targets for significant reduction of carbon dioxide and other greenhouse gas emissions applicable to the energy and other industrial sectors. The United States and European Union will begin to apply regulations to impose control on import of products with high carbon footprint, encompassing petrochemical and other products in the manufacturing supply chain. As a result, petrochemical producers are must revamp their operations accordingly.

Petrochemical Business

Distribution Channels

In 2023, IRPC focused mainly on the domestic market, which accounted for 67 percent of total sales. Such sales volume was achieved through 16 authorized distributors under official distributor appointment agreements. These distributors are highly skilled, capable of providing customer services, including direct sale to a select group of reliable customers with high potential, purchase quantities and a good credit history. This enabled the company to respond more quickly to customer requirements. The remaining one-third of sales were for the export markets, with emphasis on Southeast Asia, or ASEAN, which registered a steady growth. In 2023, IRPC exported 10 percent of its total plastic pellet sales to this market.

2023 Petrochemical Sales by Market



Source: Petrochemical Marketing Department, IRPC Public Company Limited

Competition Strategy

Product Strategy

IRPC underscores the importance of product research and development to design plastic pellets that offer solutions to new product requirements, application problems and/or ease of use issues. In addition to a wide range of plastic pellet products, HDPE, PP, PS, EPS, ABS and SAN, the company also operates plants to manufacture color compounds and to inject composites within the same industrial complex under the company's management. Customers are provided with the added convenience and flexibility to ensure their exacting specifications, such as those for the manufacture of electrical appliance or automotive parts, are met. Moreover, the company has developed bio-composite products to meet the requirements of the end-user market that put high value to eco-friendliness.

Price Strategy

Prices of plastic pellets are linked to a range of external factors, from the costs of feedstock, like crude oil, naphtha, and monomers, to market conditions, demand and supply, domestic, regional, and global competition, product properties and government policies, etc.

Therefore, IRPC prices its products based on these factors to ensure that the pricing is competitive, aligned with the market positioning of each product, and suitable for the geographical distribution area at any given time.

Product and Service Quality

IRPC's plastic pellet products are designed and developed to ensure suitability for use in the manufacture of products in accordance with the required characteristics, functions, and specifications, and in compliance with any given standards. Quality checks and quality controls extend across the entire production process, from the acceptance of the feedstocks, during the production process, to product inspection and testing prior to delivery to the customer.

In addition, IRPC has also adopted the "Customer Centric" principle to gain better understanding and take into consideration customer experience in the entire customer journey. Under our management approach as Solution Provider, we walk the customer through sales presentation, customer services, consultation on feedstock selection, production, use case testing, product development, problem-solving and a range of after-sale services to increase efficiency and quality to the finished goods as well as to ensure customer satisfaction and convenience. IRPC has continually developed and improved its internal processes in order to comply with the requirements of various standards that are widely accepted and required by customers, such as Quality Management (ISO 9001), Environmental Management (ISO14001), Occupational Health and Safety Management System (ISO/OHSAS 18001), Quality Management System for the Automotive Industry (ISO/TS 16949). The company has also received certification for the Standard for Corporate Social Responsibility (CSR-DIW) from the Department of Industrial Works for its plants manufacturing Ethylene, Polypropylene, Polyethylene and Polystyrene pellets.

IRPC focuses on developing new markets in industrial segments with high growth potential, such as those relating to Medical & Healthcare, automotive industry, especially electric vehicles, and Electronics & Appliances, etc.

IRPC has also implemented various projects based on the Sustainability concept, starting with reduction of waste output, Re-material, Make Use Return, including using natural materials, such as rice husk, wood powder and natural fibers, as mixtures in production of products in line with the trend toward eco-friendliness.

In 2023, IRPC has built relationships with other brands to promote brand awareness among targeted consumers

as well as to foster credibility. For example, the company collaborated with PTTOR through the retail shop business and FIT AUTO outlets by developing plastic pellets from used packaging materials or those with natural material mixture for the production of furniture or decorative items for retail shops and offices. The company, in collaboration with Boon Rawd Brewery Company Limited, also made use of inventory waste to produce Returnable Equipment.

Communication and Marketing

IRPC has devised a marketing communication plan to promote its plastic pellet products

under the brand “POLIMAXX” for sustainable growth. The aim is to create top-of-mind awareness among each of the market segments of customers and consumers. The marketing communication is conducted through popular offline and online channels, including social media platforms, POLIMAXX FB Fanpage, Instagram and YouTube, to promote products, build customer relationship and positive brand and corporate image. In 2023, IRPC continued to communicate POLIMAXX Branding under the “**Make Greater Things**” concept for better living while adding Ingredient Marks, also known as “PRO-EFFICIENT” to promote awareness among consumers that when they see the symbol on a product, it provides reassurance that such product has unique properties and characteristics that meet the requirements of a variety of specialized applications. The company’s plastic products can be categorized into 3 groups:

LIFE-PRO Polymers that are safe for consumers as they are free from harmful chemicals and therefore can be safely used to produce food containers, medical supplies as well as personal hygiene products.

DURA-PRO Polymers with properties that provide strength and durability, designed for use as raw materials in the manufacture of plastic products for automotive parts, construction materials, and electrical appliances.

ECO-PRO Eco-friendly polymers that contains natural materials as well as those that help promote sustainable use of energy and reduction of energy consumption in the production process.

POLIMAXX



Plant pots from Thai Manee Craft Co., Ltd. made from 100% recycled PIR plastic of PP Block Copolymer type, which is plastic waste from the production of refrigerator parts. This product belongs in the ECO-PRO product group.



Plastic drinking cups from Sitex Industry Corporation Co., Ltd. made from plastic waste of the polypropylene plastic (PP) type from the production process. Recycled and reused for the production of new products under the Closed-Loop production chain management to reduce waste and mitigate environmental impact.

“QUALY” brand of home decoration products locally made products based on Thai designers’ firm belief in the power of design to improve the quality of life while safeguarding our planet. Green ABS and Green ABS + Wood Composite under the ECO-PRO product group of POLIMAXX were chosen for the manufacture of minimalistic, cleverly-designed Ban Nok (Bird House) pencil sharpener products that will brighten your work desk. The products are 100% recyclable and therefore very eco-friendly.



‘Systema Slim TEQ’ toothbrush from Lion (Thailand) Company Limited. The latest innovative toothbrush from Japan. The toothbrush model is designed to have a thinner brush head and neck without compromising strength and durability. Polypropylene (PP) plastic pellets in the DURA-PRO product group of POLIMAXX were chosen to provide solution to meet requirements for High Heat Stability, Fast Cycle Time, High Stiffness and Impact Strength Balance in the production process and in the finished product.



Fridge door egg tray of Beko Thai Company Limited, a company in the Turkey's Arcelik Group, is a major manufacturer of household electrical appliances in the European Union. As an environmentally friendly company, Beko Thai is committed to cut back on greenhouse gas emissions and reduce the use of plastic in the production process. The company decided to use Polypropylene (PP) plastic pellets mixed with "Rice Husk," an agricultural waste, which belongs in POLIMAXX's ECO-PRO product group, for innovation in sustainability.

► Marketing and Competition in Power and Utilities Business

In 2023, the power and utilities business continued to be adversely affected by the Russia-Ukraine war, driving up power and steam production costs significantly. Under the government's policy, power producers are subject to price control on the electricity rates they charge to consumers. Thus, power producers had to bear the cost of electricity generation that was higher than the rate they charge to consumers throughout the year.

Industrial steam production in the first half of the year was impacted by natural gas price increase due to supply crunch linked to the war between Russia and Ukraine. However, natural gas prices began to trend downward slightly in the latter half of the year.

In 2024, IRPC expects more favorable situation for the power and utilities business with natural gas prices continuing their downward trend. That, coupled with the government's more supportive policy toward power producers, represents a positive sign. Meanwhile, consumers have shown keen interest in renewable energy with many of them researching information or seriously considering installing solar rooftop system or shifting toward other alternative energy sources.

► Marketing and Competition in Port and Storage Tank Businesses

As the real sector of the economy is back on track to recovery, major industries and their large factories in this region are expected to raise their outputs. This represents an important factor contributing positively to the port and storage tank businesses in terms of increase in marine traffic linked to inbound and outbound transportation.

► Marketing and Competition in Property Management Business

In 2023, the Cabinet approved a 15% reduction in property tax due. In addition, the government also accelerated large infrastructure projects, specifically the Eastern Economic Corridor (EEC) Phase 2 (2023-2027), which is an integrated project already included in the EEC development plan, with a combined total in investment of about Baht 2.2 trillion. Of this, contracts to develop 4 large infrastructure projects have already been signed: the high-speed rail project connecting 3 airports, the U-Tapao Airport Development Project and the Eastern Aviation City, Laem Chabang Port Project, Phase 3, and Map Ta Phut Port Development Project, Phase 3. These projects enhances attractiveness of investment opportunities in various industries, and therefore are beneficial to the company's industrial zone.

Operating Assets

► Major Fixed Assets

Major fixed assets of IRPC and its subsidiaries consist of an oil refinery, Petrochemical plants, equipment, machinery and land. As of the end of 2023, the net property, plant and equipment was worth Baht 114,362 million, as detailed below:

(Unit: Million Baht)

No.	Property, plant and equipment - cost:	Net value	Obligation
1.	Machinery and piping systems	155,137	None
2.	Buildings and building improvements	41,741	None
3.	Land and land improvements	11,795	None
4.	Tools and factory equipment	3,567	None
5.	Furniture, fixtures and office equipment	1,345	None
6.	Vehicles	677	None
Total		214,262	
Add	Assets under construction and assets pending installation	17,382	
Less	Accumulated depreciation	(116,671)	
	Allowance for impairment	(611)	
Total property, plant and equipment, net:		114,362	

► Investment property

At the end of 2023, IRPC's net investment property, consisting of property and buildings that were not major operating assets, after deducting accumulated depreciation and allowance for impairment, was worth Baht 939 million.

► Intangible assets

At the end of 2023, IRPC's net intangible assets after deducting accumulated amortization of Baht 727 million, consisted of:

- 1) Net computer software fees Baht 616 million with an amortization periods of 5-10 years.
- 2) Net dredging expense of Baht 111 million. This is a sea channel dredging to get the deep sea port ready for cargo ships. Amortization periods were spread over 10-20 years.

Strategic Business Operations

IRPC's DUAL CHALLENGES

IMPACT FROM NEGATIVE ECONOMIC OUTLOOK



1 Economic Hurdles

Sluggish demand and low petrochemical margin result in negative financial performance.



2 Business Growth

Negative macroeconomic outlook decelerates cash generation and investments in pipeline.



3 Credit Rating

Lower EBITDA has negatively affected credit rating, and may result in higher financing cost.

DISRUPTION FROM CLIMATE CHANGE



1 Decarbonization and Net Zero

Environmental regulations require additional efforts to reduce GHG emission and achieve net zero.



2 Circular Economy

The EU's deal promotes circular economy, inducing market requirement for green and recycled products.



3 Energy Transition

Accelerated growth in renewable energy sources reduces demand for fossil fuels.

In the aftermath of the COVID-19 pandemic, the global economy was recovering from its lowest point when uncertainty re-emerged due to a number of factors. Among them, two key factors – negative impacts from the current international economic outlook and the climate crisis – posed major challenges to the company's business operations.

1. Negative impact from the international economic outlook - global inflation has led central banks to respond by raising interest rates to curb inflation. This resulted in widespread economic slowdown due to decreased global demand. Investment in new projects came with a higher cost of finance but a lower project rate of return. This factor would likely affect the company's credit rating.

2. The climate crisis – adverse effects of climate change are becoming increasingly more severe. Countries around the world began enacting stricter environmental policies, setting out to achieve more ambitious goals, such as Net Zero greenhouse gas emissions, developing a circular economy, promoting green and recycled products. A shift away from fossil fuels toward clean energy sources seemed irreversible.

Opportunity and Threat along Megatrends



Disruption Technology

- Robotic & Automation
- Tech for Mobility



Demographic Shift

- Health & Hygiene conscious
- Urbanization
- ExoSkeleton



De-carbonization

- Global climate change
- Net Zero Emissions
- Circular Economy



De-globalization

- Geopolitics tension
- Emerging Countries

KEY FOCUS AREA

Material Utilization



Technological Innovation:

3D printing, AI, AR, VR



Smart Mobility:

EV battery and component



Health and Wellness:

Health supply and devices



Electronics:

SMART devices, Internet of things

Energy Transition



Future of Energy:

Solar, Wind, H2

Sustainability

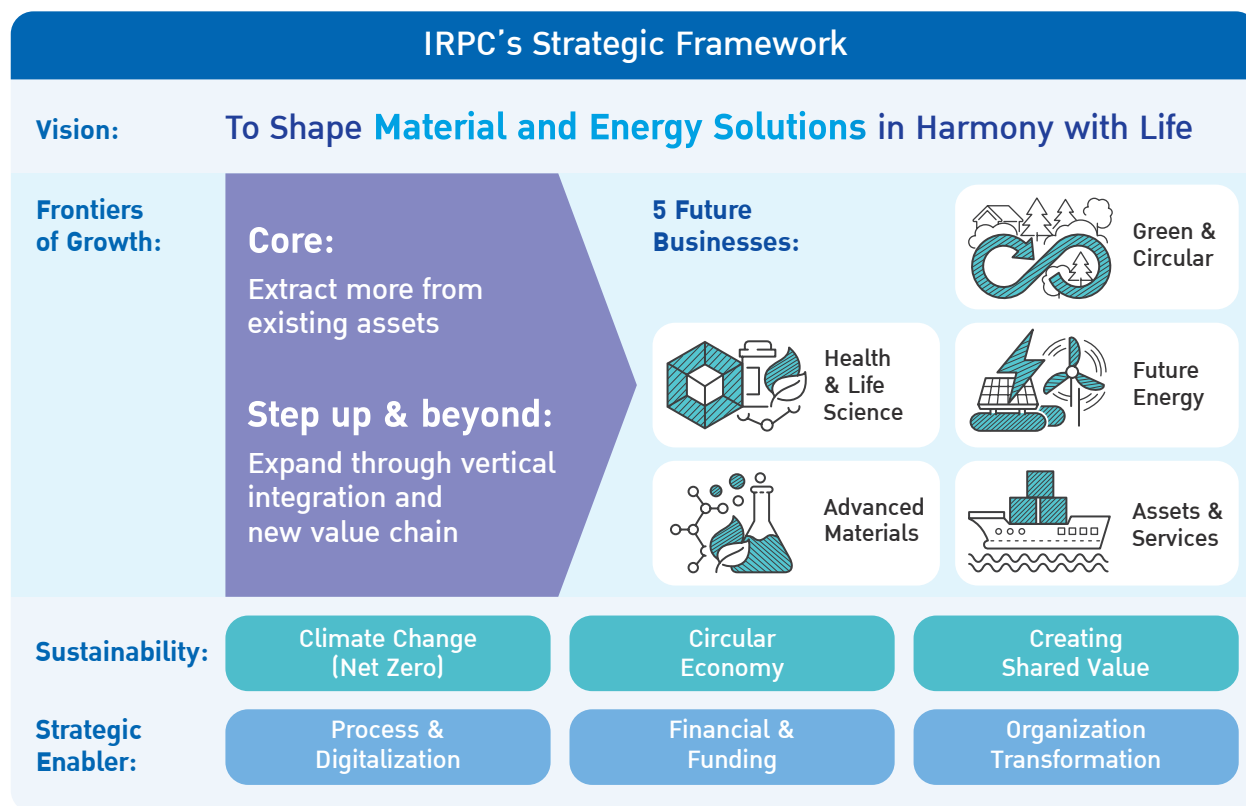


Climate change:

De-Carbonization, Circular

The abovementioned factors directly affect the company's petroleum and petrochemical businesses. Therefore, the company continues exploring new opportunities for the long term by closely monitoring ongoing and emerging Megatrends, which currently have a material business impact on the company, namely

1. **Disruption Technology**, such as the use of digital technology, AI robotic innovation, electric vehicle innovation, etc.
2. **Demographic Change**, including migration, urban population growth, rising middle class income, aging society, etc.
3. **Decarbonization**, including transition toward low carbon society, stricter environmental laws and regulations and circular economy, etc.
4. **De-Globalization**, including conflicts and geopolitical tensions in many countries and regions, expansion of economic communities, and emerging economies, etc.



To live up to the corporate vision and mission, IRPC has devised a strategic framework and business direction with an emphasis on Core Uplift, based on expertise in its existing businesses within the current value chain and while being on the lookout for Step Out & Beyond Businesses. All this with the aim to drive growth under the new vision and mission to transform IRPC into an innovative company that provides Sustainable Material and Energy Solutions.

Our approach to growth is focused on developing innovation and creativity to meet the needs of customers and partners through material and energy innovations as follows:

- **Material Solutions**, such as Advanced Materials, Medical, Health & Life Sciences, and the Circular Economy.
- **Energy Solutions**, such as Future Energy and Energy Storage Systems.

IRPC's investment guidelines for future growth focus on collaboration with partners, customers, and business allies, both domestic and international, through JV, M&A, New S-curve, Start Up, as well as management guided by good governance, taking into account the environment, community, society, and expectations of all stakeholders.

To drive strategies in alignment with IRPC's vision, the following multi-pronged approach must be adopted and implemented:

- 1) **Core Uplift** Focus on increasing the efficiency of the production process to bolster the current core businesses, petroleum and petrochemical, thus improving their competitiveness in the market currently beset by price volatility. This may serve as a revenue engine enabling the company to invest in new businesses. Each business group is expected to take a different approach to achieve its goals as follows:
 - **Maximize benefit from refinery business** Focus on managing the petroleum business with greater flexibility and maintaining competitiveness to maximize profits while the market is on an upswing as long as the overall business remains viable. Step up preparedness along with the operational plan to respond to and cope with current fluctuations in demand and eventual decrease in demand for fossil fuels in the foreseeable future.
 - **Balance petrochemical business** Focus on administrative and cost management of the petrochemical business group which is currently in a downward trend both in terms of prices and demand. Work in collaboration with experts to identify new markets, invent and develop specialty grade petrochemical products to offset the price volatility of commodity grade products.

In the petrochemical group and Beyond Businesses, focus on driving the Existing Stream, namely the petrochemical business, infrastructure, and utilities, toward New Stream, such as Health and Life Sciences and Advanced Materials by stepping into the Ecosystem or extending beyond the company's existing businesses into Downstream businesses.

2) Step Up & Beyond Business Focus on long-term investment extending from the current business chain where the company has expertise as well as identifying opportunities to invest in new businesses through collaboration with partners, customers, and business allies, both domestic and international through JV, M&A, New S-curve and Start Up, targeting 5 business groups that are part of the Megatrends, namely Health and Life Sciences, Advanced Material, Green. & Circular Business, Future Energy and Assets & Services.

3) Sustainability Sustainability operations guidelines consist of 3 goals:

- **Climate Change** IRPC aims to reduce greenhouse gas (GHG) emissions by 20 percent in 2030 from the 2018 baseline year, and achieve carbon-neutral status by 2050 and Net Zero emissions by 2060.
- **Circular Economy** IRPC focuses on creating Eco-Solutions by converting and managing industrial waste material into value-added products.
- **Creating Shared Value** IRPC aims to increase the True Value that will be delivered to stakeholders.

- 4) Enablers** The company has identified key determining factors to drive the strategy to achieve results as follows:
1. Budget planning to be in a good financial position to invest in new businesses.
 2. Using digital technology to manage and increase work process efficiency, including safety.
 3. Implementing modification of the workforce and developing human resource to support growth.



► Key Strategic Projects

IRPC implements three strategic approaches: Core Uplift based on existing internal strength and expertise to expand into the value chain of Step Up & Beyond Business to drive the company's growth guided by the new vision and mission to transform IRPC into an innovative and sustainable company that offers Material and Energy Solutions. Key strategic projects are as follows:

- 1. Strengthen project** by using the Recovery Transformation Service (RTS) investment project management system to improve work processes, focusing on cross functional systems and project tracking tools, including effective personnel management structure leading to an increase in investment project results (ROIC), thereby reducing opportunity loss, improving the efficiency of inventory management and tax management through projects eligible for investment promotion incentives and privileges. The company has consistently set a new target every year to strengthen our main businesses.

2. **Ultra Clean Fuel (UCF) Project** To support the government's new emission standard and to produce Euro 5-compliant diesel as well as to improve IRPC's competitiveness in domestic and international markets that require higher quality diesel. The Board of Directors has approved the Final Investment Decision (FID) in July 2021. The project is currently under construction and expected to be completed by Q1 of 2024.
3. **Project to increase the proportion of high value products** The company has set the target to increase the proportion of Specialty Products in its product portfolio to 60 percent in 2030. In 2023, the company accomplished its goal to raise the share of Specialty Products to 33 percent. The company is also implementing 4 projects to develop Specialty Products, which is at a stage where the production process is being upgraded and expected to be completed by 2024 and 2025. The projects consist of the HDPE Pipe 100RC project for producing underground water transportation pipes, the PPR (Polypropylene Random Copolymer) project for producing plumbing pipes with high durability, the PP spunbond expansion project, and the PP meltblown expansion project.
4. **Project to produce nonwovens** IRPC has established Innopolymed, a joint venture between the company holding a 60% stake and Innobic (Asia) with 40 %, to build a Nonwoven fabrics factory, to gain entry to the Medical Consumables market. The factory became operational in 2022.
5. **IRPC Business Innovation Accelerating Program** This is a project where the company focuses on creating new businesses based on internal research and through collaboration with external players to reach commercial scale. Efforts will be made to build an ecosystem to pave the way for long-term growth. Product groups covered by this project include agricultural plant nutrition products, ZnO, Silver Nano for use as a disinfectant, special grade PPR pipes, Meltblown Fabric and Waste Collector.
6. **Asset development project** This project aims to develop the company's assets that do not currently generate income, such as vacant land or bulk ports, to find revenue-generating opportunities through joint investment with business allies with expertise. At present, negotiations and feasibility studies of projects are already underway.

► Financial Strategies

IRPC aims for the efficiency in financial management, namely reasonable and suitable financial structure, funding and financial costs, that is able to support the company's operations and investment projects. This also includes complete, correct, and up-to-date information disclosure to shareholders, analysts, investors, financial institutions, and the general public on a regular basis. The major financial strategies in 2023 are as follows:

Short-term Loans:

- Renewal of the loan agreement between IRPC and PTT Public Company Limited for efficient management of financial liquidity between companies in PTT Group, with a borrowing loan limit of Baht 10,000 million and Baht 1,500 million in lending amount.
- Procurement of a credit line in the form of Domestic Letter of Credit (DLC) in the amount of Baht 29,840 million.

Procurement of financial derivatives

Procurement of financial derivatives is one way of structuring foreign-currency finances with loans/ debentures/ derivatives in order to balance the foreign-currency profit (Natural Hedge). This includes risk management to mitigate interest rate risk through interest rate swaps between floating rates and fixed rates to help the company efficiently manage interest rate costs.

Group Shareholding Structure

Business Structure and Shareholding

► IRPC Public Company Limited

 Petroleum		
Subsidiaries	Business type	Shareholding (Percentage)
IRPC Oil Company Limited	Refined product distribution	99.99%
Indirect subsidiary		
Rakpasak Company Limited	Oil tanker rental services, fertilizer manufacturer and distributor	99.99%
 Petrochemical		
Subsidiaries	Business type	Shareholding (Percentage)
Innopolymed Company Limited (Other joint venture partner: Innobic (Asia) Co., Ltd. 40%)	Production and distribution of nonwoven fabric products and medical consumables	60.00%
IRPC A&L Company Limited (Other joint venture partners: Nippon A&L Co., Ltd. 39.99%, others 2.53%)	Distribution of polymers	57.48%
iPolymer Company Limited (Other joint venture partners: Guangzhou Saiju Performance Polymer Ltd. 45%)	Distribution of polymers and chemicals through E-Commerce	55.00%
Joint Venture		
IRPC Polyol Company Limited (Other joint venture partner: PCC Rokita SA 50%)	Production and distribution of polyol products	50.00%
Mitex Polymer (Thailand) Company Limited (Other joint venture partner: Japan Polychem Corporation 50%)	Production and distribution of chemicals	50.00%
Associate Company		
UBE Chemicals (Asia) Public Company Limited (Other joint venture partners: UBE Corporation 74%, others 1%)	Production and distribution of petrochemical products	25.00%



Other Businesses

Subsidiaries	Business type	Shareholding (Percentage)
IRPC Technology Company Limited	Vocational school	99.99%
Joint Venture		
Vajira Lab for Society Company Limited (Other co-investor: Navamindradhiraj University 50%)	Laboratory testing and certification services for medical devices	50.00%
WHA Industrial Estate Rayong Company Limited (Other joint venture partners: WHA Industrial Development Public Company Limited, 60%)	Industrial estate development	40.00%
Associate Company		
IRPC Clean Power Company Limited (Other joint venture partners: Global Power Synergy Public Company Limited 51%)	Production and distribution of electricity and steam	48.99%
VISUP Company Limited (Other joint venture partners: Vidyasirimedhi Institute 33.33%, PTT PCL. 22.22%, Top Ventures Co., Ltd. 11.11%, Beacon Venture Capital Co., Ltd. 11.11%)	Investment in other businesses	22.22%
Other investments		
Guangzhou Saiju Performance Polymer Ltd.	Distribution of polymers and chemicals through E-commerce in China	15.00%
Sarn Palung Social Enterprise Company Limited	Support execution of social enterprises	15.00%
Rayong Acetylene Company Limited	Production and distribution of acetylene gas	13.04%

Note: On December 19, 2023, the Board of Directors meeting resolved to approve the dissolution of iPolymer Company Limited and on January 9, 2024, the Extraordinary General Meeting of iPolymer's shareholders resolved to approve the dissolution of business. The registration for dissolution of business is expected by June 2024.

Key subsidiaries, joint ventures and associate companies

Subsidiaries

Company	Business type	Shareholding (Percentage)	Paid-up capital (Unit: MB)
IRPC Oil Company Limited Address: 555/2 Energy Complex Building, Building B, 9th Floor Vibhavadi Rangsit Road, Chatuchak Subdistrict, Chatuchak District, Bangkok Telephone 0-2765-6666 Fax 0-2765-6677	Distribution of refined products	99.99%	2,000
Rakpasak Company Limited Address: 555/2 Energy Complex Building, Building B, 9th Floor Vibhavadi Rangsit Road, Chatuchak Subdistrict, Chatuchak District, Bangkok Telephone 0-2765-6666 Fax 0-2765-6677 <i>Note: Subsidiary of IRPC Oil Company Limited</i>	Oil tanker rental services/ production and distribution of fertilizers	99.99%	30
IRPC Technology Company Limited Address: 309 Moo 5, Sukhumvit Road, Choeng Noen Subdistrict, Mueang Rayong District, Rayong Province Telephone 0-3802-2835-7	Vocational school	99.99%	750
Innopolymed Company Limited Address: 555/2 Energy Complex Building, Building B, 6th Floor, Vibhavadi Rangsit Road, Chatuchak Subdistrict, Chatuchak District, Bangkok Telephone 0-2765-7000, 0-2765-7158	Production and distribution of nonwoven fabric products and medical consumables	60.00%	282
IRPC A&L Company Limited Address: 555/2 Energy Complex Building, Building B, 9th Floor Vibhavadi Rangsit Road, Chatuchak Subdistrict, Chatuchak District, Bangkok Telephone 0-2765-6666 Fax 0-2765-6677	Distribution of polymers	57.48%	10
iPolymer Company Limited⁽¹⁾ Address: 555/2 Energy Complex Building, Building B, 9th Floor, Vibhavadi Rangsit Road, Chatuchak Subdistrict, Chatuchak District, Bangkok Telephone 0-2117-3994, 065-717-8856	Distribution of polymers and chemicals through E-commerce in China	55.00%	120

Joint Venture

Company	Business type	Shareholding (Percentage)	Paid-up capital (Unit: MB)
IRPC Polyol Company Limited Address: 555/2 Energy Complex Building, Building B, 9th Floor, Vibhavadi Rangsit Road, Chatuchak Subdistrict, Chatuchak District, Bangkok Telephone 0-2765-6887	Production and distribution of polyol products	50.00%	370
Mitex Polymer (Thailand) Company Limited Address: 100/60 Sathorn Nakhon Tower Building, 29th Floor, North Sathorn Road, Silom Subdistrict, Bang Rak District, Bangkok Telephone 0-2267-1854	Production and distribution of chemicals	50.00%	120

Note: Only active companies are shown.

⁽¹⁾ On December 19, 2023, the Board of Directors meeting resolved to approve the dissolution of iPolymer Company Limited and on January 9, 2024, the Extraordinary General Meeting of iPolymer's shareholders resolved to approve the dissolution of business. The registration for dissolution of business is expected by June 2024.

Joint Venture

Company	Business type	Shareholding (Percentage)	Paid-up capital (Unit: MB)
Vajira Lab for Society Company Limited Address: 3 Khao Road, Wachira Phayaban Subdistrict, Dusit District, Bangkok Telephone 0-2244-3952	Laboratory testing and certification services for medical devices	50.00%	28
WHA Industrial Estate Rayong Company Limited Address: 777 WHA Tower Building, Floors 23-25, Moo 13, Debaratana Road (Bangna-Trad) Km. 7, Bang Kaeo Subdistrict, Bang Phli District, Samut Prakan Province Telephone 0-2719-9555	Industrial estate development	40.00%	800

Associate Company

Company	Business type	Shareholding (Percentage)	Paid-up capital (Unit: MB)
IRPC Clean Power Company Limited Address: 299 Moo 5, Sukhumvit Road, Choeng Noen Subdistrict, Mueang Rayong District, Rayong Province Telephone 0-3892-1333 ext. 4810-4813	Production and distribution of electricity and steam	48.99%	3,362
UBE Chemicals (Asia) Public Company Limited Address: 98 Sathorn Square Office Tower, 18th Floor, North Sathorn Road, Silom Subdistrict, Bang Rak District, Bangkok Telephone 0-2206-9300	Production and distribution of petrochemical products	25.00%	10,739
VISUP Company Limited Address: 555 Moo 1, Pa Yup Nai Subdistrict, Wang Chan District, Rayong Province	Investment in other businesses	22.22%	90

Other investments

Company	Business type	Shareholding (Percentage)	Paid-up capital (Unit: MB)
Guangzhou Saiju Performance Polymer Ltd. Address: G314, No. 201, Kezhu Road, New and Hi-tech Industrial Development Zone, Science City, Guangzhou, China, 510000 Telephone 020-38033614	Distribution of polymers and chemicals through E-commerce in China	15.00%	8.9 (Unit: Million Yuan)
Sarn Palung Social Enterprise Company Limited Address: 555/1 Energy Complex Building, Building A, 10th Floor, Vibhavadi Rangsit Road, Chatuchak Subdistrict, Chatuchak District, Bangkok Telephone 0-2537-2971	Support execution of social enterprises	15.00%	2.5
Rayong Acetylene Company Limited Address: 2/3 Moo 14, Bangna-Trad Road, Km. 6.5, Bang Kaeo Subdistrict, Bang Phli District, Samut Prakan Province Telephone 0-2338-6100	Production and distribution of acetylene gas	13.04%	115

Relationship with Businesses of Major Shareholders

IRPC's major shareholder is PTT Public Company Limited (PTT), a fully integrated petroleum and petrochemical business operator with upstream to downstream supply chain through PTT's own and others' business through its subsidiaries, namely, petroleum exploration and production, oil refining, and petrochemical businesses. Currently, PTT is the major shareholder of Thailand's three refineries, comprising PTT Global Chemical Public Company Limited (45.18 percent), Thaioil Public Company Limited (45.03 percent), and IRPC Public Company Limited (45.05 percent). In petroleum and petrochemical business operations, IRPC has transactions and cooperates with PTT and its subsidiaries. For example, IRPC purchases most crude oil through PTT for efficiency enhancement and cost reduction, manages part of oil and/or product price hedging through PTT, and receives and provides financial assistance for mutual liquidity management, etc. In addition, IRPC has transactions associated with the trade in feedstocks, petroleum products and petrochemical products, with the PTT Group of companies.

► Shareholders

List of Top 10 shareholders of the company as of the book closing date February 22, 2023 are as follows:

No.	Shareholder	Number of shares	Shareholding (Percentage)
1.	PTT Public Company Limited ⁽¹⁾	9,206,674,600	45.05%
2.	Thai NVDR Company Limited ⁽²⁾	1,082,485,273	5.30%
3.	Siam Management Holding Company Limited	613,020,000	3.00%
4.	Social Security Office	403,836,400	1.98%
5.	SOUTH EAST ASIA UK (TYPE C) NOMINEES LIMITED	301,027,067	1.47%
6.	Mr. Suphot Saphaweechaikul	195,500,000	0.96%
7.	STATE STREET EUROPE LIMITED	153,011,827	0.75%
8.	N.C.B.TRUST LIMITED-POLUNIN DEVELOPING COUNTRIES FUND, LLC	123,503,393	0.60%
9.	Mr. Woraphong Asawanives	94,389,200	0.46%
10.	Bualuang Infrastructure Retirement Mutual Fund	76,666,500	0.38%

Notes: ⁽¹⁾ PTT Public Company Limited, as the company's major shareholder, takes part in determining the management policy and operations of the company. This has been approved by IRPC's Board of Directors. As of December 31, 2023, four out of 14 members of the company's Board are directors or executives of PTT Public Company Limited.

⁽²⁾ Thai NVDR Company Limited is a subsidiary of the Stock Exchange of Thailand, which operates business by issuing Non-Voting Depository Receipt (NVDR) securities listed on the Stock Exchange of Thailand. Such securities are for sale to investors and the proceeds from the sale of NVDR are then invested in Thai underlying securities that are listed on the Stock Exchange. Investors who are NVDR holders are entitled to benefits, such as dividends, rights to subscribe to new shares just like shareholders of a listed company, but do not have voting rights at the shareholders' meeting. To learn more about Thai NVDR, go to: www.set.or.th

Risk Management

Amid continued volatility and uncertainty brought on by external and internal factors, IRPC has stepped up preparedness in tackling difficulties that may arise by implementing enterprise-wide risk management. This is to mitigate against adverse events and their impacts on the company's operations while enabling us to explore opportunities to invest in new businesses to ensure sustainable growth. The company has put in place a risk management structure with the creation of the Risk Management and Internal Control Committee and the Supply Chain and Hedging Committee to monitor and analyze market movements, hedge against price volatility of crude oil, petroleum, and petrochemical products, shipping rates as well as risks associated with financial transactions. These commitments are under the supervisory purview of the Board-appointed five-member Risk Management Committee, which provide supervisory oversight and advice the Board on the enterprise-wide risk management to make sure the company's risks stay within the risk appetite. Such arrangement also inspires the confidence of all stakeholders. The Risk Management Committee ascertains that the company's risk management complies with ISO 31000: Risk Management – principles and guidelines and COSO - Enterprise Risk Management, together with the Principles of Good Corporate Governance, Internal Control System, Business Continuity Management System, Anti-corruption guidelines, Sustainability Management and Operational Excellence Management System.

At IRPC, risk management is an integral part of the corporate culture. The company instills in its workforce a risk management mindset. Executives and personnel are expected to have good working knowledge and understanding of risk management systems relevant to their lines of work to achieve the set objectives. They identify, continually monitor progress, improve, review risk management measures, and submit reports to relevant committees accordingly. Risk management knowledge must be disseminated through all available channels.

The company has also fostered Governance, Risk Management & Internal Control Compliance, and Environmental, Social and Governance (ESG) Compliance to enhance risk management efficiency.

Summary of Risk Management

► 1. Price Volatility Risk

Feedstock and product prices remained highly volatile due to momentous events in 2023, particularly geopolitical conflicts and economic impact of COVID-19 pandemic from which many countries had not fully recovered. As evidenced economic by slowdown and prolonged high inflation among European countries, as well as liquidity crisis in China's real estate sector and stagnating private consumption. Thailand's GDP growth was lower than expected while exports contracted, and the impact of US monetary policy affected the country's interest rates and weakened the baht.

Prices of crude oil, the company's primary feedstock, were driven by the impact of the Middle East conflict and output control of OPEC and OPEC+ that greatly affected the demand and supply of crude oil in the world market. All this was made worse by widening conflict that could lead to blockade of one of the world's major shipping routes, driving up freight rates, thus affecting the company's production costs.

IRPC's product prices depend on a number of factors. Product prices moved in tandem with main crude oil reference prices. In the meantime, China's petrochemical demand indicators remained low, indicating that petrochemical product prices had shown no sign of recovery.

To mitigate impacts, IRPC has undertaken the following risk management approach:

- Closely monitored and analyzed events that may impact crude oil price movements as well as conducted price projections, and reported to the management to keep them informed on a regular basis, or called an urgent meeting as needed to ensure effective and timely response.
- Procured new crude oil types as feedstock for production to cushion against impact of price volatility on production cost as well as prevent refining capacity loss due to crude oil supply disruption.
- Managed inventories of crude oil, petroleum, and petrochemical products at optimal levels to prevent impact from stock loss.
- Entered derivative contracts with set targets on price, volume, and period for risk management that were appropriate for and consistent with IRPC's business plan under the supervision of the Supply Chain and Hedging Committee, and the Risk Management Committee.

▶ 2. Operational Risk

IRPC did not compromise on employees, personnel and stakeholders' life, safety, and wellbeing or the need to prevent serious environmental impacts. The company has thus implemented operational risk management encompassing the production and auxiliary processes that have a great bearing on all stakeholders, such as loss of production. Such risk management consists of risks to the life and safety of employees within the company's premises, risks to the environment and community, risks to integrity of equipment, and water management risks, etc. The company's approach to operational risk management is as follows:

- Reduced risk of accidents in the workplace that could result in loss of life or property damage and the corporate image or operating results. IRPC has consistently promoted a culture of safety and safety awareness through the Strengthen Safety campaign,

consisting of activities to enhance communication, deliver safety messages, build safety knowledge and understanding along with strict enforcement of safety regulations. Other safety awareness campaigns included safety management during UCF project construction by creating awareness among workers, such as Safety Excellence 2023 3+, Safety Walk & Talk, and introduction of Process Safety Management and Incident Management System (idMS) to analyze the root causes of incidents in order to develop optimal safety solutions.

- Minimized integrity of equipment risk, underscoring the importance of enhancing Plant Availability and Plant Reliability to prevent Unplanned Shutdown that may affect product delivery to customers as well as to bolster safety, environmental protection, confidence of the communities, and public trust. The Zero Unplanned Shutdown project seeks to improve three aspects of integrity of equipment through: Design Integrity, Proactive & Reactive maintenance, and Operational Integrity.
- Controlled environmental risks arising from the emission of volatile hydrocarbons from the production process, which may adversely affect the health of workers and communities around the production complex. IRPC has established guidelines to reduce environmental risks by imposing enterprise-wide environmental management under ISO 14001 Environmental Management System, ISO 50001 Energy Management System, along with strict compliance with the current laws and regulations as well as relevant standards. This includes monitoring and measurement around the production plants and implementing communication campaign and contingency plans during planned maintenance. In addition, the company has invested in upgrading diesel product quality to meet Euro 5 emission standard through the UCF project, which will help reduce the amount of PM 2.5 and airborne carcinogens in the atmosphere that are harmful to public health and the environment.

- Prevented risk of community or public grievances arising from the company's operations. In the past year, IRPC implemented planned maintenance, and construction of the Ultra Clean Fuel (UCF) project that included activities that could lead to complaints, litigation or disputes with surrounding communities or even public protest. The company has consistently taken proactive measures, including public communication, information dissemination to promote mutual understanding and build good relationship with communities surrounding its production complex. In addition, the company has made positive contribution to the society by operating its businesses with a high level of corporate social responsibility.
- Mitigated risks associated with water management to ensure sufficient supply for water production and consumption according to the water management plan of the company's industrial zone. The company also stepped up preparedness for possible drought and finding additional water supply to accommodate new projects and future growth. In 2023, the company has closely monitored water consumption, developed contingency plan in the event of water shortage, conducted maintenance on water pipes from the filtration plant to the industrial zone as well as improving efficiency in water production and consumption through Reduce, Reuse, Recycle (3Rs) to reduce the volume of water drawn from natural sources.
- Prevented risk of business disruption and built confidence among all stakeholders by developing a risk management system that meets the ISO 22301:2019 Business Continuity Management System to mitigate impact from threats to business continuity, such as natural disasters, cyberattacks, fire hazards, etc., that could otherwise cause serious business disruption. In the past year, the company conducted a business continuity drill under a cyberattack scenario that may cause disruption in production control.

- Managed the company's reputational risk by issuing guidelines on effective external communication in time of crisis, particularly on issues that may impact its public perception and reputation. Such risk management seeks to reduce public anxiety and inspire confidence among shareholders and investors. The company has issued rules and regulations on public disclosure of the company's information, complete with handbook and guidelines as well as developing crisis communication scenarios as part of business continuity drill.

► 3. Financial Risk

• Foreign Currency Exchange Risk

The exchange rate volatility of the Baht against the USD directly and indirectly affected IRPC's revenue and expenditure to a considerable extent. The company's petroleum and petrochemical products as well as procurement of feedstocks, mainly crude oil, are settled in Baht while still being tied to USD-linked world market prices. The same is true for project loans.

IRPC has adopted a risk management approach using natural hedge techniques to mitigate risks associated with exchange rate fluctuation by structuring its foreign currency-denominated loans and debentures proportional to income in foreign currencies. This risk management activity comes under the oversight, approval, and monitoring of the Risk Management Committee to ensure it conforms to the risk management policy and stays within the company's risk appetite. The company also engages in FX Swap and FX Forward to reduce its exchange rate risk exposure associated with having export revenue in USD and USD-denominated expenditure on feedstocks.

• Funding & Liquidity Risk

IRPC has developed a capital spending plan for ongoing business expansion and thus incurred interest payment and repayment burden on loans and maturing debentures. The company needs to secure adequate capital to meet the obligations at a reasonable cost of funds. The ability

to obtain external funding depends on factors, such as operating results, financial status, credit rating of the company, petroleum, and petrochemical industry outlook as well as economic climate and money market conditions, domestic and international, etc. The company may be exposed to liquidity risk unless it continues to find external funding to maintain adequate working capital.

IRPC's risk management approach seeks to ensure adequate capital to fund its business plan. Capital is structured to keep key financial ratios at an optimal level under good corporate governance while the company closely monitors factors affecting or relevant to financing options or its ability to secure funding at reasonable costs. At present, IRPC's credit lines from financial institutions consist of a short-term loan of Baht 26,505 million for use as working capital, and a credit line of Baht 10,000 million that IRPC can borrow under a loan agreement with PTT, and a credit line of Baht 1,500 million that IRPC can lend to companies within the PTT Group for liquidity management.

► 4. Capital Projects Risk

IRPC stresses the importance of strategic investment projects, taking into account all aspects of risk. Special consideration is given to assessing the risks of new businesses within the company's appetite framework. In 2023, a landmark project, Ultra Clean Fuel (UCF), is underway to upgrade diesel quality from Euro 4- to Euro 5-standard compliance as required by the government in 2024. There are other potential projects being studied as part of the exploration of investment opportunities for synergy and diversification into new businesses. The company has since developed capital projects risk management as follows:

- To establish appropriate supervisory oversight with a view to accelerating investment decision-making on new business opportunities for diversification.
- To develop new products that correspond with future demands of the market while getting ready suitable sales channels and ensuring marketability of products to meet those demands.
- To provide needed resources, such as personnel, financing, construction sites and utility systems, to support and drive projects to successful completion with a high level of efficiency.
- To accelerate the UCF project construction so that it is completed on schedule by putting in place progress tracking system and working together with contractors to solve problems that may arise in a timely manner.

► 5. People Enable Risk

Stepping up preparedness of personnel to live up to IRPC's core values and developing a modern workforce capable of adapting to change are of utmost importance. The company has implemented a strategic human resource management alongside technology-driven organizational capability development. This is to enable the workforce to develop and enhance corporate values and culture to drive the company toward success in alignment with the new corporate vision and the current and future business direction. The company also strives to develop a workforce with professional integrity that reflects the company's core values while also recruiting and developing new talents in order to effectively implement its business strategy through the following management approach:

- To design and develop an improved corporate culture and cultivate positive employee behaviors that correspond with the new vision in line with today's Mega Trends through the G3 concept (Good, Great, Growth to Success) as well as reviewing and assessing employee performance on a regular basis.
- To improve work processes for enhanced efficiency, introduce digital systems to improve efficiency, speed, and overall business competitiveness.
- To develop knowledge management system and add appropriate skills and expertise required to keep pace with the rapidly changing work processes, including new skill sets and knowledge necessary to drive businesses according to corporate strategy.

- To build a workforce that is sufficient in number and range of capabilities through recruitment, selection, and leadership development, using human resource management system and tools suitable for the company's current operations and adaptable to the direction of the company will take in conducting business in the future.

► 6. Policy and Regulatory Risk

IRPC is fully committed to honesty, transparency, and fairness in conducting its business in accordance with good corporate governance principles. The company takes it upon itself to prevent risks associated with regulatory non-compliance pertaining to Personal Data Protection Act (PDPA), Oil Fuel Fund Act, oil reserves requirements, tax laws, labor laws, etc. Non-compliance may affect the company's business operations in terms of liability to punitive fines, litigation, or even revocation of licenses. The company has therefore established risk management guidelines as follows:

- To establish a digital system in conjunction with the creation of a database of laws, regulations and acts relating to the business operations of the company and affiliates. Such a system not only facilitates analyses of critical regulatory changes and make them accessible to users who need them for implementation.
- To renew its partnership in Thailand's Private Sector Collective Action Coalition Against Corruption (CAC), and to conduct corruption risk assessment and establish guidelines for reducing such risk accordingly.
- To communicate and raise awareness of the importance of regulatory compliance through the company's website to ensure all personnel pay close attention to their duties according to the law, and to remind them that a failure of compliance may subject the company to penalties.
- To conduct data breach response drills involving relevant departments or work units to ensure preparedness to respond effectively to data breach incidents in a timely manner.

Emerging Risk

IRPC has analyzed ever-changing external factors and risk trends that may pose threats to the company in the next 5-10 years. These may take the form of political, economic, social, environmental, legal, technological risks, etc. The company is preparing itself to take on such challenges while exploring opportunities to adapt the way it does business to correspond with changing business environment of the future.

► 1. Digital Technology Risk

IRPC underscores the importance of digital technology, which is advancing at unprecedented speed, with a view to improving its competitiveness and production efficiency. The digitalization of all aspects of business operations means greater dependence on information technology. At the same time, the threat of cyberattacks has grown exponentially. As this can put the security of the company's data and computer system at risk, potentially leading to data loss, business disruption and damage to the company's reputation. The company possesses a vast array of vital systems and data, including production data, marketing data, financial data and customer data, which are indispensable for its operations. Any data theft or loss may result in severe business disruption that will negatively affect the corporate image, reputation and credibility of the company as well.

Cyberattacks are constantly evolving and will pose ever greater threat in the future. The most common form of cyberattack is Phishing Mail and Malware targeting a company's IT system. IRPC has put in place proactive measures to prevent and reduce the likelihood of cyberattacks by bad actors. The company's cyber security system has been subjected to rigorous testing. Measures were also taken to mitigate the impact of a cyberattack, such as to make sure that a digital system that has been damaged in a cyberattack event can be restored quickly. The digital security risk management guidelines are as follows:

- To achieve certification to ISO 27001: Information Security Management System, which refers to IT security management system standard that is in compliance with relevant specifications, laws and regulations.
- To conduct an annual drill in accordance with the Disaster Recovery Plan in the event of a cyberattack or a disaster causing system failure or equipment damage.
- To establish an effective and continually developing Security Operation Center (SOC) to prevent, monitor, detect, analyze, and respond quickly to cybersecurity incidents, along with the creation of a body of knowledge for personnel to learn about effective cybersecurity.
- To conduct phishing email test for the company's employees on a regular basis to follow up on employee awareness. Employees who failed such test must undergo training to make them understand how a cyberattack can potentially cause serious damage.
- To monitor any change in laws, regulations and government policies in conformation with international agreement, as well as to review the company's strategies, target for reduction of greenhouse gas emission to align with government policies.
- To reduce energy consumption and use energy more efficiently in its production process by setting the target to achieve Top Quartile ranking on the Energy Intensity Index (EII).
- To transition the source of electrical energy toward renewable energy and alternative fuels, such as installing a 21-megawatt floating solar system to produce electricity to enhance energy stability at the IRPC industrial zone. There is an investment plan to expand the solar capacity by another 37.2 megawatts.
- To conduct Business Portfolio rebalancing, focusing on developing new businesses through low-carbon projects or new ventures.
- To convert petroleum products into petrochemical products in line with the market trend arising from the proliferation of electric vehicles at the expense of internal combustion vehicles, which will adversely affect sales volume of fuels, the company's main product category, in the foreseeable future.
- To design new eco-friendly products based on the Circular Economy concept by means of recycling to help reduce waste while cutting back on greenhouse gas emissions from the use of such products.
- To implement reforestation carbon offset projects to absorb greenhouse gases in collaboration with the Mae Fah Luang Project and the PTT Group, in an area of 20,000 rai.
- To study the use of carbon capture technology to reduce greenhouse gas emissions.

► 2. Climate Change Risk Regulatory Risk

The COP28 summit, held on November 30-December 12, 2023 in Dubai, United Arab Emirates, reached an agreement for the parties to “transitioning away from fossil fuels in energy systems, in a just, orderly and equitable manner, accelerating action in this critical decade (2023-2033) so as to achieve net zero by 2050 in keeping with the science.” As a result, Thailand may accelerate the implementation of the national climate action plan under the mechanism of “Nationally Determined Contributions” (NDCs) in line with the Net Zero Emission goal in 2065.

IRPC, as a private sector party, who has responsibilities and is aware of such climate change risks and impacts, and is committed to achieving international and national goals in alignment with the government policy, has introduced risk management guidelines as follows:

Business-Driven Sustainability



Environmental

E

Zero Hazardous Waste in Landfill

Reduction in energy consumption by more than **8.8** million gigajoules per year

Absolute Greenhouse Gas Emissions, both Scope 1 and Scope 2, of the company at **3.6** million tCO₂eq as targeted

Goals

To achieve Carbon Neutrality by 2050

To achieve Net Zero emissions by 2060



Social

(Society and Stakeholders)

S

Satisfaction score from the society and surrounding communities at **81.55** percent, was higher than 2022

Customer satisfaction score at **93** percent, was higher than a target at 90%

Employee engagement score at **86** was higher than score of 80

No lost time accidents of employees and contractors



Governance

G

No material operational non-compliance was detected.

100% of employees have submitted their conflict of interest disclosure.

“Excellent” CG Rating for 15th Consecutive organized by the Stock Exchange of Thailand (SET) and the Thai Institute of Directors

Performance assessment of the Board of Directors and Sub-Committee by an independent appraiser, comparable to the criteria of CGR of listed company was rated **“Excellent”**

Awards and Recognition

Member of
Dow Jones Sustainability Indices
Powered by the S&P Global CSA



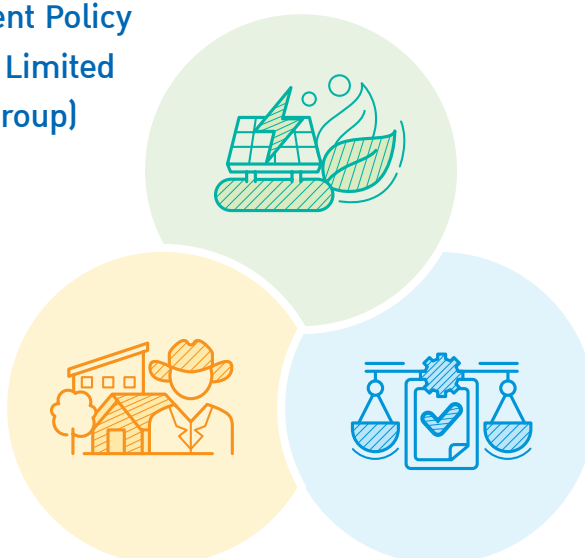
Sustainability Management Policy, Strategies and Goals

Sustainability Management Policy

IRPC Group's Sustainability Management Policy has been established as a guideline for sustainable management practices of the company, in alignment with internationally accepted standards, along with a strategy to develop operational practices that take into consideration Environmental, Social and Governance Enhancement. The policy is also in conformance with the United Nations Sustainable Development Goals. The first edition of the sustainable policy was announced in 2015, and has been continually updated. In 2021, the sustainability policy was amended to expand the scope of sustainability management in the case of overseas operations. This current policy and its guideline remain relevant and applicable for address emerging issues in 2023.

► Key Points of the Sustainability Management Policy

Sustainability Management Policy of IRPC Public Company Limited and Subsidiaries (IRPC Group)



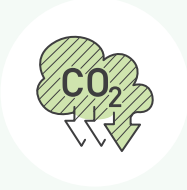


Implement business transformation towards low-carbon society along with environmentally friendly operations that use resources wisely, while controlling and reducing impact of business to ecosystem and biodiversity as well as mitigating impact of and adapting to climate change.

Operate business with responsibility, taking into account the importance of upholding human rights, labor rights, safety, and hygienic standards, and maintaining good working environment, along with continuous human resource development to ensure employees improve and acquire new capabilities and needed skills. Make full use of the corporate expertise to create shared values and improve the quality of life of the community to grow sustainably.

Comply with the principles of good corporate governance, act with integrity, obey the law, honor commitments and requirements of the country we operate in, as well as following international best practices. Establish public disclosure to ensure operational transparency, implement risk management, adapt to changes in a timely manner, identify suitable opportunities for sustainable business growth, mitigate impact of business operations throughout the entire supply chain, and adopt a balanced approach to stakeholder engagement.

► Sustainability Strategy

IRPC has set sustainability goals and strategies or 3C's Strategy, which consists of 3 pillars, namely C1: Climate Change Strategy, C2: Circular Economy Strategy, and C3: Creating Shared Value Strategy.

<p>Low Carbon +</p>  <h3>Climate Change</h3> <p>Support Low carbon society and sustainable roadmap to net zero</p>	<p>Living +</p>  <h3>Circular Economy</h3> <p>Create Living + for all stakeholders through waste minimization and Eco solution business and services</p>	<p>Recognition +</p>  <h3>Creating Shared Value</h3> <p>Honors and awards from positively impact the health and wellbeing of people through our products and business</p>
<p>Goals:</p> <ol style="list-style-type: none"> 1. Reduce emissions 20% by 2030 2. Carbon Neutrality by 2050 3. Net Zero by 2060 	<p>Goals:</p> <ol style="list-style-type: none"> 1. Maintain Zero waste to landfill 2. Waste Utilization > 95% in 2040 3. Waste to value 	<p>Goals:</p> <p>Uplift sustainable values to Stakeholders by increase 20% of True Value by 2030</p>
<p>Focus on adapting and reducing the impact of global climate change.</p>	<p>Dedicated to establishing businesses and services that are environmentally friendly under the circular economy principles, promoting the efficient and sustainable use of resources</p>	<p>Create to boost values to the stakeholders.</p>

► IRPC's Sustainability Strategic Framework

IRPC is committed to the mission "To create material and energy innovation for better living" in accordance with the sustainable development guidelines by adhering to principles and practices based on social responsibility by promoting stakeholder engagement and to build trust through operational excellence, transparency, and continuous innovation and technology development. This is to ensure the business grows steadily and sustainably in all 3 dimensions: environmental, social and governance, that correspond with the Sustainable Development Goals. To this end, the Sustainability Strategic Framework and Goals have been established as follows:

Strategic Direction	Short-term/Long-term Operational Goals	Performance Index	Support for UN SDGs
<p>Low Carbon +</p>  <p>Climate Change Management</p>	<p>Short-term Goals</p> <ul style="list-style-type: none"> Reduce greenhouse gas emissions by 20% from the 2018 base year in 2030 <p>Long-term Goals</p> <ul style="list-style-type: none"> Carbon Neutrality by 2050 Net zero emissions by 2060 	<ul style="list-style-type: none"> IRPC Group's greenhouse gas emissions at 3.6 million tons of carbon dioxide equivalent, was within the target range.* Review the selection of the base year and long-term targets of IRPC Group's GHG emission control. Net Zero Transition Progress 	   
<p>Living +</p>  <p>Circular Economy management model</p>	<p>Short-term Goals</p> <p>Maintain zero waste to landfill policy</p> <p>Long-term Goals</p> <p>Create added value from both Post Industrial Recycled (PIR) and Post Consumer Recycled (PCR) into the recycling process.</p>	<ul style="list-style-type: none"> Sales of environmentally friendly products 	 
<p>Recognition +</p>  <p>Creating Shared Value</p>	<p>Short-term Goals</p> <p>Increase the proportion of social investment projects (Commercial initiatives) for sustainable development of the community's quality of life.</p> <p>Long-term Goals</p> <p>Increase shared value creation per stakeholder by 20% by 2030.</p>	<ul style="list-style-type: none"> Value of social impact created by social investment budget.* Goal set for zero human rights complaint 	    

Notes: * Corporate KPIs

► Corporate Sustainability Assessment

IRPC attaches great importance to the management of eco-efficiency of manufacturing processes and its constant improvement, along with respect for human rights, enterprise-wide innovation and workforce development, climate change adaption as well as water management, occupational health and safety standards, and quality of life of the community and customer relationship management, etc. All these measures, put in place to ensure maximum effectiveness, coupled with dedication of the management and personnel to good governance principles and sustainable development policy, contributed to the company being recognized and selected as a member of the 2023 Dow Jones Sustainability Indices (DJSI) under the Emerging Market category, in the Oil & Gas Refining and Marketing sector for the 10th consecutive year, and was ranked in the top 10% S&P Global ESG Score in the Sustainability Yearbook 2023, which are testament to our business acumen guided by IRPC sustainable development policy, good corporate governance as well as our commitment to maintain a delicate balance in economy, society, environment and the best interests of stakeholders to drive growth and prosperity for all.



► Managing the impact on stakeholders in the business value chain

IRPC conducts internal and external stakeholder engagement every year to understand each stakeholder group's views, interests, expectations, and concerns, especially from the economic, social, and environmental perspectives. The business unit responsible for engagement with each stakeholder group identifies stakeholders and draws up IRPC's stakeholder engagement procedure. In addition, the company reviews the formats of stakeholder engagement activities and channels on an annual basis, to reassure stakeholders that the company provides them with the opportunity to participate in such activities to express their opinions freely and transparently as appropriate.

IRPC's Stakeholder Engagement Procedure

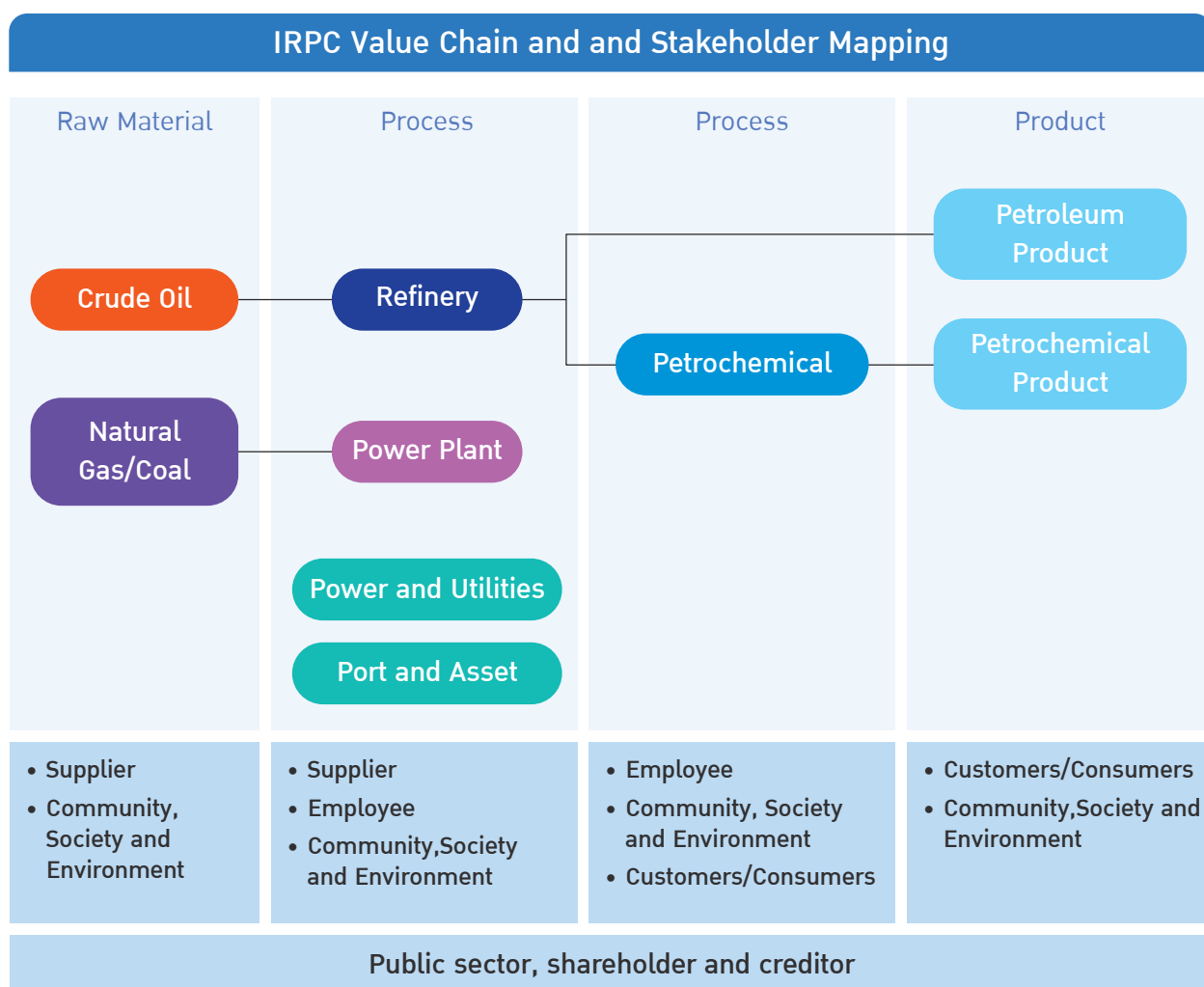
Stages of implementation

Stage 1	Prioritize key issues <ul style="list-style-type: none"> Outcome: Summary of key issues and topics for stakeholder interviews
Stage 2	Identify internal and external stakeholders <ul style="list-style-type: none"> Outcome: All internal and external stakeholder groups are covered
Stage 3	Draw up a plan for stakeholder participation and guidelines <ul style="list-style-type: none"> Outcome: A plan to interview representatives of all stakeholder groups to encourage participation
Stage 4	Collect interview feedback <ul style="list-style-type: none"> Outcome: Interview results
Stage 5	Interview evaluation and analysis <ul style="list-style-type: none"> Outcome: Summary implementation report
Stage 6	Develop future engagement guidelines <ul style="list-style-type: none"> Outcome: Future stakeholder engagement strategy, projects and guidelines.




IRPC stands ready to move towards a stable and sustainable future, acutely aware of stakeholder expectations. The company has regularly organized consultative sessions to engage all stakeholder groups. On the strategic direction of its operations, IRPC holds consultations with public sector agencies, shareholders as well as interviews with key stakeholders on economic,

social, and environmental issues. Each relevant business unit tasked with engaging a specific stakeholder group, provides a briefing to monthly management committee meetings. Findings from stakeholder engagement sessions form the basis of sustainability materiality assessment and the annual corporate strategic planning.

► Stakeholders across the IRPC Value Chain



► Outcome of Stakeholder Hearings

Key Stake-holders	Engagement Approach (Frequency)*	Engagement Objective	Issue of Interest	Action Guidelines	Implementing Unit
 Share-holders/ Investors	<ul style="list-style-type: none"> Domestic and international roadshows (quarterly online channels) Analyst meetings (quarterly online channels) Conference calls (quarterly online channel) Site visits (annual) News and Public Relations (Monthly) 	<ul style="list-style-type: none"> Opportunities for investors to ask questions about IRPC Build confidence in the organization and investment Access to accurate information Protect the rights of shareholders that they are entitled to according to the regulations. 	<ul style="list-style-type: none"> Improve competitiveness and follow the business direction in accordance with the new vision Organizational risk management, both short-term and long-term Sustainability actions, particularly to achieve Net Zero Target 	<ul style="list-style-type: none"> Actions to increase production capacity and seek new businesses to correspond with current situations Presentation of enterprise risk management information Answer investors' questions regarding sustainability 	Office of Corporate Affairs/ Investor Relations
 Employees	<ul style="list-style-type: none"> Employee engagement survey (annual) Announcement of news and measures during COVID-19 (weekly or more frequently as needed) CEO Townhall 	<ul style="list-style-type: none"> Measure and strengthen corporate culture and desirable behaviors Measure performance of human resource management Inform about health and safety measures during COVID-19 	<ul style="list-style-type: none"> Organizational values and desirable behaviors Employee engagement Human resource management and development Improve business competitiveness and follow business direction in accordance with the new vision 	<ul style="list-style-type: none"> IRPC G3 Development Guidelines Human resource management excellence Make improvements to correspond with engagement factors Actions to increase production capacity and seek new businesses to correspond with current situations 	Human Resources and Organizational Capabilities
 Customers/ Consumers	<ul style="list-style-type: none"> Online customer seminar (annual) Customer satisfaction survey (annual) Activities to strengthen relationships between customers and the company, such as holiday gifts, sporting events, seminars, thank you parties (annual) 	<ul style="list-style-type: none"> Awareness of customer needs and suggestions Keep track of updated product information and expectations Develop a good relationship between customers and the company 	<ul style="list-style-type: none"> Updated product information and IRPC's expectation Details of relevant laws and market trends Product Development Plan 	<ul style="list-style-type: none"> Guidelines for exchanging knowledge, sharing of knowledge in business and ESG Notify relevant units about customers' requirements, expectations and concerns and develop relevant action plans Guidelines for notifying product progress 	Commerce and Marketing

Key Stakeholders	Engagement Approach (Frequency)*	Engagement Objective	Issue of Interest	Action Guidelines	Implementing Unit
 Customers/ Consumers	<ul style="list-style-type: none"> Online communication channels, such as Webinar, Microsoft Team, electronic news 	<ul style="list-style-type: none"> Exchange knowledge with customers Collect customer information and keep the information up to date 	<ul style="list-style-type: none"> Requirements and expectation of products, such as eco-friendly products Improve business competitiveness and follow business direction in accordance with the new vision Sustainability Operations and Net Zero Emissions 	<ul style="list-style-type: none"> Strategies to respond to customer needs, such as water use strategies and sales strategy Actions to increase production capacity and seek new businesses to correspond with current situations Net Zero Pathway Strategy 	Commerce and Marketing
 Suppliers	<ul style="list-style-type: none"> Training prior to ESG audit (annual) Supplier satisfaction survey (annual) Supplier performance assessment (annual) 	<ul style="list-style-type: none"> Clarify objectives of ESG audit Take into consideration supplier satisfaction with IRPC's procurement process 	<ul style="list-style-type: none"> Provide suppliers with knowledge regarding key ESG requirements Encourage supplier engagement and ensure satisfaction throughout the supply chain Become a partner to grow business together Business operations that respect human rights 	<ul style="list-style-type: none"> Integrated Supply Chain Management through digital system Guidelines for exchanging knowledge, sharing of knowledge in business and ESG requirements 	Procurement
 Community, Society and	<ul style="list-style-type: none"> Communicate with the community before/during/after social project implementation Organize public hearings (every time an Environmental Impact Assessment (EIA) report is prepared) Conduct community satisfaction survey (annual) Provide complaint channels 	<ul style="list-style-type: none"> Inquire about community's needs and problems Provide information and promote understanding of construction projects Gather information on community's concerns, demands relating to construction projects Build confidence and acceptance of construction projects and the company 	<ul style="list-style-type: none"> Community's needs and problems Concerns, suggestions for construction projects Management of the adverse effects of global warming, such as flood and drought 	<ul style="list-style-type: none"> Strategies for implementing social responsibility and environmental stewardship through actions, such as social projects Strategies for implementing mitigation measures specified in Environmental Impact Assessment (EIA) Report 	Social enterprise and community relations

Note: * Due to the COVID-19 pandemic, activities to engage certain stakeholder groups have been switched to New Normal online events.

IRPC Materiality Assessment

In alignment with the Global Reporting Initiative (GRI) Standards, IRPC conducts a materiality assessment to identify sustainability issues significant for both the business and our stakeholders on an annual basis. This comprehensive assessment incorporates stakeholder expectations and concerns, industry trends, relevant standards, regulations, and guidance from recognized domestic and international organizations. The annual process reviews changes in impacts due to evolving internal and external contexts, with analysis results integrated into the formulation, development, and revision of sustainability goals and strategies. Key steps in IRPC's materiality assessment process include:

► Understand the organization's context

IRPC conducts a comprehensive analysis of our business context, considering both internal factors such as purpose, values, strategies, organizational structure, business activities, and stakeholders across the entire value chain, as well as external factors including industry trends, regulatory frameworks, and relevant standards. Additionally, stakeholders' expectations and concerns, encompassing shareholders or investors, employees, customers or consumers, suppliers, community, society, and the environment, collected through annual surveys, were also analyzed to predetermine the most relevant and significant sustainability topics for the company.

1. Identify actual and potential impacts

IRPC identifies the actual and potential impacts of materiality issues on the economy, environment, stakeholders, and human rights. This encompasses positive and negative impacts, both in the short and long term, across all IRPC business activities throughout the value chain.

2. Assess the significant of the impacts

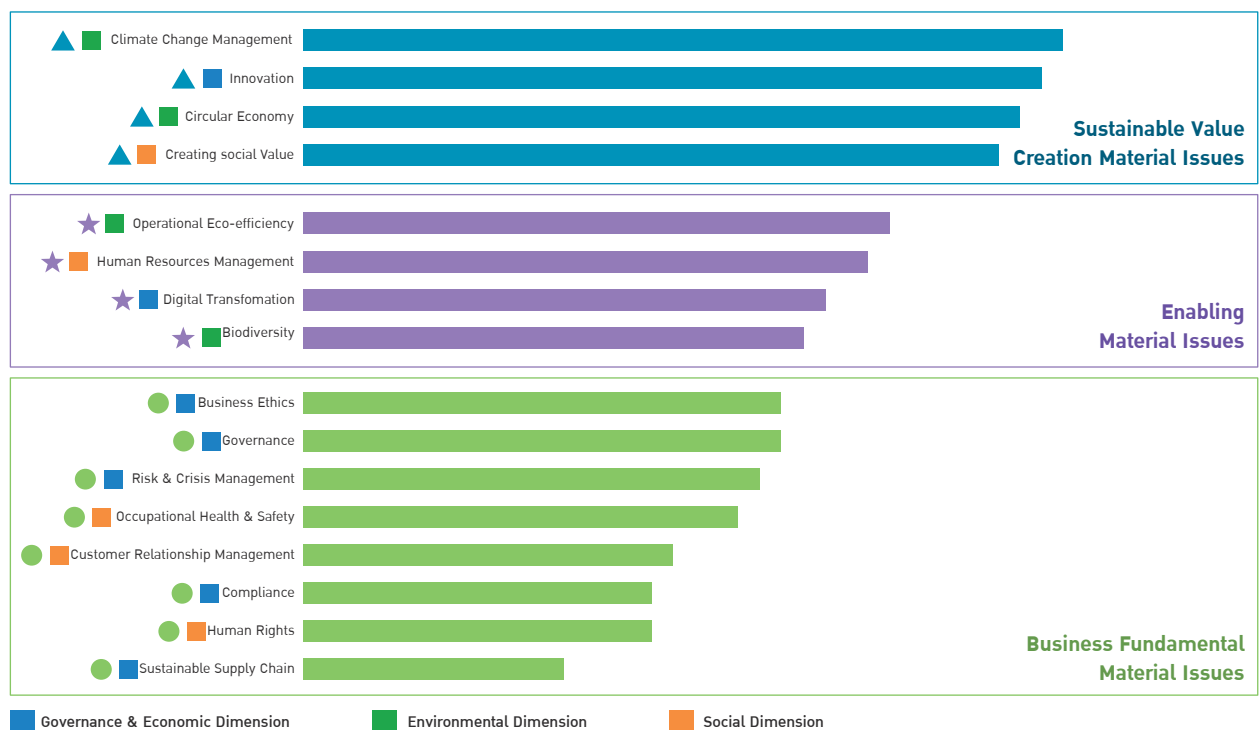
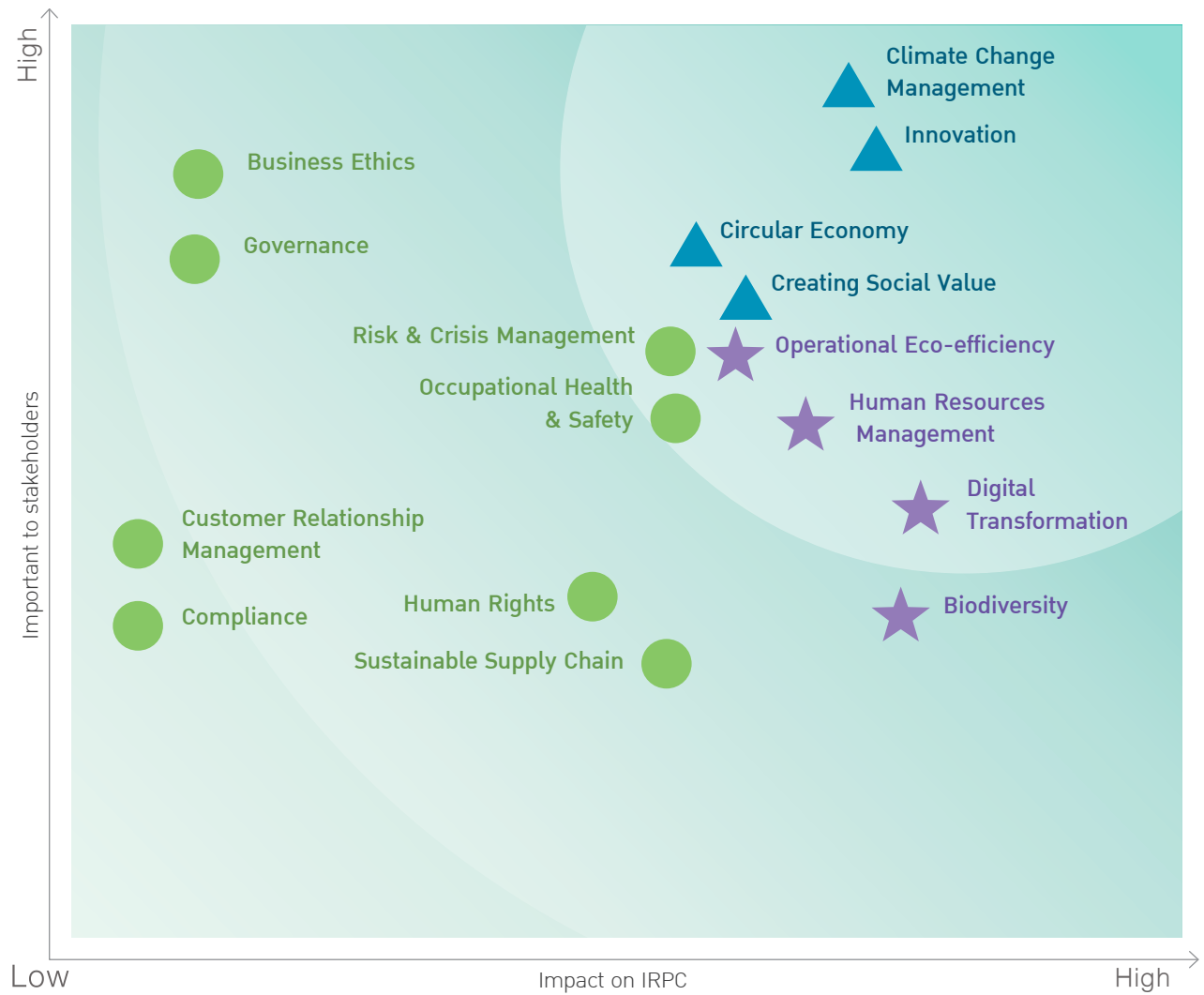
Adhering to the principle of double materiality, our assessment method involves evaluating impacts on the economy, environment, stakeholders, and human rights, as well as the assessment of associated risks and opportunities for the company. The significance of these impacts is further determined through stakeholder engagement, considering the severity (scale, scope, irremediable) and likelihood of these impacts.

3. Prioritize the most significant impact

IRPC prioritizes and selects key sustainability issues according to their impact level, as determined by the results of the significance assessment. These identified issues undergo verification through expert testing, involving a review of environmental, social, governance, and economic (ESG) issues from both national and international thought leaders, including Global Reporting Initiative (GRI), Dow Jones Sustainability Indices (DJSI), World Economic Forum, World Business Council for Sustainable Development (WBCSD) UN Global Compact, the Stock Exchange of Thailand, etc., to ensure comprehensiveness. Materiality issues are subsequently approved by the Sustainability Development Committee: SDC and acknowledged by the Corporate Governance and Sustainability Committee at the board level.

► IRPC Materiality Assessment Result

Following IRPC's materiality assessment in 2023, an analysis of the impact levels associated with each identified sustainability issue is provided in the table below. This evaluation offers a comprehensive overview, detailing the significance of these issues for the business and stakeholders. IRPC categorizes material topics into three groups based on their impact level: Sustainable Value Creation Material Issues, Enabling Material Issues, and Business Fundamental Material Issues, to guide our decisions and actions more effectively.



► Disclosure of sustainability performance

IRPC has communicated the company's sustainability performance related to each material topic to stakeholders through both the corporate website and in Section 3 Business-driven Sustainability of the Business Annual Registration Statement/Annual Report 2022 (Form 56-1 One Report). Our sustainability reporting adheres to the guidelines of the Annual Registration Statement/Annual Report (Form 56-1 One Report) from the Office of the Securities and Exchange Commission (SEC) and the Sustainability Reporting Guideline (Standards) of the Global Reporting Initiative (GRI). Details of sustainability materials, including their scope of impacts, contribution to UN Sustainable Development Goals, as well as disclosure locations, are presented in the table below:

Sustainability material issue	Sub-issue	Scope of impact	Supporting the Sustainable Development Goals	Human Rights	Topic location	
					One Report	Website
Sustainable Value Material Creation Material Issue						
Climate Change Management	• Air emissions	• IRPC and subsidiaries • Customers/Consumers • Employee • Community, Society and Environment	   	Right No. 28	Climate Change Management	Climate Strategy and Water Management
Innovation	Innovation and Product Development	• IRPC and subsidiaries • Customers/Consumers	     	Right No. 27, 30	Innovation and specialty products	Innovations for Sustainability
Circular Economy	Circular Economy	• IRPC and subsidiaries • Customers/Consumers	 	-	Circular Economy	Innovations for Sustainability
Creating Social Value	• Local Communities • Indirect Economic Impacts	• IRPC and subsidiaries • Community, Society and Environment	     	Right No. 27, 28, 29, 30	Creating Social Value	Social Well-being
Enabling Material Issues						
Digital Transformation	•Cyber Security	• IRPC and subsidiaries • Shareholders/Investors • Employee • Customers/Consumers • Partners		Right No. 11		Product and Innovation Innovations for Sustainability
Operational Eco-efficiency	• Energy • Air emissions • Waste • Water use risk management • Compliance with environment	• IRPC and subsidiaries • Shareholders/ Investors • Employee • Customers/Consumers	       	Right No.27, 30	Eco-efficiency in the production process	Operational Eco-Efficiency
Human Resources Management	• Strategic Workforce Planning • Training and development of employees' potential	• IRPC and subsidiaries • Employee	  	Right No. 6, 19, 21, 23, 24, 25, 26 and 29	-	Human Resources Management

Sustainability material issue	Sub-issue	Scope of impact	Supporting the Sustainable Development Goals	Human Rights	Topic location	
					One Report	Website
Enabling Material Issues						
Biodiversity	<ul style="list-style-type: none">Biodiversity Impact AssessmentProjects that promote biodiversity	<ul style="list-style-type: none">IRPC and subsidiariesCommunity, Society and Environment	<div><div>6</div><div>CLEAN WATER AND SANITATION</div></div> <div><div>14</div><div>LIFE BELOW WATER</div></div> <div><div>15</div><div>LIFE ON LAND</div></div>	Right No. 27, 28 and 31	-	Biodiversity
Business Fundamental Material Issues						
Business Ethics	<ul style="list-style-type: none">Corporate policy and governance	<ul style="list-style-type: none">IRPC and subsidiariesShareholders/ InvestorsEmployeeCustomers/ ConsumersPartners	<div><div>16</div><div>PEACE, JUSTICE AND STRONG INSTITUTIONS</div></div>	Right No. 6, 7, 8, 9 and 10	-	Business Ethics and Transparency
Governance	<ul style="list-style-type: none">Organizational structureGood corporate governanceAnti-corruptionPublic policy	<ul style="list-style-type: none">IRPC and subsidiariesShareholders/InvestorsEmployeeCustomers/ConsumersPartners	<div><div>5</div><div>GENDER EQUALITY</div></div> <div><div>16</div><div>PEACE, JUSTICE AND STRONG INSTITUTIONS</div></div>	Right No. 6, 7, 8, 9 and 10	-	Corporate Governance
Risk and Crisis Management	<ul style="list-style-type: none">Risk ManagementCrisis ManagementNew risks and new risk management measures	<ul style="list-style-type: none">IRPC and subsidiariesShareholders/InvestorsEmployeeCustomers/ConsumersCommunity, Society and Environment	<div><div>16</div><div>PEACE, JUSTICE AND STRONG INSTITUTIONS</div></div>	-	-	Corporate Risk and Crisis Management
Occupational health and safety	<ul style="list-style-type: none">Occupational health and safetyMachine stability and safety in the production process	<ul style="list-style-type: none">IRPC and subsidiariesEmployeeCommunity, Society and Environment	<div><div>3</div><div>GOOD HEALTH AND WELL-BEING</div></div> <div><div>8</div><div>DECENT WORK AND ECONOMIC GROWTH</div></div> <div><div>16</div><div>PEACE, JUSTICE AND STRONG INSTITUTIONS</div></div>	Right No. 1, 23, 25, and 28	-	Occupational health and safety
Customer Relationship Management	<ul style="list-style-type: none">Consumer safetyMarketing and product labelingRetention and care of customer information	<ul style="list-style-type: none">IRPC and subsidiariesCustomers/Consumers	<div><div>8</div><div>DECENT WORK AND ECONOMIC GROWTH</div></div>	Right No. 19	-	Customer Relationship Management
Compliance		<ul style="list-style-type: none">IRPC and subsidiariesShareholders/ InvestorsEmployeeCustomers/ConsumersPartners	<div><div>16</div><div>PEACE, JUSTICE AND STRONG INSTITUTIONS</div></div>	Right No. 6, 9 and 10	-	Corporate Governance
Human Rights	<ul style="list-style-type: none">Human rights policy and related policiesImplementation of human rights projects	<ul style="list-style-type: none">IRPC and subsidiariesShareholders/ InvestorsEmployeeCustomers/ConsumersCommunity, Society and Environment	<div><div>5</div><div>GENDER EQUALITY</div></div> <div><div>10</div><div>REDUCED INEQUALITIES</div></div> <div><div>8</div><div>DECENT WORK AND ECONOMIC GROWTH</div></div> <div><div>16</div><div>PEACE, JUSTICE AND STRONG INSTITUTIONS</div></div>	Right No. 1-35	Human Rights Operations	Human Rights Operations
Sustainable Supply Chain Management	Green purchasing	<ul style="list-style-type: none">IRPC and subsidiariesCustomers/ConsumersPartners	<div><div>8</div><div>DECENT WORK AND ECONOMIC GROWTH</div></div> <div><div>12</div><div>RESPONSIBLE CONSUMPTION AND PRODUCTION</div></div>	Right No. 2, 3, 15 and 33		Sustainable Supply Chain Management

► Sustainability Strategy Focus

Supported by IRPC Sustainability Strategy

Climate Change Management “Low Carbon+”

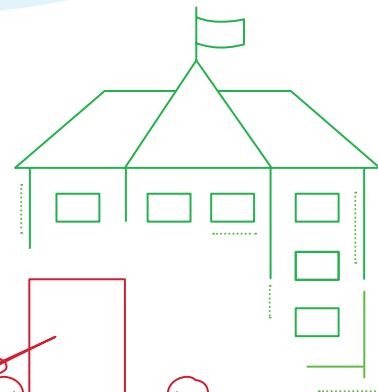


- Study the project on the use of renewable energy which is clean energy, such as Floating Solar Power, as well as the long-term goals of the index IRPC's energy efficiency (Energy Intensity Index: EII) to reduce and use energy efficiently
- Develop and execute strategies climate change and reduce greenhouse gas emissions by 20percent by 2030

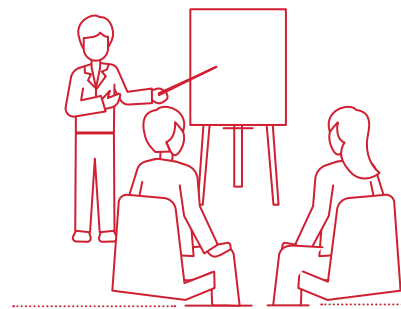
Circular Economy “Living+”



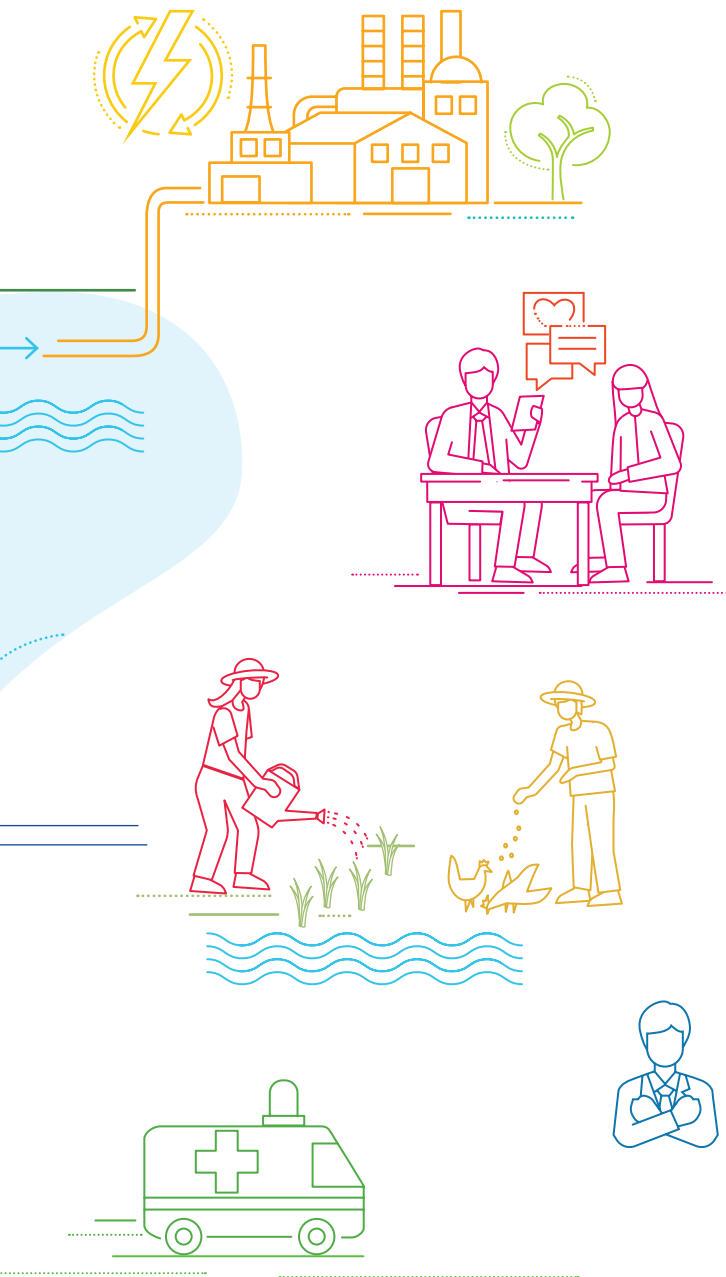
- Allocate budget for research and development recruiting personnel with knowledge and abilities at the doctoral level to do research and development and promote culture and Knowledge of innovation in the organization and seeking innovative new business opportunities, supporting research grants research personnel
- Set targets for the implementation of greenhouse gas emissions, scope 1 and 2, related air pollution emissions, Volatile Organic Compounds from the incinerator and significant spills improving the process of investing in projects to achieve goals, including the adoption of the 3Rs principle in the production process



Creating Social Value “Recognition+”



- Promote health and education for the community around IRPC industrial park through the project to create shared values for society
- Provide technical and professional education to youth through IRPC Technology with a strategy to develop quality of education according to international standards, emphasizing excellence in vocational capacity building in petrochemical and energy and other fields that meet the needs of the country



Supported by IRPC Policies and Activities



- Human Rights Policy, Diversity and Inclusion, Awareness raising and related activities

- **Target:** Zero case on human rights violation



- Supplier awareness raising and audits on ESG issues/ Sustainable Supplier Code of Conduct

- **Target:** 100 percent of suppliers passed ESG audit



- Expressing a position in not participating in any case of corruption creates a transparent management system and free from Corruption and bribery in all activities

- **Target:** 100 percent of employees declared conflict of interest report
Zero complaints related to corruption and bribery

Supported by IRPC Activities and Awareness



/// Innovation and Product Development

Brave to face challenges through innovative collaboration



Specialty Products

2030 Target:

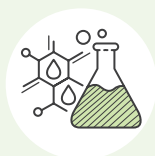
Create Innovation to Achieve 55%
of Specialty Products



New S-Curve

2030 Target:

Initiatives from New S-Curve
Business Incubation



Innovation Solutions

2030 Target:

Revenue Generation >100 MB
from Innovation Solutions

► Stakeholder Impact

In the current global landscape, the oil refinery sector faces a dual dynamic of opportunities and challenges. The resumption of growth in global economic activities has driven a surge in demand for refined oil products, providing refineries with promising opportunities. However, this demand, coupled with the imperative of increased production capacity, brings challenges in supply chain resilience and efficient operational management, prompting refineries to seek innovative solutions to meet the growing energy needs. Simultaneously, the sector must address the pressing challenge of meeting stricter environmental requirements, urging the need for sustainable product and process innovations to address negative impacts from core business activities, ranging from extraction and refining to the processing of crude oil. These activities can contribute to emissions, waste generation, and impacts within the supply chain, involving engagements with suppliers participating in unsustainable practices that worsen environmental and social challenges. IRPC is well aware of these potential impacts caused by our business and is firmly committed to proactively addressing them for a more sustainable future.

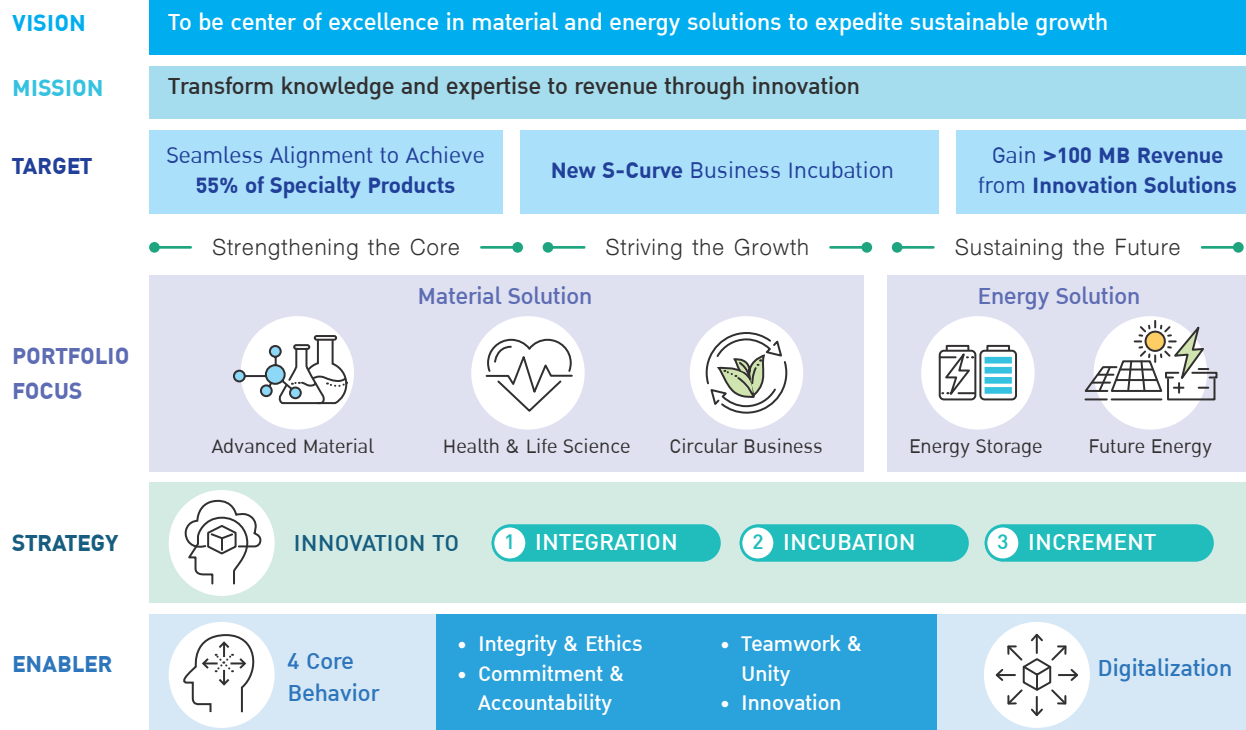
Recognizing the pivotal role of innovation in addressing these opportunities and challenges, IRPC has strategically positioned innovation as the primary driver for achieving company objectives, promoting economic, environmental, and social sustainability, including respect for human rights. This strategic focus on innovation aims to create business opportunities and sustainability for the company, as well as offering solutions to meet the needs of stakeholders, improve the quality of life of the community, the betterment of the society at large and protect the environment.

► Management Approach

To underscore our commitment to innovation excellence, IRPC places innovation management under the supervisory oversight of the Innovation Management Committee (IMC) chaired by the Executive Vice President of Commercial and Marketing. The IMC is composed of executives from the following departments: Manufacturing Operations, Strategy, Corporate Planning and Development, IRPC Innovation Center, Commercial and Marketing, and Accounting and Finance. The IMC is responsible for overseeing the company's innovation in terms of policy, process, and resource allocation to ensure the company's sustainable growth.

IRPC Innovation Center operates under the vision of "To be the center of excellence in materials and energy solutions to expedite sustainable growth". It focuses on research and development of innovations in advanced materials, health and life science, circular economy, future energy, and energy storage. The center's strategy is to "Extensive collaboration ("IN/OUT") with partnership to speed-up products commercialization".

IRPC Innovation Center Roadmap 2021-2030

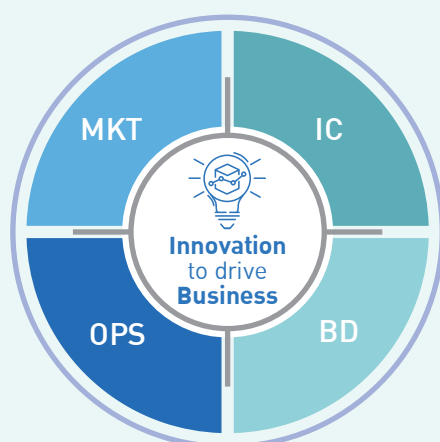


The IRPC Innovation Center is dedicated to researching and developing innovations that will uplift the company's core businesses. The goal is to increase the value of products by transforming them into specialty products and to create a competitive edge for the company.

Focus Areas

The center focuses on five key industries:

- Automotive
- Electric and electronics
- Packaging
- Construction
- Medical and hygiene



Collaboration

The center collaborates closely with various departments within the company, including research and development, sales and marketing, manufacturing, and business development. This collaboration ensures that the center's innovations are aligned with the company's overall business goals.

Digitalized Innovation Process

The center also uses a digitalized innovation process to screen and track potential innovations. This process ensures that only the most promising innovations are developed and commercialized.

Team of Experts

The center's team of experts is composed of highly skilled and experienced professionals from a variety of disciplines. This team is responsible for conducting research, developing prototypes, and testing new products.

Innovation for Step Out Business

The IRPC Innovation Center is also committed to developing innovations for step-out businesses. The goal is to identify and pursue new business opportunities for the company.

The center uses a two-stage process to develop step-out innovations:

- **De Novo Program:** The De Novo Program is a basic research program that tests the technical feasibility of innovative ideas and their potential to meet market needs. The program culminates in the development of a lab-scale prototype or a technology readiness level (TRL) of 1-4.
- **Sandbox Program:** The Sandbox Program is an incubation program that helps to further develop and refine innovative ideas. The program culminates in the development of a field prototype that can be tested with customers in the context of a new business ecosystem. The program involves collaboration with relevant internal stakeholders and is similar to the incubation of a Start-up. The program encourages experimentation and learning from failure, with the goal of ultimately bringing innovations to market or developing them into new businesses for the company.

Open Innovation

The IRPC Innovation Center also uses open innovation to accelerate the success of its innovations and identify new business opportunities. Open innovation is the process of creating new businesses through collaboration with external experts.

The center uses two main approaches to open innovation:

- **Strategic partnerships:** The center partners with universities, research institutes, and other organizations to develop new technologies and products. For example, the center has partnered with Mahidol University and the Electricity Generating Authority of Thailand (EGAT) to develop new energy technologies.
- **Outsourced funding:** The center provides funding to external organizations to conduct research and development. For example, the center has provided funding to the Innovation One Fund, which is managed by the Federation of Thai Industries, and the National Science and Technology Development Agency (NSTDA).



The Analytical Center and Laboratories

The Analytical Center and Laboratories (AC&L) plays a vital role in supporting IRPC's core businesses. The AC&L works closely with internal departments to ensure the quality of products and support the smooth production process. The AC&L is committed to providing world-class analytical and testing services. The center has invested in state-of-the-art equipment and has a team of highly skilled and experienced professionals. The AC&L is also

accredited to ISO/IEC 17025, which is an international standard for testing and calibration laboratories. In addition to supporting IRPC's core businesses, the AC&L also generates revenue for the company by providing analytical and testing services to external organizations. In 2023, the AC&L generated 14 million baht in revenue, which is the highest revenue since the center began providing services to external organizations.

► R&D Effectiveness Performance

IRPC has measured R&D effectiveness in terms of the incremental margin of a new product aged 3 years per R&D investment involves calculating the incremental margin generated by the product after three years and comparing it to the R&D investment made in that specific year. This concise measurement process ensures that the financial impact of R&D investments, reflecting a successful and efficient utilization of resources in research and development activities.



R&D Effectiveness of incremental margin of new product aged 3 years per R&D investment in that year

[Unit: times]

	2021	2022	2023
Target	1.6	1.8	1.5
Performance	1.95	0.9	0.41

► Implementation

Despite the challenges faced in 2023, IRPC Innovation Center successfully pushed 7 Core Uplift research and development projects into commercial-ready products for market launch. These projects generated an additional profit of 43 million baht.

Examples of innovative products include:

- Conductive High Impact Polystyrene (HIPS) resin, grade SA210BKC, for manufacturing IC trays
- Polyethylene adhesive (PE adhesive) for epoxy-coated steel pipes
- Acrylonitrile-butadiene-styrene (ABS) resin for refrigerator molding

In addition, the Innovation Center continuously presents new research projects in a systematic manner to drive research and development towards more innovative and specialty products. Currently, there are research and development projects worth 240 million baht, with a balanced distribution of projects over time.

For research and development of innovations to create Step-out businesses, there are a total of 14 projects in the De novo Research program, which are in 5 programs: Nanomaterials and Nanocomposites, Materials for Advanced Batteries, Materials for Electronics, Advanced Materials and Chemicals, and Advanced Devices. Currently, most of the projects are in the laboratory research phase to test technical feasibility or TRL 4.

Currently, there are a total of 4 research and development projects in the Sandbox process: Temperature sensor, 3D printing filament, Silver nano, and Chemical for protective coating. 1 project has exited the Sandbox program to be developed into a new business of the company: Plant nutrient supplements. And 1 project had to be discontinued due to low technical and business feasibility: Technology Enablement for Solar Energy. The progress of the product samples is as follows:

In 2023, the Innovation Center researched and developed REINFOXX fertilizer or “White Bear Fertilizer” to the point where 4 new formulas of the product could be launched on the market: ZIO-Sulfur (ZIO-S) and ZIO-CaB, which use nano-innovation to allow plants to absorb nutrients better, and Am-CaB and Am-Maxx, which are chelates from natural organic sources. They are not harmful to users and the environment, and they provide complete nutrients, increase plant growth, and prevent diseases and insects. The total sales volume was 15,215 liters, or 5 million baht in revenue, through cooperation with plant nutrient supplement marketing experts and the addition of online sales channels (Shopee).



Silver Nano products for use as a key active ingredient in personal care, home care, and pet care products, cosmetics, and medical applications. It has effective antibacterial and antifungal properties. It has been tested with customers and is available in 4 grades: SG15000, SG15000C, SG7500, and SG7500C. The total sales volume was 107 liters, or about 200,000 baht in revenue. The company is currently looking for additional customers and developing new formulas to meet customer needs.



Ultramo 3D Printing Filament Products

- PLA, PETG, and ABS filaments
- Sold through B2B (Business-to-Business)
 - Focus on 3D printer distributors
- Sold through B2C (Business-to-Customer)
 - Focus on online channels (Shopee)

Sales

- 297 rolls
- Revenue of approximately 100,000 baht

Upcoming Products

- 3D printing filament with recycled Polyethylene terephthalate (PET)
- To be launched in 2024

Additional Information

- Ultramo 3D printing filament was launched in 2023.
- The products are made from high-quality materials and are designed to provide excellent printing results.
- The products are available in a variety of colors and sizes to meet the needs of different customers.
- The company is committed to providing customers with high-quality products and services.



Paints and Coatings Products

The company has researched and developed paints and coatings containing Polytetrafluoroethylene (PTFE). This results in products with special properties that adhere well to steel surfaces, are resistant to harsh weather conditions, prevent rust, and extend the life of steel by up to three times.

Applications

The products are suitable for coating steel structures, pipes, and equipment in oil refineries, petrochemical plants, airports, ports, and bridges. They help reduce the frequency of structural maintenance and are environmentally friendly.

Benefits

The research and development of this innovative paint and coating also increases the competitiveness of the domestic paint and coating industry in a sustainable manner.

Current Status

The products are currently being tested in real-world environments and conditions. There are two main grades: Beger IRPC TefGuard, a primer, and Beger IRPC TefThane, a topcoat, for maintenance work.

Investment in VISUP

The company has invested in VISUP Co., Ltd. (VISUP) at a proportion of 22.22%, with a total investment of 20 million baht. VISUP is an incubation and investment unit for deeptech startups from VISTEC that aims to invest in and push deep research from universities into commercial applications.

Benefits of the Investment

This investment will give the company the opportunity to enter the startup ecosystem to connect with business partners and access deep technology and invest in potential deeptech startups. This will help the company to further develop its business.

Supported Startups

One of the startups that the company has supported since the beginning is CleanTech & Beyond, which researches and develops a temperature sensor that can change color when it detects a temperature above a set value. It is connected to a digital system, making it a smart tag called Digital Temperature Indicator (DTI).

► R&D Partnerships and Collaboration

The Company emphasizes an innovation strategy through collaboration and research and development integration. This underscores the organization's commitment to technological advancement and sustainable growth. In 2023, the Company signed a Memorandum of Understanding (MOU) on research and development collaboration and academic cooperation with Mahidol University. The collaboration aims to promote academic and research and development cooperation, jointly support and drive innovation, and create opportunities for the development of medical technology research, such as the development of 3D Photopolymer Resin for 3D printing for dental model (Dental Model) and others, leading to both commercial and social benefits, driving Thailand towards becoming an innovation-based economy.

In addition, the IRPC Innovation Center has collaborated with leading institutions such as VISTEC, Chiang Mai University, Faculty of Architecture, Chulalongkorn University, and PTT Group companies to reduce research time and risks in bringing products to commercial production.

The collaboration between the Company and the Faculty of Medicine, Vajira Hospital, Navamindradhiraj University, in the establishment of Vajiralab for Society Co., Ltd. aims to serve as a center for the analysis and testing of medical personal protective equipment to meet standards. Vajiralab for Society Co., Ltd. has been certified by the Industrial Standards Institute (SMI) and is now ready to provide services.

As a result of these initiatives, IRPC Innovation Center has been awarded the Chief Innovation Officer (CIO) badge and certified by the National Innovation Agency (NIA) this year. This prestigious accolade is granted to organizations that demonstrate a strong commitment to fostering innovation and encouraging employees to pursue creative and courageous projects for organizational development. IRPC is among the 85 esteemed recipients of this recognition, showcasing their dedication to driving innovation and contributing to Thailand's transformation into an "Innovative Nation."

This is in recognition of the company's unwavering undertaking to develop innovations from its knowledge base, experience, and expertise to add value to materials alongside constant improvement in energy efficiency and the use of alternative energy of the future. The company is also known for its ability to consistently offer solutions that meet the needs of modern society in the quest for a good life and healthy living environment. Guided by its lofty vision, IRPC strives to excel in every endeavor it makes while building the body of knowledge as well as adopting new ways of thinking to transform the way it does business and diversify beyond the petroleum and petrochemicals to be able to meet the needs of more diverse customer base and greater number of customers throughout the world through collaboration with business partners.



► Performance Summary


In the year 2023, the Innovation Center and analytical testing center had 312 research and development professionals on staff, accounting 7.4 percent of the company's total workforce. The center was allocated a budget of Baht 227 million for innovation initiatives, personnel growth, and resource allocation, aimed at enhancing value creation and maintaining the company's competitive advantage within its innovation-centric strategies.



Proportion of Researchers with a PhD. 17% of all R&D Personnel.

Intellectual Property IRPC owns a total of 241 from 3 types of intellectual property:

Registered Copyrights	Trademark	Patent
Totaling 14 items comprising of 9 Computer Program, 4 Music and Lyrics, and 1 Publication	Totaling 184 Items Registered including the European Union	Totaling 43 Items : 21 Registered, 9 invention from 11 countries, and other 22 Pending Registration covering Production Processes of Polymers, Petroleum, and Chemical Products

	Performance Indicator	Performance 2023
	Total sales of plastic pellet products (Million Baht)	37,996
	Sales of specialty plastic pellet products (Million Baht)	18,432
	Proportion of sales of specialty plastic pellet product to total sales of plastics pellet products (percent)	48.5

Scan this QR code for addition information on IRPC's innovation research and development, or visit the website: <https://innovationcenter.irpc.co.th/>



■ Circular Economy

To develop innovations to use resources efficiently and turn waste into value.



2030 Goal:

Achieve circular economy maturity level 3 according to BS 8001:2017 by 2030.



2030 Goal:

Increase waste utilization to more than 95% in 2040.

► Stakeholder Impact

The intensifying global waste crisis poses a significant and unresolved environmental challenge. Beyond contributing to pollution, depletion of natural resources, and adverse effects on ecosystems, inefficient waste management also poses risks to public health and exacerbates the challenges of resource scarcity. Acknowledging the potential contribution to waste generation from our business activities, IRPC has adopted Circular Economy as one of our main sustainability strategies and has proactively fostered collaborations with partners in the public, private, and civil sectors to collectively address, prevent, mitigate, or solve these environmental challenges. This commitment involves applying circular economy principles throughout the value chain to ensure the efficient use of resources, reduce waste generation, and promote recycling and upcycling initiatives. Through the integration

of these principles, IRPC aims to create a closed-loop system that not only mitigates environmental impact but also fosters economic growth and social responsibility.

► Management Approach

To fulfill our commitment to circular economy, IRPC has adopted the Eco-Solution model for closed loop management, focusing on the conversion of plastic pellets into everyday items that can be recycled for future use. To ensure a proper and efficient recycling process, the Plastic Waste Platform was introduced to collect plastic waste data from our plants and customers', facilitating convenient access to data for efficient plastic waste management. This approach helps reduce costs, contribute to efficient use of resources, as well as adding value to plastic waste.

The Eco-Solution Model begins by collecting plastic waste including post-industrial recycled (PIR) and post-consumer recycled (PCR) products through our collector network. The collected plastics are subsequently sorted and directed either to gasification/pyrolysis or back into the system for further use. In the case of the latter, Plastic waste is recycled based on material types (PP, HDPE, PS) or upcycled into new materials, such as partition walls or barriers. The primary goal is to strengthen our recycled compound business by using post-consumer recycled (PCR) materials to meet customer needs and respond to the principles of the circular economy. In 2023, IRPC produced post-consumer recycled compound made with used plastics, significantly strengthening our business's competitiveness and positively influencing the overall industry landscape.

Furthermore, IRPC has collaborated with the National Research Council of Thailand and Kasetsart University on the joint initiative "Leading the Nation towards a Zero Plastic Waste Society, with the objective to effectively manage plastic waste right from its source, ensuring there is no waste polymer for disposal throughout every stage of the supply chain. Through this initiative, IRPC has become the first Thai company to receive certification for Zero Plastic Waste in the Production Process. This milestone will contribute to the advancement of the country's plastic industry and serve as a model for other ASEAN countries in the future.

In evaluating the extent of implementing circular economy principles, IRPC, as part of the PTT Group, refers to BSI Standard (BS 8001:2017) for self-assessment to inform the to acknowledge the level of circularity maturity level for the second consecutive year. This iterative process helps to provide insights into the organization's current state of application and commitment to circular economy principles. Moreover, it serves as a catalyst for fostering continuous improvement and progress within the organization.

► Implementation

IRPC aims to continuously expand our circular economy projects to enhance business growth opportunities and to produce recycled compound products. Over the past year, IRPC has implemented projects throughout the value chain to bring waste plastic from the production process (Post-Industrial Recycled) and recycled plastics (Post-Consumer Recycled) back for optimal use through collaborations with various partners. Additionally, IRPC has implemented projects based on the 3Rs approach (Reduce, Reuse, Recycle) to ensure the most efficient utilization of resources.

IRPC developed products that reduce the use of limited resources, including:

• Bio-based Polypropylene Project

Bio-based products include Polypropylene Grade W1561RW, or Polypropylene (PP) compound with 30% Thai wood pulp powder, an industrial waste, as substitute for natural wood. The plastic compound is used to manufacture lightweight plant pots that look like wooden ones. The product received certification US FDA 21 CFR 177.1520 certification (Olefin Polymers), Regulation (EU) No. 10/2011





- **Development project of 3D filament in collaboration with Chulalongkorn University**

The company cooperates with Chulalongkorn University to produce upcycled products from plastic waste within the university. The products are of the rPET type manufactured using 3D filament technology.

- **Joint projects with Amazon**

As for construction materials and decorative products, IRPC developed R-MAXX L-Cement made from plastic mixed with cement, which can be easily injection-molded instead of cast-molded. Such compound, strong, durable with cement-like textures, can be used for the manufacture of a wide range of decorative items, leading to cooperation between IRPC and PTTOR to produce such attractive lampshades and plant pots that blend in well with Cafe Amazon's Green Concept decor.



- **IRPC, PTT, and Boonrawd jointly develop innovative materials for circularity in production lines, aiming to reduce resource consumption and enhance sustainability.**

IRPC Public Company Limited, PTT Public Company Limited, and Boonrawd Brewery Company Limited have signed a memorandum of understanding to advance innovation in utilizing leftover materials from production processes, creating returnable equipment products in line with the Circular Economy concept. This initiative utilizes resources efficiently and effectively, minimizing environmental impact. The project pioneers plastic recycling through prototype products such as water jugs and soda bottles made from rPET and rHDPE, as well as pallets made from rHDPE and molasses residue.



- **To collect used water filters made with block copolymer type of PCR Polypropylene product group**

In cooperation with partner, Ban Krong Nam, for recycling as raw materials for the manufacture of green plastic products. In cooperation with Qualy, a brand of plastic products, under its creativity, happiness and sustainability concept.



• The ongoing IRPC-KFC

Single-use plastic waste management project was joined by the Mirror Foundation in collecting, sorting, cleaning, and delivery of plastic waste to our partner, Best Polymer International Co., Ltd., to produce PS Recycled Compound from single-use plastic mixed with High Impact Polystyrene (HIPS) for use in the manufacture of brand name watch presentation cases and jewelry boxes by another partner, Cosmo Group Co., Ltd.



RMM151 (PCR PS 45% + HIPSUB 55%)



• IRPC has also partnered with Best Polymer International Co., Ltd.

In upscaling Polypropylene used in battery cases and HDPE in lubricant packaging from PTT Fit Auto Car Service Centers, turning them into raw materials for the development and creation of plastic and non-agricultural wood composite, which can be used to manufacture extruded sheets to create durable, moisture resistant and easy-to-wipe clean products that have wood-like textures in any color as required. Such composite is suitable for shelving, cupboards, tables as well as store decoration at PTT FIT Auto Car Service Centers.


► Performance Summary

As a result of these efforts, IRPC has made remarkable progress in incorporating recycled input materials. In 2023, seven Circular Economy projects were collaborated with partners and customers, contributing to the responsible use of limited resources. Moving forward, IRPC remains dedicated to furthering this positive impact, contributing to a more sustainable and circular economy for the benefit of both the business and the environment.



Climate Change

To reduce greenhouse gas emissions to limit global warming and support SDG target 13 through production improvements and development of eco-friendly products

<div> <div></div> </div>		
Enterprise-level indicators	Short-term/Long-term targets	2023 Target Achievement
<div>  <ul style="list-style-type: none"> Performance Indicators of senior management Performance indicators of the executive committee and employees at all levels </div>	<div> <p>Short-term target</p> <ul style="list-style-type: none"> IRPC's direct and indirect greenhouse gas emissions in 2023 not exceeding 4.45 million tCO₂eq. <p>Long-term targets</p> <ul style="list-style-type: none"> Reducing direct and indirect GHG emissions by 20% below the GHG emissions baseline in 2018 (4.18 tCO₂eq) projection for 2030. Carbon neutrality by 2050 Net Zero greenhouse gas emissions by 2060 </div>	<ul style="list-style-type: none"> In 2023, IRPC recorded 3.6 million tCO₂eq of direct and indirect GHG emissions as planned, which the reduction is driven by energy conservation initiatives and manufacturing process improvement. The use of renewable energy from floating solar in the company's operations.

Stakeholder Impact

As the reality of climate change becomes more evident, there is a growing awareness of the urgent need for global action. In line with this imperative, the COP28 summit has called for immediate efforts to limit temperature rise to 1.5°C and achieve Net Zero emissions by 2050, signaling more stringent climate requirements and necessitating engagement across all sectors. IRPC acknowledges these challenges, recognizing both the direct and indirect impacts of climate change across our business supply chain and the potential escalation of these impacts in the future. Climate change not only impacts our business operations but also has negative effects on society and

the environment and ecosystems, affecting the overall economic situation of our company and the country, as well as the basic human rights of our stakeholders in terms of health and well-being.

Embracing our roles in taking climate action, IRPC is determined to continue reducing our greenhouse gas emissions in line with the company's guidelines. Our greenhouse gas emission targets and plan of action have been reviewed, with new targets set to further cut back emissions in all operational processes. We also remain dedicated to investing in projects that reduce emissions and promote the advancement of renewable energies.

► Management Approach

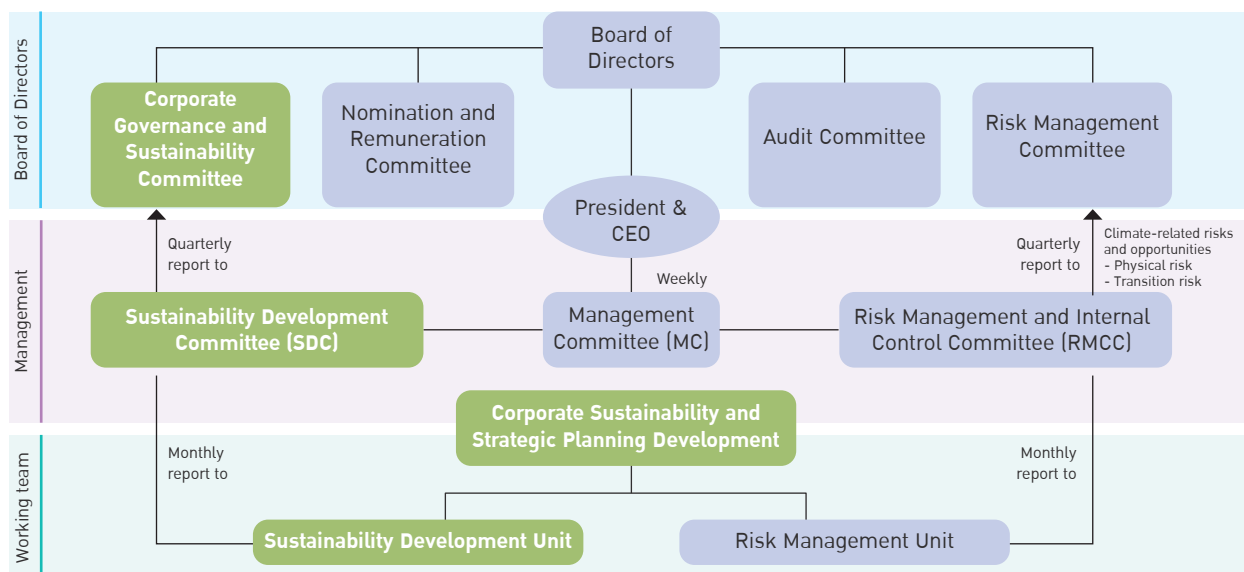
Climate Governance

To ensure the systematic implementation of climate actions, IRPC has established a comprehensive climate change management structure that extends from the board to operational levels. The Board has defined overarching goals, directions, and policies for climate change management. Meanwhile, The Corporate Governance and Sustainability Committee, along with the Risk Management Committee (RMC), is tasked with overseeing and assessing the effectiveness of governance related to climate risks and opportunities. At the management level, the Management Committee (MC) has the responsibility of determining and reviewing sustainability policies, approaches and goals as well as considering implementing guidelines based on the Board's directives. The MC actively collaborates with the Sustainable Development Committee (SDC) in shaping IRPC's sustainability strategies and directions, and the SDC provides quarterly performance summaries and reports to the Corporate Governance and Sustainability Committee.

In driving implementation, the SDC has commissioned the Corporate Strategy and Sustainability Department to carry out climate change-related initiatives in alignment with the set goals and strategies. The department also reports the results of operations to the SDC for continuous improvement. Additionally, the Greenhouse Gas Reduction in tCO₂e is set as an indicator for performance assessment among staff of all levels from the President to employees in the production line and supporting of related production lines. The performance is reported to the Management Committee in management level and Corporate Governance and Sustainability Committee, in Board of Directors level. As for the reduction of the greenhouse emission which is considered as an indicator for the operation unit, the result is reported to the Environmental Management Committee and the Management Committee of Rayong Management Committee.

SDC Governance Structure

The sustainability development committee will directly report to CGSC board level, and any linkage topic will report to MC



Policy

IRPC aims to reduce direct and indirect greenhouse gas emissions in accordance with Climate Change Policy to carbon neutrality in 2050 and net zero by 2060, aligned with the Paris agreement to limit global temperature rise to well below 2 degrees Celsius by announcing “IRPC: Future is Net Zero 2060”, a commitment to become Net Zero organization by 2060. This commitment, so called “ERA” includes 3 GHG reduction program 1. Eco-operation & Technology (Shift the operation from fossil-based power to renewable energy and increase energy efficiency) 2. Reshape-Portfolio (Adjust portfolio by investing in non-oil with Eco-Solutions such as adapting circular economy, promoting green product, and setting up systematic waste management) and 3. Absorption and offset (Seek all means to absorb and offset carbon from studying Carbon Capture, Utilization and Storage (CCUS) technology to increasing community engagement and forestation) for low carbon society. IRPC, therefore, is committed to concerning the organization to SDG including climate change issues through IRPC Climate Change.

Scan this QR code for addition information on IRPC's Climate Change Policy, or visit the website:
<https://innovationcenter.irpc.co.th/>



Climate Change Risks and Opportunities Assessment

IRPC includes climate-related risks into our corporate risk portfolio, prioritizing them through a comprehensive risk matrix that evaluates composite exposure across Risk Likelihood and Impact dimensions in the Economic, Social, and Environmental aspects. This approach ensures the development of a well-balanced ESG risk portfolio. Annually, IRPC conducts assessments of climate change risks and sensitivity analyses to assess carbon dioxide reduction projects, considering both cost and GHG reduction.

IRPC aligns our climate-related risk and opportunity assessments with recommendations of the Task force on climate-related financial disclosure (TCFD). This involves implementing the TCFD's recommendations in four key areas, including Governance, Strategy, Risk Management, and Metrics and Targets. Our assessments have been built upon the recent set of information reported in accordance with the requirements of Stock Exchange of Thailand (SET), encompassing the following key components:

Type		Climate-related Risks	Potential Impacts on IRPC business	Estimated financial impacts
Physical Risks	Acute	<ul style="list-style-type: none"> Increased severity of extreme floods Increased severity of extreme droughts Increased severity of coastal/bank erosion 	<ul style="list-style-type: none"> Increased capital costs (e.g., damage to facilities, Land lost due to coastal erosion) Reduced revenue from decreased production capacity (e.g., transport difficulties, supply chain interruptions) Reduced revenue and higher costs from negative impacts on workforce (e.g., health, safety, absenteeism) 	12,797 MB for a timeframe of 7 years
	Chronic	<ul style="list-style-type: none"> Risk of sea level rise Rising mean temperatures 	<ul style="list-style-type: none"> Write-offs and early retirement of existing assets (e.g., damage to property and assets in “high-risk” locations) Increased operating costs (e.g., inadequate water supply for operating plants) Reduced revenues from lower sales/output Increased insurance premiums and potential for reduced availability of insurance on assets in “high-risk” location 	
Transition Risks	Policy and Legal	<ul style="list-style-type: none"> Introduction of carbon pricing/emission rights trading in country i.e., tax, ETS 	<ul style="list-style-type: none"> Introduction of carbon pricing and emission rights trading will decrease net profit 	951 MB for a timeframe of 7 years
		<ul style="list-style-type: none"> Enhanced emissions-reporting obligations 	<ul style="list-style-type: none"> Increased operating costs to disclose information and has been certified by the designated agencies. 	
	Technology	<ul style="list-style-type: none"> Increase in switching cost 	<ul style="list-style-type: none"> The company will have to consider selling assets or having a switching cost from fossil fuel to low-carbon intensive energy sources. 	Under consideration
		<ul style="list-style-type: none"> Required huge investment cost to install removal Technology i.e., CCUS 	<ul style="list-style-type: none"> High capital investments in technology deployment e.g. installation of GHG removal technology Subsequent increased production costs due to the new and innovative technologies and skill set throughout the supply chain 	
	Market	<ul style="list-style-type: none"> Changing customer behavior 	<ul style="list-style-type: none"> Decrease in oil consumption due to the shifting consumer preferences from internal combustion engine (ICE) vehicles to electric vehicles (EV) 	Under consideration
	Reputation	<ul style="list-style-type: none"> Increased stakeholder concern or negative stakeholder feedback 	<ul style="list-style-type: none"> More pressure from stakeholders regarding environmental management, such as emissions of volatile substances from factories, effects on health of workers and surrounding communities, GHG reduction policy towards the global agenda to limit temperature rise no more than 2°C, etc. 	Under consideration

On the other hand, IRPC has also considered opportunities which might arise amid climate change in order to stimulate the world's agenda on limit temperature rise no more than 2°C. considering the change of consumers' behavior towards electric vehicles (EVs), we find that the shift in new vehicle purchase in responding to the government promotion of the EV manufacturing would result in an increase in sales of petrochemical products, such as Polypropylene Compound & Composite which are used to produce both interior and exterior automotive parts. Besides, to attain the needs of battery manufacturing, the supply of Acetylene will also be higher. Thus, having considered the above business opportunities, IRPC potentially enjoy the financial benefits of 0.43% and 4% increase in the company's 2030 EBITDA, respectively.

Climate Scenarios

From its risks and opportunities analysis, IRPC has determined what would hypothetically happen to its businesses under two different scenarios as follows:

1. STEPS (2.3 °C) Scenario reflects current policy settings based on a sector-by-sector assessment of the specific policies that are in place, as well as those that have been announced by governments
2. NZE (1.5 °C) Scenario sets out a narrow but achievable pathway for the global energy sector to achieve net zero CO₂ emissions by 2050, by which limiting global temperature rise no more than 1.5 °C is expected to achieve this net zero target.

Our Responses to Climate-related Risks and Opportunities

IRPC recognizes the importance of combating climate change by starting various organizational initiatives, like the Floating Solar Power project, Internal Carbon Pricing, and Carbon-Neutral project. IRPC is committed to developing products and organizing initiatives that reduce greenhouse gas emissions to combat climate change. Moreover, IRPC also applies the circular economy principle to our business operations by collaborating with partners to reuse industrial plastic waste in our production process, further reducing the needs for new materials.

Scan this QR code for addition information on IRPC's Climate-Related Risk responses, or visit the website: <https://innovationcenter.irpc.co.th/>



► Implementation

IRPC is proactively advancing our net-zero objectives through strategic ERA (Eco-operation and technology, Reshaping portfolio, Absorption and Offsetting) initiatives. These encompass innovative projects such as the development and implementation of cutting-edge technologies, the transformation of our portfolio to embrace sustainability, and targeted efforts in carbon absorption and offsetting.

Eco-operation and Technology



Eco-operation and
technology

79.14%

Development of projects related to industries with high energy consumption in the third quarter

1,219,488

Estimated energy savings in the year 2023 (kilojoules)

78,044

Carbon dioxide equivalent reduction (million tons) from projects related to industries with high energy consumption estimated by the end of 2066

Emission Reduction Programs

IRPC continues to improve the energy efficiency in the production process, striving to maximize the utilization of natural resources while minimizing environmental impact. This commitment involves improving efficiency in heat and steam management, reducing electricity consumption, enhancing logistic management, as well as engaging in collaborative initiatives with PTT Group.

IRPC has implemented a program covering two categories of activities aimed at energy saving and CO₂ emission reduction. These consist of Operational Control projects and Process Improvement projects (includes additional equipment installation projects).

- **Operational Control Projects**, covering reduction of electricity consumption, reduction of internal heat loss and steam consumption in the operation process.
- **Process Improvement Projects**, covering equipment installation, electricity production facilities improvement.

Furthermore, IRPC invested 550 THB million of capital expenditure in the Floating Solar Power project in 2020. This project aims to generate electricity for a polypropylene (PP) plant in the IRPC Industrial Zone. With a continuous 24-hour operation, the project has an expected 25–30-year operational lifetime. It is an initial clean energy project to expand our business which has a generation capacity of 12.5 megawatts in 2020. Resulting in GHG reduction of approximately 10,510 tons of carbon dioxide per year.

Carbon emissions management certification

IRPC has made a commitment to play an active role in the efforts to reduce greenhouse gas emissions at the national level and international level as a participant in the Conference of Parties to the UN Framework Convention on Climate Change. It has applied for Carbon Footprint of the Organization (CFO), Carbon Footprint of Corporate Products (CFP) and Carbon Reduction Label certification, to manage the reduction of carbon emissions from the company's operations, reduce resource costs, and create new opportunities for growth and competitive edge.

For nine consecutive years, IRPC has participated in the Carbon Footprint for Organization (CFO) project, organized by the Federation of Thai Industries with financial support from Thailand Greenhouse Gas Management Organization (TGO). The project aims to reduce GHG emissions from various organizational activities, such as electricity consumption, waste management and transportation. In 2023, IRPC obtained the Carbon Footprint Reduction Label certification from the TGO as follows:

- 1) ABS & SAN & CCM
- 2) EPS
- 3) Refinery & Condensate



IRPC Prepares for Greenhouse Gas Management with Carbon Footprint Platform, Aiming for Net Zero

IRPC participated in the opening ceremony of the "Organization Carbon Footprint Platform Pilot Project for Net Zero." This reflects IRPC's leadership vision and commitment to achieving Net Zero goals. The project organized by the Thailand Greenhouse Gas Organization (TGO), aims to promote effective greenhouse gas management across various sectors through the Carbon Footprint for Organization (CFO) certification process. This will be facilitated by a platform developed by TGO. The platform acts as a tool for accurate, convenient, and swift CFO assessment in line with international standards. It also supports verification by Verifiers directly on the platform. TGO will monitor and communicate progress data with reporting organizations and verification bodies throughout the process, streamlining the development of effective greenhouse gas reduction plans and setting Net Zero targets for businesses. IRPC's participation in this project demonstrates its commitment to addressing climate

change through responsible greenhouse gas management. By utilizing TGO's Carbon Footprint Platform, IRPC strives to achieve Net Zero goals and contribute to a sustainable future for all stakeholders.

As a result of Carbon Footprint registry, IRPC reaffirms its vision and leadership in environment good governance and sustainability as well as inspires others as a role model laying out a blueprint for a carbon footprint sequestration framework which can handle the emergence of carbon tax and trade regulations for the environment going forward. This, in turn, also reassures trade partners in their policies concerning environment preservation and carbon footprint evaluation.

Moreover, in 2023, IRPC conducted a carbon footprint assessment for our products to apply for the registration of carbon footprint labels from the Greenhouse Gas Management Organization Committee (ongoing process). The assessed products include Polypropylene (PP), Polystyrene (PS), Acrylonitrile Butadiene Styrene (ABS), and Acrylonitrile Styrene (SAN).

Carbon Label Project

CFO

Carbon Footprint for Organization: CFO Achievement

	2015	2016	2017	2018	2019	2020	2021	2022	2023
Project	PORT	AYD	PPD, LDDL	REFY & COND	PRP	WWT 1 & 2, WWT 3, UT-BK & UT-IP	CHP-PW, DCC, LUBE & UHV	Olefins (ETP, ACB, PRP), Polyolefins (PP, PPC, PTK), HDPE & UHMWPE, BTX, EBSM, PS	EPS, CCM, ABS, SAN, Refinery, Conclensate

CFP

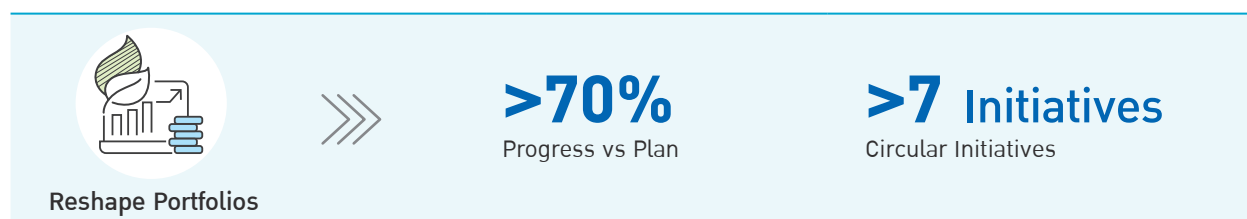
Carbon Footprint for Products: CFP Achievement

	2021	2022	2023
Project	Utility (Electricity, Steam, Water)	PP, PS	PP, PS (cont.), ABS, SAN
WAY	<ul style="list-style-type: none"> Support government for develop Eco-industrial town As a consequence of the global warming problem that has resulted from excessive greenhouse gases (GHG) emissions 		

In addition, the plastic pellet products under POLIMAXX trademark have successfully secured the renewal of certification for the carbon reduction label from the Thailand Environment Institute Foundation, including:

- Polypropylene (PP): PP Homo Polymer (69,787.49 tons CO₂ equivalent per year), PP Random Copolymer (20,043.57 tons CO₂ equivalent per year) and PP Block Copolymer (14,171.46 tons CO₂ equivalent per year).
- Expandable Polystyrene (EPS): STD STANDARD TYPE (3,430 tons CO₂ equivalent per year), and SE TYPE (SELF EXTINGUISHING TYPE) (3,430 tons CO₂ equivalent per year).
- Polystyrene (PS): High Impact Polystyrene (HIPS) (3,932 tCO₂ eq per year) and General Purpose Polystyrene (GPPS) (3,844 tCO₂ eq per year).

R: Reshape Portfolio



Climate Change Products

IRPC is committed to researching and developing new products to meet the diverse needs of customers, as well as developing environmental-friendly products which creates more business opportunities and enable IRPC to adapt to changes in the economy, society, and environment, paving way for to sustainable growth.

IRPC addresses the concerns of environmentally conscious users by providing alternative solutions through the development of the following products:

1. POLIMAXX Green ABS, in which synthetic rubber is replaced by a natural rubber. The uses of the product can reduce GHG emission.
2. POLIMAXX Green PS, an innovative product made from 20-50% styrene mixed with natural rubber. The development of this product is a co-project between IRPC and a customer with the aim of developing a traffic cone made from plastic rubber composite which can reduce

the use of synthesis rubber by 30%. The new traffic cone is strong, durable, flexible and impact resistant.

3. POLIMAXX Wood Plastic Composite is a plastic product with a mixture of wood powder, blending outstanding properties of plastic and wood perfectly. IRPC focuses on developing products that can be used in consumer packaging and furniture. In the case of consumer packaging, all requirements from Food Contact EU Regulation (FDA) had already been passed.
4. POLIMAXX Natural Pigment Color Compound is categorized as an environmentally friendly plastic. It is developed by mixing plastic with natural color extracts instead of synthetic colors. The method does not compromise the physical property of the plastic and is under international quality control. There are three colors, which are green from spinach, red from shellac, tomatoes, or strawberries, and yellow from turmeric, bell peppers, or carrots. This product is an alternative to the growing number of health and safety conscious consumers in Thailand and abroad.

5. Products that have Carbon reduction label (HDPE, PP, PS and EPS) which are applicable for various products, for instance, plastic bag, electrical appliance, heat insulation, etc. IRPC developed these products in terms of energy saving and chemical usage reduction in the production process and registered Carbon Reduction Label.
6. Gasohol
7. Bio Diesel
8. RMAXX L-Cement is a plastic product with mixture of cement for easy and quick cementation
9. Bio-based Polystyrene product which is a mixture of Polystyrene plastic and flour
10. P301K a product used in the plastic sheets of floating solar project which uses lower quantities of HDPE

In addition, IRPC also addresses the transition of a low carbon economy operating within our own operations through several projects. For example,

1. Expandable Polystyrene (EPS) for Construction is the energy saving product for construction. It is a special heat insulation used in the construction of buildings that need temperature control.
2. CHPI (Combine Heat and Power Project), which uses natural gas as a fuel and totally cancelled out the use of fuel oil boiler resulting in a reduction of carbon dioxide emission of more than 260,000 tons of carbon dioxide equivalent per year.

Internal carbon pricing

To incorporate the consideration of carbon emission costs into the company's decision-making, IRPC implemented the concept of internal carbon pricing (ICP), also known as shadow price, in evaluation and decision-making on green investments and infrastructure projects, in addition to other financial tools, such as internal rate of return (IRR) since 2021. IRPC set an ICP US\$20/tCO₂eq in accordance with the guidelines on the determination of carbon pricing and low carbon investment recommended by Thailand Greenhouse Gas Management Organization (TGO) in collaboration with World Bank. IRPC has applied the ICP in our Renewable projects and Energy Efficiency Improvement. More than 12 projects are using shadow pricing, for example, Floating Solar Phase II for PP Plant, VDU Heater Energy Efficiency Improvement for Lube Plant, Meltblown expansion project for Polypropylene, Global Hygiene: Spun bond Expansion project for Polypropylene, etc. Concurrently, the implicit price is reflected in IRPC's investment in CSR activity aimed at emission reduction, such as installing solar cells for pumps and other equipment to develop smart farming at Nong Yang village, Buriram Province, Development Center for Disabilities, Sri Wattana Village, Udonthani Province.

A: Absorption and Offset



Absorption and Offsetting

20,000

Reforestation project (Rai)

50%

Success rate in CCS Hub Model

In the area of absorption and offsetting, IRPC has collaborated with PTT Group in two pivotal projects. These initiatives encompass: 1) Reforestation project designed to counterbalance carbon dioxide emissions, and 2) Comprehensive study to assess the viability of applying carbon capture and storage technology (CCS) or the CCS Hub Model. This strategic collaboration underscores IRPC's unwavering commitment to environmental stewardship, as these projects are tailored to not only absorb carbon emissions but also explore cutting-edge technologies for capturing and storing carbon dioxide.

► Key activities in 2023 include

Forestation Project Site Visit with Mae Fah Luang Foundation (MFLF)



IRPC, together with MFLF, conducted site visit for the 'Carbon Credit from Community Forests for Sustainability' project in Doi Saket, Chiang Mai. This involved attending lectures from community leaders and learning insights from their experiences in managing sample plots to study carbon credits from community forests.

IRPC conducted on-site observations of the Verification Process for the TVER project in Mae Rim, Chiang Mai, which is part of the 'Carbon Credit from Community Forests for Sustainability' project. The company joined in observing the launch of the verification process, alongside external assessors, and the local community. Additionally, IRPC took part in monitoring activities during the on-site data verification in the community forest sample plot.

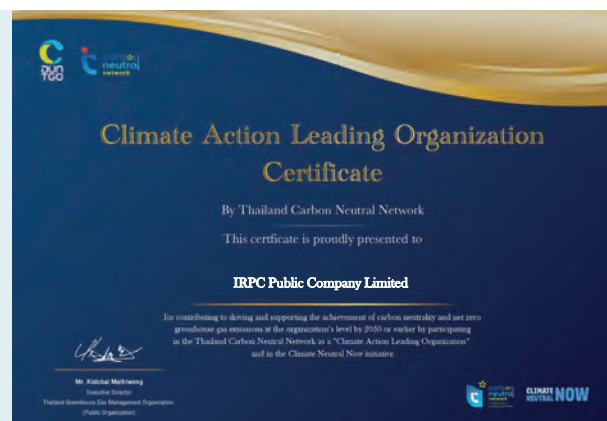


As a result of our continued commitment and actions, IRPC has received several achievements in 2023, which are proof of our unwavering dedication to addressing climate change and advancing towards a net-zero future.



IRPC certified as Climate Action Leading Organization (CALO)

On February 22, 2023, IRPC has been certified as a 'Climate Action Leading Organization' (CALO) by the Thailand Carbon Neutral Network: TCNN at the meeting of the Thailand Carbon Neutral Network Committee No. 1/2023, in Meeting Room 2, Thailand Greenhouse Gas Management Organization (TGO). A Climate Action Leading Organization (CALO) is an organization which demonstrates leadership in managing and taking responsibility for its greenhouse gas emissions through a declaration of intention to reduce emissions and advance toward carbon neutrality at the organizational level with an established target year and implementation plan that is consistent with scientific facts and the Paris Agreement's goals and at the same time received carbon footprint certification and other related standards from TGO or equivalent international standards.



IRPC received award of excellence from the Thailand Greenhouse Gas Management Organization (TGO) in the category of low carbon and sustainable business operations.

On August 31, 2023, Mr. Somboon Satasin, Senior Vice President, Quality, Safety, Occupational Health and Environmental represented IRPC in receiving certificate honoring IRPC as a pilot industrial organization supporting climate-friendly investment. The seminar disseminated results of the study on driving the ECC area towards Net Zero organized by the Eastern Economic Corridor (EEC) together with Thailand Greenhouse Gas Management Organization (Public Organization) with the objective to support climate-friendly investment, emissions trading system and promote trading of carbon credits in the EEC area by providing knowledge, measuring guidelines, calculation of greenhouse gas emissions trading system



to promote an environment suitable for investing in low-carbon technology and initiate demand for carbon credits from the Thailand Voluntary Emission Reduction Program: T-VER through the Carbon Trading Platform which helps support and drive the domestic voluntary carbon market towards a reduction of greenhouse gas emissions, carbon neutrality and Net Zero Emissions.

Thailand voluntary emission reduction program: TVER

IRPC's 12.5 MW Floating Solar Power Plant project at solar power plant project Floating Solar Power (Floating Solar Power) at its reservoir was awarded a plaque of recognition and certificate for Thailand Voluntary Emission Reduction (TVER) by Thailand Greenhouse Gas Management Organization (Public Organization) following the project's registration as a TVER project, which is expected to reduce greenhouse gas emissions by an average of 9,459 tons of carbon dioxide equivalent per year (tCO₂eq/y) during the carbon credit calculation period of 7 years from January 1, 2021 to December 31, 2027.



TVER

Thailand Voluntary Emission Reduction Program


	2021	2022	2023
Project	TVER (Floating Solar Power)	TVER (Floating Solar Power: monitoring)	PP, PS (cont.), ABS, SAN
WAY	<ul style="list-style-type: none"> Support government for develop Eco-industrial town As a consequence of the global warming problem that has resulted from excessive greenhouse gases (GHG) emissions 		


Greenhouse gas emissions by an average of 9,459 tCO₂eq/year

Green bond project

IRPC recognizes the opportunity to develop projects for sustainability by issuing green bonds to finance such eco-friendly projects or support environmental conservation to build confidence among investors and stakeholders as well as to win support from relevant regulatory agencies. The 12.5 MW Floating Solar Power Project of IRPC Public Company Limited, which is located in the company's reservoirs in Taphong Subdistrict, Mueang Rayong District, Rayong Province. Reservoirs 3, 4, 5 are used for water storage for water supply production. Rainfall and runoff are the main sources of water in the reservoirs. The solar panels are installed in the earthen reservoirs measuring approximately 74, 61 and 65 rai, respectively.

Under the project, solar panels will be installed on the water surface in Reservoirs 3, 4, and 5, with installed capacity of 12.5 MW and 8.5 MW peak, generating direct current electricity which is then converted by an inverter into alternating current and sent to the transformer to increase the voltage from low voltage to high voltage of 6.6 kV and pass through the electricity meter to the electricity distribution system of the project to be sent to the factories in the IRPC industrial zone. IRPC operates 24 hours a day throughout the project life of 25 years. However, the solar panels used by the project have a service life of about 30 years.

	Project type	Production capacity	Location	Power consumption
	Floating Solar Projects: Phase 1	12.5 MW	Rayong Province	19,482 mWh
	Floating Solar Projects: Phase 2 (Ongoing)	8.5 MW	Rayong Province	12,837 mWh

	Project type	Investment budget (Million Baht)
	Floating Solar Projects: Phase 1	539
	Floating Solar Projects: Phase 2 (Ongoing)	211
	Total	750

Total investment
of the project

► IRPC GREEN PROJECT IMPACT


IRPC has summarized the impact of the green debenture portfolio by category from environmental perspective as of December 31st, 2023.

Eligible Green Projects	Floating Solar
Impact indicators <ul style="list-style-type: none"> % Annual reduction in energy consumption from conventional power plant Annual reduction in GHG emission (unit: tonnes of CO₂ equivalent) Annual renewable energy generation or installed capacity (unit: Mwh) 	Phase1: <ul style="list-style-type: none"> Reduce 8.7% from conventional power plant. 9,459 tonnes of CO₂ equivalent 12.5 Mwh
Impact indicators <ul style="list-style-type: none"> % Annual reduction in energy consumption from conventional power plant Annual reduction in GHG emission (unit: tonnes of CO₂ equivalent) Annual renewable energy generation or installed capacity (unit: Mwh) 	Phase 2: <ul style="list-style-type: none"> Reduce 5.8% from conventional power plant. 6,254 tonnes of CO₂ equivalent 8.5 Mwh

Remark: The method for calculation is derived from Thailand Greenhouse Gas Management Organization: <https://ghgreduction.tgo.or.th/th/download-tver/120-tver-gwp-emission-factor/353-2564.html> (ค่าการปล่อยก๊าซเรือนกระจก (Emission Factor) จากระบบสายส่ง และจากการผลิตความร้อนสำหรับโครงการและกิจกรรมลดก๊าซเรือนกระจก)





► Performance Summary

In 2023, a target of direct and indirect GHG emissions was set at not more than 4.45 million tCO₂eq and the 2023 performance shows emitted 3.60 million tCO₂eq which is under target, due to energy efficiency project and process improvement initiatives.

Performance Indicator		Performance 2020	Performance 2021	Performance 2022	Performance 2023
	Direct greenhouse gas emissions (Scope 1) (million tCO ₂ eq)	3.712	3.946	3.271	3.16
	Indirect greenhouse gas emissions (Scope 2) (million tCO ₂ eq)	0.341	0.341	0.402	0.44
	Other indirect greenhouse gas emissions (Scope 3) (million tCO ₂ eq)	16.560	14.906	12.3	18.11
	GHG Emission Intensity (tCO ₂ eq/Ton of production)	0.342	0.362	0.333	0.316

Eco-efficiency in Production Process

To achieve eco-efficiency in production process and reduce impacts on the community and society throughout the supply chain.

	Enterprise-level indicators	Short-term/Long-term targets	2023 Target Achievement
	Energy consumption indicators	Short-term target <ul style="list-style-type: none"> Total enterprise energy consumption in 2023 not exceeding 60.7 million gigajoules Energy consumption indicator for 2023 is set at 89% Long-term targets <ul style="list-style-type: none"> Total enterprise energy consumption target in 2025 not exceeding 57.1 million gigajoules Energy consumption indicator for 2030 equals to 83% 	<ul style="list-style-type: none"> Total enterprise energy consumption in 2023 amounts to 59.7 million gigajoules Energy consumption indicator in 2023 equals to 88.63%
	Amount of hazardous waste disposed of in landfills	Amount of hazardous waste disposed of in landfills: Zero.	Zero industrial waste disposed of in landfills since 2019
	Amount of non-hazardous waste disposed of in landfills	Amount of non-hazardous waste disposed of in landfills: Zero.	Zero industrial waste disposed of in landfills since 2019
	Volatile organic compounds	Short-term target <ul style="list-style-type: none"> Volatile organic compounds index for 2023 is set at 1,811 tons. 	Volatile organic compounds index in 2023 equals to 1,769 tons.

► Stakeholder Impact

The growing environmental issues, from solid waste and air quality to wastewater and deteriorating natural resources, has prompted concrete actions to find sustainable solutions, as these challenges affect not only the environment but also have far-reaching impacts on the economy, society and human rights. Environmental degradation stains the economy by increasing costs for industries, disrupting supply chains, and leading to resource scarcity, which can impede economic growth and sustainability. Additionally, it adversely affects society by posing health risks, disrupting communities, and worsening social inequalities, thereby contributing to violations of fundamental rights such as the rights to life, health, and a healthy environment. The inclusion of these concerns into national policies and agendas, such as the national plan to tackle air pollution linked to hazardous dust levels and to seek public-private collaboration to phase out and eliminate single-use plastic, is the best demonstration of their urgency.

Realizing the company's potential contribution to environmental degradation through emissions, waste generation, and resource extraction, IRPC places utmost importance on the cost-effective use of resources in the production processes, as well as mitigation of impact from our operation on that may adversely affect communities and the society at large, throughout its value chain. The company has formulated policies on quality, security, safety, environmental protection, and energy management. This includes the implementation of standard systems, such as ISO 14001, ISO 5001, and Operational Excellence (OEMS) in environmental quality management to reduce the impact on society and communities and to achieve eco-efficiency in production processes.

► Management Approach

To demonstrate our commitment to environmental responsibility, IRPC has established a Quality, Security, Safety, Health, and Environment (QSSHE) policy, which focuses on Operational Excellence Management System (OEMS), systematic risk management planning, Compliance with laws and regulations, and risk control and

mitigation according to 3Rs principle, together with Green Turnaround guidelines and Circular Economy principles. This Policy applies to all IRPC businesses across the value chain, including production, products, services, distribution, and logistics, as well as IRPC's 100%-owned subsidiaries and joint ventures. Newly acquired businesses or sites must comply with IRPC's Policy within 24 months after acquisition, or sooner. Furthermore, IRPC expects business partners, such as associate companies or other investments, non-managed operations for which we do not have operating responsibility, principal contractors, suppliers, and other licensees, and outsourcing partners with whom we have a significant involvement, to comply with the IRPC QSSHE policy. The oversight of the company's environmental governance falls under the purview of the Corporate Governance and Sustainability Committee, with the strict implementation of this policy being supported by employees at all levels.

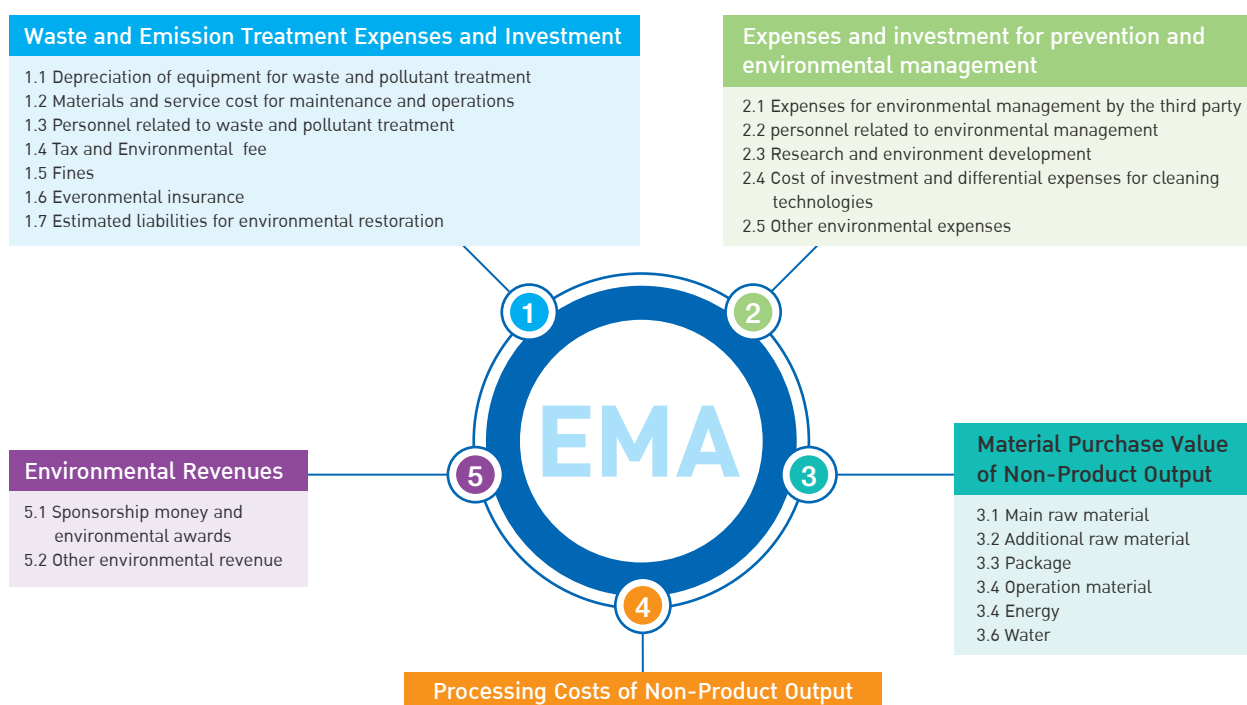
Scan this QR code for addition information on IRPC's integrated environmental management system for energy, air, water and solid waste management, or visit the website: <https://innovationcenter.irpc.co.th/>



IRPC has adopted the integrated environmental management system for energy, air, water, and solid waste management, utilizing the Eco Factory framework and PTT Group's Operational Excellence Management System (OEMS) across all plant operations to enhance operational efficiency. The environmental management system is part of IRPC's Operational Excellence Management System (IRPC OEMS), which has been certified against ISO9001, ISO14001, OHSAS18001, ISO45001, ISO50001 and ISO31000. In addition, the Green Turnaround concept has been integrated in our management approach to reduce impacts during annual shutdown and turnaround. For instance, the operation is conducted in a closed system to manage the volatile organic compounds (VOCs), waste and wastewater, and odor control. The company has also invested over THB 538 million to develop systems for pollution prevention, environmental monitoring, efficiency improvement, energy reduction, biodiversity conservation, and fostering a low-carbon society.

► Environmental Management Accounting System

To tack the effectiveness of our environment management initiatives, IRPC has introduced the Environmental Management Accounting System (EMA) which integrates expenses, income, and environmental investment in accordance with the international standard UN2001 to obtain accurate, adequate, and reliable data. Such data are used to plan, control, and make short- and long-term environmental management decisions in order to improve environmental management efficiency for day-to-day operations and reduce cost of operations, while also creating positive impacts on the environment and society.



2023 Environmental Management Expense from EMA System

Expense and Investment for Waste and Emission Treatment

611 Million THB

Expense and Investment for Prevention and Improvement in Environmental Management

29 Million THB

► Implementation

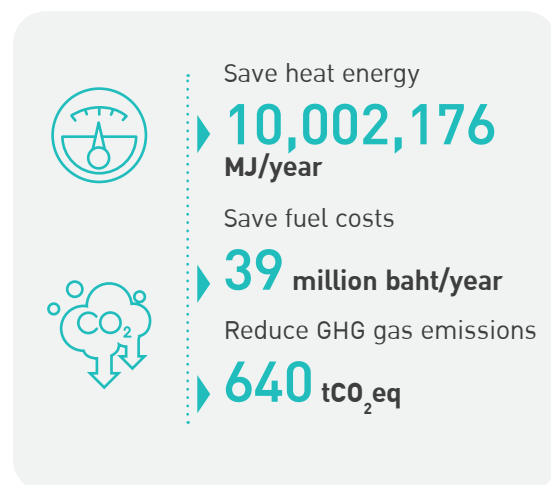
IRPC prioritized efficient resource use and environmental impact reduction, under taking projects to mitigate environmental impact such as energy efficiency, air quality and odor management, water resource management, wastewater management, waste management, and complaint resolution to ensure the company's continuous and sustainable growth.

Energy Consumption Efficiency

IRPC has set energy reduction targets, including a goal of limiting consumption to 57.1 million gigajoules by 2025 and an energy consumption efficiency target of 83% by 2030, as well as long-term management plans, in order to achieve industry-leading performance. In response, several energy conservation projects aimed at increasing energy efficiency have been implemented. Some of the notable projects and achievements include:

- **ADU2 Oil line cleaning of Heat exchangers 41E013A/B and 41E024A/B**

ADU2 of IRPC Oil refinery helps promoting energy efficiency by cleaning both heat exchangers No.41E013A/B and 41E024A/B in oil line. ADU2 discovered the efficiency of heat transfer of Heat Exchanger deteriorate. This degraded heat exchanger performance stems from fouling or aging deposits on surfaces of heat exchanger. Heat exchanger is designed to transfer heat to crude oil before flowing into a fractionating column. Deposits weaken a heat exchanger's heat-transfer capacity and extra fuel for furnace requires to keep compensate for gaps in the target temperature. Then, ADU2 disassembled and cleaned both heat exchangers No.41E013A/B and 41E024A/B. As a result, the temperature of crude oil from preheated furnace increased by 10 °C which can save heat energy by 10,002,176 Megajoules per year. On the other hand, ADU2 can save fuel cost by 39 million baht per year and reduce Greenhouse gas emissions of 640 tons of carbon dioxide equivalents (tCO₂eq.)

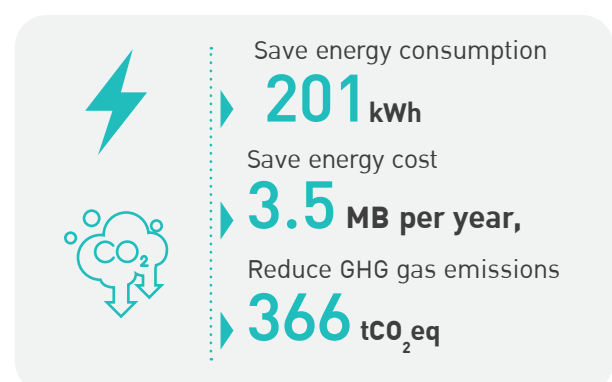
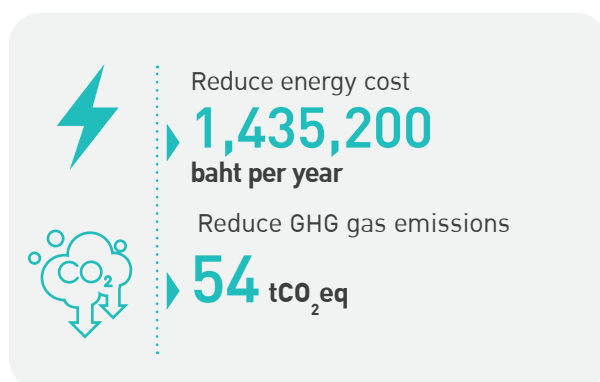


• Operate one Slurry Pump Around

“Operate one Slurry Pump around” is the project to reduce the electricity consumption of lower compartment of fractionation tower “53C101”, by operating one slurry pump instead of two. In fractional distillation, the temperature of the slurry oil at the bottom of the fractionating column is relatively high, at 330 °C. It is required to reduce this temperature before reverting to fractionating tower “53C101” in order to maintain the level of heat in tower suitable for refining the distillates. When converting slurry oil to transfer heat before flowing into a fractionating tower, two slurry pumps are typically required which are 53P102B and 53P102C, with another slurry pump “53P101A” prepared as backup pump. The project enables the adjustment of slurry pump operation condition from two slurry pumps to only one slurry pump without any negative impact to fractional distillation. As a result, it helps save electricity cost by 3.5 million baht per year or decrease electricity consumption by 201 kWh, while also reducing GHG emissions by 366 tons of carbon dioxide equivalent (tCO₂eq).

• Power consumption diminution of the compressor in the Refrigeration system at HDPE plant

The purpose of this project is to reduce the energy use of the gas compressor (Compressor) in the refrigeration unit by lowering the inlet pressure of the compressor from 1.3 BarG to 1.0 BarG. In HDPE Plant, there are 3 sets of refrigeration systems and typically 2 sets are in operation. The functionality of refrigeration system is to reduce the temperature of substances used in the production process in HDPE plant. The selected type refrigerant is R22. The main equipment of refrigeration system are compressor, evaporator, and condenser. And refrigeration compressor is the heart of the systems, acts as pump that moves the refrigerant through the system and requires power supply. Reducing the inlet pressure from 1.3 BarG to 1.0 BarG leads to the reduction of power consumption from 420 kWh to 390 kWh per 1 compressor with the unchanged performance of the cooling system. This project reduced energy cost by 1,435,200 baht per year while greenhouse gas emissions decreased by 54 tons of carbon dioxide equivalents (tCO₂eq).



In 2023, 24 Energy Conservation Projects reduced
 Energy use **by 965,101** gigajoules,
 Greenhouse gas emissions **by 106,309**
 tCO₂eq

► Air Quality and Odor Management

• NOx SOx TSP Management

IRPC pays great attention to the control of pollutants emitted from stacks. Begin by ensuring that combustion factors are under control in order to achieve efficiency and reduce environmental impact, such as by using environmentally friendly fuels such as Fuel Gas. Also, the significance is the control of combustion conditions in the furnace to minimize pollutants, nitrogen oxides, sulfur oxides and total suspended particulates (NOx SOx TSP). Additionally, the company opts for Low NOx Burner technology in the furnace, resulting in a significant reduction in NOx emissions from the stack.

In addition to the combustion and fuel technology, in 2023, IRPC also has scheduled to conduct a turnaround, a scheduled large-scale maintenance activity focusing on preserving the combustion efficiency of equipment to ensure smooth and environmentally friendly operations.

In the area of monitoring, IRPC has collaborated with third-party consultants to conduct air quality measurements from the emission stack. The results of the measurement met the control criteria of IRPC Industrial Zone as well as the standard value of pollutant emissions outlined in the Notification of the Ministry of Industry. This reaffirms the effectiveness of the company's air pollution management in terms of nitrogen oxides (NOx), sulfur oxides (SOx), and total suspended particulates (TSP).

• Volatile Organic Compounds (VOCs) Management

IRPC has initiated the Enclosed Ground Flare (EGF) Installation project to manage effluent gas emissions from the plant. The EGF uses an efficient burner design, which results in a high combustion efficiency at 99.5%, as well as reduction in black smoke and volatile organic compounds (VOCs), no thermal radiation, no visible flame and no odor/low noise. Launched in 2022, the operations are progressing with completion targeted for 2025.

Additionally, preventive control is in place to prevent VOC emissions during maintenance work employing Green Turnaround concept, which focuses on assessing the risks of emissions from various activities in order to find appropriate measures to reduce the discharge volumes. Procedures such as checking the equipment before turning

on the system for maintenance, as well as surveillance measures around the factory fence are intended to confirm the effectiveness of practices and for assessment of significant emission sources in order to address the root cause of problems and find long-term solutions.

The company adopts the standard Code of Practice (COP) guidelines to prevent the emission of VOCs emissions from significant emission sources, including storage tanks, incinerators, and maintenance activities. These practices are applied in real operations to address VOCs-related issues effectively.

► Water Management

Recognizing that water is a crucial resource not only for IRPC's business but for all sectors of society, IRPC takes on the responsibility for water resource management in collaboration with government agencies and other water users within the PTT Group as well as external parties. To drive for concrete actions, IRPC has also set water-related targets to align with public policies and meet the needs of surrounding communities.

Upstream management is critical to ensuring that the company's operations do not interfere with water consumption patterns linked to ways of life of people in the agricultural sector, the needs of other industry sectors, and the general public. To ensure responsible and sustainable water resource management, the water user committee is formed with the goal of achieving a fair distribution of natural water resources between IRPC and local communities. This also support the company's effort to ensure operations run smoothly and continuously, without interruption due to scarcity or shortage. In addition, engagement with the committee informs the company's water management target setting and implementation decisions. Moreover, the company helps distribute water to communities during the dry season.

In terms of water-related risk assessment, IRPC has conducted the risk management related to water, covering physical risks i.e., water volume, water quality and risks related to regulations and provisions from risk assessment. According to the Aqueduct Water Tool of the World Resource Institute (WRI), it is found that IRPC is located in the low baseline water stress. Consequently, the assessment result is used to develop water management plan, as well as to study and forecast the use of water in future business operation.

IRPC's internal water resource management approach is based on the 3Rs principle: Reduce, Reuse, and Recycle. That is, reduce water consumption at the source, then reuse and recycle effluent discharge that has undergone treatment to meet quality standards suitable for reuse for other purposes, such as watering plants and using treated water instead of distilled water to prepare chemical solutions. As for digitalization, the i-utility application is being used to monitor water efficiency and promote awareness. This could lead to less water being extracted from the natural sources in the first place. As part of the efforts to develop a culture of water conservation among employees, the company also launched a campaign to encourage employees to conserve water in their daily life at home and at work. Beyond employee engagement, during major scheduled maintenance, the company has collaborated with the machine cleaning contractor to calculate the amount of water consumption in the machine cleaning process. This helps to determine and control the amount of water used as appropriate.

In addition, the company joins hands with the PTT Group in conducting a feasibility study to find untapped potential for further water conservation in the production process through the Water Demand Management project. Pilot projects carried out at two plants: ETP and UHV.

treatment plants is controlled by a pipeline network that covers all factories in the industrial zone. Wastewater quality is checked against internal standards prior to being discharged into the treatment facility to ensure the efficiency of treatment at the source and to minimize errors at the central wastewater treatment system. The company has also conducted assessments of the receiving waterbody associated with our operations to avoid any potential impacts on the current ecosystem.

For the management of wastewater from major scheduled maintenance, each type of wastewater will be subject to clearly defined disposal method. Wastewater that cannot be fed into the company's wastewater treatment system will have to be disposed of by a licensed disposal company. This is to prevent unlawful disposal of wastewater and minimize the impact on surrounding communities.

To ensure water treatment management efficiency and gain stakeholders' trust and reassure them of the company's operational sustainability, IRPC has engaged third-party consultant and government agencies to regularly collect wastewater samples for analysis to ascertain its wastewater quality meets both internal standards and the standards prescribed by the Notifications of the Ministry of Industry.

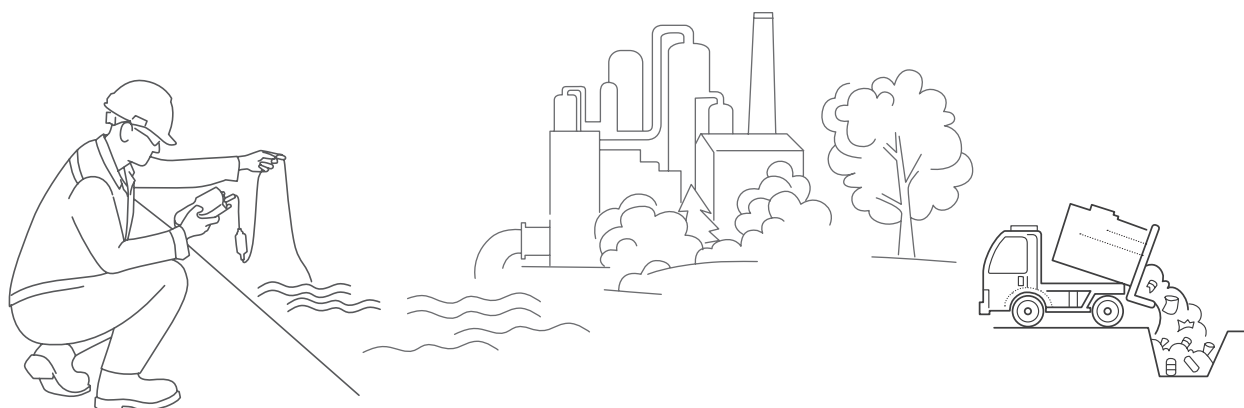
► Wastewater Management

IRPC has measured and monitor wastewater based on effluent quality parameters applicable within the company's own industrial zone to ensure it meets the standards. The Online COD system at Receiving Ponds 1 and delivers the measurement results to the Department of Industrial Works' monitoring system.

IRPC has registered two wastewater treatment plants in IRPC industrial zone in Rayong Province to ensure efficiency in the management of wastewater from the company's operations. The operation of IRPC's wastewater

► Solid Waste Management

IRPC recognizes that, without efficient waste management, our business operations across the value chain may have a significant impact on the environment and society. Improper waste management can contaminate the soil and water, endangering ecosystems and lowering biodiversity. Hazardous compounds in waste streams are also critical, as they can damage public health if not properly handled. For this reason, IRPC is committed to effective waste management practices, prioritizing waste reduction at the source.



IRPC has adopted the 7Rs principles (Reduce, Reuse, Recycle, Repair, Refuse, Return, and Rethink) and Circular Economy concept to guide our effort to achieve optimum resource management efficiency. The company has conducted R&D in collaboration with waste disposal operators to explore the possibility of recycling or recovery to reduce pollution and to add value to recovered materials. The company also organized activities to promote the 7Rs principles in various operational processes, including major scheduled maintenance, the Green Turnaround Project, featuring Reuse Insulation project that advocates the reuse of used but still functional insulation.

In addition to the management of waste at the end of its life cycle, IRPC also implemented a project to improve machinery efficiency to reduce maintenance costs and to keep machines and facilities clean as part of the effort to reduce industrial waste at its source. There is also a campaign to separate waste for recycling, including plastic water bottles used by employees and contractors. In the 2023, major scheduled maintenance, plastic water bottles that have been sorted were delivered to the company's R&D for experimentation by putting them through extrusion process to produce recycled products. This not only helps promote awareness among employees of the importance of recycling waste materials but also meets the requirements of promoting the implementation of the government's Circular Economy policy of the government in line with the global trend.

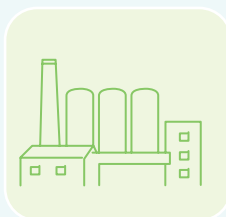
► Community Complaint Management

IRPC has set up an Emergency Control Center (ECC) responsible for receiving complaints from the community 24 hours a day. The system administrator will refer the complaints to the relevant units, make a field trip to investigate the cause of grievances and report the results to senior management who will provide guidance, analyze the cause, monitor, and support for remedial action and complaint resolution. The complainant will be informed of the cause of their grievance, the company's response to the complaint and remedial action. In 2023, the number of complaints decreased by 70% compared to 2022. This was attributed to an improvement in data analysis of complaints enabling the company to identify the root cause of grievance so that corrective actions could be taken leading to complaint resolution. The company also created a Zero Complaint roadmap that provides clarity in the way odor issues will be resolved in the future through short- and long-term solutions. To address odor issues, IRPC has implemented more than 10 projects, such as Enclosed Ground Flare, Wastewater Treatment Closed System, and CPI/API Improvement, etc.

IRPC has communicated its environmental actions proactively to stakeholders through various channels, such as holding meetings, seminars, or visits to the community, distributing "Building Relationships" newsletter through community learning centers. The publication covers all new projects pending EIA, projects under construction as well as ongoing projects.




Through its operations in 2022, IRPC received 5 Green Industry Awards Level 5, namely BTX, ACB, ABS, PP, and HDPE plants.



► Performance Summary

IRPC's continual efforts to fulfill environmental responsibilities have resulted in significant progress toward our long-term goals of achieving efficient use of natural resources. In 2023, IRPC successfully met all short-term targets, demonstrating the effectiveness of our environmental management activities.

		2021	2022	2023
	Energy Consumption (million gigajoules)	Target	76.2	57.1
		Performance	75.8	87.92
	Water Consumption (Total water Consumption) (million gigajoules)	Performance	15	16
	Energy Intensity Index (gigajoules/ton of production)	Target	89.0	88.5
		Performance	88.6	87.92
	NOx Emissions	Total Nox (Ton)	1,607	993
		Nox Intensity (Ton/Thousand Tons of Production)	0.134	0.090
	SOx Emissions	Total Sox (Ton)	1,147	1,349
		Sox Intensity (Ton/Thousand Tons of Production)	0.096	0.122
	TSP Emissions	Total TSP (Ton)	294	213
		TSP Intensity (Ton/Thousand Tons of Production)	0.024	0.019
	VOCs Emission Concentration (tons per thousand tons of production)	Target	1,938	1,926
		Performance	1,696	1,862
	Hazardous Waste to Landfills Compared to Total Volume of Hazardous Waste (%)	Target	0	0
		Performance	0	0
	Industrial Waste to Landfills Compared to Total Volume of Hazardous Waste (%)	Target	0	0
		Performance	0	0

Creating Social Value

To create shared value for communities and society through corporate innovation and expertise



2030 Goal:

Support health and wellbeing of 500,000 people



2030 Goal:

Uplift sustainable values to Stakeholders by increasing 20% of True Value



2030 Goal:

Achieve a community satisfaction rate of 78%

Stakeholder Impact

Acknowledging the potential impacts of our business on society and communities, especially those around the IRPC industrial zone, where our operations may have direct or indirect effects on their health and safety, environment, and overall standard of living, IRPC places paramount importance on proactively preventing, mitigating, and addressing the impacts from our operations through active engagement and communication stakeholders within the communities. Additionally, IRPC recognizes the potential of the business to leverage corporate innovation and the expertise of our personnel in creating shared value for

both the business and society, particularly in the face of growing social and environmental challenges.

Aligned with this commitment, IRPC's Corporate Social Responsibility (CSR) strategy focuses on improving the quality of life for the communities, fostering educational opportunities for young people, promoting public health, conserving natural resources, and protecting the environment. It is our sincere belief that the growth of our business aligns with the well-being of the community and society at large. By fostering trust and reliability, our business can grow sustainably and make meaningful contributions to the communities and society.

► Management Approach



Promote CSR to make positive social impact



Build good relationships through stakeholder engagement



Create awareness of information and facts among stakeholders through Community Communication

IRPC is committed to conducting business operations with a focus on social responsibility towards communities and society. To uphold this commitment, the Board has established guidelines and policies governing CSR operations, including a five-year strategy that underscores the importance of value co-creation between IRPC and stakeholders. The document serves as a guideline for the management, employees, as well as IRPC Group's affiliate in implementing CSR projects.

Recognizing communities as key stakeholders for the company's business, IRPC has established a community engagement process in all areas of operation (100 percent). This process involves sharing information, fostering awareness about our business operations, and actively soliciting input from communities to integrate their needs and concerns into the development of CSR projects. Additionally, IRPC extends special consideration to vulnerable groups within communities and society, including children, persons with disabilities, the elderly, women, indigenous people, migrant laborers, third-party contracted labor, and the LGBTQIA+ community in our engagement process, with a commitment to safeguarding their rights and ensuring meaningful participation.

Furthermore, IRPC and IRPC Group's affiliate have conducted social, environmental, and health impact studies as part of the Environmental Impact Assessment (EIA) and Environmental Health Impact Assessment (EHIA) report preparation process for all projects within scope under the Notification of the Ministry of Natural Resources and Environment and other relevant laws, as well as rigorously adhering to measures outlined in the report to mitigate potential harm and address both direct

and indirect impacts on the communities and society. The company has also conducted consultations with communities during the report preparation, with a total of 1 project undergoing public consultation in the year 2023, accounting for 100% of all projects.

Beyond conducting business responsibly, IRPC also aims to create positive value for society and communities, believing that business can grow in tandem with the development of the communities and society. The company allocates investment in various CSR projects equivalent to 3% of the average net profit for the past three years. The four main objectives of these CSR projects include fostering positive relationships between communities and the company through engagement activities, providing valuable benefits to communities that address their needs and issues, disseminating accurate information to build trust and confidence in the company's operations, and securing continuous community acceptance and trust (Social License to Operate: SL2O).

IRPC has outlined a framework for CSR projects, categorized into three main directions: building a sustainable environment, improving education, and strengthening the community. These projects align with our business drivers and the Sustainable Development Goals (SDGs) of the United Nations in order to leverage the strength of both business and society. The primary SDGs that IRPC focuses on for the implementation of CSR projects include Goal 3 (Good Health and Well-Being), Goal 4 (Quality Education), and Goal 13 (Climate Action).

► Community Complaint Management

IRPC acknowledges the importance of promptly examining and addressing the community's needs and concerns communicated through complaint channels aiming for swift resolution and mitigation of impacts resulting from the company's business operations. In response, IRPC has assigned the Emergency Control Center to efficiently manage complaints and provide timely assistance to affected communities. In 2023, IRPC received a total of 1 community complaints. 100% were addressed and resolved directly through remediation efforts.

Community Satisfaction Survey

To evaluate the effectiveness of our CSR endeavors, IRPC conducts an annual Community Satisfaction Survey. The survey serves as a vital tool in assessing the level of satisfaction and engagement within the communities where our projects are implemented. Collecting direct feedback from community members allows for the measurement of initiative success, identification of areas for improvement, and customization of future projects to better meet the needs and expectations of the served communities. The 2023 survey results indicate a community satisfaction rate of 81.55%, surpassing the target of 78%.



Community Satisfaction (%)

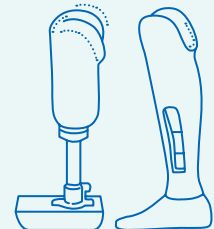
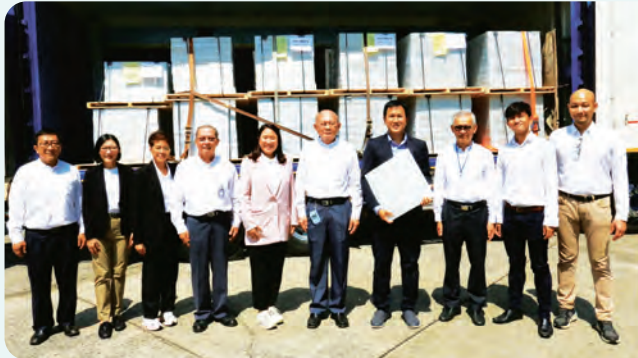
	2021	2022	2023
Target	93	95	78
Performance*	98.63	99.13	81.55

Remark: refer to an average number from customer satisfaction survey for communities. An average number is calculated according to statistical principles.

► Implementation

In 2023, IRPC remains committed to creating value for communities and society through the implementation of CSR projects in the areas of health and well-being, education, and the environment, guided by our CSR framework. Some highlighted projects in each focus area include:

Health and Well-being: Prosthetic Leg Project



IRPC has implemented a prosthetic leg project by donating Polypropylene (PP) plastic pellets to the Prosthesis Foundation under the patronage of HRH Princess Mother for the production of prosthetic legs for amputees to help improve their quality of life under the Creating Shared Value (CSV) approach. In so doing, the company was able to use its commercial products for the benefit of people with disabilities, creating shared value in the process.

In 2023, IRPC contributed 33 tons of plastic pellets to Eastern Polypack (EPP) Co., Ltd., enabling the production of prosthetic legs for the Prosthesis Foundation. This initiative ensures that individuals with amputated legs can receive prosthetics free of charge for the 13th consecutive year. There are 39,572 prosthetic legs produced for disabled people using the company's plastic pellet products. (data as of September 2023)

Additionally, IRPC actively engages in progress meetings for the "From Wastes to Walk" project, recycling leftover PP plastic parts from prosthetic socket production across various locations, including the Prosthesis Foundation's Chiang Mai Office and 95 other royally bestowed prosthetic leg factories. The company takes responsibility for recycling these parts and supplies recycled plastic sheets to network partners for producing body accessories for patients and individuals with disabilities. Through this initiative, IRPC has been honored with the Asia Responsible Enterprise Awards 2023 (AREA 2023) in the Circular Economy Leadership category, underscoring IRPC's commitment to corporate social and environmental responsibility.



Project Performance in 2023

Business Benefits	<ul style="list-style-type: none"> • Collaboration with customers to develop innovative recycled PP plastic pellet blends.
Social Benefits	<ul style="list-style-type: none"> • Production of prosthetic limbs made from IRPC's plastic pellets, totaling 800-1,000 pieces, to be distributed to people with disabilities.

Promoting Occupation and Well-being IRPC Smart Farming Project in Rayong Province



- Initiated in 2022
- Located in Suan Yai Da, Jae Boonchuen, Rayong

Province

- Mixed fruit orchard using the sufficiency economy philosophy

Objectives

- Serve as a center for learning, studying, and agricultural tourism
- Benefit the community

Activities

- Soil sample collection center
- Community product sales area
- Showcase for IRPC's innovations and products
 - White Bear fertilizer nano zinc oxide
 - Floating solar system

2023 Activities

- Local agricultural product upgrade project
 - Chef's Table
 - Gastronomy tourism
 - Sustainable local food system development
 - Local employment creation
- Waste management project
 - Installation of plastic bins for waste separation
- Volunteer soil doctor training project
 - Knowledge exchange on soil, soil testing, and White Bear fertilizer
 - Participation of farmers in the IRPC industrial complex area

Awards

- 2 Thailand Tourism Awards 2023
 - Silver Award (Attraction) - Learning & Doing
 - Silver Award (Low Carbon & Sustainability)

2023 Results

Business Benefits	<ul style="list-style-type: none"> • 6 million baht in revenue from White Bear fertilizer sales
Social Benefits	<ul style="list-style-type: none"> • Over 1.5 million baht in income for the community from various activities • Over 0.5 million baht in cost savings from using White Bear fertilizer as a substitute for chemical plant nutrients

Furthermore, IRPC continues to uphold the well-being of local communities surrounding the IRPC Industrial Zone through various CSR programs, with key initiatives in 2023 including:



Mobile Medical Unit

Conducting community health check-ups under the concept of “Repairing People, Repairing Goods, Repairing Places,” in collaboration with Somdej Phra Nang Chao Sirikit Hospital. The medical team conducts health examinations and provides basic healthcare services, such as musculoskeletal, respiratory, and gastrointestinal screenings, as well as dental check-ups for the local community. These services are offered free of charge. Additionally, the initiative includes services like eyeglass prescriptions and motorcycle oil changes provided by student volunteers.

Pannamjai Clinic

Providing basic healthcare services, including the treatment of common illnesses and symptoms, to the general public in the industrial estate surrounding the IRPC company. The services are offered free of charge and have been available since the year 2010. The clinic is located at the IRPC Community Learning Center in Rayong province.



Elderly School

Organizing activities for students at the Elderly School in Ban Laeng Sub-district, Mueang Rayong District, Rayong Province, to provide opportunities for the elderly to promote the use of leisure time for learning and developing various skills. This is based on community involvement and collaboration with various networks in the local area.

IRPC Community Learning Center



Established to serve as a center for promoting learning and vocational development, community economic development, and as a platform for community-company relationships. Every month, there are rotating activities, with over 8 activities per week, including cooking and baking training, yoga club, science club, English language club, technology club, leadership club, and more. Approximately 43,000 people participate in and utilize the services each month, fostering stronger ties between the community and the company.



IRPC Scholarships

Providing educational scholarships for 15 consecutive years to students in schools and communities within IRPC industrial zone who demonstrate academic achievement and good behavior but face financial constraints. The selection process involves 29 educational institutions within the industrial estate area.

Through these programs, IRPC has successfully created shared value for both the community and the business. With a strategic focus on health, education, and environment, these initiatives underscore our commitment to fostering enduring positive impacts. The following table presents key quantitative outcomes, illustrating the tangible results of our efforts in creating shared value.

	Health and Well-being	Education	Environment
 <p>Positive impacts to society and community in 2023</p>	<ul style="list-style-type: none"> • > 2,790 persons have access to public health from mobile medical unit and clinic Pannamjai • 11 Projects Implemented by the Health Promotion Fund to support the health of people in the areas of Natakwan, Baan Laeng, and Tapong • 453 persons benefit from activities for the elderly in Rayong to help them develop new skills in various fields • > 1,400 households Received assistance in developing water sources to ensure clean water for consumption 	<ul style="list-style-type: none"> • > 8 activities / week Organized career development activities, providing community training and knowledge through learning centers, both online and offline. • 4 community enterprise groups Received training and skill development to operate businesses until they start generating income • 254 scholarships given to students with good grades who are in need of financial support • 43,000 persons In the community utilizes meeting rooms and participates in activities to promote and develop skills at the learning center 	<ul style="list-style-type: none"> • > 1,000 trees Planted by IRPC's staff volunteers in the vicinity of the operational areas • > 5 activities Organized to support community environmental activities, such as beach cleanup, planting trees in community forests and World Ocean Day • 7 canals Conducted dredging and canal clearance operations, eliminating water hyacinth and aquatic weeds in the vicinity of the plant, covering a total distance of over 12 kilometers
 <p>Positive impacts to the company's business in 2023</p>	<ul style="list-style-type: none"> • No complaints or protests from the community leading to any disruptions in the company's operations. • 15 factories passed CSR-DIW standard certification, which can be used to obtain certification for other standards. • 45 visits organized to promote awareness of IRPC's products, operations, and Solar Floating. • > 2,000 persons instilled with awareness, fostering volunteer employees to participate in beneficial activities with the community. 		


► Performance Summary



Human Rights

IRPC aims to become a corporate role model in human rights practices by adhering to the principles of human rights throughout the value chain of our business operations

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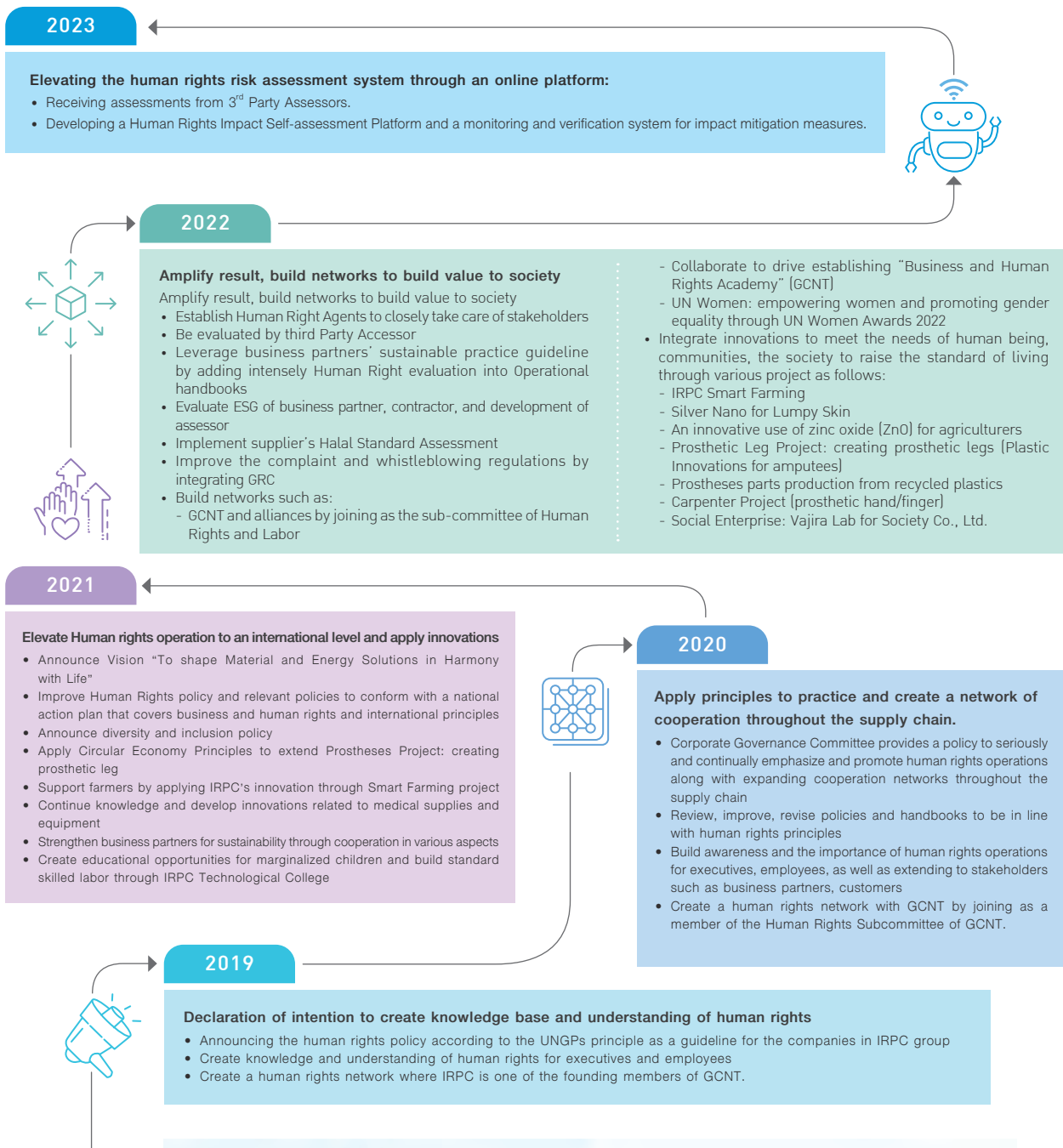
	<p>Target:</p> <p>Zero case on human rights violation.</p>	<p>2023 Performance:</p> <p>No human rights violation case.</p>
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► Stakeholder Impact

Recognizing the paramount importance of human rights, IRPC remains vigilant against potential violations across our entire supply chain. This includes addressing issues such as workplace discrimination, unsafe working conditions, illegal labor risks, restrictions on freedom of association, and security concerns. Furthermore, IRPC recognizes the presence of emerging rights issues such as the impact of technology on privacy, the rights of marginalized communities, climate justice, and the evolving dynamics of work.

Aware of these expanding challenges, considerations, IRPC is proactively prepared to navigate these challenges, fulfill our responsibilities, and meet stakeholder expectations. Indeed, IRPC aims to become a corporate role model in human rights practices by adhering to the principles of human rights throughout the value chain of our business operations. Our commitment to human rights forms the basis for our ethical business conduct and a wide range of activities aimed at championing human rights within our organization.

IRPC Journey: Journey to Human Rights Role Model Organization



► Management Approach

IRPC has formulated human rights strategies and action plans with the aim to prevent human rights complaints from IRPC's operations and to encourage cooperation with various agencies in implementing human rights projects in accordance with the UN Guiding Principles on Business and Human Rights (UNGPR). In fostering our commitment to human rights, IRPC appoints dedicated individuals responsible for determining clear directions to support the implementation of human rights policy throughout the organization, promoting earnest and continuous efforts in human rights operations, as well as fostering the expansion of collaborative networks throughout the entire supply chain. At IRPC, upholding human rights is an integral part of business operations and is a responsibility shared by personnel at all levels, from the Corporate Governance Committee, the CEO and President, senior executives, and employees in all units in the organization.

Policy

IRPC has developed our Human Rights Policy in accordance with significant human rights frameworks at the international level. Introduced in 2017 and revised in 2020, the Policy has been officially signed and endorsed by the Board of Directors. Directors, executives, and employees across IRPC Group companies are to uphold labor and human rights laws, while honoring labor rights, women's rights, children's rights, and human dignity, as well as the liberty and equality of those certified by or protected under Thai and international laws. The policy extends to all IRPC employees, subsidiaries, Joint Ventures (JVs), and business partners (suppliers, contractors, customers), considered as stakeholders. It also encompasses other stakeholders, including local communities, residents, and society, addressing vulnerable groups (children, person with disability, elderly, women, pregnant women, indigenous people, migrant people and LGBTQIA+), who may be affected by the company's operations throughout the value chain, with the aim to protect and respect human rights and provide compensation for any violations.

Scan this QR code for addition information on IRPC's Human Rights Policy, or visit the website: <https://www.irpc.co.th/wp-content/uploads/2021/07/4.-นโยบายสิทธิมนุษยชน.pdf>



IRPC Human Rights Policy is complemented by several other guidelines, including Diversity and Inclusion Policy, Corporate Compliance Policy and Guidance, and Corporate Governance Handbook..

Scan this QR code for addition information on IRPC's Diversity and Inclusion Policy, or visit the website: <https://www.irpc.co.th/wp-content/uploads/2021/07/3.-นโยบายความหลากหลาย-1.pdf>



Scan this QR code for addition information on IRPC's PDPA Policy, or visit the website: <https://www.irpc.co.th/wp-content/uploads/2022/05/นโยบายคุ้มครองข้อมูลส่วนบุคคล.pdf>



Scan this QR code for addition information on IRPC's Corporate Governance Handbook, or visit the website: https://www.irpc.co.th/wp-content/uploads/2021/06/Final_CG_Handbook2023_ไทย.pdf



Human Rights Management Process

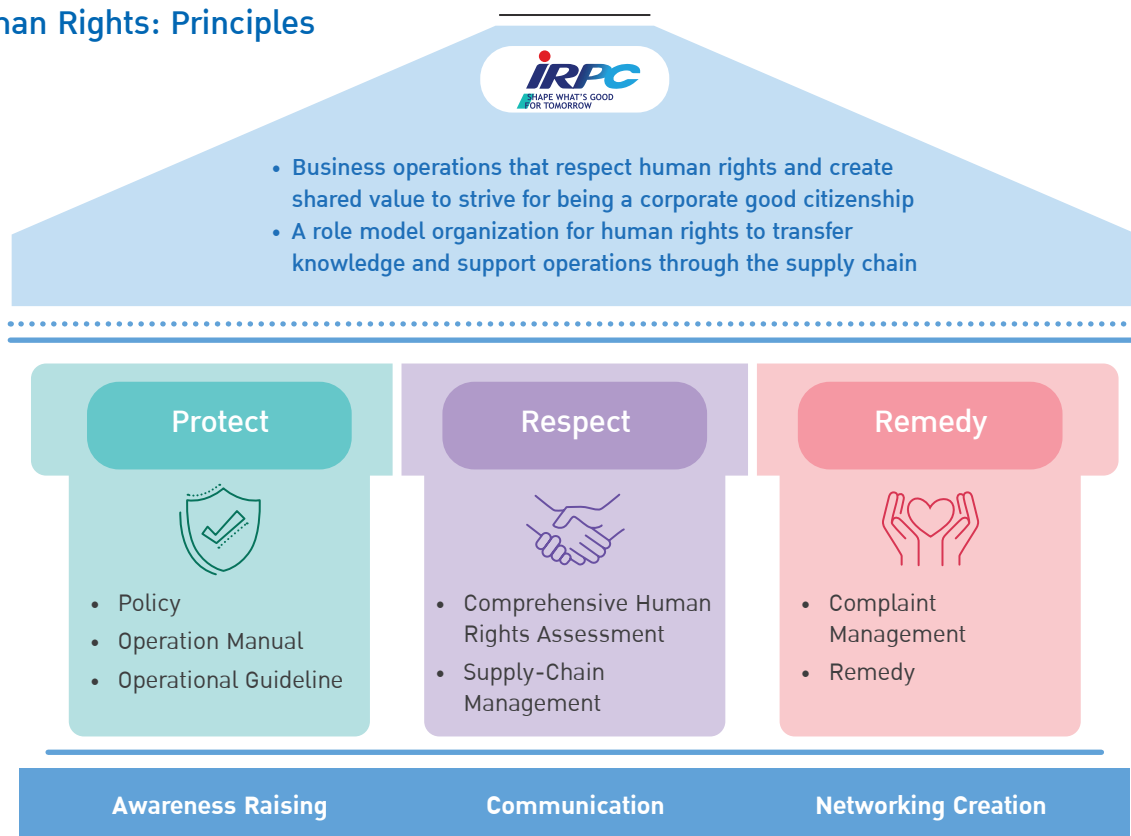
IRPC has formulated a strategy of embedding respect for human rights in all processes throughout the value chain, based on 3 principles: Protect, Respect and Remedy. This is implemented through effective communication, awareness-raising campaigns, and network fostering.

- **Protect** involves applying human rights protection principles within the organization with emphasis on supervisory oversight through the policies of IRPC and our subsidiaries. IRPC's human rights policy is communicated to all personnel in the organization, including suppliers, business partners and joint ventures. Additionally, comprehensive guidelines for the Human Rights Management System and the Human Rights Risk Assessment are developed to proactively prevent any human rights violations. Roles and responsibilities

pertaining to human rights issues are clearly defined for committees, departments, and work units, ensuring thorough oversight for all stakeholders. These include the Board of Directors, Corporate Governance Committee, Risk Management Committee, the Management, and organization development unit, etc.

- **Respect** involves demonstrating respect for human rights through the practice of Human Rights Due Diligence and the effective management of human rights in Supply Chain Management.
- **Remedy** involves providing remediation in case of human rights violations through complaint channels, witness protection measures the establishment of procedures for rehabilitation and remediation of affected individuals.

Human Rights: Principles



► Implementation

PROTECT

Human Rights Policy and Manual

IRPC has adopted the United Nations Universal Declaration of Human Rights (UDHR), International Labour Organization (ILO) Declaration on Fundamental Principles and Rights at Work and UN Guiding Principles on Business and Human Rights as the basis of our human rights practices in our

business operations, encompassing respect for labor rights, women's rights, children's rights and human dignity, including civil liberties and equality of persons protected under Thai and international laws to enforce human rights and prevent human rights violations from IRPC operations throughout the supply chain.

RESPECT

Human Rights Due Diligence Process

IRPC is committed to a comprehensive due diligence process aligned with international standards to assess and address human rights risks within the organization. The systematic approach includes the following steps:

1. Identification of relevant human rights issues: IRPC

identifies relevant and potential human rights risks associated with the following scopes; labor rights, community rights, supply chain, security and safety, environment, and customer rights.

2. Identification of vulnerable groups:

IRPC identifies vulnerable groups as children, person with disability, elderly, women, indigenous people, migrant laborers, third-party contracted labor and LGBTQIA+ who may be impacted by IRPC's operations and are at risk of having their human rights violated.

3. Human rights risks and impact assessment:

Impacts and likelihood of human rights risks are assessed at the corporate level of own operation and throughout the value chain, including IRPC affiliates, controllable and non-controllable joint ventures, and critical Tier 1 suppliers. The assessment process also includes the analysis of risk which is defined into four levels of risk impact (extreme, high, medium, and low level). The evaluated impacts at the medium to extreme level will be considered for relevant existing control functions within the organization to identify corporate human rights risks.

4. Mitigation measures and integration:

IRPC has concerns about appropriate mitigation measures to alleviate human rights risks. Hence, IRPC develops risk mitigation measures that align with different risk levels. These mitigation measures are integrated, minimized, and controlled to a low residual risk level at an acceptable level. Examples of mitigation measures include managing security, occupational health and safety of employees, and mitigating environmental impacts.

5. Monitoring report and communication:

The performance according to human rights mitigation measures is monitored and reviewed by responsible management teams annually to ensure human rights issues are rectified.

6. Remedial action:

IRPC designs appropriate remedial actions to alleviate human rights impacts caused by the company. The remedial actions consist of both financial and non-financial methods to compensate for the impacts

Human Rights Risks and Impact Assessment

IRPC conducted a human rights risk assessment across IRPC group as well as the in-depth value chain throughout its Business Units since 2018. Additionally, starting in 2022, the public consultation and human rights assessment for all new investment projects has been constantly conducted. the organization has consistently carried out public consultations and human rights assessments for all new investment projects. The Human Rights Risk Assessment (HRRRA) is performed by relevant internal functions to ensure a comprehensive evaluation of human rights risks in IRPC's operations and joint ventures (JVs) across the entire value chain.

The HRRRA process involves the identification of issues, assessment of impacts on rights holders and vulnerable groups, and evaluation of the likelihood of these impacts at the national level within the operational areas and among personnel. The assessed groups include various stakeholders such as employees within IRPC, society, subsidiaries, Joint Venture (JV) partners, and our business partners (suppliers, contractors, customers). Specific attention is given to vulnerable groups, including women, children, indigenous people, migrant people, third-party contracted labor, communities/local residents, customer/consumer, LGBTQIA+, person with disability, pregnant women, elderly.

IRPC operation area

100%



have human rights assessment.

Critical Feedstock Supplier

100%



have human rights assessment.

New investment projects

100%



engaged human rights risks assessment through public opinion and related agencies.

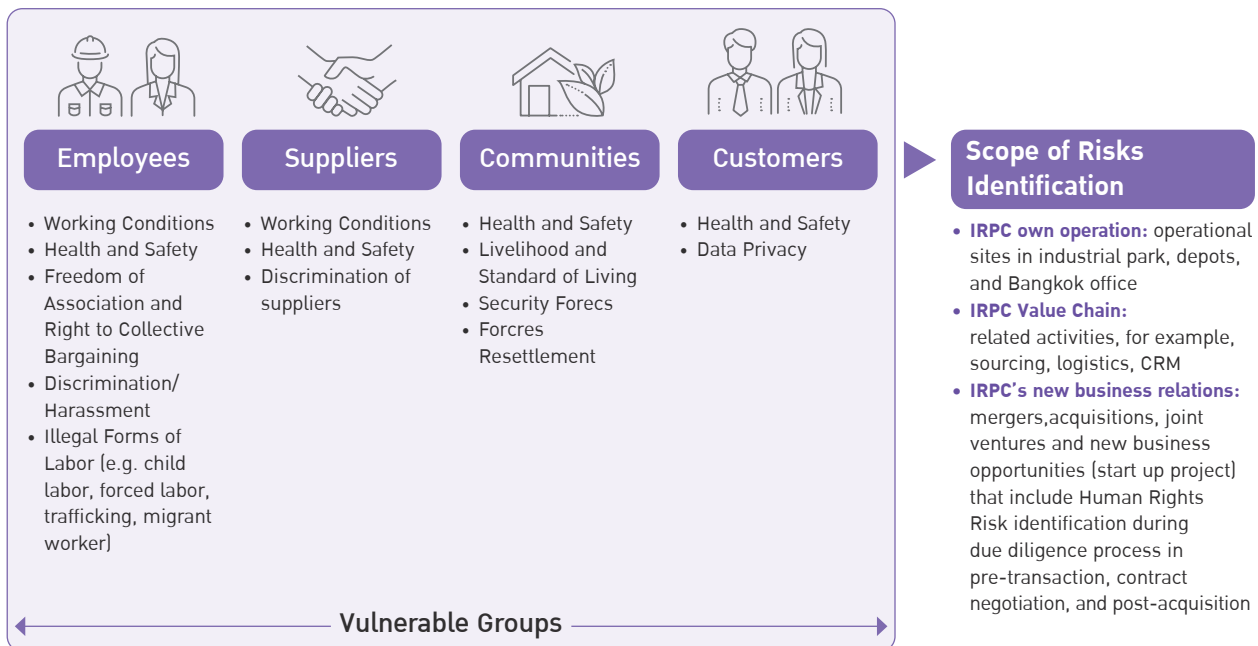
Businesses with and without IRPC management control
(including those who hold IRPC shares more than 10%)

100%



have human rights assessment.

Scope of Human Rights Impact Assessment



In 2023, IRPC engaged an independent external consultant to conduct human rights risk assessment and used the assessment results to analyze and draw up a set of measures to mitigate, rehabilitate and remedy human rights violations. According to the assessment findings, no salient issues were detected. However, there were risks within appetite, involving occupational health and safety of personnel working in the industrial zone, safety of communities surrounding the industrial zone and contractors working in the industrial zone as well as issues relating to working conditions of employees and contractors. Acting on the assessment results, IRPC has implemented measures to mitigate risks, maintaining vigilant oversight and

emphasizing consistent implementation of these measures. It has laid out work plans and set targets in developing online self-assessment on human rights to be completed in 2023.

Scan this QR code for addition information on IRPC Human Rights Assessments, or visit the website:
https://www.irpc.co.th/wp-content/uploads/2021/07/IRPC-HRDD-2022-Human-Rights-Assessment-Summary-Report_Eng.pdf



Good Labor Practices

IRPC places importance on respecting employees' human rights and fosters awareness through training and workshops. The company continues to emphasize providing fair welfare and benefits to employees, covering aspects such as well-being and healthcare. Moreover, IRPC establishes guidelines to reduce bias towards supervisors and ensuring fairness in supervisor-subordinate relationships through various types of assessments.



Diversity at IRPC

IRPC and its affiliates promote diversity and inclusion in our workforces in order to improve our operations and the ability to achieve the goals set out in our strategies. The Diversity Policy prescribes non-discrimination of gender, age, race, culture, or religion, and encourages inclusivity among personnel across the organization. The company has announced the diversity and inclusion policy and its intention to create a culture of respect for diversity among personnel at all levels, including supporting and promoting diversity in all positions at the company. This is to ascertain that personnel at all levels are treated equally throughout the organization. In addition, IRPC is also committed to promoting career advancement of female employees by constantly monitoring the proportion of female executives in the organization on a yearly basis.



Total workforce

Male	86
Female	14

% in management positions	Junior management (PG 9-12 first line management)	Middle management (PG 13-18)	Top management (maximum two levels from CEO)
Male 80	Male 81	Male 77	Male 83
Female 20	Female 19	Female 23	Female 17

% in management positions in revenue-generating functions*)

Male 63
Female 37

% in STEM-related position

Male 81
Female 19

Number of Employees by Ethnicity

Ethnicity	% of employees in all positions	% of employees in Management
1. Thai	99.87	99
2. German	0.03	0.015
3. Japanese	0.05	0
4. Singaporean	0.03	0.015

Notes: * Revenue generating entities include commerce, marketing, accounting and finance, innovation, strategies, planning and corporate business development

Freedom of Association

IRPC supports employees' rights to organize labor unions, which is clearly stated in the employee relations policy, with the aim of creating a channel for union members and senior management to discuss matters of mutual interest, including the company's business direction, workforce restructuring in response to economic situations, human resource development, employees' career path and welfare benefits. The senior management have always taken an interest in listening to employees' views and feedback on these matters. Both sides meet on a quarterly basis. In addition, employees may also make known their opinions through various channels, including employee satisfaction survey, etc.



At IRPC, there are a total of 7 labor unions, and **75%**

of employees are union members. In 2023, the company received a total of 13 suggestions from labor unions.

Human Rights Risks in Supply Chain Management

IRPC communicates its human rights policy to critical suppliers and encourages them to strictly comply with the policy and practices. The company also assesses the suppliers' compliance with human rights principles in accordance with the code of conduct on human rights and labor rights section of the sustainable procurement handbook. The company also checks the qualifications and age of contractors before allowing them to enter work sites to prevent the use of child labor. Training is also provided to instill in them a safety mindset to ensure safe working environments. In addition, suppliers are required to participate in seminars on ESG disclosures, including self-assessment by filling out questionnaire prior to ESG Onsite Audit.

REMEDY

Complaint Handling Process

IRPC has set guidelines for creation of complaint channels and efficient complaint handling process, including assigning a person to take responsibility for handling complaints as well as notifying the complainants of the decisions made to resolve their grievances.

Whistleblowing and Complaint Channels



E-mail:

auditor@irpc.co.th



Mail:

Chairman of the Audit Committee
IRPC Public Company Limited
555/2 Energy Complex, Building B, Floor 6th,
Vibhavadi Rangsit Road, Chatuchak, Chatuchak,
Bangkok 10900



Postal Office:

PO Box 35,

Sun Tower Building Postal Office, Bangkok 10905

For more information on Complaint Handling Process, please go to www.irpc.co.th

In 2023, IRPC

received no complaints

on human rights violations.

2023 Human Rights Model Organization Award

IRPC has received an honorable certificate and accolade recognizing it as the outstanding “Human Rights Model Organization” for 2023, marking the 5th consecutive year of this achievement from the Rights and Liberties Protection Department, Ministry of Justice.

Awarded in the Large Enterprise category, IRPC is commended for its commitment to conducting business with a focus on human rights, equality, diversity, and responsibility toward its partners. The recognition as a “Human Rights Model Organization” signifies a significant achievement for IRPC, reinforcing moral values among stakeholders, executive members, and staff, and highlighting the company’s unwavering commitment to ethical business practices and innovative discoveries.



► Performance Summary

In 2023, IRPC’s unwavering commitment to human rights resulted in the successful elimination of any reported cases of human rights violations, meeting the organization’s established objective.

		2021	2022	2023
	Reported Case of Human Rights Violations	0	0	0
	Incidents of violations involving rights of indigenous peoples	0	0	0
	Incidents of non-compliance concerning the health and safety impacts of products and services	0	0	0
	Incidents of discrimination	0	0	0
	Incidents of violations involving customer data privacy	0	0	0

Financial Highlights

► Condensed Consolidated Financial Statements

(Unit: Million Baht)

	2023	2022	2021
Statement of Financial Position			
Current Assets	61,683	70,920	67,101
Total Assets	192,661	198,187	190,492
Current Liabilities	58,944	62,056	47,543
Total Liabilities	116,539	118,509	102,780
Shareholders' Equity	76,122	79,678	87,712
Registered Capital	20,475	20,475	20,475
Issued and Paid-up Capital	20,434	20,434	20,434
Statement of Income			
Sales Revenues ⁽¹⁾	319,047	324,800	255,115
Net Sales Revenues ⁽²⁾	299,075	318,396	235,174
Cost of Sales	315,499	314,892	228,989
Gross Profit (loss)	3,548	9,908	26,126
Selling Expenses	1,405	1,964	2,105
Administrative Expenses	5,372	5,275	5,673
Profit (loss) from Operations	(1,861)	(3,912)	17,914
Net Profit (loss)	(2,923)	(4,364)	14,505
Net Profit (loss) per Share (baht)	(0.14)	(0.21)	0.71
Statement of Cash Flows			
Net cash flows from (used in) operating activities	18,630	(3,712)	11,342
Net cash flows from (used in) investing activities	(12,022)	(8,931)	(2,853)
Net cash flows from (used in) financing activities	(3,618)	4,637	(6,104)
Net increase in cash and cash equivalents	2,990	(8,006)	2,385
Cash and cash equivalents at the beginning of the period	3,230	11,236	8,851
Cash and cash equivalents at the end of the period	6,220	3,230	11,236

Notes: ⁽¹⁾ Sales revenues include sales of petroleum, petrochemical, power and utilities, storage tank, port service, etc.

⁽²⁾ Net sales revenues include sales of petroleum (excluding excise tax), petrochemical, power and utilities.

► Key Financial Ratios

	2023	2022	2021
Liquidity Ratio			
Current Ratio (times)	1.05	1.14	1.41
Quick Ratio (times)	0.37	0.29	0.53
Cash Flow Current Ratio (times)	0.31	(0.07)	0.25
Account Receivable Turnover Ratio (times)	20.78	22.48	21.74
Collection Period (days)	18	16	17
Inventory Turnover Ratio (times) ⁽¹⁾	8.79	8.61	8.34
Inventory Period (days)	42	42	44
Accounts Payable Turnover Ratio (times)	9.18	9.97	8.70
Payment Period (days)	40	37	42
Cash Cycle (days)	20	21	19
Profitability Ratio			
Gross Profit Margin ⁽²⁾	1.11%	3.05%	10.24%
Net Profit Margin ⁽³⁾	(0.92%)	(1.34%)	5.69%
Return on Equity	(3.76%)	(5.23%)	17.79%
Efficiency Ratio			
Return on Asset	(1.50%)	(2.25%)	7.97%
Total Asset Turnover Ratio (times)	1.64	1.68	1.41
Financial Policy Ratio			
Debt to Equity Ratio (times)	1.53	1.49	1.17
Interest-bearing Debt to EBITDA Ratio (times) ⁽⁴⁾	12.44	16.71	2.29
Net Interest-bearing Debt to EBITDA Ratio (times) ⁽⁵⁾	11.62	14.89	1.92
Interest-bearing Debt to Equity Ratio (times)	0.94	0.90	0.70
Net Interest-bearing Debt to Equity Ratio (times)	0.86	0.86	0.57
Interest Coverage Ratio (times)	2.78	2.13	15.52
Dividend Payout Ratio	n.a.	n.a.	31%
Book Value per Share (baht/share)	3.73	3.90	4.29

Notes: ⁽¹⁾ Inventory turnover ratio = cost of sales divided by net inventory (average)

⁽²⁾ Gross Profit Margin = gross profit divided by sales revenues

⁽³⁾ Net profit margin ratio = net profit divided by sales revenues

⁽⁴⁾ Interest - bearing debt to EBITDA ratio = interest-bearing debt (average) divided by earnings before interest, taxes, depreciation and amortization (EBITDA)

⁽⁵⁾ Net Interest-bearing debt to EBITDA ratio = net interest-bearing debt - cash (average) divided by earnings before interest, taxes, depreciation and amortization (EBITDA)

Management Discussion and Analysis (MD&A)

Executive Summary

	Unit	2023	2022	%Change
Crude Intake	Million bbl	70.11	63.86	10%
Sales ⁽¹⁾	Million Baht	319,047	324,800	(2%)
Net Sales ⁽²⁾	Million Baht	299,075	318,396	(6%)
Market GIM	Million Baht	19,344	23,761	(19%)
	USD/bbl ⁽³⁾	7.90	10.57	(25%)
Accounting GIM	Million Baht	18,221	17,413	5%
	USD/bbl	7.44	7.75	(4%)
EBITDA	Million Baht	5,754	3,987	44%
Net Profit (loss)	Million Baht	(2,923)	(4,364)	33%

Notes: ⁽¹⁾ Sales include (1) Petroleum Sales (2) Petrochemical Sales (3) Power and Utilities Sales (4) Sales of tank farm and port service, etc

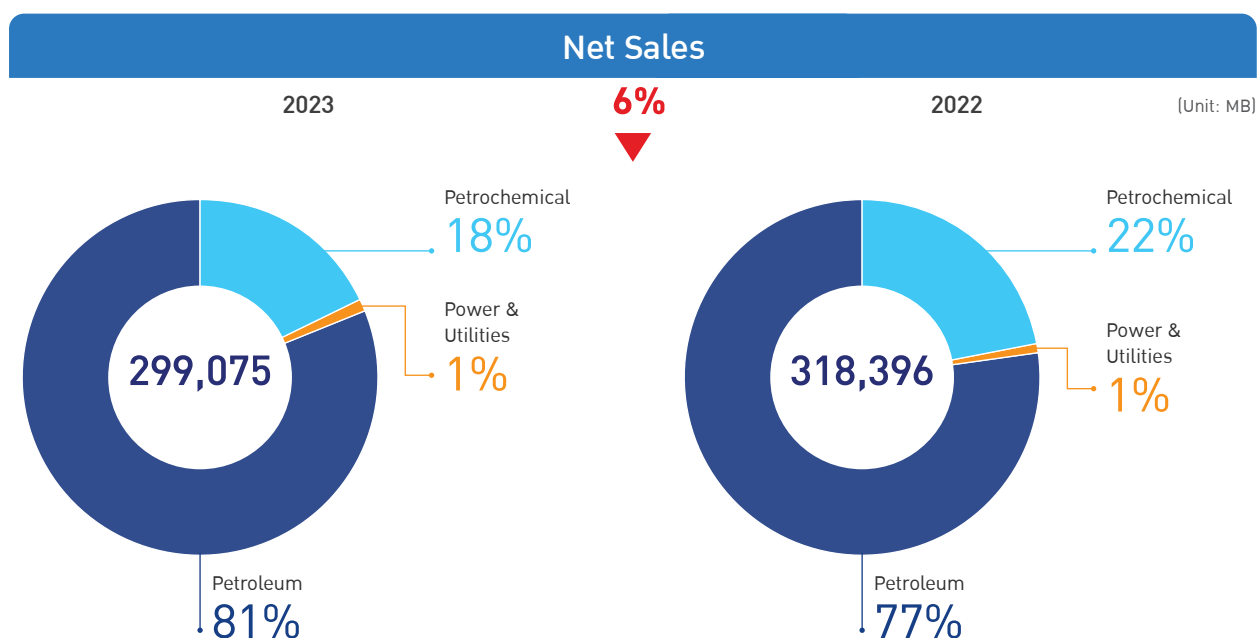
⁽²⁾ Net Sales include (1) Petroleum Sales (excluding excise tax) (2) Petrochemical Sales (3) Power and Utilities Sales

⁽³⁾ Market GIM per bbl : [(Market GIM/Crude Intake)/Exchange Rate]

The operating results in 2023 compared to those in 2022:

In 2023, the company registered net sales of Baht 299,075 million decreasing by 6% from that in 2022. This attributed to a 22% decline in average selling prices following lower crude oil price versus a 16% increase in sales volume. For petroleum business unit, Market Gross Refining Margin (Market GRM) dropped from a decrease in the spread between petroleum product prices and Dubai crude oil price following the softened crude oil price. Diesel spread's decrease was quite obvious due to the conflict between Russia and Ukraine that extremely impacted Diesel supply. Furthermore, petrochemical business unit faced declined Market Product to Feed (Market

PTF) owing to the lower spreads between petrochemical product prices and naphtha price. This caused by the continuously sluggish demand for petrochemical products as decelerated global economic conditions. Power plant and utility business units contributed stable margin from sales of electricity and steam. Hence, the company recorded Market Gross Integrated Margin (Market GIM) of Baht 19,344 million (USD 7.90 per barrel) decreasing by 19%. However, the average crude oil price in 2023 dropped from that last year, substantially pressured by the unfavorable global economic conditions. The global economy slowdown was contributing from the inflation control measures, of which included the series of interest



rate increases imposed by several central banks, as well as from the continuing property sector crisis in China and bank collapses in the U.S., Europe, and China. Such factors affected oil demand globally, despite the crude oil price fluctuations from time to time caused by OPEC and allies' production cuts aiming to balance the market and political conflicts in many areas including Israel-Hamas and Russia-Ukraine. The drop in the crude oil price led to the stock loss of Baht 2,488 million or USD 1.02 per barrel against a reversal on Net Realizable Value (NRV) of Baht 1,026 million or USD 0.42 per barrel. Nevertheless, the company recorded the realized gain from oil hedging of Baht 339 million or USD 0.14 per barrel. All previous mentioned resulted in net inventory loss of Baht 1,123 million or USD 0.46 per barrel. Therefore, the Accounting Gross Integrated Margin (Accounting GIM) was Baht 18,221 million or USD 7.44 per barrel rising by 5% from that last year. Moreover, the earnings before interest, tax, depreciation and amortization (EBITDA) of Baht 5,754 million escalated by Baht 1,767 million or by 44%. In 2023, there was a gain on impairment and disposal of assets amounting to Baht 822 million, mainly owing to the reversal impairment on spare part. As a result, the company recorded the net loss of Baht 2,923 million in 2023 being less than the 2022 net loss by 33%.

Operating Performance

1. Operating Performance by Business Units

► 1.1 Petroleum business unit

1.1.1 Petroleum Market Overview

Crude oil situation in 2023: The global oil consumption was 102.3 million barrels per day rising by 1.8 million barrels per day from 2022 oil consumption of 100.5 million barrels per day. The Dubai price in 2023 moved between USD 70.29 per barrel and USD 96.77 per barrel, with an average of USD 82.10 per barrel decreasing by USD 14.24 per barrel from USD 96.34 per barrel in 2022. The crude oil price in early-2023 was supported by market expectation that China reopening would recover the overall economy as well as oil demand. Still, the market situation did not progress as expected due to China's property crisis, along with bank collapses in the U.S, Europe and China that stirred concerns whether the collapses aggregate the impacts and evolve to an economic crisis. In addition, the high U.S. inflation rate led the

Federal Reserve (FED) to increase the policy interest rate pressuring the economy and commodity prices. The FED increased the policy interest rate for 4 times in 2023, hence the rate of 5.25-5.50% at the end of the year. The aforementioned threats drove OPEC and allies to cut the crude oil production in order to uphold

the price, with Saudi Arabia's additional voluntary cut of 1 million barrels per day starting July 2023. Meanwhile, there was a conflict between Israel and Hamas in early-October 2023 soaring the crude oil price in a short period. Despite not elevating, the conflict built a supply risk amongst the market.

Dubai Price

Unit: USD/bbl



1.1.2 Crude Intake and Capacity

Petroleum	2023	2022	%Change
Crude Intake			
Million barrels	70.11	63.86	10%
KBD	192	175	10%
Utilization Rate			
Refinery	89%	81%	8%
RDCC	109%	92%	17%
Lube Base Oil	87%	77%	10%

Remark: Crude intake capacity is 215,000 barrels per day

In 2023, crude intake was 70.11 million barrels or 192,000 barrels per day. Refinery utilization rate was 89%.

In 2023, crude intake was 70.11 million barrels or 192,000 barrels per day (192 KBD). Refinery utilization rate was 89% rising by 8% from that last year. This was because the company arranged a major turnaround during October-November 2022 taking 37 days in average. The refinery can perform efficiently after the major turnaround was completed.

The utilization rate of RDCC plant in 2023 was 109% improving by 17% from that last year of 92%.

The utilization rate of Lube Base Oil plant in 2023 was 87% increasing by 10% from that in 2022.

1.1.3 Petroleum Sales

Products	Sales Volume (Million Barrel)		Sales Value (Million Baht)	
	2023	2022	2023	2022
Refinery	61.81	50.46	216,330	219,105
Lube Base Oil	7.22	6.27	25,125	24,848
Total	69.03	56.73	241,455	243,953

In 2023, net sales of petroleum businesses was down by 1% from that last year owing to a 23% decline in average selling prices following the crude oil price trend versus a 22% increase in sales volume.

In 2023, net sales of petroleum businesses were Baht 241,455 million being down by Baht 2,498 million or by 1%, mainly owing to a 23% decline in average selling prices following the crude oil price trend versus a 22% increase in sales volume, from 56.73 million barrels to 69.03 million barrels. Most of the increase was contributed from Diesel, Naphtha and Gasoline. The proportion of domestic and export of petroleum products in 2023 was 65% and 35%, respectively and most of the exported products were shipped to Singapore, Cambodia and Laos.

1.1.4 Crude Price and Petroleum Products Spread

Average Price	2023	2022	%Change
Dubai Crude Oil (USD/bbl)	82.10	96.34	(15%)
Petroleum (USD/bbl)			
Naphtha-Dubai	(13.0)	(13.2)	2%
ULG95-Dubai	16.7	18.8	(11%)
Gas Oil 0.05%S-Dubai	21.9	34.3	(36%)
FO 180 3.5%S-Dubai	(10.3)	(14.1)	27%
Lube Base Oil (USD/MT)			
500SN-FO 180 3.5%S	547	678	(19%)
150BS-FO 180 3.5%S	745	837	(11%)
Asphalt-FO 180 3.5%S	16	16	0%

The spread between petroleum products and raw material price

The spread between petroleum products and Dubai crude oil price

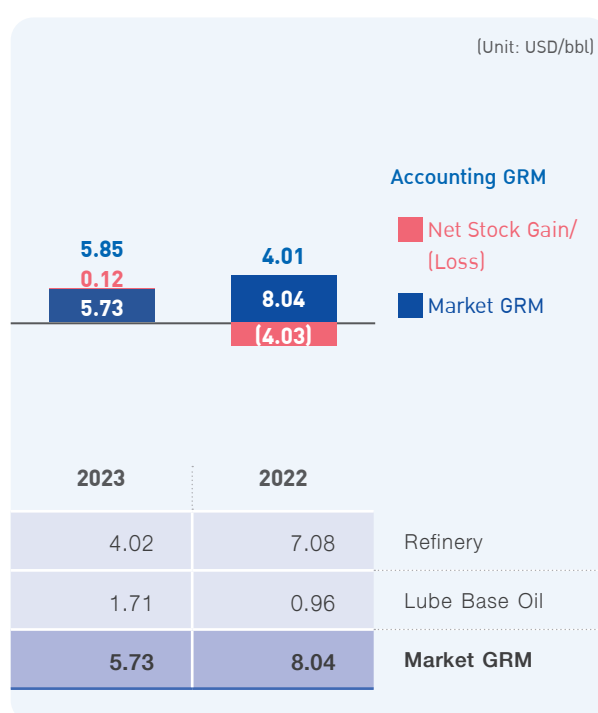
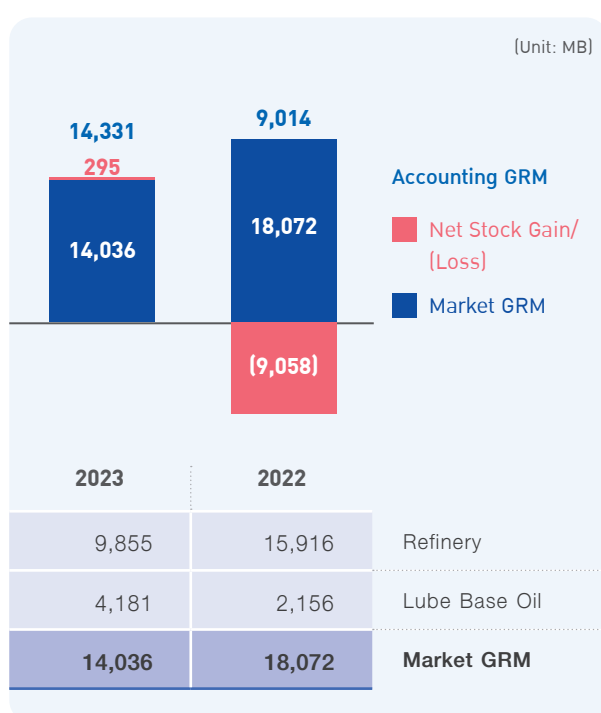
- Naphtha Spread - Higher:** Naphtha - Dubai spread in 2023 was USD -13.0 per barrel increasing by 2% from USD -13.2 per barrel in 2022. This was because Naphtha crackers reduced their utilization rates to align with sluggish petrochemical market being stemmed from unrecovered Chinese economy. The situation was gloomed by China's property crisis, hence curbed sales of electrical appliances chaining to petrochemical product demand.
- ULG95 Spread - Lower:** ULG95 - Dubai spread in 2023 was USD 16.7 per barrel decelerating by 11% from USD 18.8 per barrel in 2022. There were demand supports from China reopening and Lunar New Year in early-2023. However, China announced petroleum product export quotas after that, which reflected not-fully recovered demand for logistics and transportation in China. Gasoline demand in the U.S. during the driving season was also curbed to be lower than initially expected owing to inflation.
- Gas Oil Spread - Lower:** Gas Oil - Dubai spread in 2023 was USD 21.9 per barrel softening by 36% from USD 34.3 per barrel in 2022. In 1H23, Diesel spread was pressured by warmer-than-normal climate and relieved concerns over Russia-Ukraine conflict from that in 2022. Still, Diesel spread in 3Q23 boosted owing to protests in France affecting refinery operations, along with China's third batch of petroleum product export quota of 2023 being announced in September, which delayed from initially scheduled in July. In addition, Russia announced a ban on petroleum product export in late-3Q23, which was lifted in early-October, thus relieved concerns over Diesel supply during winter and declined Diesel spread respectively.
- Fuel Oil Spread - Higher:** High Sulphur Fuel Oil (HSFO) - Dubai spread in 2023 was USD -10.3 per barrel developing by 27% from USD -14.1 per barrel in 2022. The spread shot up in mid-2023 thanks to demand for power generation in the Middle East. Limited Fuel Oil supply following OPEC and allies' crude oil production cut and Saudi Arabia's voluntary cut also helped upsurge the spread.

The spread between Lube Base Oil products and Fuel Oil price

- **500 SN Spread - Lower:** 500SN - Fuel Oil spread in 2023 was USD 547 per ton reducing by 19% from USD 678 per ton in 2022 owing to stagnant economy constraining Lube Base Oil demand for industrial purposes. Meanwhile, Fuel Oil price was backed by limited supply.

- **Asphalt Spread - Unchanged:** Asphalt - Fuel Oil spread in 2023 was USD 16 per ton, which unchanged from that in 2022. Meanwhile, Asphalt demand in 2023 obtained some threats, mainly from limited construction budget following sluggish economic conditions.

1.1.5 Gross Refining Margin



In 2023, Market GRM was Baht 14,036 million or USD 5.73 per barrel dropping by Baht 4,036 million or USD 2.31 per barrel from that last year, mainly owing to softened Diesel and Gasoline spreads.

The Gross Refining Margin (Market GRM) in 2023 was Baht 14,036 million or USD 5.73 per barrel dropping by Baht 4,036 million or USD 2.31 per barrel from that last year, mainly owing to softened Diesel and Gasoline spreads compared to Dubai crude oil price. The company obtained a net inventory gain of Baht 295 million or USD 0.12 per barrel comprising of a reversal on Net Realizable Value (NRV) of Baht 904 million and a gain on realized oil hedging of Baht 339 million versus a stock loss of Baht 948 million. Thus, the company obtained the Accounting Gross Refining Margin (Accounting GRM) equaling Baht 14,331 million or USD 5.85 per barrel improving by Baht 5,317 million or USD 1.84 per barrel from that last year.

► 1.2 Petrochemical business unit

1.2.1 Petrochemical Market Overview

Petrochemical market situation in 2023: The demand for petrochemical products continued to be sluggish being affected by several factors. These included the protracted conflict between Russia-Ukraine, along with significant global economic slowdown due to persistent high inflation leading to continuous interest rate hikes by central banks worldwide. China's economy was obviously seen not recovered as anticipated following intensification of the property crisis. Even though Chinese government

issued various economic stimulus measures, the demand remained unrecovered due to lack of purchasing confidence resulting in more cautious spending, especially those in durable goods sector that led to slowdowns in production and export. Nevertheless, with travel restriction eases by several countries, tourism industry continued to recover boosting demand in certain industries such as food packaging as well as health and medical equipment. On the supply side, there was a pressure from new production capacity, especially those in China, Vietnam, and Indonesia entailing excess supply in the region and pulling plastic pellet prices down. Consequently, some producers decided to reduce their utilization to maintain profit margins and market equilibrium.

1.2.2 Petrochemical Capacity

Petrochemical	2023	2022	%Change
Utilization Rate			
Olefins Group	73%	86%	(13%)
Aromatics and Styrenics Group	74%	86%	(12%)

In 2023, the utilization rate of Olefins group was 73% declining by 13% from that in 2022 of 86%. In addition, the utilization rate of Aromatics and Styrenics group was 74% being down by 12% from that last year due to production adjustment aligning with market conditions.

1.2.3 Petrochemical Sales

Products	Sales Volume (KMT)		Sales Value (MB)	
	2023	2022	2023	2022
Olefins Group	864	1,001	31,228	42,448
Aromatics and Styrenics Group	572	600	22,148	27,954
Total	1,436	1,601	53,376	70,402

Remark: Included sales of Trading business (iPolymer) and New S-Curve business (Rakpasak)

Net sales of petrochemical businesses in 2023 was down by 24% from that last year as sales volume decreased by 10% and average selling prices decreased by 14%.



Net sales of petrochemical businesses in 2023 were Baht 53,376 million being down by Baht 17,026 million or by 24% from that last year. This was mainly because sales volume decreased by 165,000 tons or by 10% and average selling prices decreased by 14%. The lower sales volume was mainly from PP in Olefins group. The proportion of domestic and export of petrochemical products in 2023 was 65% and 35%, respectively and most of the exported products were shipped to Singapore, Hong Kong and India.

1.2.4 The spread between key petrochemical products and raw material price

Average price (USD/MT)	2023	2022	%Change
Naphtha	649	785	(17%)
Olefins			
HDPE - Naphtha	474	457	4%
PP - Naphtha	366	407	(10%)
Aromatics			
BZ - Naphtha	249	246	1%
TOL - Naphtha	238	175	36%
MX - Naphtha	286	239	20%
Styrenics			
ABS - Naphtha	634	901	(30%)
PS (GPPS) - Naphtha	570	731	(22%)

The spread between petrochemical products and raw material price

The spread between Polyolefins group and Naphtha price

- **HDPE Spread - Higher:** HDPE - Naphtha spread in 2023 was USD 474 per ton increasing by 4% from that in 2022 of USD 457 per ton as in 2Q23, HDPE supply tightened amid annual maintenance shutdowns, mainly from Middle East producers. However, the demand for downstream pipe sectors lagged due to global economic downturn and high interest rates. Additionally, China's property crisis dampened the construction industry.
- **PP Spread - Lower:** PP - Naphtha spread in 2023 was USD 366 per ton decreasing by 10% from that in 2022 of USD 407 per ton owing to the ongoing

sluggish demand, partly due to economic uncertainty caused by Russia-Ukraine war, a conflict between Israel-Hamas and persistently high interest rates. Meanwhile, the supply in the market, especially in China, represented a continuous increase, although some producers reduced their production capacity to align with the demand.

The spread between Aromatics group and Naphtha price

- **TOL and MX Spread - Higher:** In 2023, Toluene - Naphtha spread and Mixed Xylene - Naphtha spread were USD 238 per ton and USD 286 per ton respectively rising by 36% and 20% accordingly when compared with those in 2022. This was mainly caused by improving PX market sentiments, which resulted in the increasing demand for Toluene and Mixed Xylene, the major raw materials being used in PX production.

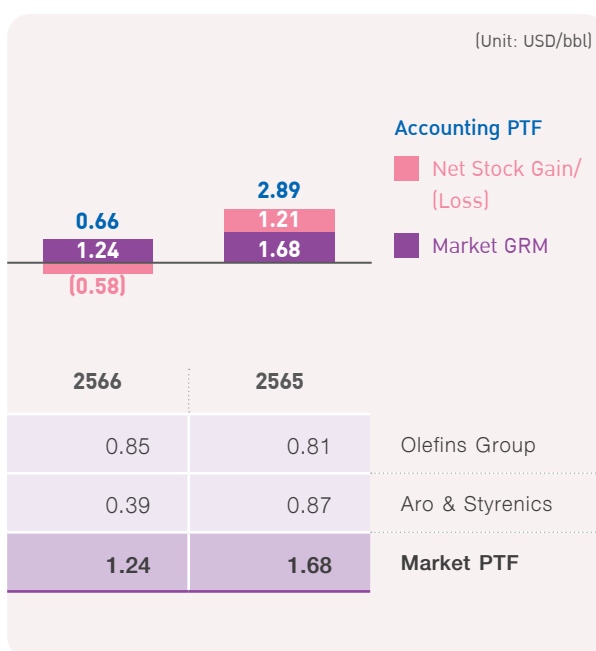
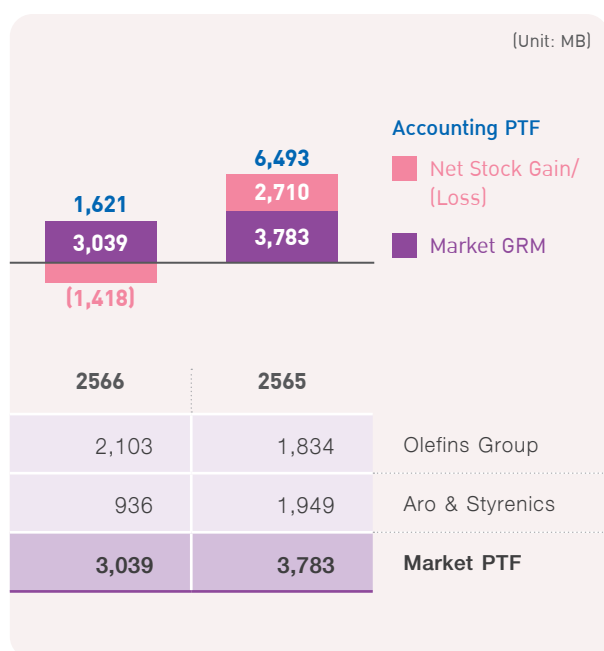
The spread between Polystyrenics group and Naphtha price

- **ABS Spread - Lower:** ABS - Naphtha spread in 2023 was USD 634 per ton decreasing by 30% when compared to USD 901 per ton in 2022. This was because demand slowed in accordance with global economic conditions, particularly in China, where the property crisis affected confidence of households and businesses. As a result, consumer spending was stagnant, such as those for electrical appliance products. Additionally, the new

capacity obtain a significant impact to the market when compared to the demand.

- **PS Spread - Lower:** PS - Naphtha spread in 2023 was USD 570 per ton decreasing by 22% when compared to USD 731 per ton in 2022 owing to the global economic slowdown, which did not show clear signs of recovery. Most end-product manufacturers purchased primarily based on necessity or upon receiving orders to avoid excessive stockpiling towards the year end.

1.2.5 Product to Feed Margin (Product to Feed: PTF)*



Remark : * Included Trading business (iPolymer) and New S-Curve business (Rakpasak)

In 2023, the Market PTF was Baht 3,039 million being down by Baht 744 million, YoY, as Styrenics product spreads were down.

.....”

The Market Product to Feed Margin (Market PTF) in 2023 was Baht 3,039 million or USD 1.24 per barrel declining by Baht 744 million or USD 0.44 per barrel from that last year. This was mainly because Styrenics product spreads were down following global economic slowdown that curbed the demand for end products, particularly those in electrical and electronics appliances. The company obtained a net inventory loss of Baht 1,418 million or USD 0.58 per barrel comprising of a stock loss of Baht 1,540 million against a reversal on NRV of Baht 122 million. The aforementioned figures led to the Accounting Product to Feed Margin (Accounting PTF) equaling Baht 1,621 million or USD 0.66 per barrel decreasing by Baht 4,872 million or USD 2.23 per barrel from that in the previous year.

► 1.3 Power Plant and Utility business units

Capacity and Sales

	2023	2022	%Change
Utilization Rate			
Electricity	62%	62%	0%
Steam	59%	57%	2%
Sales (Baht million)			
Electricity	2,410	2,208	9%
Steam	1,594	1,590	0.3%
Others	240	243	(1%)
Total	4,244	4,041	5%

Utilization rates of Electricity and Steam: In 2023, the utilization rate of Electricity was 62% being equal to that in 2022 whereas the utilization rate of Steam was 59% in 2023 increasing by 2% from that last year.

The net sales of Power and Utility businesses: In 2023, the company recorded the net sales of Power and Utility businesses equaling Baht 4,244 million, up by Baht 203 million or by 5% compared with that in 2022 of Baht 4,041 million thanks to improving average selling prices of Electricity.

2. Total Operating Performance

Total Operating Performance of IRPC and its subsidiaries for Year 2023 are as follows

	Unit: Million Baht		Unit: USD per barrel	
	2023	2022	2023	2022
Average FX (THB/USD)	34.96	35.23		
Total Crude Intake (Mbbbl)	70.11	63.86		
Average Crude (USD/bbl) ⁽¹⁾	86.52	104.67		
Sales ⁽²⁾	319,047	324,800	130.17	144.37
Net Sales ⁽³⁾	299,075	318,396	122.02	141.52
Variable Cost (Raw Material - Market Price)	(279,731)	(294,635)	(114.12)	(130.95)
Market GIM	19,344	23,761	7.90	10.57
Stock Gain (Loss)	(2,488)	4,384	(1.02)	1.95
Net Realizable Value (NRV)	1,026	(2,347)	0.42	(1.04)
Realized Gain (Loss) on Oil Hedging	339	(8,385)	0.14	(3.73)
Net Inventory Gain (Loss)	(1,123)	(6,348)	(0.46)	(2.82)
Accounting GIM	18,221	17,413	7.44	7.75

	Unit: Million Baht		Unit: USD per barrel	
	2023	2022	2023	2022
Other Incomes ⁽⁴⁾	1,421	1,351	0.58	0.60
Selling Expenses	(1,405)	(1,964)	(0.57)	(0.87)
Accounting GIM and Other Incomes	18,237	16,800	7.45	7.48
OPEX	(12,483)	(12,813)	(5.09)	(5.70)
EBITDA	5,754	3,987	2.36	1.78
Depreciation	(8,666)	(8,059)	(3.54)	(3.58)
EBIT	(2,912)	(4,072)	(1.18)	(1.80)
Net Finance Cost	(2,021)	(1,836)	(0.82)	(0.82)
Gain (Loss) on Financial Derivatives	176	238	0.07	0.11
Gain (Loss) on Foreign Exchange from Borrowing	4	(171)	-	(0.08)
Unrealized Gain (Loss) on Oil Hedging	-	28	-	0.01
Gain (Loss) on Impairment and Disposal of Assets	822	20	0.34	0.01
Gain (Loss) on Investment	261	289	0.10	0.13
Other Expenses	(14)	2	(0.01)	0.00
Net Profit (Loss) before Income Tax	(3,684)	(5,502)	(1.50)	(2.44)
Income Tax	772	1,142	0.31	0.51
Gain (Loss) on non-controlling interests	(11)	(4)	-	-
Net Profit (Loss)	(2,923)	(4,364)	(1.19)	(1.93)
Earning per share (EPS) (Baht/Share)	(0.14)	(0.21)		

Notes: ⁽¹⁾ Average market prices of crude used in the production process

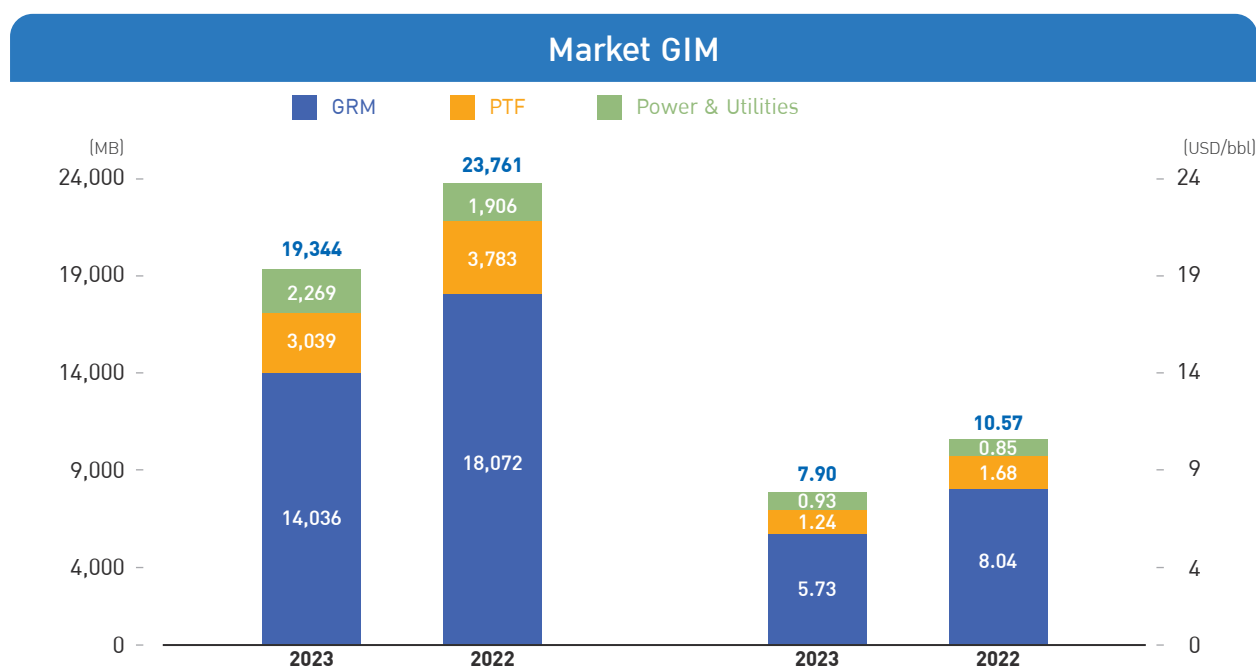
⁽²⁾ Sales include (1) Petroleum Sales (2) Petrochemical Sales (3) Power and Utilities Sales (4) Sales of tank farm and port service, etc.

⁽³⁾ Net Sales include (1) Petroleum Sales (excluding excise tax) (2) Petrochemical Sales (3) Power and Utilities Sales

⁽⁴⁾ Other Incomes include land, tank farm and port service etc.

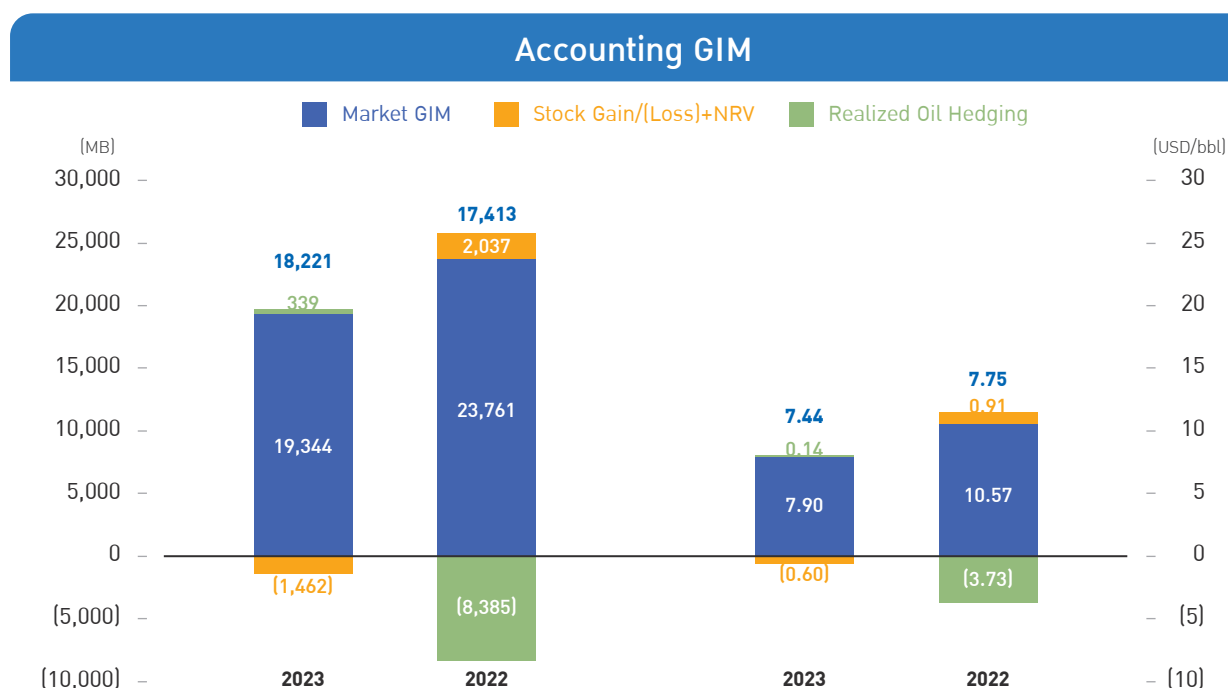
► 2.1 Market Gross Integrated Margin (Market GIM)

The Market Gross Integrated Margin (Market GIM) in 2023 was Baht 19,344 million or USD 7.90 per barrel moving down by Baht 4,417 million or USD 2.67 per barrel from that in 2022. This was mainly from the decrease spread between petroleum product spreads and Dubai crude oil price, especially Diesel spread, according to warmer-than-normal weather and the lessened effect from Russia–Ukraine conflict to Diesel supply when compared to that in 2022. Meanwhile, cost of crude premium dropped significantly. Moreover, the spread of petrochemical product and naphtha declined because of recession concerns, an increase in interest rate in order to control inflation and a property crisis in China.



► 2.2 Accounting Gross Integrated Margin (Accounting GIM)

The Accounting Gross Integrated Margin (Accounting GIM) in 2023 was Baht 18,221 million or USD 7.44 per barrel improving by Baht 808 million from that in 2022. This was mainly because the Market GIM declined by Baht 4,417 million or USD 2.67 per barrel. However, the net inventory loss was less than that in 2022 by Baht 5,225 million or USD 2.36 per barrel. The net inventory loss in 2023 comprised of a stock loss of Baht 2,488 million or USD 1.02 per barrel versus an NRV reverse of Baht 1,026 million or USD 0.42 per barrel and a gain on realized oil hedging of Baht 339 million or USD 0.14 per barrel.



Note: Net Inventory Gain (Loss) = Stock Gain (Loss) + NRV + Realized Oil Hedging

► 2.3 Other Incomes

Other incomes consist of port and tank farm services and other services. In 2023, the company had other incomes of Baht 1,421 million rising by Baht 70 million from that last year, mainly owing to improved incomes from port and tank farm services.

► 2.4 Operating Expenses

In 2023, IRPC recorded operating expenses of Baht 12,483 million, decreasing by Baht 330 million from last year. This was mainly from employee expenses.

The research and development (R&D) expenses for enhancing the company's competitiveness in 2023 were Baht 325 million. Such expenses comprised of expenses for internal and external R&D, salaries of staffs in the R&D department and costs of utilities supporting R&D activities amounting to Baht 227 million along with expenses for R&D equipment amounting to Baht 98 million.

► 2.5 Depreciation expense

In 2023, the company recorded the depreciation expense equaling Baht 8,666 million rising by Baht 607 million from that in 2022. This was mainly from increased asset value following the 4Q22 major turnaround.

► 2.6 Net Finance Cost

In 2023, the net finance cost was Baht 2,021 million rising by Baht 185 million from that last year, mainly due to increased interest rates following market situation.

► 2.7 Gain (Loss) on Financial Derivatives

In 2023, there was a gain on financial derivatives equaling Baht 176 million, mainly from a gain on Cross Currency Swap (CCS), which decreased by Baht 62 million from that in the same period last year.

► 2.8 Gain (Loss) on Foreign Exchange from Borrowing

In 2023, the company had a gain on foreign exchange (FX) from U.S. dollar-borrowings of Baht 4 million compared to a loss on FX from U.S. dollar-borrowings of Baht 171 million in 2022 owing to Thai Baht appreciation.

► 2.9 Unrealized Gain (Loss) on Oil Hedging

In 2023, the company had no unrealized gain (loss) on Oil Hedging compared to the same period last year, which recorded an unrealized gain on oil hedging of Baht 28 million.

► 2.10 Gain (Loss) on Impairment and Disposal of Assets

In 2023, the company obtained a gain on impairment and disposal of assets of Baht 822 million rising by Baht 802 million compared to that last year, mainly owing to a reverse on spare part impairment in 1Q23 following adjustment of impairment principle, from time-based to condition-based.

► 2.11 Gain (Loss) on Investments

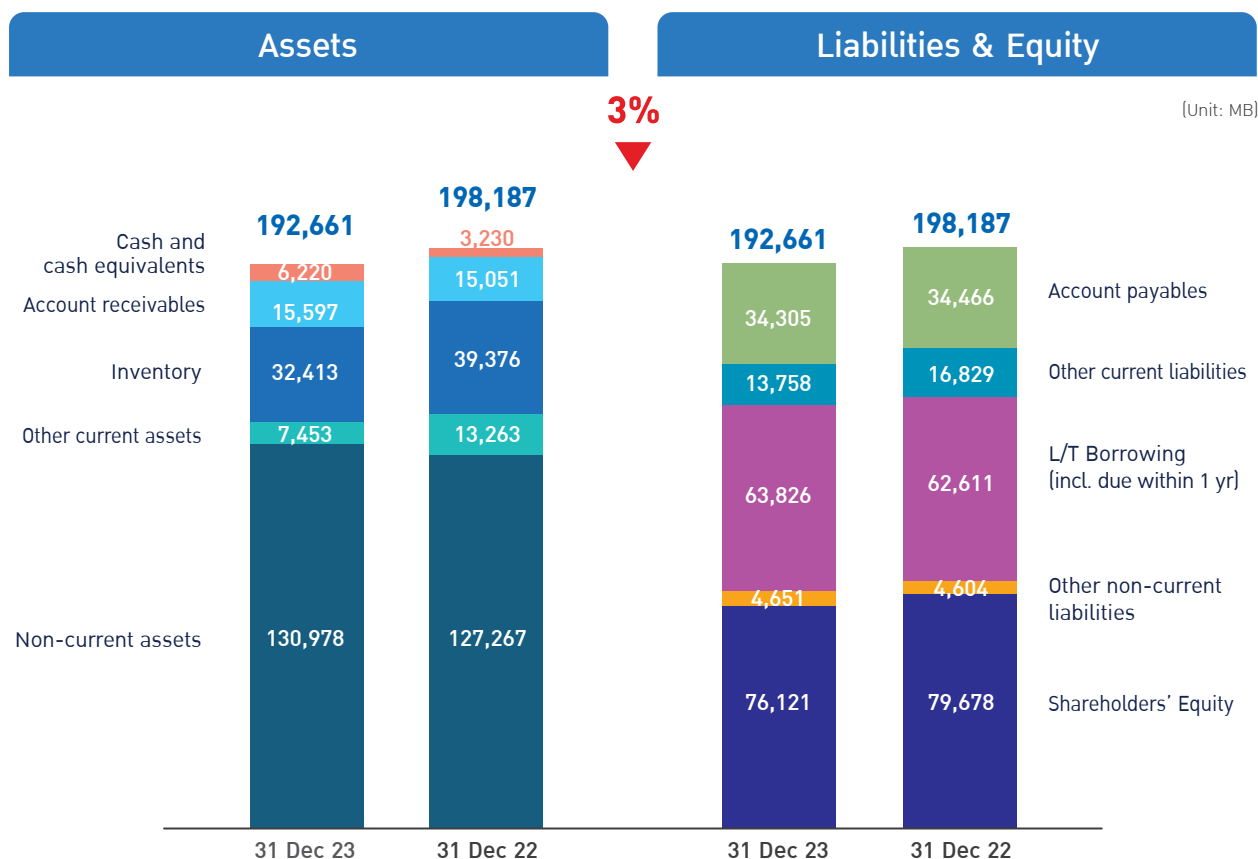
In 2023, there was a gain of Baht 261 million on investments, dropping by Baht 28 million from last year, mainly from lessened profit sharing from investments in associates and joint ventures.

► 2.12 Corporate Income Tax

In 2023, the company recorded a corporate income tax benefit of Baht 772 million moving down by Baht 370 million from that in the same period last year, mainly owing to improved performance.

Financial Positions

as of 31 December 2023



► Assets

As of December 31, 2023, the company had total assets of Baht 192,661 million decreasing by Baht 5,526 million or by 3% from that on December 31, 2022. It was due to the following reasons:

- **Cash and cash equivalents:** increased by Baht 2,990 million or by 93% from that at the end of 2022, mainly owing to the increase of net cash flow from operations after investment and loan repayment.
- **Trade receivables:** increased by Baht 546 million or by 4% from that at the end of 2022, mainly due to a rise in selling volume. The company's credit term policy is about 7-120 days and most customers made payment on schedule. The average collection period was 18 days increasing by 2 days from that at the end of 2022.
- **Inventory:** decreased by Baht 6,963 million or by 18% from that at the end of 2022, mainly due to an 8% decrease in the crude oil price and products prices following market situations as well as a 16% decrease in inventory volume. The average inventory period was 42 days being similar to that at the end of 2022.
- **Other current assets:** decreased by Baht 5,810 million or by 44% from that at the end of 2022. This was mainly attributed to a decrease in other receivables by Baht 5,185 million, mainly from account receivables – Oil Fund.
- **Non-current assets:** increased by Baht 3,711 million or by 3% from that at the end of 2022, mainly due to a rise in investments in fixed assets by Baht 2,930 million and an increase in deferred tax assets by Baht 816 million.

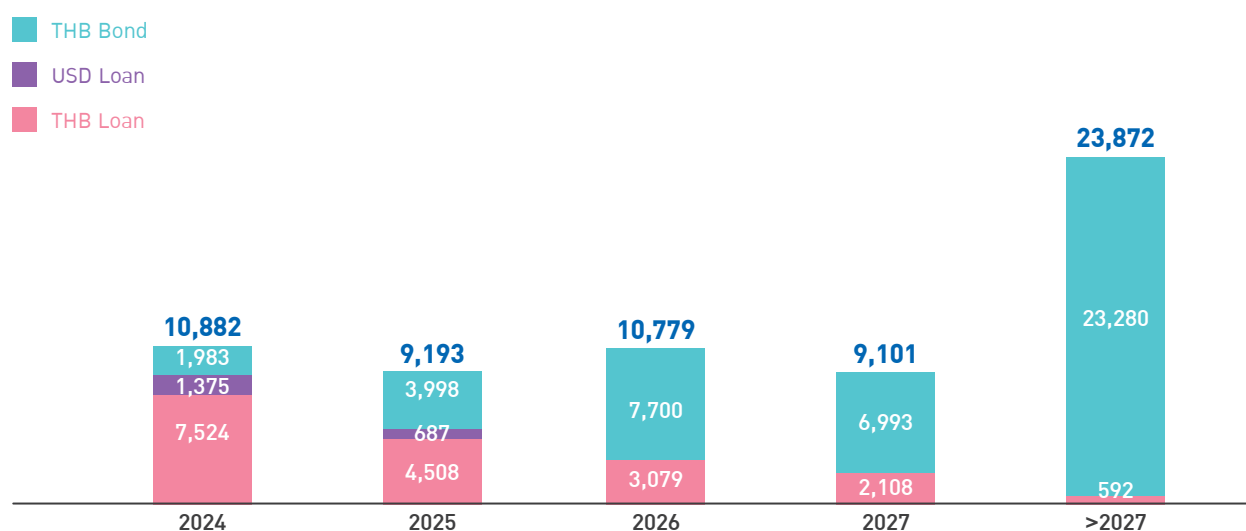
► Liabilities

As of December 31, 2023, the company had total liabilities of Baht 116,540 million decreasing by Baht 1,969 million or by 2% from what was stated as of December 31, 2022. It was due to the following reasons:

- **Trade payables:** decreased by Baht 161 million or by 0.5% compared to that at the end of 2022. It was mainly due to a decrease in crude procurement payable amount. The average payment period was 40 days increasing by 3 days from that at the end of 2022.
- **Other current liabilities:** decreased by Baht 3,071 million or by 18% compared to that at the end of 2022, mainly due to the repayment of short-term borrowing from financial institutions by Baht 1,800 million and a decline in other payables by Baht 1,380 million, mainly from account payables - Ready Made Assets.
- **Long-term borrowing including current portion within one year:** increased by Baht 1,215 million or by 2% compared to that at the end of 2022, mainly due to the issuance of debentures of Baht 12,000 million in May 2023 while the repayment of maturity borrowing of Baht 10,786 million.

The details of long-term borrowings are shown below:

(Unit: MB)



Note: Long-term borrowing as of December 31, 2023

The details of long-term borrowings

(Unit: MB)

	Dec 31, 2023	Dec 31, 2022	Change
Thai Baht Bonds	43,954	33,963	9,991
USD Loan*	2,061	3,467	(1,404)
Thai Baht Loan	17,811	25,181	(7,370)
Total Long-term Borrowing	63,826	62,611	1,215
Less current portion of long-term borrowing	(10,881)	(10,762)	(119)
Net Outstanding Long-term Borrowing	52,945	51,849	1,096

Note: * The company obtained USD loan of USD 100 million at the end of 2022 and USD 60 million as of December 31, 2023.

► Shareholders' Equity

As of December 31, 2023, shareholders' equity amounted to Baht 76,121 million, which decreased from what was stated as of December 31, 2022 by Baht 3,556 million or by 4%. This was mainly from the net loss amounting to Baht 2,923 million in 2023 and a dividend payment amount of Baht 612 million.

Statement of Cash Flow

(Unit: MB)

	2023
Net cash flows from (used in) operating activities	18,630
Net cash flows from (used in) investing activities	(12,022)
Net cash flows from (used in) financing activities	(3,618)
Net increase (decrease) in cash	2,990
Beginning cash	3,230
Ending cash	6,220

As of December 31, 2023, the ending cash was Baht 6,220 million. Net cash flow increased by Baht 2,990 million, which was mainly contributed from the following items:

- **Net cash inflow from operating activities:** of Baht 18,630 million. The cash inflow was mainly from EBITDA of Baht 5,754 million, a decrease in inventory of Baht 8,868 million and a decline in other receivables of Baht 5,184 million. Nevertheless, the cash outflow was mainly from an increase in trade receivables of Baht 677 million and a rise in other receivables amounts due from related parties of Baht 346 million.
- **Net cash outflow from investing activities:** of Baht 12,022 million, mainly from an investment in Ultra Clean Fuel (UCF) Project and the capitalized major turnaround expenses in late-2022.
- **Net cash outflow from financing activities:** of Baht 3,618 million, mainly from the repayment of long-term loans repayment of Baht 10,786 million, short-term borrowing from financial institutions of Baht 1,800 million, interest payment of Baht 2,441 million, and dividend payment of Baht 612 million. Nevertheless, the cash inflow mainly comprised of the issuance of debentures amounting to Baht 12,000 million.

Key Financial Ratios

	Unit	2023	2022
Profitability Ratios			
EBITDA Margin	%	1.80	1.23
Net Profit Margin	%	(0.92)	(1.34)
Earnings per share	Baht/share	(0.14)	(0.21)
Return on Equity	%	(3.76)	(5.23)
Liquidity Ratios			
Current Ratio	time	1.05	1.14
Quick Ratio	time	0.37	0.29
Financial Policy Ratios			
Net Interest Bearing Debt to Equity	time	0.86	0.86
Net Interest Bearing Debt to EBITDA	time	11.62	14.89

► Liquidity and Capital Structure

In 2023, current ratio was 1.05 times decreasing by 0.16 times compared with that in 2022 of 1.14 times. This was mainly owing to a decrease in inventory. Thus, the company has sufficient liquidity for its operations. At the end of 2022, net interest bearing debt to equity ratio was 0.86 times being similar to that in 2022. The company could complete all payments on due date and comply with all of the Financial Covenants.

Other Factors Influencing Financial Performance

2024 Business Outlook

► 1. Petroleum Business

2024 Crude oil outlook: The global oil demand forecast is approximately 104 million barrels per day improving by around 2 million barrels per day from 102 million barrels per day in 2023 thanks to the relieved COVID-19 situations. Nevertheless, petroleum business seems to face various challenges including China's property crisis being thought to still affect the overall oil demand, along with new production capacity in China and the Middle East that started up in late-2023 being expected to curb the Gross Refining Margin (GRM). Plus, the crude oil supply from countries outside OPEC and allies are at a high level, while OPEC and allies' spare capacity is seen to be above 6 million barrels per day, which is considered high, making OPEC and allies' crude oil production cut more difficult.

The Dubai crude oil price in 2024 is foreseen to be in a range of USD 75-85 per barrel being close to the 2023 average price of about USD 82 per barrel. Key possible factors navigating the crude oil price are the policy interest rate, which can help grow the economy if decreased, while the U.S.' current crude oil production is at around 13 million barrels per day being considered high and may pressure the price. Moreover, the conflict in the Middle East seems to remain a risk for the crude oil supply.

► 2. Petrochemical Business

2024 Petrochemical outlook: The petrochemical industry is seen to continue facing ongoing challenges from the previous year including increasing new capacity in China. Meanwhile, market demand is expected to increase at a lower rate than that of the supply. Petrochemical product demand in 2024 is projected to increase by around 2-3% after experiencing a low base in 2023 indicating a gradual recovery. During 2H24, signs of recovery in demand may begin to emerge after inflation slows down probably leading central banks in several countries to gradually decrease interest rates, which tends to increase consumers' purchasing power. End-user industry demand is expected to gradually recover such as food and beverage packaging being benefitted from the continuously improving tourism sector. Also, the electrical appliances and electronics industries have shown signs of a demand upturn since late-2023. Moreover, exports of countries in ASEAN are expected to expand further aligning with the forecasted global trade recovery. However, increasing risks and pressures in the supply resulting from the increased new capacity in China will likely modify trade flows in the Asian region. Consequently, manufacturers exporting to China may need to explore additional

markets. Furthermore, geopolitical conflicts like Russia-Ukraine and Israel-Hamas are prone to remain critical factors requiring close monitoring. If these situations escalate or spread to other countries, increasing volatility in energy prices and raw material costs tend to be noticed.

Petrochemical industry also needs to adapt itself for facing upcoming trade restrictions on climate change that many countries have to set targets to reduce emissions of carbon dioxide and other greenhouse gases from energy and industrial sectors. The U.S. and European Union will begin imposing restrictions on the import of high-emission products including petrochemical products and others in the production chain. This requires operators in the petrochemical industry to adjust their operations to comply with such requirements.

Investment Projects

► 1) Investment Project Progress

The Ultra Clean Fuel Project (UCF): The objective of the UCF Project is to increase refinery plant's efficiency and upgrade Diesel quality to meet the Euro 5 (Euro V) standard in accordance with the Ministry of Energy's policy determining that starting from 1 January 2024, Diesel distribution must meet Euro 5 standard. Under the Euro 5 standard, the permitted sulfur level will decline to 10 parts per million (PPM) from 50 PPM under Euro 4. The project will increase the company's competitiveness through the rising demand for Low Sulfur Diesel in domestic market and ASEAN Economic Community (AEC). The UCF project is able to reinforce competitiveness of the company involving Diesel as a main product; besides, the project is environmentally friendly and in line with the company's Eco Factory policy. Currently, all equipment and machinery installation projects have been completed and it is under an inspection process. This project has been planned to commercial operate within 1Q24. Once the project is completed, the company's capacity will be able to convert entire high-sulfur Diesel to low-sulfur Diesel following Euro 5 standards.

► 2) Investment Plan

The Board of Directors has approved the company's five-year (Year 2024-2028) investment plan in an aggregate amount of Baht 13,888 million. The details are as follows:

(Unit: MB)

Investment Projects	2024	2025	2026	2027	2028	Total
(1) Ongoing Projects	4,626	-	-	2,140	1,078	7,844
(2) BAU Operations	1,379	1,082	1,210	1,122	1,251	6,044
Total	6,005	1,082	1,210	3,262	2,329	13,888

The investment plan as mentioned above is an investment project with an operational plan. The goal is to encourage business growth.

General Information and Other Important Information

General Information

Company Name	IRPC Public Company Limited
Stock Symbol	IRPC
Company Registration Number	0107537002567
Type of Business	Refining and Petrochemical
Group	Natural Resources
Sector	Energy and Utilities
Registered Capital	20,475,000,000 Baht divided into 20,475,000,000 ordinary shares at par value of 1 Baht per share
Issued and Paid-up Capital	20,434,419,246 Baht divided into 20,434,419,246 ordinary shares at par value of 1 Baht per share
Locations	<p>Head Office and Plants</p> <p>299 Moo 5, Sukhumvit Road, Choeng Noen Subdistrict, Mueang Rayong District, Rayong Tel. 0-3861-1333 Fax. 0-3861-2813</p> <p>Bangkok Office</p> <p>555/2 Energy Complex Center, Building B, Floors 6-10, Vibhavadi Rangsit Road, Chatuchak Subdistrict, Chatuchak District, Bangkok Tel. 0-2765-7000 Fax 0-2765-7001</p>
Website	www.irpc.co.th

References

Securities Registrar	Thailand Securities Depository Company Limited 93 Ratchadaphisek Road, Din Daeng Subdistrict, Din Daeng District, Bangkok 10400 Tel. 0-2009-9999 Website: www.set.or.th/tsd
Auditor	Mr. Woraphot Amnuayphanit CPA No. 4640 EY Office Company Limited 193/136-137 Lake Rajada Office Complex, Floor 33, Ratchadaphisek Road, Khlong Toei Subdistrict, Khlong Toei District, Bangkok 10110 Tel. 0-2264-9090 Fax. 0-2264-0789-90
Debenture Registrar and Bondholders' Representative, Currency Baht	Kasikorn Bank Public Company Limited 400/22 Phaholyothin Road, Samsen Nai Subdistrict, Phayathai District, Bangkok 10400 Tel. 0-2470-1038
	Bank of Ayudhya Public Company Limited 1222 Rama III Road, Bang Phongphang Subdistrict, Yannawa District, Bangkok 10120 Tel. 0-2296-5696 Krung Thai Bank Public Company Limited 977/2 S.M. Tower, Floor 3, Phaholyothin Road, Phayathai Subdistrict, Phayathai District, Bangkok 10400 Tel. 0-2298-0830-31

Common Stock

As of December 31, 2023, IRPC had registered capital of 20,475,000,000 Baht issued and paid-up capital of 20,434,419,246 Baht, with par value of 1 Baht per share.

Debentures

► Thai Baht Debentures

IRPC has Name-Registered Unsubordinated and Unsecured Debentures with a Debentureholders' Representative outstanding as of December 31, 2023, in the aggregate amount of 44,000 million Baht. As of March 16, 2023, Fitch Ratings revised IRPC's Outlook* to Negative, affirmed Rating at A-(tha), with details as follows:

Issue and offering date	Debenture	Outstanding value of existing unredeemed (million Baht)	Coupon rate (% per year) (Paid every 6 months)	Tenor (year)	Year of maturity
11 September 2020	IRPC259A PO	4,000	3.50	5 years	2025
11 September 2020	IRPC309A II/HNW	1,300	3.93	10 years	2030
11 September 2020	IRPC359A II/HNW	2,700	4.40	15 years	2035
20 May 2021	IRPC265A PO	4,000	3.00	5 years	2026
20 May 2021	IRPC245A II/HNW	2,000	1.77	3 years	2024
20 May 2021	IRPC285A II/HNW	2,000	2.91	7 years	2028
20 May 2021	IRPC315A II/HNW	2,000	3.38	10 years	2031
20 May 2021	IRPC365A II/HNW	2,000	4.10	15 years	2036
20 May 2022	IRPC275B PO	6,000	3.10	5 years	2027
20 May 2022	IRPC265B II/HNW	500	3.03	4 years	2026
20 May 2022	IRPC325A II/HNW	1,500	4.52	10 years	2032
20 May 2022	IRPC345A II/HNW	2,250	4.86	12 years	2034
20 May 2022	IRPC295A II/HNW	750	4.17	7 years	2029
20 May 2022	IRPC275A PO	1,000	3.10	5 years	2027
31 May 2023	IRPC265C PO	2,503	3.20	3 years	2026
31 May 2023	IRPC285B PO	2,852.5	3.70	5 years	2028
31 May 2023	IRPC305A PO	2,803.5	4.00	7 years	2030
31 May 2023	IRPC335A PO	1,841	4.20	10 years	2033
31 May 2023	IRPC265D PO	700	3.20	3 years	2026
31 May 2023	IRPC285C PO	900	3.70	5 years	2028
31 May 2023	IRPC305B PO	200	4.00	7 years	2030
31 May 2023	IRPC335B PO	200	4.20	10 years	2033

Dividend Policy

IRPC Public Company Limited

IRPC has a policy to pay dividend of not less than 25 percent of its annual net profit after tax and deduction of all reserve funds according to IRPC's Articles of Association and relevant laws. Payment of dividends is subject to investment plans and other obligations as deemed appropriate by the Board of Directors.

Subsidiaries

Each subsidiary will separately determine its own dividend payment, taking into account its operating results, cash flow balances and/or investment plans, and after deduction of all reserve funds according to relevant laws or other obligations as deemed appropriate by its Board of Directors.

Dividend Payment					
	2019	2020	2021	2022	2023
Earnings per share (Baht)	(0.06)	(0.30)	0.71	(0.21)	(0.14)
Dividend per share (Baht)	0.10	0.06	0.22	0.07	0.03 ⁽¹⁾
Dividend payout ratio	N/A	N/A	31	N/A	N/A

Note: ⁽¹⁾ The Board of Directors' meeting held on February 13, 2024 approved to propose to the 2023 Annual General Meeting of Shareholders to consider approving the dividend payment for the 2023 operating results at 0.03 Baht per share.

Legal Disputes

Please find details of legal disputes in Financial Statements Annex, Item 35.6 Litigation.

Bank References

Bank References

TMBThanachart Bank Public Company Limited 3000 Phaholyothin Road, Chomphon Subdistrict, Chatuchak District, Bangkok 10900
Krung Thai Bank Public Company Limited 35 Sukhumvit Road, Khlong Toei Nuea Subdistrict, Watthana District, Bangkok 10110
Kasikorn Bank Public Company Limited 400/22 Phaholyothin Road, Samsen Nai Subdistrict, Phaya Thai District, Bangkok 10400
Siam Commercial Bank Public Company Limited 9 Ratchadaphisek Road, Chatuchak District, Bangkok 10900
CIMB Thai Bank Public Company Limited 44 Langsuan Building, Lang Suan Road, Lumpini Subdistrict, Pathumwan District, Bangkok 10330
Bank of Ayudhya Public Company Limited 1222 Rama III Road, Bang Phongphang Subdistrict, Yannawa District, Bangkok 10120
Government Savings Bank 47 Phaholyothin Road, Samsen Nai Subdistrict, Phayathai District, Bangkok 10400
Sumitomo Mitsui Banking Corporation 1 Q House Lumpini Building, South Sathorn Road, Thung Maha Mek Subdistrict, Sathorn District, Bangkok 10120
Mizuho Bank, Limited 98 Sathorn Square Building, Floor 32-35, North Sathorn Road, Silom Subdistrict, Bang Rak District, Bangkok 10500

Bank References

Bangkok Bank Public Company Limited

333 Silom Road, Silom Subdistrict, Bang Rak District, Bangkok 10500

Bank of China (Thai) Public Company Limited

179/4 Bangkok City Tower Building, South Sathorn Road, Thung Maha Mek Subdistrict, Sathorn District, Bangkok 10120

ICBC Bank (Thai) Public Company Limited

622 Emporium Tower, Floor L, 11-13 Sukhumvit Road, Khlong Tan Subdistrict, Khlong Toei District, Bangkok 10110

Sumitomo Mitsui Trust Bank (Thai) Public Company Limited

98 Sathorn Square Office Tower, Floor 32, North Sathorn Road, Silom Subdistrict, Bang Rak District, Bangkok 10500

BNP Paribas Bank

548 One City Center Building, Floor 41, Ploenchit Road, Lumpini Subdistrict, Pathumwan District, Bangkok 10330

JPMorgan Chase Bank

20 Buphavit Building, G Floor, North Sathorn Road, Silom Subdistrict, Bang Rak District, Bangkok 10500

UOB Bank Public Company Limited

690 Sukhumvit Road, Khlong Tan Subdistrict, Khlong Toei District, Bangkok 10110

The Hong Kong and Shanghai Banking Corporation Limited

968 HSBC Building, Rama 4 Road, Bang Rak District, Bangkok 10500

Standard Chartered Bank (Thai) Public Company Limited

140 Wireless Road, Lumpini Subdistrict, Pathumwan District, Bangkok 10330

Section

02

CORPORATE GOVERNANCE

- ▶ Corporate Governance Policy
- ▶ Corporate Governance Structure and Important Information about the Board of Directors, Sub-Committees and Executives
- ▶ Report on Key Corporate Governance Activities
- ▶ Internal Control and Connected Transactions



IRPC's sustainability management approach provides a strategic balance enabling the company to pursue business growth without compromising our steadfast adherence to corporate social responsibility, community wellbeing and environmental stewardship under the ESG framework. This approach, complemented by fair and equal treatment of all stakeholders under corporate governance practices surpassing national and international benchmarks, inspires trust and loyalty among stakeholders who share our commitment to a common and sustainable future.

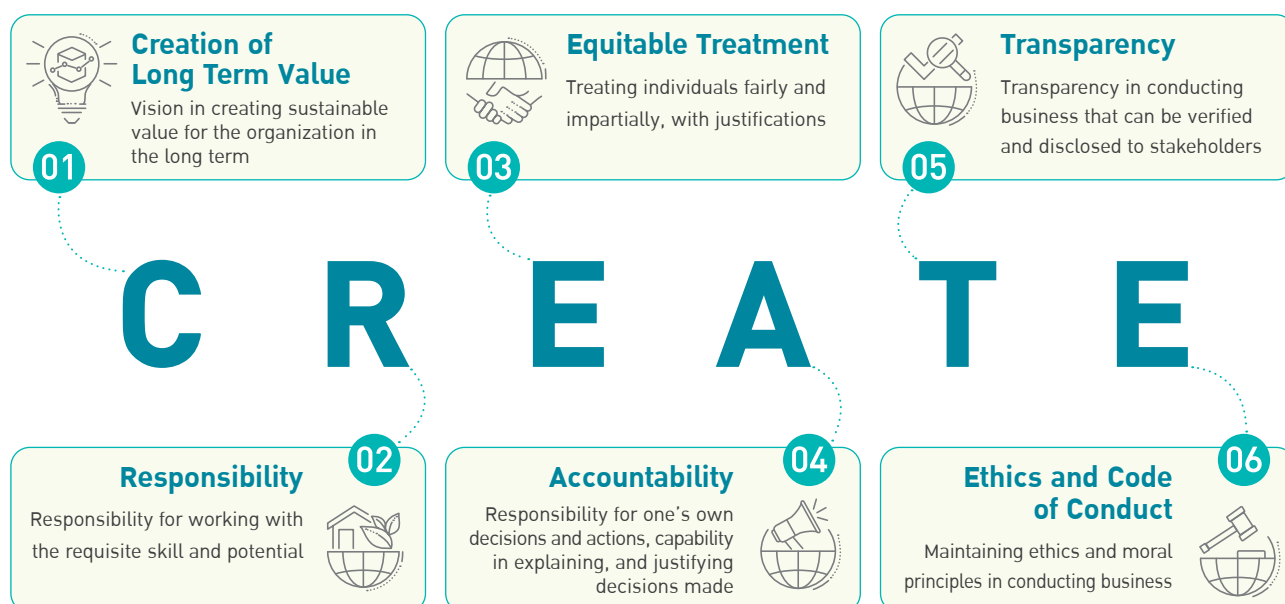
Corporate Governance Policy

IRPC, under the supervisory oversight of the Board of Directors, has prioritized good corporate governance and striven to uphold corporate governance that meets the internationally-accepted standards. Since 2007, the company has established the Corporate Governance Policy as an integral part of its business operations. The company has announced the Corporate Governance Policy, developed Corporate Governance Handbook, and established Corporate Governance Code that apply to all members of the Board, IRPC executives and employees. This is to provide practical guidelines on ethical conduct that satisfy national and international standards. The Board has assigned the Corporate Governance and Sustainability Committee to supervise and oversee all aspects of the company's operations to achieve international benchmarks, in compliance with applicable laws, regulations and guidelines, in alignment with the company's strategies and business direction. The Committee is also responsible for following up on performance in accordance with the principles of good corporate governance on an annual basis through meetings with a subcommittee which reports the outcomes to the Board of Directors on a quarterly basis.

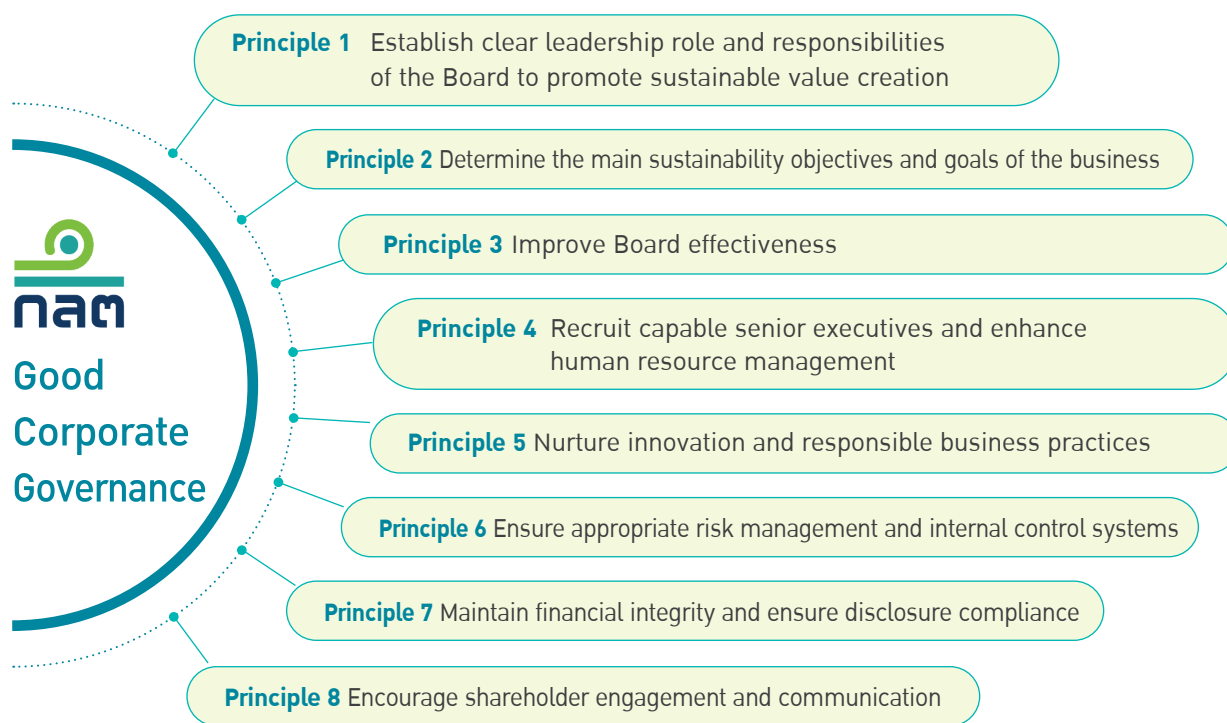
In addition, IRPC has adopted the good corporate principles and practices of Office of the Securities and Exchange Commission (SEC), the Stock Exchange of Thailand (SET), Corporate Governance Assessment Report of the Thai Institute of Directors (IOD), Organization for Economic Cooperation and Development (OECD), ASEAN CG Scorecard, Dow Jones Sustainability Index (DJSI) and best practices of leading global corporations. These guidelines help bolster confidence in the company among all stakeholders as well as enable proper and effective management and promote corporate competitiveness on the path toward sustainable growth.

Overview of Corporate Governance Policy and Guidelines

The Board of Directors intends to steer IRPC Public Company Limited and its subsidiaries in the "IRPC Group" to steadfastly operate within the framework of Good Corporate Governance principles in pursuit of operational excellence, transparency, accountability, and benefits to shareholders while making sure stakeholders' interests are protected. To accomplish this aim, IRPC has adopted the SET's Six Pillars of Good Corporate Governance, also known for its acronym "CREATE," as practical guidelines to be observed by the Board of Directors, executives, the management, and employees as follows:



In addition, the Board of Directors It has also adopted the Thai Corporate Governance Code for Listed Companies 2017 (CG Code) issued by Office of the Securities and Exchange Commission as a benchmark to be applied alongside the company's Corporate Governance Policy. The CG Code's 8 principles are as follows:



Policies and Procedures for the Board of Directors

► 1. The Board of Directors

The Board of Directors is appointed by shareholders at the annual general shareholders' meeting. All directors must possess all required qualifications, and have no prohibited characteristics as prescribed by relevant laws and regulations. The company has introduced a policy of diversity, which is considered as part of the nomination and selection process of the Board of Directors, to ensure its composition is suitably diverse in accordance with the good practice guidelines of the Corporate Governance Handbook and the company's code of business conduct. The Nomination and Remuneration Committee has determined the criteria for the nomination and selection process based on the Skill Matrix, encompassing such diverse areas of expertise as petroleum, petrochemical, engineering, industry, economics, finance, business administration, political science, accounting, law, etc. Candidates will be considered regardless of their sexual preference, nationality, ethnicity,

race or religious faith as diversity and inclusion can contribute to a broad range of perspectives that are crucial to the company's business strategies.

As of December 31, 2023, the Board of Directors consisted of 14 directors as appropriate to the size and complexity of the company's business operations. The Board had one executive director and 7 independent directors (50 percent of the entire board), enabling them to effectively perform their duties and safeguard minority shareholder interest in accordance with the law, rules, company's regulations, shareholders' resolutions, and good corporate governance principles. The Chairperson of the Board provided oversight to ensure the Board's effectiveness and independence. Details are shown in the report on Important Information about the "Board of Directors."

► 2. Independent Directors

According to the company's Good Corporate Governance Handbook, the number of independent directors shall be not less than one-third of the total number of members of the Board of Directors. The qualifications of the independent

directors conform with Notification of the Capital Market Supervisory Board No. Tor Jor. 39/2559 and are stricter than minimum requirements imposed by Notification of the Capital Market Supervisory Board regarding shareholding limit in the company at not more than 0.5 percent. The definition of the independent director has been disclosed in the Good Corporate Governance Handbook and the company's website. Independent directors will have access to sufficient financial and business information to express their independent opinions freely in the best interest of stakeholders and prevent possible conflicts of interest involving the company, the management, executive directors and/or major shareholders.

► 3. Director Selection and Appointment

The Board of Directors appoints and assigns the Nomination and Remuneration Committee to select and nominate individuals with suitable qualifications to serve as directors of the company. Under the principles and processes that are transparent and fair, candidates will be considered based on complete qualifications and not having prohibited characteristics according to relevant laws and regulations, such as the Public Limited Companies Act 1992, the Securities and Exchange Act 1992, the Organic Act on Anti-Corruption 2018, Notification of the Capital Market Supervisory Board on Principles of Good Corporate Governance for Listed Companies 2017 (CG Code), principles and regulations of the SEC Office and the Stock Exchange of Thailand, the company's Good Corporate Governance Handbook, along with its regulations on independence and conflict of interest. All directors are subjected to Duty of Care, Duty of Loyalty. In addition, candidates will be selected from the Director's Pool, comprising highly qualified persons encompassing a broad range of areas of expertise that will be beneficial to the company's business operations as well as to ensure Board Diversity, including the proportion of female directors, as well as independence, diversity of skills of the Board of Directors with a wide range of skills, knowledge, expertise, experience and specialized knowledge that correspond with the Board Skills Matrix. This is to ascertain that the composition of the Board is sufficiently diverse, suitable, and in alignment with and is able to contribute effectively to the implementation of the company's strategies and goals at this time and in the future.

Appointment of directors to vacant positions due to retirement by rotation

The company encourages shareholders to propose a list of candidates who have the qualifications prescribed by the law and as specified by the company for the director selection process. An announcement will be made on the company's website prior to the date of the shareholders' meeting. The Nomination and Remuneration Committee shall select and nominate a list of candidates that meet the qualifications as prescribed by the law and the criteria, for submission to the Board of Directors for approval before the list of nominees go before the annual general shareholders' meeting for consideration and election. The appointment of each director must be approved by more than half of the total votes of the shareholders attending.

- **Appointment of director to vacant positions for any reason other than retirement by rotation**

The Nomination and Remuneration Committee shall select and nominate a candidate who has qualifications as prescribed by the law and criteria and put the nominee before the Board of Directors which shall appoint the nominee to fill the vacant director post. The new director shall serve the remainder of the predecessor's term.

- **Appointment of subcommittees**

The Board of Directors has appointed four subcommittees: Audit Committee, Nomination and Remuneration Committee, Corporate Governance and Sustainability Committee and Risk Management Committee. Each subcommittee consists of members who have suitable expertise for the respective functional requirements. Members of these subcommittees serve a 3-year term and are tasked with screening and scrutinizing work assignments from the Board. The scope of duties and responsibilities of subcommittee members shall be in accordance with the charter of their respective subcommittee. All subcommittees report the results of their work assignments or progress status to the Board of Directors' meetings on a regular basis, and annually disclose in Form 56-1 One Report, listing the names members of subcommittees, their responsibilities, meeting attendance as shown in the Board of Directors and Subcommittee Meetings section Page 258-259.

► 4. Compensation for Directors and Executives

• Directors' Compensation

The Board of Directors has established a policy on directors' compensation that is fair and appropriate according to the principles of good corporate governance. The Nomination and Remuneration Committee is responsible for determining compensation guidelines and suitability, before submitting the compensation package to the Board of Directors for endorsement and then presented to the shareholders' meeting for approval every year. Directors' compensation consists of two components: monthly cash retainer and meeting allowances. According to a 2022 comparative survey of directors' compensation of leading companies, the directors' compensation structure, criteria and rate offered to the company's directors remained competitive and appropriate compared to other companies within the same industrial sector. The Board, therefore, proposed the same directors' compensation package as that of 2022 (this is the company's rate that has been in use since 2006 and has never been adjusted), and was approved by the 2023 Annual General Meeting of Shareholders as detailed in the individual directors' compensation in the Report under Directors' Compensation 2023 section Page 260-261.

• Compensation of the President and Chief Executive Officer

The Board of Directors has assigned the Nomination and Remuneration Committee to determine the compensation of the President and Chief Executive Officer every year, based on well-defined Key Performance Indicators. These indicators included financial accomplishment or the company's operating results (Corporate KPIs from a Balanced Scorecard) and supporting factors, like Leadership & Sustainability. The performance of the President & CEO will be reviewed thoroughly with clear criteria, transparency and fairness. As a result, the annual compensation of the President & CEO will be proposed and approved by the Board of Directors on an annual basis, as detailed in the Report under Compensation of the President and Chief Executive Officer section Page 242.

► 5. Board of Directors Meetings

The Board of Directors schedules all of the meeting dates for the entire year as well as determines clearly defined regular agenda for each of the scheduled meeting. Additional special meetings may be held as necessary and appropriate. Members of the Board of Directors shall receive a meeting invitation, draft meeting minutes and agenda and background materials at least 5-7 days prior to the meeting date. The company has developed the Board Portal system, or Smart Meeting, for storage and delivery of meeting documents to all Board members for convenience, speed and efficiency as well as to reduce paper use. In 2023, the Board of Directors held a total of 13 meetings. Details appear in the Report under the Board of Directors and Subcommittees' Meetings Page 258-259.

► 6. Development of Directors and Executive Officers

The Board of Directors recognizes the importance of skill development for directors and executive officers as part of continuing education and professional development to improve the Board effectiveness. This professional development program also helps prepare executives for job rotation and executive succession planning. Senior executives also undergo performance assessment to get ready to take on new roles and greater responsibilities. Details appear in the Report under Development of Directors and Executive Officers Page 254.

► 7. Board Performance Assessment

The Board of Directors requires an annual assessment of its own performance by independent external consultants every three years to help Board members to review the way their work process as well as to identify and resolve problems and obstacles they face over the years in order to improve the Board effectiveness. In 2023, the company developed six evaluation forms in accordance with the standards for good corporate governance of the Stock Exchange of Thailand, anti-corruption measures and good practices of the Thai Institute of Directors Association (IOD) and ASEAN CG Scorecard as follows:

1. Performance evaluation form for the entire Board of Directors
2. Self-assessment of work performance
3. Performance evaluation form of other directors (cross-evaluation, 2 persons)
4. Subcommittee performance evaluation form
5. Evaluation form for the committee charged with supervising anti-corruption measures
6. Evaluation form for the effectiveness of the preparation for Board meetings (Company Secretary Assessment)

Results and recommendations based on such assessment were presented to the Board of Directors as input for determining ways to improve the Board effectiveness, and the overall assessment results were disclosed in Form 56-1, One Report, under the Assessment of the Performance of the Board of Directors section Page 254-257.

► 8. Operational Oversight of IRPC and Subsidiaries in the IRPC Group

Board of Directors has established the IRPC Group's governance policy and management approach. The IRPC Group Way of Conduct handbook was created to provide a framework of guidelines, practices and operational processes covering all aspects of the operations of the company and its subsidiaries to ensure consistency and unity of purpose in supervising subsidiaries to implement and achieve common standards across the IRPC Group. Details as shown in the Report under Operational Oversight of IRPC and Subsidiaries in the IRPC Group section Page 262-267.

► 9. Outside Interests Policy

The Board of Directors approved the criteria on outside interests, which apply to the President, CEO, and employees of the company. This is to ensure there are clear guidelines in compliance with good corporate governance principles and conformity to IRPC's nature of business and good practices of its majority shareholders. The rules are as follows:

- 1) In the event that the President and CEO has been assigned a position external to the company's affairs by royal command or lawful order of the Cabinet, the appointee shall inform the Board to acknowledge as soon as such command or order was received, as the case may be.
- 2) In the event that the president and CEO have been requested to serve as a director, committee member, specialist, expert, consultant, or any other position external to the company's affairs by a government agency, state enterprise, public agency, independent organization, or publicly funded education institutions, the President and CEO shall seek prior approval from the Board.
- 3) In the event that the President and CEO, or executive officer from the executive vice president level up, has been requested to serve as a director, member of committee, workgroup, specialist, expert, consultant, or any other position at a company or juristic entity external to the company's affairs, other than the provision under Rule 2, such person shall seek prior approval from the Board. For executive and employee from the departmental manager level down, prior permission must be obtained from the President.
- 4) For all executive officers and employees whose outside interests fall under the provision of Rules 1 or 2, they must inform or seek permission from the President and CEO before accepting the offer, as the case may be.
- 5) The appointment of a director to serve in a subsidiary or joint venture, according to the shareholding ratio or agreement made between shareholders, shall be at the discretion of the Board of Directors.

Policies and Practices Relating to Shareholders and Stakeholders

► 1. Rights of Equal Treatment of Shareholders

IRPC respects, upholds and promotes the exercise of the full range of shareholders' rights, from the rights to attend the general shareholders' meetings, express opinion freely, vote, propose agendas in advance of the meeting date, appoint or dismiss directors, approve or reject director or auditor's remunerations, approve or reject profit-sharing/dividends proposal, and right of access to adequate, timely and complete information through a variety of channels to enable shareholders to make informed decisions. In 2023, the company promoted shareholder rights through the following activities:

1.1. Annual General Meeting (AGM)

In 2023, the Board of Directors of IRPC Public Company Limited (the "Company") resolved to hold the 2023 Annual General Meeting of Shareholders on Wednesday, April 5, 2023 at 9:30 a.m. via electronic means (E-AGM) in accordance with the Royal Decree on Teleconferences through Electronic Means 2020 and related statutory protocols using an electronic conferencing system that meets standards in accordance with "Recommendations on information and communication technology standards necessary for electronic transactions concerning electronic voting in meetings" of the Electronic Transactions Development Agency (ETDA) as follows:



2023 Annual General Meeting of Shareholders

1.1.1 Preparation before shareholders' meeting

- The company provided an opportunity for minority shareholders, either individually or collectively, who held an aggregate of not less than four percent of all of the shares with voting rights to propose agenda items of the shareholders' meeting and/or nominate person(s) to be considered as director(s) at the 2023 Annual General Meeting of Shareholders from September 1, 2023-December 31, 2023. The announcement was posted along with

relevant rules and procedures on the company's website (www.irpc.co.th). Shareholders were also informed through SET Link in accordance with the criteria for evaluating good corporate governance of the Thai Institute of Directors Association (IOD), which stipulates that Thai listed companies should provide opportunity for shareholders to propose agenda items and nominate directors at least 90 days in advance of the end of Fiscal 2023.

No shareholder proposed agenda items or nominated anyone to be considered for election as a director of the company.

- The company proposed that the Board of Directors consider calling the 2023 Annual General Meeting of Shareholders at the Board of Directors' meeting on February 7, 2023, and disclosed the resolutions of the Board, together with agenda for the annual general meeting of shareholders through the SET Link on the same day. Also included in the public disclosure was the announcement of February 22, 2023 as the recorded date, or book closing date, for shareholders to be eligible to attend the meeting and receive dividend payment.
- The company published meeting invitation letter, along with meeting agenda, information supporting opinions of the Board of Directors on each of the proposed agenda items, meeting documents, proxy appointment form, procedures and methods for registration to attend the AGM 2023, both in Thai and English, on the company's website 28 days in advance of the meeting date. The publication date was March 7, 2023. In addition, the company sent the meeting invitation with QR code for downloading the digital version of Form 56-1, 2023 One Report.
- The company published the public announcement of AGM 2023 in daily newspapers (both Thai and English) for three consecutive days (March 15-17, 2023) as a reminder to all shareholders that the AGM had been called and for shareholders to make preparation to attend.
- To facilitate shareholders wishing to appoint a proxy to attend the AGM and vote on their behalf, the company sent out proxy form that enabled shareholders to indicate their Approve or Disapprove votes on each of the agenda items. A list of independent directors on the Board were also provided to give shareholders greater options in appointing a proxy, along with detailed explanation about procedures, important documents required for proxy appointment that accompanied the invitation letters in both Thai and English.

- The company delivered the meeting invitation letter to shareholders by post more than 21 days in advance of the meeting date. The invitation was delivered on March 14, 2023.
- The company provided an opportunity for shareholders to send questions relating to the meeting agenda to the company in advance via QR Code or email: CG@irpc.co.th.
- The company made it possible for shareholders or their proxies to register to attend the AGM electronically from March 25, 2023 until the meeting date. A call center was set up to answer questions that shareholders might have regarding how to register or attend the AGM.

1.1.2 On the Meeting Day

- The company assigned call center staff and meeting system administrator to make it convenient for shareholders and their proxies to log in to the meeting platform and to answer questions regarding how to use the meeting system. Shareholders and their proxies were able to log into the meeting system more than two hours before the meeting started to ensure that all of them have received complete, accurate information and were able to ask questions and cast their votes.
- On voting rights and voting procedures, the company only issues one class of shares, with one share bearing the right to one vote. All shareholders hold votes equal to the number of shares owned. Proxies can only be allowed one vote per share, with the exception of custodians who are entitled to split their votes according to applicable law.
- At the 2023 Annual General Meeting of Shareholders, all 15 directors were present at the meeting (100% attendance), with the Chairperson of the Board acting as the chair of the meeting, with the chairman of every subcommittee, the President and CEO, along with members of the Executive Committee at the Executive Vice President, Assistant Managing Director levels, and members of the management were also present to provide clarification and background information as required.

- Auditors from EY Office Company Limited (Mr. Kittiphan Kiatsompop and Mr. Worapot Amnuaypanit), legal advisors (Mr. Manit Suthaporn and Ms. Pratumphon Somboonpoolphon of Weerawong, Chinnavat & Partners Ltd.) were on hand for consultation. To ensure impartiality and transparency, the company invited a legal counsel from Weerawong, Chinnavat & Partners (Mr. Tatthaphong Senchanthichai) to verify vote count.
- The AGM 2023 was attended by a total of 365 shareholders, with a combined 11,551,336,971 shares, representing 56.53 percent of the total issued shares, which did not exceed one-third of the number of outstanding shares.
- Before the meeting started, the Company Secretary informed those in attendance of the process by which the meeting would be conducted, the voting procedures, vote count on the resolution on each of the agenda item, and how questions may be asked, before proceeding to call for a vote on each of the agenda items by Approve, Disapprove or Abstain votes.
- Throughout the meeting, the Chairperson of the Board provided equal opportunity for all shareholders to ask questions to the management by sending their questions through Q&A channel, or to share their views or ask questions through video and voice calls. Ample time was allocated for questions and for relevant directors/executive officers to make replies, clarify and provide additional information. All shareholders' questions were answered to their satisfaction. All proceedings of the AGM, questions, answers, suggestions, and opinions of those in attendance were recorded thoroughly and completely so that shareholders who were absent may be able to stay informed.
- On the agenda for director appointment, IRPC provided shareholders the options to vote to appoint directors individually or as a group.
- On each meeting agenda item, the company presented information in the forms of slide presentation or video to provide precise and easy-to-understand information, including voting results on each agenda item. Shareholders were given the opportunity to ask questions or share their views throughout the meeting while directors

and executive officers responded with precise and complete answers.

- The Chairperson strictly steered the meeting through all agenda items and in the order indicated in the invitation letter. No impromptu items were adopted.
- Handling of Conflicts of Interest at Meetings In the case that any director may be involved or had vested interest in a particular agenda item, he or she must inform the meeting of a potential conflict of interest and leave the meeting, and recuse themselves from voting on such agenda items.

1.1.3 Post-AGM Procedures and Disclosure of Shareholders' Meeting Resolutions

- The quality of meeting minutes is of utmost importance to IRPC. The company requires that minutes be thoroughly recorded in full detail, covering names of directors and executive officers attending, matters discussed on each agenda item, voting process, presentation of voting results, questions from shareholders, and answers provided by the company's directors or executives, along with AGM resolutions and voting results, complete with a breakdown of the number of Approve, Disapprove or Abstain votes on each agenda item. All these procedures must be conformation with the company's good corporate governance principles and applicable law.
- Immediately after the conclusion of the meeting, IRPC published the AGM 2023 resolution of each agenda item in Thai and English on its website and via the SET Link on the same day (April 5, 2023). Copies of the minutes of AGM 2023 were completed within 14 days (on April 17, 2023) after the meeting date and delivered to all shareholders by post. Any shareholders who sought to amend or dispute the minutes content, if any, were given until June 30, 2023 to notify the company's secretary to take corrective actions accordingly.

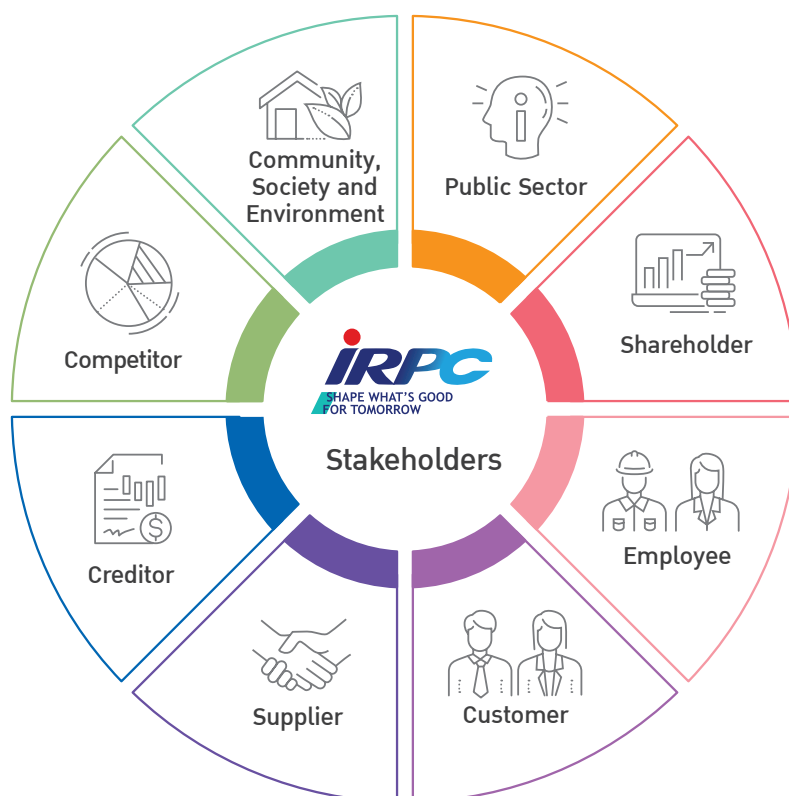
IRPC's accomplishment in the protection and promotion of shareholders' rights has been recognized when the company received the full score of 100 from the Thai Investors Association (TIA) for the quality of AGM of shareholders that it organized.

► 2. Stakeholders' Roles and Business-Driven Sustainability

IRPC is fully aware of the importance of and has a respect for the rights of all shareholders, be they major shareholders, minority shareholders, institutional investors or foreign shareholders, who must be treated equally, fairly and in a non-discriminatory manner. To this end, the company has undertaken the following actions:

2.1 Stakeholders' Roles

IRPC strives for excellence as an effective business operator with management prowess and good corporate governance oversight, to create benefits for shareholders, with due regard to all stakeholders. The company also insists on fairness in its business conduct as well as transparency and accountability. All of these are enshrined in its Corporate Governance Policy that is strictly observed by the Board of Directors, the management and employees.



Guidelines for Treatment of Stakeholder Groups

• Shareholder/Investor and Analyst

IRPC respects and ensures equitable and fair treatment of all shareholders with the aim to create best value and satisfaction for the shareholders, who are entitled to the rights to attend the Annual General Meeting (AGM), to vote, propose agenda items, and nominate director candidates to sit on the company's Board of Directors, to have their voice heard, to make suggestions. The company also creates channels of communication with shareholders on its website: www.irpc.co.th and email ir@irpc.co.th and cg@irpc.co.th.

IRPC also highly values institutional investors, retail investors and analysts by holding quarterly meetings to discuss its operating results. The company attended the Opportunity Day in cooperation with the SET to provide investors access to corporate information as well as communication channels. Details are shown in the Report under Information Disclosure and Transparency section Page 207-209.



Annual Company Visit by Shareholders on September 27, 2023 at IRPC's Oil Depot in Ayutthaya Province

This is in order to promote the rights of shareholders in accordance with the principles of good corporate governance as well as enhancing their understanding of the company's businesses and building a sense of ownership. IRPC organized the annual company visit by shareholders on September 27, 2023 at IRPC's Oil Depot in Ayutthaya Province, during which the President and Chief Executive Officer provided briefings and an overview of the company's operations.

• The Customer

IRPC takes upon itself to conduct its business with integrity and transparency, ensuring equal treatment of all customers. The company is dedicated to delivering products with quality standards that meet or exceed customer expectations. We are at the ready to provide valuable advice, introduce innovations to develop new products that satisfy internationally accepted standards. The company also emphasizes information technology system development to enable efficient and quick access to various database systems, with customer support that provides advice and helps resolve technical problems as well as builds good customer relationships. All customer-facing operations are interactive, with channels of communication to receive customer feedback, such as customer satisfaction questionnaire, so that the company may be able to serve them better.

Furthermore, IRPC safeguards client personal data by developing Data Lost Protection (DLP) system and Privacy Notice, including setting policies and working group to determine measures to manage and protect personal data of customers in accordance with Personal Data Protection Act (PDPA).

In 2023, IRPC implemented the following customer engagement activities:

- Organized a seminar "IRPC – Returns Smile to the Sea" in Rayong Province attended by customers and traders from more than 30 countries around the world. Participants were briefed on IRPC's market information, its petrochemical products in order to inspire trust in doing business together. The event included CSR activities involving the use of HDPE PIPE (PE100) as fish spawning habitat.
- Participated in the PTT Group Circular Economy Forum 2023 "CONNEXT FOR A BETTER FUTURE", setting up an exhibition booth to raise awareness, promote learning, build networks, showcase IRPC's capabilities and exchange knowledge on doing business in accordance with the circular economy principles. Eco-friendly products from the company's customers, Thai Manee Craft Company Limited and New Arriva Company Limited, or Qualy, were put on display and sold to visitors.

• Supplier, Competitor and Creditor

IRPC strictly adheres to the principles of procurement with transparency and fairness. The company's business relationships with its suppliers are based on mutual concern for potential impacts on human rights, communities and the environment, in accordance with good corporate governance principles. The company maintains close communication with its suppliers and collaborates with them to establish corporate culture and good practices, including campaign against offering or accepting gifts, and encouraging suppliers to join Collective Action Against Corruption (CAC) for SMEs, advocating human rights policy and persuading key suppliers to participate in activities to promote corporate governance, like PTT Group CG Day, IRPC CG Day, and IRPC Cubic Academy Season 9, etc.

Supplier: IRPC underscores equal treatment of suppliers, ethical conduct in doing business with them for mutual benefits in strict compliance with the law and agreed-upon rules to move toward building a lasting partnership. The company has established a policy for managing its relationship with partners, starting with selecting suppliers with great potential, providing them with supervisory oversight to encourage them to take on social and environmental responsibility, in compliance with relevant laws and regulations as well as quality management system standards. Suppliers are also subjected to assessment to ensure they live up to the IRPC Supplier Sustainable Code Of Conduct and meet the Green Procurement standard as well as to maintain good working relationships.

Since 2022, IRPC has applied digital technology systems for the management of Green Procurement to meet the requirements for greater efficiency and more streamlined workload of users within the company and those external users on the suppliers' side. In 2023, the company has developed E-Forms as follows: Digital transformation of documents to electronic forms by digitizing various forms used in procurement with a view to make it possible to input data and seek approval through the Procurement Digital System (PDS) instead of using paper documents or other types of soft files.

In addition, the company also invited suppliers to join Collective Action Against Corruption (CAC) as part of the campaign to build a transparent and corruption-free business network. For this, IRPC received CAC Change Agent Award 2023.

Competitor: IRPC's treatment of its competitors aligns with the international framework of free competition and in compliance with laws governing trade competition. The company treats competitors fairly and never seeks a competitor's trade secrets through dishonest or improper means. It also never attempts to destroy a competitor's reputation through malicious accusations or verbal attacks. Moreover, IRPC never agrees with a competitor or any person to circumvent or limit free competition.

Creditor: IRPC strictly honors all obligations it has with trade creditors and financial institutions. The company never attempts to conceal facts or information that ought to be in public disclosed in any manner that could cause damage to its creditors. IRPC has implemented many policies and guidelines on the way it interacts with creditors – especially the terms of guarantee, capital management, and in the event of a default – to prevent payment failures or breaches of contract. Nonetheless, in the event that the company becomes aware of its inability to fulfill any obligation, it will always notify its creditor without delay, and work with the creditor to find a suitable solution based on reasonableness. The company is committed to maintaining lasting relationships with all creditors.

Public Sector IRPC Group regards the public sector as one of its key stakeholders, and therefore refrains from any business activity that may lead to impropriety or action that is incompatible with the good corporate governance principles in its interaction with government officials or public sector agencies. The company has made clear its anti-corruption stance and will never offer bribes to government officials for convenience or undue benefits. IRPC's policy on its interaction with the public sector is disclosed in the company's Good Corporate Governance and Business Ethics Handbook. In addition, the company also carries out various activities in collaboration with the public sector, such as:

- Established an Emergency Communication Center (ECC) in Rayong Province to prevent unforeseen events and assigned personnel to maintain effective communication with public sector agencies to ensure accurate information can be delivered in crisis situation to those agencies and communities in the area surrounding the company's production plants.
- Participated in activities with relevant government agencies, such as anti-corruption campaigns to promote understanding and reaffirm commitment to maintain transparent and corruption-free working relationship.
- Followed up on various measures introduced by the public sector with a view to maintain open lines of communication, high level of preparedness and full compliance.

• Employee

Employees are a major contributing factor to the IRPC's success. With this in mind, the company is fully committed to creating a human resource management system based on fair performance assessment. Employees can expect to have the opportunity to grow along their career paths through training programs to broaden their knowledge and capabilities. The company seeks to promote safe work environments that meet high internationally accepted standards as well as positive corporate culture and work atmosphere. IRPC determines reasonable and fair remuneration and welfare benefits to retain talents and highly qualified employees in the long term. The company also respects employees' rights and privacy, promotes workplace safety, occupational health and hygiene as well as providing adequate protective equipment. IRPC implemented a wide range of human resource management activities:

- Conducted the annual employee feedback survey. Findings from such survey were assessed and formed the basis of company-wide human resource management planning to continually improve employee engagement, one of the management's performance indicators.
- Established Performance Management System (PMS), using KPIs to ensure fairness and justifiability. The company established a salary structure comparable to companies in the same industry in order to retain qualified personnel. Criteria for promotion of employees are based on a fair assessment of their performance. IRPC also developed detailed job description specifying knowledge and skills required for each position for use to design training programs to help employees meet the qualifications required by any given position.
- Created an individual development plan (IDP) between employees and their supervisors to create incentives for self-improvement and appropriate career path planning.
- Implemented both Top Down and Bottom Up communication approaches, with the meeting between executives of the level of assistant managing director and above and departmental managers on a monthly basis. The company also organized the "President's Town Hall" on a quarterly basis, or when there is a major event or when the company wants to communicate with employees on matters, such as operating results, policies, or a shift in the direction of the company. Employees are given the opportunity to ask questions and exchange views.
- Set a fair compensation policy that corresponds to the company's short- and long-term operating results. At the beginning of each year, guidelines for determining KPIs at the enterprise, departmental and individual levels will be agreed upon. Employees' performance will be assessed using KPIs and Competency, and the payment of Variable Bonuses for senior executives will be based on their performance.
- Upheld human rights and fully supported its employees' freedom of association. Employees of IRPC and its subsidiaries have formed labor unions, including an executive union, to represent them in collective bargaining and to ensure fair treatment. The company encouraged union activities and provided a communication channel for unions to reach out to all employees.

Details on employee relations appears in the Report under "Employees" section Page 246-249.

• Community, Society and Environment

According to its policy to conduct business with a sense of social responsibility, IRPC takes it upon itself to constantly pay close attention to the safety of the community, wellbeing and quality of life of people in the society and the quality of life of the people and the society as a whole. The company conducts its business, being mindful of the need to prevent



The "Cultivate Conservation Mindset to Preserve Community Forest" under the Plant and Protect project in Ban Khok Phluang community forest area, Chakrat District, Nakhon Ratchasima Province.

or mitigate impacts it may cause to the community and the environment. Numerous social projects have been introduced with the aim to promote sustainable growth. Details of activities implemented to promote responsibility toward the community, society and environment appears in the Report under “Creating Shared Value.” In 2023 the company implemented activities to promote responsibility toward the community, society and environment as follows:

- Participated in “Cultivate Conservation Mindset to Preserve Community Forest” under the Plant and Protect project in Ban Khok Phluang community forest area, Chakrat District, Nakhon Ratchasima Province. The project aims to create economic value, promote livelihood and demonstrate preparedness to adapt to climate change, mitigate adverse effects of global warming in line with IRPC’s goal of achieving Net Zero Emissions in 2060.
- Encouraged shareholders to take part in corporate social responsibility activities for the community and the environment, IRPC donated Baht 100,000 to Pediatric Cardiac Surgery Foundation to sponsor heart surgeries in children from poverty-stricken families, with congenital heart disease.

Compensation for Rights Violation

IRPC has established guidelines to protect the rights of stakeholders. Any person whose rights have been violated by actions or incidents arising from the company or its affiliate’s business operations is entitled to compensation at the rates prescribed by applicable laws.

2.2 Business-Driven Sustainability

IRPC drives sustainability management strategies through Strategic Planning and Sustainability (CSSP) department to ensure that operations align with the sustainable business operation policy, international and PTT Group’s Sustainability Strategic Framework. The Executive Committee as a committee entrusted with the duties and responsibilities, along with the Corporate Governance Committee, to support and promote sustainability management policy and sustainability management activities.

IRPC has announced Sustainability Management Policy as management framework and a guideline for sustainable management practices of the company, in alignment with internationally accepted standards, along with a strategy to

develop operational practices that take into consideration Environmental, Social and Governance Enhancement. The policy is also in conformance with the United Nations Sustainable Development Goals (UN SDGs). The goal is to balance business operations and maximize benefits for all stakeholders, particularly fair and equitable treatment of stakeholders in accordance with the business ethics requiring the company to exercise due care to the best interest of each stakeholder group to maintain balance while remaining true to the duty to promote sustainable enterprise.

Details as shown in the Report under Business-Driven Sustainability section on Page 104-167.

► 3. Disclosure and Transparency

3.1 Disclosure

IRPC endeavors to disclose adequate, reliable, and timely information in accordance with the Notification on information disclosure guidelines for listed companies of the Stock Exchange of Thailand. Material information that may have an impact on investment shall be disclosed via the SET Portal before being revealed to any specific person or to the public through other means. The company will not provide trade secrets, inaccurate information, or estimates, projections, or promotional materials beyond the necessity of making investment decisions.

IRPC has established channels for information disclosure or sources of information through the company’s website: www.irpc.co.th and via the SET Link, offering all stakeholders equal access. In 2023, the company implemented information disclosure activities as follows:

1. Submitted financial reports to the Securities and Exchange Commission (SEC) and the SET on time. The auditor expressed an unqualified opinion on all entries.
2. Disclosed information in the annual registration statement/annual report (form 56-1, One Report), including financial statements, good corporate governance policy and business ethics, corporate social responsibility policy, minutes of the shareholders’ meeting, list of majority shareholders, material news filings with the SET, company news in the media, online news bulletin, among other things. Investors may learn more about IRPC via its website: www.irpc.co.th or contact the Investor Relations Department directly.

E-mail:	ir@irpc.co.th
Telephone:	0-2765-7380
Fax:	0-2765-7379

- Disclosed remuneration criteria for the company's directors and executive officers which were clearly presented in the annual registration statement/ the Annual Report 2023 (Form 56-1, One Report).
- Disclosed directors and executive officers' shareholding information as per the company's policy. Such information disclosure conformed to rules and procedures prescribed by the SEC Office and SET.
- Had no history of being ordered to amend its financial statements by the Stock Exchange of Thailand or the Securities and Exchange Commission.
- Appointed the current certified public accountant who was approved by shareholders at the 2023 Annual General Meeting of Shareholders. This auditor was fully qualified and possessed none of the prohibitions under the SET rules. The audit fees and non-audit fees were presented to and approved by shareholders at the AGM.
- The company's financial statements were certified in its entirety by the auditor with unqualified opinion.
- Disclosed on the company's website information about the company's directors and executive officers, including their names, current positions, education, experience, ownership of shares in the company,

photos, directorship at other listed companies, and date of commencement in the current positions.

- Published the annual registration statement/annual report 2023 (Form 56-1, One Report), detailing its management approaches and economic, social, and environmental performance. Copies of the Corporate Sustainability Report were delivered to shareholders, along with the Annual Report, and were also available on the company's website.
- Presented a Communication on Progress (CoP) report to the UN Global Compact (UNGC) as the company has been a party to the global sustainability initiative since 2011. Since 2014 the company has submitted the highest reporting level known as GC Advanced. The report has been made available on the company's website and an electronic copy was submitted to the website: www.unglobalcompact.org of the UN GC.

3.2 Disclosure to Investor and the Media

IRPC published annual strategic communication plan for information disclosure to each stakeholder groups, adhering to good corporate governance principles with regard to equal access to information disclosure. In 2023, the company's management met on regular basis with shareholders, securities analysts, investors, and members of the media through various activities that are adapted to suit the current situation, to discuss the company's operating results. The meetings took place at forums, such as Analyst Meeting, Roadshows in Thailand and abroad. Other meetings with retail investors can be summarized as follows:

Summary of activities organized to disclose information to shareholders and investors in 2023

Investor Relations Activities in 2023	Number of occasion (per year)
Domestic Roadshows to meet investors	7
IRPC Electronic Conferencing (E-Meeting) Quarterly Analyst Conference Call	4
IRPC Quarterly Analyst Meeting	4
Company Visit (Appointment)	17
IRPC Opportunity Day Activity - In cooperation with the Stock Exchange of Thailand (Quarterly)	4

Overview of Interactions with the Media in 2023

Activity	Number of occasion (per year)
1. Press conference/interview	3
2. News release/news photo	47
3. TV	9
4. Website (www.irpc.co.th)	100
5. Social Media (Facebook)	81,581 Page Followers

Business Ethics

IRPC established Code of Business Conduct, comprising principles and good practices, to provide guidelines for its business operations. This Code of Business Conduct is applicable to the Board of Directors, executive officers, and all employees. The Board and executive officers must lead by example, discharging their duties with honesty, integrity, fairness, transparency, and accountability so that a culture of good corporate governance may thrive and take roots.

Corporate Governance and Code of Business Conduct Handbook

The company has published Corporate Governance and Code of Business Conduct Handbook with the approval of the Board of Directors. The current handbook, in its third edition, contains the principles of corporate governance, code of business conduct and guidelines for the Board of Directors, executives, and employees, and code of conduct and guidelines on treatment of stakeholders as well as code of business conduct and guideline on business practices, respecting and in compliance with laws, regulations, standards, including international human rights principles, political neutrality, anti-money laundering and counterterrorism financing, fair competition and anti-monopoly, safety and occupational health and environmental quality standards, internal control, internal audit and risk management, insider information, confidentiality of trade secrets, information for news media, opinions given to third parties, information disclosure, vested interests and conflicts of interest, giving and accepting gifts, money or other benefits, etc.

Copies of the Corporate Governance and Code of Business Conduct Handbook were delivered to all directors, executives, and employees of IRPC and subsidiaries within IRPC Group. They must read and sign a form to “acknowledge and pledge to observe” the handbook in guiding principle of operation and to implement them consistently. Furthermore, the handbook was also published on the company's website to make it accessible to all stakeholders and members of the general public. The IRPC Corporate Governance and Code of Business Conduct Handbook is available at <https://www.irpc.co.th/corporate/>

Communicating and promoting compliance with the Good Corporate Governance and Code of Business Conduct Handbook

This is to enhance knowledge, understanding and emphasizing the importance of corporate governance to employees at all levels. The company has organized awareness campaigns and educational activities, such as corporate governance workshops, new employees' orientation in order to instill positive mindset and promote positive workplace behavior in accordance with the principles of transparency, fairness and accountability, PTT Group CG Day 2023, IRPC CG Day, IRPC CUBIC Academy Season 9, No Gift Policy and Anti-Corruption campaigns, etc. The company also established Corporate Governance “Dos & Don'ts” to provide guidance under the principles of good corporate governance and code of business conduct in the form of comic books, etc.



Corporate
Governance
“Dos &
Don'ts”

Significant Developments in Corporate Governance Policy, Procedures and Governance System in 2023

In 2023, IRPC implemented corporate governance activities to further develop, standardize and strengthen corporate governance system by reviewing policy, principles, and relevant procedures in accordance with the rules, notifications, and guidelines for good corporate governance of the SEC Office and SET on a regular basis as well as implementing the Corporate Governance Plan in 2023, approved by the Corporate Governance Committee, as follows:

Change and Significant Developments Relating to the Reviews of Corporate Governance Policy, Guidelines and Governance Systems

In 2023, the company made important changes and new developments regarding policies, guidelines, and corporate governance system in order to increase the efficiency of supervisory oversight and raise the standard of corporate governance in line with the CG Code. The Corporate Governance and Sustainability Committee took the initiative to effect the changes and put into motion new developments and presented to the Board of Directors key plans of actions as follows:

1. Improved Board effectiveness by establishing a Sustainability Committee by enhancing the role of the Corporate Governance Committee, amending its charter and changing the name of the Corporate Governance and Sustainability Committee.
2. Approved work plans relating to Corporate Governance, corporate compliance, sustainability management and CSR to ensure they continue to contribute positively to society, communities and the environment, producing concrete outcomes, are suitable, in alignment with and enhance the company's vision and business strategies. These work plans must be continuously monitored and evaluated.
3. Reviewed a total of 14 handbooks relating to the Corporate Governance policies, with five additional handbooks slated for a review in 2024 to ensure the company's corporate governance is up to date and consistent with good practices both in Thailand and at the international level.
4. Approved the policy and guidelines on Facilitation Payment and Revolving Door recruitment.
5. Approved climate change policy.
6. Approved biodiversity policy.
7. Approved the evaluation the Board of Directors performance for the year 2023.
8. Improved the efficiency of the corporate governance work systems through digitalization by upgrading existing work systems, such as No Gifts Reporting, Conflict of Interest (COI), Document Control (CEO & CACG), E-Learning, alongside the introduction of new systems, including Human Rights Risk Assessment, Anti-Corruption Risk Assessment, IRPC Group Way of Conduct and Manual of Delegated Authority (MODA) for Subsidiaries, which are scheduled for official launch in 2024.

Review of Corporate Governance Policy and Guidelines

IRPC promotes full compliance with good corporate governance guidelines to build confidence among all stakeholder groups. In 2023, the company followed up on the matter to ensure its Corporate Governance Policy was translated into practice as follows:

- (1) Examined, analyzed, and assessed the company's compliance with corporate governance principles, which are compared with domestic and international benchmarks, such as DJSI criteria, Corporate Governance Report of Thai Listed Companies (CGR), Thai Institute of Directors Association (IOD), AGM Checklist, Thai Private Sector Collective Action Against Corruption (CAC), to develop, improve and update the company's policies and best practices, etc.
- (2) Established an E-Compliance digital library of laws and rules relevant to the company's business operations.
- (3) Prepared the annual report on the disclosure of conflicts of interest.

In addition, the company has applied the principles of good corporate governance for listed companies 2017 (CG Code) as practical guidelines for the Board of Directors under the Apply or Explain approach to raise the effectiveness of its corporate governance to international level. However, in 2023, IRPC continued to be noncompliant in certain aspects. Appropriate alternative measures were applied as follows:

Noncompliance CGR Measures	IRPC Action
Nomination and Remuneration Committee should consist of a majority of independent directors (more than 50%)	At present, IRPC's Nomination and Remuneration Committee consists of three members, with one independent director and 2 executive directors. The company was unsuccessful trying to recruit and nominate another independent director to serve on the committee. The complexity of IRPC's businesses makes it necessary for the company to recruit qualified persons from a wide range of disciplines and areas of expertise. The Nomination and Remuneration Committee, in particular, requires persons who are specialists in order to be effective and to live up to shareholders' expectation.
The Board of Directors should consist of 5-12 directors	In 2023, IRPC's Board of Directors consisted of 14 directors – seven 7 independent directors (accounting for 50%), six executive directors and one managing director. Such composition is deemed suitable for the size, type and complexity of the company's businesses of this size with extended and complex value chains that are also susceptible to volatility and fast-changing business environments. In addition, the company's strategy to explore and seek out new opportunities for sustainable growth, can benefit from diversity of talents which add up to Board effectiveness.
The company should consider introducing executive stock options	The company offers stock options for executives and employees to encourage a sense of ownership, but it does not make such program mandatory. This is to promote independence in decision-making by executives and employees.

Creating Corporate Governance Mindset and Awareness in 2023

The company has taken steps to enhance awareness and understanding of good corporate governance, disseminate important knowledge, principles, concepts, and practices among the executives, employees, suppliers, customers, and personnel of its subsidiaries, to lay the groundwork for a shift towards sustainable development as follows:

Anti-Corruption Activities

- IRPC has received certificate of accreditation to renew membership of the Thai Private Sector Collective Action Against Corruption (CAC) for the third time.
- IRPC Technology Company Limited has received certificate of accreditation to renew membership of the Thai Private Sector Collective Action Against Corruption (CAC) for the second time.
- IRPC Polyol Company Limited has received certificate of accreditation to renew membership of the Thai Private Sector Collective Action Against Corruption (CAC) for the second time.
- Joined National Anti-Corruption Day 2023 organized by Anti-Corruption Organization of Thailand (ACT) under a concept of “WHAT THE FACT?”
- Joined “International Anti-Corruption Day 2023’s on-line activities through Facebook Live of Office of The National Anti-Corruption Commission (ONACC) under the concept “Zero Tolerance – Thailand United against Corruption”.
- Prepared the Conflict of Interest (COI) report for executives and employees, achieving 100% COI reporting for the 9th consecutive year.
- Participated in the CAC National Conference 2023 “Trilateral Alliance for Sustainability” organized by the Thai Institute of Directors Association (IOD).



Joined International Anti-Corruption Day 2023

Human Rights Promotion Activities

- Participated in the Building Innovative & Holistic Approach for Inclusivity Across Business Value Chains Workshop as the winner of the 2022 Thailand WEPS Awards, organized by UN Women at the Stock Exchange of Thailand building.
- Joined the discussion on “Leadership to Drive Business Toward Sustainability” to exchange knowledge, perspectives and experience in promoting gender equality in business organizations, and the launch of “Gender Corner,” a knowledge center offering resources and advice for activities to promote gender equality organized by the SEC, UN Women and Thai Listed Companies Association.
- Attended the International Women’s Day Dinner with Herbert Smith Freehills to exchange perspectives and experience promoting women’s rights and gender equality in the business sector.
- Participated in “Ring the Bell for Gender Equality 2023” event as the winner of the 2022 Thailand WEPS Awards to demonstrate its support for campaign to reduce gender inequality. The company also shared business practices to promote women to play equal roles in the value chain, organized by the SET, SEC, Australian Embassy in Thailand and UN Women.
- Hosted and shared knowledge with 48 participants of training course for senior human rights administrators organized by the Human Rights Development Institute, Department of Rights and Liberties Protection.
- Participated in a workshop to acknowledge the National Action Plan on Business and Human Rights, Phase 2 (2023-2027), organized by the Department of Rights and Liberties Protection. Ministry of Justice.
- Took part in the announcement of the National Action Plan on Business and Human Rights, Phase 2 (2023-2027), organized by the Department of Rights and Liberties Protection. Ministry of Justice.
- Participated in training on comprehensive human rights audit organized by the Department of Rights and Freedoms Protection and UNDP.

Activities to Raise Corporate Governance Awareness



PTT Group CG Day 2023



IRPC CG Day 2023

- Joined companies in the PTT Group at the 2023 PTT Group CG Day event under the concept of GOOD TO GREAT “CG Empowering for the Future” to demonstrate the combined strength of the PTT Group in promoting business operations guided by good governance. The company also encouraged personnel in the PTT Group to apply good corporate governance principles in their work both internally and in dealing with external parties as well as to step up preparedness for change and future challenges, with the aim to build sustainable enterprise that inspires the confidence of all stakeholders.

- Organized IRPC CG DAY 2023 in Hybrid Event format under the concept “Empowering People for Sustainability” to demonstrate the company’s commitment to strengthen good corporate governance at the company and its subsidiaries. The company also made a declaration to conduct its business guided by good governance and implement its Corporate Governance Policy to drive business toward sustainable growth pathway and act in all stakeholders’ best interests.
- Organized IRPC Cubic Academy Season 9: The Next Chapter Begins to create a community where people learn from each other, gain better understanding of the code of business conduct, and develop social responsibility. IRPC also expanded such social learning network to its suppliers, customers and stakeholders so together they can make the transition toward sustainability through the training courses featuring well-known speakers. In 2023, the company sponsored 6 training courses:



IRPC Cubic Academy Season 9:
The next chapter begins

- Training course on “The Dark Side of the Digital World” by Pol. Col. Kritsana Pattanacharoen, Spokesman of the Cyber Crime Investigation Bureau.
- Training course on “An In-depth look at the Laundromat Business” by Mr. Kavin Nithatjarukul, Managing Director of K-Nex Corporation Company Limited (Otteri Wash & Dry).
- Training course on “Thinking like BCG” by M.L. Dispanadda Diskul, Chief Executive Officer of Mae Fah Luang Foundation under royal patronage.
- Training course on “Human Rights with Phi Aoy” by DJ Phi Aoy Khun Napaporn Traiwiwareekul of Club Friday and DJ on Green Wave FM 106.5

- Training course on “Inspiration to Achieve Your Life Goals” by Dentist Naphatporn Chamnansit, the first Thai ever to conquer the highest peaks in 7 continents (7 Summits), and Mr. Kittipong Prasert, Senior Engineer, Production Process Control Engineering Division and Digital Process.
- Training course on “Way of Life” by Mr. Krit Imsang, Chief Executive Officer and President.
- Created CG E-Learning in the form of infographic so that all employees become aware and have better understanding of positive workplace behaviors that correspond with corporate governance principles.
- Conducted an assessment of CG knowledge and understanding for the year 2023 among executives at the departmental manager level and above, and employees. Executives’ assessment completion rate was 100 percent while 66 percent of employees completed their assessment.
- Organized training for new employees to make them aware of operational guidelines for good corporate governance.

Networking Activities

- Joined the Stock Exchange of Thailand and government agency partners, including the Royal Forest Department, community forests, and local communities in “Cultivate Conservation Mindset to Preserve Community Forest” under the “Care the Wild: Plant and Protect” project in Ban Khok Phluang community forest area, Chakrat District, Nakhon Ratchasima Province. The reforestation project covering an area of 10 rai aims to create a community forest over 10 years, making sure the trees and plants survive and thrive. This project is part of the effort to reduce greenhouse gas emissions and is part of a network of private sector organizations that promote community forests.
- Participated in the CEO Forum on Sustainable Finance: Scaling Up Sustainable Finance Solutions for Accelerating Progress on the SDGs, organized by UNGC and United Nations Thailand at the United Nations Building, Bangkok.
- Joined the Partnership for Human Capital 5.0 toward Sustainable Intelligence-Based Society at the UN Global Compact Network Thailand Forum 2023 (UNG CNT Forum) presided by Mr. Panpree Phahitthanukorn, Deputy Prime Minister and Minister of Foreign Affairs, along with Mr. Supachai Chearavanont, President of the Global Compact Network Association of Thailand, and Mr. Geeta Subrawan, Coordinator of the United Nations in Thailand, at the United Nations Conference Centre in Bangkok.



IRPC joined the Partnership for Human Capital 5.0 toward Sustainable Intelligence-Based Society at the UN Global Compact Network Thailand Forum 2023 (UNG CNT Forum)

Awards in Recognition of Good Corporate Governance

IRPC continued to make progress strengthening and raising standard of its corporate governance. As a result, in 2023, the company received a number of awards in recognition of good corporate governance as follows:

- Excellent CG Rating for 15th consecutive year under the Corporate Governance Report of Thai Listed Companies (CGR) Survey 2023 by Thai Institute of Directors Association (IOD) sponsored by the Stock Exchange of Thailand. This reflects IRPC's continually improving corporate governance standard and its focus on ESG (Environmental, Social and Governance) to inspire confidence among stakeholders.
- Excellent rating, scoring full mark of 100 in the assessment against the AGM Checklist of the Thai Investors Association.
- Golden Peacock Global Award for Excellence in Corporate Governance 2023 from the Institute of Directors (IOD), India (announced on September 12, 2023) in recognition of the company's outstanding corporate governance mechanisms and business operations guided by code of business conduct.
- Outstanding Award for "Human Rights Model Organization" for 2022 in large business category (announced on September 22, 2023), marking the 5th consecutive year, the first private enterprise in Thailand ever to have achieved such a feat, from the Rights and Liberties Protection Department, Ministry of Justice.
- Award of Commendation for Transparent Organization from Police General Dr. Watcharaphol Prasarnrajkit, President of the National Anti-Corruption Commission (NACC). This is testament to IRPC's adherence to transparency and accountability in the way it does business, guided by good corporate governance and code of business conduct. The company is also recognized for its effective measures to suppress corruption and conflicts of interest.
- Plaque of Appreciation as a member of the private sector network that supports conservation and development of community forests, from Mr. Varawut Silpa-archa, Minister of Natural Resources and Environment on May 24, 2023. This is in recognition for IRPC's contribution to "Cultivate Conservation Mindset to Preserve Community Forest" under the "Plant and Protect" project in Ban Khok Phluang community forest area, Chakrat District, Nakhon Ratchasima Province. The reforestation project covering an area of 10 rai aims to create a community forest over 10 years, as part of the effort to create economic value at the community level through conservation of the ecosystem, to mitigate adverse effects of global warming.
- Certificate of accreditation to renew membership of the Thai Private Sector Collective Action Against Corruption (CAC) for the third time at CAC Certification Ceremony 2023: Success Story for Sustainability at Queen Sirikit National Convention Center from the Thai Institute of Directors Association (IOD).
- CAC Change Agents Award from the Thai Private Sector Anti-Corruption Coalition (CAC), for inviting IRPC's suppliers to declare their intention to join the CAC.
- IRPC's Smart Farming Project, Yai Da-Jae Boonchuen Garden, Rayong Province, received Royally-bestowed Outstanding Thai Tourism Industry Awards: (1) Learning & Doing Destination category and (2) Low Carbon & Sustainability Destination category of the Tourism Authority of Thailand (announced on September 27, 2023). The awards were granted in recognition of tourism products and services that meet sustainability standards in terms of social responsibility and environmental stewardship. IRPC has brought together the good governance body of knowledge and sustainable management excellence and combine them with local wisdom to inspire local entrepreneurs to improve tourism product and service quality to the next level. This eco-tourism approach is in alignment with Thailand's tourism industry's newly developed "White Tourism" segment.

Corporate Compliance

IRPC is determined to operate its business in compliance with applicable laws, rules and regulations. The company is committed to provide supervisory oversight to ensure smooth and effective operations that meet internationally accepted standards in accordance with the work plan approved by the Corporate Governance and Sustainability Committee. The aim is to drive operational efficiency and effectiveness that live up to stakeholders' expectation. In 2023, the company has established an operational supervision plan to support the current operations as well as step up preparedness for future endeavors. The Committee also identified goals for the operational supervision plan that corresponds with the prevailing global concept, namely sustainable business development, encompassing environmental, social and governance dimensions (ESG). The company's operational supervision plan seeks to accomplish the four goals for 2023 as follows:

► 1. Corporate Compliance Policy

In 2023, IRPC conducted a thorough review of the Corporate Compliance Policy in all aspects and found that IRPC should formulate additional policies relevant to specific issues faced by businesses of the company and its subsidiaries to serve as operational supervision framework in accordance with diverse assessment criteria, both existing and new, more clearly-defined ones. Such revision, particularly of policies relating to environmental, climate and tax regulations, will help boost confidence and mitigate risks associated with business expansion. Therefore, the company has announced additional policies as follows:

- Quality, Security, Safety, Occupational Health, Environment and Energy Management Policy (QSSHE)
- Climate Change and Biodiversity Policy
- Tax Policy of Companies in the IRPC Group

The announcement of these policies enabled IRPC and its subsidiaries to develop operational framework and regulatory compliance framework that are more effective and better aligned with the assessment criteria. As a result,

IRPC and its subsidiaries are able to use these policies as operational supervision tool to more effectively reduce the risk of non-compliance.

► 2. Corporate Compliance Communication

In 2023, IRPC implemented a training program consisting of courses on operational procedures to achieve full regulatory compliance as well as training on legal knowledge, company's policies and regulations, workshop on IT security, intellectual property, fair competition, rules and regulations on merger and acquisition, business operations, finance, trade, investment, anti-money laundering laws, anti-corruption laws, labor laws, including regulations relating to production, sales, transportation, warehousing, environment and safety, occupational health and personal data protection laws, etc. Such knowledge training courses, designed to promote awareness and reduce risk of non-compliance, are part of internal control and supervisory oversight mechanisms to ensure corporate compliance.

In addition, IRPC has identified goals, developed work plans, and performance indicators for supervisory oversight to ensure corporate compliance key training courses, such as new staff training course, corporate compliance training for current staff, and corporate compliance training for middle management. This is aimed at building corporate compliance awareness to enable employees to implement self supervised or supervising other people's performance in their quest to achieve corporate compliance. (Tone from/at the Top)



Orientation for new employees regarding corporate compliance along with GRC integration.



The Corporate Compliance Department organized training and awarded certificates to PDPA Data Champions at a knowledge training course to promote better understanding of personal data protection and operational supervision to achieve corporate compliance and personal data protection policy.

► 3. Corporate Compliance Monitoring & Evaluation

IRPC has inspected and monitored and evaluate the corporate compliance continuously to ensure the company and its subsidiaries the Group are fully in compliance in every aspect. In 2023 the company has conducted assessment of compliance with personal data protection laws to underscore its importance and use it as a tool for operational review. Some 84 percent of the company's total employees completed the assessment questionnaires on PDPA compliance.

In addition, IRPC also required 3 of its wholly-owned subsidiaries, IRPC Oil Company Limited, Rakpasak Company Limited, and IRPC Technology College, to undergo assessment for PDPA compliance in accordance with the supervision oversight policy and applicable law.

► 4. Corporate Compliance Reporting

IRPC submitted corporate compliance supervisory oversight report to the Board of Directors for acknowledgement on a quarterly basis. The Board commented on the report and provided valuable suggestions to the company.

Governance Risk & Internal Control & Compliance (GRC)

IRPC has consistently integrated the GRC in its management. In 2022, the company applied GRC procedures to monitor two operational processes: (1) Merger & Acquisition in existing and new businesses, and (2) procurement.

In 2023, IRPC has further expanded GRC integration by applying it to its property tax payment process and record and document retention system as recommended by a GRC consultant. Findings from the assessment show that GRC has already been integrated into such process and system. However, in order to improve efficiency of the work of personnel responsible for the process and system in terms of ease of inspection and assessment, the company determined that further development was required along with development of process handbook and workflow that needed to be defined in greater detail, clarity to be more efficient. In addition, it was determined that more effective communication must be implemented among work units involved to prevent and reduce non-compliance risk.

Furthermore, IRPC has also assigned its GRC working group to participate in activities to promote better understanding of GRC integration among employees. Senior executive officers were interviewed so that the company may acknowledge their expectation from GRC integration and feedback in order to further improvement in its application and GRC planning. Activities relating to GRC were reported to the GRC committee every two months and to the Corporate Governance and Sustainability every quarter.

Corporate Governance Structure and Important Information about the Board of Directors, Sub-Committees and Executives

Shareholders

IRPC conducts business with integrity, taking into account the highest benefit of shareholders, considering sustainable growth and adequate continuous return. In the General Meeting of Shareholders, shareholders will appoint the Board, acknowledge the annual operation result of the company and consider meeting agenda as stipulated by law, including approval of the financial statement.

Appointment

Board of Directors

The Board of Directors consists of 15 members. The duty is to oversee all corporate operations to ensure the compliance to policies, directions, and targets that will return maximum benefit to shareholders, taking into account the interest of all stakeholders with fairness, social responsibility adherence, under the moral and code of conduct to become the Good Corporate Citizen of the world.

The Board of Directors has envisioned IRPC's vision **"To Shape Material and Energy Solutions in Harmony with Life"** by formulating short- and long-term strategic plan to assure that the company's growth will be in line with targeted direction.

Report

Sub-Committee



Audit Committee

is appointed by the Board and the Sub-Committee shall comprise of at least 3 independent directors, having duty to audit financial statement and to give advice on internal audit procedures. The Board shall have at least 1 member who has adequate knowledge and experience in auditing the accountability of the Company's financial statement.

Nomination and Remuneration Committee

is appointed by the Board and the Sub-Committee shall comprise of at least 3 members, at least 1 of whom shall be an independent director, having duty in selecting candidates for directorship, Sub-Committee, President and Chief Executive Officer, including to determine fair remuneration.

Independent Directors

is independent from major shareholders or group(s) of major shareholders and the company executives. The director's duty is to express their opinions freely under the assigned tasks to protect benefit of all shareholders and stakeholders equally. As of the end of 2022, the Independent Directors consists of 7 members.





Chairman

The Board of Directors elects 1 member as a chairman, to support and promote the performance of the Board at the highest extend of the responsibility assigned, to oversee and monitor management results of the Board and Sub-Committees to ensure effectiveness as specified in corporate objectives.

Corporate Governance Committee

is appointed by the Board and the Sub-Committee shall comprise of at least 3 members, at least 1 of whom shall be independent director, having duty to propose practice guidelines, give advice on good corporate governance to the Board, to oversee the good corporate governance operation of the Company to ensure the efficiency.

Risk Management Committee

is appointed by the Board and the Sub-Committee shall comprise of at least 3 members, having duty to formulate risk management policy, risk management plan, and risk management procedures to cover the entire organization.

President and Chief Executive Officer

is appointed and supervised by the Board of Directors, having duty to manage Company's operation to ensure its compliance with objectives, policies, and strategies set forth by the Board as well as report the company's performance result to the Board in a correct and transparent manner.

President and Chief Executive Officer

is appointed by the Board of Directors.

Senior Executive Vice President

is appointed by the Board of Directors. The duty is to manage work under responsibility, policy, and target assigned by the President and Chief Executive Officer.

Management Committee

The duty is to manage and ensure the parallel direction of the whole operations, to consider important matters on business operation, and to screen the agenda as to propose to the Board for approval. The committee comprises of:

- President and Chief Executive Officer
- Senior Executive Vice President
- Executive Vice President
- Internal Audit Manager
- Legal Manager

Company Secretary

Company Secretary

is appointed by the Board of Directors. The duty is to perform secretarial tasks pursuant to the Securities and Stock Exchange Act B.E. 2551 and as stipulated by the Capital Market Supervisory Board as well as performing duties assigned by the Board.

Corporate Governance Structure

The organizational structure of IRPC Public Company Limited comprises shareholders, the Board of Directors, and the management team, led by the Chief Executive Officer and President. The Board is answerable to shareholders, and the management team is accountable to the Board. The design of the company's management structure prioritizes efficient management and adheres to good corporate governance principles. This structure forms the foundation for the interconnected relationships between shareholders, the Board, and the management. The balanced relationship fosters corporate competitiveness and ensures long-term value for shareholders, all while giving due consideration to stakeholders in an equitable, fair, and socially responsible manner. This approach aligns with the company's commitment to sustainable growth.

Aligned with the principles of good corporate governance, a company's shareholders delegate the responsibility of governance oversight to the Board of Directors. The Board plays a pivotal role by articulating the company's vision, providing business direction, formulating policies, setting goals, devising strategic plans, and approving annual budgets for implementation by the management to achieve predetermined objectives. Simultaneously, the Board offers supervision to ensure operational transparency, efficiency, and maximum benefits for shareholders, ensuring favorable returns on their investments. This approach results in the company generating profits, achieving sustainable growth, and prioritizing the well-being of employees through fair compensation and comprehensive care.

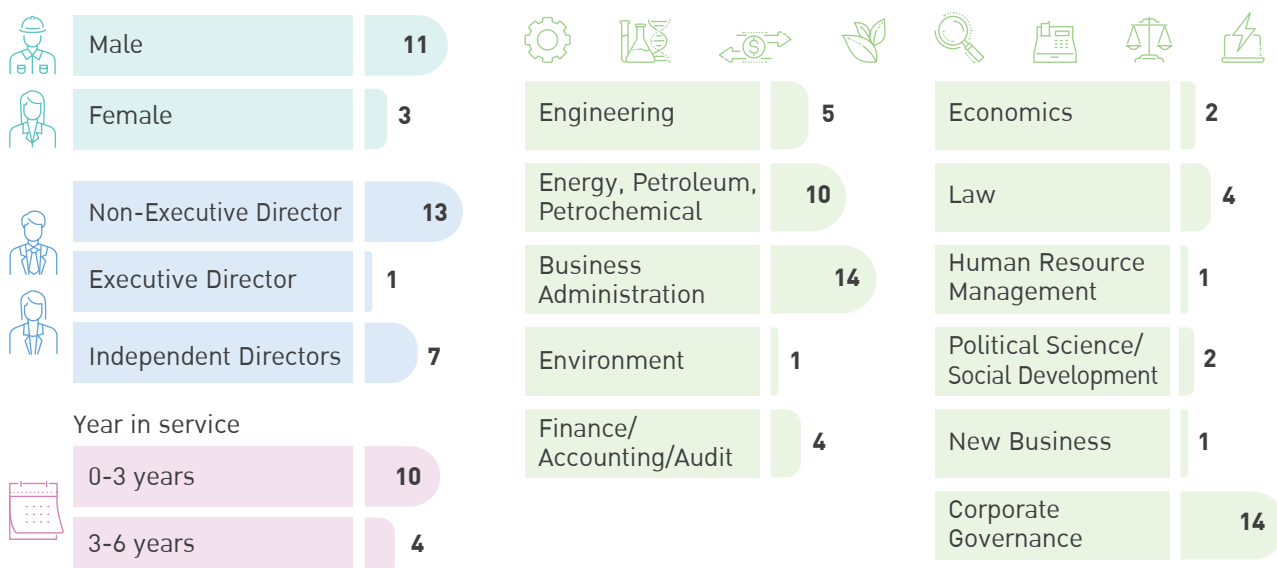
Board of Directors

The Board of Directors consists of 15 directors, appropriate for the size, type and complexity of IRPC's business. The composition of the current Board members is as follows:

- Fourteen non-executive directors (93 percent of the entire board)
- One executive director (Chief Executive Officer and President)

As of December 31, 2023, there were 14 directors on IRPC's Board (one director passed away on December 26, 2023). Of these 14 Board members, seven were independent directors (more than 50 percent of the entire Board), and three female directors (21 percent of the Board). Professional profiles of members of the Board appear under "Board of Directors" section.

Composition and Skills Matrix of the Board of Directors (as of December 31, 2023)



The average tenure is 2.3 years years.

The Company's Board of Directors

► The Board of Directors as of December 31, 2023

As of December 31, 2023, there were 14 directors on IRPC's Board (one director passed away on December 26, 2023). Of these 14 Board members, seven were independent directors (more than 50 percent of the entire Board), and three female directors (21 percent of the Board) as shown below:

No.	Name	Position		Date of appointment/ Number of term served	
1.	Dr. Siri Jirapongphan	Independent Director	Chairman	5 April 2022	1
2.	Miss Siriwan Chierapong	Independent Director	Chairperson of the Risk Management Committee	3 April 2019 5 April 2022	1 2
3.	Miss Piangpanor Boonklam	Director	Member of the Risk Management Committee	20 January 2021 31 March 2021	1 2
4.	Mr. Prasong Intaranongphai	Director	Member of the Risk Management Committee	1 December 2022	1
5.	Mr. Pornchai Thiraveja ⁽¹⁾	Director	Member of the Risk Management Committee	5 April 2023	1
6.	Asst. Prof. Dr. Chaiyaporn Puprasert	Independent Director	Member of the Corporate Governance and Sustainability Committee	31 March 2021	1 2
7.	Mrs. Pranot Tirasai ⁽²⁾	Director	Member of the Corporate Governance and Sustainability Committee	5 April 2023	1
8.	Mr. Chansak Chuenchom	Director	Chairman of the Nomination and Remuneration Committee	1 October 2021	1
9.	Mr. Petai Mudtham	Director	Member of the Nomination and Remuneration Committee	19 January 2022	1
10.	General Aittipol Suwannarat	Independent Director	Member of the Nomination and Remuneration Committee	5 April 2022	1
11.	Mr. Yodchat Tasarika	Independent Director	Chairman of the Audit Committee	5 April 2022	1
12.	Mr. Somchai Rangsithananon ⁽³⁾	Independent Director	Member of the Audit Committee	5 April 2022	1
13.	M.D. Korn Pongjitdham ⁽⁴⁾	Independent Director	Member of the Audit Committee	5 April 2022	1
14.	Mr. Kris Imsang ⁽⁵⁾	Executive Director (Chief Executive Officer and President)	Member of the Risk Management Committee	1 October 2022 5 April 2023	1 2

Notes: New directors were appointed to replace those who had retired, or resigned in 2023 as follows:

⁽¹⁾ Mr. Pornchai Thiraveja assumed the position of Director and Member of the Risk Management Committee, effective from April 5, 2023, replacing Mr. Ekniti Nitithanprapas who had completed his term.

⁽²⁾ Mrs. Pranot Tirasai assumed the position of Director and Member of the Corporate Governance and Sustainability Committee, effective from April 5, 2023, replacing Mr. Anusorn Saengnimnuan who had completed his term.

⁽³⁾ Mr. Somchai Rangsithananon assumed the position of Director and Member of the Audit Committee, effective from April 5, 2023, replacing Mr. Somnuk Bomrungsalee who had completed his term.

⁽⁴⁾ Dr. Korn Pongjitdham assumed the position of Director and Member of the Audit Committee, effective from April 5, 2023, replacing Mr. Jumphon Sampaopol who had completed his term.

⁽⁵⁾ Mr. Kris Imsang resumed his position as Director and Member of the Risk Management Committee as well as Chief Executive Officer and President on April 5, 2023 for another term.

Securities holdings by members of the Board of Directors, spouses and minor children as of December 31, 2023

No.	Name	As of Dec. 31, 2022 Shareholding Number of shares	As of Dec. 31, 2023 Shareholding Number of shares	Number of shares increase (decrease) during the year	WARRANT / NVDR / TSR / DW 2023	Notes:
1.	Dr. Siri Jirapongphan	N/A	N/A	Unchanged	N/A	
	Spouse	N/A	N/A	Unchanged	N/A	
	Minor children	N/A	N/A	Unchanged	N/A	
2.	Miss Siriwan Chierapong	N/A	N/A	Unchanged	N/A	
	Spouse	N/A	N/A	Unchanged	N/A	
	Minor children	N/A	N/A	Unchanged	N/A	
3.	Miss Piangpanor Boonklam	N/A	N/A	Unchanged	N/A	
	Spouse	N/A	N/A	Unchanged	N/A	
	Minor children	N/A	N/A	Unchanged	N/A	
4.	Mr. Prasong Intaranongphai	N/A	N/A	Unchanged	N/A	
	Spouse	N/A	N/A	Unchanged	N/A	
	Minor children	N/A	N/A	Unchanged	N/A	
5.	Mr. Pornchai Thiraveja		N/A	Unchanged	N/A	New Director appointed at AGM meeting April 5, 2023
	Spouse		N/A	Unchanged	N/A	
	Minor children		N/A	Unchanged	N/A	
6.	Asst. Prof. Dr. Chaiyaporn Puprasert	N/A	N/A	Unchanged	N/A	
	Spouse	N/A	N/A	Unchanged	N/A	
	Minor children	N/A	N/A	Unchanged	N/A	
7.	Mrs. Pranot Tirasai		N/A	Unchanged	N/A	New Director appointed at AGM meeting April 5, 2023
	Spouse		N/A	Unchanged	N/A	
	Minor children		N/A	Unchanged	N/A	
8.	Mr. Chansak Chuenchom	N/A	N/A	Unchanged	N/A	
	Spouse	N/A	N/A	Unchanged	N/A	
	Minor children	N/A	N/A	Unchanged	N/A	
9.	Mr. Petai Mudtham	N/A	N/A	Unchanged	N/A	
	Spouse	N/A	N/A	Unchanged	N/A	
	Minor children	N/A	N/A	Unchanged	N/A	
10.	General Aittipol Suwannarat	N/A	N/A	Unchanged	N/A	
	Spouse	N/A	N/A	Unchanged	N/A	
	Minor children	N/A	N/A	Unchanged	N/A	

Securities holdings by members of the Board of Directors, spouses and minor children as of December 31, 2023

No.	Name	As of Dec. 31, 2022 Shareholding Number of shares	As of Dec. 31, 2023 Shareholding Number of shares	Number of shares increase (decrease) during the year	WARRANT / NVDR / TSR / DW 2023	Notes:
11.	Mr. Yodchat Tasarika	N/A	N/A	Unchanged	N/A	
	Spouse	N/A	N/A	Unchanged	N/A	
	Minor children	N/A	N/A	Unchanged	N/A	
12.	Mr. Somchai Rangsithananon		N/A	Unchanged	N/A	New Director appointed at AGM meeting April 5, 2023
	Spouse		N/A	Unchanged	N/A	
	Minor children		N/A	Unchanged	N/A	
13	M.D. Korn Pongjitdham		N/A	Unchanged	N/A	New Director appointed at AGM meeting April 5, 2023
	Spouse		N/A	Unchanged	N/A	
	Minor children		N/A	Unchanged	N/A	
14	Mr. Kris Imsang	N/A	N/A	Unchanged	N/A	
	Spouse	N/A	N/A	Unchanged	N/A	
	Minor children	N/A	N/A	Unchanged	N/A	
15	Mr. Supot Laosuarpha	0.00024% 50,000	0.00024% 50,000	Unchanged	N/A	Deceased December 26, 2023
	Spouse	N/A	N/A	Unchanged	N/A	
	Minor children	N/A	N/A	Unchanged	N/A	
Directors who completed their terms/resigned during the year						
16	Mr. Anusorn Saengnimnuan	N/A	N/A	Unchanged	N/A	Completed term AGM April 5 2023
	Spouse	N/A	N/A	Unchanged	N/A	
	Minor children	N/A	N/A	Unchanged	N/A	
17	Mr. Somnuk Bomrungsalee	N/A	N/A	Unchanged	N/A	Completed term AGM April 5 2023
	Spouse	N/A	N/A	Unchanged	N/A	
	Minor children	N/A	N/A	Unchanged	N/A	
18	Mr. Jumpol Sumpaopol	N/A	N/A	Unchanged	N/A	Completed term AGM April 5 2023
	Spouse	N/A	N/A	Unchanged	N/A	
	Minor children	N/A	N/A	Unchanged	N/A	
19.	Mr. Ekniti Nitithanprapas	N/A	N/A	Unchanged	N/A	Completed term AGM April 5 2023
	Spouse	N/A	N/A	Unchanged	N/A	
	Minor children	N/A	N/A	Unchanged	N/A	

► Authorized Directors

Four directors are authorized to act on behalf of the company pursuant to the company's certificate dated January 8, 2024: (1) Mr. Kris Imsang, (2) Ms. Piangpanor Boonklam, (3) Mr. Chansak Chuenchom, and (4) Mr. Prasong Intaranongphai. For the authorization to be legally binding, two of these four directors must co-sign and affix the IRPC corporate seal.

► Composition and Qualifications of the Board of Directors

1. The Board of Directors shall consist of a minimum of five but not more than 15 directors.
2. Independent directors shall account for at least one-third of all directors, and there shall be at least three independent directors on the Board.
3. Director shall not be older than 70 years of age
4. Directors and independent directors shall serve a 3-year term, after which they may be re-appointed in accordance with legal provisions, up to three consecutive terms, or a combined total of not more than nine years (without exceptions).
5. The following limitations shall apply to Board members who hold directorships in state enterprises and/or other companies listed on the Stock Exchange of Thailand:
 - (1) To hold positions in up to three state enterprises and/or juristic persons whose shares are held by a state enterprise.
 - (2) To hold positions in up to three companies listed on the Stock Exchange of Thailand.

However, the combined total of directorships held under (1) and (2) shall not exceed five.

6. Directors shall be experts in their respective fields. Their combined expertise shall satisfy the requirements of IRPC. There shall be a minimum of three petroleum or petrochemical experts, one legal expert, and one accounting and finance expert. Their appointments shall be in accordance with IRPC's nomination policy and criteria, which takes into consideration their education background, management experience in relevant fields, and their professional accomplishment recognized by businesses of comparable size as that of IRPC.
7. Directors shall possess all the required qualifications but none of the prohibitions pursuant to the Public Limited Company Act, the Securities and Exchange Act, the Capital Market Advisory Board's notifications, as well as rules and regulations of the Securities and Exchange Commission and the Stock Exchange of Thailand, IRPC's Articles of Association and corporate governance principles, and other applicable rules. They shall also be free of any questionable character traits that render them unfit for supervising IRPC's business operations.
8. Directors shall possess all the required qualifications but none of the prohibitions pursuant to the Cabinet Resolution dated January 24, 2011, Re: Appointment of high-ranking government officials or persons to serve as directors in state enterprises or juristic persons whose shares are held by state enterprises.
9. Directors shall possess positive character traits and personality conducive to corporate governance oversight that adds value to IRPC, such as professional integrity, ethical standard, independence, assertiveness, creativity, duty of care and duty of loyalty, dedication, and whose social standing is held in high regard.
10. In the case of former IRPC directors, their past performance, dedication, and valuable suggestions and recommendations that benefited the company shall also be considered.

Independent Directors

In accordance with corporate governance principles adopted by IRPC, at least one-third of the Board of Directors shall be independent directors. Both independent directors and IRPC's directors shall serve a 3-year term. Independent director retiring by rotation may be reappointed by shareholders. However, they may only serve up to three consecutive terms, or a combined total of nine years. There shall be no exception.

Independent directors shall possess the expertise and demonstrable independence pursuant to notifications of the Capital Market Supervisory Board and as stipulated by the Board of Directors. According to company's policy, independent directors shall hold no more than 0.5 percent of IRPC's issued shares (compared to not more than one percent shareholding prescribed by the SEC). The definition of an IRPC independent director has been disclosed in the Corporate Governance Handbook and on the company's website. Independent directors shall be free to speak their minds at Board meetings. They shall attend meetings regularly and have access to sufficient financial and business information, enabling them to express their opinion independently in the best interests of stakeholders. In so doing, they shall also prevent conflicts of interest between IRPC, the management, directors, or majority shareholders.

As of December 31, 2023, there were a total of 7 independent directors, which accounted for more than half of the Board (more than the legal requirement of at least one-third). IRPC's current independent directors are as follows:

1.	Dr. Siri Jirapongphan	Independent Director
2.	Miss Siriwan Chierapong	Independent Director
3.	Asst. Prof. Dr. Chaiyaporn Puprasert	Independent Director
4.	General Aittipol Suwannarat	Independent Director
5.	Mr. Yodchat Tasarika	Independent Director
6.	Mr. Somchai Rangsitthananon	Independent Director
7.	M.D. Korn Pongjithdam	Independent Director

► Independent directors have duties and responsibilities as follows:

1. Familiarize themselves with their duties and responsibilities set forth in the Public Limited Company Act 1992 and the Securities and Exchange Act 1992. They shall also observe best practices prescribed by the SET, SEC Office and other regulatory agencies.
2. Motivate and encourage fellow directors and the company's executive officers to perform their duties responsibly, carefully, and honestly in compliance with relevant laws, company's objectives and Articles of Association, Board and shareholders' resolutions as well as rules prescribed by regulatory agencies.
3. Encourage the company to adopt and implement corporate governance principles and best practices in earnest.
4. Ascertain that the company has appropriate and efficient internal control and risk management systems.
5. Supervise the implementation and disclosure of the company's policies on reporting of connected transactions and those involving related parties or stakeholders, along with disclosure of major events. Provide useful information to shareholders, including material changes that may affect the company's stock prices, in accordance with the conditions and timeline requirements of the Stock Exchange of Thailand.
6. Provide independent suggestions and opinion to the Board of Directors to the best interests of the company, minority shareholders and other stakeholders.
7. Perform any other tasks assigned by the Board of Directors, without compromising their ability to discharge of their duties with independence.
8. Independent directors shall meet among themselves at least once a year.

When an independent director position becomes vacant, IRPC shall nominate a qualified individual who fits the definition of an independent director to fill the position as well as maintain the minimum proportion of independent directors on the Board as required by the Capital Market Supervisory Board and corporate governance best practices. If another director on the Board later qualifies as an independent director, thus meeting the requirements, that director shall be eligible to serve as an independent director. In practice, however, IRPC will still ask the Nomination and Remuneration Committee to scrutinize such director's qualifications.

► Appointment and Removal of Directors

IRPC has established procedures for the appointment and dismissal of directors as summarized below:

Appointment of Directors

1. Shareholders have the authority to appoint directors whom the Nomination and Remuneration Committee has nominated and proposed to the Board for endorsement. The list of candidates shall then go before shareholders' meeting for approval under the following procedures:
 - (1) Each shareholder has votes equal to the number of shares they hold. The one-share-one-vote rule applies.
 - (2) Shareholders may cast their votes for individual candidates or for the entire group of candidates slated for each election as shareholders deem appropriate. Each candidate, individual or as part of a slate of candidates, shall receive all the applicable votes of a shareholder under (1) as their votes are indivisible.
 - (3) Candidates receiving the highest number of votes in descending order are to be appointed directors up to the number required at any given election. If candidates received equal votes, which makes the number of successful candidates exceed that of directors to be appointed, the chairperson of the meeting shall exercise the casting vote.
2. The Board shall elect one of its members as the chairperson and may also select one or more of its members to serve as the vice-chairperson(s). Their duties shall be as prescribed in the company's Articles of Association and as assigned by the chairperson. (To date, no vice-chairperson has been appointed.)
3. The Board shall appoint the Chief Executive Officer and President in accordance with the established nomination procedures and applicable regulations. The CEO and President shall serve as a director and secretary to the Board.

4. If any director position becomes vacant for reason other than retirement by rotation, the Board shall select a person who has all the qualifications and does not have any prohibited characteristics under the law as a director at its next meeting unless the remaining term of the outgoing director is less than two months. The new director shall only serve the remainder of the term of their predecessor. The Board's resolution on a replacement director must be passed by at least three-quarters of the votes of the remaining directors.
5. If the Board no longer has a quorum as the result of directors vacating their positions, the remaining directors may exercise the only Board's authority they have left to call a meeting of shareholders to elect new directors to fill the vacancies. Such director election shall be held within one month from the date the Board failed to muster a quorum. New directors elected to fill vacancies may serve out the remaining terms of their predecessors.
6. Newly appointed director shall attend a director orientation within three months from their respective date of appointment to familiarize themselves with necessary and pertinent information.

Removal of Directors

1. Directors shall vacate office after completing a term of three years (those who retire after having completed their term may be re-elected).
2. In addition to vacating office by rotation, directors shall vacate office upon death, resignation, or disqualification, or having prohibited characteristics as stipulated by law. They may also be removed when the shareholders' meeting has passed a resolution to remove them, or they may be removed by a court order.
3. Director wishing to resign shall tender their resignation letter to the company. The resignation shall take effect on the date the resignation letter is delivered to the company.

▶ Duties and Responsibilities of the Board

The Board of Directors has a duty of care and a duty of loyalty. Accountable to the shareholders, the Board oversees IRPC business operations and management's conformity with laws, corporate objectives, Articles of Association, shareholders meeting's resolutions, the established policies, guidelines, and goals in the best interests of shareholders within the ethical code of conduct and for the benefit of all stakeholders. The following are Board's duties and responsibilities:

1. Articulate IRPC's vision, direction, and strategies in a way that supports sustainable growth while balancing economic, social, and environmental factors. Board members shall freely express their views. They shall value all information that might prove beneficial to the process of establishing business direction. The Board shall weigh potential financial and non-financial risks to ascertain the management can efficiently implement the defined vision, direction, and strategies to accomplish the corporate goals.
2. Review and determine IRPC's key policies, strategies, objectives, financial targets, and action plans at least once a year. It shall also regularly monitor and follow up on reports on the implementation of action plans according to IRPC's business direction and strategies.
3. Establish reliable accounting, financial reporting, and auditing systems. The Board shall also supervise assessment of internal control and internal audit, ensuring their efficiency and effectiveness.
4. Weigh potential major risk factors and determine a comprehensive framework of risk management. The Board shall ensure that an efficient risk management system or procedure are in place as well as identify business opportunities that may arise from such risks.
5. Establish a procedure to assess the adequacy and effectiveness of the company's internal control system on a regular basis.
6. Monitor all potential conflicts of interest and address such issue as soon as it occurs. The Board shall review all significant business transactions, focusing on maximizing benefits to shareholders and all stakeholders.
7. Set up an effective recruiting system with a transparent and equitable hiring procedure for key management roles.
8. Create an appropriate system or mechanism to determine fair compensation for IRPC's senior management that corresponds with IRPC's operating results and business plans, creating short- and long-term incentives.
9. Approve the President and CEO's directorships in other companies. Whereas other senior executive officers' directorships in other companies shall be approved by the CEO and President. The appointment of IRPC executives to serve on the boards of subsidiaries or joint venture companies according to the proportion of its shareholding or a shareholders' agreement, falls within the Board's purview.
10. Determine the components and operational goals for the CEO and President's performance review, with due consideration to IRPC's business plans and the Balanced Scorecard management approach. Moreover, the Board shall regularly evaluate the performance of the CEO and President, whose compensation is linked to the performance review results, creating short- and long-term incentives.
11. Provide suitable communication channels with shareholders and stakeholders. The Board shall also assess IRPC's disclosures to ensure their accuracy, clarity, transparency, reliability, and conformity with standards.
12. Lead by example with regard to work ethic that aligns with IRPC's corporate governance guidelines and stress the importance of business practices that goes hand in hand with social responsibility, environmental stewardship and sustainable development.
13. Advocate the full range of anti-graft and anti-corruption activities and promote sound corporate governance.
14. Set up plans for an assessment of the company's corporate governance policy and code of conduct at least once a year.
15. Appoint a qualified individual to serve as company secretary to assume duties and responsibilities set forth in the Securities and Exchange Act and other applicable laws.

► The Board's Approval Authority

1. Approve vision, strategies, short- and long-term business plans, and key policies, such as corporate governance policy, risk management policy, trade competition policy, anti-corruption policy, connected transaction policy, disclosure policy and corporate IT security policy.
2. Approve key investment projects and important operations as required by applicable laws, objective framework, company's Articles of Association and resolutions of shareholders' meetings, and oversee the effective implementation of the established policies and work plans.
3. Approve procurements that exceed the CEO and President's approval authority.
4. Approve key investment projects and important operations as required by applicable laws, objective framework, company's Articles of Association and resolutions of shareholders' meetings, and oversee the effective implementation of the established policies and work plans.
5. Approve transactions under the criteria set forth by the Securities and Exchange Act and relevant regulations, such as connected transactions or asset acquisition or disposal.
6. Approve to schedule the date for the Annual General Meeting of Shareholders and payments of interim dividends to shareholders.
7. Approve the nomination of candidates to fill vacant seats on the Board when directors resigned during the year, and approve appointment of members of the Board's committees, determine authorized directors with the authority to sign to bid the company.
8. Approve determination of components and goals for the CEO and President's performance review and compensation as well as the annual increment and bonus for employees.
9. Approve the CEO and President's directorships in other organizations.
10. Approve the appointment of executives as defined by the Securities and Exchange Commission, Stock Exchange of Thailand or the Capital Market Supervisory Board.
11. Approve executive officers' directorships in IRPC subsidiaries or joint venture companies under agreements or in proportion to shareholding in those companies.

► Authority of Shareholders

Unless otherwise stipulated by law, the following actions shall require approval of shareholders' meeting in a resolution passed by at least three-quarters of all shareholders present and eligible to vote:

1. Sale or transfer in whole or in essential part of a business of the company to other parties.
2. Acquisition of business or acceptance of business transfer of another company or private company.
3. Entering, amending, or terminating in whole or in essential part a business lease agreement of the company.
4. Assigning another party to manage an IRPC business.
5. Merging an IRPC business with another party in order to share profits/losses.
6. Amending the Memorandum of Association or Articles of Association.
7. Increase or decrease of IRPC's registered capital or issuance of debentures.
8. Merger or dissolution of the company.

► Authority of the Chairperson

To ensure clear separation of policy-making and policy execution powers, IRPC stipulates that the Chairperson and CEO/President shall not be the same individual. This separation also enhances the effectiveness of the leadership role of the Board of Directors in providing management oversight. The Chairperson's authority and responsibilities are as follows:

1. Call Board meetings, preside over the Board and shareholders' meetings as well as set the agenda for the Board meetings together with the CEO and President.
2. Approve and determine items on the Board's meeting agenda together with the CEO and President.
3. Attend Board and shareholders' meetings, ensure effective and productive meetings in compliance with IRPC's Articles of Association.
4. Promote and support directors and shareholders and make sure they obtain adequate information so they can express their views freely
5. Promote the exercise of shareholders' rights, ensure equal treatment and act in the best interests of all shareholders.

6. Promote Board effectiveness in fulfilling its duties and responsibilities under the framework of good corporate governance, and to support the work of the CEO and President.
7. Supervise and monitor the performance of the Board and its committees to ensure that IRPC's objectives are accomplished.
8. Exercise the casting vote at Board meetings in the event of equality of votes.

Board's Committees

To fulfill its commitment to good corporate governance principles, the Board of Directors has established four standing committees to screen and manage specialized tasks as well as to provide advice to ensure Board's decision-making effectiveness. The Board's committees are structured as follows:

► 1. The Audit Committee

The Audit Committee shall consist of at least three independent directors who have qualifications, duties and responsibilities in accordance with the criteria set forth in the notifications of the Securities and Exchange Commission and the Capital Market Supervisory Board. Each of the members of the Audit Committee shall possess the knowledge, expertise and experience that the role demands. The Audit Committee shall have at least one director with sufficient knowledge and experience in accounting and finance to review financial reports to ascertain their accuracy and reliability. The current members of the Audit Committee are:



1)	Mr. Yodchat Tasarika (Independent Director)	Chairman of the Audit Committee
2)	Mr. Somchai Rangsitthananon (Independent Director)	Member of the Audit Committee
3)	M.D. Korn Pongjithdham (Independent Director)	Member of the Audit Committee

Two members of the Audit Committee are knowledgeable, experienced and capable of reviewing the company's financial statements.

1. Mr. Somchai Rangsitthananon April 2023 – present	Audit Committee Experience in reviewing financial statements Member of the Audit Committee, IRPC Public Company Limited
2. M.D. Korn Pongjithdham April 2023 – present	Audit Committee Experience in reviewing financial statements Member of the Audit Committee, IRPC Public Company Limited

Office of Corporate Internal Audit and Secretary to the Audit Committee

The Audit Committee has assigned Office of Corporate Internal Audit to audit the company's operations as well as executives and employees to ensure they comply with all applicable laws, rules, regulations and the internal control system. The Office also handles both internal and external whistleblowing and complaints. The manager of Office of Corporate Internal Audit is independent and reports directly to the Audit Committee.

The Audit Committee has appointed Mr. Siraphong Wisetsuwan, Senior Manager, Office of Corporate Internal Audit, as secretary of the Audit Committee to support the work of the Audit Committee in organizing meetings, preparing meeting agenda, providing meeting documents and recording meeting minutes. The secretary also implement work according to the Audit Committee's policy.

Mr. Siraphong Wisetsuwan

Senior Manager, Office of Corporate Internal Audit, and secretary of the Audit Committee 1 February 2023 – present (Mr. Siraphong Wisetsuwan's professional profile appears in Executive Profiles section, Page 52)

Term of Office

- (1) The Audit Committee members' term of office shall be equal to that of their directorship (not more than three years).
- (2) Members who have complete their terms of office may be re-appointed, subject to the Board's discretion, but they may serve no more than three consecutive terms (or a combined total of nine years. There shall be no exceptions).
- (3) In the event that any of the Audit Committee members vacated their position for whatever reason, the company must notify the Stock Exchange of Thailand.
- (4) In the case a position in the Audit Committee becomes vacant due to reasons other than retirement by rotation, the Board of Committee shall appoint another director who possesses full qualifications to fill the position within three months from the date members of the Audit Committee fell short of the required number.

Duties and Responsibilities

- (1) Review the accuracy and adequacy of IRPC's financial reports, ensuring that they meet accounting standards stipulated by law.
- (2) Review IRPC's internal control and internal audit systems to ensure their effectiveness as well as to assess the independence of internal audit units. The Audit Committee also has the authority to approve the promotion, reassignment and dismissal of the head of internal audit unit.
- (3) Consider and approve the audit plan of Office of Corporate Internal Audit as well as to give opinion on the annual budget and manpower proposal of Office of Corporate Internal Audit.
- (4) Review and ensure the company is in compliance with the Securities and Exchange Act, rules prescribed by the SET and applicable laws to the company's business.
- (5) Review and ensure the company has appropriate risk assessment and risk management.
- (6) Select and nominate an independent auditor to audit the company's financial statements, determine the audit fee as well as to propose dismissal of external auditor in the event of incompetence, negligence or misconduct. The Audit Committee also holds meeting with the external auditor in the absence of the management at least once a year.
- (7) Examine connected transactions and other transactions with possible conflicts of interest to ensure compliance with applicable laws and regulations of the Stock Exchange of Thailand and to ensure the reasonableness of such transactions in the best interests of IRPC.

(8) Prepare the Report of the Audit Committee and disclose it in the company's annual report. The report must be signed by the Chairperson of the Audit Committee and must contain at least the following information:

- Opinion on the accuracy, completeness and reliability of the company's financial reports.
- Opinion on the adequacy of the company's internal control system.
- Opinion on compliance with the Securities and Exchange Act, regulations of the SET or applicable laws to the company's business.
- Opinion on the suitability of the auditor
- Opinion on transactions that may give rise to conflicts of interest.
- Number of the Audit Committee's meetings and the attendance of each of the Audit Committee members.
- Overall opinion or observation received by the Audit Committee in performing its duties in accordance with the Audit Committee Charter.
- Identify other items that shareholders and general investors should be aware of within the scope of duties and responsibilities assigned by the Board of Directors.

(9) Perform any other tasks assigned by the Board of Directors with the approval of the Audit Committee. In performing its duties, the Audit Committee is directly responsible to the Board. At the same time, the Board is accountable for the company's interaction with external parties.

(10) Additional responsibilities

- The Audit Committee may seek professional opinion of independent consultants in any other fields as necessary and the expense will be covered by the company.
- The Audit Committee has full access to the company's information from executives, employees and related parties.
- Review the charter of the Audit Committee at least once a year with a view to improve or update the charter to align with the scope of its responsibilities, good practices and expectation of the Board.
- Request the management and external auditor to report issues they encounter in preparing financial reports and any corrections they have made during the accounting period.
- The Audit Committee must have access to sufficient information and knowledge about the company's business operations, as well as ongoing education and training programs to enhance the performance of the Audit Committee.

(11) Review and ensure the accuracy of reference documents and a self-assessment forms relating to the company's anti-fraud and anti-corruption measures according to the guidelines of the Thai Private Sector Collective Action Against Corruption.

(12) Receive complaints and report issues or suspicions of fraud or corruption to the Board of Directors.

► 2. The Nomination and Remuneration Committee

The Nomination and Remuneration Committee shall consist of at least three directors, at least one of them shall be an independent director of the company. Members of the current Nomination and Remuneration Committee are:



1)	Mr. Chansak Chuenchom	Chairman of the Nomination and Remuneration Committee
2)	Mr. Pethai Mudtham	Member of the Nomination and Remuneration Committee
3)	General Aittipol Suwannarat (Independent Director)	Member of the Nomination and Remuneration Committee

Miss Arisara Suthasut, Executive Vice President, Office of Corporate Affairs and company secretary, acting as secretary to the Nomination and Remuneration Committee from October 1, 2019 – Present.

Term of Office

- (1) The Nomination and Remuneration Committee members' term of office shall be equal to that of their directorship (not more than 3 years).
- (2) Member of the Nomination and Remuneration Committee who retires by rotation may be re-appointed by the Board of Directors at its own discretion (not more than three consecutive terms, or a combined total of up to nine years. There will be no exceptions).

Duties and Responsibilities

The Nomination and Remuneration Committee's duties and responsibilities consist of three components:

1. Nomination

- 1.1. Review and make recommendations on the structure, scope and composition of the Board of Directors and Board's committees based on the size, type, and complexity of IRPC's business. The committee performs its duties with transparency, free of influence of shareholders with controlling interest, thus inspiring confidence in external parties. It provides advice and makes proposals to the Board and/or the shareholders' meeting for approval, as the case may be.
- 1.2. Review the qualifications of each director candidate to ensure suitability. The following criteria shall apply:
 - 1.2.1 The Board of Directors consists of at least five but not more than 15 directors. Out of the total number of Board members, at least one-third, or not less than three members, must be independent directors.
 - 1.2.2 Director shall not be older than 70 years of age.

1.2.3 The composition of the Board should reflect diversity & inclusion and skills matrix encompassing a broad range of skills, knowledge, expertise and experience, regardless of personal attributes such as age or gender. Directors shall possess qualifications and none of the prohibited characteristics defined by law, the company's Articles of Association, corporate governance principles and other applicable criteria, such as:

- (1) Required qualifications pursuant to the Public Limited Company Act, the Securities and Exchange Act, the Capital Market Advisory Board's notifications, as well as rules and regulations of the Securities and Exchange Commission and the Stock Exchange of Thailand, IRPC's Articles of Association and corporate governance principles, and other applicable rules. They shall also be free of any questionable character traits that render them unfit for supervising IRPC's business operations.
- (2) Directors shall possess all the required qualifications but none of the prohibitions pursuant to the Cabinet Resolution dated January 24, 2011, Re: Appointment of high-ranking government officials or persons to serve as directors in state enterprises or juristic persons whose shares are held by state enterprises.
 - (a) Holding directorships in not more than 3 state enterprises and/or juristic persons in which the state enterprise is a shareholder.
 - (b) Holding directorships in up to three companies listed on the Stock Exchange of Thailand. However, the combined total of directorships held under (a) and (b) shall not exceed five.
- (3) Directors shall possess positive character traits and personality conducive to corporate governance oversight, such as professional integrity, ethical standard, accountability, independence, assertiveness, evidence-based decision making, principled and professional, duty of care and duty of loyalty, dedication, physical health, readiness to make contribution at meetings and whose social standing is held in high regard.
- (4) Directors shall possess skill characteristics that aligns with the company's business requirements or in accordance with necessary conditions that add value to the company.

Preferably, such individuals should be listed on the Directors' Pool of reputable organizations or government agencies that provide certification.

- (5) Other qualifications shall be as determined by the Board of Directors.

1.2.4 The Board shall have the authority to appoint a new director in the case of appointment to fill a vacancy due to resignation while replacement of a director who completed term of office must be approved by a majority vote of the shareholders' meeting.

- 1.3 Consider and screen candidates according to nomination criteria and process for submission to the Board of Directors for approval.
- 1.4 Consider selecting individuals qualified and suitable to be nominated as directors of the company both in the case of vacancy due to retirement by rotation or in case of resignation to be presented to the Board and/or the shareholders' meeting for approval, as the case may be.
- 1.5 Consider selecting individuals qualified and suitable to be nominated as members of the Board's committees, and present them to the Board for approval.

2. Director Compensation

- 2.1. Propose compensation components, criteria and forms of remuneration for the company's directors and members of the Board's committees, such as retainer fees, bonus, meeting allowance and monetary and non-monetary benefits that are adequate and fair commensurate to the size of IRPC's business. Such compensation packages shall provide good incentives and enable the company to retain high-caliber directors, in alignment with shareholders' best interest. Director compensation must be approved by a resolution of the shareholders' meeting.
- 2.2. Determine director compensation linked to short- and long-term corporate strategies, ensuring compensation packages are appropriate commensurate to the size and complexity of IRPC's business. Director compensation must keep qualified directors motivated and help the company retain top talents as well as providing incentive for optimal performance to meet the corporate goals in the best interests of the company and shareholders.

3. Nomination of Chief Executive Officer and President, Senior Executives and N-1 Level Executives and Determination of Compensation

- 3.1. Consider and screen candidates and review their qualifications before nominating them for the positions of the Chief Executive Officer and President, senior executive or N-1 level executive. The nomination process must be conducted with due care to ensure suitability in alignment with the company's strategy and business direction and in the best interest of the company. The nomination shall be presented to the Board for approval. The nomination of the CEO and President shall be determined by the Board of Directors. For candidate to be nominated for the position of company secretary or head of Office of the Corporate Internal Audit, there is also requirement for compliance with applicable laws, the Audit Committee Charter and relevant regulations.
- 3.2. Consider the succession plan for the position of Chief Executive Officer and President, senior executives and N-1 level executives. Potential successors must be supported to get them ready to be promoted in the case the CEO and President, senior executives or N-1 level executives resign or become incapacitated so that the company can continue to function smoothly and conduct its business with optimal performance.
- 3.3. Determine the composition and goals for performance evaluation of the Chief Executive Officer and President. This performance evaluation form will also be used to determine proposed adjustments in CEO and President's compensation, which is subject to the Board's approval.
- 3.4. The performance of the Chief Executive Officer and President shall be evaluated against the composition and goals in the performance review that the Board has approved.
- 3.5. Determine compensation and annual increment rate of the Chief Executive Officer and President, gratuities, bonuses, and other monetary and non-monetary benefits, to presented to the Board for approval. The CEO and President's compensation should aligns with performance, business plan as well as being appropriate, reasonable and fair to provide incentive for the CEO/ President to create sustainable value to the business as well as enabling the company to retain talented executives.The CEO and President's compensation must be presented to the Board for approval.
4. Other Tasks Assigned by the Board.

Procedures for the Nomination of Directors

When the Nomination and Remuneration Committee has selected the candidates to be nominated for the position of director of the company or member of a Board's committee, the Committee shall vet the candidate's qualifications as determined by the Board according to the following conditions:

1. Consider the suitability of knowledge, experience, and expertise beneficial to the company or relevant to the company's business or the industrial sector to which it belongs so that Board meets the required composition and skills matrix that align to the company's business direction.
2. Consider Board skills matrix/Board diversity encompassing gender, age, race, nationality, along with hard skills and soft skills as well as sustainability factors. This is to ensure that Board effectiveness, enabling the Board to meet the well-balanced composition in terms of bodies of knowledge, talents, experience and diversity conducive to optimal performance. The Committee also takes into consideration Directors Pool that lists highly qualified individuals who have served as directors in state enterprises and private companies as maintained by the Thai Institute of Directors Association.
3. Ascertain that candidates to be nominated possess the qualifications and none of the prohibited characteristics according to the law and regulations of regulatory agencies, such as the Public Company Act 1992, and the Securities and Exchange Act 1992
4. Consider a director's track record for time dedication in the case of a former director returning to the position for another term. Attention should also be paid to the number of listed companies where they have served as directors to ensure they are able to dedicate their time and attention. The Committee shall conduct review to make sure the candidates do not exceed the limit on number of directorships they can hold concurrently in compliance with the January 24, 2011 Re: Appointment of high-ranking government officials or individuals to serve as directors in multiple state enterprises.
5. In the case of nominating a candidate as independent director, attention must be paid to independent characteristics according to the criteria set out by the SEC Office as well as the company's own guidelines.

The Committee shall also consider finding candidate for independent director in the event that one of the company's current independent directors was disqualified to make sure the Board structure and composition is in accordance with the policy set by the Board.

6. Take into consideration the term of office of independent directors (3-year term). In the case of a former independent director returning to office for another term, the Committee must make sure that the new term of office be considered as a continuation of the previous term. This is to ascertain that the rule limiting a director serving up to 3 consecutive terms, or a combined total of nine years, is followed.
7. Proceed to approach the individual who has qualifications according to the criteria to ensure that the said person is willing and available to accept the position of director of the company if appointed.
8. Propose a list of individuals whose qualifications have been vetted together with reasons to justify their nomination to the Board for a decision whether to endorse the nomination before it goes before the shareholders' meeting for approval. In the case of nomination of a replacement director to fill vacancy due to resignation during the year, the Board is authorized to appoint the new director in accordance with the company's Articles of Association and the Public Company Act.
9. As for the appointment of members of the Nomination and Remuneration Committee, the Committee shall take into consideration candidates that have suitable skills and knowledge, the composition of the Board's committee and apply the Board skills matrix/Board diversity framework and characteristics of independence before submitting the nomination to the Board of Directors for approval.

► 3. The Corporate Governance and Sustainability Committee

The Corporate Governance and Sustainability Committee shall consist of a minimum of three directors, with at least one of them an independent director. Its role shall be to formulate corporate governance guidelines and provide advice to the Board. Its current members are:



1)	Mr. Supot Laosuapha (deceased December 26, 2023)	Chairman of the Good Corporate Governance and Sustainability Committee
2)	Asst. Prof. Dr. Chaiyaporn Puprasert (Independent Director)	Member of the Corporate Governance and Sustainability Committee
3)	Mrs. Pranot Tirasai	Member of the Corporate Governance and Sustainability Committee

Miss Arisara Suthasut, Executive Vice President, Office of Corporate Affairs and company secretary, acting as secretary to the Corporate Governance and Sustainability Committee October 1, 2019 – Present.

Term of Office

1. Members' term of office shall be equal to that of their directorships (up to three years).
2. Member of the Corporate Governance and Sustainability Committee who retires by rotation may be re-appointed by the Board of Directors at its own discretion (not more than three consecutive terms, or a combined total of up to nine years. There will be no exceptions).
3. Remuneration of the Corporate Governance and Sustainability Committee shall be in accordance with the criteria approved by shareholders.

Duties and Responsibilities

1. Develop and advise the Board of Directors in establishing corporate governance policy framework and guidelines, along with code of conduct, anti-corruption, anti-bribery, promotion of human rights, equality, diversity and inclusion. The Committee also supports the Board in formulating GRC (Corporate Governance, Risk Management & Internal Control, and Compliance) framework that aligns with IRPC's operational structure, in line with international best practices, standards and rules or requirements of regulatory agencies along with reputable organizations at the national and international levels.
2. Review the appropriateness and adequacy of the corporate governance policy and the company's code of business conduct as well as to revise them to be consistent with good governance practices or international principles before presenting them to the Board.
3. Determine guidelines, oversight and monitoring mechanisms to ensure IRPC's operations are in compliance with defined policies and practices so as to continually improve and strengthen corporate governance and sustainability practices.
4. Review compliance with corporate governance policy and guidelines as well as other pertinent matters of significance.
5. Review and approve the corporate governance and sustainability report prior to disclosure in the annual report.
6. Approve methods for assessing the performance of the Board and its committees and report assessment results to the Board and shareholders every year.

7. Give advice, suggestions and recommendation pertaining to corporate governance guidelines to the Board of Directors, the management in further developing the company's corporate governance and sustainability structure and system.

Sustainability Mandate

1. Initiate and give advice on the development of sustainability policy framework, strategy and guidelines to meet standards and accomplish IRPC's stated objectives and goals, in alignment with international-accepted best practices or principles. This will help the company improve the competitiveness in its business operations while being able to respond more effectively to the expectations of stakeholders and shareholders by taking into account responsibility towards the community, society and environment to help the company achieve sustainable growth.
2. Initiate and give advice on the development of the company's sustainable development plan that aligns with the stated policy and strategy. Provide valuable input for sustainable development as well as to set sustainable development target based on the ESG (Environmental, Social and Governance) framework in line with applicable laws as well as national and international best practices.
3. Supervise and follow up on the progress of the company's sustainability development as well as disclosing information on outcomes of the implementation of business strategy for sustainability in accordance with relevant criteria, standards and guidelines.
4. Review and revise the company's sustainability policy and guidelines to keep them up-to-date and correspond with evolving situations.
5. Review and approve the Sustainability Report before its publication.
6. Perform other tasks assigned by the Board.

► 4. The Risk Management Committee

The Risk Management Committee shall consist of at least three directors who are petroleum or petrochemical experts. The committee is tasked with formulating risk management policy, risk management plan and procedures across the entire company that are aligned with IRPC business plan and strategies. Its current members are:



1)	Miss Siriwan Chierapong (Independent Director)	Chairperson of the Risk Management Committee
2)	Miss Piangpanor Boonklam	Member of the Risk Management Committee
3)	Mr. Prasong Intaranongphai	Member of the Risk Management Committee
4)	Mr. Pornchai Thiraveja	Member of the Risk Management Committee
5)	Mr. Kris Imsang	Member of the Risk Management Committee

Mr. Pranarch Kosayanont, Executive Vice President, Strategy, Planning and Business Development acting as secretary to the Risk Management Committee January 2023 – Present

Term of Office

- 1) The term of office is the same as the term of office of the company's directors (Not more than 3 years).
- 2) Member of the Risk Management Committee who retires by rotation may be re-appointed by the Board of Directors at its own discretion (not more than three consecutive terms, or a combined total of up to nine years. There will be no exceptions).

Duties and Responsibilities

1. Formulate suitable, effective policy and give recommendations on the management of risks associated with IRPC's business operations.
2. Provide oversight for enterprise-wide risk management, starting with identification of risks based on internal and external factors. Risks are assessed based on impact and likelihood of them happening, so appropriate risk management measures can be taken.
3. Develop risk management systems and promote effective use of risk management tools, such as derivatives, futures and hedging, etc.
4. Supervise, monitor and review the corporate risk management to ensure its effectiveness as well as assessing compliance with the risk management framework.

5. Report risk management assessment results and risk mitigating activities to the Board on a regular basis, and in the case of risk event that may adversely affect IRPC's operations, report to the Board without delay.
6. Provide support for establishment and continuing development of risk management that is constantly in alignment with IRPC's business plan.
7. Screen and give advice on risk management for investment projects or activities with considerable technical complexity, long-term obligations, and are potentially exposed to significant risks.
8. Disclose the report of the Risk Management Committee in the annual report.
9. Perform other tasks assigned by the Board.

The Management and Management-Level Committees

The Board of Directors assigned the Chief Executive Officer and President, the highest-ranking executive of the management, to discharge of his duties in managing the company's operations in accordance with the objectives, regulations and policies set by the Board. The scope of authority of the CEO and President is clearly defined in writing along with regulations, rules of the company for the implementation of works for executives and employees to acknowledge and follow.

► Chief Executive Officer and President

The Board of Directors assigned the Chief Executive Officer and President, the highest-ranking executive of the management, to discharge of his duties in managing the company's operations in accordance with the objectives, regulations and policies set by the Board. The scope of authority of the CEO and President is clearly defined in writing along with regulations, rules of the company for the implementation of works for executives and employees to acknowledge and follow.

Mr. Kris Imsang has served as Chief Executive Officer and President from October 1, 2022 to Present.

Duties and Responsibilities

1. Ensure that the company operates in compliance with applicable laws, its objectives and Articles of Association, Board's policies, and shareholder resolutions.
2. Take charge of the management staff, employees, and personnel, including matters relating to hiring, appointments, work regulations, salary scales, wages, welfare benefits, transfers, removals, dismissals, reshuffles, pay adjustments, promotions, disciplinary actions under the Board's policy framework.
3. Implement policies, strategic plan, business plan in accordance with IRPC's vision and mission under the operational framework approved by the Board of Directors, with efficiency and in the company's best interest.
4. Approve investment budgets, inventory, procurements, operating expenses under the business plan and within the annual budget approved by the Board.
5. Manage cashflows, investment projects, budgets, and risk management plans and procedures with optimal efficiency, under the guidelines and within the scope of authority granted by the Board.
6. Review IRPC's operating results and consider proposing interim or annual dividend payment (if any), which must be approved by the Board or the resolution of the shareholders' meeting (as the case may be).

7. Evaluate the company's performance and report progress status of the implementation of the business plan to the Board on a quarterly basis.
8. Lead by example with integrity and compliance with code of conduct.
9. Provide leadership and serve as a role model to encourage and motivate employees to adopt the IRPC corporate culture. The CEO and President shall also be an astute decision-maker and good communicator to inspire confidence and enhance the corporate image, with emphasis on environmental stewardship, social responsibility, and community development as well as work safety and occupational health for the employees.
10. Implement IRPC's anti-corruption and anti-bribery guidelines.
11. Ascertain that IRPC stays committed to achieving the UN Sustainable Development Goals (SDGs) and Good Corporate Citizenship.
12. Undertake to support the company's operations in every way within the scope of authority granted by the Board.

► Senior Executive Officers

IRPC's six senior executive officers according to the Securities and Exchange Commission's definition, as of December 31, 2023, consist of:

No.	Name	Position
1.	Mr. Kris Imsang	Chief Executive Officer and President
2.	Mr. Woravuth Sivapetranart	Senior Executive Vice President, Operations
3.	Mr. Pranach Kosayanon	Acting Senior Executive Vice President, Corporate Strategy, Planning and Business Development
4.	Mr. Pichin Apiwannaporn	Senior Executive Vice President, Corporate Accounting and Finance
5.	Miss Wanida Utaisomnapa	Senior Executive Vice President, Corporate Commercial and Marketing
6.	Mr. Poramet Junwichit	Senior Executive Vice President, Corporate Organization Effectiveness and Digital

Duties and responsibilities

1. Implement the Chief Executive Officer and President's policies and goals.
2. Determine and align their respective work functions' strategic plans, objectives, and primary goals with IRPC's vision and mission
3. Ensure the accomplishment of predetermined goals, objectives and short- and long-term strategic plans under the management framework according to organizational structure within the scope of their assignments.
4. Provide advice, support, assist, and find solutions to problems for their team. They shall also create motivation and a work environment that maximize employees' performance efficiency.
5. Encourage personal development among employees in order to realize their full potential for their own and the company's best interest.
6. Foster the company's sustainable growth under good corporate governance principles, with due regard to social responsibility and environmental stewardship.
7. Lead by example and serve as role model for subordinates.

► Management Committee

To bolster systematic operational efficiency and strengthen connections and good coordination within IRPC and in its interaction with joint ventures and subsidiaries, the CEO and President established the Management Committee (MC), consisting of the CEO and President, senior executive vice presidents and executive vice presidents of all business units. The Executive Vice President, Corporate Affairs, serves as the secretary to the Management Committee.

With weekly meetings scheduled for Mondays for the entire year, the Management Committee held a total of 42 meetings in 2023.

Duties and Responsibilities

The Management Committee has a duty to consult and make joint decisions on key issues which have implications for the company's strategies, business direction, operational plans, performance, investment plans, budgets, human resource management approach and allocation of resources to the company or its associate companies as well as systematic management to leverage synergies and move in the same direction. The Management Committee also provides crucial information to the CEO and President who can then make evidence-based decisions or to refer decisions to the Board in the case the matter is beyond the scope of the CEO and President's authority. The duties of the Management Committee can be summarized as follows:

- 1) Establish corporate vision and main mission of the company and companies within IRPC Group.
- 2) Set the business direction, corporate strategies and goals of IRPC and companies within IRPC Group along with overall operating results.
- 3) Determine the corporate governance, GRC integration, sustainable business operations, human resource management and development, quality, safety, occupational health, and environmental management, as well as corporate social responsibility IRPC and companies within IRPC Group.
- 4) Review and evaluate budgetary and resource allocation structure for investments and support the operations of IRPC and companies within IRPC Group.
- 5) Consider and scrutinize IRPC Group's investment portfolio management.
- 6) Scrutinize key operations, including issues that may impact or cause change in the main operations of IRPC and companies within IRPC Group, such as adaptation, business expansion, diversification of investments, joint-investments, joint ventures and project implementation, etc.
- 7) Establish IRPC Group's human resource management policy to step up preparedness for future challenges, including systematic and effective executive development at IRPC and companies within IRPC Group.
- 8) Scrutinize and establish the IRPC Group Way of Conduct as well as to ensure the initiative is effectively implemented to produce the intended results and achieve predetermined targets.
- 9) Scrutinize and give opinions on standards of and mechanisms for the management of human resource, corporate structure and business processes as well as operational risk management, prevention of corruption of IRPC and companies with IRPC Group.
- 10) Monitor the overall corporate performance in various aspects, such as innovation and technology as well as efforts to promote and support operational efficiency of business units at IRPC and companies within IRPC Group.
- 11) Consider, scrutinize, suggest, and approve the meeting agenda before presenting to the Board of Directors' meeting.
- 12) Follow up on and translate into actions recommendations and comments given at the Board meetings and/or Board's committee meetings.
- 13) Appoint a subcommittee and/or working group to support the work of the Management Committee in order to improve effectiveness.
- 14) Screen/approve procurements and investments within the approval authority of the Chief Executive Officer and President, or as assigned the CEO and President.
- 15) Perform any other tasks assigned by the Chief Executive Officer and President.

Auxiliary Risk Management Committee at the Management Level

In addition to the Risk Management Committee at the Board's committee level, IRPC has established at the management level the following auxiliary risk management committees, workgroups, and risk agents to monitor enterprise-wide risk management activities and ensure greater efficiency in the company's overall risk management and internal control systems:

1. Risk Management and Internal Control Committee (RMCC)
2. Supply Chain and Hedging Committee (SCHC)
3. Risk Manager responsible for managing overall risk management of work units.
4. Risk Owner responsible for risk management and determination of risk management plan.
5. Risk Agent responsible for coordinating among work units or projects to develop joint risk management plans and to report progress status of risk management or risk management outcomes to departmental manager or project manager to ensure the adequacy and suitability of risk management at the work unit level.

Other Committees and Working Groups

The Chief Executive Officer and President has also appointed Committees and other sub-committees as appropriate for the company's strategic plan and the company's situations in order to manage, drive, execute or screen operations regarding assigned duties, for example,

1. Rayong Factory Group Management Committee (RMM) to manage and integrate the overall work of the group of Rayong factories to be in line with the vision, mission, and to be ready to achieve the corporate goals.
2. Human Resources and Organization Potential Management Committee (HOMC) to screen and advise on standards, mechanisms of Human Resource Management, organizational structure, and succession plan.
3. IRPC Subsidiary Alignment Management Committee (ISAC 1) to supervise subsidiaries in which the company holds more than 50 percent of shares.
4. IRPC Subsidiary Alignment Management Committee (ISAC 2) to supervise associate companies in which the company holds between 25-50 percent of shares.
5. License Management Committee under Section 9 to manage public land use matters and transparent handling and resolution of issues relating to community complaints in the best interest of both communities and the company's business operations.
6. Environmental Quality Management Committee (EMC) to manage environmental quality and accountability to the society of IRPC Group in alignment with the quality, security, safety, occupational health, environment and energy management (QSSHE).
7. Management team at departmental manager level to drive operations according to the company's strategy with a meeting of executives at the level of departmental manager and above (VP meeting) once a month.

Compensation

► Compensation of the Chief Executive Officer and President

The Nomination and Remuneration Committee determines the CEO and President's compensation based on well-defined, transparent, fair, and reasonable criteria, taking into account the CEO and President's duties, responsibilities and the company's operating results. The proposed compensation of the CEO and President is then submitted to the Board for approval.

Determination of compensation of the CEO and President follows the procedural steps that correspond with the performance appraisals as follows:

1. The Nomination and Remuneration Committee proposes the compensation components and criteria for performance evaluation to the Board for consideration at the beginning of the year.
2. The Board approves the proposal and notifies the CEO and President of the performance review criteria.
3. The Nomination and Remuneration Committee conducts performance appraisal of the CEO and President based on the established criteria throughout the year. The Committee takes into account key components of the overall performance, such as the company's business situations, handling of challenges facing the company, crisis management and communication, community relations, environmental stewardship, response to corporate governance issues and corporate image management, etc.

4. The Nomination and Remuneration Committee presents the performance evaluation results of the CEO and President, along with the proposed annual compensation adjustments, to the Board for approval in December.

► Executive Compensation

IRPC annually evaluates the performance of executive officers at all levels. The company's Performance Management System (PMS) consists of three components:

1. Key Performance Indicators (KPIs) are an important component in which the performance of each executive is evaluated against desirable outcomes that align with the corporate goals, including operating results and financial results linked to their duties and responsibilities.
2. Competency
3. Desired Behavior

is a tool for evaluating the performance behavior that is expected of all executives and employees while performing their duties. Positive performance behavior is supposed to enhance the company's ability to achieve goals in a sustainable manner.

In 2023, there were six high-level executive officers according to the SEC's definition, who together received compensation in the forms of salary, bonus and provident fund contributions, totaling Baht 45.62 million, as shown in the table below:

(Unit: Million Baht)

Remuneration	2020 (7 executives)	2021 (6 executives)	2022 (8 executives)	2023 (6 executives)
Compensation				
Salary	33.59	30.85	36.15	35.24
Bonus	15.3	6.7	18.7	6.50
Other compensation				
Provident fund contribution	4.66	4.42	5.21	5.15
Total	53.55	41.97	60.06	45.62

In 2023, there were four executives who together received compensation serving as directors at IRPC A&L Company Limited (a subsidiary), totaling Baht 1.55 Million.

Securities holdings of executives, according to the SEC definition, spouses and minor children as of December 31, 2023

No.	Name	As of Dec. 31, 2022 Shareholding Number	As of Dec. 31, 2023 Shareholding Number of shares	Number of shares increase (decrease) during the year	WARRANT/ NVDR/ TSR/ DW 2023	Notes:
1.	Mr. Kris Imsang	N/A	N/A	Unchanged	N/A	
	Spouse	N/A	N/A	Unchanged	N/A	
	Minor children	N/A	N/A	Unchanged	N/A	
2.	Mr. Pranarch Kosayanont		0.00120% 245,292	Unchanged	N/A	
	Spouse		N/A	Unchanged	N/A	
	Minor children		N/A	Unchanged	N/A	
3.	Mr. Phichin Aphiwantanaporn	N/A	N/A	Unchanged	N/A	
	Spouse	N/A	N/A	Unchanged	N/A	
	Minor children	N/A	N/A	Unchanged	N/A	
4.	Miss Wanida Uthaisomnapa	0.00103% 210,440	0.00103% 210,440	Unchanged	N/A	
	Spouse	N/A	N/A	Unchanged	N/A	
	Minor children	N/A	N/A	Unchanged	N/A	
5.	Mr. Poramet Junwichtit	N/A	N/A	Unchanged	N/A	
	Spouse	N/A	N/A	Unchanged	N/A	
	Minor children	N/A	N/A	Unchanged	N/A	
Executives completed their term/resigned during the year						
1.	Mr. Worawut Sivapetcharanat	0.00137% 279,351	0.00137% 279,351	Unchanged	N/A	completed term December 31, 2023
	Spouse	N/A	N/A	Unchanged	N/A	
	Minor children	N/A	N/A	Unchanged	N/A	

As of December 31, 2023 and over the past 5 years, no directors or executives of IRPC have any records of wrongful activities under the Securities and Exchange Act 1992 or the Derivatives Act 2003, or any of the following:

- (1) Dishonesty or gross negligence.
- (2) Disclosure or dissemination of false information or statements that may cause misunderstanding, or concealing essential facts that ought to be disclosed, which may have affected the decisions of shareholders, investors, or concerned parties.
- (3) Unfair conduct or taking unfair advantage of investors in the trade in stocks, derivatives, or futures or having taken part in or supported such misconducts.

IRPC Directors on the Boards of Subsidiaries as of December 31, 2023

1. IRPC Oil Company Limited

No.	Name	Position
1.	Mr. Kunchit Rongdach	Chairman
2.	Mr. Kwanchai Luengchaichan	Director
3.	Mr. Panutat Kiatananchai	Director
4.	Mr. Surachai Toaphicharttrakul	Director
5.	Mr. Pongsak Wattanakarunwong	Managing Director

2. IRPC Polyol Company Limited

No.	Name	Position
1.	Mr. Sergiusz Stefanowski	Chairman
2.	Mr. Kris Imsang	Director
3.	Mr. Phichin Aphiwontanaporn	Director
4.	Mr. Woravuth Sivapetranart	Director
5.	Mr. Rafal Zdon	Director
6.	Mr. Waldermar Franz Preussner	Director
7.	Ms. Soh Bee Hong	Director
8.	Mr. Kraisri Phankitnirundon	Managing Director

3. IRPC Technology Company Limited

No.	Name	Position
1.	Mr. Poramet Junwichit	Chairman
2.	Miss Arisara Suthasut	Director
3.	Mr. Surachai Toaphicharttrakul	Director
4.	Mrs. Suchinda Ploymontree	Director
5.	Mr. Preeda Boonsilp	Managing Director

4. IRPC A&L Company Limited

No.	Name	Position
1.	Miss Wanida Utaisomnapa	Chairman
2.	Mr. Phichin Aphiwontanaporn	Director
3.	Mr. Woravuth Sivapetranart	Director
4.	Mr. Pranarch Kosayanont	Director
5.	Mr. Anucha Somjitchob	Director
6.	Mr. Soji Sakamoto	Director
7.	Mr. Hideyuki Tokimasa	Director
8.	Mr. Dai Yamashita	Director
9.	Mr. Takayuki Mano	Director
10.	Miss Promporn Sinsoke	Managing Director

5. Rakpasak Company Limited

No.	Name	Position
1.	Mr. Somboon Sadsin	Chairman
2.	Mr. Surachai Toaphicharttrakul	Director
3.	Mr. Chokchai Olansirikul	Director
4.	Mr. Panutat Kiatananchai	Managing Director

6. iPolymer Company Limited

No.	Name	Position
1.	Miss Wanida Utaisomnapa	Chairperson
2.	Miss Athita Anantaturakarn	Director
3.	Miss Suwanee Buranapraditkul	Director
4.	Mr. Hu Jie Zhang	Director
5.	Mrs. Liu Yuhong	Director
6.	Mrs. Wandee Banyongkarat	Managing Director

7. Innopolymed Company Limited

No.	Name	Position
1.	Mr. Savara Kwangsopa	Chairman
2.	Miss Athita Anantaturakarn	Director
4.	Mr. Anucha Somjitchop	Director

Positions of Directors and Executives in Subsidiaries/ Associate Companies/Related Companies (as of 31 December 2023)

No.	Name	Company	Subsidiaries				Joint Venture			Associate Company	Related Companies	
		IRPC Public Company Limited	IRPC Technology Company Limited	IRPC A&L Company Limited	iPolymer Company Limited	IRPC Polylol Company Limited	WHA Industrial Estate Rayong Company Limited	Mitex Polymer (Thailand) Company Limited	UBE Chemicals (Asia) Public Company Limited	IRPC Clean Power Company Limited	PTT Public Company Limited	Energy Complex Company Limited
1.	Dr. Siri Jirapongphan	x										
2.	Mr. Yodchat Tasarika	/										
3.	Miss Siriwan Chierapong	/										
4.	Mr. Chansak Chuenchom	/									//	x
5.	Mr. Supot Laosuapha ⁽¹⁾	/										
6.	Miss Piangpanor Boonklam	/									//	
7.	Asst. Prof. Dr. Chaiyaporn Puprasert	/										
8.	Mr. Petai Mudtham	/										
9.	General Aittipol Suwannarat	/										
10.	Mr. Prasong Intaranongphai	/									//	
11.	Mrs. Pranot Tirasai ⁽²⁾	/										
12.	Mr. Pornchai Thiraveja ⁽³⁾	/										
13.	Mr. Somchai Rangsithananon ⁽⁴⁾	/										
14.	M.D. Korn Pongjithdham ⁽⁵⁾	/										
15.	Mr. Kris Imsang	/, //				/					//	
16.	Mr. Somnuk Bomrungsalee ⁽⁶⁾	/										
17.	Dr. Anusorn Saengnimnuan ⁽⁷⁾	/										
18.	Mr. Jumpol Sumpaopol ⁽⁸⁾	/										
19.	Dr. Ekniti Nitithanprapas ⁽⁹⁾	/										
20.	Mr. Woravuth Sivapetranart ⁽¹⁰⁾	//		/		/	/			/		
21.	Mr. Phichin Aphiwantanaporn	//		/		/	/	/	/	/		
22.	Miss Wanida Uthaisomnapa	//		x	x		/	/	/			
23.	Mr. Pranarch Kosayanont	//		/				x		/		
24.	Mr. Poramet Junwicht	//	x									

Notes: X = Chairman / = Director // = Executive

⁽¹⁾ Mr. Supoj Laosuapa passed away on December 26, 2023.

⁽²⁾ Mr. Pranot Tirasai was appointed as director at the AGM on April 5, 2023.

⁽³⁾ Mr. Pornchai Thiraveja was appointed as director at the AGM on April 5, 2023.

⁽⁴⁾ Mr. Somchai Rangsithananon was appointed as director at the AGM on April 5, 2023.

⁽⁵⁾ M.D. Korn Pongjithdham was appointed as independent director at the AGM on April 5, 2023.

⁽⁶⁾ Mr. Somnuk Bomrungsalee completed his term at the AGM on April 5, 2023.

⁽⁷⁾ Dr. Anusorn Saengnimnuan completed his term at the AGM on April 5, 2023.

⁽⁸⁾ Mr. Jumpol Sumpaopol completed his term at the AGM on April 5, 2023.

⁽⁹⁾ Dr. Ekniti Nitithanprapas completed his term at the AGM on April 5, 2023.

⁽¹⁰⁾ Mr. Woravuth Sivapetranart retired on December 31, 2023.

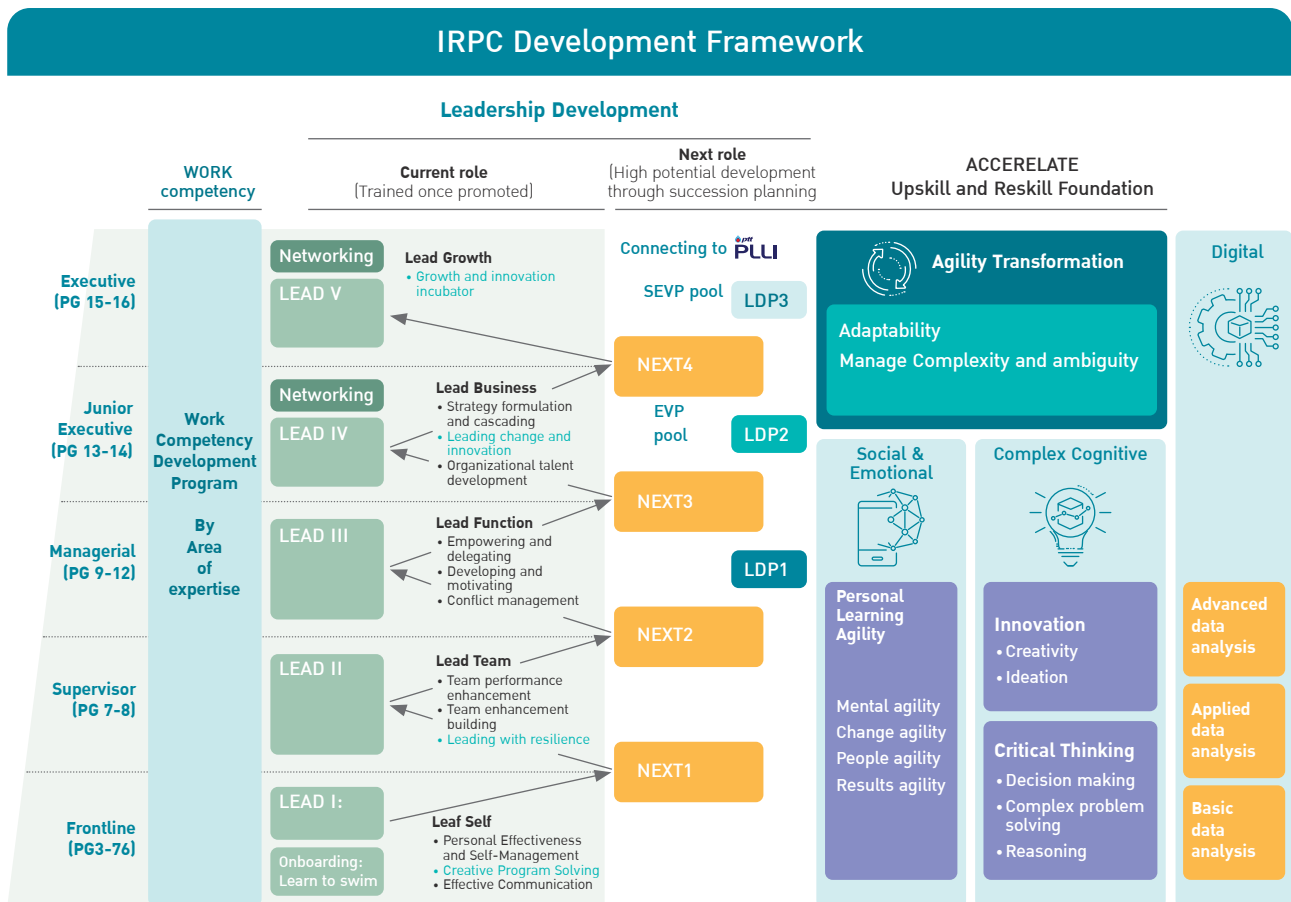
Employees

► Human Resource Management

The company has set a framework for business strategy implementation and reorient business direction by focusing on strength from our internal team. The business expansion starts with our expertise in the current business value chain to exploring new business opportunities to steer the company toward growth in line with our vision and mission to become a sustainable Material and Energy Solutions company. This is achieved by investing for future growth, focusing on collaborating with suppliers, customers, and business partners (JV, M&A, New S-Curve, Startup) both domestically and internationally. IRPC's human resource development seeks to prepare individual employees and promote desirable performance behavior to support the strategy to achieve the following outcomes:

1. Employee Competency Development

In order for IRPC to be competitive in its industrial sector, the company has set the IRPC Development Framework to be in line with the corporate goals, specifically Competency-Based Learning, with the aim to develop employees from new hires to the senior executive level. This consists of developing knowledge and competencies according to their level of responsibilities and functional work group in line with Work Competency, Leadership Competency, and Future Skill development programs (Upskill & Reskill) as follows:



Source: Korn Ferry, Digital Leadership, World Economic Forum: future of jobs, McKinsey Global institutes, RAND Corporation: Skilled workforce for Oil and Gas industry

1.1 Work competency development by grouping of performance linked to the overall work according to value chain to develop employee knowledge and skills to suit their roles, duties and responsibilities. Employees are encouraged to develop their self improvement to build capabilities to meet professional standards. At present, seven competencies have been identified for employee development so that employees will be able to apply new knowledge and skills for optimal performance.

1.2 Leadership Competency focuses on leadership development and business knowledge of employees at each level as follows:

- Onboarding development through learning programs in various formats, from the orientation for new employees, self-development, specialized, and common courses, such as QSHE operational approach, including curricula that align with the concept of competency and the required corporate governance principles.
- LEAD 1 (Leadership Development Program 1) is designed for entry-level employees to learn basic of business operations and self-knowledge, including teamwork skills (Lead Self).
- LEAD 2 (Leadership Development Program 2) is designed for employees to learn about business operations and skills required for effective team leaders (Lead Team).
- LEAD 3 (Leadership Development Program 3) is designed specifically for leadership development, focusing on fostering key skills/leader of management team, along with business management program as well as effective leadership role for change management (Lead Function).
- VP/LEAD 4 (Junior Executive Leadership Development Program 4) is designed for young executives, focusing on leadership and business for corporate strategic planning (Lead Business). This program includes curricula and seminars offered by external

training providers, such as Thailand Management Association (TMA), Center for Creative Leadership (CCL), Sasin's Senior Executive Program (SEP), Executive Development Program (EDP) of Fiscal Policy Research Institute, King Prajadhipok's Institute, etc.

- LEAD 5 (Executive Leadership Development Program 5) is designed for high-level executives, focusing on leadership and business development for corporate growth (Lead Growth).
- Leadership development program for high-caliber executives of employees who are destined for the Next Role. This program fosters Talent Pool Development through Succession Planning.
- Programs for senior executive development jointly developed with PTT Group include Leadership (LDP I – III) for executives in the VP/EVP/SEVP Pool.

2. Individual Development

IRPC has developed Success Profile framework to build a Management Pool along with Succession Planning that target senior executives who have consistently proven to be highly significant to the company's business. IRPC has also introduced Individual Development Plan (IDP) to build capabilities that enable employees to perform tasks effectively and achieve goals in their line of work. This is to ensure continuous enhancement of management efficiency in preparation for IRPC's future growth.

3. Enhance Performance Behavior

IRPC has launched the G3 (Good, Great, Growth to Success) to promote desirable performance behaviors among executives at all levels. The campaign is linked to the company's human resource management systems, including performance management systems, etc., to foster positive behaviors "Good, Great, Growth" in every employee who together can make significant contribution to the success of their work units and the company. Details of the campaign are as follows:



Culture	Meaningful	Key Behaviors
Good as in taking responsibility to do good	IRPC employees are ethical, upright, transparent, and respectful of different opinions and responsible to the organization, society, and the environment.	1) Integrity & Ethics: ethical, committed to doing the right thing, being transparent and following IRPC's good business practices. 2) Trust & Respect: Believe in others, respectful of different opinions, make positive impressions in every relationship. 3) Sustainability: Behave responsibly towards the organization, society, and the environment in a sustainable manner.
Great as in "Talented" and up to date in the world of business	IRPC employees have the depth and breadth of knowledge, with shared values to deliver great results for IRPC Group and partners.	1) Inclusive Competency: Inclusive Competency: Continual development, deep knowledge, broad knowledge that come with inclusive diversity. 2) Solution & Synergy Value: Creation through combined efforts. 3) Deliver Corporate Result: Deliver Corporate Result: Delivers great business results for IRPC Group and its partners.
Growth to Success as in "Courage" to be successful	IRPC employees think differently, create new things, drive innovations, have the courage to take responsibility, to accomplish a successful future.	1) Leadership: Extremely dedicated, highly energetic, daring to be different for a better future for IRPC. 2) Change, Transformation & Innovation: Challenge the status quo, explore new opportunities to innovate, and tap into emerging trends to grow the company's business. 3) Accountability & Commitment: Make bold, well-informed decisions, be mindful of possible impacts, and take full responsibility for our actions.

4. Employee Engagement

To enhance employee wellbeing in the workplace, IRPC has implemented an employee engagement program to establish a balance between developing employees' skills to work efficiently while keeping them happy. The company has taken it upon itself to take good care of employees' physical and mental health through the following activities:

- Conduct employee engagement survey on a yearly basis to hear what employees think about their workplace and various aspects of working environment. In 2023, the company received employee engagement scoring of 86%, which was comparable to leading companies within the same industrial sectors. This provided valuable input for an ongoing effort by the company to further improve positive relationship with its employees.
- Combine Work Smart from Home with working in the office in keeping with the latest trend that aligns seamlessly with digitalization of work processes while improving resource efficiency and optimizing office space utilization.
- Promote physical and mental health by launching awareness campaign to help employees avoid cardiovascular diseases linked to sedentary lifestyle. Employees are encouraged to find time for regular exercises or physical activities, such as walking, jogging, cycling, etc. Health tips, including active lifestyle, balanced diet for people susceptible to cardiovascular diseases and stress management.

Implementation of various employee care activities contributed to lower employee turnover. In 2023, IRPC registered 0.28% employee turnover rate. IRPC conducted exit interviews to learn and further improve employee treatment, employee welfare, and other benefits.

In addition, IRPC is committed to make contribution in improving the quality of life of persons with disabilities and to provide them with opportunities for employment to gain financial independence. This is to help unlock the potential of persons with disabilities as a significant group to actively participate in the country's economic and social development, especially those in the working age bracket under the Promotion and Development of the Quality of Life of Persons with Disabilities Act 2007. In 2023, IRPC, pursuant to Section 33 of the Act, employed four persons with disability, and pursuant to Section 35, promoted livelihood for 49 disabled persons. The number of persons with disability that benefited from the company's program totaled 53, which met the legal requirement to hire one person of disability for every 100 able-bodied persons.

Number of Employees

As of the end of 2023, IRPC and its subsidiaries had a total of 4,441 employees. Of this, 4,378 were employees of IRPC Public Company Limited and 63 were employees of subsidiaries. Details are as follows:

No.	Department	Number of Employees
1.	Administrative staff of the Chief Executive Officer and President	373
2.	Accounting and Finance	118
3.	Commercial and Marketing	198
4.	Corporate Strategic Planning	76
5.	Management, Organization Development and Digitalization potential	236
6.	Operations	3,377
Total employees of IRPC Public Company Limited		4,378
Total employees of subsidiaries		63
Total		4,441

Employee Remuneration

IRPC and its subsidiaries paid employees compensation in the forms of salary, wages, overtime pay, bonuses, provident fund contributions, social security contributions, employee benefits and others, in 2021-2023 as follows:

Employee Remuneration	Amount (Baht)		
	2021	2022	2023
Salary, bonuses, wages, overtime pay, and other benefits	8,777,635,515.79	7,666,719,086.00	7,173,698,411.35
Contribution to provident fund and social security	449,523,278.29	441,509,394.00	462,762,271.17
Total	9,227,158,794.08	8,108,228,480.00	7,636,460,682.52

The number of employees joining the provident fund scheme accounts for 85.49% of all employees. Through its provident fund committee, IRPC selects a provident fund manager who is a signatory of the Investment Governance Code for Institutional Investors (I Code) as well as takes into consideration past investment performance.

Other important information

► Company Secretary



Miss Arisara Suthasut

has served as Company Secretary October 1, 2019 – Present
(Miss Arisara Suthasut's professional profile appears in Executive Profiles section Page 50)

In compliance with the Securities and Exchange Act 1992, its 2008 amendments, and the Corporate Governance Code, the Board of Directors has appointed the Executive Vice President, Office of Corporate Affairs, as Company Secretary, tasked with performing the duties outlined in the Securities and Exchange Act 1992, other applicable laws and notifications of the Capital Market Supervisory Board.

Duties and Responsibilities

1. Provide directors with basic advice on matters relating to laws, regulations, company's Articles of Association, monitor corporate compliance, and report material changes to the Board.
2. Organize Board and shareholders' meetings in accordance with the law, IRPC's Articles of Associations, and customary practices.
3. Record the minutes of Board and shareholders' meetings and ensure compliance with or execution of Board and shareholders' resolutions.
4. Ascertain that information and data are disclosed to regulatory authorities in conformity with rules and regulations.
5. Prepare and catalog important documents, the Board of Directors' roster, meeting notices, meeting minutes, the company's annual reports, shareholders' meeting invitation, shareholders' meeting minutes, directors and management's conflicts of interest reports, and other actions required by the Capital Market Supervisory Board and relevant laws.
6. Prepare information and reports pertaining to the Board and corporate governance, which are needed to apply for membership, certification for good corporate citizenship and compliance with national and international standards.
7. Implement anti-corruption activities in accordance with the Board's policies and measures.
8. Acquire information, build knowledge base, and adopt best practices relating to the company secretary's duties and responsibilities, and keep abreast of corporate governance practices at national and international levels, and apply them as appropriate. The company secretary also attends training programs and workshops to stay up to date on changes and trends in laws, regulations and evolving corporate governance management approaches.
9. Facilitate one- and two-way communication channels for the discussion and dissemination of information on good governance with IRPC's stakeholders, including investors, shareholders, the media, and the public.

Person Assigned the Direct Responsibility of Supervising Accounting

Mr. Surachai Toaphicharttrakul has served as Accounting Manager August 1, 2013 – Present (Mr. Surachai Toaphicharttrakul's professional profile appears in Executive Profiles section Page 51)

Mr. Surachai Torapichattrakul Accounting Manager was assigned as the person supervising accounting on August 1, 2013. Graduated with a Master of Business Administration. (Accounting for Planning and Control) Kasetsart University and has passed training for continuous knowledge development in accounting for not less than six hours per year, in compliance with the requirements of the Department of Business Development's notification, and has all the qualifications in accordance with notifications of the Stock Exchange of Thailand.

► Head of Internal Audit

Mr. Siraphong Wisetsuwan Senior Manager holds the position of Manager of Office of Corporate Internal Audit and secretary to the Audit Committee 1 January 2023 – Present,

to support the work of the Audit Committee, to organize meetings of the Audit Committee, including implementation in accordance with the Audit Committee's policy. (Mr. Siraphong Wisetsuwan's professional profile appears in Executive Profiles section, page 52)


► Head of Compliance

Miss Arisara Suthasut Executive Vice President, Office of Corporate Affairs, is responsible for corporate compliance, to promote and facilitate oversight for corporate compliance, including ensuring that IRPC executives and employees and those of its subsidiaries abide by relevant laws and regulations. (Miss Arisara Suthasut's professional profile appears in Executive Profiles section, page 50)

► Head of Investor Relations (IR)

Miss Athita Anantaturakarn, Manager, Finance and Investor Relations, is responsible for investor relationships, coordinating among companies and stakeholders, such as shareholders, analysts, investors, suppliers, regulatory authorities and the media, to disseminate information effectively while listening to outsider views and opinions as valuable input.

Contact Investor Relations

E-mail:	ir@irpc.co.th
Telephone:	0-2765-7380
Fax:	0-2765-7379
Line:	

► Appointment and Remuneration of the Auditor

IRPC Public Company Limited

In 2023, the Audit Committee nominated EY Office Company Limited “(EY)” as the auditor for IRPC. The nomination was approved by the Annual General Meeting of Shareholders. EY is an independent auditor with a longstanding reputation. It has no relations and/or vested interest in IRPC, its subsidiaries, directors, executives, majority shareholder, or related persons. The audit fee for the year 2023 was 2,600,000 Baht, which was the same as that of 2022. This fee, however, did not include other accrued expenses, such as travel allowances, miscellaneous expenses, etc., but not exceeding 130,000 Baht, which were billed according to customary practice.

Audit fee (Unit: Baht)	2022 (Auditor: EY)	2023 (Auditor: EY)
Audit fee	2,600,000	2,600,000
Non-audit fee	N/A	N/A

Subsidiaries and Associated Companies of IRPC Public Company Limited

EY Office Company Limited “(EY)” was nominated as the auditor for the year 2023 of 6 subsidiaries and associated companies, namely IRPC Oil Company Limited, IRPC A&L Company Limited, IRPC Technology Co., Ltd., Rakpasak Co., Ltd., iPolymer Co., Ltd. and Innopolymed Co., Ltd., for audit fee of 1,040,000 Baht.

Report on Key Corporate Governance Activities

Summary of the Board's Performance in the Past Year

Nomination, Director Development and Board Performance Evaluation

► 1. Nomination and Appointment of Directors and Top Management

Independent Directors

Details of the company's independent directors, their duties and responsibilities appear under "Independent Directors" section, Page 225.

Nomination of Directors

The Board's policy mandates that members of the Board of Directors must come from diverse backgrounds. Priority is given to required competencies that will strengthen and complement the composition of the Board. Individuals with qualifications, experience, and expertise are considered regardless of their gender, religion, or ethnicity. Further details on this matter appear under "Composition and Qualifications of the Board of Directors" section, Page 224.

As for the nomination of director candidates, IRPC considers suitable and deserving individuals. Both majority and minority shareholders, in addition to the Nomination and Remuneration Committee, have the right to propose director candidates. All nominations must be endorsed by the Nomination and Remuneration Committee and approved by the Board, or shareholders (as the case may be). Details about the methods and procedures of director nomination appear under "The Nomination and Remuneration Committee" section, Page 232-235

Separation of the Board Chairperson and CEO/President

The Public Limited Company Act does not prohibit one person from simultaneously holding both the positions of Chairperson of the Board and CEO. However, the Board has key roles and responsibilities to determine directions of the company, formulate policies and monitor the management's performance. Having the CEO, who heads company's management team, to also chair the Board could give rise to undue dominance that undermines the Board's ability to function effectively. Such arrangement could also result in the Board being blindsided by the CEO who may withhold certain vital information or present selective information, or exercising power as Chairperson to make decisions that benefit the management, etc.

Therefore, to ensure good corporate governance and separation of powers for checks and balances, the Board of Directors of IRPC Public Company Limited has mandated that the Board Chairperson and CEO of the company cannot be the same person, and that their roles are separate and distinct.

Details about the duties and responsibilities of the Board Chairperson and the CEO appear under "Authority of the Chairman" section, Page 228-229 and "Duties and Responsibilities of the Chief Executive Officer/President" section, Page 232-239, respectively.

Nomination of the CEO/President and Succession Planning

The Board of Directors tasks the Nomination and Remuneration Committee with nominating qualified and capable individuals for the top management position (CEO/President) for the Board to consider for appointment. The CEO/President of the company also serves as a director on the Board in accordance with the company's regulations and as required by legal procedures. The candidate must possess the necessary experience, knowledge and a profound understanding of the petroleum and petrochemical businesses, in addition to good reputation, leadership, and a track record for corporate governance compliance. Candidates for senior positions at the executive vice president level must be subjected to scrutiny of the Nomination and Remuneration Committee and approval of the Board as well.

CEO Succession Planning According to the company's Succession Plan Management, executives at the level of Executive Vice President will be selected according to specified criteria and join the Group's executive development program. Then they will be admitted to leadership evaluation process conducted by a leading consulting firm. The results of the evaluation will be used to develop the potential of senior executives according to the system before are considered for nomination and appointment to senior management under the company's regulations.

Executive Succession Planning and Development

The Board of Directors assigns the Nomination and Remuneration Committee to scrutinize succession planning for senior executives at the N-1, N-2 levels to ensure readiness in nominating candidates for key executive positions in an efficient manner. This is also part of risk management to ensure the company has a pool of talents from which to choose for promotion to key executive positions or in the event of major changes in the future. Such succession planning also ensures that senior executives with great potential can grow in their career path along with the company.

IRPC has a systematic executive succession plan in place and the Nomination and Remuneration Committee is kept up-to-date with periodic reporting on progress status. Succession planning refers to continuous process of evaluation and development to unlock the full potential of senior executive officers and get them ready to take on challenges of achieving strategic objectives and long-term goals of the company. This process consists of procedural steps as follows:

- 1) Create Succession Planning chart
- 2) Determine key elements of Criticality of Target Role
- 3) Prioritize Target Group
- 4) Develop Succession Readiness
- 5) Select Successor Candidate

► 2. Director and Executive Development

IRPC has established a continuous process for director and executive development. In 2023, the company implemented the following actions:

Director Orientation

In order for newly appointed directors to gain knowledge and understanding of the company's businesses and their role and responsibilities in accordance with the law and internationally accepted corporate governance standards, IRPC provided an orientation, led by the CEO and President, who always makes himself available to give an introductory briefing, and handed out information regarding organizational overview, rules and regulations, and various handbooks. In 2023, four new directors attended the orientation, namely (1) Mr. Somchai Rangsithananon, (2) Mr. Phonchai Theerawet, (3) M.D. Korn Pongjittham, and (4) Mrs. Pranot Tirasai.

Director and Executive Development

IRPC encourages its directors and executive officers to attend training programs that are beneficial to the performance of their duties, enabling them to familiarize themselves with the company's management style, industry overview and roles and responsibilities of a director. Every director has attended the orientation (for further details, please refer to Directors' Biographies, Page 26-42)

In addition, in 2023 The company made arrangements for directors and executives to attend relevant training sessions as follows:

- 1) M.D. Korn Pongjittham, Director of the company attended training courses provided by the Thai Institute of Directors Association (IOD): Director Accreditation Program (DAP), Class 205/2023; Advanced Audit Committee (AACP), Class 49/2023; Financial Statements for Directors (FSD), Class 49/2023; and Director Certification Program (DCP), Class 347/2023.
- 2) Miss Piangpanor Boonklam, Committee, joined "The Cullinan: The Making of the Digital Board" Class 2 organized by Thailand Management Association (TMA).
- 3) Special lecture by the Petroleum Institute of Thailand: Management perspective on five key risk factors that may lead to "Poly-Crisis," The WHAT's and WHY's of Petroleum and Petrochemical for Board of Directors, Management and Executives to Guide their Business Decision, and the Framework of the Petrochemical Industry Development, Phase 4 in the Eastern Seaboard and areas with potential for future economic development.
- 4) Training courses on Subsidiary Governance Program: SGP by the Thai Institute of Directors Association (IOD) for senior executives/executives who hold the positions of directors of the company/ managing directors/those who serve in an IRPC's subsidiary company to gain knowledge and understanding of corporate governance approach for IRPC's subsidiaries, roles, duties and legal responsibilities of directors, and stakeholder expectation, in order to effectively manage risks and perform their duties.

► 3. Board and Chief Executive Office and President Performance Evaluation

Board Performance Evaluation

The Board of Directors has determined that the Board performance evaluation is conducted on annual basis so that the Board may review its performance, issues and obstacles over the past year. The assessment results and recommendations will be presented to the Board of Directors for use as input to set guidelines to improve Board effectiveness in a concrete manner. In 2023, IRPC developed an evaluation form according to the standards for corporate governance of the Stock Exchange of Thailand, ASEAN CG Scorecard, and anti-corruption oversight as recommended by the Thai Institute of Directors Association (IOD), as follows:

1. Performance evaluation form for the entire Board of Directors
2. Self-evaluation form for individual directors
3. Peer-based performance evaluation form for directors (cross-evaluation, one-on-one)
4. Board's committee performance evaluation form
5. Evaluation form for the Board with regard to anti-corruption oversight
6. Evaluation form for the effectiveness of Board meeting preparation (Company Secretary performance evaluation)

Summary of the performance evaluation results of the Board of Directors and Board's committees for the year 2023

1) Results of the performance evaluation of the entire Board of Directors

Aspect of evaluation	Evaluation results Year 2023 (%)
1. Board structure and qualifications of the directors	96.19
2. Roles and responsibilities of the Board in determining important business policies	97.11
3. Board practices	97.87
4. Directors attendance	98.44
Overall evaluation results	97.40

2) Results of performance evaluation of individual directors (self-evaluation) (average score of the entire Board)

Evaluation topic	Evaluation results for 2023	
	Results of performance evaluation of individual directors (self-evaluation) (average score of the entire Board)	Peer-based performance evaluation results (cross-evaluation, one-on-one)
1. Board qualifications	96.53	98.27
2. Accountability and justification for one's own decisions and actions	97.33	97.84
3. Performance with competence and effectiveness	96.00	98.00
4. Equitable and fair treatment of stakeholders	95.33	97.50
5. Transparency in performance of duties and disclosure	99.00	99.34
6. Having a vision to add long-term value to the business	96.44	96.00
7. Having professional integrity/ethical code of conduct	97.07	98.94
Overall evaluation results	96.82	97.98

3) Performance evaluation results of Board's committees:

	3.1) The Risk Management Committee	3.2) The Nomination and Remuneration Committee	3.3) Results of the performance evaluation of the entire Audit Committee
Evaluation topic	Evaluation results Year 2023 (%)	Evaluation results Year 2023 (%)	Evaluation results Year 2023 (%)
1. Structure of the committee	100	100	97.78
2. Committee's Policy	100	98.33	100
3. Committee practices	99.43	98.10	96.19
4. Effectiveness of preparation for and conduct of committee meetings	99.33	98.89	100
Overall evaluation results	99.69	98.83	98.49

3.4) The Audit Committee

3.4.1) Chairman of the Board of Directors' evaluation of the Audit Committee

Evaluation topic	Evaluation results Year 2023 (%)
1. Independence in performing duties	100
2. Review of financial statements	100
3. Determination of connected transactions	100
4. Review of internal control system	100
5. Review of the contextual risk factors in risk assessment	100
6. Review of regulatory compliance according to criteria of the SEC and SET.	100
7. Performance of other duties as assigned by the Board	100
8. Reporting performance results to the Board on a regular basis	100
9. Self-improvement to gain knowledge and understanding of the company's business	100
10. Ability to provide opinion and suggestions beneficial to the company in various areas	100
Overall evaluation results	100

3.4.2) Results of the performance evaluation of the entire Audit Committee.

Evaluation topic	Evaluation results Year 2023 (%)
1. Structure and composition of the Audit Committee	100
2. Roles and responsibilities	100
3. Relationship with internal auditors and independent auditors	100
4. Relationships with the management	100
5. Meetings and Reporting	100
Overall evaluation results	100

4) Evaluation form for the Board with regard to anti-corruption oversight

Evaluation topic	Evaluation results Year 2023 (%)
1. Policy and expression of intent to fight corruption	100
2. Assessment of corruption risks in various businesses	100
3. Mechanisms for handling of complaints and anti-corruption management	100
4. Reporting and participation in anti-corruption networks	100
Overall evaluation results	100

5) Results of evaluating the effectiveness of committee meeting preparation. (Company secretary evaluation)

Evaluation topic	Evaluation results Year 2023 (%)
1. Meeting preparation	97.33
2. Meeting procedures	98.40
Overall evaluation results	97.87

Chief Executive Officer and President Performance Evaluation

The Board of Directors has stipulated that the performance evaluation of IRPC's CEO and President shall be conducted annually by the Nomination and Remuneration Committee which submits the evaluation result, subject to the Board approval. The Board then determines the remuneration of the CEO and President based on the results of such review at the end of each calendar year. The review criteria are based on the CEO and President's job components and goals that reflect the CEO and President's performance in a tangible, transparent, fair, and commensurate with his roles and responsibilities. The evaluation consists of two parts:

Part 1: Four Corporate KPIs:

1. Financial Perspective
2. Stakeholder Perspective
3. Internal Process Perspective
4. Learning & Growth Perspective

Part 2: Three Sustainable Growth Factors:

1. Results of opinion survey among members of the Board of Directors and the Management
2. Implementation of New Core Behaviors (IRPC G3)
3. Outstanding management skills/crisis management

In 2023, the Board of Directors approved the criteria for the Chief Executive Officer and President performance evaluation at Board meeting 3/2566 on March 21, 2023. In addition to challenging short-term strategic objectives and long-term goals, these criteria include key performance indicators relating to financial and non-financial outcomes. Having acknowledged these criteria, the CEO and President demonstrated his remarkable business acumen, steering IRPC accomplish the predetermined goals with outstanding leadership and overcame adverse impacts on the company and its stakeholders with decisive, well-executed actions to achieve success.

The CEO and President excelled at both parts of the performance evaluation. The compensation for the CEO and President was comparable to his peers in the same or similar industries. The CEO and President's compensation was reported as per criteria prescribed by the SEC Office in the Management Structure under "Executives' Compensation" section, Page 242.

Meeting attendance and remuneration of individual Board members

► Board and Board's committee meetings

The Board of Directors holds its meetings according to predetermined schedule covering the entire year, to address clearly defined key agenda items that have been fixed in advanced. The Board approves scheduled meetings in the months of September or October each year. The Board holds one meeting on the third Tuesday of each month, additional agenda items may be added as necessary and appropriate.

Together, the Chairman and the CEO and President determine the Board meeting agenda and agenda items. Each director is encouraged to propose matters to be considered for inclusion as agenda items. Key agenda items are listed clearly for the monthly meeting, along with items that require constant attention, such as ones to track the progress status of investment projects or the company's operating results. The Board also follows up on its previous decisions or resolutions to ensure that policies and strategies are properly and effectively executed.

The company Secretary is responsible for preparing Board meetings and complete sets of meeting documents as required for Board members to discharge of their duties effectively, including advice and information pertaining to laws, rules, regulations, and company regulations, along with preparation of documents supporting the meeting agenda, minutes taking and preparation of the meeting venue, etc.

The company has developed and deployed the Board Portal, which is accessible via the internet from computers, smartphones, and tablets. This online platform allows the Board to function more effectively. With the Board Portal, Board members may access IRPC's essential documents, supporting documents for the Board and Board's committee meetings, materials for director development and learning programs, and a library containing current news and vital information for directors as well as searchable archive. Meeting invitations are sent out accompanied by agenda, along with background information and rationales (5-7 business days in advance to allow directors enough time to prepare for the meeting).

At every meeting, directors with personal stake or conflict of interest in an agenda item must disclose it and recuse themselves or abstain from voting on the item in question. In accordance with the Corporate Governance Policy, the Chairman provides ample opportunities for directors to express their opinions freely. All questions are answered and clarified before a vote is called. The Board's resolution is passed by a simple majority, or in the case of a special resolution (as per IRPC's regulations)

Is passed with at least two-thirds of all directors present. Meeting minutes cover directors' opinions and observations. Minutes are presented to the Board at the following meeting for review and approval. Once approved, minutes and relevant documents are electronically stored and classified for reference that can be accessed by authorized persons according to their level of security clearance.

In 2023, the Board of Directors held a total of 13 meetings, both in physical meeting and e-meeting formats. Of these, one was held to determine or review the direction, strategy, and business plan of the organization (BOD-STS) as a special agenda, two meetings were held among independent directors, and one was a Board of Directors meeting in the absence of the management. In keeping with corporate governance principles, directors gave suggestions that were beneficial to the company, and freely discussed the management's work. The Board meeting requested the management to take suggestions and recommendations for consideration or implementation, and report back to the Board periodically.

At the meetings of independent directors (May 16, 2023 and October 17, 2023), topics discussed included important matters of the company, such as strategic planning for the development of new products/new businesses, marketing planning and transportation channels as well as business and environmental planning, etc.

At the Board meeting in the absence of the management (July 18, 2023), the meeting considered important issues beneficial to the company's operations, such as investment projects and future business plans, personnel management to enable the company to achieve economies of scale to improve competitiveness, and sustainability management, etc.

As for meeting attendance, in 2023, the entire Board of Directors registered 100 percent attendance rate, with all directors achieving 100 Percent attendance rate. The table below summarizes the attendance rates of the Board of Directors and Board's committees:

Meeting attendance of the Board of Directors and Board's committees in 2023

(Unit: times)

No.	Name	Board of Directors	Board without Executives	Independent Directors	The Audit Committee	The Risk Management Committee	The Corporate Governance and Sustainability Committee	The Nomination and Remuneration Committee	General Meeting of Shareholders 2023
		{15 members}	{14 members}	{7 members}	{3 members}	{5 members}	{3 members}	{3 members}	{15 members}
		Number of meetings 13	Number of meetings 1	Number of meetings 2	Number of meetings 13	Number of meetings 12	Number of meetings 6	Number of meetings 5	Number of meetings 1
1.	Dr. Siri Jirapongphan	13/13	1/1	2/2	-	-	-	-	1/1
2.	Miss Siriwan Chierapong	13/13	1/1	2/2	3/3	9/9	-	-	1/1
3.	Miss Piangpanor Boonklam	13/13	1/1	-	-	11/12	-	-	1/1
4.	Mr. Prasong Inthonongphai	13/13	1/1	-	-	12/12	-	-	1/1
5.	Mr. Phonchai Teerawet	9/9	1/1	-	-	9/9	-	-	-
6.	Asst. Prof. Dr. Chaipayorn Phuprasert	13/13	1/1	2/2	-	-	6/6	-	1/1
7.	Mrs. Pranot Tirasai	9/9	1/1	-	-	-	5/5	-	-
8.	Mr. Chansak Chuenchom	13/13	1/1	-	-	-	-	5/5	1/1
9.	Mr. Petai Mudtham	13/13	1/1	-	-	-	-	5/5	1/1
10.	General Aittipol Suwannarat	13/13	1/1	2/2	-	-	1/1	2/2	1/1
11.	Mr. Yordchat Tasarika	13/13	1/1	2/2	10/10	-	-	3/3	1/1
12.	Mr. Somchai Rangsitthananon	9/9	1/1	2/2	9/10	-	-	-	-
13.	M.D. Korn Pongjittham	9/9	1/1	2/2	10/10	-	-	-	-
14.	Mr. Krit Imsang	13/13	-	-	-	12/12	-	-	1/1
15.	Mr. Supot Laosuarpha * (deceased December 26, 2023)	13/13	1/1	-	-	-	6/6	-	1/1
Directors who retired or resigned in 2023									
16.	Dr. Anusorn Sangnimnuan ⁽¹⁾	4/4	-	-	-	3/3	-	-	1/1
17.	Mr. Somnuk Bamrungsalee ⁽²⁾	4/4	-	-	3/3	-	-	-	1/1
18.	Mr. Jumpol Samphaophon ⁽³⁾	4/4	-	-	3/3	-	-	-	1/1
19.	Dr. Ekniti Nitithanprapas ⁽⁴⁾	4/4	-	-	-	3/3	-	-	1/1

Notes: ⁽¹⁾ Dr. Anusorn Sangnimnuan Independent Director, completed term on 5 April 2023.

⁽²⁾ Mr. Somnuk Bamrungsalee Independent Director, completed term on 5 April 2023.

⁽³⁾ Mr. Jumpol Samphaophon Independent Director, completed term on 5 April 2023.

⁽⁴⁾ Dr. Ekniti Nitithanprapas, Director completed term on 5 April 2023.

► Individual Directors' Compensation

The Board of Directors has appointed the Nomination and Remuneration Committee to determine guidelines and components of compensation for the Board of Directors and Board's committees as follows:

1. Directors' compensation shall consist of two components: 1) monthly cash retainer, and 2) meeting allowance. (no other form of remuneration, monetary or otherwise).
2. Directors' compensation amounts shall be based on their respective directors' responsibilities and performance and IRPC's operating results. They shall be comparable to those of their peers in companies of similar size and business risk profile, in order to attract and retain directors whose qualifications suit the company's business needs. The compensation survey of the Thai Institute of Directors (IOD) and the Stock Exchange of Thailand shall also be taken into account.

In this regard, the company's director compensation rate for 2023 was comparable to the mean rate of company's Board of Directors (monthly/person) based on the report on the survey of director compensation for the year 2022 by the Thai Institute of Directors Association (IOD).

3. Determine compensation by taking into consideration the scope of duties assigned to directors and Board's committee members.
4. Holders of the position of Chairman of the company's Board of Directors and chairman of a Board's committee receive extra compensation equal to approximately 30 percent of the base compensation for a director.
5. Board's committees include the Audit Committee, Nomination and Remuneration Committee, Risk Management Committee and Corporate Governance and Sustainability Committee, receive a pro rata allowance each time they attend their respective Committee meeting.
6. Compensation for the Board of Directors and Board's committees shall be subject to approval of shareholders at the AGM.

The compensation for 2023 were presented to the 2023 Annual General Meeting of Shareholders on April 5, 2023 and the meeting approved the compensation for the company's Board of Directors Board's committees, which was at the same rates offered in 2022 as follows:

- 6.1 Compensation for the Board of Directors and its committees in 2023 (The company has used the same compensation package since 2006)

No.	Board and Committee	Monthly compensation/ person	Meeting allowance per time/person
1.	Board of Directors		
	Chairman	60,000 baht	60,000 baht
	Director	45,000 baht	45,000 baht
2.	Board's committees include the Audit Committee, Nomination and Remuneration Committee, Risk Management Committee and Corporate Governance and Sustainability Committee, and other committees that may be appointed by the Board of Directors in the future.		
	Chairman	N/A	60,000 baht
	Director	N/A	45,000 baht

6.2 Director Bonuses

In 2022 the company registered operating loss. The Nomination and Remuneration Committee therefore proposed that directors' bonuses would not be offered, which the Board of Directors approved as proposed. And the 2023 Annual General Meeting of Shareholders on April 5, 2023 resolved to refrain from paying director bonuses based on Fiscal 2022 operating results. Details of Compensation for the Board of Directors as shown in the table below:

2023 Compensation for the Board of Directors

(Unit: Baht)

No.	Name	Compensation	Meeting allowance for the Board of Directors	Meeting allowance for Board's Committee	Total
1.	Dr. Siri Jirapongphan	720,000	780,000	-	1,500,000
2.	Miss Siriwan Chierapong	540,000	585,000	675,000	1,800,000
3.	Miss Piangpanor Boonklam	540,000	585,000	495,000	1,620,000
4.	Mr. Prasong Inthonongphai	540,000	585,000	540,000	1,665,000
5.	Mr. Phonchai Teerawet	399,000	405,000	405,000	1,209,000
6.	Asst. Prof. Dr. Chaiyaporn Phuprasert	540,000	585,000	270,000	1,395,000
7.	Mrs. Pranot Tirasai	399,000	405,000	225,000	1,029,000
8.	Mr. Chansak Chuenchom	540,000	585,000	300,000	1,425,000
9.	Mr. Petai Mudtham	540,000	585,000	225,000	1,350,000
10.	General Aittipol Suwannarat	540,000	585,000	135,000	1,260,000
11.	Mr. Yordchat Tasarika	540,000	585,000	735,000	1,860,000
12.	Mr. Somchai Rangsitnanon	399,000	405,000	405,000	1,209,000
13.	M.D. Korn Pongjittham	399,000	405,000	450,000	1,254,000
14.	Mr. Krit Imsang ⁽¹⁾	540,000	585,000	540,000	1,665,000
15.	Mr. Supot Laosuarpha * (deceased December 26, 2023)	540,000	585,000	360,000	1,485,000
16.	Dr. Anusorn Sangnimnuan	142,500	180,000	180,000	502,500
17.	Mr. Somnuk Bamrungsalee	142,500	180,000	180,000	502,500
18.	Mr. Jumpol Samphaophon	142,500	180,000	135,000	457,500
19.	Dr. Ekniti Nitithanprapas	142,500	180,000	135,000	457,500
Total		8,286,000	8,970,000	6,390,000	23,646,000

(No other compensation or benefit were paid to directors, monetary or otherwise.)

Note: ⁽¹⁾ Mr. Krit Imsang reimbursed his director compensation to PTT Public Company Limited in compliance with the PTT's President Employment Agreement.

Supervision of Subsidiaries and Associated Companies

► Supervisory Mechanisms

In addition to corporate governance oversight under the leadership of IRPC CEO and President and other senior executive officers, the company's Board of Directors oversees the management of subsidiaries, associated companies and joint ventures through IRPC representatives whom the company nominates, with the IRPC Board of Directors' approval, to serve as directors or executives of these companies. (Further details on Business and Shareholding Structure, Page 93). Decisions on significant investments and business decisions that these representatives are subject to the approval of the Investment Board, the Executive Board, or the Board of Directors, as the case may be. These representatives must also submit progress status reports to the Board of Directors periodically.

IRPC announced the IRPC Group Way of Conduct Policy in 2021. The company also introduced IRPC Group Way of Conduct Handbook to establish IRPC's Governance Principles consisting of:

- 1) Determination of Key Strategic Positions for IRPC executives and employees assigned to serve in subsidiaries or associated companies.
- 2) Preparation of Rules and Regulations, requirements and policies, including various directives to establish a linkage between supervision in accordance with the company's policy and implementing policy to achieve results.
- 3) Establishment of Reporting Line and Performance Management.
- 4) Establishment of Multi-level Governance. As the IRPC group operates a diverse range of businesses characterized by different levels of complexity, there is a need to a group manage approach to steer these companies in the same direction with clearly-defined linkages in a systematic manner. Therefore, Multi-level Governance has been developed through cooperative mechanism of the companies within the group. This is aimed to establish operations that meet the same standards to achieve business objectives based on sustainability concepts and the "iSPIRIT" corporate value.

- 5) Supervision by the Management Committee, various committees under the Board and at the management level, along with specific-purpose committees. All of these committees play pivotal roles in driving effective management enabling the IRPC Group to accomplish its goals.

In 2023, to ensure systematic management of subsidiaries, associated companies, and joint ventures in alignment with corporate governance principles and the company's strategic direction, the IRPC Subsidiary Alignment Management Committee (ISAC 1) to provide oversight for subsidiaries in which the company holds more than 50 percent of outstanding shares, and the IRPC Subsidiary Alignment Management Committee (ISAC 2) to oversee associated companies in which the company holds between 25-50 percent of outstanding shares. Through these committees, the company supervises, promotes and steers subsidiaries and associated companies towards improving efficiency, transparency of their work processes in alignment with the company's objectives under the IRPC Group Way of Conduct Policy and Corporate Governance Policy.

► Monitoring Corporate Governance Policy Compliance and Practices

1) Supervision of the use of insider information

IRPC emphasizes the need to control how insider information of the company and its subsidiaries is used. This is part of our commitment to equitable treatment of shareholders. The company has set a policy to prevent insider trading and imposed the blackout period. This is in order to control non-public price sensitive information, and to prevent directors, executives, employees, and related persons from using information that has not been disclosed to the SET or general public, for personal gain or to benefit others, directly or indirectly. The guidelines on this matter are summarized below:

- (1) Directors, executives (according to the SEC's definition), employees in departments dealing with inside information (accounting, finance, Company Secretary, Internal Audit Office, Investor Relations, Corporate Strategy, investment management, risk management and Corporate Affairs Office) are prohibited from trading

in IRPC's securities for a period of 30 days prior to and within 48 hours of public disclosure of the quarterly or annual financial statements. The Company Secretary shall make advance announcement regarding persons who are subject to the Blackout Period.

- (2) IRPC's directors and executives wishing to trade in the company's securities have a duty to notify the Company Secretary at least one day prior to engaging in such transaction. In case the Company Secretary wishes to trade in the company's securities, he or she must notify the Chairman of the Board or the CEO and President accordingly.
- (3) Directors, executives (according to the SEC Office's definition) and auditors of the company have a duty to prepare and disclose reports on changes in securities holdings of themselves, their spouse, and minor children, in accordance with the rules and procedures prescribed by the SEC Office within three business days from the date of purchase, sale, transfer, or acceptance of transfer of such securities.
- (4) Directors and executives (according to the SEC Office's definition) must report changes in their interests and personal background information in accordance with the reporting procedures for personal interest declaration within seven business days from the date of such changes. The report must be submitted to the Company Secretary for examination by the Chairman of the Board of Directors and chairman of the Audit Committee.

2) Conflict of Interest Prevention

IRPC requires that its directors, executives, and employees, as well as those of its subsidiaries, joint ventures, and companies in which IRPC has controlling stake, disclose any potential conflict of interest in any transaction of IRPC or the IRPC Group, using the specified method. Such disclosures enhance operational efficiency, governance and management excellence, code of business conduct, freedom from corruption, transparency, and accountability.

Conflict of Interest Reporting

IRPC mandates that all IRPC Group executive officers and employees must report all their potential conflicts of interest with the company through the online filing system for the 9th year (since 2015). This is in addition to disclosing its directors and executives' conflicts of interest according to the regulations of the SEC Office to promote transparency

and anti-corruption operational mindset, and results of such reporting are submitted to the Corporate Governance Committee.

In 2023, 100 percent of executives and employees at all levels throughout the IRPC Group completed their conflict of interest filing.

Conflict of interest filing by directors, executives and related persons

The Board of Directors arranges for individual directors and executives to file their potential conflicts of interest for use as basic information to provide oversight on this matter. The reports are then forwarded to the Company Secretary who retains, gathers the reports and then submit copies to the Board Chairman and chairman of the Audit Committee as reference in examining and supervising conflicts of interest.

3) Reporting securities holdings

The company requires Board members and executive officers, including their lawful spouse, cohabiting partners, and underage children, to report any change in their holding of IRPC securities to the company, file such report with the Stock Exchange of Thailand, and the SEC Office in accordance with Section 59 of the Securities and Exchange Act 1992, and any ensuing amendments, within three business days from the date of purchase, sale, transfer or acceptance of transfer. Moreover, the company's policy also calls for Board members and executives to disclose/report the trade in/transfer/change in holdings of IRPC securities to the Board on a monthly basis. The company also has a policy to impose Blackout Period to prohibit trade in IRPC securities for a period of 30 days prior to and within two days after public disclosure of the company's financial statements. This is to ensure that Board members, executives, related persons or departments that have access to insider information strictly follow the relevant rules and guidelines accordingly. The company also asks Board members and executive officers to notify the Company Secretary at least one day in advance before trading in IRPC securities.

The company has never received warnings on conflicts of interest from regulatory authorities and in 2023, members of the company's Board of Directors together held shares of the company not exceeding 25 percent of the outstanding shares, within the required limit according to the criteria of the Stock Exchange of Thailand.

4) Consideration of connected transactions, policy, and necessity of related/connected transactions

IRPC and its subsidiaries operate an integrated petrochemical and refining business, belonging to the same industrial sector as the PTT Group. Transactions between IRPC and other companies within the PTT Group are conducted on arm's length basis. Related transactions, from trade in crude oil, petrochemical products, related services, and other transactions that support each other's day-to-day operations, are based on prices and terms and conditions no different from transactions with any external persons. There is no transfer of mutual benefits. IRPC examines every related transaction carefully, rationally, and independently, in its own best interest.

Measures regarding related transactions/connected transactions

IRPC is in compliance with the regulations of the Securities and Exchange Commission and Stock Exchange of Thailand regarding related transactions. The Board of Directors appropriately considered the items that may give rise to conflicts of interest to ensure that the transactions are fair, transparent, and reasonable. The directors, employees, or any person with conflicts of interest are not allowed to attend the meeting or vote on that agenda. In addition, the Audit Committee is also responsible for the review and audit of related transactions made between the company, its subsidiaries, and connected persons or companies on a quarterly basis. This is to eliminate conflicts of interest that may occur and ensure the best interests of the company.

Policy on future related transactions

IRPC's future related transactions will be conducted on arm's length basis. The company bases its decisions primarily on reasonable and fair pricing. This is to ensure shareholders and all stakeholders receive fair and equitable treatment in accordance with the Corporate Governance Policy, in compliance with the regulations of Office of the Securities and Exchange Commission and the Stock Exchange of Thailand regarding related transactions.

5) Whistleblowing

The Board of Directors has established the Whistleblowing Policy and provided channels for whistleblowing and receiving complaints from internal and external whistleblowers. The company accepts submissions about any activity

that violates the law or code of conduct, or any corrupt practice or inappropriate conduct of any person at any level, from directors, executive officers to employees of IRPC or its subsidiaries, stakeholders, or parties related to IRPC's businesses. The policy also clearly specifies the investigation and resolution procedures to ensure impartiality and transparency. All whistleblowers and witnesses will be offered protection. From 2022, IRPC has enhanced the rules on handling of complaints and whistleblowing of IRPC Public Company Limited and subsidiaries within the IRPC Group to make sure they are in alignment with the corporate governance principles and internationally accepted standards.

Whistleblowing and Complaint Channels

E-mail:	auditor@irpc.co.th
Postal mail:	Chairman of the Audit Committee IRPC Public Company Limited 555/2 Energy Complex Center, Building B, 6th Floor, Vibhavadi Rangsit Road, Chatuchak Subdistrict, Chatuchak District, Bangkok 10900
Postal office:	PO Box 35, Suntower Building Post Office, Bangkok 10905
Website:	www.irpc.co.th
Supervisor/Manager	

Complaint handling procedures

IRPC follows the company regulations regarding handling of complaints and whistleblowing as follows:

- Upon receiving a complaint through methods and channels specified by the company, delivers the complaint to the Internal Audit Office. The Internal Audit Office records the information and conducts initial screening. If it is a matter not related to corruption, the complaint will be forwarded to the Complaint Screening Committee.
- The Complaint Screening Committee conduct preliminary evaluation of the complaint, and gather or seek additional evidence as part of investigation as well as to prepare a report for submission to the CEO and President and/or relevant committee before notifying the complainant on progress status according to the procedures specified by the company.

- If the complaint is about corruption, the Internal Audit Office is responsible for handling of such complaint and to take further actions, along with gathering of evidence of alleged wrongdoing or violation of the company's code of conduct. A report on such complaint will be submitted directly to the Audit Committee and the Board of Directors, which will be updated on a regular basis. The Internal Audit Office will determine whether such complaint has merit or whether an investigation committee should be appointed to look into the case. If it is found that a wrongdoing has been committed, disciplinary actions will be taken against the offender according to the company's regulations. Under the established procedures, the whistleblower and witness will be accorded protection.

In 2023, the Internal Audit Office and the complaint screening committee received various types of complaints through channels as follows:

Period	Complaint channel				Type		Preliminary investigation		Case status	
	E-mail & Postal	PO Box 35	Website	Supervisor	-Performance -Behavior -Suggestion	Corruption	Preliminary investigation completed	Preliminary investigation ongoing	Resolved	In progress
Quarter 1	-	4	-	1	5	-	5	-	5	-
Quarter 2	-	-	-	6	6	-	6	-	6	-
Quarter 3	1	4	-	2	7	-	7	-	7	-
Quarter 4	-	-	1	1	1	1	2	-	1	1
Total	1	8	1	10	19	1	20	-	19	1

6) Digital Execution

Digital transformation is considered one of the key success factors enabling the company to forge ahead with new businesses with optimal efficiency. IRPC's Digital Framework focuses on 2 key areas:

(1) Cyber Security with emphasis on strengthening defense against cyberattacks to ensure that the company's operations are secure. This can be achieved by implementing the ISO 27001 conceptual framework and information security standard together with NIST Cyber Security Framework.

(2) Data Analytic with the aim to develop and increase the efficiency of analytics and decision-making of employees at all levels to enhance the company's income generation.

Mindful of the need to secure the company's digital and IT systems, IRPC has established proactive measures and carried out digital risk management as follows:

- Implemented data and IT security in accordance with the ISO 27001 Information Security Management System.
- Conducted an annual exercise to ensure preparedness under the Disaster Recovery Plan in the event of a system failure caused by external cyberattacks or natural disasters.
- Established a Security Operation Center (SOC) that is efficient and constantly improving.
- Conducted Phishing tests among the company's employees on a regular basis and implemented campaign to promote awareness of negative impacts from cyberattacks.

► Corporate Governance Compliance in other matters

Anti-corruption

IRPC operates its business with integrity, adheres to code of conduct and follows the law and international anti-corruption and anti-bribery best practices. The company endeavors to eliminate corruption, bribery, and coercion in all forms by building knowledge and promoting understanding of the issues among personnel at all levels as well as throughout the supply chain. The company also set up convenient, appropriate channels to receive complaints along with efficient complaint handling process. IRPC has implemented and continued to refine its anti-corruption measures as follows:

- The Board of Directors has set out concrete anti-corruption policy and practices, such as anti-graft, anti-corruption, anti-bribery and no-gift policies. These policies apply to every person at every level of IRPC and companies within the IRPC Group. Training and campaigning are implemented to raise awareness on appropriate occasions. These policies are published on the company's website and via other communication channels. Additionally, the Board of Directors endeavors to expand the IRPC anti-corruption network to include stakeholders, such as other IRPC Group companies, joint-venture partners, and contractors. The company's anti-corruption practices have been disclosed to all its suppliers. Many of these activities have been ongoing between 2016 and 2021.
- The Audit Committee includes corruption risk management and assessment on its corporate internal audit agenda. The committee also requires corruption risks to be controlled, monitored, assessed, and reported to the Board on a regular basis. Details of anti-corruption activities in 2023 appear under "Creating Corporate Governance Awareness and Mindset in 2023," Page 212-214.

Human Rights

The company respects and treats employees, communities, and related parties in the supply chain in accordance with international human rights principles and human rights law. The company affords freedom and equality to individuals, which are guaranteed and protected by Thai and international laws. It will never violate or conspire in the violation of human rights, directly or indirectly. IRPC respects human dignity and provides equal opportunity regardless of ethnicity, religious faith, gender, skin color, belief, disability, or social status.

The Board of Directors has announced the latest Human Rights Policy of IRPC Group, the 2021 revised edition, already disclosed on the company's website, to ensure that the company's business operations are free from human rights violations in all aspects. In addition, strategies have been developed to integrate respect for human rights into the value chain. The key words for this campaign are Protect, Respect and Remedy, which will be implemented through communication, awareness campaigns, and networking activities.

The company has extended human rights protection to its own employees and those of contractors to ensure full compliance with labor law, decent working conditions and appropriate welfare benefits in accordance with the company's regulations. The same safety training and safety measures apply to IRPC's employees and those employed by the contractors. Safety handbook will be issued during factory maintenance to ensure safety measures are strictly observed by external personnel and visitors. Safety units shall submit situation reports covering regular working hours and after hours, along with complaints relating to environmental impact on communities at the Management Committee meeting on a weekly basis so that decisions can be made to prevent, mitigate, or remedy problems appropriately and in a timely manner as well as to prevent recurrence.

IRPC conducts due diligence to assess the risks associated with human rights, for which the company has already addressed adequately. In addition, there are community and environmental risk assessment processes and appropriate remedial processes in case they are adversely impacted by the company's activities. This includes a round-the-clock complaint channels and on-call personnel that can be dispatched to investigate incidents and address the situation. Information on activities that may potentially impact communities will be disclosed to the public prior to and while they are underway.

Thanks to its dedication to promote human rights and accomplishments in this area, IRPC was awarded "Human Rights Model Organization" for the 5th consecutive year in the private sector organization. Details of human rights activities in 2023 appear in "Human Rights Activities," Page 159-167.

Further details about Human Rights Management appear on the company's website: <https://www.irpc.co.th/sustain/>.

Labor

IRPC respects fundamental rights and personal freedoms under Thai labor laws and conventions of the United Nations International Labor Organization. Its treatment of employees conforms to labor laws. The company encourages employees to exercise their freedom of association and collective bargaining as per labor relations law and complies with relevant government regulations. IRPC never uses its power to coerce employees to enter into an agreement that deprives them of their fundamental labor rights, and never engages in the use of illegal labor. Moreover, the company complies with the Convention on the Elimination of All Forms of Discrimination against Women and UNICEF's Children's Rights and Business Principles. Furthermore, employment at IRPC is free from discrimination regardless of ethnicity, religion, gender, or skin color. The company promotes equal opportunity and decent work, liberty, and human dignity.

Environment

Through the company's environmental protection measures and guidelines, IRPC expresses its firm commitment to environmental stewardship and to prevent any environmental impact that its operations may cause. The company conducts an environmental impact assessment before investing in a project or business. It applies appropriate technologies to bolster its environmental protection measures and methods. The company also encourages the development of eco-friendly innovations and technologies. IRPC always promotes awareness of environmental stewardship, occupational health and safety for employees and the entire supply chain. Details of environmental activities appear under "Sustainability Management in Environmental Dimensions," on Pages 130-151.

Internal Control and Connected Transactions

Internal Control

Summary of the Board of Directors' Opinion on the Internal Control System

IRPC has implemented internal control in accordance with the internationally-accepted COSO Internal Control-Integrated Framework to achieve objectives in 3 key areas: Operations, Reporting, and Compliance. The internal control unit's strategic planning and sustainability section, has developed an internal control assessment form in accordance with the rules prescribed by the Securities and Exchange Commission (SEC) as well as reviewed and given opinions and taking into consideration suggestions made by the Audit Committee, before reporting to the Board of Directors at Meeting No. 2/2567 on February 13, 2024, with independent directors and the Audit Committee also attending. The Board was of the opinion that the company's internal control system was sufficient and appropriate, and no significant deficiencies detected that could compromise the ability of the internal control system to achieve its objectives. The company has put in place appropriate procedures and competent personnel to ensure efficient and effective internal control, accurate and reliable reporting, and business conduct in full compliance with applicable laws and regulations. That is to safeguard the company and its subsidiaries' assets against fraud or abuse by directors, executives, or employees as well as to prevent transactions with potential conflicts of interest involving related parties.

IRPC's internal control system has undergone constant revision and updating to correspond with changing external and internal contexts. In 2023, the company further developed its internal control system and summarized internal control outcomes for publication in its annual report in accordance with COSO (The Committee of Sponsoring Organizations of the Treadway Commission) framework, which consists of five internal control components as follows:

► 1. Control Environment

The Board and the management promote a corporate culture that nurtures talent, courage and integrity among the company's employees. This not only enables the company to align business operations effectively and sustainably to its vision and mission, but also to foster business ethics and corporate governance through the establishment of sound and appropriate internal control environment as follows:

The Board and the management have formulated corporate governance policy, corporate compliance policy, internal control policy, anti-corruption policy, personal data protection policy and code of conduct. Employees at all levels are required to submit conflict of interest declaration form electronically every year. There is also professional ethics self-assessment form for executives and employees to fill, along with the introduction of corporate governance handbook (revised edition), prescribing good practices in various aspects of business operations that executives and employees must sign to acknowledge, uphold, and implement.

The Board, independent of the management, is entrusted with the power to oversee the company's overall business operations and to give opinion on the strategic direction underpinning the business and operational plans. The Board also monitors the company's operating results and the performance of the Board on a regular basis to ensure the company accomplishes the predetermined corporate goals.

IRPC organizes itself along the business function structures to enable efficient corporate management focusing on steering the entire group of companies in a common strategic direction. Segregation of duties in critical functions is designed to ensure checks and balances. In addition, approval authority regarding the company's business operations and transactions is subject to regular reviews. The company also formulated an overall short- and long-term human resource development plans with clearly defined job description and qualification for individual positions.

Succession planning and leadership development program are consistently implemented along with systematic and standardized performance assessment. The company also closely monitors employee performance to ensure good work is rewarded and incentives help increase productivity and efficiency.

IRPC has adopted the internationally accepted “Three Lines of Defense” model of enterprise risk management and sound internal control. Staff members and managers (First Line), internal control unit, compliance unit and other auxiliary units (Second Line), and the Office of Corporate Internal Audit (Third Line) are all required and encouraged to apply the model of risk management continuously and consistently, from risk identification, determination of risk control, monitoring and assessment activities. In this regard, the First Line of Defense plays the most crucial role in ensuring success and efficiency of internal control.

► 2. Risk Assessment

The Board and the management attach foremost importance to risk management to inspire confidence that the company is capable of accomplishing its short- and long-term goals. The Board established the Risk Management Committee (RMC) and Risk Management and Internal Control Committee (RMCC), chaired by a Senior Executive Vice President, Strategy, Planning and Business Development, to provide oversight to ensure effective risk management and internal control as well as to implement enterprisewide risk management under the following management approaches:

IRPC has applied ISO 31000 (2018) Risk Management and COSO Enterprise Risk Management (2017) frameworks along with its own risk management policy to develop guidelines to address potential obstacles that prevent the company from achieving its objectives. The company has developed the Risk Appetite Statement to provide framework for enterprisewide risk management, covering corporate risk management, functional risk management as well as project risk management, focusing on the corporate goals, evolving internal and external factors as well as likelihood of fraud and corruption. Such enterprise risk management approach also calls for risk assessments that need to be reviewed periodically and implementation of risk management plan review standards to be monitored. All work units are expected to take up the responsibility to ensure risks stay at an acceptable level.

IRPC requires the submission of a quarterly summary report on enterprise risk management to the Risk Management and Internal Control Committee, and a monthly enterprise risk management report to the Risk Management Committee. For risk management at work unit level, a summary report is required at respective line/functional team meetings. For Star KPI-aligned & risks, a quarterly summary report on KPIs and risk management is required at the VP meeting.

IRPC has adopted the Business Continuity Management System in accordance with ISO 22301 (2019) and received certification from the ISO, Foundation for Industrial Development, a member of network institutions of the Ministry of Industry. This is to enable the company to conduct contingency planning and respond effectively to emergency situations to ensure business continuity, mitigate impacts, and preserve the corporate public image and reputation.

► 3. Control Activities

IRPC has put in place effective control activities with a view to establishing sound internal control to minimize risks that threaten the company's ability to achieve its objectives. Such control activities include creation of rules, policies, regulations, handbooks, and procedures in written form, defining managers' scope of authority and duties and employees' job descriptions at each level, along with the determination of authority to approve business transactions. Regular operational reviews are conducted to ensure compliance with rules, policies, regulations, and operational handbooks. In addition, the company has formulated policies and guidelines regarding managers and employees' roles and responsibilities, and transactions with actual or potential conflicts of interest to ensure transparency, accountability, and fairness. This is to ascertain that transactions are approved in the best interests of the company, etc.

IRPC has implemented Continuous Control Monitoring System (CCMS) for purchase/procurement and payments as well as sales and receipt of payments as a tool to effectively monitor business operations and detect irregularities, in line with good practices for segregation of duties concept.

IRPC has developed the Control Self-Assessment (CSA) form to cover its key operations, such as the enterprisewide internal control self-assessment form and process specific internal control self-assessment form. These self-assessment forms help executives develop a comprehensive and broad-based approach to control activities to minimize risks in various operational processes. In 2023, the company launched the Robotic Process Automation (RPA) for use as a tool for processing the self-assessment of internal controls.

IRPC has established Project Governance guidelines to improve efficiency and effectiveness of project management by requiring relevant committees and business units to thoroughly review information on investment projects at all stages of implementation concerning risk assessment and risk management approaches. The company is also developing IRPC Group Way of Conduct to provide supervisory oversight for companies within IRPC Group.

IRPC has determined information system security control process in accordance with the ISO 27001 Information Security Management to provide assurance of the company's efficient and effective IT security management.

IRPC has developed Personal Data Protection Policy, appointed a working group and data protection officer as well as upgraded its IT system to enhance its personal data control process. The company also communicates with relevant members of the staff about the Personal Data Protection Act (PDPA) to keep them up-to-date on a regular basis.

► 4. Information & Communication

IRPC values quality information and communication which are key components supporting effective internal control. An E-Compliance system has been developed to collect information with regard to laws, rules, regulations, and relevant requirements as well as compliance assessment system. The E-Compliance system is undergoing further development to improve the efficiency of the assessment system. A soft launch is expected in 2024. Progress in the project implementation will be communicated to the company's Board of Directors, executives, employees,

and stakeholders as appropriate. Meeting agenda will be delivered to members of the Board prior to the Board meeting, so they can better prepare for decision-making.

The company has announced policy and an integrated approach to Governance, Risk Management/Internal Control and Compliance (GRC), which will be communicated to raise awareness among employees about GRC implementation guidelines and how to apply it in the line of their duties to ensure efficiency, transparency, and compliance.

IRPC has provided internal communication channels, which consist of communication from the top management to employees through Town Hall events, via corporate intranet, e-mail, and Line group. External communication channels for stakeholder engagement consist of SMS, Line group, e-mail, Facebook page and corporate website. There are also units dedicated to regular information disclosure to stakeholders as well as complaint handling channels and Whistleblower system to assure employees and external persons that their complaints will be handled in a transparent, honest, fair, and timely manner, while being kept confidential. Complaints relating to fraud or corruption will be screened by the Internal Audit Office while complaints on other matters will be handled by a scrutinizing committee under the GRC.

► 5. Monitoring Activities

IRPC has established a process for monitoring and assessing the adequacy of internal control along with guidelines to further improve and enhance the efficiency and effectiveness of the company's internal control system. Executives at all levels are charged with the duty to provide oversight and monitor work systems under their respective purviews to ensure efficiency and strict compliance with applicable policies, rules, and regulations.

Internal control unit of Corporate Strategic Planning and Sustainability Department is tasked with assessing the adequacy and suitability of internal control system while providing advice on how to improve or remedy internal control deficiencies that have been detected. IRPC imposes reporting requirements for any internal control deficiency detected so that the management is alerted in a timely manner, along with monitoring process to ensure any remedial measure taken is effective and completed on time.

The Internal Audit Office, an independent unit reporting directly to the Audit Committee, is tasked with reviewing and assessing internal control effectiveness for various activities under audit plans approved by the Audit Committee. These plans align with IRPC's strategic direction and critical risks facing the company's operations. The office also provides recommendations for improving internal control efficiency and effectiveness by informing the management of remedial actions, reporting findings and the progress status of remedial actions to completion to the Audit Committee of IRPC Public Company Limited.



Dr. Siri Jirapongphan
Chairman

Connected Transactions

For Fiscal 2023, IRPC and its subsidiaries engaged in key connected transactions with related companies or parties where conflict of interest may arise. These transactions were based on market price arm's length, or, in the absence of market prices, the fair prices and conditions agreed upon. The relationship and connected transactions are described below:

No.	Company name and relationship	Transaction	(Unit: Million Baht)			Characteristics and conditions
			2023	2022	2021	
1.	PTT Public Company Limited (PTT) Relationship: Major shareholder of IRPC with 45.05% of shares - PTT executives on IRPC Board of Directors: Mr. Kris Imsang Mr. Chansak Chuenchom Ms. Peangpanor Boonklam Mr. Prasong Inthonnongphai	- Sale of goods - Purchase of goods - Other income - Sales and admin expenses - Interest payables - Accounts receivable - Accounts payable - Other receivables	2,516 220,840 13 61 - 398 30,376 862	883 242,353 9 87 2 860 31,116 611	192 166,119 5 41 - 19 24,503 2,789	IRPC sold petroleum products and provided tank storage service to PTT. IRPC purchased crude oil and natural gas from PTT, and received compensation in the form of administrative fee for the purchase and sale of crude oil and products within PTT Group. IRPC received logistics compensation and personnel expenses from PTT. IRPC paid personnel expenses to PTT. IRPC paid interest on short-term loan (ICBL) to PTT.
2.	PTT Oil and Retail Business Plc. (PTTOR) Relationship: PTT Public Company Limited holds 75.00% of shares.	- Sale of goods - Purchase of goods - Sales and admin expenses - Accounts receivable - Accounts payable	51,544 378 1 2,354 -	42,010 135 2 2,496 10	32,681 163 2 1,993 13	IRPC sold petroleum products to PTTOR. IRPC purchased petroleum products from PTTOR. IRPC's subsidiaries paid royalties and marketing expenses for sale of goods and transportation cost to PTTOR.
3.	Thaioil Public Company Limited (TOP) Relationship: PTT Public Company Limited holds 45.03% of shares.	- Sale of goods - Service income - Trade in crude oil and feedstocks for legal reserves. - Purchase of goods - Other income	- - - 142 -	550 - - - -	- 42 571 34 3	IRPC sold petroleum products to PTTOR. IRPC provided fuel storage tank rental services to TOP. IRPC traded in crude and feedstocks for legal reserve with TOP. IRPC purchased petroleum products from TOP. IRPC received compensation for the cost of products from TOP.
4.	Thai Paraxylene Co., Ltd. (TPX) Relationship: Thaioil Public Company Limited holds 99.99% of shares.	- Sale of goods - Purchase of goods - Accounts receivable - Accounts payable	- 2,244 - 59	- 1,419 6 -	445 1,400 - -	IRPC sold aromatics products to TPX. IRPC purchased aromatics products from TPX.

No.	Company name and relationship	Transaction	(Unit: Million Baht)			Characteristics and conditions
			2023	2022	2021	
5.	Thaioil Marine Co., Ltd. (TOM) ⁽¹⁾ Relationship: Thaioil Public Company Limited holds 99.99% of shares	- Service income	-	-	11	IRPC provided port services to TOM.
6.	Top Next International Co., Ltd. (TX) ⁽²⁾ Relationship: Thaioil Solvent Co., Ltd. holds 99.99% of shares	- Sale of goods - Purchase of goods - Accounts receivable - Accounts payable	1,489 88 89 9	1,730 147 117 11	1,247 114 104 14	IRPC sold aromatics products to TX. IRPC purchased solvent products from TX.
7.	Top Solvent Vietnam Co., Ltd. (TSV) Relationship: TOP Solvent Co., Ltd. holds 99.99% of shares.	- Sale of goods - Accounts receivable	- -	136 -	568 26	IRPC sold aromatics products to TSV.
8.	Sak Chaisidhi Co., Ltd. (SAKC) Relationship: TOP Solvent Co., Ltd. holds 80.52% of shares	- Sale of goods - Accounts receivable	475 5	408 4	222 3	IRPC sold aromatics products to SAKC.
9.	Ubon Bio Ethanol Public Company Limited (UBE) ⁽³⁾ Relationship: Thaioil Ethanol Co., Ltd. holds 12.39% of shares.	- Purchase of goods	-	-	99	IRPC purchased ethanol products from UBE.
10.	PTT Energy Solutions Co., Ltd. (PTTES) ⁽⁴⁾ Relationship: PTT Public Company Limited holds 40.00% of shares. IRPC Public Company Limited holds 20.00% of shares. - Common director: Mr. Kris Imsang	- Other income - Sales and admin expenses - Other receivables	- - -	4 80 1	4 82 2	IRPC received income for personnel expenses from PTTES. IRPC paid for technical service fees to PTTES.
11.	Energy Complex Co., Ltd. (EnCo) Relationship: PTT Public Company Limited holds 50.00% of shares. - Common director: Mr. Chansak Chuenchom	- Sales and admin expenses - Amortization of licensed assets - Interest paid according to the lease agreement - Licensed assets - Liabilities according to lease agreements - Accrued interest according to the lease agreement - Contract security deposit	59 28 1 27 28 - 20	65 31 2 66 68 2 20	64 30 1 3 3 - 20	IRPC signed office rental and service agreements with EnCo for a period of three years (Feb 2022 - Jan 2025).

No.	Company name and relationship	Transaction	(Unit: Million Baht)			Characteristics and conditions
			2023	2022	2021	
12.	PTT International Trading Pte. Ltd. (PTTT) Relationship: PTT Public Company Limited holds 100% of shares.	- Sale of goods - Purchase of goods - Other income - Income (expenses) from oil futures contracts - Accounts receivable - Other receivables - Other payables	38,026 (616) - 67 3,483 702 -	46,848 1,159 12 (2,455) 2,633 514 81	11,510 - - (311) 1,076 - 22	IRPC sold petroleum products to PTTT IRPC received a share of compensation in the form of administrative fee for the purchase and sale of crude oil and products within PTT Group. IRPC received compensation for delayed product delivery from PTTT. IRPC entered into oil futures contracts with PTTT.
13	Dhipaya Insurance Public Company Limited (TIP) ⁽⁵⁾ Relationship: PTT Public Company Limited holds 13.33% of shares.	- Other income - Sales and admin expenses	- -	- -	561 360	IRPC received compensation from TIP. IRPC paid insurance premium to TIP.
14.	PTT Tank Terminal Co., Ltd. (PTTTANK) Relationship: PTT Public Company Limited holds 99.99% of shares.	- Sales and admin expenses	-	13	-	IRPC paid consulting fees for project operations to PTTTANK.
15.	Business Services Alliance (BSA) Co., Ltd. Relationship: PTT Public Company Limited holds 25% of shares.	- Sale of goods - Other income - Sales and admin expenses - Other payables	2 3 424 7	- 3 382 4	- 3 331 60	An IRPC subsidiary received income for store maintenance services from BSA. An IRPC subsidiary received income for store management fees from BSA. IRPC paid personnel expenses to BSA.
16.	Global Power Synergy Public Company Limited (GPSC) Relationship: PTT Public Company Limited holds 47.27% of shares	- Other income - Sales and admin expenses	- -	- 2	7 2	IRPC provided research services to GPSC. IRPC paid personnel expenses to GPSC.
17.	PTT Global Chemical Public Company Limited (PTTGC) Relationship: PTT Public Company Limited holds 45.18% of shares.	- Sale of goods - Purchase of goods - Sales and admin expenses - Accounts receivable - Accounts payable	26,419 30,013 30 2,265 2,277	25,108 29,065 23 1,735 1,715	8,754 14,459 40 1,460 2,429	IRPC sold refined products and aromatics products to GC. IRPC purchased crude oil products and refined products from GC. IRPC paid personnel expenses and maintenance service fees to GC.

No.	Company name and relationship	Transaction	(Unit: Million Baht)			Characteristics and conditions
			2023	2022	2021	
18.	GC Marketing Solutions Co., Ltd. (GCM) Relationship: PTT Global Chemical Public Company Limited holds 99.99% of shares	- Sale of goods - Purchase of goods - Accounts receivable - Accounts payable	- - - -	260 330 - -	333 405 27 33	IRPC sold polymer products to GCM. IRPC purchased polymer products from GCM.
19.	GC Logistics Solutions Co., Ltd. (GCL) Relationship: PTT Global Chemical Public Company Limited holds 99.99% of shares	- Sales and admin expenses	-	-	2	The company paid for transportation services to GCL.
20.	GC Styrenics Co., Ltd. (GCS) ⁽⁶⁾ Relationship: PTT Global Chemical Public Company Limited holds 99.99% of shares	- Sale of goods	-	-	44	IRPC sold aromatics products to GCS.
21.	GC Maintenance and Engineering Co., Ltd. (GCME) Relationship: PTT Global Chemical Public Company Limited holds 99.99% of shares	- Sales and admin expenses - Other payables	28 3	16 4	13 -	IRPC paid personnel expenses and engineering consulting fees to GCME.
22.	PTT Asahi Chemical Co., Ltd. (PTTAC) Relationship: PTT Global Chemical Public Company Limited holds 50.00% of shares	- Purchase of goods - Accounts payable	736 54	1,372 78	2,275 208	IRPC purchased petrochemical products from PTTAC.
23.	PTT Digital Solutions Co., Ltd. (PTT DIGITAL) Relationship: PTT Global Chemical Public Company Limited holds 40.00% of shares. PTT Public Company Limited holds 20.00% of shares.	- Sales and admin expenses	28	28	30	IRPC paid IT services to PTT DIGITAL.
24.	NPC Safety and Environmental Service Co., Ltd. (NPC S&E) Relationship: PTT Global Chemical Public Company Limited holds 99.99% of shares	- Sales and admin expenses	1	3	2	IRPC paid training fees for NPC S&E
25.	Global Green Chemical Plc. (GGC) Relationship: PTT Global Chemical Public Company Limited holds 72.29% of shares	- Purchase of goods - Accounts payable	921 86	1,552 19	1,578 66	IRPC purchased petroleum products from GGC.

No.	Company name and relationship	Transaction	(Unit: Million Baht)			Characteristics and conditions
			2023	2022	2021	
26.	Solution Creation Co., Ltd. (SOLUTION CRE) Relationship: PTT Global Chemical Public Company Limited holds 99.99% of shares	- Sale of goods	-	4	3	IRPC sold polymer products to SOLUTION CRE.
27.	GCM Polymer Trading DMCC (GCM DMCC) Relationship: GC Marketing Solutions Co., Ltd. holds 100% of shares	- Sale of goods	-	49	127	IRPC sold polymer products to GCM DMCC.
28.	IRPC Clean Power Co., Ltd. (IRPC-CP) Relationship: Global Power Synergy Public Company Limited (GPSC) holds 51.00% of shares. IRPC Public Company Limited holds 48.99% of shares. - Common directors: Mr. Phijin Apiwanthanaporn Mr. Worawut Sivapetcharanat Mr. Pranat Kosayanon	- Sale of goods - Purchase of goods - Sales and admin expenses - Other income - Accounts receivable - Accounts payable - Other receivables - Other payables	44 3,163 2 120 5 281 - 244	42 3,206 2 119 4 211 - 227	44 2,305 - 118 4 228 1 189	IRPC sold electricity and water to IRPC-CP IRPC purchased steam from IRPC-CP. IRPC subsidiaries paid for electricity to IRPC-CP. IRPC provided related services to power plants to IRPC-CP.
29.	Combined Heat and Power Producing Co., Ltd. (CHPP) Relationship: Global Power Synergy Public Company Limited (GPSC) holds 99.99% of shares.	- Sale of goods	14	3	-	IRPC sold petrochemical products to CHPP.
30.	GC Polyols Co., Ltd. (GC POLYOLS) Relationship: PTT Global Chemical Public Company Limited holds 82% of shares.	- Sale of goods	14	-	-	IRPC sold petrochemical products to GC POLYOLS.
31.	Thai Lube Base Public Company Limited (TLB) Relationship: Thaioil Public Company Limited holds 99.99% of shares.	- Sale of goods	89	-	-	IRPC sold aromatics products to TLB.
32.	Thai Lube Blending Co., Ltd. (TLBC) Relationship: PTT Oil and Retail Business Public Company Limited holds 99.99% of shares.	- Purchase of goods	27	-	-	IRPC purchased petroleum products from TLBC.
33.	PTT MEA Ltd. (PTTMEA) Relationship: PTT Public Company Limited holds 100% of shares.	- Purchase of goods - Other receivables	(7) 4	(10) -	- -	IRPC received a share of compensation in the form of administrative fee for the purchase and sale of crude oil and products within PTT Group.

No.	Company name and relationship	Transaction	(Unit: Million Baht)			Characteristics and conditions
			2023	2022	2021	
34.	PTT International Trading London Ltd. (PTTTLDN) Relationship: PTT Public Company Limited holds 100% of shares.	- Purchase of goods	(28)	(35)	-	IRPC received a share of compensation in the form of administrative fee for the purchase and sale of crude oil and products within PTT Group.
		- Other receivables	28	-	-	
35.	PTT International Trading Inc. (PTTTUSA) Relationship: PTT Public Company Limited holds 100% of shares.	- Purchase of goods	(1)	-	-	IRPC received a share of compensation in the form of administrative fee for the purchase and sale of crude oil and products within PTT Group.
		- Other receivables	2	-	-	
36.	PTT Treasury Center Co., Ltd. (PTTTCC) Relationship: PTT Public Company Limited holds 99.99% of shares.	- Interest payables	1	1	-	IRPC subsidiary paid interest on PTTTCC loans. IRPC subsidiary borrowed money from PTTTCC.
		- long-term loan	31	31	31	

Notes: ⁽¹⁾ Thaioil Marine Co., Ltd. (TOM) has changed its name to Truth Maritime Co., Ltd. (TM) and is no longer a related company of the group of companies as of April 30, 2021.

⁽²⁾ Top Solvent Co., Ltd. (TS) has changed its name to Topnext International Co., Ltd. (TX) as of October 3, 2022.

⁽³⁾ Ubon Bio Ethanol Public Company Limited (UBE) is no longer a related company within the group of companies as of September 27, 2021.

⁽⁴⁾ PTT Energy Solutions Co., Ltd. (PTTES) has registered the dissolution of the company on December 29, 2022.

⁽⁵⁾ Dhipaya Insurance Plc. (TIP) is no longer a related company of the group of companies as of August 31, 2021.

⁽⁶⁾ GC Styrenics Co., Ltd. (GCS) registered to dissolve the company on August 31, 2022.

► Connected Transaction Policy and Requirements

Significant connected transactions must be considered and approved by IRPC Board of Directors. As IRPC and its subsidiaries operate fully integrated petrochemical and refining businesses, the same business sector as PTT Group companies, connected transactions among IRPC, its subsidiaries, and PTT affiliates are inevitable and regarded as normal business activities. All such connected transactions, including trading in oil products and related services, as well as other transactions in support of normal business, are conducted on an arm's length basis and which does not lead to benefit transfer among them. IRPC exercises due care in considering connected transactions based on reasonableness and to the best interests of the company.

► Measures Relating to Connected Transactions

IRPC complies with the requirements of the SEC Office and the SET regarding connected transactions. The Board has duly examined transactions with potential conflicts of interest to ensure that they are conducted in a fair, transparent, and reasonable manner. Should a conflict of interest arise, the director, employee or any related party must recuse themselves from any discussion or voting on the issue in which they have a personal interest.

In addition, on a quarterly basis, the Audit Committee reviews IRPC and its subsidiaries' connected transactions with related companies or parties to avoid conflicts of interest and ensure IRPC's best interest.

► Policy on Future Connected Transactions

IRPC's future connected transactions will be considered normal business transactions. The company will take into consideration the suitability of conditions and fair market prices. This is to ensure the best interests of all shareholders and stakeholders, in strict compliance with the corporate governance policy as well as SEC Office and SET's regulations regarding connected transactions.

► Opinion of the Audit Committee

Having reviewed all connected transactions, the Audit Committee was of the opinion that these connected transactions were conducted in the course of normal business activities, with reasonableness in terms of pricing suitably linked to market prices, and were conducted on an arm's length basis, in conformity to the corporate governance policy and SEC Office and SET's regulatory requirements.

Section

03

FINANCIAL REPORT

- ▶ Report of the Board of Directors' Responsibilities for the Financial Reports
- ▶ Independent Auditor's Report
- ▶ Financial Statements
- ▶ Notes to the Consolidate Financial Statements



Report of the Board of Directors' Responsibilities for the Financial Reports

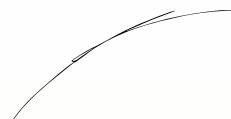
Dear Shareholders,

The financial statements of IRPC Public Company Limited and subsidiaries for the year ended December 31, 2023, were prepared under the requirements of the Securities and Exchange Commission and the financial reporting standards enforced by the Federation of Accounting Professions.

The Board of Directors is responsible for IRPC and subsidiaries' financial reports to ensure that our financial position, performance, and cash flow statements are materially correct. IRPC has recorded accurate, complete, timely and sufficient accounting journal entries to maintain assets, ensure an effective risk management and internal control, prevent fraud and significantly irregular operations. For the intent of preparing these reports and for the benefit of shareholders and general investors, IRPC has adopted suitable and consistently practiced accounting policy in line with proper financial reporting standards in the preparation of these reports. Material data have been duly disclosed in the Notes to the Financial Reports. The independent auditor, having scrutinized the consolidated statements, expressed their opinion on the financial statements of IRPC Public Company Limited and its subsidiaries in the Report of the Independent Certified Public Accountant.



Dr. Siri Jirapongphan
Chairman



Mr. Kris Imsang
President and Chief Executive Officer

Independent Auditor's Report

To the Shareholders of IRPC Public Company Limited

Opinion

I have audited the accompanying consolidated financial statements of IRPC Public Company Limited and its subsidiaries ("the Group"), which comprise the consolidated statement of financial position as at 31 December 2023, and the related consolidated statements of income, comprehensive income, changes in shareholders' equity and cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies, and have also audited the separate financial statements of IRPC Public Company Limited for the same period.

In my opinion, the financial statements referred to above present fairly, in all material respects, the financial position of IRPC Public Company Limited and its subsidiaries and of IRPC Public Company Limited as at 31 December 2023, their financial performance and cash flows for the year then ended in accordance with Thai Financial Reporting Standards.

Basis for Opinion

I conducted my audit in accordance with Thai Standards on Auditing. My responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of my report. I am independent of the Group in accordance with the Code of Ethics for Professional Accountants including Independence Standards as issued by the Federation of Accounting Professions as relevant to my audit of the financial statements, and I have fulfilled my other ethical responsibilities in accordance with the Code of Ethics for Professional Accountants. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Key Audit Matters

Key audit matters are those matters that, in my professional judgement, were of most significance in my audit of the financial statements of the current period. These matters were addressed in the context of my audit of the financial statements as a whole, and in forming my opinion thereon, and I do not provide a separate opinion on these matters.

I have fulfilled the responsibilities described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of my report, including in relation to these matters. Accordingly, my audit included the performance of procedures designed to respond to my assessment of the risks of material misstatement of the financial statements. The results of my audit procedures, including the procedures performed to address the matters below, provide the basis for my audit opinion on the accompanying financial statements as a whole.

Key audit matter and how audit procedures respond for are described below.

Allowance for diminution in value of inventories

As mentioned in Note 9 to the consolidated financial statements, regarding inventories as at 31 December 2023, the Group's cost of inventories amounted to Baht 34,019 million and the recorded allowance for diminution in value of inventories was Baht 1,606 million. I focused on consideration of allowance for diminution in value of inventories to net realisable value because the Group's inventories are mainly raw materials and finished goods that are commodities of which prices are volatile. This may affect the value of inventories at the end of the reporting period and the inventory balance is material to the financial statements. Inventories are measured at the lower of cost or net realisable value and this, together with determination of the related allowance for diminution in value of inventories, requires the management to consider the reasonableness of the market price used, by comparing it to the expected selling price of the commodities.

The procedures I performed to assess the determination of allowance for diminution in value of inventories included:

- Gaining an understanding and performing tests of the design and operating effectiveness of the controls relevant to the inventory valuation process.
- Assessing the appropriateness of the methodology used to calculate the net realisable value of inventories at the end of the reporting period, through considering the reasonableness of the market prices used by comparing them to the expected selling prices of commodities and testing the accuracy of the calculations.

- Assessing the completeness of the adjustments of allowance for diminution in value of inventories in the consolidated and separate financial statements and the adequacy of the disclosures made in relation to the estimation of allowance for diminution in value of inventories in the notes to the financial statements.

Other Information

Management is responsible for the other information. The other information comprises the information included in annual report of the Group, but does not include the financial statements and my auditor's report thereon.

My opinion on the financial statements does not cover the other information and I do not express any form of assurance conclusion thereon.

In connection with my audit of the financial statements, my responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or my knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work I have performed, I conclude that there is a material misstatement of this other information, I am required to report that fact. I have nothing to report in this regard.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fairly presentation of the financial statements in accordance with Thai Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Statements

My objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Thai Standards on Auditing will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Thai Standards on Auditing, I exercise professional judgement and maintain professional skepticism throughout the audit. I also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion.
The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.

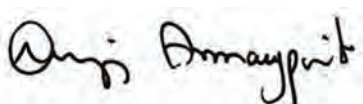
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. I am responsible for the direction, supervision and performance of the group audit. I remain solely responsible for my audit opinion.

I communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

I also provide those charged with governance with a statement that I have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on my independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, I determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. I describe these matters in my auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, I determine that a matter should not be communicated in my report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

I am responsible for the audit resulting in this independent auditor's report.



Vorapoj Amnauypanit

Certified Public Accountant (Thailand) No. 4640

EY Office Limited

Bangkok: 13 February 2024

IRPC Public Company Limited and its subsidiaries

Statement of financial position

As at 31 December 2023

(Unit: Baht)

	Note	Consolidated financial statements		Separate financial statements	
		2023	2022	2023	2022
Assets					
Current assets					
Cash and cash equivalents	7	6,220,330,819	3,230,449,809	5,885,820,066	2,917,691,080
Trade receivables	6, 8	15,596,585,496	15,051,059,250	15,692,768,398	15,090,802,555
Other receivables	8	1,360,507,061	6,545,211,172	1,346,524,031	6,537,485,541
Amounts due from related parties	6, 8	1,619,205,408	1,282,598,765	1,647,202,567	1,298,621,864
Short-term loans and interest receivable					
from related parties	6	-	-	20,009,958	134,844,429
Inventories	9	32,413,185,205	39,376,047,749	32,063,676,109	38,951,378,971
Refundable value-added tax		2,200,339,271	3,340,376,305	2,199,332,990	3,340,182,927
Prepaid excise tax		144,285,443	112,782,815	144,285,443	112,782,815
Current derivative assets	37.1	74,832,606	-	74,832,606	-
Other current assets		2,053,515,409	1,981,691,067	2,034,279,045	1,960,759,813
Total current assets		61,682,786,718	70,920,216,932	61,108,731,213	70,344,549,995
Non-current assets					
Other non-current financial assets	10	1,671,791,647	1,682,502,102	1,671,191,649	1,681,902,104
Investments in subsidiaries	11	-	-	2,456,389,987	2,522,389,957
Investments in joint ventures	12	753,455,309	726,171,969	718,999,790	682,999,790
Investments in associates	13	9,012,557,590	8,745,966,977	6,032,785,574	6,967,146,963
Long-term loans to related parties	6	-	-	66,935,938	76,935,938
Investment properties	14	938,988,819	938,988,819	903,122,010	903,122,010
Property, plant and equipment	15	114,362,281,923	111,432,138,687	112,448,772,590	109,473,178,272
Right-of-use assets	20.1	253,133,973	248,348,220	235,010,349	346,741,017
Intangible assets	16	726,492,290	695,433,457	691,899,907	663,004,922
Deferred tax assets	29	3,141,622,030	2,325,367,906	3,284,000,384	2,252,641,865
Non-current derivative assets	37.1	66,767,013	154,831,762	66,767,013	154,831,762
Other non-current assets		51,275,224	316,790,279	49,093,648	314,558,188
Total non-current assets		130,978,365,818	127,266,540,178	128,624,968,839	126,039,452,788
Total assets		192,661,152,536	198,186,757,110	189,733,700,052	196,384,002,783

The accompanying notes are an integral part of the financial statements.

IRPC Public Company Limited and its subsidiaries

Statement of financial position (continued)

As at 31 December 2023

(Unit: Baht)

		Consolidated financial statements		Separate financial statements	
	Note	2023	2022	2023	2022
Liabilities and shareholders' equity					
Current liabilities					
Short-term borrowings from					
financial institutions	17	7,200,000,000	9,000,000,000	7,200,000,000	9,000,000,000
Trade payables	6, 18	34,304,687,170	34,465,948,903	34,270,357,631	34,446,135,617
Other payables	18	2,863,666,691	4,243,531,715	2,807,493,884	4,178,276,040
Amounts due to related parties	6, 18	258,284,418	317,779,044	268,108,909	330,564,583
Interest payables		249,334,914	229,527,676	249,334,914	229,527,676
Accrued bonus expenses		937,669,655	1,343,445,768	923,661,074	1,325,924,487
Advance receipts for goods		1,387,688,616	1,209,525,779	1,156,064,992	1,171,727,547
Current portion of long-term borrowings					
from financial institutions	19.1	8,881,797,070	8,763,088,217	8,881,797,070	8,763,088,217
Current portion of debentures	19.2	1,999,642,565	1,999,314,664	1,999,642,565	1,999,314,664
Current portion of lease liabilities	6, 20.1	106,826,672	102,457,907	100,735,754	211,559,100
Short-term borrowings and interest payable					
from a related party	6	-	-	328,503,675	4,122
Income tax payable		14,686,190	7,741,384	-	-
Current derivative liabilities	37.1	137,253,350	62,228,511	137,253,350	62,228,511
Other current liabilities		602,226,722	311,257,814	598,146,126	306,393,912
Total current liabilities		58,943,764,033	62,055,847,382	58,921,099,944	62,024,744,476
Non-current liabilities					
Long-term borrowings from financial institutions					
- net of current portion	19.1	10,990,578,947	19,885,636,691	10,990,578,947	19,885,636,691
Debentures - net of current portion	19.2	41,954,814,917	31,963,531,754	41,954,814,917	31,963,531,754
Long-term lease liabilities					
- net of current portion	6, 20.1	141,205,117	143,948,044	128,860,190	136,055,763
Long-term borrowings from a related party	6	31,290,625	31,290,625	-	-
Provision for long-term employee benefits	21	4,461,161,463	4,245,971,386	4,408,673,749	4,196,763,294
Non-current derivative liabilities	37.1	-	86,912,018	-	86,912,018
Other non-current liabilities		16,605,728	95,842,542	11,190,503	88,610,539
Total non-current liabilities		57,595,656,797	56,453,133,060	57,494,118,306	56,357,510,059
Total liabilities		116,539,420,830	118,508,980,442	116,415,218,250	118,382,254,535

The accompanying notes are an integral part of the financial statements.

IRPC Public Company Limited and its subsidiaries

Statement of financial position (continued)

As at 31 December 2023

(Unit: Baht)

		Consolidated financial statements		Separate financial statements	
	Note	2023	2022	2023	2022
Shareholders' equity					
Share capital					
Registered share capital					
20,475,000,000 ordinary shares					
of Baht 1 each		20,475,000,000	20,475,000,000	20,475,000,000	20,475,000,000
Issued and paid-up share capital					
20,434,419,246 ordinary shares					
of Baht 1 each		20,434,419,246	20,434,419,246	20,434,419,246	20,434,419,246
Share premium		28,554,212,397	28,554,212,397	28,554,212,397	28,554,212,397
Treasury stock - ordinary shares					
held by a subsidiary	22	(124,282,649)	(124,282,649)	-	-
Premium on treasury stock - ordinary shares					
held by a subsidiary		15,177,080	15,177,080	-	-
Retained earnings					
Appropriated - statutory reserve	23	2,047,500,000	2,047,500,000	2,047,500,000	2,047,500,000
Unappropriated		24,998,669,301	28,531,873,203	22,297,533,254	26,972,231,336
Other components of shareholders' equity		(15,183,095)	(6,614,731)	(15,183,095)	(6,614,731)
Equity attributable to owners of the Company		75,910,512,280	79,452,284,546	73,318,481,802	78,001,748,248
Non-controlling interests of the subsidiaries	11	211,219,426	225,492,122	-	-
Total shareholders' equity		76,121,731,706	79,677,776,668	73,318,481,802	78,001,748,248
Total liabilities and shareholders' equity		192,661,152,536	198,186,757,110	189,733,700,052	196,384,002,783

The accompanying notes are an integral part of the financial statements.

IRPC Public Company Limited and its subsidiaries

Income statement

For the year ended 31 December 2023

(Unit: Baht)

Note	Consolidated financial statements		Separate financial statements	
	2023	2022	2023	2022
Revenues				
Revenue from sales and services	319,047,082,363	324,800,027,932	318,016,221,365	323,770,855,329
Other income	24 852,961,918	1,538,130,838	956,823,002	1,752,698,129
Total revenues	319,900,044,281	326,338,158,770	318,973,044,367	325,523,553,458
Expenses				
Cost of sales and services	315,498,579,998	314,892,104,739	314,800,450,801	314,076,566,056
Selling and distribution expenses	1,405,491,761	1,964,485,955	1,455,824,688	2,000,377,343
Administrative expenses	25 5,371,997,340	5,275,018,354	5,221,745,805	5,108,621,573
Loss on impairment of investments in a subsidiary and associates	11, 13 -	-	1,020,361,359	10,200,000
Net derivative (gain) loss	26 (514,613,438)	8,118,759,167	(514,613,438)	8,118,759,167
Total expenses	321,761,455,661	330,250,368,215	321,983,769,215	329,314,524,139
Operating loss	(1,861,411,380)	(3,912,209,445)	(3,010,724,848)	(3,790,970,681)
Share of profit from investments in joint ventures and associates	12, 13 254,057,120	283,621,119	-	-
Finance cost	27 (2,076,892,126)	(1,873,236,507)	(2,080,357,565)	(1,878,255,920)
Loss before income tax revenues	(3,684,246,386)	(5,501,824,833)	(5,091,082,413)	(5,669,226,601)
Income tax revenues	29 771,892,957	1,141,807,919	1,029,216,428	1,170,692,393
Loss for the year	(2,912,353,429)	(4,360,016,914)	(4,061,865,985)	(4,498,534,208)
Profit (loss) attributable to				
Equity holders of the Company	(2,923,167,490)	(4,363,617,922)	(4,061,865,985)	(4,498,534,208)
Non-controlling interests of the subsidiaries	10,814,061	3,601,008		
	<u>(2,912,353,429)</u>	<u>(4,360,016,914)</u>		
Basic loss per share				
31 Loss attributable to equity holders of the Company	(0.14)	(0.21)	(0.20)	(0.22)

The accompanying notes are an integral part of the financial statements.

IRPC Public Company Limited and its subsidiaries

Statement of comprehensive income

For the year ended 31 December 2023

(Unit: Baht)

Note	Consolidated financial statements		Separate financial statements	
	2023	2022	2023	2022
Loss for the year	(2,912,353,429)	(4,360,016,914)	(4,061,865,985)	(4,498,534,208)
Other comprehensive income:				
<i>Other comprehensive income not to be reclassified to profit or loss in subsequent periods</i>				
Loss on investments in equity instruments designated at fair value through other comprehensive income	(10,710,455)	(4,188,101)	(10,710,455)	(4,188,101)
Less: Income tax effect	29 2,142,091	837,620	2,142,091	837,620
	(8,568,364)	(3,350,481)	(8,568,364)	(3,350,481)
Gain on sales of investments in equity instrument	10 -	1,277,104	-	1,277,104
Share of other comprehensive gain (loss) on investment in associates	13.2 2,080,833	(3,952,723)	-	-
Other comprehensive loss for the year	(6,487,531)	(6,026,100)	(8,568,364)	(2,073,377)
Total comprehensive loss for the year	(2,918,840,960)	(4,366,043,014)	(4,070,434,349)	(4,500,607,585)
Total comprehensive loss attributable to				
Equity holders of the Company	(2,929,655,021)	(4,369,644,022)	(4,070,434,349)	(4,500,607,585)
Non-controlling interests of the subsidiaries	10,814,061	3,601,008		
	(2,918,840,960)	(4,366,043,014)		

The accompanying notes are an integral part of the financial statements.

IRPC Public Company Limited and its subsidiaries
Statement of changes in shareholders' equity
For the year ended 31 December 2023

	Consolidated financial statements										(Unit: Baht)
	Equity attributable to owners of the Company										
	Issued and paid-up share capital	Share premium	Treasury stock - ordinary shares held by a subsidiary	Premium on treasury stock - ordinary shares held by a subsidiary	Retained earnings		Other components of shareholders' equity	Total equity attributable to owners of the Company	Non-controlling interests of the subsidiaries	Total shareholders' equity	
					Appropriated - statutory reserve	Unappropriated					
Balance as at 1 January 2022	20,434,419,246	28,554,212,397	(124,282,649)	15,177,080	2,047,500,000	36,571,819,945	(3,264,250)	87,495,581,769	216,704,534	87,712,286,303	
Profit (loss) for the year	-	-	-	-	-	(4,363,617,922)	-	(4,363,617,922)	3,601,008	(4,360,016,914)	
Other comprehensive loss for the year	-	-	-	-	-	(2,675,619)	(3,350,481)	(6,026,100)	-	(6,026,100)	
Total comprehensive income (loss) for the year	-	-	-	-	-	-	-	-	-	-	
Dividends paid	-	-	-	-	-	(4,366,293,541)	(3,350,481)	(4,369,644,022)	3,601,008	(4,366,043,014)	
Increase in portion of investment of non-controller of a subsidiary (Note 11)	-	-	-	-	-	(3,673,653,201)	-	(3,673,653,201)	(34,813,420)	(3,708,466,621)	
Balance as at 31 December 2022	20,434,419,246	28,554,212,397	(124,282,649)	15,177,080	2,047,500,000	28,531,873,203	(6,614,731)	79,452,284,546	40,000,000	79,677,776,668	
Balance as at 1 January 2023	20,434,419,246	28,554,212,397	(124,282,649)	15,177,080	2,047,500,000	28,531,873,203	(6,614,731)	79,452,284,546	225,492,122	79,677,776,668	
Profit (loss) for the year	-	-	-	-	-	(2,923,167,490)	-	(2,923,167,490)	10,814,061	(2,912,353,429)	
Other comprehensive income for the year	-	-	-	-	-	2,080,833	(8,568,364)	(6,487,531)	-	(6,487,531)	
Total comprehensive income for the year	-	-	-	-	-	(2,921,086,657)	(8,568,364)	(2,929,655,021)	10,814,061	(2,918,840,960)	
Dividends paid	-	-	-	-	-	(612,117,245)	-	(612,117,245)	(25,086,757)	(637,204,002)	
Balance as at 31 December 2023	20,434,419,246	28,554,212,397	(124,282,649)	15,177,080	2,047,500,000	24,998,669,301	(15,183,095)	75,910,512,280	211,219,426	76,121,731,706	

The accompanying notes are an integral part of the financial statements.

IRPC Public Company Limited and its subsidiaries

Statement of changes in shareholders' equity

For the year ended 31 December 2023

Separate financial statements							(Unit: Baht)
	Issued and paid-up share capital	Share premium	Retained earnings		Other components of shareholders' equity	Total Shareholders' equity	
			Appropriated - statutory reserve	Unappropriated			
Balance as at 1 January 2022	20,434,419,246	28,554,212,397	2,047,500,000	35,147,430,753	(3,264,250)	86,180,298,146	
Loss for the year	-	-	-	(4,498,534,208)	-	(4,498,534,208)	
Other comprehensive income (loss) for the year	-	-	-	1,277,104	(3,350,481)	(2,073,377)	
Total comprehensive loss for the year	-	-	-	(4,497,257,104)	(3,350,481)	(4,500,607,585)	
Dividends paid (Note 34)	-	-	-	(3,677,942,313)	-	(3,677,942,313)	
Balance as at 31 December 2022	20,434,419,246	28,554,212,397	2,047,500,000	26,972,231,336	(6,614,731)	78,001,748,248	
Balance as at 1 January 2023	20,434,419,246	28,554,212,397	2,047,500,000	26,972,231,336	(6,614,731)	78,001,748,248	
Loss for the year	-	-	-	(4,061,865,985)	-	(4,061,865,985)	
Other comprehensive loss for the year	-	-	-	-	(8,568,364)	(8,568,364)	
Total comprehensive loss for the year	-	-	-	(4,061,865,985)	(8,568,364)	(4,070,434,349)	
Dividends paid (Note 34)	-	-	-	(612,832,097)	-	(612,832,097)	
Balance as at 31 December 2023	20,434,419,246	28,554,212,397	2,047,500,000	22,297,533,254	(15,183,095)	73,318,481,802	

The accompanying notes are an integral part of the financial statements.

IRPC Public Company Limited and its subsidiaries

Cash flow statement

For the year ended 31 December 2023

(Unit: Baht)

	Consolidated financial statements		Separate financial statements	
	2023	2022	2023	2022
Cash flows from operating activities				
Loss before tax	(3,684,246,386)	(5,501,824,833)	(5,091,082,413)	(5,669,226,601)
Adjustments to reconcile loss before tax to net cash provided by (paid from) operating activities				
Depreciation and amortisation	8,666,309,961	8,058,798,626	8,666,687,433	8,066,910,812
Share of profit from investments in joint ventures and associates	(254,057,120)	(283,621,119)	-	-
Expected credit losses (reversal)	14,088,169	(1,971,483)	13,684,940	515,789
(Reversal) reduction of inventory to net realisable value	(1,904,692,250)	2,399,636,067	(1,904,692,250)	2,399,636,067
Unrealised (gain) loss on exchange rate	(60,019,529)	200,206,775	(60,202,093)	200,158,497
Unrealised (gain) loss on hedge accounting	1,344,964	(256,019,624)	1,344,964	(256,019,624)
Gain on disposal of property, plant and equipment	(5,916,518)	(3,044,058)	(5,990,253)	(3,137,134)
Reversal of loss on impairment of an asset	-	(17,025,863)	-	(17,025,863)
Loss on impairment of investment in a subsidiary and associates	-	-	1,020,361,359	10,200,000
Provision for long-term employee benefits	293,291,704	283,375,129	288,726,185	279,059,877
Interest income	(56,329,961)	(37,674,844)	(55,985,730)	(41,266,085)
Dividend income	(7,391,484)	(5,600,190)	(59,568,626)	(169,458,610)
Finance cost	2,076,892,126	1,873,236,507	2,080,357,565	1,878,255,920
Profit from operating activities before changes in operating assets and liabilities	5,079,273,676	6,708,471,090	4,893,641,081	6,678,603,045
Operating assets (increase) decrease				
Trade receivables	(677,438,430)	(1,299,923,523)	(733,390,442)	(1,311,376,831)
Other receivables	5,183,877,937	(3,901,670,664)	5,190,135,772	(3,907,123,088)
Amounts due from related parties	(345,525,261)	1,628,227,665	(357,499,321)	1,629,612,752
Inventories	8,867,554,794	(8,009,543,559)	8,792,395,112	(7,946,010,087)
Refundable value-added tax	1,140,037,034	(859,567,077)	1,140,849,937	(869,783,092)
Prepaid excise tax	(31,502,628)	53,049,776	(31,502,628)	53,049,776
Other current assets	62,396,212	(57,328,071)	61,389,580	(55,570,005)
Other non-current assets	1,115,411	151,373,255	1,064,896	151,275,685
Operating liabilities increase (decrease)				
Trade payables	(157,688,696)	5,802,418,215	(172,107,176)	5,823,479,079
Other payables	(169,041,642)	(231,166,920)	(160,570,633)	(226,091,497)
Amounts due to related parties	(59,494,626)	45,584,679	(62,455,674)	44,426,258
Accrued bonus expenses	(405,776,113)	(611,345,628)	(402,263,413)	(608,834,616)
Advanced receipts for goods	178,162,837	(665,018,258)	(15,662,555)	(650,869,591)
Other current liabilities	290,968,908	262,310,253	291,752,214	266,564,478
Provision for long-term employee benefits	(78,101,627)	(42,522,925)	(76,815,730)	(40,703,799)
Other non-current liabilities	(79,236,814)	(246,336,265)	(77,420,036)	(224,615,917)
Cash flows from (used in) operating activities	18,799,580,972	(1,272,987,957)	18,281,540,984	(1,193,967,450)
Cash paid for corporate income tax	(171,300,292)	(2,495,312,949)	(134,908,812)	(2,462,002,077)
Cash receipt from withholding tax	1,686,991	56,085,511	-	45,608,347
Net cash flows from (used in) operating activities	18,629,967,671	(3,712,215,395)	18,146,632,172	(3,610,361,180)

The accompanying notes are an integral part of the financial statements.

IRPC Public Company Limited and its subsidiaries

Cash flow statement (continued)

For the year ended 31 December 2023

(Unit: Baht)

	Consolidated financial statements		Separate financial statements	
	2023	2022	2023	2022
Cash flows from investing activities				
Proceed from short-term loan to related parties	-	-	114,637,873	-
Cash receipt (paid) on long-term loan to a related party	-	-	10,000,000	(84,637,873)
Increase in investments in a subsidiary, joint ventures and an associate	(56,000,000)	(15,000,000)	(56,000,000)	(75,000,000)
Dividend received from a subsidiary, a joint venture and associates	18,264,000	116,796,440	52,177,142	168,147,532
Proceed from sales of equity investments	-	3,627,104	-	3,627,104
Acquisitions of property, plant and equipment	(11,869,847,645)	(8,819,054,228)	(11,813,445,486)	(8,624,229,959)
Proceed from disposal of property, plant and equipment	21,219,582	7,117,924	19,212,811	7,055,043
Acquisitions of intangible assets	(199,093,654)	(79,975,672)	(192,653,474)	(78,083,798)
Other non-current assets	-	(187,398,191)	-	(187,398,191)
Interest received	56,329,961	37,674,844	56,182,327	41,059,530
Dividend received	7,391,484	5,600,190	7,391,484	1,311,078
Net cash flows used in investing activities	(12,021,736,272)	(8,930,611,589)	(11,802,497,323)	(8,828,149,534)
Cash flows from financing activities				
Cash receipt on settlements of financial derivative contracts	177,031,490	9,741,833	177,031,490	9,741,833
Repayment of lease liabilities	(111,202,419)	(112,729,053)	(219,335,338)	(218,212,736)
Cash receipt (paid) from short-term borrowings from a related party	-	-	328,225,654	(56,443,566)
Cash receipt (paid) from short-term borrowings from financial institutions	(1,800,000,000)	9,000,000,000	(1,800,000,000)	9,000,000,000
Cash paid from long-term borrowings from a related party	(539,367)	-	-	-
Dividend paid to non-controlling interest of subsidiaries	(25,086,757)	(34,813,420)	-	-
Cash receipt from non-controlling interest of subsidiaries	-	40,000,000	-	-
Proceed from debentures issuance	11,981,199,765	11,982,143,314	11,981,199,765	11,982,143,314
Repayment of long-term loans from financial institutions and debentures	(10,786,434,000)	(10,649,930,000)	(10,786,434,000)	(10,649,930,000)
Dividend paid	(612,117,245)	(3,673,653,201)	(612,832,097)	(3,677,942,313)
Interest paid	(2,441,201,856)	(1,923,512,863)	(2,443,861,337)	(1,927,395,592)
Net cash flows from (used in) financing activities	(3,618,350,389)	4,637,246,610	(3,376,005,863)	4,461,960,940
Net increase (decrease) in cash and cash equivalents	2,989,881,010	(8,005,580,374)	2,968,128,986	(7,976,549,774)
Cash and cash equivalents at beginning of year	3,230,449,809	11,236,030,183	2,917,691,080	10,894,240,854
Cash and cash equivalents at end of year	6,220,330,819	3,230,449,809	5,885,820,066	2,917,691,080

Supplemental cash flows information

Non-cash item consist of

Increase in right-of-use assets and lease liabilities from

additional lease agreements

123,582,356

136,320,321

112,070,518

127,807,411

Accounts payable from purchases of fixed assets

357,025,971

1,564,525,545

356,995,324

1,563,883,038

The accompanying notes are an integral part of the financial statements.

IRPC Public Company Limited and its subsidiaries**Notes to consolidated financial statements****For the year ended 31 December 2023****1. General information**

IRPC Public Company Limited (“the Company”) is a public company incorporated and domiciled in Thailand. Its parent company is PTT Public Company Limited, which was incorporated in Thailand. The Company is principally engaged in petroleum and petrochemical business with its products being refinery, lubricant, olefins, aromatics, plastic resins and other petrochemical products. The address of the Company’s registered office is 299 Moo 5, Sukhumvit Road, Choengnueen District, Aumthur Muang, Rayong Province. The Company’s office is located at 555/2 Energy Complex, Building B, 6th floor, Vibhavadi Rangsit Road, Chatuchak, Bangkok 10900.

2. Basis of preparation

- 2.1 The financial statements have been prepared in accordance with Thai Financial Reporting Standards enunciated under the Accounting Professions Act B.E. 2547 and their presentation has been made in compliance with the stipulations of the Notification of the Department of Business Development, issued under the Accounting Act B.E. 2543.

The financial statements in Thai language are the official statutory financial statements of the Company. The financial statements in English language have been translated from the Thai language financial statements.

The financial statements have been prepared on a historical cost basis except where otherwise disclosed in the accounting policies.

2.2 Basis of consolidation

- a) The consolidated financial statements include the financial statements of IRPC Public Company Limited (“the Company”) and the following subsidiary companies (“the subsidiaries”) (collectively as “the Group”).

Company's name	Nature of business	Country of incorporation	Percentage of shareholding	
			2023	2022
			(%)	(%)
<u>Subsidiaries held by the Company</u>				
IRPC Oil Company Limited	Sales of oil products and gas	Thailand	99.99	99.99
IRPC Technology Co., Ltd.	Vocational school	Thailand	99.99	99.99
Innopolymed Co., Ltd.	Manufacturing and sales of non-woven fabric products and medical consumables	Thailand	60.00	60.00
IRPC A&L Company Limited	Distributing of petrochemical products	Thailand	57.48	57.48
iPolymer Company Limited	Distributing of plastic resin and chemical products via E-Commerce system	Thailand	55.00	55.00
<u>A subsidiary held by IRPC Oil Company Limited</u>				
Rakpasak Co., Ltd.	Oil vessel renting and producing and distributing of fertilizer products	Thailand	99.99	99.99

- b) The Company is deemed to have control over an investee or subsidiaries if it has rights, or is exposed, to variable returns from its involvement with the investee, and it has the ability to direct the activities that affect the amount of its returns.
- c) Subsidiaries are fully consolidated, being the date on which the Company obtains control, and continue to be consolidated until the date when such control ceases.
- d) The financial statements of the subsidiaries are prepared using the same significant accounting policies as the Company.
- e) Material balances and transactions between the Group have been eliminated from the consolidated financial statements.
- f) Non-controlling interests represent the portion of profit or loss and net assets of the subsidiaries that are not held by the Company and are presented separately in the consolidated profit or loss and within equity in the consolidated statement of financial position.

2.3 The separate financial statements present investments in subsidiaries, joint ventures and associates under the cost method.

3. New financial reporting standards

3.1 Financial reporting standards that became effective in the current year

During the year, the Group has adopted the revised financial reporting standards which are effective for fiscal years beginning on or after 1 January 2023. These financial reporting standards were aimed at alignment with the corresponding International Financial Reporting Standards with most of the changes directed towards clarifying accounting treatment and providing accounting guidance for users of the standards.

The adoption of these financial reporting standards does not have any significant impact on the Group's financial statements.

3.2 Financial reporting standards that will become effective for fiscal years beginning on or after 1 January 2024

The Federation of Accounting Professions issued a number of revised financial reporting standards, which are effective for fiscal years beginning on or after 1 January 2024. These financial reporting standards were aimed at alignment with the corresponding International Financial Reporting Standards with most of the changes directed towards clarifying accounting treatment and providing accounting guidance for users of the standards.

The management of the Group believes that adoption of these amendments will not have any significant impact on the Group's financial statements.

TAS 12, Income Taxes - Deferred Tax related to Assets and Liabilities arising from a Single Transaction

The amendment narrows the scope of the initial recognition exception, so that deferred tax related to assets and liabilities arising from a single transaction that give rise to equal taxable and deductible temporary differences such as leases and decommissioning obligations shall be recognised.

The amendment should be applied to transactions that occur on or after the beginning of the earliest comparative period presented.

TAS 12, Income Taxes - International Tax Reform - Pillar Two Model Rules

The amendment requires that entities shall neither recognise nor disclose information about deferred taxes related to Pillar Two model rules published by the Organisation for Economic Co-operation and Development (OECD). This mandatory temporary exemption applies immediately.

The amendment also includes disclosure requirements for affected entities to help users of financial statements better understand an entity's exposure to Pillar Two income taxes arising from that legislation, particularly before its effective date. These disclosure requirements apply for annual reporting periods beginning on or after 1 January 2024, but not for any interim periods ending on or before 31 December 2024.

The management of the Group is currently in the process of assessing the potential exposure to Pillar Two income taxes on the financial statements.

4. Significant accounting policies

4.1 Revenue and expense recognition

Revenue from sales and services

Revenue comprises the fair value of the consideration received or receivable for the sale of goods and service in the ordinary course of the Group's activities including excise tax, municipal tax and oil fund. Revenue is shown net of returns, rebates and discounts, and after eliminating sales within the Group. Revenue from sales of goods is recognised when control of the goods has transferred to the customer, being at the point the goods are delivered to the customer. Revenues from rendering of services is recognised as a performance obligation satisfied over time when services underlying the particular performance obligation is transferred to the customer.

Interest income

Interest income is calculated using the effective interest method and recognised on an accrual basis. The effective interest rate is applied to the gross carrying amount of a financial asset, unless the financial assets subsequently become credit-impaired when it is applied to the net carrying amount of the financial asset (net of the expected credit loss allowance).

Finance cost

Interest expense from financial liabilities at amortised cost is calculated using the effective interest method and recognised on an accrual basis.

Dividends

Dividends are recognised when the right to receive the dividends is established.

Other income

Other income is recognised in the statement of income on an accrual basis.

4.2 Cash and cash equivalents

Cash and cash equivalents consist of cash in hand and at banks, and all highly liquid investments with an original maturity of 3 months or less and not subject to withdrawal restrictions.

4.3 Inventories

Finished goods and work in process are valued at the lower of cost (under the weighted average method) and net realisable value. The cost of inventories is measured using the standard cost method, which approximates actual cost and includes all production costs and attributable factory overheads.

Raw materials, chemicals and fuel oil, spare parts and repair materials are valued at the lower of average cost or net realisable value and are charged to production costs whenever consumed.

The cost of purchase comprises both the purchase price and costs directly attributable to the acquisition of the inventory, such as import duties and transportation charges, less all attributable discounts or rebates.

Net realisable value is calculated based on the estimated selling price in the ordinary course of business less the estimated costs of completion and the necessary costs to make the sale.

Allowance for obsolescence, slow moving or defective inventories is recorded based on the consideration of future use of those inventories and the aging analysis at the end of each reporting year.

4.4 Investments in subsidiaries, joint ventures and associates

Investments in joint ventures and associates are accounted for in the consolidated financial statements using the equity method.

Investments in subsidiaries, joint ventures and associates are accounted for in the separate financial statements using the cost method.

4.5 Investment properties

Investment properties are measured initially at cost, including transaction costs. Subsequent to initial recognition, investment properties are stated at cost less accumulated depreciation and allowance for loss on impairment (if any).

No depreciation is provided on land. Depreciation of other investment properties, which are buildings, is calculated by reference to their costs on the straight-line basis over estimated useful lives of 20 years. Depreciation of the investment properties is included in determining income.

On disposal of investment properties, the difference between the net disposal proceeds and the carrying amount of the asset is recognised in profit or loss in the period when the asset is derecognised.

4.6 Property, plant and equipment and depreciation

Land and land improvement is stated at cost. Buildings and equipment are stated at cost less accumulated depreciation and allowance for loss on impairment of assets (if any).

Depreciation of plant and equipment is calculated by reference to their costs, on the straight-line basis over the following estimated useful lives.

Buildings and building improvements	-	20 - 40 years
Machinery and pipes	-	20 - 30 years
Other machinery	-	Unit of production
Tools and factory equipment	-	10 years
Furniture, fixtures and office equipment	-	5 - 10 years
Vehicles	-	5 - 10 years

Depreciation is included in determining income.

No depreciation is provided on land, land improvement and assets under installation and construction.

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected from its use or disposal. Any gain or loss arising on disposal of an asset is included in profit or loss when the asset is derecognised.

4.7 Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of an asset that necessarily takes a substantial period of time to get ready for its intended use or sale are capitalised as part of the cost of the respective assets. All other borrowing costs are expensed in the period they are incurred. Borrowing costs consist of interest and other costs that an entity incurs in connection with the borrowing of funds.

4.8 Intangible assets

Intangible assets are initially recognised at cost. Following the initial recognition, the intangible assets are carried at cost less any accumulated amortisation and any accumulated impairment losses (if any).

Intangible assets with finite lives are amortised on the straight-line basis over the economic useful life and tested for impairment whenever there is an indication that the intangible asset may be impaired. The amortisation period and the amortisation method of such intangible assets are reviewed at least at each financial year end. The amortisation expense is charged to profit or loss.

A summary of the intangible assets with finite useful lives is as follows:

	<u>Useful lives</u>
Dredging expenses	10 - 20 years
Computer software	5 - 10 years

No amortisation is provided on computer software under installation.

4.9 Leases

At inception of contract, the Group assesses whether a contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

The Group as a lessee

The Group applied a single recognition and measurement approach for all leases, except for short-term leases and leases of low-value assets. At the commencement date of the lease (i.e. the date the underlying asset is available for use), the Group recognises right-of-use assets representing the right to use underlying assets and lease liabilities based on lease payments.

Right-of-use assets

Right-of-use assets are measured at cost, less accumulated depreciation, any accumulated impairment losses, and adjusted for any remeasurement of lease liabilities. The cost of right-of-use assets includes the amount of lease liabilities initially recognised, initial direct costs incurred, lease payments made at or before the commencement date of the lease less any lease incentives received.

Depreciation of right-of-use assets are calculated by reference to their costs, on the straight-line basis over the shorter of their estimated useful lives and the lease term.

Land	3 - 20 years
Buildings	3 years
Tank and storage	3 - 5 years
Computer and accessories	3 - 5 years
Vehicles	2 - 5 years

If ownership of the leased asset is transferred to the Group at the end of the lease term or the cost reflects the exercise of a purchase option, depreciation is calculated using the estimated useful life of the asset.

Lease liabilities

Lease liabilities are measured at the present value of the lease payments to be made over the lease term. The lease payments include fixed payments less any lease incentives receivable, variable lease payments that depend on an index or a rate, and amounts expected to be payable under residual value guarantees. Moreover, the lease payments include the exercise price of a purchase option reasonably certain to be exercised by the Group and payments of penalties for terminating the lease, if the lease term reflects the Group exercising an option to terminate. Variable lease payments that do not depend on an index or a rate are recognised as expenses in the period in which the event or condition that triggers the payment occurs.

The Group discounted the present value of the lease payments by the interest rate implicit in the lease or the Group's incremental borrowing rate. After the commencement date, the amount of lease liabilities is increased to reflect the accretion of interest and reduced for the lease payments made. In addition, the carrying amount of lease liabilities is remeasured if there is a change in the lease term, a change in the lease payments or a change in the assessment of an option to purchase the underlying asset.

Short-term leases and leases of low-value assets

A lease that has a lease term less than or equal to 12 months from commencement date or a lease of low-value assets is recognised as expenses on a straight-line basis over the lease term.

The Group as a lessor

A lease is classified as an operating lease if it does not transfer substantially all the risks and rewards incidental to ownership of an underlying asset to a lessee. Lease receivables from operating leases is recognised as income in profit or loss on a straight-line basis over the lease term. Initial direct costs incurred in obtaining an operating lease are added to the carrying amount of the underlying assets and recognised as an expense over the lease term on the same basis as the lease income.

4.10 Related party transactions

Related parties comprise individuals or enterprises that control, or are controlled by, the Company, whether directly or indirectly, or which are under common control with the Company.

They also include associates, and individuals or enterprises which directly or indirectly own a voting interest in the Company that gives them significant influence over the Company, key management personnel, directors, and officers with authority in the planning and direction of the Company's operations.

4.11 Foreign currencies

The consolidated and separate financial statements are presented in Baht, which is also the Company's functional currency.

Transactions in foreign currencies are translated into Baht at the exchange rate ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are translated into Baht at the exchange rate ruling at the end of reporting period.

Gains and losses on exchange are included in determining income.

4.12 Impairment of non-financial assets

At the end of each reporting period, the Group performs annual impairment reviews in respect of the property, plant and equipment, right-of-use assets, investment properties and other intangible assets whenever events or changes in circumstances indicate that an asset may be impaired. An impairment loss is recognised when the recoverable amount of an asset, which is the higher of the asset's fair value less costs to sell and its value in use, is less than the carrying amount.

An impairment loss is recognised in profit or loss.

In the assessment of asset impairment, if there is any indication that previously recognised impairment losses may no longer exist or may have decreased, the Group estimates the asset's recoverable amount. A previously recognised impairment loss is reversed only if there has been a change in the assumptions used to determine the asset's recoverable amount since the last impairment loss was recognised. The increased carrying amount of the asset attributable to a reversal of an impairment loss shall not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset in prior years. Such reversal is recognised in profit or loss.

4.13 Employee benefits

Short-term employee benefits

Salaries, wages, bonuses and contributions to the social security fund are recognised as expenses when incurred.

Post-employment benefits and other long-term employee benefits

Defined contribution plans

The Company and its employees have jointly established a provident fund. The fund is monthly contributed by employees and by the Company. The fund's assets are held in a separate trust fund and the Company's contributions are recognised as expenses when incurred.

Defined benefit plans and other long-term employee benefits

The Group has obligations in respect of the severance payments it must make to employees upon retirement under labor law and other employee benefit plan. The Group treats these severance payment obligations as a defined benefit plan. In addition, the Group provides other long-term employee benefit plan, namely gold awards plan to employees who have provided their services at their 10, 20 and 30 year anniversaries.

The obligation under the defined benefit plan and other long-term employee benefit plan is determined by a professionally qualified independent actuary based on actuarial techniques, using the projected unit credit method.

Actuarial gains and losses arising from defined benefit plans are recognised immediately in other comprehensive income.

Actuarial gains and losses arising from other long-term benefits are recognised immediately in profit and loss.

4.14 Provisions

Provisions are recognised when the Group has a present obligation as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation.

4.15 Treasury stock

The Group's own equity instruments that have been reacquired (treasury stock) are recognised at cost and deducted from equity. No gain or loss is recognised in profit or loss on the purchase, sale, issue or cancellation of the Group's own equity instruments. Any difference between the carrying amount and the consideration received, if reissued, is recognised in share premium.

4.16 Income tax

Income tax expense represents the sum of corporate income tax currently payable and deferred tax.

Current tax

Current income tax is provided in the accounts at the amount expected to be paid to the taxation authorities, based on taxable profits determined in accordance with tax legislation.

Deferred tax

Deferred income tax is provided on temporary differences between the tax bases of assets and liabilities and their carrying amounts at the end of each reporting period, using the tax rates enacted at the end of the reporting period.

The Group recognises deferred tax liabilities for all taxable temporary differences while it recognises deferred tax assets for all deductible temporary differences and tax losses carried forward to the extent that it is probable that future taxable profit will be available against which such deductible temporary differences and tax losses carried forward can be utilised.

At each reporting date, the Group reviews and reduces the carrying amount of deferred tax assets to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be utilised.

The Group records deferred tax directly to shareholders' equity if the tax relates to items that are recorded directly to shareholders' equity.

Deferred income tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and when the deferred income tax assets and liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities where there is an intention to settle the balances on a net basis.

4.17 Financial instruments

The Group initially measures financial assets at its fair value plus, in the case of financial assets that are not measured at fair value through profit or loss, transaction costs. However, trade receivables, that do not contain a significant financing component, are measured at the transaction price as disclosed in the accounting policy relating to revenue recognition.

Classification and measurement of financial assets

Financial assets are classified, at initial recognition, as to be subsequently measured at amortised cost, fair value through other comprehensive income ("FVOCI"), or fair value through profit or loss ("FVTPL"). The classification of financial assets at initial recognition is driven by the Group's business model for managing the financial assets and the contractual cash flows characteristics of the financial assets.

Financial assets at amortised cost

The Group measures financial assets at amortised cost if the financial asset is held in order to collect contractual cash flows and the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Financial assets at amortised cost are subsequently measured using the effective interest rate ("EIR") method and are subject to impairment. Gains and losses are recognised in profit or loss when the asset is derecognised, modified or impaired.

Financial assets designated at FVOCI (equity instruments)

Upon initial recognition, the Group can elect to irrevocably classify its equity investments which are not held for trading as equity instruments designated at FVOCI. The classification is determined on an instrument-by-instrument basis.

Gains and losses recognised in other comprehensive income on these financial assets are never recycled to profit or loss.

Dividends are recognised as other income in profit or loss, except when the dividends clearly represent a recovery of part of the cost of the financial asset, in which case, the gains are recognised in other comprehensive income.

Equity instruments designated at FVOCI are not subject to impairment assessment.

Financial assets at FVTPL

Financial assets measured at FVTPL are carried in the statement of financial position at fair value with net changes in fair value recognised in profit or loss.

These financial assets include derivatives, security investments held for trading, equity investments which the Group has not irrevocably elected to classify at FVOCI and financial assets with cash flows that are not solely payments of principal and interest.

Dividends on listed equity investments are recognised as other income in profit or loss.

Classification and measurement of financial liabilities

Except for derivative liabilities, at initial recognition the Group's financial liabilities are recognised at fair value net of transaction costs and classified as liabilities to be subsequently measured at amortised cost using the EIR method. Gains and losses are recognised in profit or loss when the liabilities are derecognised as well as through the EIR amortisation process. In determining amortised cost, the Group takes into account any fees or costs that are an integral part of the EIR. The EIR amortisation is included in finance costs in profit or loss.

Regular way purchases and sales of financial assets

Regular way purchases or sales of financial assets that require delivery of assets within a time frame established by regulation or convention in the marketplace are recognised on the trade date, i.e., the date on which the Group commits to purchase or sell the asset / the settlement date, i.e., the date on which an asset is delivered.

Derecognition of financial instruments

A financial asset is primarily derecognised when the rights to receive cash flows from the asset have expired or have been transferred and either the Group has transferred substantially all the risks and rewards of the asset, or the Group has transferred control of the asset.

A financial liability is derecognised when the obligation under the liability is discharged or cancelled or expires. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as the derecognition of the original liability and the recognition of a new liability. The difference in the respective carrying amounts is recognised in profit or loss.

Impairment of financial assets

The Group recognises an allowance for expected credit losses (“ECLs”) for all debt instruments not held at FVTPL. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Group expects to receive, discounted at an approximation of the original effective interest rate.

For credit exposures for which there has not been a significant increase in credit risk since initial recognition, ECLs are provided for credit losses that result from default events that are possible within the next 12-months (a 12-month ECLs). For those credit exposures for which there has been a significant increase in credit risk since initial recognition, a loss allowance is required for credit losses expected over the remaining life of the exposure (a lifetime ECLs).

The Group considers a significant increase in credit risk to have occurred when contractual payments are more than 30 days past due and considers a financial asset as credit impaired or default when contractual payments are 90 days past due. However, in certain cases, the Group may also consider a financial asset to have a significant increase in credit risk and to be in default using other internal or external information, such as credit rating of issuers.

For trade receivables, the Group applies a simplified approach in calculating ECLs. Therefore, the Group does not track changes in credit risk, but instead recognises a loss allowance based on lifetime ECLs at each reporting date.

ECLs are calculated based on its historical credit loss experience and adjusted for forward-looking factors specific to the debtors and the economic environment.

A financial asset is written off when there is no reasonable expectation of recovering the contractual cash flows.

Offsetting of financial instruments

Financial assets and financial liabilities are offset, and the net amount is reported in the statement of financial position if there is a currently enforceable legal right to offset the recognised amounts and there is an intention to settle on a net basis, to realise the assets and settle the liabilities simultaneously.

4.18 Derivatives

The Group uses derivatives, such as foreign currency forward contract, interest rate swaps, cross currency interest rate swaps and commodity derivative contracts to hedge its foreign currency risks, interest rate risks and commodity price risks, respectively.

Derivatives are initially recognised at fair value on the date on which a derivative contract is entered into and are subsequently remeasured at fair value. The subsequent changes are recognised in profit or loss. Derivatives are carried as financial assets when the fair value is positive and as financial liabilities when the fair value is negative.

Derivatives are presented as non-current assets or non-current liabilities if the remaining maturity of the instrument is more than 12 months and it is not due to be realised or settled within 12 months. Other derivatives are presented as current assets or current liabilities.

4.19 Fair value measurement

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between buyer and seller (market participants) at the measurement date. The Group applies a quoted market price in an active market to measure their assets and liabilities that are required to be measured at fair value by relevant financial reporting standards. Except in case of no active market of an identical asset or liability or when a quoted market price is not available, the Group measures fair value using valuation technique that are appropriate in the circumstances and maximises the use of relevant observable inputs related to assets and liabilities that are required to be measured at fair value.

All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorised within the fair value hierarchy into three levels based on categorise of input to be used in fair value measurement as follows:

- Level 1 Use of quoted market prices in an active market for such assets or liabilities
- Level 2 Use of other observable inputs for such assets or liabilities, whether directly or indirectly
- Level 3 Use of unobservable inputs such as estimates of future cash flows

At the end of each reporting period, the Group determines whether transfers have occurred between levels within the fair value hierarchy for assets and liabilities held at the end of the reporting period that are measured at fair value on a recurring basis.

5. Significant accounting judgements and estimates

The preparation of financial statements in conformity with financial reporting standards at times requires management to make subjective judgements and estimates regarding matters that are inherently uncertain. These judgements and estimates affect reported amounts and disclosures; and actual results could differ from these estimates. Significant judgements and estimates are as follows.

Allowance for expected credit losses of trade receivables

In determining an allowance for expected credit losses of trade receivables, the management needs to make judgement and estimates based upon, among other things, past collection history, aging profile of outstanding debts and the forecast economic condition for groupings of various customer segments with similar credit risks. The Group's historical credit loss experience and forecast economic conditions may also not be representative of whether a customer will actually default in the future.

Allowance for diminution in value of inventories

Net realisable value is calculated based on the estimated selling prices by management in the ordinary course of business less the estimated costs of completion and the necessary costs to make the sale.

Property, plant and equipment and depreciation

In determining depreciation of plant and equipment, the management is required to make estimates of the useful lives and residual values of the plant and equipment and to review estimate useful lives and residual values when there are any changes.

In addition, the management is required to review property, plant and equipment for impairment on a periodical basis and record impairment losses when it is determined that their recoverable amount is lower than the carrying amount. This requires judgements regarding forecast of future revenues and expenses relating to the assets subject to the review.

Deferred tax assets

Deferred tax assets are recognised for deductible temporary differences and unused tax losses to the extent that it is probable that taxable profit will be available against which the temporary differences and losses can be utilised. Significant management judgement is required to determine the amount of deferred tax assets that can be recognised, based upon the likely timing and level of estimate future taxable profits.

Impairment of investments in subsidiaries, joint ventures and associates

The Group records allowance for impairment loss on investments in subsidiaries, joint ventures and associates when the indicator of impairment exists. This requires the management judgement with respect to its projections of future performance of those companies. The Group used a discounted cash flow model, based on projected information for the next 5 years and excluding any restructuring activities to which the Group is not yet committed or significant future investments that will enhance the performance of the assets.

Post-employment benefits under defined benefit plans and other long-term employee benefits

The obligation under the defined benefit plan and other long-term employee benefit plans is determined based on actuarial techniques. Such determination is made based on various assumptions, including discount rate, future salary increase rate, mortality rate and staff turnover rate.

6. Related party transactions

During the years, the Group had significant business transactions with related parties. Such transactions, which are summarised below, arose in the ordinary course of business and were concluded on commercial terms and bases agreed upon between the Group and those related parties.

	(Unit: Million Baht)			
	For the year ended 31 December			
	Consolidated		Separate	
	financial statements		financial statements	
	2023	2022	2023	2022
<u>Transactions with subsidiary companies</u>				
(eliminated from the consolidated financial statements)				
Sales of goods and services	-	-	10,121	6,035
Purchases of goods	-	-	10	15
Selling and administrative expenses	-	-	136	106
Interest income, dividend income and other income	-	-	115	147
Interest expense and other expenses	-	-	4	5

(Unit: Million Baht)

	For the year ended 31 December			
	Consolidated		Separate	
	financial statements		financial statements	
	2023	2022	2023	2022
<u>Transactions with the parent company</u>				
Sales of goods and services	2,516	883	2,516	883
Purchases of goods	220,840	242,353	220,840	242,353
Selling and administrative expenses	61	87	61	87
Interest income, dividend income and other income	13	9	13	9
Interest expense and other expenses	-	2	-	2
<u>Transactions with joint ventures</u>				
Sales of goods and services	282	226	282	226
Purchases of goods	-	5	-	-
Interest income, dividend income and other income	101	111	119	130
<u>Transactions with associates</u>				
Sales of goods and services	1,996	2,164	1,996	2,164
Purchases of goods	3,163	3,206	3,163	3,206
Selling and administrative expenses	2	82	-	80
Interest income, dividend income and other income	122	126	122	224
<u>Transactions with related companies</u>				
Sales of goods and services	118,077	117,113	117,215	116,226
Purchases of goods	33,897	35,136	33,886	35,132
Selling and administrative expenses	572	534	542	506
Net derivative gain (loss)	67	(2,455)	67	(2,455)
Interest income, dividend income and other income	5	17	2	15
Interest expense and other expenses	2	3	1	2

The pricing policies for particular types of transactions are as follows:

Transactions	Pricing policies
Revenue from sales and services	Market price
Purchases of raw material	Purchases of goods from a major shareholder. The major shareholder has provided services relating to the purchasing and payment process of goods. The purchase price includes a service fee charged by the major shareholder approximates the price of which the Group has procured by its own. In addition, the Company has also entered into commodity derivative contracts with a related party to protect the pricing risk regarding crude oil and petroleum products.
Selling and administrative expenses which mainly are throughout fees and tank farms rental	Contractually agreed prices
Interest income and interest expense	<u>Short-term</u> - the fixed interest rates 1-month and average interest rates 6-month of borrowing between commercial banks (BIBOR) adjusted by certain margins. <u>Long-term</u> - the weighted average interest rates of fixed deposits for four domestic commercial banks and the Minimum Loan Rate (MLR) adjusted by certain margins.
Directors' remunerations (meeting and bonus)	The rate approved by the Board of Directors and shareholders
Dividend received	As declared
Other income and other expense	Mutually agreed price

As at 31 December 2023 and 2022, the balances of the accounts between the Group and those related companies are as follows:

	(Unit: Million Baht)			
	Consolidated		Separate	
	financial statements		financial statements	
	2023	2022	2023	2022
Trade and other receivables - related parties (Note 8)				
<u>Trade receivables - related parties</u>				
Subsidiaries	-	-	352	253
Parent company	398	860	398	860
Joint ventures	68	51	68	51
Associates	177	219	177	219
Related companies	8,246	6,993	8,198	6,935
Total trade receivables - related parties	8,889	8,123	9,193	8,318
<u>Amounts due from related parties</u>				
Subsidiaries	-	-	39	27
Parent company	862	611	862	611
Joint ventures	19	110	19	110
Associates	1	1	1	1
Related companies	737	561	736	560
Total amounts due from related parties	1,619	1,283	1,657	1,309
Less: Allowance for expected credit losses	-	-	(10)	(10)
Total amounts due from related parties - net	1,619	1,283	1,647	1,299
Trade and other payables - related parties (Note 18)				
<u>Trade payables - related parties</u>				
Subsidiaries	-	-	1	1
Parent company	30,376	31,116	30,376	31,116
Associates	281	211	281	211
Related companies	2,486	1,832	2,485	1,832
Total trade payables - related parties	33,143	33,159	33,143	33,160
<u>Amounts due to related parties</u>				
Subsidiaries	-	-	13	15
Associates	244	227	244	227
Related companies	14	91	11	89
Total amounts due to related parties	258	318	268	331
Lease liabilities - related parties				
A subsidiary	-	-	-	115
A related company	28	66	28	66
Total Lease liabilities - related parties	28	66	28	181

Loans to related parties and borrowings from related parties

As at 31 December 2023 and 2022, the balances of loans between the Group and those related companies and the movement in loans and borrowings are as follows:

Short-term loans and interest receivable from related parties

(Unit: Million Baht)

Short-term loans and interest receivable	Related by	Separate financial statements			
		Balance as at 31 December 2022	Increase during the year	Decrease during the year	Balance as at 31 December 2023
IRPC Oil Company Limited	Subsidiary	135	-	(135)	-
IRPC Technology Co., Ltd.	Subsidiary	-	105	(85)	20
Total		135	105	(220)	20

As at 31 December 2023, average interest rate of short-term loans to related parties is 3.03 percent per annum (2022: 1.94 percent per annum).

Long-term loans to related parties

(Unit: Million Baht)

Long-term loans	Related by	Separate financial statements			
		Balance as at 31 December 2022	Increase during the year	Decrease during the year	Balance as at 31 December 2023
IRPC Technology Co., Ltd.	Subsidiary	30	-	(10)	20
Innoplymed Co., Ltd.	Subsidiary	47	-	-	47
Total		77	-	(10)	67

As at 31 December 2023, average interest rate of long-term loans to related parties are 3.42 - 4.97 percent per annum (2022: 3.11 - 3.42 percent per annum).

Short-term borrowings and interest payable from a related party

(Unit: Million Baht)

Short-term borrowings and interest payable	Related by	Separate financial statements			
		Balance as at 31 December 2022	Increase during the year	Decrease during the year	Balance as at 31 December 2023
IRPC Oil Company Limited	Subsidiary	-	815	(487)	328

As at 31 December 2023, average interest rate of short-term borrowings from a related party is 0.45 - 1.10 percent per annum (2022: 0.25 - 0.33 percent per annum).

Long-term borrowings from a related party

(Unit: Million Baht)

Long-term borrowings	Related by	Consolidated financial statements			
		Balance as at 31 December 2022	Increase during the year	Decrease during the year	Balance as at 31 December 2023
PTT Treasury Center Co., Ltd.	Related company	31	-	-	31

As at 31 December 2023 and 2022, average interest rate of long-term borrowings from a related party is 3.42 percent per annum.

Directors and management's benefits

During the years ended 31 December 2023 and 2022, the Group had employee benefit expenses payable to their directors and management as below.

(Unit: Million Baht)

	Consolidated financial statements		Separate financial statements	
	2023	2022	2023	2022
Short-term employee benefits	79	134	76	131
Long-term benefits	1	1	1	1
Total	80	135	77	132

7. Cash and cash equivalents

(Unit: Million Baht)

	Consolidated financial statements		Separate financial statements	
	2023	2022	2023	2022
Cash	1	-	-	-
Bank deposits in current accounts	78	75	78	75
Bank deposits in savings accounts	6,116	2,825	5,808	2,643
Bank deposits in fixed accounts with maturity of not more than 3 months	25	330	-	200
Total	6,220	3,230	5,886	2,918

As at 31 December 2023, bank deposits in current accounts, savings accounts and fixed deposits with maturity of not more than 3 months carried interests between 0.05 and 2.05 percent per annum (2022: 0.05 and 0.70 percent per annum). Cash and cash equivalents are mainly in Thai baht.

8. Trade and other receivables

	(Unit: Million Baht)			
	Consolidated		Separate	
	financial statements		financial statements	
	2023	2022	2023	2022
Trade receivables - related parties				
Aged on the basis of due dates				
Not yet due	7,888	7,884	8,169	8,078
Past due				
Up to 3 months	1,001	239	1,024	240
3 - 6 months	-	-	-	-
6 - 12 months	-	-	-	-
Over 12 months	-	-	-	-
Total trade receivables - related parties (Note 6)	8,889	8,123	9,193	8,318
Trade receivables - unrelated parties				
Aged on the basis of due dates				
Not yet due	6,313	6,761	6,117	6,613
Past due				
Up to 3 months	395	167	383	160
3 - 6 months	-	-	-	-
6 - 12 months	13	1	12	1
Over 12 months	25	24	25	23
Total	6,746	6,953	6,537	6,797
Less: Allowance for expected credit losses	(38)	(25)	(37)	(24)
Total trade receivables - unrelated parties, net	6,708	6,928	6,500	6,773
Total trade receivable - net	15,597	15,051	15,693	15,091
Other receivables				
Receivables from excise department and oil fund	498	5,899	498	5,899
Amounts due from related parties (Note 6)	1,619	1,283	1,657	1,309
Others	936	719	904	693
Total	3,053	7,901	3,059	7,901
Less: Allowance for expected credit losses	(74)	(73)	(66)	(65)
Total other receivables - net	2,979	7,828	2,993	7,836
Total trade and other receivables - net	18,576	22,879	18,686	22,927

The normal credit term given to customers is 7 to 120 days.

Set out below is the movements in the allowance for expected credit losses of trade and other receivables.

	(Unit: Million Baht)			
	Consolidated		Separate	
	financial statements		financial statements	
	2023	2022	2023	2022
Balance at beginning of year	98	103	89	89
Provision for expected credit losses	14	1	14	1
Amount written off	-	(3)	-	-
Amounts recovered during the year	-	(3)	-	(1)
Balance at end of year	112	98	103	89

The Group has no significant changes in estimation and assumption method in current financial reporting period.

9. Inventories

	(Unit: Million Baht)					
	Consolidated financial statements					
	Cost		Reduce cost to net realisable value		Inventories - net	
	2023	2022	2023	2022	2023	2022
Finished goods	16,173	25,620	(1,037)	(1,918)	15,136	23,702
Work in process	10	15	-	-	10	15
Raw materials	12,316	10,946	(343)	(494)	11,973	10,452
Chemicals and fuel oil	1,610	2,007	(32)	(66)	1,578	1,941
Spare parts and repair materials	3,161	2,736	(194)	(1,033)	2,967	1,703
Goods in transit	749	1,563	-	-	749	1,563
Total	34,019	42,887	(1,606)	(3,511)	32,413	39,376

	(Unit: Million Baht)					
	Separate financial statements					
	Cost		Reduce cost to net realisable value		Inventories - net	
	2023	2022	2023	2022	2023	2022
Finished goods	15,874	25,246	(1,037)	(1,918)	14,837	23,328
Work in process	10	15	-	-	10	15
Raw materials	12,315	10,944	(343)	(494)	11,972	10,450
Chemicals and fuel oil	1,564	1,961	(32)	(66)	1,532	1,895
Spare parts and repair materials	3,158	2,733	(194)	(1,033)	2,964	1,700
Goods in transit	749	1,563	-	-	749	1,563
Total	33,670	42,462	(1,606)	(3,511)	32,064	38,951

During the current year, the Group reversed the write-down of cost of inventories by Baht 1,905 million, and reduced the amount of inventories recognised as expenses during the year. (2022: reduced cost of inventories by Baht 2,400 million, to reflect the net realisable value. This was included in cost of sales) (the Company only: Baht 1,905 million, 2022: reduced cost of inventories by Baht 2,400 million, to reflect the net realisable value. This was included in cost of sales).

According to the Ministry of Energy's regulations, the Company is required to reserve crude oil at 5 percent of commercial volume and liquid petroleum gas at 2 percent and petroleum products at 1 percent of the total production output in each period. As at 31 December 2023, the inventories presented in the consolidated and separate financial statements included minimum mandatory reserve on crude oil, liquid petroleum gas, and petroleum products amounting to Baht 6,550 million and Baht 6,547 million, respectively (2022: Baht 7,058 million and Baht 7,054 million in the consolidated and separate financial statements, respectively), which were net amount of allowance for diminution in value and obsolescence of inventories.

10. Other non-current financial assets

	(Unit: Million Baht)			
	Consolidated		Separate	
	financial statements		financial statements	
	2023	2022	2023	2022
Equity instruments measured				
as at fair value through other				
comprehensive income				
- Non - listed companies	1,632	1,631	1,631	1,630
- Listed company	40	52	40	52
Total other non-current financial assets	1,672	1,683	1,671	1,682

Equity instruments measured as at fair value through other comprehensive income include listed and non-listed equity investments which the Group considers these investments to be strategic in nature.

In 2022, the Group sold its equity interest in Bangkok Union Insurance Public Company Limited as this investment no longer coincides with the Group's investment strategy. The fair value on the date of sale was Baht 4 million and the accumulated gain recognised in other comprehensive income of Baht 1 million was transferred to retained earnings.

In addition, in 2023, the Group received dividends from equity instruments measured as at fair value through other comprehensive income, which still existed at the reporting date, amounting to Baht 7 million (2022: Baht 6 million) (the Company only: Baht 7 million, 2022: Baht 6 million).

11. Investments in subsidiaries**11.1 Details of investments in subsidiaries as presented in separate financial statements**

Company's name	Paid-up capital		Shareholding percentage		Cost		Impairment of investment		Net		(Unit: Million Baht) Dividend received during the year	
	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022
			(%)									
IRPC Oil Company Limited	2,000	2,000	99.99	99.99	2,000	2,000	-	-	2,000	2,000	-	-
IRPC Technology Co., Ltd.	750	750	99.99	99.99	750	750	(476)	(476)	274	274	-	-
Innoplymed Co., Ltd.	282	282	60.00	60.00	169	169	-	-	169	169	-	-
IRPC A&L Company Limited	10	10	57.48	57.48	14	14	-	-	14	14	34	47
iPolymer Company Limited	120	120	55.00	55.00	66	66	(66)	-	-	66	-	-
Total					2,999	2,999	(542)	(476)	2,457	2,523	34	47

On 7 January 2022, the Extraordinary General Meeting of shareholders of Innopolymed Co., Ltd. passed a resolution to increase the registered share capital from Baht 182 million to Baht 282 million by issuing new 1 million ordinary shares at par value of Baht 100 each, totaling Baht 100 million. The Company already paid share capital of Baht 60 million, in proportion to its interest, on 14 January 2022.

On 19 December 2023, the Board of Directors' meeting of the Company passed a resolution approving the dissolution of iPolymer Company Limited, the Company's subsidiary, with a registered capital of Baht 120 million. The Company held 55 percent of the shares in this subsidiary, amounting to Baht 66 million. The dissolution is in accordance with the Company's strategic objectives and aims to increase the efficiency of the Group's operation. On 9 January 2024, an Extraordinary General Meeting of Shareholders of iPolymer Company Limited approved the dissolution, with the expectation that registration with the Ministry of Commerce will be completed in June 2024. The dissolution of the subsidiary has no impact on the Company's operations. As at 31 December 2023, the Company recorded allowance for impairment loss of such investment of Baht 66 million in the separate financial statements, taking into account the recoverable amount of the investment.

11.2 Non-controlling interests

Movement of non-controlling interests for the years ended 31 December 2023 and 2022 are summarised below.

(Unit: Million Baht)		
Consolidated		
financial statements		
	2023	2022
Balance at beginning of year	225	217
Dividends paid	(25)	(35)
Share of gain for the year	11	3
Increase in portion of investment of non-controller of a subsidiary	-	40
Balance at end of year	211	225

12. Investments in joint ventures

12.1 Details of investments in joint ventures

Investments in joint ventures represent investments in entities which are jointly controlled by the Company and other companies. Details of these investments are as follows:

(Unit: Million Baht)								
Consolidated financial statements								
Joint ventures	Nature of business	Country of incorporation	Shareholding percentage		Cost		Carrying amounts based on equity method	
			2023	2022	2023	2022	2023	2022
			(%)	(%)				
WHA Industrial Estate Rayong Company Limited	Industrial estate development	Thailand	40.00	40.00	320	284	304	274
IRPC Polyol Company Limited	Manufacturing and sales of chemical products for polyurethanes	Thailand	50.00	50.00	185	185	89	83
Mytex Polymers (Thailand) Company Limited	Manufacturing and sales of chemical products	Thailand	50.00	50.00	350	350	350	357
Vajira Lab for Society Co., Ltd.	Provide analysis and certification services for medical devices	Thailand	50.00	50.00	14	14	11	12
Total					869	833	754	726

(Unit: Million Baht)

Joint ventures	Nature of business	Country of incorporation	Separate financial statements							
			Shareholding percentage		Cost		Allowance for impairment of investments		Carrying amounts based on cost method - net	
			2023	2022	2023	2022	2023	2022	2023	2022
			(%)	(%)						
WHA Industrial Estate	Industrial estate									
Rayong Company Limited	development	Thailand	40.00	40.00	320	284	-	-	320	284
IRPC Polyol Company Limited	Manufacturing and sales of chemical products for polyurethanes	Thailand	50.00	50.00	185	185	(150)	(150)	35	35
Mytex Polymers (Thailand) Company Limited	Manufacturing and sales of chemical products	Thailand	50.00	50.00	350	350	-	-	350	350
Vajira Lab for Society Co., Ltd.	Provide analysis and certification services for medical devices	Thailand	50.00	50.00	14	14	-	-	14	14
Total					869	833	(150)	(150)	719	683

- a. On 18 March 2022, the Board of Directors' meeting of WHAIER passed a resolution to call up the third tranche of the share capital, which was 25 percent of the increased registered capital, or Baht 15 million. The Company paid in share capital for the investment in joint venture of Baht 6 million on 29 April 2022.

On 19 September 2022, the Board of Directors' meeting of WHAIER passed a resolution to call up the last tranche of the share capital, which was 25 percent of the increased registered capital, or Baht 15 million. The Company paid in share capital for the investment in joint venture of Baht 6 million on 4 November 2022.

On 20 January 2023, the Extra Ordinary General Meeting of shareholders of WHAIER passed a resolution to increase the registered share capital from Baht 710 million to be Baht 800 million by issuing 9 million new ordinary shares at par value of Baht 10 each, totalling Baht 90 million to its existing shareholders in proportion to their holdings, in which the Company interest is 40 percent. The Company paid in share capital for investment in joint venture of Baht 36 million on 31 January 2023.

- b. On 11 March 2022, the Annual General Meeting of shareholders of Vajira Lab for Society Co., Ltd. No. 1/2022 passed a resolution to increase the registered share capital from Baht 22 million to be Baht 28 million by issuing 60,000 new ordinary shares at par value of Baht 100 each, totalling Baht 6 million to its existing shareholders in proportion to their holding, in which the Company interest is 50 percent. The Company paid in share capital of Baht 3 million on 18 March 2022.

12.2 Share of comprehensive income and dividend received

During the years, the Company recognised its share of comprehensive income from investments in the joint ventures in the consolidated financial statements and dividend received in the separate financial statements as follows:

(Unit: Million Baht)

Joint ventures	Consolidated financial statements		Separate financial statements	
	Share of profit (loss) from investments in joint ventures		Dividend received	
	during the year		during the year	
	2023	2022	2023	2022
WHA Industrial Estate Rayong Company Limited	(6)	(2)	-	-
IRPC Polyol Company Limited	6	19	-	-
Mytex Polymers (Thailand) Company Limited	11	24	18	19
Vajira Lab for Society Co., Ltd.	(1)	(2)	-	-
Total	10	39	18	19

13. Investments in associates

13.1 Details of investments in associates

(Unit: Million Baht)

Company's name	Nature of business	Country of incorporation	Consolidated financial statements					
			Shareholding percentage		Cost		Carrying amounts based on equity method	
			2023	2022	2023	2022	2023	2022
			(%)	(%)				
PTT Energy Solutions Co., Ltd.	Engineering consulting	Thailand	20.00	20.00	30	30	9	11
VISUP Co., Ltd.	Holding	Thailand	22.22	-	20	-	20	-
UBE Chemicals (Asia) Public Company Limited	Manufacturing and sales of petrochemical products	Thailand	25.00	25.00	5,300	5,300	4,313	4,594
IRPC Clean Power Company Limited	Manufacturing and sales of electricity and steam	Thailand	48.99	48.99	1,647	1,647	4,670	4,141
Total					6,997	6,977	9,012	8,746

(Unit: Million Baht)

Company's name	Nature of business	Country of incorporation	Separate financial statements							
			Shareholding percentage		Cost		Allowance for impairment of investments		Carrying amounts based on cost method - net	
			2023	2022	2023	2022	2023	2022	2023	2022
			(%)	(%)						
PTT Energy Solutions Co., Ltd.	Engineering consulting	Thailand	20.00	20.00	30	30	(10)	(10)	20	20
VISUP Co., Ltd.	Holding	Thailand	22.22	-	20	-	-	-	20	-
UBE Chemicals (Asia) Public Company Limited	Manufacturing and sales of petrochemical products	Thailand	25.00	25.00	5,300	5,300	(954)	-	4,346	5,300
IRPC Clean Power Company Limited	Manufacturing and sales of electricity and steam	Thailand	48.99	48.99	1,647	1,647	-	-	1,647	1,647
Total					6,997	6,977	(964)	(10)	6,033	6,967

On 25 July 2022, a meeting of the Company's Board of Directors passed a resolution approving the dissolution of an associate, namely PTT Energy Solutions Co., Ltd. ("PTTES") with a registered capital of Baht 150 million. The Company held 20 percent of this company's shares, amounting to Baht 30 million. The dissolution was in accordance with PTT Group's business restructuring policy. On 29 August 2022, an Extraordinary General Meeting of Shareholders of PTTES approved the dissolution, of which registration with the Ministry of Commerce is completed on 29 December 2022. The dissolution of the associate has no effect on the Company's operations. As at 31 December 2022, the Company recorded allowance for impairment loss of such investment of Baht 10.2 million in the separate financial statements, taking into account the recoverable amount of the investment.

On 20 December 2022, a meeting of the Company's Board of Directors passed a resolution to invest in VISUP Co., Ltd., which was registered as a limited company in Thailand and engaged in the operation of holding, by acquiring 2 million ordinary shares at par value of Baht 10 each, totaling Baht 20 million, accounting for 22.22% of the registered capital of VISUP Co., Ltd. The Company paid for such shares on 19 December 2023.

During 2023, the Company considered the indicator of impairment of the investment in UBE Chemicals (Asia) Public Company Limited, the Company's associate, and determined that the recoverable amount of such investment was less than its carrying amount. As at 31 December 2023, the Company recorded allowance for impairment loss of such investment of Baht 954 million in the separate financial statements, taking into account the recoverable amount of the investment.

13.2 Share of comprehensive income and dividend received

During the years, the Company has recognised its share of comprehensive income from investments in associates in the consolidated financial statements and dividend received in the separate financial statements as follows:

Associates	Consolidated financial statements				(Unit: Million Baht) Separate financial statements	
	Share of profit (loss) from investments in associates during the year		Share of other comprehensive income from investments in associates during the year		Dividend received during the year	
	2023	2022	2023	2022	2023	2022
PTT Energy Solutions Co., Ltd.	(2)	(13)	-	(4)	-	4
UBE Chemicals (Asia) Public Company Limited	(283)	(182)	2	-	-	94
IRPC Clean Power Company Limited	529	440	-	-	-	-
Total	244	245	2	(4)	-	98

13.3 Summarised financial information about material associates

Summarised financial position

	(Unit: Million Baht)			
	UBE Chemicals (Asia) Public Company Limited		IRPC Clean Power Company Limited	
	2023	2022	2023	2022
Current assets	6,414	6,940	3,968	3,392
Non-current assets	6,745	7,072	11,434	10,615
Current liabilities	(1,455)	(1,350)	(2,039)	(1,648)
Non-current liabilities	(241)	(218)	(4,123)	(4,214)
Net assets	11,463	12,444	9,240	8,145
Shareholding percentage (%)	25.00	25.00	48.99	48.99
Carrying amounts of associates based on equity method	2,866	3,111	4,527	3,990

Summarised comprehensive income

	(Unit: Million Baht)			
	For the year ended 31 December			
	UBE Chemicals (Asia) Public Company Limited		IRPC Clean Power Company Limited	
	2023	2022	2023	2022
Revenue	10,254	14,445	8,112	9,361
Net profit (loss) during the year	(973)	(570)	1,093	914
Other comprehensive income	2	-	-	-
Total comprehensive income	(971)	(570)	1,093	914

14. Investment properties

Movement of investment properties for the year ended 31 December 2023 and 2022 are presented below.

				(Unit: Million Baht)	
	Consolidated financial statements			Separate financial statements	
	Land	Buildings	Total	Land	Total
Cost					
1 January 2022	986	18	1,004	938	938
31 December 2022	986	18	1,004	938	938
31 December 2023	986	18	1,004	938	938
Accumulated depreciation					
1 January 2022	-	18	18	-	-
31 December 2022	-	18	18	-	-
31 December 2023	-	18	18	-	-
Allowance for impairment					
1 January 2022	64	-	64	52	52
Decrease during the year	(17)	-	(17)	(17)	(17)
31 December 2022	47	-	47	35	35
31 December 2023	47	-	47	35	35
Net book value					
31 December 2022	939	-	939	903	903
31 December 2023	939	-	939	903	903

The additional information of the investment properties as at 31 December 2023 and 2022 stated below.

			(Unit: Million Baht)	
	Consolidated		Separate	
	financial statements		financial statements	
	2023	2022	2023	2022
The fair value of land	1,140	1,140	1,104	1,104
The fair value of buildings	9	9	-	-
Total	1,149	1,149	1,104	1,104

The fair value of the above investment properties has been determined based on valuation performed by an accredited independent valuer. The fair value of land and buildings has been determined based on market prices. Key assumptions used in the valuation include market price per square, trading price, investment value and value in use.

15. Property, plant and equipment

Movements of property, plant and equipment for the years ended 31 December 2023 and 2022 are summarised below.

	Consolidated financial statements							(Unit: Million Baht)
	Land and land improvements	Buildings and building improvements	Machinery and pipes	Tools and factory equipment	Furniture, fixtures and office equipment	Vehicles	Assets under installation and construction	
Cost								
1 January 2022	11,795	41,458	152,185	3,509	1,243	671	4,063	214,924
Additions	-	10	630	42	22	1	9,350	10,055
Disposals/Write off	-	-	(3,015)	(18)	(22)	(1)	-	(3,056)
Transfer in (out)	-	242	3,555	4	81	-	(3,882)	-
Capitalised interest	-	-	-	-	-	-	115	115
31 December 2022	11,795	41,710	153,355	3,537	1,324	671	9,646	222,038
Additions	-	-	40	35	30	1	10,820	10,926
Disposals/Write off	-	(18)	(1,699)	(30)	(19)	(1)	-	(1,767)
Transfer in (out)	-	49	3,405	25	8	6	(3,493)	-
Reclassification from intangible assets	-	-	36	-	2	-	-	38
Capitalised interest	-	-	-	-	-	-	409	409
31 December 2023	11,795	41,741	155,137	3,567	1,345	677	17,382	231,644

(Unit: Million Baht)

	Consolidated financial statements						
	Land and land improvements	Buildings and building improvements	Machinery and pipes	Tools and factory equipment	Furniture, fixtures and office equipment	Vehicles	Assets under installation and construction
Total							
Accumulated depreciation							
1 January 2022	-	20,984	80,091	2,578	968	625	-
Depreciation for the year	-	1,374	6,127	181	103	17	-
Depreciation on disposals/write off	-	-	(3,013)	(18)	(21)	(1)	-
31 December 2022	-	22,358	83,205	2,741	1,050	641	-
Depreciation for the year	-	1,377	6,772	170	98	11	-
Depreciation on disposals/write off	-	(18)	(1,686)	(28)	(19)	(1)	-
31 December 2023	-	23,717	88,291	2,883	1,129	651	-
Allowance for impairment loss							
1 January 2022	73	2	80	-	-	-	456
31 December 2022	73	2	80	-	-	-	456
31 December 2023	73	2	80	-	-	-	456
Net book value							
31 December 2022	11,722	19,350	70,070	796	274	30	9,190
31 December 2023	11,722	18,022	66,766	684	216	26	16,926
Depreciation for the year							
2022 (Baht 7,508 million included in cost of sales and services, and the balance in administrative expenses)							7,802
2023 (Baht 8,146 million included in cost of sales and services, and the balance in administrative expenses)							8,428

(Unit: Million Baht)

	Separate financial statements						
	Land and land improvements	Buildings and building improvements	Machinery and pipes	Tools and factory equipment	Furniture, fixtures and office equipment	Vehicles	Assets under installation and construction
Cost							Total
1 January 2022	11,159	39,636	151,783	2,664	1,090	492	3,827
Additions	-	10	630	41	21	-	9,158
Disposals/Write off	-	-	(3,015)	(16)	(22)	(1)	-
Transfer in (out)	-	101	3,554	1	74	-	(3,730)
Capitalised interest	-	-	-	-	-	-	114
31 December 2022	11,159	39,747	152,952	2,690	1,163	491	9,369
Additions	-	-	40	33	29	1	10,768
Disposals/Write off	-	(17)	(1,699)	(26)	(15)	-	-
Transfer in (out)	-	22	3,403	17	1	-	(3,443)
Reclassification from intangible assets	-	-	36	-	2	-	-
Capitalised interest	-	-	-	-	-	-	408
31 December 2023	11,159	39,752	154,732	2,714	1,180	492	17,102
							227,131

(Unit: Million Baht)

	Separate financial statements						
	Land and land improvements	Buildings and building improvements	Machinery and pipes	Tools and factory equipment	Furniture, fixtures and office equipment	Vehicles	Assets under installation and construction
							Total
Accumulated depreciation							
1 January 2022	-	19,533	80,080	1,971	873	447	-
Depreciation for the year	-	1,361	6,107	131	93	16	-
Depreciation on disposals/write off	-	-	(3,013)	(16)	(20)	(1)	-
31 December 2022	-	20,894	83,174	2,086	946	462	-
Depreciation for the year	-	1,360	6,750	123	86	9	-
Depreciation on disposals/write off	-	(17)	(1,686)	(26)	(15)	-	-
31 December 2023	-	22,237	88,238	2,183	1,017	471	-
Allowance for impairment loss							
1 January 2022	-	-	80	-	-	-	456
31 December 2022	-	-	80	-	-	-	456
31 December 2023	-	-	80	-	-	-	456
Net book value							
31 December 2022	11,159	18,853	69,698	604	217	29	8,913
31 December 2023	11,159	17,515	66,414	531	163	21	16,646
Depreciation for the year							
2022 (Baht 7,526 million included in cost of sales and services, and the balance in administrative expenses)							7,708
2023 (Baht 8,158 million included in cost of sales and services, and the balance in administrative expenses)							8,328

During the year ended 31 December 2023, the Group capitalised borrowing costs into the construction project of Baht 409 million (2022: Baht 115 million) (the Company only: Baht 408 million, 2022: Baht 114 million) arising from financing specifically for the construction of new factories. The Group used the capitalisation rates between 2.00 percent and 6.69 percent (2022: between 3.01 percent and 5.35 percent) to calculate the capitalised borrowing costs which is the weighted average rate of financial charges on borrowings and debentures.

As at 31 December 2023, certain items of plant and equipment were fully depreciated but are still in use. The gross carrying amount before deducting accumulated depreciation and allowance for impairment loss of those assets amounted to approximately Baht 22,032 million (2022: Baht 19,215 million) (the Company only: Baht 18,751 million, 2022: Baht 18,662 million).

16. Intangible assets

Movements of intangible assets for the years ended 31 December 2023 and 2022 are summarised below.

(Unit: Million Baht)

	Consolidated financial statements			
	Dredging expenses	Computer software	Computer software under installation	Total
Cost				
1 January 2022	454	1,532	246	2,232
Additions	-	6	73	79
Transfers in (out)	-	78	(78)	-
31 December 2022	454	1,616	241	2,311
Additions	-	4	195	199
Transfers in (out)	-	29	(29)	-
Reclassification to property, plant and equipment	-	-	(38)	(38)
31 December 2023	454	1,649	369	2,472
Accumulated amortisation				
1 January 2022	303	1,168	-	1,471
Amortisation for the year	23	122	-	145
31 December 2022	326	1,290	-	1,616
Amortisation for the year	17	113	-	130
31 December 2023	343	1,403	-	1,746

(Unit: Million Baht)

	Consolidated financial statements			
	Dredging expenses	Computer software	Computer software under installation	Total
Net book value				
31 December 2022	128	326	241	695
31 December 2023	111	246	369	726
Amortisations for the year				
2022 (Baht 55 million included in cost of sales and services, and the balance in administrative expenses)				145
2023 (Baht 44 million included in cost of sales and services, and the balance in administrative expenses)				130

(Unit: Million Baht)

	Separate financial statements			
	Dredging expenses	Computer software	Computer software under installation	Total
Cost				
1 January 2022	454	1,491	245	2,190
Additions	-	5	73	78
Transfers in (out)	-	79	(79)	-
31 December 2022	454	1,575	239	2,268
Additions	-	1	192	193
Transfers in (out)	-	29	(29)	-
Reclassification to property, plant and equipment	-	-	(38)	(38)
31 December 2023	454	1,605	364	2,423
Accumulated amortisation				
1 January 2022	303	1,161	-	1,464
Amortisation for the year	23	118	-	141
31 December 2022	326	1,279	-	1,605
Amortisation for the year	17	109	-	126
31 December 2023	343	1,388	-	1,731
Net book value				
31 December 2022	128	296	239	663
31 December 2023	111	217	364	692
Amortisation for the year				
2022 (Baht 55 million included in cost of sales and services, and the balance in administrative expenses)				141
2023 (Baht 45 million included in cost of sales and services, and the balance in administrative expenses)				126

As at 31 December 2023, certain items of computer software were fully amortised but are still in use. The gross carrying amount before deducting accumulated amortisation of those assets amounted to approximately Baht 1,361 million (2022: Baht 1,217 million) in the consolidated and separate financial statements.

17. Short-term borrowings from financial institutions

As at 31 December 2023, the short-term borrowings from financial institutions are unsecured promissory notes which carried interest at the rate between 2.61 and 2.77 percent per annum (2022: between 1.95 and 2.05 percent per annum) and due for repayments within January to February 2024.

18. Trade and other payables

	(Unit: Million Baht)			
	Consolidated		Separate	
	financial statements		financial statements	
	2023	2022	2023	2022
Trade payables - related parties (Note 6)	33,143	33,159	33,143	33,160
Trade payables - unrelated parties	1,162	1,307	1,127	1,286
Amounts due to related parties (Note 6)	258	318	268	331
Accounts payable - acquisition of fixed assets	357	1,565	357	1,564
Accounts payable - Excise Department and Fuel fund	608	675	608	675
Accounts payable - Revenue Department	55	151	52	147
Accounts payable - Commodity derivative contracts	-	165	-	165
Employment restructuring obligations	77	225	77	225
Others	1,767	1,462	1,713	1,402
Total trade and other payables	37,427	39,027	37,345	38,955

19. Borrowings

19.1 Long-term borrowings from financial institutions

As at 31 December 2023 and 2022, the long-term borrowings from financial institutions are summarised as follows:

Loan	Interest rate (percent per annum)	Repayment schedule	Consolidated		Separate	
			financial statements	financial statements	financial statements	financial statements
			2023	2022	2023	2022
1	6-month fixed deposit rate plus margin	Principal is repayable every 6 months, totalling 10 instalments, commencing in October 2023.	4,047	4,495	4,047	4,495
2	6-month fixed deposit rate (4 banks averaged) plus margin	Principal is repayable every 6 months, totalling 10 instalments, commencing in November 2020.	4,499	7,498	4,499	7,498
3	6-month fixed deposit rate plus margin	Principal is repayable every 6 months, totalling 10 instalments, commencing in June 2023.	2,398	2,996	2,398	2,996
4	6-month fixed deposit rate plus margin	Principal is repayable every 6 months, totalling 10 instalments, commencing in March 2022.	1,500	1,999	1,500	1,999
5	6-month fixed deposit rate plus margin	Principal is repayable every 6 months, totalling 10 instalments, commencing in October 2023.	1,394	1,548	1,394	1,548
6	6-month fixed deposit rate plus margin	Principal is repayable every 6 months, totalling 10 instalments, commencing in December 2022.	2,098	2,697	2,098	2,697
7	6-month fixed deposit rate plus margin	Principal is repayable every 6 months, totalling 10 instalments, commencing in May 2020.	1,000	2,000	1,000	2,000
8	6-month fixed deposit rate plus margin	Principal is repayable every 6 months, totalling 12 instalments, commencing in December 2018.	500	1,500	500	1,500
9	6-month fixed deposit rate plus margin	Principal is repayable every 3 months, totalling 14 instalments, commencing in April 2023.	375	449	375	449
10	1-month SOFR plus margin	Principal is repayable every 6 months, totalling 9 instalments, commencing in June 2020.	2,062	3,467	2,062	3,467
Total			19,873	28,649	19,873	28,649
Less: Current portion			(8,882)	(8,763)	(8,882)	(8,763)
Long-term borrowings - net of current portion			10,991	19,886	10,991	19,886

(Unit: Million Baht)

Details of long- term borrowings from financial institutions

As at 31 December 2023 and 2022, the Company has entered into the following long-term borrowing agreements with financial institutions are summarised as follows:

1. On 1 July 2019, the Company entered into the unsecured Facility Agreement of Baht 3,500 million with a local financial institution. The agreement is for a period of 8 years with an interest rate at 6-month fixed deposit rate plus a certain margin per annum. The interest is payable monthly whereas the principal repayment is separated into 10 semi-annually installments, starting from October 2023 (the 42nd months from the first draw down). The facility was fully drawn down.

On 5 July 2019, the Company entered into the unsecured Facility Agreement of Baht 1,000 million with a local financial institution. The agreement is for a period of 8 years with an interest rate at 6-month fixed deposit rate plus a certain margin per annum. The interest is payable monthly whereas the principal repayment is separated into 10 semi-annually installments, starting from October 2023 (the 42nd month from the first draw down). The facility was fully drawn down.

2. Unsecured loans with facilities of Baht 15,000 million with 4 local financial institutions are for a period of 8 years from the first draw down with the interest rate of the average maximum 6-month fixed deposit rate of 4 commercial banks plus a certain margin per annum. The interest is payable monthly whereas the principal repayment is separated into 10 semi-annually installments, starting from 30 November 2020 (the 42nd month from the first draw down). The facilities were fully drawn down.
3. On 1 July 2019, the Company entered into the unsecured Facility Agreement of Baht 3,000 million with a local financial institution. The agreement is for a period of 8 years with an interest rate at 6-month fixed deposit rate plus a certain margin per annum. The interest is payable monthly whereas the principal repayment is separated into 10 semi-annually installments, starting from June 2023. The facility was fully drawn down.
4. On 1 July 2019, the Company entered into the unsecured Facility Agreement of Baht 2,500 million with a local financial institution. The agreement is for a period of 7 years with an interest rate at 6-month fixed deposit rate plus a certain margin per annum. The interest is payable semi-annually whereas the principal repayment is separated into 10 semi-annually installments, starting from March 2022. The facility was fully drawn down.

5. On 1 July 2019, the Company entered into the unsecured Facility Agreement of Baht 1,550 million with a local financial institution. The agreement is for a period of 8 years with an interest rate at 6-month fixed deposit rate plus a certain margin per annum. The interest is payable monthly whereas the principal repayment is separated into 10 semi-annually installments, starting from October 2023 (the 42nd month from the first draw down). The facility was fully drawn down.
6. On 1 July 2019, the Company entered into the unsecured Facility Agreement of Baht 3,000 million with a local financial institution. The agreement is for a period of 8 years with an interest rate at 6-month fixed deposit rate plus a certain margin per annum. The interest is payable monthly whereas the principal repayment is separated into 10 semi-annually installments, starting from December 2022. The facility was fully drawn down.
7. Unsecured loans with facilities of Baht 5,000 million with a local financial institution are for a period of 8 years from the first draw down with the interest rate of the maximum 6-month fixed deposit rate of an individual plus a certain margin per annum. The interest is payable monthly whereas the principal repayment is separated into 10 semi-annually installments, starting from 31 May 2020 (the 42nd month from the first draw down). The facilities were fully drawn down.
8. Unsecured loans with facilities of Baht 4,000 million with a local financial institution are for a period of 8 years from the first draw down with the interest rate of the maximum 6-month fixed deposit rate plus a certain margin per annum. The interest is payable monthly whereas the principal repayment is separated into 12 semi-annually installments, starting from 28 December 2018 (the 30th month from the first draw down). The facilities were fully drawn down.
9. On 1 July 2019, the Company entered into the unsecured Facility Agreement of Baht 450 million with a local financial institution. The agreement is for a period of 7 years with the interest rate of the maximum 6-month fixed deposit for juristic persons plus a certain margin per annum (formerly was an interest rate at 6-month THBFIX plus a certain margin per annum). The interest is payable on 3 months basis whereas the principal repayment is separated into 14 quarterly installments, starting from April 2023. The facility was fully drawn down.
10. On 29 June 2018, the Company entered into the Facility Agreement of US Dollar 200 million with two financial institutions. The agreement is for a period of 7 years with an interest rate at 1-month SOFR plus a certain margin per annum (formerly was an interest rate at 1-month LIBOR plus a certain margin per annum). The interest is payable monthly whereas the principal repayment is separated into 9 semi-annually installments, starting from June 2020. The facility was fully drawn down.

Movements of the long-term borrowings account for the years ended 31 December 2023 and 2022 are summarised below.

	(Unit: Million Baht)			
	Consolidated		Separate	
	financial statements		financial statements	
	2023	2022	2023	2022
Balance at beginning of year	28,649	37,107	28,649	37,107
Repayment of borrowings	(8,786)	(8,650)	(8,786)	(8,650)
Realised loss on exchange	17	56	17	56
Unrealised (gain) loss on exchange	(21)	114	(21)	114
Amortisation of deferred financing fees	14	22	14	22
Balance at end of year	19,873	28,649	19,873	28,649

Under the Facility Agreements, the Group has to comply with the covenants and conditions including the maintenance of certain financial conditions as specified in the agreements such as the maintenance of Debt-to-Equity Ratio and the maintenance of Debt Service Coverage Ratio. As at 31 December 2023 and 2022, the Group has fully complied with such conditions.

19.2 Debentures

As at 31 December 2023 and 2022, the debentures of the Group are summarised as follows:

Debentures	Interest rate (Percent per annum)	Repayment schedule	Consolidated		Separate	
			financial statements	financial statements	financial statements	financial statements
			2023	2022	2023	2022
1	Fixed	5 years, maturity on 11 September 2025	3,998	3,997	3,998	3,997
2	Fixed	3 years, maturity on 11 September 2023	-	1,999	-	1,999
3	Fixed	10 years, maturity on 11 September 2030	1,299	1,298	1,299	1,298
4	Fixed	15 years, maturity on 11 September 2035	2,697	2,697	2,697	2,697
5	Fixed	5 years, maturity on 20 May 2026	3,997	3,996	3,997	3,996
6	Fixed	3 years, maturity on 20 May 2024	2,000	1,999	2,000	1,999
7	Fixed	7 years, maturity on 20 May 2028	1,998	1,998	1,998	1,998
8	Fixed	10 years, maturity on 20 May 2031	1,998	1,998	1,998	1,998
9	Fixed	15 years, maturity on 20 May 2036	1,998	1,997	1,998	1,997
10	Fixed	5 years, maturity on 20 May 2027	6,993	6,991	6,993	6,991
11	Fixed	4 years, maturity on 20 May 2026	499	499	499	499
12	Fixed	7 years, maturity on 20 May 2029	749	749	749	749
13	Fixed	10 years, maturity on 20 May 2032	1,498	1,498	1,498	1,498
14	Fixed	12 years, maturity on 20 May 2034	2,247	2,247	2,247	2,247
15	Fixed	3 years, maturity on 31 May 2026	3,199	-	3,199	-
16	Fixed	5 years, maturity on 31 May 2028	3,747	-	3,747	-
17	Fixed	7 years, maturity on 31 May 2030	2,999	-	2,999	-
18	Fixed	10 years, maturity on 31 May 2033	2,038	-	2,038	-
Total			43,954	33,963	43,954	33,963
Less: Current portion			(1,999)	(1,999)	(1,999)	(1,999)
Debentures - net of current portion			41,955	31,964	41,955	31,964

(Unit: Million Baht)

Details of debentures

As at 31 December 2023 and 2022, the Company issued debentures are as follows.

On 11 September 2020, the Company issued debentures which are non-subordinated, unsecured with a debenture holders' representative in the name-registered certificate for 5 tranches totaling Baht 12,000 million where Tranche 1 and Tranche 2 were offered to general investors totaling Baht 6,000 million and Tranche 3 to Tranche 5 were offered to the limited institutional investors and/or high net worth totaling Baht 6,000 million, respectively.

The details are as follows:

Tranche 1 amounting to Baht 2,000 million for 3 years with a fixed interest rate at 3.00 percent per annum, it will be matured on 11 September 2023.

Tranche 2 amounting to Baht 4,000 million for 5 years with a fixed interest rate at 3.50 percent per annum, it will be matured on 11 September 2025.

Tranche 3 amounting to Baht 2,000 million for 2 years with a fixed interest rate at 2.76 percent per annum, it will be matured on 11 September 2022.

Tranche 4 amounting to Baht 1,300 million for 10 years with a fixed interest rate at 3.93 percent per annum, it will be matured on 11 September 2030.

Tranche 5 amounting to Baht 2,700 million for 15 years with a fixed interest rate at 4.40 percent per annum, it will be matured on 11 September 2035.

Interest is payable on every 11 March and 11 September throughout the debentures' period for all tranches.

On 20 May 2021, the Company issued debentures which are non-subordinated, unsecured with a debenture holders' representative in the name-registered certificate for 5 tranches totaling Baht 12,000 million where Tranche 1 offered to general investors of Baht 4,000 million and Tranche 2 to Tranche 5 were offered to limited institutional investors and/or high net worth totaling Baht 8,000 million, respectively.

The details are as follows:

Tranche 1 amounting to Baht 4,000 million for 5 years with a fixed interest rate at 3.00 percent per annum, it will be matured on 20 May 2026.

Tranche 2 amounting to Baht 2,000 million for 3 years with a fixed interest rate at 1.77 percent per annum, it will be matured on 20 May 2024.

Tranche 3 amounting to Baht 2,000 million for 7 years with a fixed interest rate at 2.91 percent per annum, it will be matured on 20 May 2028.

Tranche 4 amounting to Baht 2,000 million for 10 years with a fixed interest rate at 3.38 percent per annum, it will be matured on 20 May 2031.

Tranche 5 amounting to Baht 2,000 million for 15 years with a fixed interest rate at 4.10 percent per annum, it will be matured on 20 May 2036.

Interest is payable on every 20 May and 20 November throughout the debentures' period for all tranches.

On 20 May 2022, the Company issued debentures which are non-subordinated, unsecured with a debenture holders' representative in the name-registered certificate for 6 tranches totaling Baht 12,000 million whereby Digital debenture and Tranche 1 totaling Baht 7,000 million were offered to general investors and Green debenture and Tranche 2 to Tranche 4 were offered to institutional investors and/or high net worth investors totaling Baht 5,000 million, respectively.

The details of debentures are as follows:

Digital debenture	amounting to Baht 1,000 million for 5 years with a fixed interest rate at 3.10 percent per annum and a maturity date on 20 May 2027
Tranche 1	amounting to Baht 6,000 million for 5 years with a fixed interest rate at 3.10 percent per annum and a maturity date on 20 May 2027
Tranche 2	amounting to Baht 500 million for 4 years with a fixed interest rate at 3.03 percent per annum and a maturity date on 20 May 2026
Green debenture	amounting to Baht 750 million for 7 years with a fixed interest rate at 4.17 percent per annum and a maturity date on 20 May 2029
Tranche 3	amounting to Baht 1,500 million for 10 years with a fixed interest rate at 4.52 percent per annum and a maturity date on 20 May 2032
Tranche 4	amounting to Baht 2,250 million for 12 years with a fixed interest rate at 4.86 percent per annum and a maturity date on 20 May 2034

Interests for all tranches are payable on every 20 May and 20 November throughout the debenture period.

On 31 May 2023, the Company issued debentures which are non-subordinated, unsecured with a debenture holders' representative in the name-registered certificate for 8 tranches totaling Baht 12,000 million were offered to general investors.

The details are as follows:

Tranche 1	amounting to Baht 2,503.0 million for 3 years with a fixed interest rate at 3.20 percent per annum, it will be matured on 31 May 2026.
Tranche 2	amounting to Baht 2,852.5 million for 5 years with a fixed interest rate at 3.70 percent per annum, it will be matured on 31 May 2028.
Tranche 3	amounting to Baht 2,803.5 million for 7 years with a fixed interest rate at 4.00 percent per annum, it will be matured on 31 May 2030.
Tranche 4	amounting to Baht 1,841.0 million for 10 years with a fixed interest rate at 4.20 percent per annum, it will be matured on 31 May 2033.
Digital debenture 5	amounting to Baht 700.0 million for 3 years with a fixed interest rate at 3.20 percent per annum, it will be matured on 31 May 2026.

Digital debenture 6 amounting to Baht 900.0 million for 5 years with a fixed interest rate at 3.70 percent per annum, it will be matured on 31 May 2028.

Digital debenture 7 amounting to Baht 200.0 million for 7 years with a fixed interest rate at 4.00 percent per annum, it will be matured on 31 May 2030.

Digital debenture 8 amounting to Baht 200.0 million for 10 years with a fixed interest rate at 4.20 percent per annum, it will be matured on 31 May 2033.

Interests for all tranches are payable on every 31 May and 30 November throughout the debentures period.

Movements of the debentures account for the years ended 31 December 2023 and 2022 are as follows:

	(Unit: Million Baht)			
	Consolidated		Separate	
	financial statements		financial statements	
	2023	2022	2023	2022
Balance at beginning of year	33,963	23,972	33,963	23,972
Issuance of debentures	12,000	12,000	12,000	12,000
Repayment of debentures	(2,000)	(2,000)	(2,000)	(2,000)
Financing fee from issuing debentures	(19)	(17)	(19)	(17)
Amortisation of financing fee from issuing debentures	10	8	10	8
Balance at end of year	43,954	33,963	43,954	33,963

Under the terms of the debentures, the Company had to comply with certain conditions as stipulated, such as not creating any future lien on assets of the Group, maintaining direct and indirect ownership interest of PTT Public Company Limited in the Company (except for debentures which have been issued and offered on 31 May 2023), maintaining debt-to-equity ratio, etc. As at 31 December 2023 and 2022, the Group has fully fulfilled such conditions.

19.3 Interest rates on borrowings and debentures

The interest rates on borrowings and debentures of the Group as at 31 December 2023 and 2022, are as follows:

	(Unit: Million Baht)			
	Consolidated		Separate	
	financial statements		financial statements	
	2023	2022	2023	2022
<u>Effective interest rate (%)</u>				
Debentures	1.77 - 4.86	1.77 - 4.86	1.77 - 4.86	1.77 - 4.86
Long-term borrowings from financial institutions	2.00 - 6.70	2.00 - 5.64	2.00 - 6.70	2.00 - 5.64

19.4 Credit facilities

The Group has credit facilities with the commercial banks and a major shareholder (excluding long-term borrowings) totaling Baht 23,000 million and Baht 10,000 million, respectively, with market interest rates. As at 31 December 2023, the Group has unused credit facilities with the commercial banks and a major shareholder of Baht 6,735 million and Baht 10,000 million, respectively (2022: Baht 2,464 million and Baht 10,000 million, respectively).

20. Leases

20.1 The Group as a lessee

The Group has lease contracts for various items of property, plant, and equipment used in its operations. Leases generally have lease terms between 2 and 20 years.

a) Right-of-use assets

Movements of right-of-use assets for the years ended 31 December 2023 and 2022 are summarised below.

(Unit: Million Baht)

	Consolidated financial statements				
			Computer and accessories	Vehicles	Total
Land	Buildings				
1 January 2022	33	5	5	182	225
Additions	-	97	8	30	135
Depreciation for the year	(5)	(34)	(1)	(72)	(112)
31 December 2022	28	68	12	140	248
Additions	3	-	-	121	124
Decrease from termination	-	(11)	-	-	(11)
Depreciation for the year	(6)	(28)	(3)	(71)	(108)
31 December 2023	25	29	9	190	253

(Unit: Million Baht)

	Separate financial statements					
			Computer and accessories	Vehicles	Total	
Land	Buildings	Tank and storage				
1 January 2022	33	64	164	5	171	437
Increase	-	95	-	8	25	128
Depreciation for the year	(5)	(63)	(82)	(1)	(67)	(218)
31 December 2022	28	96	82	12	129	347
Increase	3	-	-	-	109	112
Decrease from termination	-	(11)	-	-	-	(11)
Depreciation for the year	(6)	(57)	(82)	(3)	(65)	(213)
31 December 2023	25	28	-	9	173	235

b) Lease liabilities

			(Unit: Million Baht)	
	Consolidated		Separate	
	financial statements		financial statements	
	2023	2022	2023	2022
Lease payments	261	256	241	359
Less: Deferred interest expenses	(13)	(10)	(11)	(11)
Total	248	246	230	348
Less: Portion due within one year	(107)	(102)	(101)	(212)
Lease liabilities - net of current portion	141	144	129	136

Movements of the lease liability account during the years ended 31 December 2023 and 2022 are summarised below.

			(Unit: Million Baht)	
	Consolidated		Separate	
	financial statements		financial statements	
	2023	2022	2023	2022
Balance at beginning of year	246	222	348	438
Additions	133	142	120	133
Decrease	(11)	-	(11)	-
Accretion of interest	(9)	(5)	(8)	(5)
Repayments	(111)	(113)	(219)	(218)
Balance at end of year	248	246	230	348

The Group does not face a significant liquidity risk with regard to its lease liabilities.

A maturity analysis of lease payments is disclosed in Note 37.2 to consolidated financial statements under the liquidity risk.

c) Expenses relating to leases that are recognised in profit or loss

			(Unit: Million Baht)	
	Consolidated		Separate	
	financial statements		financial statements	
	2023	2022	2023	2022
Depreciation expense of right-of-use assets	108	112	213	218
Interest expense on lease liabilities	6	7	8	12
Expense relating to short-term leases	19	15	20	16
Expense relating to leases of low-value assets	44	48	43	47
Expense relating to variable lease payments				
that do not depend on an index or a rate	36	38	36	38

The Group has lease contracts for office equipment and vehicle that contains variable payments based on usage and distance. The lease term is 5 - 10 years.

d) Others

The Group had total cash outflows for leases for the year ended 31 December 2023 of Baht 111 million (2022: Baht 113 million) (the Company only: Baht 219 million, 2022: Baht 218 million), including the cash outflow related to short-term lease, leases of low-value assets and variable lease payments that do not depend on an index or a rate.

20.2 Group as a lessor

The Group has entered into operating leases for its investment property portfolio consisting of land and building (see Note 14 to consolidated financial statements) of the lease terms are between 1 and 22 years.

The Group has future minimum rentals receivable under non-cancellable operating leases as at 31 December 2023 and 2022 as follows:

	(Unit: Million Baht)			
	Consolidated		Separate	
	financial statements		financial statements	
	2023	2022	2023	2022
Within 1 year	31	24	38	32
Over 1 and up to 5 years	61	44	69	47
Over 5 years	115	98	114	98
Total	207	166	221	177

During 2023, the Group has sub-lease income amounting to Baht 9 million (2022: Baht 8 million) (the Company only: Baht 9 million, 2022: Baht 8 million).

21. Provision for long-term employee benefits

Provision for long-term employee benefits, which represents compensation payable to employees after they retire and other long-term benefits, was as follows:

	(Unit: Million Baht)			
	Consolidated		Separate	
	financial statements		financial statements	
	2023	2022	2023	2022
Provision for long-term employee benefits at beginning of year	4,246	4,005	4,197	3,958
Included in profit or loss:				
Current service cost	197	192	194	189
Interest cost	96	91	95	90
Benefits paid during the year	(78)	(42)	(77)	(40)
Provision for long-term employee benefits at end of year	4,461	4,246	4,409	4,197

The Group expects to pay Baht 99 million of long-term employee benefits during the next year (2022: Baht 51 million) (the Company only: Baht 93 million, 2022: Baht 51 million).

As at 31 December 2023, the weighted average duration of the liabilities for long-term employee benefit is 11 - 20 years (2022: 11 years) (the Company only: 11 years, 2022: 11 years).

Significant actuarial assumptions are summarised below.

	(Unit: percent per annum)			
	Consolidated		Separate	
	financial statements		financial statements	
	2023	2022	2023	2022
Discount rate	2.3 - 3.6	2.3	2.3	2.3
Salary increase rate	4.0 - 8.0	4.0 - 8.0	5.0 - 8.0	5.0 - 8.0
Turnover rate	0 - 22.9	0 - 7.0	0 - 2.0	0 - 2.0

The result of sensitivity analysis for significant assumptions that affect the present value of the long-term employee benefit obligation as at 31 December 2023 and 2022 are summarised below.

	(Unit: Million Baht)			
	2023			
	Consolidated		Separate	
	financial statements		financial statements	
	Increase 1%	Decrease 1%	Increase 1%	Decrease 1%
Discount rate	(436)	505	(431)	498
Salary increase rate	397	(350)	391	(345)
	(Unit: Million Baht)			
	2022			
	Consolidated		Separate	
	financial statements		financial statements	
	Increase 1%	Decrease 1%	Increase 1%	Decrease 1%
Discount rate	(413)	477	(408)	471
Salary increase rate	375	(331)	369	(326)

On 14 December 2023, the Company has officially announced the incentive of year 2023 project. The objective of this project is to restructure manpower according to the business strategy. Currently, the Company is in the process of approving and considering the employee list under the project and expect the contract will effective starting as from February 2024.

22. Treasury stock

As at 31 December 2023 and 2022, the Company's ordinary shares of 23,828,400 shares, totaling amount of Baht 124 million have been held by IRPC Oil Company Limited, a subsidiary of the Company. These shares are stated at costs and presented in the consolidated statements of financial position as a deduction of total shareholders' equity.

The subsidiary plans to dispose of the Company's shares when returns are higher than its costs.

23. Statutory reserve

Pursuant to Section 116 of the Public Limited Companies Act B.E. 2535, the Company is required to set aside a statutory reserve at least 5 percent of its net profit after deducting accumulated deficit brought forward (if any), until the reserve reaches 10 percent of the registered capital. The statutory reserve is not available for dividend distribution. At present, the statutory reserve has fully been set aside.

24. Other income

	(Unit: Million Baht)			
	For the year ended 31 December			
	Consolidated		Separate	
	financial statements		financial statements	
	2023	2022	2023	2022
				(Restated)
Interest income	56	38	56	41
Dividend income	7	6	60	169
Gain (loss) on exchange rate from borrowings and interest payable	4	(170)	4	(170)
Gain on exchange rate	235	1,101	234	1,098
Gain on disposals of fixed assets	6	20	6	20
Income from tax refund from the customs import duty	71	86	71	86
Others	474	457	526	508
Total other income	853	1,538	957	1,752

25. Administrative expenses

(Unit: Million Baht)

	For the year ended 31 December			
	Consolidated		Separate	
	financial statements		financial statements	
	2023	2022	2023	2022
Staff costs	3,225	3,183	3,174	3,133
Consultant fees	154	167	152	158
Depreciation	282	293	170	182
Rental	113	116	113	116
Advertising	20	38	20	37
Bad debts and doubtful accounts (reversal)	14	(2)	14	1
Directors' remuneration	27	74	24	71
Others	1,537	1,406	1,555	1,411
Total administrative expenses	5,372	5,275	5,222	5,109

26. Net derivative (gain) loss

(Unit: Million Baht)

	For the year ended 31 December			
	Consolidated		Separate	
	financial statements		financial statements	
	2023	2022	2023	2022
Realised gain on financial derivative contracts	(177)	(10)	(177)	(10)
Unrealised (gain) loss on financial derivative contracts	1	(228)	1	(228)
Realised (gain) loss on commodity derivative contracts	(339)	8,385	(339)	8,385
Unrealised gain on commodity derivative contracts	-	(28)	-	(28)
Total net derivative (gain) loss	(515)	8,119	(515)	8,119

(Gain) loss on commodity derivative contracts are due to the fluctuation in price of crude oil and petroleum products and the contract price of commodity derivatives which is nature of normal business.

27. Finance costs

	(Unit: Million Baht)			
	For the year ended 31 December			
	Consolidated		Separate	
	financial statements		financial statements	
	2023	2022	2023	2022
Interest expense on borrowings and debentures	2,451	1,948	2,451	1,947
Interest expense on lease liabilities	6	7	8	12
Amortisation of deferred financing fees of loans	14	22	14	22
Amortisation of deferred financing fees of debentures	10	8	10	8
Total interest expense	2,481	1,985	2,483	1,989
Less: amounts included in the cost of qualifying assets	(409)	(115)	(408)	(114)
Net	2,072	1,870	2,075	1,875
Others finance cost	5	3	5	3
Total finance cost	2,077	1,873	2,080	1,878

28. Expenses by nature

Significant expenses classified by nature are as follows:

	(Unit: Million Baht)			
	For the year ended 31 December			
	Consolidated		Separate	
	financial statements		financial statements	
	2023	2022	2023	2022
Changes of finished goods and work in process	8,571	(4,795)	8,496	(4,726)
Cost of raw materials used	267,545	293,040	267,531	293,018
Salaries and wages and other employee benefits	8,003	8,417	7,860	8,279
Depreciation and amortisation	8,666	8,059	8,667	8,067
Directors' and managements' remuneration	80	134	77	131

29. Income tax

Income tax revenues for the years ended 31 December 2023 and 2022 are made up as follows:

	(Unit: Million Baht)			
	Consolidated		Separate	
	financial statements		financial statements	
	2023	2022	2023	2022
Current income tax:				
Current income tax charge	(42)	(16)	-	-
Adjustment in respect of income tax of previous year	-	(16)	-	(14)
Deferred tax:				
Relating to origination and reversal of temporary differences	814	1,174	1,029	1,185
Income tax revenues reported in profit or loss	772	1,142	1,029	1,171

The amounts of income tax relating to each component of other comprehensive income for the years ended 31 December 2023 and 2022 are as follows:

	(Unit: Million Baht)			
	Consolidated		Separate	
	financial statements		financial statements	
	2023	2022	2023	2022
Deferred tax relating to				
Loss on investments in equity instruments measured at fair value through other comprehensive income	2	1	2	1

The reconciliation between accounting loss and income tax revenues is shown below.

	(Unit: Million Baht)			
	Consolidated		Separate	
	financial statements		financial statements	
	2023	2022	2023	2022
Accounting loss before tax	3,684	5,502	5,091	5,669
Applicable tax rate	20%	20%	20%	20%
Accounting loss before tax multiplied by income tax rate	737	1,100	1,018	1,134
Adjustment in respect of income tax of previous year	-	(16)	-	(14)
Profit from operations of associates				
- net of tax	51	57	-	-
Adjustment on tax losses carried forward	8	-	8	-
Effects of:				
Non - deductible expenses	(44)	(33)	(28)	(14)
Additional expense deductions allowed	19	28	19	28
Others	1	6	12	37
Total	(24)	1	3	51
Income tax revenues reported in profit or loss	772	1,142	1,029	1,171

The components of deferred tax assets and deferred tax liabilities are as follows:

	(Unit: Million Baht)			
	Statements of financial position			
	Consolidated		Separate	
	financial statements		financial statements	
	2023	2022	2023	2022
Deferred tax assets				
Allowance for diminution in value of inventories	46	222	46	222
Provision for long-term employee benefits	887	845	882	839
Fixed assets	247	256	195	194
Tax losses carried forward	2,164	1,189	2,161	1,182
Derivatives	27	31	27	31
Investment in a subsidiary, joint venture and associate	-	-	236	30
Others	45	42	11	45
Total	3,416	2,585	3,558	2,513

(Unit: Million Baht)

	Statements of financial position			
	Consolidated		Separate	
	financial statements		financial statements	
	2023	2022	2023	2022
Deferred tax liabilities				
Other non-current financial assets	1	1	1	1
Fixed assets	244	229	244	229
Derivatives	29	30	29	30
Total	274	260	274	260

30. Promotional privileges

The Company has received promotional privileges from the Board of Investment for the manufacture of Compounded Plastic, The cogeneration and steam power plant project ("CHP"), Propylene project ("PRP"), EBSM Upgrading for ABS Specialties project ("EBSM"), Polypropylene Resin project ("PPE"), Polypropylene Compound project ("PPC"), High Pressure HDPE Compound project, Investment project in Industrial area and Improve Efficiency for Saving Energy of Petroleum project ("UHV"), Floating Solar project and PP Melt Blown Project, pursuant to the investment promotion certificate subject to certain imposed conditions, are summarised below.

- (a) Exemption from payment of import duty and tax on materials and necessary parts including machinery as approved by the Board
- (b) Exemption from payment of corporate income tax on the net profit derived from certain operations for a period of 3 to 8 years from the date on which the income is first derived from such operations
- (c) 50 percent reduction in the normal corporate income tax rate on the net profit derived from certain operations for a period of 5 years commencing from the expiry date for projects which have been received the exemption from payment of corporate income tax for a period of 8 years as mentioned in (b) above, and
- (d) The double deduction of logistics, electricity and water expenses for a period of 10 years since income is first derived from such operations.

As promoted companies, the Company must comply with certain terms and conditions prescribed in the promotional certificates.

The Company's operating revenues for the years ended 31 December 2023 and 2022, divided between promoted and non-promoted operations, are summarised below.

(Unit: Million Baht)

	Separate financial statements					
	Promoted operations		Non-promoted operations		Total	
	2023	2022	2023	2022	2023	2022
Sales						
Domestic sales	9,554	12,597	213,402	198,132	222,956	210,729
Export sales	3,552	7,090	91,508	105,952	95,060	113,042
Total sales	13,106	19,687	304,910	304,084	318,016	323,771

31. Loss per share

Basic loss per share is calculated by dividing loss for the year attributable to equity holders of the Company (excluding other comprehensive income) by the weighted average number of ordinary shares in issue during the year excluding treasury stock.

The following table sets forth the computation of basic loss per share.

	Consolidated financial statements					
	Loss for the year		Weighted average number of ordinary shares		Loss per share	
	2023	2022	2023	2022	2023	2022
	(Million Baht)	(Million Baht)	(Million shares)	(Million shares)	(Baht)	(Baht)
Basic loss per share						
Loss attributable to equity holders of the parent	(2,923)	(4,364)	20,410	20,410	(0.14)	(0.21)
	Separate financial statements					
	Loss for the year		Weighted average number of ordinary shares		Loss per share	
	2023	2022	2023	2022	2023	2022
	(Million Baht)	(Million Baht)	(Million shares)	(Million shares)	(Baht)	(Baht)
Basic loss per share						
Loss attributable to equity holders of the parent	(4,062)	(4,499)	20,434	20,434	(0.20)	(0.22)

In the consolidated financial statements, the weighted average numbers of ordinary shares outstanding during the years are deducted by 24 million shares of the parent held by a subsidiary (as mentioned in Note 22 to consolidated financial statements).

There are no dilutive potential ordinary shares in issue during the years presented, so no diluted earnings per share is presented.

32. Segment information

Operating segment information is reported in a manner consistent with the internal reports that are regularly reviewed by the chief operating decision maker in order to make decisions about the allocation of resources to the segment and assess its performance.

For management purposes, the Group is organised into business units based on its products and services and have 3 reportable segments as follows:

- Petroleum products segment, which produces and sales refinery, lubricant, asphalt.
- Petrochemical products segment, which produces and sales olefins, aromatics and related products including special products
- Other business segments, division related to Power plant, jetty and other utilities

No operating segments have been aggregated to form the above reportable operating segments.

The chief operating decision maker monitors the operating results of the business units separately for the purpose of making decisions about resource allocation and assessing performance. Segment performance is measured based on operating profit or loss and total assets and on a basis consistent with that used to measure operating profit or loss and total assets in the financial statements.

The basis of accounting for any transactions between reportable segments is consistent with that for third party transactions.

The following tables present revenue and profit (loss) information regarding the Group's operating segments for the years ended 31 December 2023 and 2022.

(Unit: Million Baht)

	Consolidated financial statements			
	For the year ended 31 December 2023			
	Petroleum products	Petrochemical products	Other businesses	Total
Revenues from sales and services	260,771	53,155	5,121	319,047
Profit (loss) from operating segments	3,275	(7,135)	947	(2,913)
Unallocated other income				1,052
Loss from operations				(1,861)
Share of profit on investments in joint ventures and associates				254
Finance costs				(2,077)
Income tax revenues				772
Loss for the year				(2,912)

(Unit: Million Baht)

	Consolidated financial statements				
	For the year ended 31 December 2023				
	Petroleum products	Petrochemical products	Other businesses	Elimination entries	Total
Segment fixed assets	60,591	26,678	22,217	294	109,780
Unallocated fixed assets					4,582
Segment other assets	38,552	8,179	7,881	(761)	53,851
Unallocated other assets					24,448
Consolidated total assets					192,661

(Unit: Million Baht)

Consolidated financial statements				
For the year ended 31 December 2022				
	Petroleum products	Petrochemical products	Other businesses	Total
Revenues from sales and services	249,550	70,402	4,848	324,800
Profit (loss) from operating segments	(1,258)	(3,375)	560	(4,073)
Unallocated other income				161
Loss from operations				(3,912)
Share of profit on investments in joint ventures and associates				283
Finance costs				(1,873)
Income tax revenues				1,142
Loss for the year				(4,360)

(Unit: Million Baht)

	Consolidated financial statements				
	For the year ended 31 December 2022				
	Petroleum products	Petrochemical products	Other businesses	Elimination entries	Total
Segment fixed assets	56,648	26,897	22,837	263	106,645
Unallocated fixed assets					4,787
Segment other assets	46,882	11,121	7,456	(548)	64,911
Unallocated other assets					21,844
Consolidated total assets					198,187

Geographic information

Revenue from external customers is based on locations of the customers.

	(Unit: Million Baht)	
	Consolidated	
	financial statements	
	2023	2022
Revenue from external customers		
Thailand	223,981	211,737
Singapore	45,508	56,836
Others	49,558	56,227
Total	319,047	324,800

Major customers

In 2023, the Group has revenue from a major customer which is a related party, amounting to Baht 51,543 million (2022: Baht 46,848 million), arising from sales by petroleum products and other segments.

	(Unit: Million Baht)			
	Consolidated		Separate	
	financial statements		financial statements	
	2023	2022	2023	2022
Timing of revenue recognition				
Revenue recognised at a point in time	318,853	324,623	317,876	323,659
Revenue recognised over time	194	177	140	112
Total revenues from contracts				
with customers	319,047	324,800	318,016	323,771

33. Provident fund

The Group and its employees have jointly established a provident fund in accordance with the Provident Fund Act B.E. 2530. The fund, which is managed by a Fund Management Company, will be paid to employees upon termination in accordance with the rules of fund of the Group. During 2023, the Group contributed Baht 414 million (2022: Baht 408 million) (the Company only: Baht 411 million 2022: Baht 405 million) were recognised as expenses.

34. Dividends

Dividends	Approved by	Total dividends (Million Baht)	Dividend per share (Baht)
Final dividends for 2021	Annual General Meeting of shareholders on 5 April 2022	2,861	0.14
Interim dividends for 2022	Board of Directors' meeting of the Company on 20 September 2022	817	0.04
Total dividends for 2022		3,678	0.18
Final dividends for 2022	Annual General Meeting of shareholders on 5 April 2023	613	0.03
Total dividends for 2023		613	0.03

35. Commitments and contingent liabilities

35.1 Capital commitments

As at 31 December 2023 and 2022, the Group has capital commitments as follows:

(Unit: Million Baht)

	Consolidated financial statements		Separate financial statements	
	2023	2022	2023	2022
Capital commitments				
Purchase agreements for machinery and construction	3,328	9,866	3,326	9,858
Consultation agreements	223	315	222	315
Other agreements	1,090	1,631	1,090	1,661
Total	4,641	11,812	4,638	11,834

35.2 Lease commitments

As at 31 December 2023 and 2022, the Group has future lease payments required under these lease agreements for office building space, vehicle and computer and service agreements that have not yet commenced as follows:

(Unit: Million Baht)

	Consolidated financial statements		Separate financial statements	
	2023	2022	2023	2022
Within 1 year	81	120	79	119
Over 1 and up to 5 years	7	70	5	67
Total	88	190	84	186

35.3 Guarantees

As at 31 December 2023, there were outstanding bank guarantees of approximately Baht 122 million issued by banks on behalf of the Group. These included letters of guarantee amounting to Baht 10 million to guarantee payments due to creditors and Baht 112 million to guarantee electricity use, among others. (2022: Baht 113 million to guarantee electricity use, among others) (the Company only: Baht 10 million to guarantee payments due to creditors and Baht 110 million to guarantee electricity use, among others, 2022: Baht 111 million to guarantee electricity use, among others).

35.4 Use in public ways and gutters

The Company has filed a petition for the removal of public ways and gutters in accordance with Section 8 of the Land Code by providing the appropriate land for exchange with the public ways and gutters. The Company has also filed a request for permission to use the state land under Section 9 of the Land Code, which is located in the IRPC Industrial Zone Project at Ban Laeng sub-district, Ta Phong sub-district and Choeng Noen sub-district, Muang Rayong district, Rayong province. Currently, the Company has been granted the permission to use the state land under Section 9 of the Land Code and has also filed a request for a renewal of such permission within the period specified by the laws. Regarding the removal of the public ways and gutters under Section 8 of the Land Code, the Company is in the process of execution and considering of the relevant government agencies (as mentioned in Note 35.6 to consolidated financial statements).

35.5 Significant agreements with related parties and other entities

(1) Sales/Purchase of Refined Oil Agreement from a depot, Chumporn province

The Company entered into a Sales/Purchase of Refined Oil Agreement from the depot in Chumporn province with PTT Oil and Retail Business Public Company Limited. The Company agrees to sell refined oil from its depot in Chumporn province at a quantity and pricing rates as stipulated in the agreement. The agreement is effective for a period of 1 year with a maturity date of 31 December 2023. The Company has extended the agreement to 31 December 2024. The new terms and conditions are stipulated in the renewal agreement.

(2) Crude and Feedstock Supply Agreement

The Company has entered into Crude and Feedstock Supply Agreements with PTT Public Company Limited. The agreements shall be effective for a period of 1 year with maturity date on 31 December 2024. The purchase quantity and pricing structure of crude and feedstock supply are as stipulated in the agreements.

(3) Gas Sale and Purchase Agreement

The Company has entered into Gas Sale and Purchase Agreement with PTT Public Company Limited (PTT) two agreements for the quantity and price as specified in the agreement. The agreement is for a period of 1 years and 5 years starting from effective date in specified agreements and will end in June 2023 and April 2026. The agreement can be extended under the conditions stipulated in the agreement.

(4) Petroleum Products Sales and Purchase Agreement

The Company has entered into a sales and purchases agreement of petroleum products with a related party, with agreed quantity and prices as specified in the agreement. The agreement is for a period of 15 years from the effective date specified in the agreement and will end in February 2028, unless both parties agree to terminate the agreement before the expiry date by written notify.

(5) Power and Steam Sale and Purchase Agreements

The Company has entered into the Power Sale and Purchase Agreement and Steam Sale and Purchase Agreement with a related party to purchase electricity and steam according to the agreements. The term of the Power Sale and Purchase Agreement is 25 years, and the term of the Steam Sale and Purchase Agreement is 27 years and shall expire on 14 November 2042.

(6) Compensation Agreement for Emission Reduction

On 29 November 2019, the Company has entered into the Compensation Agreement for Emission Reduction of Nitrogen Oxides with a related party to provide the emission reduction of Nitrogen Oxides service within IRPC Industrial Park. The Company will receive compensation as specified in the agreement which is effective from 29 November 2019 until 31 December 2028.

(7) Various Service Agreement

The Company has entered into the Service Agreement with a related party to provide the accounting, finance, procurement, maintenance of power plant and other management services. The term of the agreement is 2 years from the effective date as stipulated in such agreement and shall expire within December 2024. The service fees are stipulated in the agreements.

35.6 Litigation

The President of the Administrative Organization-Tambon Ban Laeng and 11 government agencies and Minister of Interior and 9 others

Ms. Phayung Meesabai and the other 44 plaintiffs filed a lawsuit to the President of the Administrative Organization - Tambon Ban Laeng and 11 government agencies as the 1st to 11th defendant requesting the Administrative Court of Rayong Province to suspend or dismiss any activities of the Company in expansion IRPC Industrial Zone Project, which it is the public ways and gutters in disputed area (as mentioned in Note 35.4 to consolidated financial statements). In addition, they requested the Administrative Court to suspend or dismiss the opinion of the Environmental Health Impact Assessment (“EHIA”) report. Subsequently, the defendants filed the case and additionally submitted all docket to the Administrative Court. On 31 March 2017, the Company submitted the petition to Administrative Court to include the Company as 12th defendant in this lawsuit and the Administrative Court has agreed on this matter. On 6 December 2018, 11 plaintiffs submitted to withdraw from the case with Administrative Court which on 12 December 2018, the Administrative Court approved to withdraw the case. Subsequently, the Administrative Court has ordered that 29 July 2020 was the last day of investigation and has dismissed the case on 27 August 2020. The plaintiffs also submitted a petition of appeal to Supreme Administrative Court on 23 September 2020. The Supreme Administrative Court accepted the appeal of the plaintiffs and has ordered the defendants to revise the appeal. On 21 December 2020, the Company submitted the revision appeal to Supreme Administrative Court. As at 31 December 2023, the case is in the process of considering of the Supreme Administrative Court’s appeal.

In 2017, Ms. Phayung Meesabai and the other 4 plaintiffs filed a lawsuit to Minister of Interior and 9 others requesting the Administrative Court to suspend the removal of public ways and gutters process (as mentioned in Note 35.4 to consolidated financial statements). On 15 January 2019, the Company submitted the petition as a defendant and additionally submitted the docket to the Court on 14 June 2019. Subsequently, the Administrative Court has ordered that 5 August 2020 was the last day of investigation and has dismissed the case on 25 September 2020. The plaintiffs also submitted a petition of appeal to Supreme Administrative Court on 22 October 2020. The Company submitted the revision appeal to Supreme Administrative Court on 4 March 2021 and as at 31 December 2023, the case is in the process of considering of the Supreme Administrative Court’s appeal.

As at 31 December 2023 and 2022, the Company’s management and its legal consultant are of the opinion that the Company has evidence and information according to the contract to defend the issue in this case and considers that the case will probably not result in the Company incurring losses. Therefore, the Company has not recorded the estimated losses of relevant assets or provision in its accounts.

36. Fair value hierarchy

As at 31 December 2023 and 2022, the Group had the assets and liabilities that were measured at fair value or for which fair value was disclosed using different levels of inputs as follows:

(Unit: Million Baht)				
Consolidated financial statements				
As at 31 December 2023				
Level 1	Level 2	Level 3	Total	
Assets measured at fair value				
Financial assets measured at FVOCI				
Equity investments	40	-	1,632	1,672
Derivatives				
Forward contracts	-	75	-	75
Interest rate swaps contracts	-	67	-	67
Liabilities measured at fair value				
Derivatives				
Cross currency interest rate swap contracts	-	137	-	137
Assets for which fair value are disclosed				
Investment property	-	1,149	-	1,149
Liabilities for which fair value are disclosed				
Debentures	-	43,781	-	43,781

(Unit: Million Baht)				
Consolidated financial statements				
As at 31 December 2022				
	Level 1	Level 2	Level 3	Total
Assets measured at fair value				
Financial assets measured at FVOCI				
Equity investments	52	-	1,631	1,683
Derivatives				
Interest rate swaps contracts	-	155	-	155
Liabilities measured at fair value				
Derivatives				
Cross currency interest rate swap contracts	-	149	-	149
Assets for which fair value are disclosed				
Investment property	-	1,149	-	1,149
Liabilities for which fair value are disclosed				
Debentures	-	34,323	-	34,323

(Unit: Million Baht)

Separate financial statements				
As at 31 December 2023				
	Level 1	Level 2	Level 3	Total
Assets measured at fair value				
Financial assets measured at FVOCI				
Equity investments	40	-	1,631	1,671
Derivatives				
Forward contracts	-	75	-	75
Interest rate swaps contracts	-	67	-	67
Liabilities measured at fair value				
Derivatives				
Cross currency interest rate swap contracts	-	137	-	137
Assets for which fair value are disclosed				
Investment property	-	1,104	-	1,104
Liabilities for which fair value are disclosed				
Debentures	-	43,781	-	43,781

(Unit: Million Baht)

Separate financial statements				
As at 31 December 2022				
	Level 1	Level 2	Level 3	Total
Assets measured at fair value				
Financial assets measured at FVOCI				
Equity investments	52	-	1,630	1,682
Derivatives				
Interest rate swaps contracts	-	155	-	155
Liabilities measured at fair value				
Derivatives				
Cross currency interest rate swap contracts	-	149	-	149
Assets for which fair value are disclosed				
Investment property	-	1,104	-	1,104
Liabilities for which fair value are disclosed				
Debentures	-	34,323	-	34,323

In 2023 and 2022, there were no transfers within the fair value hierarchy.

37. Financial instruments

37.1 Derivatives

As at 31 December 2023 and 2022, derivative assets and liabilities held for trading derivatives that are not designated in hedge accounting relationships carried at fair value through profit or loss were as follows:

	(Unit: Million Baht)			
	Statement of financial position			
	Consolidated		Separate	
	financial statements		financial statements	
	2023	2022	2023	2022
Derivative assets - current				
Forward contracts	75	-	75	-
Derivative assets - non-current				
Interest rate swap contracts	67	155	67	155
Total derivative assets	<u>142</u>	<u>155</u>	<u>142</u>	<u>155</u>
Derivative liabilities - current				
Cross currency interest rate swap contracts	137	62	137	62
Derivative liabilities - non-current				
Cross currency interest rate swap contracts	-	87	-	87
Total derivative liabilities	<u>137</u>	<u>149</u>	<u>137</u>	<u>149</u>

The Group has not entered into netting agreements with the counterparties for above derivatives.

Significant contracts related to derivatives are as follows:

Foreign exchange forward contracts

As at 31 December 2023, the Company has entered into foreign exchange forward contracts in USD with three financial institutions totaling USD 142 million (2022: None) to mitigate the risk of exchange rate fluctuations. The average foreign exchange forward rate ranged from 34.22 to 35.00 Baht per USD. These contracts are effective from 18 December 2023 to 17 January 2024.

Interest rate swap contracts

The Company has entered into interest rate swap contracts of USD long-term borrowings with two financial institutions totaling USD 140 million to swap interests from floating rate to fixed rate as specified in the contracts. The average fixed rate was between 2.63 percent and 2.75 percent. The contracts are effective from 15 November 2019 to 30 June 2025. As at 31 December 2023, the Company had outstanding interest rate swap contracts by USD 60 million (2022: USD 100 million).

The above interest rate swap contracts will be swapped the interest every month from the effective date until the maturity date and will recognise the transactions as derivatives in the financial statements over the period of contracts.

Cross currency interest rate swap contracts

1. The Company has entered into two cross currency interest rate swap contracts of Thai Baht long-term borrowings with two financial institutions totaling Baht 612 million to swap principals from Thai Baht to US Dollar at an exchange rate as specified in the contracts and to swap the fixed interest rate on Thai Baht to a fixed interest rate on US Dollar. The average foreign exchange forward rate was 30.60 Bath per USD. The contracts are effective from 5 March 2021 to 11 September 2023. As at 31 December 2023, the Company had no outstanding cross currency interest rate swap contracts (2022: Baht 612 million).

The above cross currency interest rate swap contracts will be swapped the interest every March and September from the effective date until the maturity date and will recognise the transactions as derivatives in the financial statements over the period of contracts.

2. The Company has entered into three cross currency interest rate swap contracts of Thai Baht long-term borrowings with a financial institution totaling Baht 2,862 million to swap principals from Thai Baht to US Dollar at an exchange rate as specified in the contracts and to swap the fixed interest rate on Thai Baht principal to a fixed interest rate on US Dollar. The average foreign exchange forward rate ranged from 31.70 to 31.91 Baht per USD. The contracts are effective from 28 September 2020 to 30 November 2024. As at 31 December 2023 and 2022, the Company had outstanding cross currency interest rate swap contracts by Baht 2,862 million.

The above cross currency interest rate swap contracts will be swapped the interest every ended of May and November from the effective date until the maturity date and will recognise the transactions as derivatives in the financial statements over the period of contracts.

Commodity derivative contracts

The Company has entered into Crack Spread Swap Contracts with a related party and several financial institutions in order to swap the spread of the average benchmark price of crude oil and petroleum products of the settlement months to the fixed price. As at 31 December 2023 and 2022, there were no the outstanding balances under such contracts.

The Company has entered into Crude Oil Swap Contracts with a related party and several financial institutions in order to swap the average benchmark price of crude oil and petroleum products of the settlement months to the range of fixed price. As at 31 December 2023 and 2022, there were no the outstanding balances under such contracts.

37.2 Financial risk management objectives and policies

The Group's financial instruments principally comprise cash and cash equivalents, trade and other receivables, short-term and long-term loans, investments, debentures, short-term and long-term borrowings from financial institutions. The financial risks associated with these financial instruments and how they are managed is described below.

Credit risk

The Group is exposed to credit risk primarily with respect to trade accounts receivable, short-term and long-term loans, deposits with financial institutions and other financial instruments. Except for derivatives, the maximum exposure to credit risk is limited to the carrying amounts as stated in the statement of financial position. The Group's maximum exposure relating to derivatives is noted in the liquidity risk topic.

Trade and other receivables

In order to minimise credit risk, the Group has determined the policies and procedures to consider the appropriate credit limit for business, comparable to leading companies in the same business. The Group takes into account the risks that will cause bad debts to the Group by having the credit committee who is responsible for supervising the credit management for selling all type of products and services of the Group.

Before approving credit limit to counterparty, the Group has set the terms and analysis for both counterparty with or without collateral to determine the credit rating. The analysis includes financial position, financial performance, ability to pay off debts together with qualitative information such as the Company's profile and major shareholders. The terms and credit limits are determined by the credit ratings as approved by the credit committee. The Group reviews the terms and credit limits with each counterparty on an annually basis.

The Group does not have significant credit risk exposure to any single counterparty or any group of counterparties having similar characteristics. The Group has no significant concentrations of credit risks. 80 percent of the trade receivables has the best credit scoring under the credit rating system used by the Group. Other monitoring procedures are also in place to ensure that follow-up action is taken to recover overdue debts. Furthermore, the calculation reflects the probability-weighted outcome, the time value of money and reasonable and supportable information that is available at the reporting date about past events, current conditions and forecasts of future economic conditions. Generally, trade receivables are written-off if past due for more than one year and not subject to enforcement activity. The Group reviews the recoverable amount of each trade receivable on an individual basis at the end of the reporting period to ensure that adequate loss allowance is made for irrecoverable amounts.

Financial instruments and cash deposits

The credit risk on cash at banks and derivatives is limited because the counterparties are banks with high credit-ratings assigned by international credit-rating agencies.

Market risk

There are 3 types of market risk comprising foreign currency risk, interest rate risk and commodity price risk. The Group enters into a variety of derivatives to manage its risk exposures, including:

- Foreign exchange forward contracts to hedge the foreign currency risk arising on the export or import of goods and raw materials, including foreign currency loans
- Interest rate swaps to mitigate the risk of interest rates fluctuation
- Commodity derivative contracts to mitigate the price risk of purchased inventory

Foreign currency risk

The Group's exposure to the foreign currency risk relates primarily to its trading transactions and loans that are denominated in foreign currencies. The Group seeks to reduce this risk by entering into foreign exchange forward contracts when it considers appropriate. Generally, the forward contracts mature within 5 years.

As at 31 December 2023 and 2022, the material balances of financial assets and liabilities denominated in foreign currencies are summarised below.

Foreign currency	Financial assets		Financial liabilities		Average exchange rate	
	2023	2022	2023	2022	2023	2022
	(Million)	(Million)	(Million)	(Million)	(Baht per 1 foreign currency unit)	
US dollar	214	162	70	122	34.22	34.56
Yen	-	-	23	-	0.24	0.26
Euro	-	-	1	-	38.03	36.83

Foreign currency sensitivity

The Group is mainly exposed to the currency of assets and liabilities to US dollar.

The following tables demonstrate the sensitivity of the Group's loss before tax to a reasonably possible change in US dollar and Euro exchange rates, with all other variables held constant. The impact on the Group's loss before tax is due to changes in the fair value of monetary assets and liabilities including non-designated foreign currency derivatives. 10 percent is the sensitivity rate used when reporting foreign currency risk internally to key management personnel and represents management's assessment of the reasonably possible change in foreign exchange rates. As at 31 December 2023 and 2022, the Group's exposure to foreign currency changes for all other currencies is not material.

Currency	2023		2022	
	Increase/ decrease	Effect on loss before tax	Increase/ decrease	Effect on loss before tax
	(%)	(Million Baht)	(%)	(Million Baht)
US dollar	10	189	10	274
Euro	10	5	10	1
Yen	10	1	10	1

Interest rate risk

The Group's exposure to interest rate risk relates primarily to its deposits with bank, short-term and long-term loans, debentures and short-term and long-term borrowings. Most of the Group's financial assets and liabilities bear floating interest rates or fixed interest rates which are close to the market rate.

The Group manages its interest rate risk by maintaining an appropriate mix between fixed and floating rate borrowings, and enters into interest rate swaps, in which it agrees to exchange, at specified intervals, between fixed and variable rate interest amounts calculated by reference to an agreed-upon notional principal amount. Hedging activities are evaluated regularly to align with interest rate views and defined risk appetite; ensuring the most cost-effective hedging strategies are applied.

As at 31 December 2023 and 2022, the Group had the outstanding balance of significant financial assets and liabilities which are classified by type of interest rate are summarised in the table below, with those financial assets and liabilities that carry fixed interest rates further classified based on the maturity date, or the repricing date if this occurs before the maturity date.

(Unit: Million Baht)

	Consolidated financial statements						
	As at 31 December 2023						
	Fixed interest rates			Floating interest rate	Non - interest bearing	Total	Effective interest rate (% per annum)
	Within 1 year	1-5 years	Over 5 years				
Financial assets							
Cash and cash equivalent	6,209	-	-	-	11	6,220	Note 7
Trade receivables	-	-	-	-	15,597	15,597	-
Other receivables	-	-	-	-	285	285	-
Amounts due from related parties	-	-	-	-	1,619	1,619	-
Other non-current financial assets	-	-	-	-	1,672	1,672	-
Derivative financial assets	-	67	-	-	75	142	Note 37.1
Other non-current assets	-	-	-	-	23	23	-
Financial liabilities							
Short-term borrowings from							
financial institutions	7,200	-	-	-	-	7,200	Note 17
Trade payables	-	-	-	-	34,305	34,305	-
Other payables	-	-	-	-	2,127	2,127	-
Amounts due to related parties	-	-	-	-	258	258	-
Interest payables	-	-	-	-	249	249	-
Accrued bonus expense	-	-	-	-	938	938	-
Other current liabilities	-	-	-	-	542	542	-
Long-term borrowings from							
financial institutions	-	-	-	19,873	-	19,873	Note 19.1
Debentures	2,000	24,432	17,522	-	-	43,954	Note 19.2
Long-term borrowings from a							
related party	-	25	6	-	-	31	Note 6
Derivative financial liabilities	137	-	-	-	-	137	Note 37.1
Other non-current liabilities	-	-	-	-	11	11	-

(Unit: Million Baht)

	Consolidated financial statements						
	As at 31 December 2022						
	Fixed interest rates			Floating interest rate	Non - interest bearing	Total	Effective interest rate (% per annum)
	Within 1 year	1-5 years	Over 5 years				
Financial assets							
Cash and cash equivalent	3,215	-	-	-	15	3,230	Note 7
Trade receivables	-	-	-	-	15,051	15,051	-
Other receivables	-	-	-	-	37	37	-
Amounts due from related parties	-	-	-	-	1,283	1,283	-
Other non-current financial assets	-	-	-	-	1,683	1,683	-
Derivative financial assets	-	155	-	-	-	155	Note 37.1
Other non-current assets	-	-	-	-	317	317	-
Financial liabilities							
Short-term borrowings from financial institutions	9,000	-	-	-	-	9,000	Note 17
Trade payables	-	-	-	-	34,466	34,466	-
Other payables	-	-	-	-	3,331	3,331	-
Amounts due to related parties	-	-	-	-	318	318	-
Interest payables	-	-	-	-	230	230	-
Accrued bonus expense	-	-	-	-	1,343	1,343	-
Other current liabilities	-	-	-	-	311	311	-
Long-term borrowings from financial institutions	-	-	-	28,649	-	28,649	Note 19.1
Debentures	1,999	17,500	14,464	-	-	33,963	Note 19.2
Long-term borrowings from a related party	-	19	12	-	-	31	Note 6
Derivative financial liabilities	62	87	-	-	-	149	Note 37.1
Other non-current liabilities	-	-	-	-	89	89	-

(Unit: Million Baht)

	Separate financial statements						
	As at 31 December 2023						
	Fixed interest rates			Floating interest rate	Non - interest bearing	Total	Effective interest rate (% per annum)
	Within 1 year	1-5 years	Over 5 years				
Financial assets							
Cash and cash equivalent	5,876	-	-	-	10	5,886	Note 7
Trade receivables	-	-	-	-	15,693	15,693	-
Other receivables	-	-	-	-	279	279	-
Amounts due from related parties	-	-	-	-	1,647	1,647	-
Short-term loans and interest							
receivables from related parties	-	-	-	20	-	20	Note 6
Other non-current financial assets	-	-	-	-	1,671	1,671	-
Long-term loans to related parties	-	-	-	67	-	67	Note 6
Derivative financial assets	-	67	-	-	75	142	Note 37.1
Other non-current assets	-	-	-	-	22	22	-
Financial liabilities							
Short-term borrowings from							
financial institutions	7,200	-	-	-	-	7,200	Note 17
Trade payables	-	-	-	-	34,270	34,270	-
Other payables	-	-	-	-	2,089	2,089	-
Amounts due to related parties	-	-	-	-	268	268	-
Interest payables	-	-	-	-	249	249	-
Accrued bonus expense	-	-	-	-	924	924	-
Other current liabilities	-	-	-	-	541	541	-
Long-term borrowings from							
financial institutions	-	-	-	19,873	-	19,873	Note 19.1
Debentures	2,000	24,433	17,522	-	-	43,954	Note 19.2
Derivative financial liabilities	137	-	-	-	-	137	Note 37.1
Other non-current liabilities	-	-	-	-	11	11	-

(Unit: Million Baht)

	Separate financial statements						
	As at 31 December 2022						
	Fixed interest rates			Floating interest rate	Non - interest bearing	Total	Effective interest rate (% per annum)
	Within 1 year	1-5 years	Over 5 years				
Financial assets							
Cash and cash equivalent	2,903	-	-	-	15	2,918	Note 7
Trade receivables	-	-	-	-	15,091	15,091	-
Other receivables	-	-	-	-	35	35	-
Amounts due from related parties	-	-	-	-	1,299	1,299	-
Short-term loans and interest							
receivables from related parties	-	-	-	135	-	135	Note 6
Other non-current financial assets	-	-	-	-	1,682	1,682	-
Long-term loans to related parties	-	-	-	77	-	77	Note 6
Derivative financial assets	-	155	-	-	-	155	Note 37.1
Other non-current assets	-	-	-	-	315	315	-
Financial liabilities							
Short-term borrowings from							
financial institutions	9,000	-	-	-	-	9,000	Note 17
Trade payables	-	-	-	-	34,446	34,446	-
Other payables	-	-	-	-	3,283	3,283	-
Amounts due to related parties	-	-	-	-	331	331	-
Interest payables	-	-	-	-	230	230	-
Accrued bonus expense	-	-	-	-	1,326	1,326	-
Other current liabilities	-	-	-	-	306	306	-
Long-term borrowings from							
financial institutions	-	-	-	28,649	-	28,649	Note 19.1
Debentures	1,999	17,500	14,464	-	-	33,963	Note 19.2
Derivative financial liabilities	62	87	-	-	-	149	Note 37.1
Other non-current liabilities	-	-	-	-	89	89	-

Interest rate sensitivity

The following table demonstrates the sensitivity of the Group's loss before tax to a reasonably possible change both financial derivatives and non-financial derivatives as follows.

Effect	2023		2022	
	Increase/ decrease	Effect on loss before tax	Increase/ decrease	Effect on loss before tax
	(%)	(Million Baht)	(%)	(Million Baht)
Floating rate	1	179	1	221

The above analysis has been prepared assuming that the amounts of liability outstanding at the reporting date was outstanding for the whole year. The Group's sensitivity to 1 percent increase or decrease is used when reporting interest rate risk internally to key management personnel and represents management's assessment of the reasonably possible change in interest rates. This information is not a forecast or prediction of future market conditions and should be used with care.

Interest rate swap contracts

Under interest rate swap contracts, the Group agrees to exchange the difference between fixed and floating rate interest amounts calculated on agreed notional principal amounts. Such contracts enable the Group to mitigate the risk of changing interest rates on the fair value of issued fixed rate debt held and the cash flow exposures on the issued variable rate debt held.

The detail various information regarding interest rate swap contracts outstanding at the end of the reporting period, interest rate swap contract assets and liabilities are included in Note 37.1 to consolidated financial statements.

Interest rate swap contracts will be settled every month. The floating rate on the interest rate swap contracts is 1-month SOFR (formerly was 1-month LIBOR) plus 1.25 percent. The Group will settle the difference between fixed and floating rate on a net basis.

Commodity price risk

The Group is affected by the price volatility of certain petroleum products. Its operating activities require the ongoing purchase and manufacture of petroleum therefore require a continuous crude oil and petroleum products. The Group is exposed to changes in the price of crude oil and petroleum products on its forecast purchases. The Group enters into derivative transactions to limit these risks. Hedging activities are evaluated regularly to align with Group expectations about the price changes and defined risk appetite; ensuring the most cost-effective hedging strategies are applied.

Commodity derivative contracts

The Group has a policy to enter into commodity derivative contracts to manage the commodity price risk associated with anticipated purchase transactions in next 24 months. The Group policy is to enter into crack spread swap contracts up to 50 percent of production quantity and enter into crude oil swap contracts up to 100 percent. However, the Company has no outstanding of commodity derivative contracts as of 31 December 2023 and 2022.

Liquidity risk

The Group monitors the risk of a shortage of liquidity through maintaining adequate reserves, banking facilities, credit facilities from the parent company and reserve borrowing facilities, by continuously monitoring forecast and actual cash flows, and by matching the maturity profiles of financial assets and liabilities. Approximately 52 percent of the Group's debt will mature in less than one year as at 31 December 2023 (2022: 53 percent) (the Company only: 52 percent, 2022: 54 percent) based on the carrying value of borrowings reflected in the financial statements.

The table below summarises the maturity profile of the Group's non-derivative financial liabilities and derivative financial instruments as at 31 December 2023 and 2022 based on contractual undiscounted cash flows.

(Unit: Million Baht)

	Consolidated financial statements				
	As at 31 December 2023				
	On demand	Less than 1 year	1 to 5 years	> 5 years	Total
Non-derivatives					
Short-term borrowings from financial institutions	-	7,200	-	-	7,200
Trade payables	-	34,305	-	-	34,305
Other payables	-	2,864	-	-	2,864
Amounts due to related parties	-	258	-	-	258
Interest payables	-	249	-	-	249
Accrued bonus expense	-	938	-	-	938
Other current liabilities	-	542	-	-	542
Long-term borrowings from financial institutions	-	8,885	10,998	-	19,883
Debentures	-	2,000	24,455	17,545	44,000
Lease liabilities	-	112	145	4	261
Long-term borrowings from a related party	-	-	25	6	31
Other non-current liabilities	-	-	11	-	11
Derivatives					
Derivative financial assets	-	75	67	-	142
Derivative financial liabilities	-	137	-	-	137

(Unit: Million Baht)

Consolidated financial statements					
As at 31 December 2022					
	On demand	Less than 1 year	1 to 5 years	> 5 years	Total
Non-derivatives					
Short-term borrowings from financial institutions	2,000	7,000	-	-	9,000
Trade payables	-	34,366	-	-	34,366
Other payables	-	3,331	-	-	3,331
Amounts due to related parties	-	318	-	-	318
Interest payables	-	230	-	-	230
Accrued bonus expense	-	1,343	-	-	1,343
Other current liabilities	-	311	-	-	311
Long-term borrowings from financial institutions	-	8,769	19,299	605	28,673
Debentures	-	2,000	17,500	14,500	34,000
Lease liabilities	-	107	145	4	256
Long-term borrowings from a related party	-	-	19	12	31
Other non-current liabilities	-	-	96	-	96
Derivatives					
Derivative financial assets	-	-	155	-	155
Derivative financial liabilities	-	62	87	-	149

(Unit: Million Baht)

Separate financial statements					
As at 31 December 2023					
	On demand	Less than 1 year	1 to 5 years	> 5 years	Total
Non-derivatives					
Short-term borrowings from financial institutions	-	7,200	-	-	7,200
Trade payables	-	34,270	-	-	34,270
Other payables	-	2,807	-	-	2,807
Amounts due to related parties	-	268	-	-	268
Interest payables	-	249	-	-	249
Accrued bonus expense	-	924	-	-	924
Other current liabilities	-	541	-	-	541
Long-term borrowings from financial institutions	-	8,885	10,998	-	19,883
Debentures	-	2,000	24,455	17,545	44,000
Lease liabilities	-	105	132	4	241
Other non-current liabilities	-	-	11	-	11
Derivatives					
Derivative financial assets	-	75	67	-	142
Derivative financial liabilities	-	137	-	-	137

(Unit: Million Baht)

	Separate financial statements				
	As at 31 December 2022				
	On demand	Less than 1 year	1 to 5 years	> 5 years	Total
Non-derivatives					
Short-term borrowings from financial institutions	2,000	7,000	-	-	9,000
Trade payables	-	34,446	-	-	34,446
Other payables	-	3,703	-	-	3,703
Amounts due to related parties	-	331	-	-	331
Interest payables	-	230	-	-	230
Accrued bonus expense	-	1,326	-	-	1,326
Other current liabilities	-	306	-	-	306
Long-term borrowings from financial institutions	-	8,769	19,299	605	28,673
Debentures	-	2,000	17,500	14,500	34,000
Lease liabilities	-	218	137	4	359
Other non-current liabilities	-	-	89	-	89
Derivatives					
Derivative financial assets	-	-	155	-	155
Derivative financial liabilities	-	62	87	-	149

37.3 Fair values of financial instruments

Since the majority of the Group's financial instruments are short-term in nature or carrying interest at rates close to the market interest rates, their fair value is not expected to be materially different from the amounts presented in the statement of financial position.

37.4 Reconciliation of recurring fair value measurements of financial assets, categorised within Level 3 of the fair value hierarchy.

(Unit: Million Baht)

	Consolidated financial statements	Separate financial statements
Non-listed equity investments		
Balance as of 1 January 2022	1,637	1,636
Disposed during the year	(2)	(2)
Net loss recognised in other comprehensive income	(4)	(4)
Balance as of 31 December 2022	1,631	1,630
Net gain recognised in other comprehensive income	1	1
Balance as of 31 December 2023	1,632	1,631

38. Capital management

The primary objective of the Group's capital management is to ensure that it has appropriate capital structure in order to support its business to continue as going concern and maximise shareholder value and it meets financial covenants attached to the loan agreements. The Group has complied with these covenants throughout the reporting periods.

The capital structure of the Group consists of net debts (borrowings disclosed in Note 17, Note 19 and Note 20 to consolidated finance statements after deducting cash and cash equivalents balances) and equity of the Group.

The Group's risk management committee reviews the capital structure on a semi-annual basis. As part of this review, the committee considers the cost of capital and the risks associated with each class of capital. The Group has a target gearing ratio not over 1 time determined as the proportion of net debt to equity.

As at 31 December 2023, the Group's net debt-to-equity ratio was 0.86: 1 (2022: 0.86: 1) and the Company's was 0.90: 1 (2022: 0.89: 1).

39. Events after the reporting period

On 13 February 2023, a meeting of the Company's Board of Directors passed a resolution to propose the payment of a dividend of Baht 0.03 per share or a total of Baht 613 million from the Company's retained earnings. This will be proposed to the 2024 Annual General Meeting of the Company's shareholders for approval.

40. Reclassifications

Certain amounts in the income statement for the year ended 31 December 2022 have been reclassified to conform to the current year's classification. The reclassifications are as follows.

	(Unit: Million Baht)	
	For the year ended 31 December 2022	
	Separate financial statements	
	As reclassified	As previously reported
Other income	1,752	1,742
Loss on impairment of investments in a subsidiary and associates	10	-

The reclassifications had no effect to previously reported loss or shareholders' equity.

41. Approval of financial statements

These financial statements were authorised for issue by the Company's Board of Directors on 13 February 2024.



About This Report

Business-driven sustainability

IRPC has disclosed sustainability performance information to stakeholders through the corporate website and “Annual Registration Statement/Annual Report 2023 (Form 56-1 One Report)” as shown in Section 3 Business driven sustainability, as well as disclosing such information on the website www.irpc.co.th in the Sustainable Development section, as is the case each year, to communicate material issues relating to sustainability of our business operations to all stakeholders. This report also contains current status and progress on the implementation of the United Nations Global Compact (UNGC) by preparing a report in accordance with the guidelines for the Annual Registration Statement/Annual Report, Form 56-1 One Report, of Office of the Securities and Exchange Commission (SEC) and the Sustainability Reporting Guideline (Standards) of the Global Reporting Initiative (GRI) at the level of Core Option and additional indicators for companies in the Oil and Gas Sector Disclosure. In Form 56-1 One Report 2023, IRPC maintained the scope of reporting on business-driven sustainability covering economic, social, and environmental operations between January 1 and December 31, 2023, approved by the Board of Directors, the Chief Executive Officer and President as well as high-level executives from relevant departments, and reviewed and audited by KPMG Phoomchai Audit Co., Ltd. to reassure all stakeholders as to its accuracy, reliability, and in alignment with the business operation that is also traceable to the sources of information in every respect.

Disclosure of operating results, covering all businesses operated directly or owned by IRPC through shareholding, include IRPC Public Company Limited, as well as subsidiaries under IRPC’s management, with over 50 percent of shares held by IRPC, are: 1) IRPC Oil Company Limited; 2) IRPC A&L Company Limited; 3) IRPC Technology Company Limited; and 4) iPolymer Company Limited; along with Rakpasak Company Limited, whose shares are held indirectly by IRPC through its subsidiaries, amounting to more than 50 percent. The scope of reporting corresponds to other topics contained in this report and from the website www.irpc.co.th.



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Assurance Report



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Independent limited assurance report

To the Directors of IRPC Public Company Limited (“IRPC”)

Conclusion

Based on the procedures performed, as described below, nothing has come to our attention that causes us to believe that the selected subject matters (“Subject Matters”) identified below and included in the 56-1 One Report 2023 (Driving Business towards Sustainability Section) for the year ended 31 December 2023, are not, in all material respects, prepared in compliance with the reporting criteria (the “Criteria”).

Our Responsibilities

We have been engaged by IRPC and are responsible for providing a limited assurance conclusion in respect of the Subject Matters for the year ended 31 December 2023 to be included in the Report as identified below.

Our assurance engagement is conducted in accordance with the International Standard on Assurance Engagements ISAE 3000 (Revised) *Assurance Engagements other than Audits or Reviews of Historical Financial Information*, and ISAE 3410 *Assurance on Greenhouse Gas Statements*. These standards require the assurance team to possess the specific knowledge, skills and professional competencies needed to provide assurance on sustainability information, and that we plan and perform the engagement to obtain limited assurance on whether the Subject Matters are prepared, in all material respects, in compliance with the Criteria.

Our Independence and Quality Management

We have complied with the independence and other ethical requirements of the International Ethics Standards Board for Accountants’ *International Code of Ethics for Professional Accountants (including International Independence Standards)* (IESBA Code), which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior. The firm applies International Standard on Quality Management 1 which requires the firm to design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

We have not been engaged to provide an assurance conclusion on any other information disclosed within the Report.

Subject Matters

Subject Matters comprised of the following data expressed numerically or in descriptive text for the year ended 31 December 2023:

- GRI 2-5 External assurance
- GRI 2-6 Activities, value chain and other business relationships
- GRI 302-1 Energy consumption within organization (2016)
- GRI 303-3 Water withdrawal (2018)
- GRI 303-4 Water discharge (2018)
- GRI 303-5 Water consumption (2018)
- GRI 305-1 Direct (Scope 1) GHG emissions (2016)
- GRI 305-2 Energy indirect (Scope 2) GHG emissions (2016)
- GRI 305-3 Other Indirect (Scope 3) GHG emissions (2016)
- GRI 305-7 Nitrogen Oxides (NOx), Sulphur oxides (SOx), and other significant air emissions
- GRI 306-3 Waste generated (2020)
- GRI 306-4 Waste diverted from disposal (2020)
- GRI 306-5 Waste directed to disposal (2020)
- GRI 306-3 Significant spills (2016)
- GRI 308-2 Negative environmental impacts in the supply chain and actions taken (2016)
- GRI 403-9 Work-related injuries (2018)
- GRI 403-10 Work-related ill health (2018)
- GRI 405-2 Ratio of basic salary and remuneration of women to men (2016)



- GRI 414-2 Negative social impacts in the supply chain and actions taken (2016)
- GRI 11.1.5 Flared and Vented Hydrocarbon (2021)
- GRI 11.8.3 Number of process safety events, by business Activity (2021)

Criteria

The Subject Matters were assessed according to the following criteria:

- The Sustainability Reporting Standards of the Global Reporting Initiative (“GRI Standards”)
- The Global Reporting Initiative “GRI 11” Sector Standard for Oil and Gas

Directors’ and management’s responsibilities

The directors and management of IRPC are responsible for the preparation and presentation of the Subject Matters, specifically ensuring that in all material respects the Subject Matters are prepared and presented in accordance with the Criteria. This responsibility also includes the internal controls relevant to the preparation of the Report that is free from material misstatement whether due to fraud or error.

Procedure performed

In forming our limited assurance conclusion over the Subject Matters, our procedures consisted of making enquiries and applying analytical and other evidence gathering procedures including:

- Interviews with senior management and relevant staff at corporate and operating sites;
- Inquiries about the design and implementation of the systems and methods used to collect and process the information reported, including the aggregation of source data into the Subject Matters;
- Inquiries about managements practices and procedures related to identifying stakeholders and their expectations, determining material sustainability matters and implementing sustainability policies and guidelines;
- On-site visit at Head Quarter in Bangkok, and ETP Petrochemical, UHV Petroleum, CHP1 Power Utility plants in Rayong, selected on the basis of risk analysis including the consideration of both quantitative and qualitative criteria;
- Agreeing the Subject Matters to relevant underlying sources on a sample basis to determine whether all the relevant information has been included in the Subject Matters and prepared in accordance with the Criteria.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement and consequently the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. Accordingly, we do not express a reasonable assurance opinion.

Inherent limitations

Due to the inherent limitations of any internal control structure it is possible that errors or irregularities in the information presented in the Report may occur and not be detected. Our engagement is not designed to detect all weaknesses in the internal controls over the preparation and presentation of the Report, as the engagement has not been performed continuously throughout the period and the procedures performed were undertaken on a test basis.

Restriction of use of our report

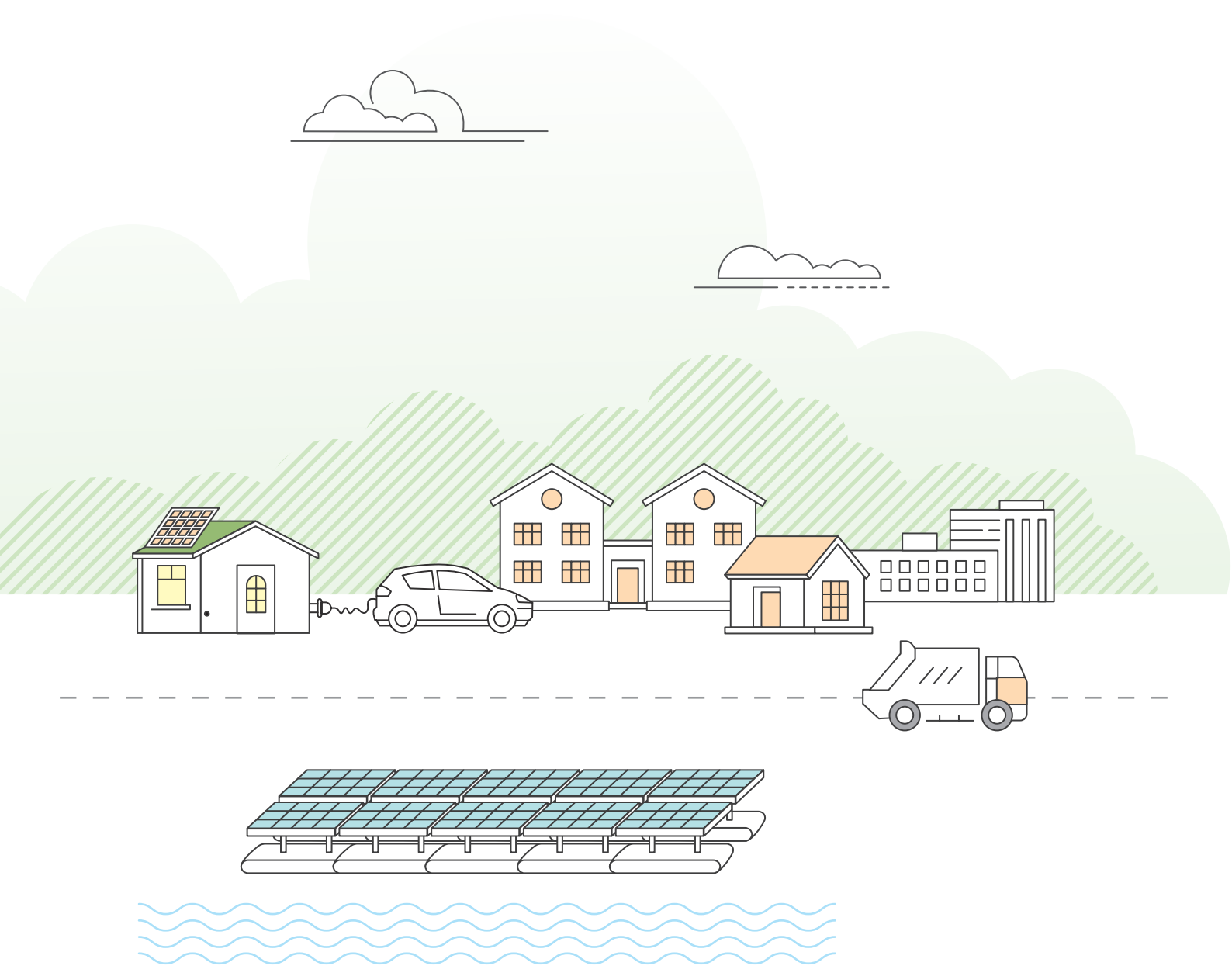
Our report should not be regarded as suitable to be used or relied on by any party wishing to acquire rights against us other than IRPC, for any purpose or in any other context. Any party other than IRPC who obtains access to our report or a copy thereof and chooses to rely on our report (or any part thereof) will do so at its own risk. To the fullest extent permitted by law, we accept or assume no responsibility and deny any liability to any party other than IRPC for our work, for this independent limited assurance report, or for the conclusions we have reached.

KPMG PHOONCHAI AUDIT LTD.

KPMG Phoomchai Audit Ltd.

Bangkok

14 March 2024





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