

EX
CELLENCE

FOR SUSTAINABILITY



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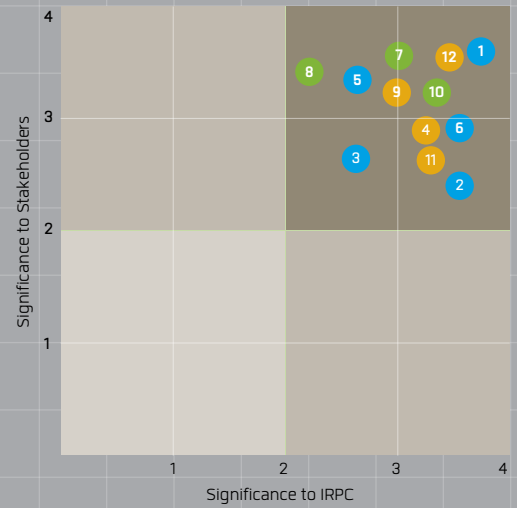


New Project Development

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IRPC carried out materiality assessment by applying GRI Reporting Principles for defining report content into use to identify and prioritize each materiality. IRPC has arranged several workshops with relevant functions to review and prioritize materiality,



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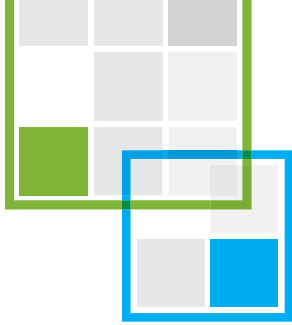
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Community Relations and Development

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CEO STATEMENT



IRPC always adheres to the principles of sustainability development with considerations to the economy, society, and environment under the corporate good governance guidelines. In 2013 IRPC had encountered challenges in terms of the economic deceleration, oil price volatility, Baht value, and the competition from several capacity expansions in the region, yet with collaborations and dedications to the fullest ability of all IRPC's personnel, IRPC, as a result, ended the financial year with profits. In terms of project implementation, especially Phoenix project had successfully achieved target and generated more income than the previous year. The most important project is the Upstream Project for Hygiene and Value Added Products or UHV project expected to commercially complete in the 3rd quarter of 2015, which, as a result, will increase the Propylene production by more than 300,000 tonnes and change the production structure as well as create added value to the products.

IRPC recognizes the importance of research and development of environmentally friendly specialty products, which will create added value and build long term competitiveness to the company. For example, Green ABS product, in which IRPC was the 1st company in the world to successfully manufacture and, for the 1st time, has turned to become a process licensor for Green ABS product.

In case of providing care and gaining social license and trust from the communities, in 2013, IRPC had improved educational, health, and living quality of the communities through various projects, such as building construction projects at Pluakket temple school and Tapong health promotional hospital. In addition, IRPC is determined to improving IRPC's industrial area along with taking care of the communities, society, and environment as well as continuously pacing towards becoming the Eco-Industrial Zone in 2017

IRPC intends to achieve the vision of becoming "A leading petrochemical complex in Asia by 2020", therefore, Delta project has been initiated in order to exalt the organization to excellence by improving and increasing the capability throughout the organization. The operation is divided into 3 main aspects, which are

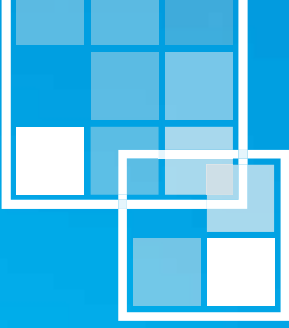
- Operational Excellence: improving the production operation as a whole as well as creating trust and elevating QSHE to be comparable to the global leading companies
- Commercial Excellence: creating added value from the business operations and generating new income as well as entering a market for specialty products, which have higher value.
- Human Resource Excellence: improving working efficiency of all IRPC's personnel, whom is considered the most important component in driving the operations in line with the strategy and objectives.

IRPC, for the first time, had participated in the Dow Jones Sustainability Indices assessment (DJSI) under the Emerging Market universe and delightfully received the assessment score within the top 15% of all assessed Oil & Gas companies and was included in The Sustainability Yearbook, published by RobecoSAM in January 2014. The result of the assessment reflected the commitment and dedication in implementing sustainability guidelines into the management and business operation. Nonetheless, IRPC intends to continue improving its' business operations in order to achieve a top 10% scoring in the Oil & Gas industry and be listed as a member of DJSI within 2020.

I, personally, am determined to transforming IRPC into "A leading petrochemical complex in Asia by 2020" as well as leading the organization to excellence in terms of social, environmental, and stakeholder responsibility on the foundation of the corporate good governance. I have to thank all IRPC's employees and stakeholders, whose supports are of critical to the sustainability development of IRPC and I strongly believe that IRPC's operational guidelines will assist the company to steadily overcome a fierce competition and the volatility of economic condition as well as to strengthen the business operations, create understanding, collaboration, mutual benefits with the communities, and most importantly, IRPC, Rayong's natives, and Thai society can eventually co-exist together harmoniously in a balanced and sustainable environment.



Sukrit Surabotsopon
President

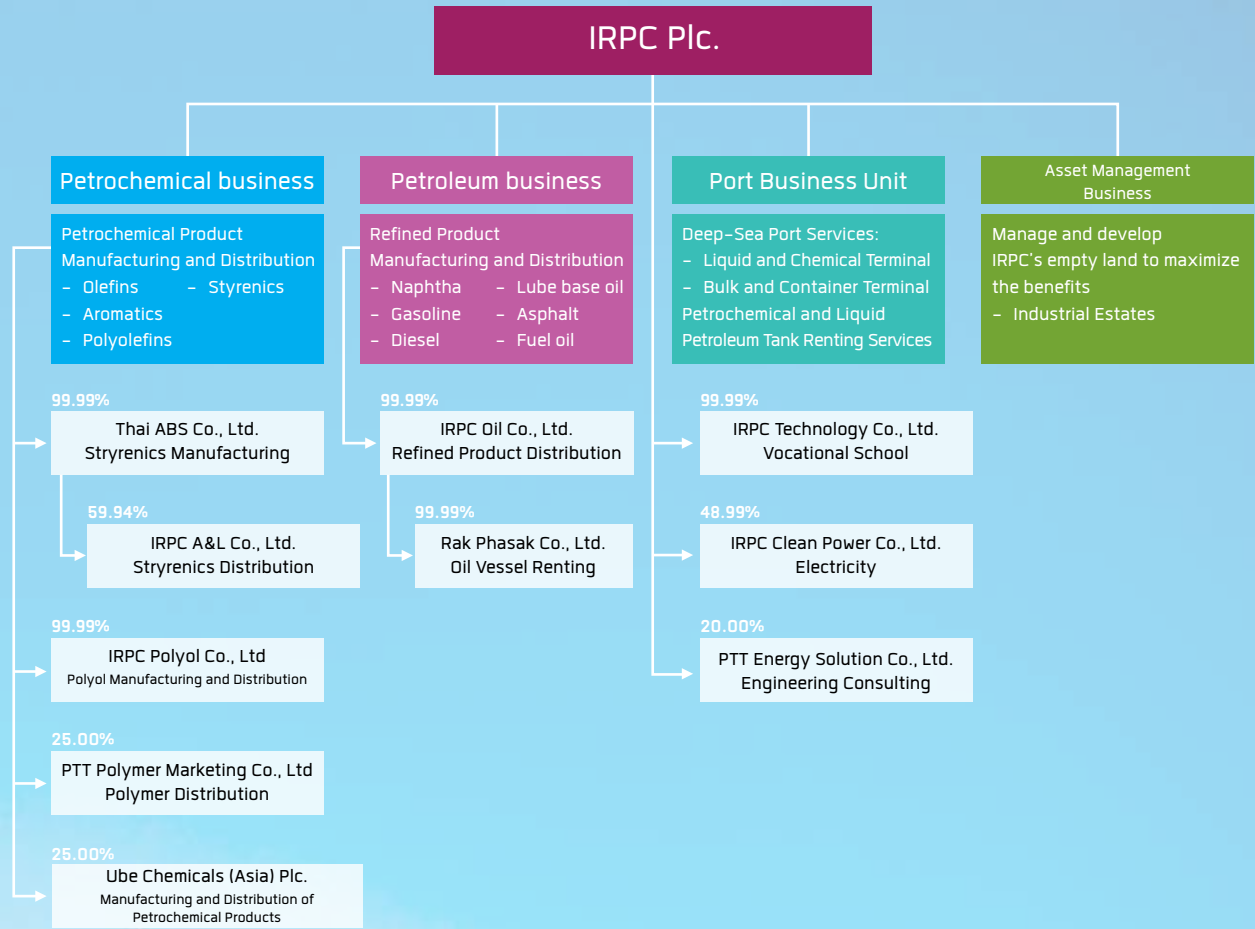


Business Context

IRPC Public Company Limited or “IRPC” has been operating in Thailand for the past 24 years, registered as an entity in 1978, transformed to a public company limited on the 10th of October 1994, and became listed in the stock market of Thailand on the 17th of March 1995, with the operational headquarter, which is an industrial area under IRPC’s management equipped with basic infrastructures, include deep sea ports, tank farm, and power plant, necessary to support business operations, located in Rayong province.



Business Structure and Shareholding





Petroleum Business

IRPC's refinery has 215,000 barrels per day capacity, the 3rd biggest refinery in Thailand. There are several petroleum products include Naphtha, Gasoline, Diesel, and LPG. Moreover, IRPC has a lube base production plant with 320,000 tonnes per annual capacity, which is the biggest in the country, and asphalt production plant with 600,000 tonnes per annual.

In 2013, IRPC had completed a multi-product pipeline project, which is a co-invested project with PTTGC to improve the quality of diesel (10,000 barrels per day) to meet with the EURO IV standard and produce 15,000 barrels of Jet A-1 daily. Moreover, VGO unit had been modified to accommodate a 3 million liters per day production of BHD (Bio-Hydrogenated Diesel), which is a special graded diesel used to produce a high quality synthetic diesel combined with a EURO V standard diesel to be marketed as a premium graded diesel.

Petrochemical Business

Upstream petrochemical products include Olefins, Aromatics, 828,000 and 367,000 tonnes per annual in production capacity respectively, which will be used as feeds for downstream products, include Polyolefins (HDPE, PP) with 615,000 tonnes per annual, Styrenics (ABS/SAN, EPS, PS) with 307,000 tonnes per annual, to supply to plastic manufacturers to manufacture the finished products.

In 2013, IRPC had increased an additional 60,000 tonnes per annual in EBSM capacity, totaling to 260,000 tonnes per annual, to be used as feeds in the production of ABS/SAN, which also had 60,000 tonnes per annual in additional capacity to accommodate the production of Green ABS, in which IRPC was the first in the world to successfully produce.

Port Business and Tank Farm

IRPC's port is located in the proximity of the refinery plant in Rayong province. IRPC's port offers mooring service with functional facilities to the customers. The main port, for liquid and chemical terminal to unload petrochemical, petroleum, and gas products, is 1,623 meters in length, divided into 6 wharves with vessel handling capacity ranging from 1,000 to 250,000 DWT (deadweight tonnage). The bulk and container terminal is 900 meters in length and 44 meters in width with vessel handling capacity ranging from 8,000 to 150,000 DWT, offering unloading and transferring of bulk goods and product storage tanks, which can store up to 2.7 million tonnes of products in more than 200 tanks. IRPC also has 5 oil depots include Rayong, Phra Padaeng (Bangkok), Ayutthaya, Chumphon, and Mae Klong (Samut Sakhon).

In 2013, VTMS (Vessel Traffic Management System) was installed to manage water traffic for safety purposes and enhance security as ISPS code, communicate and record information on cargo ships for safety monitoring and situation controls. IRPC also carried out Ship to Ship prevention plan, which is a safety measures that are actually practical and approved by the government agencies. The STS prevention plan consists of both hard side and soft side prevention measures, which focus on cost reduction and sea transportation risk. Additionally, in term of storage tank business, IRPC's tank farms at Phra Padaeng was developed into a central storage and product distribution channel and basic chemical to accommodate a domestic industrial growth by tank rental service for product storage and strategic reserve according to law for external customer



Asset Management Business

A business unit that manages the company's asset, 10,000 rais of empty plots of land, under the brand "RECO" in Rayong and other provinces to support core businesses of IRPC, PTT group's companies, and external investors. The future business expansion, which will focus on businesses that are friendly to the communities and environment, comprises of Rayong industrial estate (Ban Khai), located in Ban Khai district, Rayong province, and IRPC's Eco-Industrial Zone (EIZ), located in Muang district, Rayong province, which is a project that is fully replete of necessary infrastructure, includes CHP1, which reduces CO₂ emission up to 400,000 tonnes per annual, improves a transmission system for a better stability of power supply in an industrial area, as well as accommodate upcoming projects of both IRPC and external customers.

In 2013, IRPC had worked collaboratively with Industrial Estate Authority of Thailand and Plastics Institution of Thailand in developing Ban Khai industrial estate into the first plastic park in Thailand, which will be a manufacturing base for high value plastic products, such as plastics for medical equipment, auto and aircraft parts, etc. Finally, 1,867 rais of land in IRPC's industrial area will be developed into an Eco-Industrial Zone, that is environmental and community conscious in order to create sustainable development.

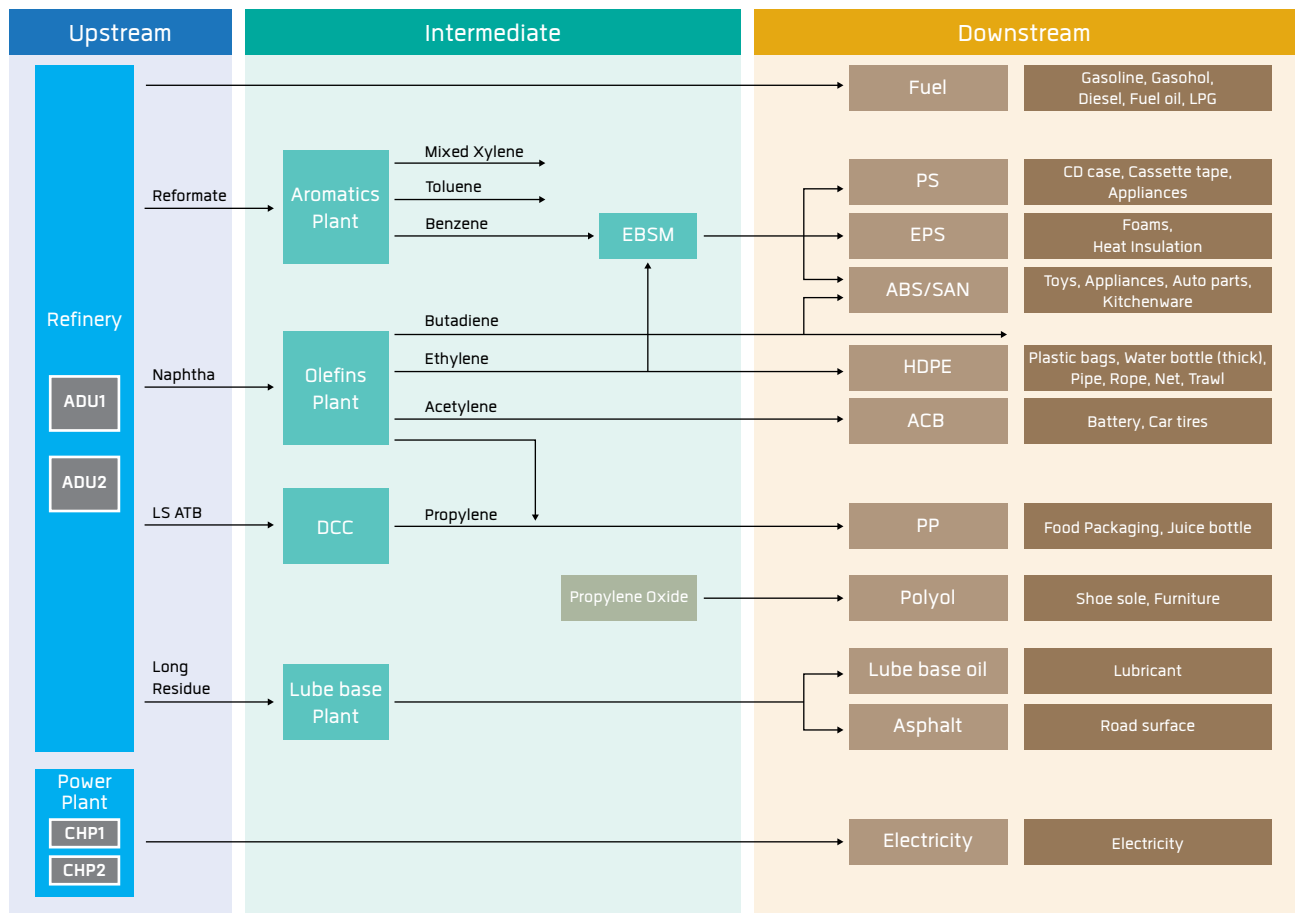
Business Strategy

IRPC's vision is to become "A Leading Integrated Petrochemical Complex in Asia by 2020" under a theme of "Excellence". There are 4 operational guidelines, which are 1 Operational Efficiency Improvement to save cost and enhance competitiveness, 2 Asset Utilization Enhancements, 3 Product & Service Improvement, 4 Capacity & Product Expansion. These 4 guidelines are reflected in the implementation of several mega projects, such as Phoenix project, which began in 2009 and will be completed in 2014. An Upstream Project for Hygiene & Value Added Product (UHV) is the star project under Phoenix to increase Propylene's production capacity from 412,000 to 732,000 tonnes annually. UHV project was granted EHIA approval in the early of 2013, the construction phase has progressed more than 52% and anticipated to commercially complete in the 3rd quarter of 2015, which will result in an increase in the company's revenue and profit. Moreover, in order to ensure that IRPC will achieve its vision by 2020, Delta project has been initiated with objectives to improve production efficiency to move towards operational excellence, create added value in terms of marketing by focusing on increasing sales of specialty product and/or products with higher margin as well as expanding and

penetrating into new markets to create more opportunities, which will enable IRPC to become commercial excellence. Lastly, yet the most important is human resource management. IRPC plans to improve its' organizational structure to promote operational efficiency, develop an international standard human resource supporting system, promote and encourage competency and capability improvement for all employees in order to become human resource excellence. Moreover, there are tools and supporting systems, such as Performance Planning & Monitoring, Superb Products Portfolio Management, Technology Driven Growth, Business Structure & Work Process, Leadership and Culture Development, as well as Excellence Capital Discipline as shown in the picture below.

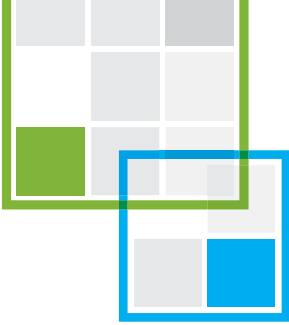


Integrated Refinery and Petrochemical Business



Leading Integrated Petrochemical Complex in Asia by 2020





The Progress of IRPC's Eco-Industrial Zone Development



IRPC's Eco-Industrial Zone (EIZ) demonstrates the implementation of sustainable development principles into practice on 5,754 rais of land mass (9.2 square kilometres). The guidelines have been set up as principles for all operators within the industrial area using 5 dimensional eco-industrial development guidelines, which consist of physical, economic, environmental, management, and social

dimensions, as a framework in order to move closer towards growth with the community, a well-balanced environmental development, and a sustainable development with collaboration from all stakeholders such as government sectors, industrial operators, local authorities and local public sector.

INDUSTRIES, BUSINESSES & MUNICIPALITIES



Industrial ecology is a system that “modifies the use of energy and material to generate minimal waste and the output of one process acts as a substrate of another process”. Industrial ecology enables the industry to reduce loads to the environment by focusing on a structure that emphasizes on flows of materials and demonstration of responsibility towards surrounding environment (source: Frosch RA, Gallopoulos NE. Strategies for manufacturing. Scientific American 1989; 261(3): 94-102.) Industrial ecology can be built upon the centralized physical infrastructure and a suitable material management process.





IRPC had initiated the EIZ development since 2012. Currently, there are 36 registered plants from several industrial operators participate in the development of the area, 24 of which are from within IRPC group, and other 12 are from the outside of IRPC group.

In 2013, the operational guidelines and strategies have been prepared with a focus on 4 operational guidelines, which were proactive management, operational excellence, creation of added value for stakeholders, and strategic communication.

Proactive management

emphasizes on environmental quality monitoring and communications with all stakeholders include industrial operators, local government entities and communities through multilateral committee in order to move closer towards eco industry. CSR in process committee, which is also a working team, is responsible for an actual field works to regularly follow up and provide suggestions regarding the operations. Moreover, IRPC has set up the industrial area coordination committee and EIZ coordination meeting with internal operators, who are in-between a project construction phase in order to prevent any potential community impacts that may arise.



Operational excellence

is to create collaboration between all operators to develop a clean production process within the area mainly focusing on the disposal of industrial waste, air, water and electricity through several projects such as energy conservation. IRPC also takes part in a project by Department of Industrial Works (DIW) to promote the use of industrial waste, in which IRPC's waste water treatment plant 1 and 2 were selected as pilot plants, to work collaboratively with DIW to set up guidelines on the disposal of industrial waste and landfill minimization in order to achieve an objective of becoming eco industrial.



Creation of added value for stakeholders

is the operations through projects that focus on creating shared value as well as encouraging all industrial operators to participate in CSR-DIW project and green industry to ensure that all sectors are genuinely responsible for the society. Currently, 20 plants had received CSR-DIW award, which approved that these plants operated accordingly to the CSR-DIW standards. Moreover, 10 plants, which continuously complied with industrial operators' social responsibility standard, had been awards with CSR-DIW Continuous award.



Strategic communication

primarily focuses on communicating and reporting to all stakeholders to inform a performance result through various channels such as eco industrial exhibition and lecture, meetings government agencies and public forums for surrounding community, etc. IRPC had additionally organized plant visits for local communities and interested parties in order to ensure their confidence towards all operations within the industrial area.



Sustainability

Management of IRPC



Sustainability Context

IRPC's sustainability development is to create excellence in every aspect of the operations by focusing primarily on the operational, marketing and sales, and human resource excellence by balancing between business operations with benefits of community and protecting the environment. However, sustainable business practices must be integrated as part of business process and corporate good governance

IRPC Sustainability Governance

IRPC's board of director set CG policy for board of director, executives, and all employees to abide to. Also, IRPC has in place a IRPC Corporate Governance Handbook, regulated by the Stock Exchange of Thailand and Organization for Economic Co-operation and Development (OECD), with the contents that cover board's composition, qualification, assignment, independency, roles and responsibilities, establishment of provisional committee, board meetings, performance assessment, remuneration of board and CEO, ethics of board, executives, and employees, disclosure and transparency, audit committee and external auditor, risk management, rights and shareholders' equality, responsibility to stakeholders, whistle blowing policy, and succession plan.

Board's composition

IRPC's board of director, 2013, consists of 17 directors, 8 of which were independent directors, 1 executive director, who is IRPC's CEO, and Chairman, who is non-executive. A suitable candidate must go through a nomination process set by the Nomination and Remuneration Committee, and be presented to the board to approve before being voted for an official appointment in the annual shareholder meeting.

A nomination approach is disclosed in the AGM's invitation. Each director has qualification, knowledge, diversified experience that could benefit the company's management. Directors are selected from a list of luminaries with expertise in such particular fields as energy, petroleum and petrochemical, legal, politic, social development, security, and accounting & finance to offer diverse and wider perspectives when the board's considerations are needed. A third of the board members completes serving term on the AGM meeting day and could, again, be reappointed, yet not more than 3 consecutive terms.

Board of Director's responsibilities

The board of director is, appointed by shareholders, primarily responsible for overseeing the business operation and efficiency based on corporate good governance. The Board appoints 4 sub-committees, each responsible for screening specific tasks and ensuring efficiency, which are Audit Committee, Executive Committee, Nomination and Remuneration Committee, and Corporate Governance Committee, while, the CEO is the highest ranked executive, with the respective hierarchical governance structure, to exercise policies and guidelines as set by the board.

The board oversees the company through policies and

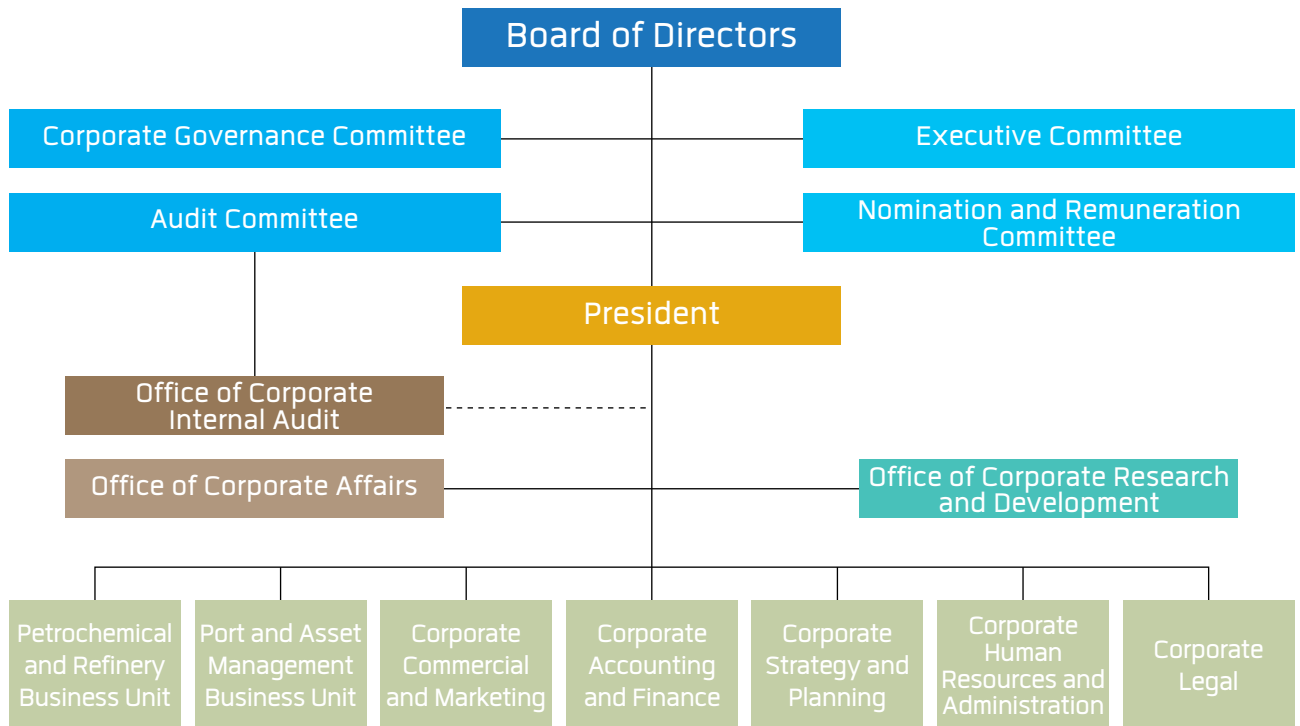
	Name	Sex	Current Position	Board/Sub-committees	Appointed Date
1	Mr. Chainoi Puankosoom	♂	◆◻	Executive Committee	5 April 2013
2	Mr. Cherdpong Siriwit	♂	○	Audit Committee, Corporate Governance	8 April 2009
3	Mr. Wichit Plangsriskul	♂	○	Corporate Governance	5 April 2013
4	Gen. Udomdej Sitabutr	♂	○		5 April 2011
5	Mr. Surong Bulakul	♂	◻	Nomination and Remuneration Committee, Executive Committee	21 May 2013
6	Mr. Woothisarn Tanchai	♂	○	Nomination and Remuneration Committee, Executive Committee	8 April 2009
7	Mr. Watcharakiti Watcharothai	♂	◻		5 April 2011
8	Mr. Saran Rangkasiri	♂	◻	Executive Committee	15 October 2013
9	Mr. Kritsda Udyanin	♂	◻		15 December 2011
10	Mr. Songpop Polachan	♂	◻	Nomination and Remuneration Committee	5 April 2013
11	Mr. Narongkorn Chawalsantati	♂	○		15 December 2011
12	Lt. Gen. Preecha Wanarat	♂	○	Audit Committee	13 February 2012
13	Mr. Jade Thanawat	♂	○	Corporate Governance	5 April 2012
14	Mr. Triumph Jalichandra	♂	○	Audit Committee	22 May 2012
15	Mr. Woravit Chailimpamontri	♂	◻		19 February 2013
16	Miss Sopawadee Lertmanaschai*	♀	◻		16 March 2010
17	Mr. Sombat Nrawuttichai	♂	◻		29 January 2014
18	Mr. Sukrit Surabotsopon	♂	●◻		1 October 2013

◆ Chairman ○ Independent Director ● Executive Director ◻ Director ■ President

Note: *Resigned since 24 December 2013

Find Definition of Independent Director in Corporate Governance Manual http://www.irpc.co.th/pdf/CG/MANUAL_CG_2556.pdf

Organization Structure



control mechanism and ensures that the business operations are in line with policies and strategies, which cover economic aspect, social responsibility, and safety and environment, using the organizational structuring mechanism, responsibility setting for subcommittees and executives to align with the company's policy in order to ensure efficiency in the performance review, as well as create balance and mobility in granting approvals for the business plans, investment plans, annual budget, risk management, internal audit, corruption prevention measures, financial report, accounting, taxation, and other important matters, include corporate's performance assessment in terms of finance, social responsibility, and safety and environment, QSHE standard setting, human resource management, and laboring policy, etc.

In addition, details on the board and subcommittees including scope, roles and responsibility, and meeting participation of each director are fully provided in IRPC's annual report 2013.

The board of director's assessments

IRPC's CG handbook states that the board conducts self-assessment at least once a year. Each director receives and fills in an assessment form in December of every year. Results will be evaluated, collected and reported in the CG Committee meeting and BOD meeting respectively to inform of the performance and later improve on the result for better efficiency. There are 4 types of assessment: 1) the committee performance assessment; 2) individual

performance assessment; 3) cross performance assessment; and 4) sub-committee performance assessment. The topics of the assessments are intended for both the board as a whole and also on individual level. As for Audit Committee, not only the committee performance assessment, according to the charter of IRPC's Audit Committee promulgated on the 1st of January 2010, individual performance assessment is also required. In 2013, the result of the committee assessment was "Excellent" with averaged score of 96.74%, while other assessments also received "Excellent" having scored more than 85%.

As a result, The good and the bad, comments, and experiences are used as information to improve efficiency, for example, the improvement in regulations, structure, CG guidelines, participation of a director in relevant courses and studies, etc.

The board of direct and executives' compensation

The nomination and remuneration committee is responsible for setting up structure and composition of the director's compensation as equitably and suitably as possible in line with the performance in order to retain the director with the company or comparable to other companies in the same industry. Compensation structure and composition is of transparency and needed to be approved by the board and further by the shareholders, whose role is to approve

the compensation of the director in the AGM meeting. The compensation for both executive and non-executive includes 1. Monthly compensation and meeting allowances, which is comparable to other companies in the same industry, 2. Bonus (In 2013 AGM meeting, the board decided not to receive bonus for the year 2012).

IRPC disclosed information on the compensation of the board individually and executives in an overall picture (CEO and SEVPs) in IRPC's annual report.

External Evaluation

- Rated "Excellence" with the score of 96 in the AGM assessment 2013 by Thai Investor Association and received Green meeting certificate by Thai Business Council for Sustainable Development (TBCSD) and Thai Environment Institute.
- Rated " Excellence" 5 star level" with the score of 95 in the corporate governance assessment for listed companies 2013 by the Thai Institute of Directors (IOD) for 5 consecutive years (2009-2013)

IRPC Sustainability Approach

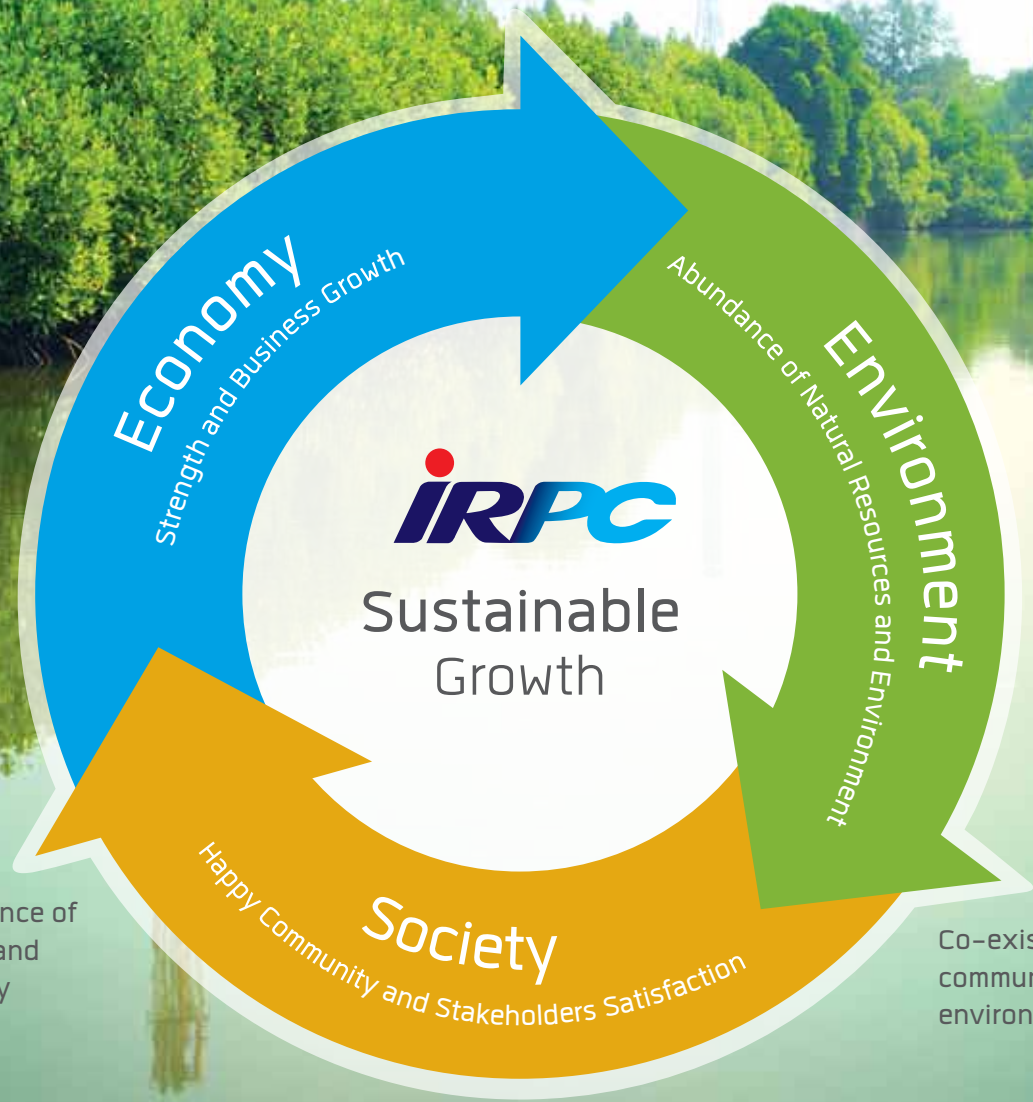
IRPC append sustainability into business operation from business philosophy to create sustainable growth based on the strong foundation and business growth, abundance of the natural resources and environment, happy community and satisfied stakeholders.

In order to effectively implement this philosophy, IRPC has set the objective to become a listed company in the Dow Jones Sustainability Index (DJSI), which is an assessment of companies' sustainability performance and benchmark the result against leading company in the same industry both regionally and globally, by 2020. Also, Key Performance Indicators had been set up to cover economic, environmental, and social dimension through strategic planning process, which was derived from presenting work plans to executives to gain approval, and later present to the company's board of director. In 2013, IRPC had set key performance indicators for economic aspect in terms of EDITDA and ROIC, social and environmental aspects in terms of community satisfaction. Nevertheless, more specific indicators on social and environmental aspects were set for line and departmental level. Additionally, corporate performance indicators were set to focus on good corporate governance (CG score), to satisfy stakeholder such as customer (customer satisfaction), shareholder (AGM score), and employees (employee engagement) as well as the indicators that focus on controlling the internal operation to achieve targets and creating growth through learning and research and development.



Business Philosophy

Co-existence of business and environment



Co-existence of business and community

Co-existence of community and environment

2013 Corporate Key Performance Indicators

KPI Indicators 2013	
Financial Perspective	
1.	EBITDA
2.	EBITDA Margin
3.	ROIC
Stakeholder Perspective	
4.	Customer Satisfaction
5.	Shareholder Satisfaction : AGM Score
6.	Corporate Good Governance : CG Score
7.	Employee Engagement
8.	Community Satisfaction
Internal Process Perspective	
9.	% Plant Availability
10.	Project Progression : Phoenix
11.	Project Progression : UHV
12.	Commercialization : Build & Sustain Land
Learning & Growth Perspective	
13.	IRPC Health Check : IHC-Execution
14.	Innovation Items
15.	R & D Intensity Index

The progress monitoring of both corporate and functional indicators is carried out continuously in a monthly meeting both at department and line levels as well as in a monthly management meeting and later report to the company's board of director. Moreover, there is a conformity assessment against all regulations via several systems both internally and externally, such as QSHE management system in compliance with ISO and OHSAS standards, internal audit system by COSO, etc.. Finally, IRPC disclosed information regarding business sustainability management through various channels such as annual report, stock exchange of Thailand's 56-1 form, Sustainability report and the company website.

Enterprise Risk Management

IRPC communicate enterprise risk management policy to all level of employee to upheld using the framework of The Committee of Sponsoring Organizations of the Treadway Commission (COSO) ERM and ISO 31000 Risk Management - Principles and Guideline. Each function is responsible for risk management according to roles and responsibilities. Risk management division is responsible for analysing, monitoring, and supporting as well as reporting the result of risk management, on a quarterly basis, to Risk Management Committee (RMC) and Audit Committee (AC), whose responsibility is to approve the implementation of policies into practise and ensure appropriate and adequate risk management.

IRPC's risk management process is a process, in which has been derived from IRPC's strategic and business plans, to identify, analyze, and assess risk that may impact targets, including project risk. Risk analysis and identification are done on both internal and external factors that may pose any negative impact to the organization economically, socially, and environmentally. Appropriate risk management tools, namely, Value at Risk, Cost & Benefit Analysis, Quick Win Analysis, have been implemented to suit the characteristic of each risk.

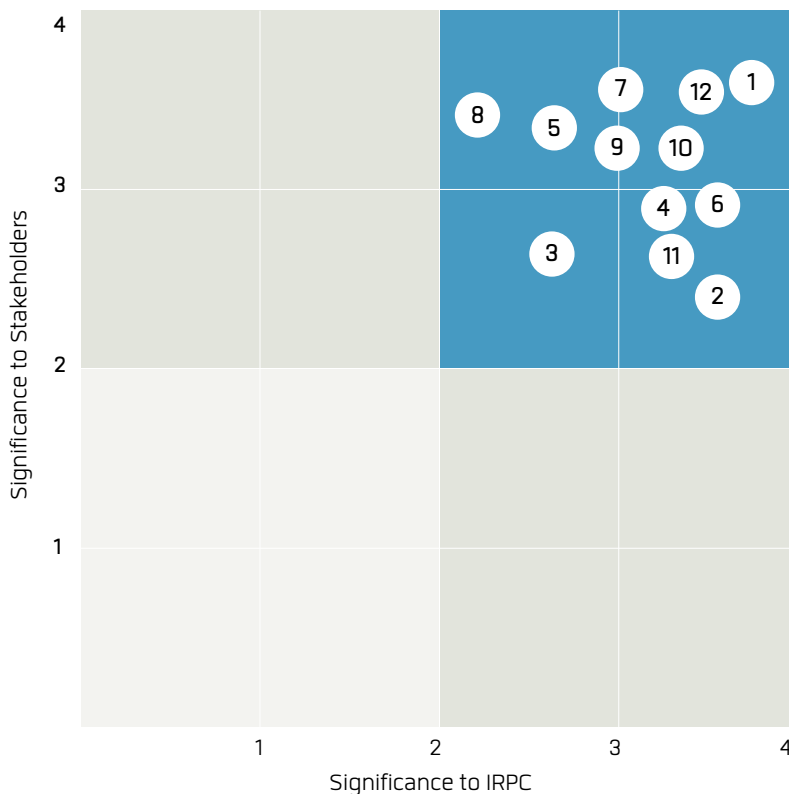
In addition to the corporate risk management process, IRPC has also implemented business continuity management (BCM) in line with ISO 22301:2012 in order to prevent and alleviate a severity of impact resulted from the incident that may interrupt the operations as well as to use as guidelines to prepare readiness in case of crisis, such as fire, riots, floods, epidemic, etc. Towards the end of 2013, as a result of political unrest, employees were not able to enter the office building's premises; therefore, IRPC has activated business continuity plans include emergency and crisis management plan, work area recovery plan, and human resource plan, etc. As a result, IRPC's business, without any interruption, is still in normal operation.

Materiality Assessment

IRPC carried out materiality assessment by applying GRI Reporting Principles for defining report content into use to identify and prioritize each materiality. IRPC has arranged several workshops with relevant functions to review and prioritize materiality, in terms of economic, social and environmental aspects, considering from the company's and stakeholder's perspectives.



Stakeholders	Shareholders/ Creditors	Customers/ Consumers	Partners	Employees	Communities
Channels of participation	<ul style="list-style-type: none"> AGM meeting Shareholder Analyst meeting Investor meeting Quarterly journal to shareholder Shareholder's Plant visit 	<ul style="list-style-type: none"> Annual customers survey Customer service contact 	<ul style="list-style-type: none"> Newsletter Meetings 	<ul style="list-style-type: none"> Employees' Magazine "I-Aun" Electronic newsletter CEO meets employees Unions 	<ul style="list-style-type: none"> Community relation activities Environmental and social impact study joined meetings Open house activity
Materiality	<ul style="list-style-type: none"> Ongoing Return on investment Adequate information disclosure 	<ul style="list-style-type: none"> Products with quality and meets the needs 	<ul style="list-style-type: none"> Fair compensation Transparent procurement process 	<ul style="list-style-type: none"> Good welfare and wages Career path Safety and Health care 	<ul style="list-style-type: none"> Environment and health Local economic improvement



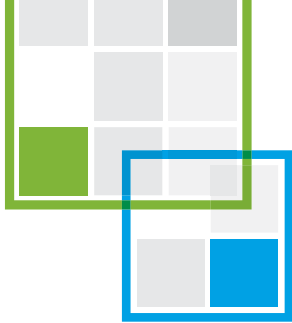
1. Economic and Financial Performance
2. Supply Chain Management
3. Green and Specialty Products
4. Employees' Readiness
5. Anti-Bribery and Corruption
6. Customer Relationship Management
7. Energy Efficiency and Climate Change
8. Environmental Management
9. New Project Development
10. Oil and Chemical Spills and Response Plan
11. Occupational Health and Safety
12. Community Relations and Development



Economics Aspect

IRPC is determined to becoming "A Leading Petrochemical Complex in Asia in 2020" by developing the organization to excellence with responsibility towards the society, community, and environment as well as being able to meet all stakeholders' expectation based on the foundation of corporate good governance

As a result of risk factors with potential impacts, for example, oil price volatility, and the economic sensitivity, therefore, IRPC had initiated Phoenix project to build strength and Delta project to develop and improve capability throughout the organization.



Focuses on the research and development of environmentally friendly products that meets the customers' needs and, at the same time, increase value of the products

Product Specialty



■ Our Commitment

IRPC is determined to research and develop specialty products that are environmentally friendly, meet customers' needs, respond to the global trends, and as a result, create value added to the company.

Management Approach

In 2013, IRPC laid out guidelines for specialty product research and development as followed

- Focuses on researching and developing environmentally friendly specialty products in line with the global megatrends such as renewable energy, plastic pallets for auto parts that enhance efficiency of the vehicles, environmentally friendly plastic pallets for construction material, etc.
- Closely listens to comments from the customers and partners to develop and improve products that meet the needs and create value added to the customers and partners.
- Guarantees product safety through labels and safety documents in compliance with The Global Harmonized System of Classification and Labeling of Chemicals (GHS) and registration of chemical substance in compliance with Registration Evaluation and Authorization of Chemicals (REACH) in 2012 to communication safety information of the products in regards to the international standards.
- Ensures that all products are environmentally conscious. All types of plastic pallets received carbon reduction label from Thailand Greenhouse Gas Management Organization (TGO).

To achieve these following objectives

- The revenue from specialty products is to contribute at least 30% of total revenue.
- Success of research and development, as shown in R&D Intensity Index (RII), continuously increase in every year

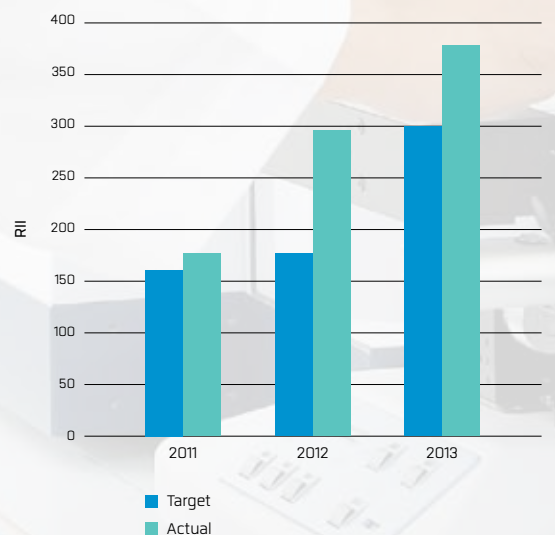


Case Study Innovative Organization

IRPC has carried out an innovation award program regularly on an annual basis to encourage employees to share creative ideas and technical knowledge for innovation both in term of processes and products, which qualify as specialties. In 2013, there were 158 projects competing for the award, 4 successful projects, which are HN for Blend BGH91, Value added for C4 Raffinate 3, Bio-Hydrogenated EURO V Diesel, and Novel HA2PO catalyst and process for UHMWPE grade U510D, are in the final. In 2013, IRPC had allocated 180 million Baht in research and development budget or an equivalent of 22% of the company's net profit. There are 78 employees in the office of research and development. In 2013, 25 new products, from research and development, had been launched, while 46 items are during the patent registration process

IRPC set the key indicator to measure an annual success of research and development in the form of R&D Intensity Index (RII). In 2013, RII showed score of 378, which was higher than a 300 target.

Research and development Intensity Index (RII)



Key Initiatives

Environmentally friendly plastic products

GRENOVO product line is IRPC's innovation, which introduces the use of natural material as part of the plastic production. These products include Green ABS, in which synthetic rubber is replaced by a natural rubber. IRPC was the first to succeed in Green ABS production. A total of 1.2-3.0 million tonnes of liquid rubber is used annually, which helps generate more income to the farmers and at the same time, reduce cost of importing synthetic rubber of around 255 million Baht per annual as well as reduce GHG emission of 0.7 tonne of CO₂ equivalent per year. Since 2010 to 2013, IRPC had sold more than 400 tonnes of Green ABS or 25 million Baht in revenue.

Wood Plastic Composite is a plastic product with a mixture of sliver, blending together outstanding properties of plastic and wood perfectly. IRPC focuses on developing products that can be used in consumer packaging and furniture. In case of consumer packaging, all requirements from Food Contact EU Regulation (FDA) had already been passed. 8.5 tonnes of wood plastic composite were sold during 2010-2013 with accumulated revenue of 0.58 million Baht.



Antibacterial Plastic

BANBAX is an antibacterial product, which uses nanotechnology to combine antibacterial substance into plastic during production process, enabling the substance to work thoroughly and could not be washed out. This can be seen as an innovation that IRPC has been focusing on to meet the needs of the consumers, who are health conscious. The product had been tested and approved by Japan's JIS Z 2801 standard and can be mixed with many types of plastic, including Polyethylene, Polypropylene, ABS, and Polystyrene. The product has a high impact resistance and can be used expansively in various industries, including packaging, furniture, sanitary ware, home appliances, baby diapers, and toys, depending on the needs of usage. In 2013, IRPC had successfully launched the product into market as well as being able to establish a connection with 20 new customers. Since 2010-2013, more than 1,000 tonnes of antibacterial plastic had been sold, creating approximately 95 million Baht in revenue. This is certainly a new business frontier for IRPC with an opportunity to grow in the future.



What's Next

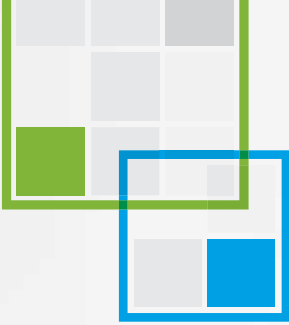
In 2014, IRPC will continue to carry on projects as followed

- GRENOVO Product development plan, which includes Green ABS and Wood Plastic Composite, aims to increase productivity to achieve quality and quantity required by the customers.
- BANBAX product development plan, not only plastic pallets, yet IRPC is committed to developing the product in powder form in order to expand its customer base to a group of customers, who specialize in compounding work, to meets the customers' diverse needs.



Performance

Key performance indicators	2010	2011	2012	2013	Target in 2014
Revenue from petrochemical products (Million Baht)	37,157	37,221	40,748	43,550	47,000
Revenue from specialty products (Million Baht)	9,893	12,255	13,814	14,833	16,450
Ratio of revenue from specialty products to petrochemical products (%)	26.6	32.9	33.9	34.1	35.0



■ Our Commitment

IRPC is focused and determined to creating awareness and understanding to all employees in running the business with fairness and against corruption

Anti-Bribery and Corruption

Management Approach

IRPC implements business ethic as a framework to operate fairly and has in place IRPC Corporate Governance Handbook to magnify the meaning of business ethic to create understanding for the board of director, executives, and all IRPC's employees as well as to show the spirit in the operation to all stakeholders. The contents of the guidelines include aspects on human resource management, financial and accounting reporting, internal audit, conflict of interests reporting, giving and receiving gifts, confidentiality, stock purchase, communication technology, QSHE, and procurement.

Communication to create an ethical understanding is always essentially important to IRPC, in which has been included as part of an induction training session for all new recruits to participate in since day one. Also, All employees must sign to acknowledge and accept to conform to the company's provision.

In addition, IRPC's internal audit office is responsible for assessing risk annually using The Committee of Sponsoring Organizations of the Treadway Commission (COSO) framework to identify the area of risk including corruption in all activities and IRPC's subsidiaries in order to ensure adequacy and appropriateness of internal audit procedures.

Moreover, IRPC has in place a complaint management process on a corporate level providing channels to lodge complaints on any illegal activities via the company's secretary, in which IRPC will listen to all complaints with equality, transparency, and attention as well as provide fair treatment to all involved parties. The investigation period is set appropriately, the whistle blower identity will remain anonymous and be protected at all time during and after the investigation.



Key Initiatives

Anti-Corruption and Anti-Bribery Policy

IRPC set up policy and guidelines in anti-corruption in addition to the existing regulations regarding business ethic in order for the board of director, executives, and IRPC's employees to adhere and practise until becoming a corporate culture as well as to communicate with all stakeholders. The Anti-corruption policy and guidelines were communicated in the form of company's announcement active since the 11th of November 2013 and the 18th of December 2013 respectively. The core contents include forms of corruption, organizational structure and responsibilities, anti-corruption measures, channels of complaint, whistle blower protection measures, etc. In 2014, IRPC will focus on communicating and provide trainings for directors, executives, and IRPC's employees as well as reviewing and improving an internal audit on important activities to align with the anti-corruption policy and guidelines in order for IRPC to grow sustainably.

Communication to create understanding in corporate governance and business ethic

IRPC truly understands how important it is to create an understanding in corporate governance and business ethic because IRPC believes that creating awareness and understanding is the best way possible to prevent any wrong doings. In 2013, IRPC has communicated through ways as followed

- Conducting the campaign to communicate and train employees regarding corporate governance and ethic throughout the year through such channels as monthly email, article in the company's magazine on a quarterly basis.
- Planning with HR in embedding anti-bribery and corruption trainings into the employee training curriculum.

What's Next

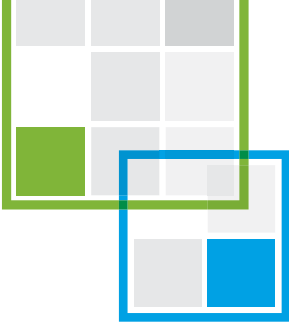
IRPC's action plan for 2014 is as followed

- Train and educate directors, all management level with knowledge in business ethic, anti-bribery and corruption and communicate through lectures or the company's intranet throughout the organization.

Performance

Key performance indicators	2010	2011	2012	2013	Target in 2014
Percentages of business functions assessed by the internal audit office	100%	100%	100%	100%	100%
No. of proven ethical violation incident	0	0	0	0	0





Systematic and transparent procurement process,
fair supplier management based on the principles of
business' stability and partner's reliability

Supply Chain Management

■ Our Commitment

IRPC is committed to conducting transparent procurements by treating trade partner with equality, righteousness, clarity, integrity, as well as to saving costs from managing supply chain, yet maintaining the quality of products and services with concerns to the environment and society via good relationship with partners.



Management Approach

IRPC gives the highest priority to a systematic procurement process with transparency and equality in managing vendors. IRPC adheres to the principle of business stability and reliability of vendors by managing contents and boundaries to be within the regulations coupled with conducting assessment suitable for certain vendor depending on type of activity or product. The procurement for raw materials, chemical, machinery, and production equipment is classified into 2 groups as followed

- **Vendors for Raw Material for production:** provide supply of crude oil and other raw material critical to the production process, occupying the highest ratio in costs compared to other partner. IRPC selects vendors based on the market reputation and delivering capability. IRPC also keeps track on the origin of the raw material, for example, inspection of type and origin of crude oil in order to ensure the delivery of the raw material and not purchasing from the country forbidden in the global community account.
- **Vendors for chemicals and general products:** IRPC has in place risk management process for customers by conducting assessment on both activities based and product based vendors covering environmental, social, and governance aspects in order to set up a management guideline to align with risk level with regards of quality, quantity, and product and service delivery, as well as minimum labor laws, environmental regulations, and quality management systems. Vendors must answer self-assessment questionnaire to evaluate capability in various aspects.

Moreover, IRPC also realizes the importance of local procurement and promote supply of local products. When considering costs of product and service based on Total Cost of Ownership (TCO), local suppliers hold advantages in logistic costs, are easier to contact. This also creates jobs and income to the communities.

Key Initiatives

PTT P&R Group Procurement Excellent Project

A collaborative project between PTT group's companies in order to increase bargaining power. During 2011-2013, supply chain management could reduce more than 40 million Baht in costs.

Domestic Crude allocation project

In 2013, IRPC had increased the use of domestic crude up by 6%, resulting in the decrease of imported crude and the increase of 20.5 MUSD in Gross Refinery Margin (GRM)

Procurement of Chemicals and Raw material

In 2013, IRPC had initiated a project to reduce chemical purchasing costs starting from the chemical used in the production process using pricing strategies such as increase the amount of chemical purchased from certain suppliers, search for new suppliers, for example, new jumbo bag manufacturer, in which IRPC could save 2.7 million Baht in manufacturing costs.



What's Next

IRPC's action plans for 2014 are as followed

- Plan to move towards becoming procurement excellence, which is a part of HR excellence, to reduce procurement costs by 15 million Baht
- Partnership development plan for Automotive (ISO/TS16949)

To create the understanding of the objective and importance of ISO/TS16949, a certified standard for quality of products used in the automotive industry, and to extend trade boundary, as well as to embrace any comments and suggestions to improve on the performance.

- Annual partner assessment.

Assessment topics include product quality, punctuality in the delivery, price competitiveness, quality control, and compliance to the regulations of Green Procurement. The assessment is done based on the 2013 Approved Vendor List and will be finished in February 2014. vendors will, later, be informed of the results.

- Relationship Management Strategy based on partnership classification

Group of vendors are classified based on the importance as followed

1. Strategic Supplier is a group of vendors that have significant impact to the quality of products and costs, involve in the exchange of technical information and business strategy.
2. Key Supplier is a group of vendors with moderate impact to the quality of products and costs, It is necessary to purchase these products and difficult to find a replacement product.
3. Managed Supplier is a group of vendors that engage in a trade regularly, no significant impact to the business, suitable for framework contacts to reduce procurement process.

- Procurement staff's capability development

To improve capability in all level of procurement staff to have the similar required knowledge and skills as other leading companies, as well as to improve a procurement process that can ensure quality of products and services, adequate costs, and does not pose any risk to the company's operations.

- Increase domestic crude purchase to 17%, GRM is expected to increase by 22.6 MUSD.
- Increase procurement term contract for coals and refined bleached deodorized palm oil (RBDPO) to mitigate procurement risk, especially RBDPO which is an agricultural product.



Performance

Key performance indicators	2010	2011	2012	2013	Target in 2014
Procurement value of products and services from local vendors in Rayong (million Baht)	1,625	2,396	2,539	1,594	1,600
Ratio of procurement value of products and services from local vendor to overall procurement (%)	16.10	16.49	19.86	16.22	16.33

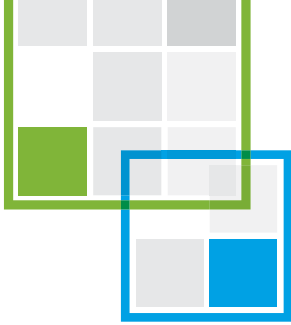
Crude oil, Raw Material for Petroleum and Petrochemical

No. of rejected vendors in Pre-qualification process	-	-	-	7	-
No. of new vendors selected to do business with IRPC	-	-	-	21	-
No. of all vendors selected to do business with IRPC	-	-	-	107	-
No. of vendor verified via questionnaire	-	-	-	78	-

Chemicals and general products

No. of rejected vendors in Pre-qualification process	-	-	-	6	-
No. of new vendors selected to do business with IRPC	-	-	-	43	-
No. of all vendors selected to do business with IRPC	-	-	-	842	-
No. of vendor verified via questionnaire	-	-	-	49	-

Remark: Information on the performance of crude oil, raw material, and chemicals were collected for the first time to align with GRI G4



Gives the highest priority on the customers' satisfaction and managed relationship with customers through hearing process in order to continuously improve IRPC's products and service

Customer Relationship Management



Our Commitment

IRPC realizes the importance of all comments and feedbacks from the customers and is committed to improving its performance both in term of customer relation and product and service improvement

Management Approach

IRPC has given the highest priority to all of its customers by placing them as one of the company's key stakeholders and setting customer satisfaction as one of the corporate's performance indicators. IRPC's major customers consist of petrochemical and petroleum customers and responsible functions manage customers based on business groups through customer's voice process and performance improvement. Guidelines are as followed.

- **Petrochemical Customers:** divided into 3 groups, which are domestic, oversea distributors, and plastic processing factories. IRPC's sales representatives are assigned to each of these customers to oversee such issues as regulations, orders, delivery schedule, complaints, and pricing information. Additionally, IRPC has always organized activities for customers in order to create a better relationship between customers, executives, and

IRPC's sales representatives. Activities include plant visits, which can be seen as an opportunity to acknowledge customers' needs and expectation towards the given service. In 2013, IRPC's plants were visited 32 times by the customers.

- **Petroleum Customers:** divided into oil products, lube and downstream products, and aromatics products, which cover both domestic and oversea customers. IRPC has arranged activities for both domestic and oversea customers in order to build good relationship. Moreover, IRPC has also arranged plant visits for customers and at the same time, IRPC's executives, marketing officers, and technical officers would visit customers' plant in order to collaboratively develop and improve better products and services.



Case Study CRM information technology system

IRPC has developed and implemented IRPC Customer Oriented Network System (ICONS) for petrochemical business and IRPC Relationship Information System (IRIS) for petroleum business, using information technology to support the performance in term of building good relationship with the customers. These systems link all information relevant to the customers to various databases to create reports, in the simplest way, with accurate information. Customers' details, complaints and solutions stored in the system can be further analysed and used to improve and better respond to the customers' different needs. These systems can be used via mobile phone and tablet devices. Initially, when a customer sent any complaint through any of communication channels, sales units and/or technical service team would contact the customer back within 24 hours to inquire about the complaint in more details and later coordinate with units/functions relevant to the particular complaint to analyse causes, solution, and prevention to the arose problem.



The customer would be regularly informed of the progress until the problem is completely solved.

Key Initiatives

IRPC truly sees the importance of the customers' comments and feedbacks, which will be used to continuously improve products and services. Channels of communication between the customers and IRPC include face to face, telephone, website and e-mail.

Communication Channels

- Tel: +66(0) 2649 7000
- Website: www.irpc.co.th
www.irpcmarket.com (Petrochemical)
www.irpcpetroleum.com (Petroleum)

An annual customer satisfaction survey by external party through various methods include questionnaire, online survey, and interviews enables IRPC to analyze trends and customers' expectations in order to improve an overall performance of the company.

What's Next

In 2014, IRPC plans to improve a complaint management system to be able to collect and store any complaints into the database and develop it into a knowledge sharing system with all technical information necessary, in which history and details of the problem can be searched.

Performance

Customer Satisfaction, 2010–2013

Key performance indicators	2010	2011	2012	2013	Target in 2014
Customer satisfaction (%)	87	86	87	86	88



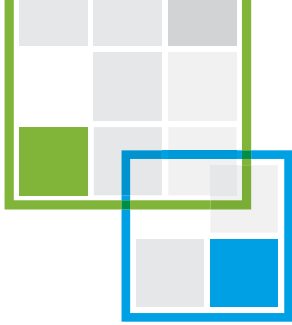
Environment Aspect

IRPC has the environmental management system in line with ISO 14001 standard, which concerns water quality, air quality, and waste management. IRPC has successfully implemented an up-to-date technology in the operations, prepared prevention and impact mitigation measures in case of oil and chemical spills caused by the production process, storage system, and logistics as well as improved energy efficiency to reduce GHG emission, and assessed business opportunity to adopt to the climate change



■ Our Commitment

IRPC is determined to becoming excellence in environmental management in order to move towards Eco-Industrial Zone in 2017



Environmental Management



“Strategy to create strong and sustainable business operations for IRPC under changing circumstances from internal and external factors is truly a challenge and mission that needs to align with roles and responsibilities, and planning for all production plants to be able to co-exist with the communities in harmony. IRPC introduced the production technology that is environmentally friendly and used all sort of equipment to study the impact on the environment and communities as well as prepare preventive measures for new projects and implement an international standard quality system to set up the performance indicators, which include production process improvement with technology that adds value to the product throughout the production chain, efficient use of natural resources, minimize waste released, energy efficiency management to increase stability in production using Energy Management System (EnMS), and the development of the Combined Heat and Power II (CHP 2) project. Moreover, IRPC creates value in the supply chain by using types of chemicals that conform to the European’s Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)

In order to manufacture products that are environmentally friendly and able to compete with other company, All I have mentioned above were concrete examples of what IRPC has done in the past year, which we wholeheartedly believe that will create sustainable business for IRPC”

Awrapin Ketratanakul
Executive Vice President of QSHE

Management Approach

With a corporate philosophy that adheres to the coexistence of business, community, and environment, IRPC recognizes the importance of production processes that use clean energy and are environmentally friendly to create sustainable development. IRPC strictly abides to the QSHE policy as a main principal to create continuous improvement and become operational excellence as well as to respond to both internal and external stakeholders. IRPC’s QSHE policy is an integrated policy covering all functions. For example, in an environmental aspect that focuses on controlling water and air pollution, and industrial waste to comply with the legal terms, IRPC has in place continuous process improvement measures and focuses on reducing pollution from its original

sources as well as manages GHG emission to move towards becoming low carbon society and promotes efficient and effective use of resources.

In Addition, IRPC continued to improve work efficiency of all functions by setting 2013 QSHE performance objective to align with performance indicators of each function, which mainly focus on air quality and waste management. IRPC set long term targets to become QSHE excellence in 2017 as followed

- Maintaining the level of air pollution emission per tonne of production
- Zero landfill for non-hazardous waste



Key Initiatives

Air Quality Management

Reduction of VOCs Discharge

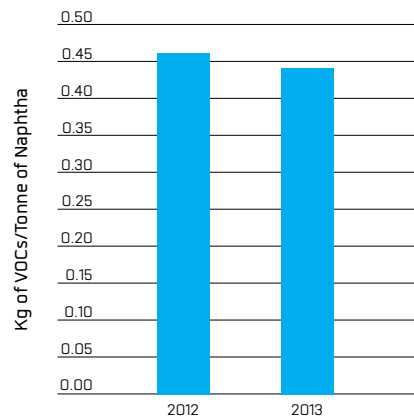
IRPC recognizes the importance of any issues regarding VOCs. Therefore, VOCs Emission Inventory had been continuously prepared in order to evaluate and find ways to better manage the air quality in the area of operations. As a result, it showed that the amount of VOCs released to the atmosphere from the petroleum and petrochemical businesses were decreased by 13% and 6% respectively compared to 2012. This is considered a success built on the implementation of VOCs leakage monitors as well as changes in production process include changing a sampling system to a closed system and installing wet scrubber in a unit involving in chemical unloading to reduce odors and fugitive VOCs

Moreover, IRPC has in place an environmental quality surveillance system, with 5 stationary air quality monitoring stations and 4 mobile stations. The communities will be informed of the performance results via display screens installed around the communities and in front of the industrial park in order to ensure that the air quality is in accordance

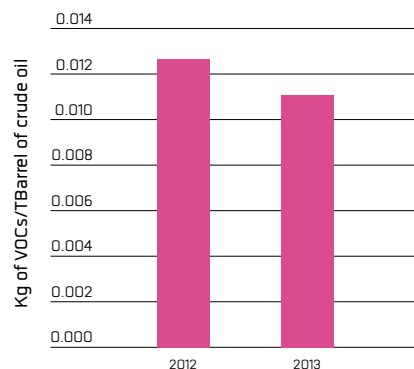
VOCs ventilation rate	2012	2013
Petrochemical business (kg. of VOCs/tonne of naphtha)	0.464	0.437
Petroleum business (kg. of VOCs/barrel of crude)	0.013	0.011

Remark: VOCs ventilation rate of refinery business is in reference to the American Petroleum Institute average of 0.02 kg per barrel and Petrochemical business is of 0.6 kg per tonne

VOCs Intensity of Petrochemical Business



VOCs Intensity of Petroleum Business





Waste Management

IRPC has a policy to develop IRPC's industrial park into an eco-industrial zone; one of many main operations is zero landfill for non-hazardous waste. In 2013, Waste management committee had been appointed to oversee an overall picture of waste management and conduct waste flow analysis. These information will be used for monitoring and forecasting the amount of waste being generated in order to enhance a corporate's waste management efficiency as well as implementing 3R-Reduce, Reuse, Recycle strategy in all production units to maximize efficiency in the use of resources and minimize waste generated from the production process. In 2013, 78% of waste generated (except those generated from activities that were not business as usual) were put through recycling process, while, 4% of waste generated were put through other recovering processes, such as burning or being used as feeds in other industries, etc. Currently, only 11% of waste is landfilled.

Complaint management

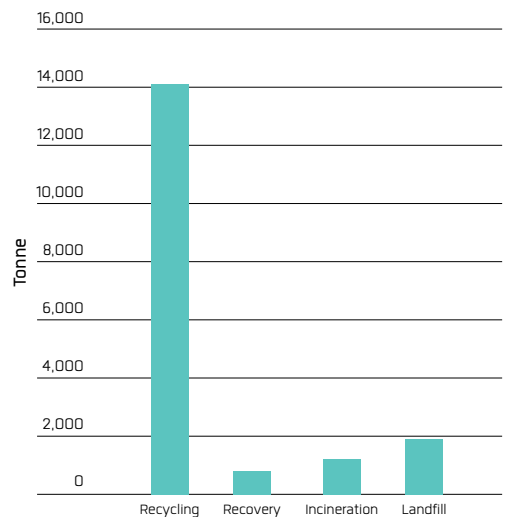
IRPC has in place an efficient complaint management, especially odor related, which will be managed in parallel in 3 situations, includes normal situation, during complaining period, and during turn around period, or in case of special activities. IRPC had regularly sent out working teams to visit the communities surrounding the industrial area as well as established a complaint center and field coordination center to explain and create understanding to the communities. IRPC, as a result, has never once violated any environmental regulations

with the law. Nevertheless, if there were to be any complaints regarding odors, IRPC would bring in E-nose to help analyze types and originated source of odors. As a result, IRPC was able to decrease odor related complaints by more than 50% compared to 2012.

Pollutant Release and Transfer Registers: PRTR

Since 2012, IRPC's petroleum business has joined a pilot project to prepare a Pollutant Release and Transfer Registers (PRTR), which is a voluntary project, by the Department of Industrial Work in collaboration with Japan International Cooperation Agency (JICA) to prepare reports on pollutant released and transferred to the environment. IRPC had conducted the preparation of operating manual in accordance to PRTR and sent related personnel to attend system testing training to submit reports of the pilot plants to DIW within the 3rd quarter of 2014 to analyze the result and use it to improve and develop a better report, at the same time, IRPC has an opportunity to improve its chemical and substances inventory management as well as to promote the efficient use of chemical, which includes finding prevention measures for material and chemical losses in the production process and reducing pollution released to the environment

Amount of Waste from production process classified by disposal methods in 2013





What's Next

In order to achieve a long term target of becoming QSHE excellence by 2017, IRPC set out plans for 2014 as followed

Monitoring measures

- VOCs monitoring program: installing fence line inspection system on the west side of the industrial area to monitor and report continuous inspection results back to ECC in order for the staff to execute an immediate response
- Air quality forecast program using AERMOD. A pilot study will be carried out at a ventilation tunnel to forecast air quality in real time

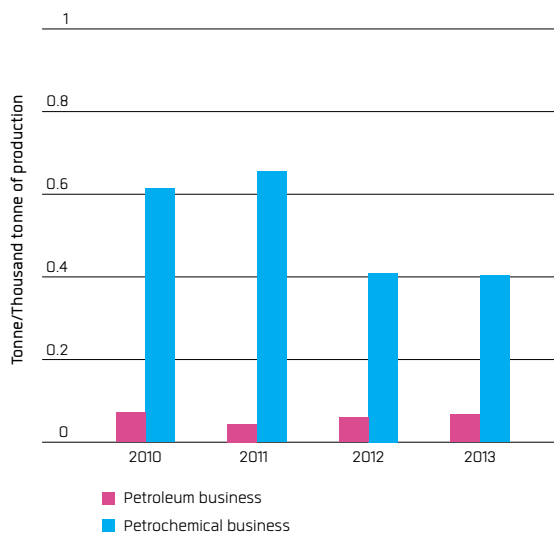
- A program to install 4 additional screens displaying air and water quality results at local government offices in Rayong province
- Geographic Information System (GIS) program in environmental management and communities' health to be used as the database in environmental management and emergency response plan.

Mitigation Measures

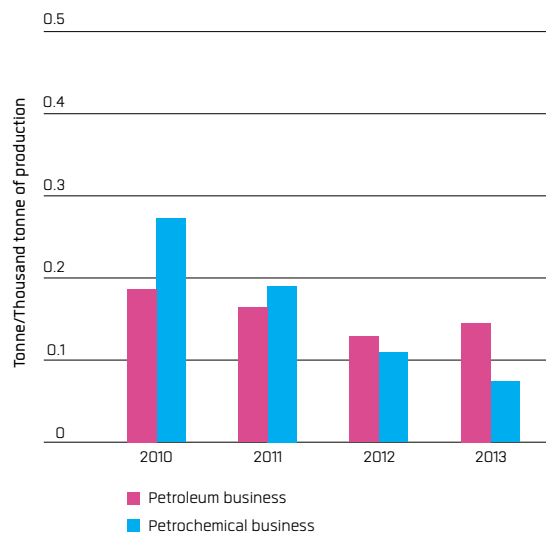
- Installing devices for controlling and reducing the amount of Nitrogen Oxide discharge from CHP1 and 2
- Central waste water treatment system efficiency improvement program

Performance

NOx Intensity



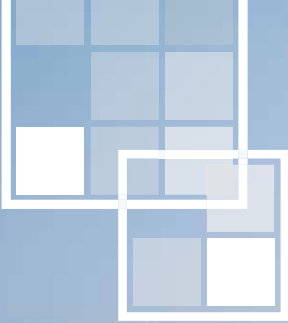
SOx Intensity



Remark: Sulphur Oxide is reported as SO₂

Key performance indicators	2010	2011	2012	2013	Target in 2014
Air management					
Amount of Nitrogen Oxide released (Tonnes)	3,691	2,776	2,745	4,137	-
Concentration of Nitrogen Oxide in Petroleum Business (Tonnes/Thousand Tonnes of production)	0.07	0.04	0.06	0.07	0.07
Concentration of Nitrogen Oxide in Petrochemical Business (Tonnes/Thousand Tonnes of production)	0.61	0.65	0.41	0.40	0.40
Amount of Sulphur Oxide released (Tonnes)	5,778	2,067	1,357	1,666	-
Concentration of Sulphur Oxide in Petroleum Business (Tonnes/Thousand Tonnes of production)	0.19	0.16	0.13	0.15	0.15
Concentration of Sulphur Oxide in Petrochemical Business (Tonnes/Thousand Tonnes of production)	0.27	0.19	0.11	0.07	0.07
Waste management					
Amount of landfilled non-hazardous waste (Tonnes)	2,591	1,229	1,111	1,903	Decreasing trend

Remark: Sulphur Oxide is reported as SO₂



Oil & Chemical Spills and Respond Plan



Prevention of Oil and Chemical spill is important to the operation of IRPC's port business, therefore, IRPC has infused prevention plan and mitigation measures for oil and chemical spill into the corporate's risk management plan as well as educated all relevant employees through the oil spill rehearsal training and focused on building a collaborative network with other PTT group's companies, government agencies, the communities, and the international organizations in order to be able to quickly respond to the situation.

Additionally, IRPC has carried out a project to share knowledge and create awareness for younger generation. We strongly believed that through these operations, we could ensure the confidence of the people and stakeholders and build a sustainable business.

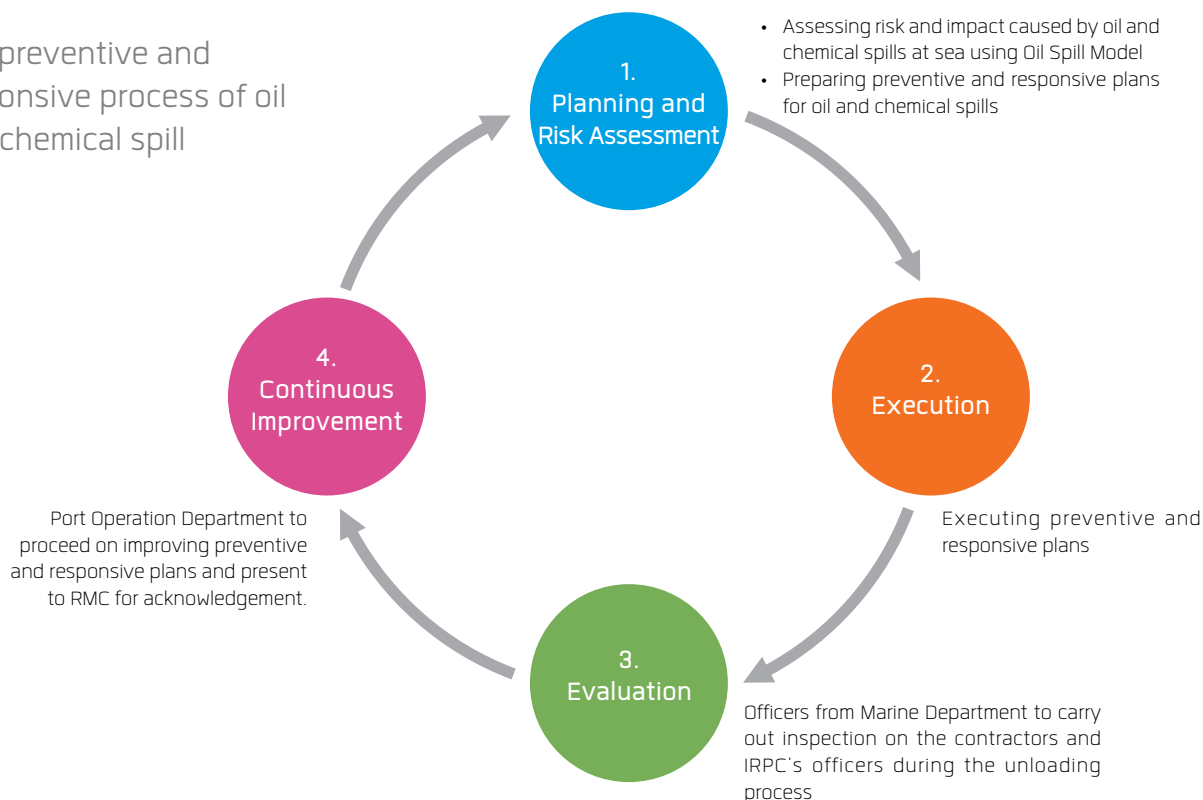
Somboon Sartsin, Vice President of Port Operation



■ Our Commitment

IRPC is operating with the best of today's safety measure aligned with international standards for oil & chemical transportation. This proves IRPC's Operational Excellence to counter the risk of oil & chemical spills in order to maintain license to operate from our stakeholders, which IRPC values most.

The preventive and responsive process of oil and chemical spill



Management Approach

IRPC continuously develop and advance our preventive plan and respond plan in the incident of oil & chemical spills from our deep professional experience to operate with providence and conciseness. Preventive and responsive plan are as followed

Preventive and responsive process for Oil & Chemical Spills

Our process consists of 4 main steps, 1. Risk Assessment and planning 2. Execution, 3. Evaluation and 4. Continuous improvement

IRPC assigns Oil & Chemical Spills to our Corporate Risk Portfolio. The Port operation department is therefore responsible for deployment and execution of measures and risk treatment plan with its best ability. Moreover, the results of Oil Spill model study are submitted to be reviewed by the IRPC Risk management committee (RMC) on a quarterly basis to make sure that the plan will always be effective and aligned with international standards. The Marine department of Thailand also routinely audits our plan and measure.

Biodiversity Impact Assessment from Oil & Chemical spill incident

In 2013, IRPC investigated and assessed Biodiversity Impact from Oil & Chemical spills. We did this by creating an Oil Spill Model to predict the flow direction of oil and chemical in the event of tides. The result was then used to collect bio-natural resources data such as the aquatics and seabirds

with their habitats in the highly sensitive area that may have impact in case of oil spill. Afterward, we analyzed the data and form responding plans according to Net Environmental Benefit Analysis (NEBA) which evaluate PROs and CONs of different responding plans. The assessment allows IRPC to deal with the incidents at maximum effectiveness and ensure the safety and well-being of lives near the shore line.

Oil & Chemical spills prevention plan

Oil & Chemical spills prevention plan consist of 3 dimensions, 1. Pipeline, tools and equipment, and lightering ships 2. Operation of IRPC and contractors in the uploading operation and 3. IRPC's Oil Transportation Measures. Details are as followed

Pipeline, Tools and equipment, and Lightering ships:

IRPC invested 215 million Baht into oil transportation equipment and set their standards according to Oil Companies International Marine Forum (OCIMF) and International Safety Guide for Oil Tankers and Terminals (ISGOTT). All vessels both of IRPC and contractor include equipment and operators are also trained and certified with PTT Ship Vetting standard. All IRPC ships are equipped with Oil spill detector devices to be able to immediately prevent the dispersion of oil spill, Moreover, IRPC implemented VTMS (Vessel Traffic Management System) to track oil spill and ship location in real time to identify the location of the incident when it happened

All contractors in Oil Transportation operation must meet all criteria according to the Approved Vendor List and are trained in safety and operation procedures before the operation. IRPC will also evaluate each contractor after the operation.

In terms of crude unloading procedures, IRPC has prepared unloading agreement, risk assessment, and safety inspection of ship and equipment. Additionally, Contractors must provide 1 work boat and 1 tug boat with oil dissolution chemical coupled with IRPC's tug boat, which has been installed with buoys. Also, IRPC requires that contractors must provide mooring master and mooring gang to supervise the unloading with IRPC's loading master and marine safety to oversee the whole operation. IRPC will conduct an ongoing risk assessment during unloading process, for example, wind speed, wave height, etc. the unloading operation will be immediately halted if risky events occur. Moreover, IRPC and the contractor to provide 24 hour security, where shift changes every 4 hours.

Oil and Chemical spill response plan

IRPC prepared oil and chemical spill response plan based on severity and to align with the industry best practice. Plan has been designed to deal with 3 level of severity, which are

Tier I: not more than 20 tonnes of spills, in which IRPC is able to efficiently handle. The emergency plan is rehearsed 2 times a year.

Tier II: more than 20 tonnes but less than 1,000 tonnes of spills. IRPC already became a member of the Oil Industry Environmental Safety Group Association (IESG) to ensure that when incident occurs, IRPC will be provided with immediate supports in terms of personnel, equipment, and necessary chemicals. In addition, Rayong Oil Spill Exercise, code name "ROSE", was annually organized in collaboration with PTTGC, SPRC, SCG, and PTT Tank Terminal. IRPC Naval Exercise (INEX) is a training with Sornchon 1 of the Royal Thai Navy, once every two year and Thailand Oil Spill Response Exercise (TOREX), which is a national oil spill plan together with other IESG members, Marine Department and the Royal Thai Navy, as well as local agencies, is organized once every three years

Tier III: more than 1,000 tonnes of spills. IRPC has become a member of Oil Spill Response Limited (OSR), which is the most trusted company by oil and gas companies around the world in managing oil spill with maximum efficiency. OSR Singapore sends in team of experts, equipment and dissolution chemical to eliminate oil spill in the shortest time possible and reduce impact to social and environment to as low as possible



IRPC set objectives in oil and chemical spill's preventive and responsive operations as followed

- Number of oil and chemical spill incident is "Zero"
- All Employees operate in the unloading of oil and chemical must be trained to prevent and respond to oil and chemical spill and participate all type of spill rehearsals
- All ships owned by IRPC must be installed with equipment that meets Oil Spill Response standard

Case Study TOREX oil spill rehearsal

On the 8th-10th of May 2013, IRPC participated in the 7th Thailand Oil Spill Response Exercise together with companies in IESG, Marine Department, the Royal Thai Navy, and relevant local agencies. All port operation staff responsible

for supervising unloading process was trained in terms of using the equipment, planning commands, and supporting shore operations. The next rehearsal will be held in 2016



What's Next

IRPC, as planned for 2014, is intended to achieve zero targets in oil and chemical spill. IRPC requires that all tug boats hired externally, must be installed with equipment that meets Oil Spill Response standard. IRPC also plan to invest 5.5 million Baht on more equipment, such as fast tank, solid boom, skimmer shoreline

Performance

In 2013, there was no oil and chemical spill incident caused by IRPC. Oil Spill Response standard equipment was installed on every ship owned by IRPC and Oil spill exercise rehearsal was participated regularly as scheduled

Oil and Chemical Spill Performance

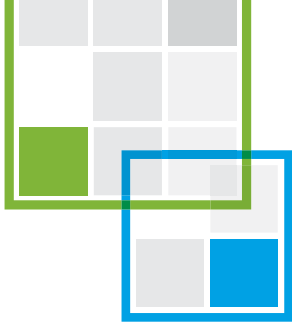
Key performance indicators	2010	2011	2012	2013	Target in 2014
No. of oil and chemical spill to sea	1	2	0	0	0
Amount of oil and chemical spill to sea (m ³)	0.1	0.12	0	0	0

Remark:

(1) IRPC set target for oil and chemical spill of less than 1 tonne (approx. 1.14 m³, in reference to crude oil density of 873.46 kg/m³ as of American Petroleum Institute standard: 2009). Spill cases occurred within the area that can be controlled using IRPC's equipment is not accounted as case, which is in line with the international standard in oil and chemical spill
 (2) Spill case in 2010, a spill of diesel during the unloading from truck to ship, caused by a disconnection of cable from the truck's dispenser resulting in the spill of 100 liters of diesel on to port's premises, in which IRPC was able to immediately clean up. As a result, IRPC has set up additional measures to inspect dispenser and cable to prevent reoccurrence. There were 2 cases of spills in 2011, 20 liters of bunker oil spilled from the contractor's ship, in which the contractor proceeded to clean up as stated in IRPC's regulations and IRPC, as a result, blacklisted particular contractor. The 2nd spill was a 500 kg of slack wax at IRPC's port, which occurred during valve change; presumably that valve was not functioning causing slack wax to disperse. Although the amount of spill was less than 1 tonne, yet supporting team and equipment were required to stop the dispersion of slack wax, the incident was reported as case. Nevertheless, IRPC was able to stop spill in 1 hour, get rid of slack wax stain on the shore line within 4 hours after the incident happened and clean up the shoreline in 1 working day. In order to prevent the same incident from happening, IRPC has set up additional measures to emphasize that all units requested to support could provide what is needed immediately without having to request approval as in normal operations. Approval for more Bleach Boom acquisition in order to quickly confine spills. Moreover, IRPC also increase maintenance for equipment to ensure that all equipment is in the condition readying for deployment, and consider setting up additional supporting team from IRPC's port business units, fireman, and security. As a result of better performance, in 2012 and 2013, there was none oil and chemical spill incident.







Sees the importance of the climate change risk assessment in terms of both, physical and market risks, which could potentially impact the sustainability of IRPC's business

Climate Change Risk Assessment and Adaptation



■ Our Commitment

IRPC is committed to reducing GHG emission from the operations to alleviate impact from the climate change and be prepared to adapt in line to the global megatrends to maintain the competitive advantage by striving to create businesses that are environmentally friendly.

Management Approach

Climate change has proven to be the most challenging issue in Oil and Gas Industry in term of how to effectively reduce GHG emission, and at the same time, maintain the same level of productivity for both petroleum and petrochemical products to meet the continuously increasing needs. In order to respond to the proposition, IRPC realises the importance of the climate change risk assessment both physical and market risk regarding the impact on IRPC's sustainability. IRPC had carried out risk assessment extensively and the result will be used to prepare the corporate strategies to enhance ability to compete and manage business continuity. Such strategies include efficient water management, energy efficiency, environmental

standard certification, and production of low carbon and energy efficiency products. The operational objectives are as followed

- Reduce Energy Intensity Index (EII) every year
- Achieve Top Quartile ranking for all plants with regards to energy efficiency by 2020
- Reduce GHG emission by 1% on average per annum, compare to base year 2008
- Reduce water usage by 10% throughout the industrial area using 3R strategy-Reduce, Reuse, and Recycle
- Increase sales volume of environmentally friendly products

Key Initiatives

Climate Change Risk Assessment and Adaptation

I. Physical Risk

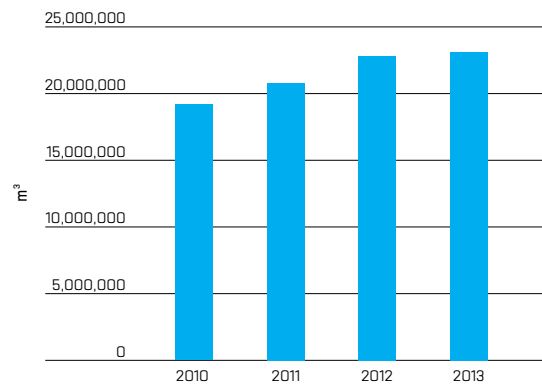
All of IRPC's production facilities are located in Rayong province, in which, there is several industrial plants located near communities that rely on agriculture as a main source of income. In the past, IRPC had encountered drought during summer, which had raised communities' concerns regarding water allocation in Nhong Pla-Lhai, which is a shared public water source between IRPC, other private entities, and communities. To prevent these hindrances from reoccurring, IRPC had implemented drought prevention measures as followed.

- Appoint a representative to participate in East Water war room, which comprises of representatives from agricultural, industrial sectors and communities. Royal Irrigation Department and local government agencies are responsible for monitoring and forecasting the level of the water in the public sources. The working team will meet once every quarter and the outcome of the meeting will be used by IRPC to prepare measures in line with the situation.
- 3R strategy: Reduce-Installing a closed heat exchanger system at CHP1 resulting in 200,000 m³ reduction of water usage. Reuse-100,000 m³ of waste water is used to watering trees, and as a result, clean water usage and effluent are significantly reduced. Recycle-2.3 million m³ of condensate water is put through a polishing process to improve its quality to replace demin water used in the power plant.

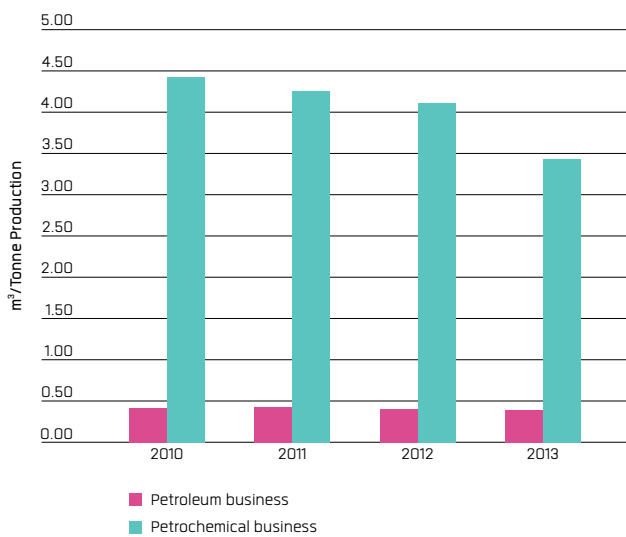
- IRPC's reservoirs, which have 5 million m³ in capacity, can reserve up to 8 months of water for production in case of water shortage and can be used as a dam to store rain water to alleviate flooding in the industrial area during rainy season.
- Proceed on 2R program (Reserve, Responsibility) together with Moo 16 Ban Takard, Moo 2 Ban Lang, Nern Putsa Agricultural park, a small fishing community surrounding the industrial area, and Plauk ket temple by allocating water from the reservoirs and water filtration plant to the communities for consumption and agricultural purposes. In term of responsibility, a communities' water supply is advised upon to encourage the communities to be able to manage water supply more suitably.

Additionally, in 2013, As a result of over expected amount of rainfall and a changed town plan. IRPC, as well as the locals with in the area, had been victimized by an inundation,

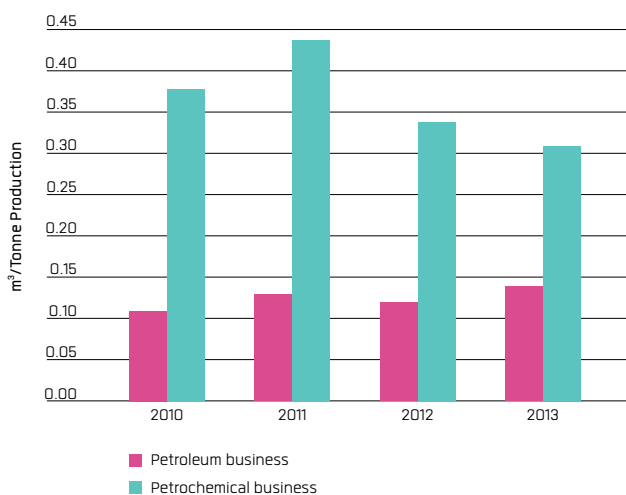
Water from Nhong Pla-Lhai supply to IRPC Utility Plant



Water Withdrawal Intensity



Wastewater Discharge Intensity



which could not drain fast enough. IRPC had adapted plans to alleviate flooding that may impact operations as followed.

- Towards the end of 2013, IRPC collaborated with Rayong Irrigation Project by providing forklifts and water pumps to help alleviate flooding in Rayong province and supply of sand bags to the effected local communities to prevent an inundation.
- Participate in the East water war room quarterly meeting to discuss flood situation as well as prevention measures within Rayong province.
- Prepare prevention plan both short term, includes reservoir management, and long term, which is during the survey studies and preliminary design to solve flooding around IRPC's industrial area

II. Market Risk

IRPC recognizes that a change in business direction to become more environmentally friendly in order to alleviate climate change issues is a business opportunity as consumers and trade partners are paying more attention to products and services that are environmentally friendly.

In order for IRPC to adapt and operate sustainably, 3 main strategies have been carried out, including Green Process, focusing on manufacturing process that meets environmental standards and the efficient use of energy. Green Logistics, focusing on reducing GHG emitted from logistics. Market Expansion strategy for low carbon and energy efficient products to be able to manufacture products that meet the customers' and partners' needs in line with the global megatrends

1. Green Process

1.1 Green Industry Project



At present, IRPC has joined Green Industry Project by The Ministry of Industry, which assesses the environmental related performance in 5 levels, from level 1, showing Green Commitment, to level 5, which is the highest, building Green Networks.

In 2013, IRPC achieved level 3, Green System, in the assessment. 10 of IRPC's plants have been ISO 14001 certified, which are as followed

- PTK Catalyst production plant
- Compounding Plastic production plant
- Ethyl Benzene Styrene Monomer production plant
- Acetylene Carbon Black production plant
- Atmospheric Distillation Unit 2
- Deep Catalytic Cracking / Vacuum Gas Oil Hydrotreating Unit
- Waste Water Treatment 1 and 2
- Waste Water Treatment 3
- Compounding Plastic production plant
- ABS/SAN production plant

In addition, 10 more plants achieved level 4, Green Culture, in the assessment. Green Culture is when everybody in the organization works together to create environmentally friendly operations. 10 plants namely are:

- HDPE production plant
- PP production plant
- Chemical production plants include BTX, etc.
- Ethylene production plant
- Atmospheric Distillation Unit 1
- Lube Base production plant
- Power plant
- Polyol Compound production plant
- EPS production plant
- PS production plant

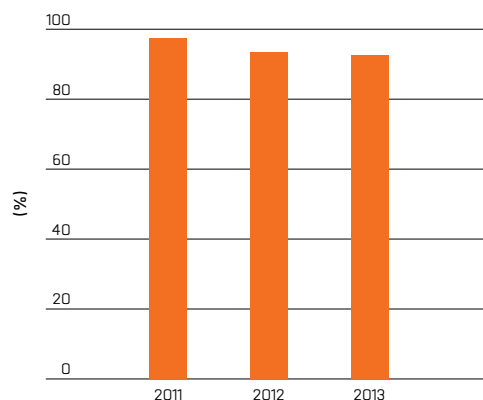
1.2 Energy Management System

IRPC is committed to maximize the efficiency of energy used in the production process because IRPC truly understands that production cost is mainly from energy and production process is the main source of GHG production, therefore IRPC has implemented Energy Management System (EnMS) to create a standardized system throughout IRPC's group companies and a conformation for energy managers to

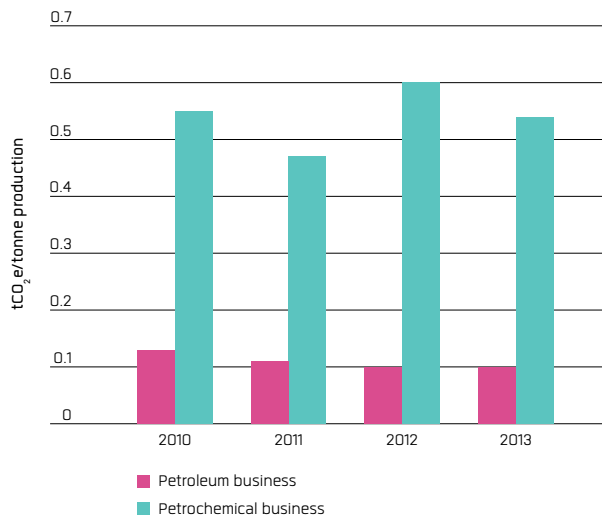
apply to in order to achieve corporate's goal and objective. In 2013, the success from the implementation of EnMS has resulted in 8.1% decrease in Energy Intensity Index (EII) to 91.90 % compared to 2009 base year or equivalent to 5,149,700 gigajoules of energy saved or 2,060 million Baht in cost reduction and GHG emission has been reduced by 600,000 tonnes of CO₂ equivalent.

The better energy efficiency of each business unit in 2013 was the result from the operations of several important projects, such as reduction of power usage in motors in Hydraulic Press, Temperature control in the production units, and an increase of C5 and heavier hydrocarbons in ETP production. As a result of these projects, ETP production unit was able to save 282,000 gigajoules of energy and reduce GHG emission approximately 16,000 tonnes of CO₂ equivalent. Moreover, Variable Speed Drive, which is a device that controls a motor's rotation speed, was installed at PP production plant, and the installation of Hot Oil system to improve production efficiency. As a result, PP production plant was able to save up to 10,300 gigajoules and reduce

Energy Intensity Index (EII)



GHG Intensity



approximately 700 tonnes of CO₂ equivalents of GHG emission. In addition, IRPC had carried out energy conservation programs in the office buildings include the use of energy saving light bulbs, regularly cleaning up the A/Cs, and installing an automatic lighting switches, etc

As a result of aforementioned commitment, IRPC has received Thailand Energy Award consecutively since 2011. In 2013, IRPC has received 3 types of Thailand Energy Award include award for best energy management team, best award for energy control manufacture, and complimentary award for innovation energy project. Moreover, IRPC also received the Prime Minister’s Industry Award 2013 in term of energy management from the Ministry of Industry for Polypropylene production plant.

The success of EnMS has clearly reflected in term of GHG intensity, which shows stability in 2011-2013, especially in petroleum business, the level of GHG emission was successfully maintained at 0.10 tonne of CO₂ equivalent per tonne of production on average. Meanwhile, 0.54 tonne of CO₂ equivalent of GHG was emitted per tonne of production on average for petrochemical business. Additionally, the amount of GHG emitted by IRPC group in 2013 decreased by 0.6% from the previous year.

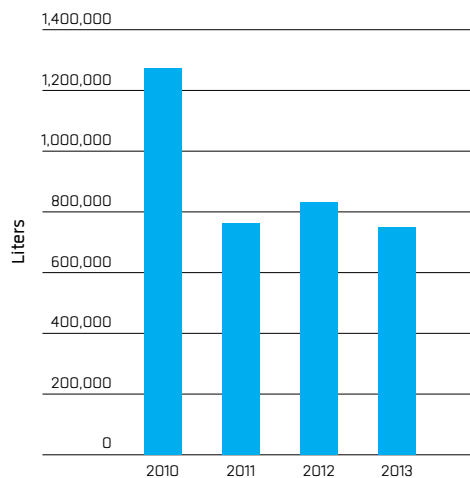
2. Green Logistics

IRPC recognizes the importance of logistics management by setting primary objectives, which include the reduction of GHG emission from the beginning of the transportation through to the product delivery, as well as the reduction of resources used in the product packaging during the transportation. In 2013, IRPC had carried out several important programs include ship maneuvering speed control to reduce fuel consumption, and wooden pallets reduction during transportation project

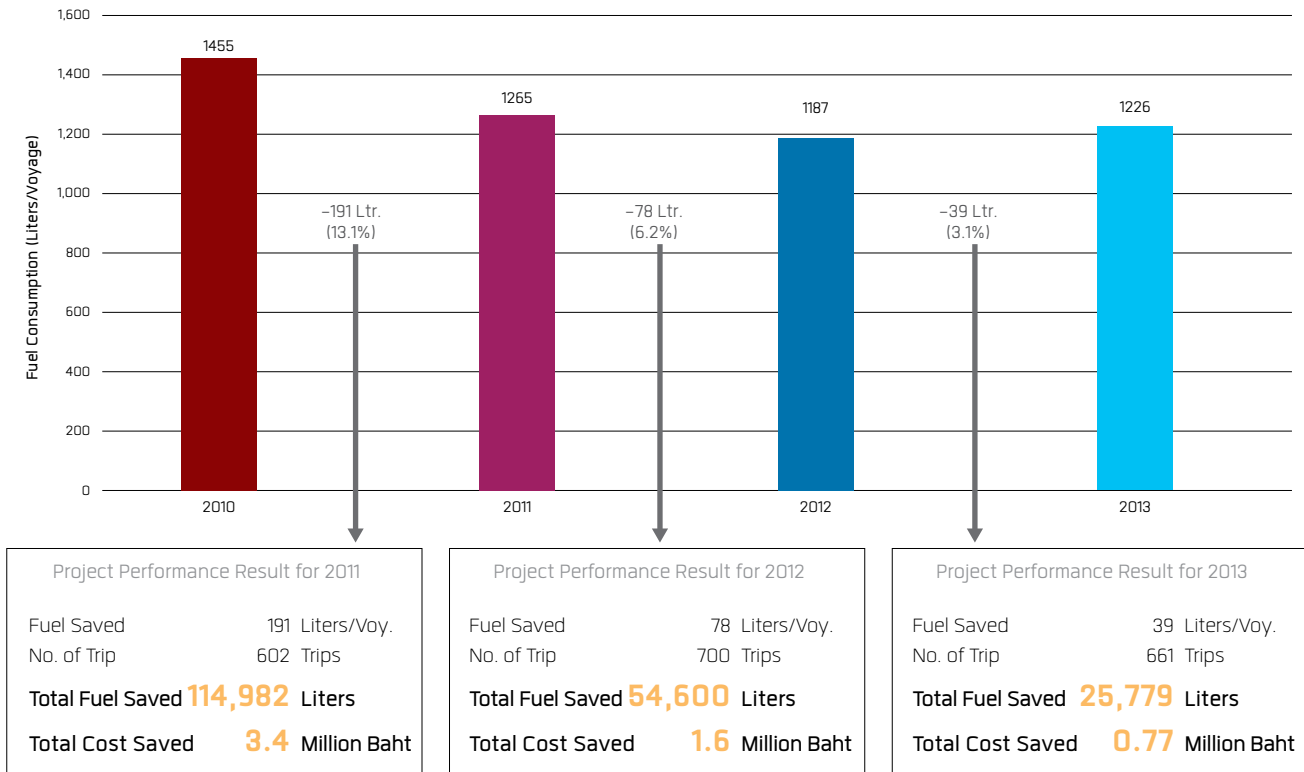
2.1 Ship maneuvering speed control project

Presently, oil transporting ships of Rak Phasak Co. Ltd., which is a company in IRPC group, travel through Chao Phraya river more than 700 trips and consume approximately 1 million liters of fuel per year. Thus, IRPC has begun to recognize the importance to reduce fuel consumption. Since 2010 onwards, IRPC has been carrying out a program, which sets the speed limits to save fuel consumption, Every oil transporting ship owned by IRPC must travel not exceed 1,200 RPM during freight, and not exceed 900 RPM when empty. These speeds are below those regulated by law, yet the most optimized speeds to cut down fuel consumption. In 2013, fuel consumption was reduced by 25,779 liters or approximately 773,370 Baht, and 70 tonnes of CO₂ equivalent of GHG emission was reduced as a result.

Amount of Fuel consumed by IRPC’s oil transporting ships during 2010–2013



2010–2012 fuel consumption performance and step into 2013 (average Ltr./Voyage.)



In order to manage the project with more effectiveness, IRPC had set the indicator for Oil Transportation Section, Logistic and Oil Distribution Department in term of fuel consumed in joules during transportations per the amount of oil being transported in liters (J/liter of Diesel transported). Moreover, IRPC had also taken supplementary measures to ensure better efficiency in fuel saving, such measures are speed control measure using GPS for recording maneuvering speed, engine overhaul, and management of oil distribution source/destination. As a result of the project, not only fuel saved, customers' satisfaction was also maintained, number of accident during transportation was decreased, and impact to habitation along the transportation route was, also, reduced.

2.2 wooden pallets reduction during transportation project

IRPC had to order a large volume of wooden pallets used in packaging process before transportation. A wooden pallet is made of a hard timber wood such as mango wood and rubber wood. IRPC mainly selects suppliers in Rayong province. IRPC usually faced with at least 10% increase in wooden pallets' price every year, therefore, since 2011 onwards, IRPC had initiated a project to reduce the quantity of wooden pallets used by redesigning the pallet, such as

lower the height of the beam, narrow the width of woods, etc. Every prototype developed was tested for strength and durability by IRPC's engineer before actual production in order to evaluate that a new designed pallet has strength and durability as required by a transportation safety standard. As a result of carrying on this project from 2011-2013, IRPC was able to reduce 27,838 ft³ of wooden pallets used or approximately 7.3 million Baht. A decrease in wooden pallets used not only help IRPC save costs, it also helps reduce deforestation and a destruction of natural GHG absorber.



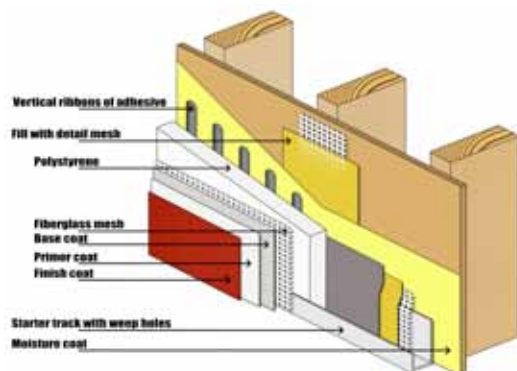
Old (wooden pallets 2.43 ft³)



Old (wooden pallets 1.84 ft³)

3. Low carbon and Energy Efficient products

In 2013, IRPC had successfully distributed low carbon product, which includes Bio-Hydrogenated Diesel (BHD) with EURO V standard and better reduce GHG emission than that of our trade partner, who will, then, add more additives to enhance its property and market it as a premium grade bio diesel. Additionally, IRPC had researched and developed a product innovation for construction, such as Expandable Polystyrene Foam (EPS), a special heat insulation, which reduces 30% of electricity used in the building. Details of each product are as followed



3.1 Hydrogenated Diesel (BHD)

To align with the Ministry of Energy's 2008-2022 Bio-Diesel development plans, which promote the use of Bio-Hydrogenated Diesel, a type of Bio-Diesel produced using hydrogenation and deoxygenation processes, which generate a higher Cetane number than a commonly used process of transesterification. IRPC had begun the production of Bio-Diesel using the existing hydrotreating unit (VGOHTU) since October 2013 with 3 million liters per month of production capacity. Test results show that BHD possesses better properties than that of EURO IV diesel, such properties include lower sulfur and higher Cetane number. Currently, IRPC supplies approximately 1.5-2 million liters per month of BHD to PTT to improve and sell under the brand "Hyforce" in a premium market.

3.2 Expandable Polystyrene Foam: EPS

IRPC's marketing and business development are aware that green buildings are attracting interests from both government agencies and construction industry in Europe as well as comments from a group of customers, who prefer an alternative material with lighter weight, fire proof, weather and heat resistant. It, then, had been suggested that R&D to begin researching and developing a new product that meets the above requirements, in which IRPC had succeeded in developing an EPS prototype, one of the products in Enersav product line, to meet the customers' needs. EPS is highly sturdy, can withstand up to 49 kilograms per cm², do not absorb moisture, can be used as heat and sound insulation at the same time, 8 times better in attribute than brick and 4 times better than a regular block, helps lower up to 21 degree Celsius of an inside and outside temperature, and helps reduce up to 30% of electricity costs from using A/C. Moreover, EPS has been designed to be applicable to almost every part of the building from walls, roof, foam ceiling, cemented foam fence and the foundation of the buildings. In 2013, IRPC had sold 5,000 tonnes of EPS or approximately 303 million Baht, a 5% increase in added value compared to commodity products.

What's Next

IRPC has set objectives and action plans to conserve energy and reduce GHG emission to the atmosphere as followed

- Reduce up to 10% of water usage throughout the industrial area using 3R strategy, CHP1 will be introduced as a pilot plant
- Continuously carry on a ship maneuvering speed control project
- Continuously carry on a wooden pallets reduction during transportation project
- Study a feasibility of a wooden pallet repair project
- Plan to conduct a joined feasibility study with other PTT group's companies on a project to reduce empty trips
- Plan on 30% increase from 2013 in production capacity of EPS grade to meet an increasing market's needs and the need of material used in packaging and insulation for both domestic and international markets
- Plan to increase a production capacity to meet increasing needs for BHD with 3-4 million liters per month in targeted sales volume. The existing production capacity can accommodate up to 5 million liters per month
- Plan to conduct a risk assessment and impact from climate change and adaptive approach guidelines for IRPC's business in order to achieve a sustainable growth.

Performance

Water Management Performance

Key performance indicators	2010	2011	2012	2013	Target in 2014
Water Management					
Water from Nhong Pla-Lhai supply to IRPC utility plant (m ³)	19,126,788	20,783,016	22,831,785	23,092,460	-
Water withdrawal intensity-Petroleum Business (m ³ /tonne)	0.42	0.43	0.41	0.40	-
Water withdrawal intensity-Petrochemical Business (m ³ /tonne)	4.45	4.28	4.14	3.45	-
Waste water Management					
Total volume of water discharge (million m ³)	1.46	1.59	1.55	1.75	-
Waste water discharge intensity-Petroleum Business (m ³ /tonne)	0.11	0.13	0.12	0.14	-
Waste water discharge intensity-Petrochemical Business (m ³ /tonne)	0.38	0.44	0.34	0.31	-

Direct GHG emission (Million Tonnes of CO₂e)



Remark: Other business refers to IRPC's power plant

Performance of Energy Intensity and GHG Intensity

Key performance indicators	2010	2011	2012	2013	Target in 2014
Energy Intensity-Petroleum Business (GJ/tonne throughput)	1.45	1.63	1.40	1.30	maintain target
Energy Intensity-Petrochemical Business (GJ/tonne throughput)	7.75	8.19	8.02	7.89	maintain target
GHG Intensity-Petroleum Business (tCO ₂ e/tonne production)	0.13	0.11	0.10	0.10	maintain target
GHG Intensity-Petrochemical (tCO ₂ e/tonne production)	0.55	0.47	0.60	0.54	maintain target

Plastic Sale Volume

Key performance indicators	2010	2011	2012	2013	Target in 2014
Sales of total plastics (million Baht)	37,157	37,221	40,748	43,550	Sale volume 850,000 Tonnes
Sales of specialty plastics (million Baht)	9,893	12,255	13,814	14,833	Increase sales ratio of specialty to total plastic to 35%

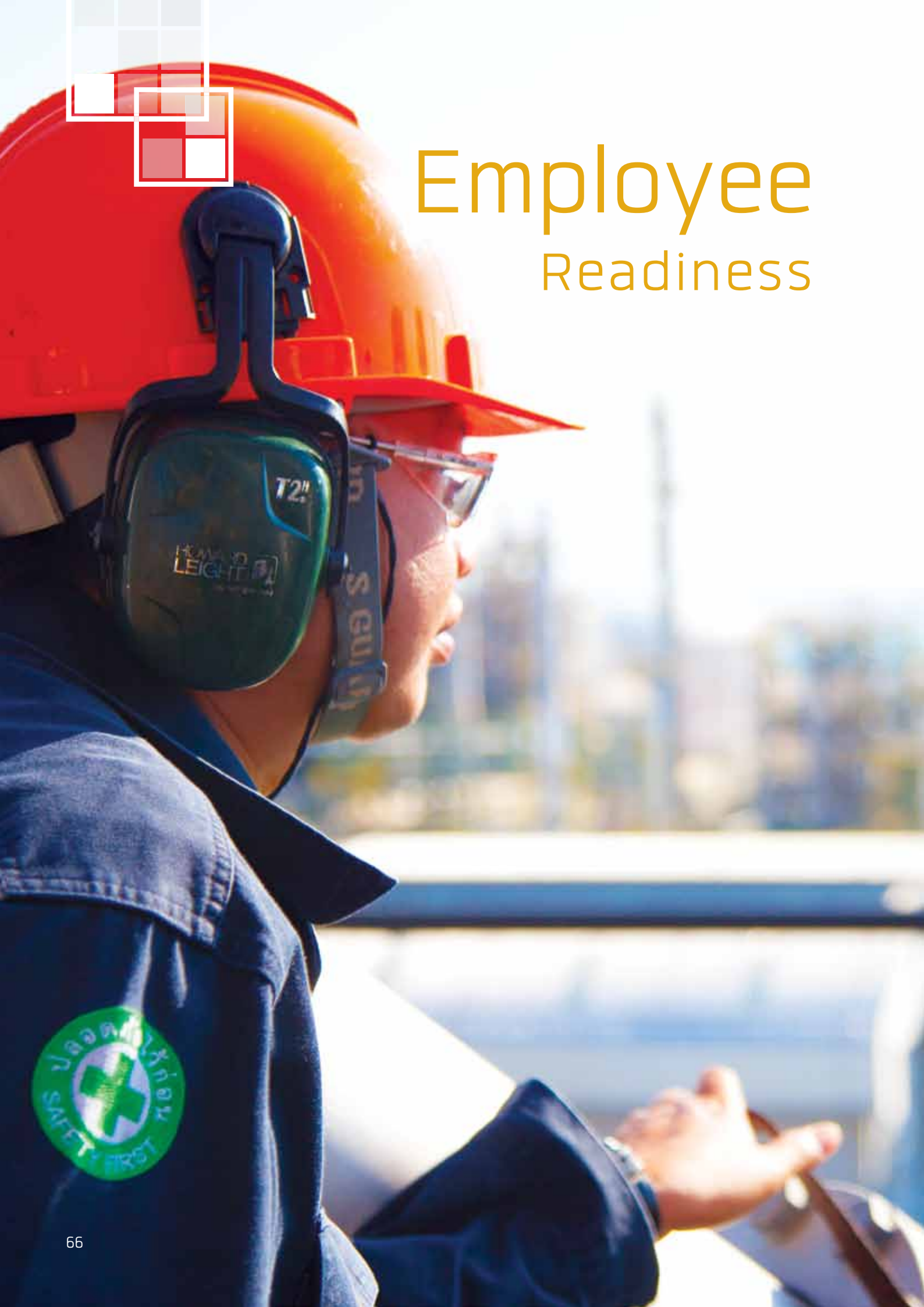


Social Aspect

IRPC operates its businesses based on the principles of good corporate citizenship and realizes the importance of all stakeholders, for examples, a capability development program for employees, which is the most valuable resources in driving the company to achieve its targets, vision. In addition, IRPC also promotes independency to the people in the communities by encouraging them to become self-reliance in everyday life as well as offers an opportunity for the communities to suggest and participate in several of IRPC's project developments in order to achieve the ultimate goal of sustainable growth of the company, community, and Thai society



Employee Readiness



■ Our Commitment

IRPC is truly aware that employees are invaluable resource to the organization. Therefore, we are determined to develop employees' capability in order to drive corporate's sustainable growth to become a leading petrochemical complex in Asia by 2020



IRPC is genuinely aware of the importance of human resource development such as the development of production line staff to be able to self-learn, think rationally, analyse, plan and develop working techniques to align with the actual works as well as applied problem solving experiences into the actual works. IRPC works in collaboration with King Mongkut's University of Technology Thonburi to develop IRPC's Chemical Engineering Practice School (I-ChEPs) for employees on a production line to attend, allowing 15 participants per generation. I had a chance to participate in the 2nd generation. I-ChEPs runs for a total of 9 months and with this, I was able to study a theoretical chemical engineering coupling with how to apply knowledge into the actual work, thought process development skills, integrated learning process that allows you to think more systematically, share knowledge and work as a team.

I am proud to be able to join the project and will definitely apply all knowledge and skills; I had gained, into my actual works and do the best I can to improve my work for IRPC.

Suparerk Sawatwichean
Boardman, Atmospheric Distillation Unit 1 (ADU1)

Management Approach

In 2013, IRPC had adjusted a human resource development plan to respond to the company's vision of becoming a leading integrated petrochemical complex in Asia by 2020 by improving work efficiency of the employees to propel the company's operations to its true potential. IRPC's

Human Capital Excellence Roadmap 2013-2020 consists of 11 guidelines, 6 strategies to achieve 3 main objectives, which are human capability development, employee engagement improvement, and creating human resource excellence culture, as shown in the picture below

Human excellence framework for 2013-2020

How To Enhance Human Capital Excellence

End	Way	Mean
Target Objectives		
1. Capabilities <ul style="list-style-type: none"> Strengthen Business Strategies and Leadership Reinforce Technical and Functional Competencies 	1. Utilize HR Information	<ul style="list-style-type: none"> Set Up HR information system (HRIS)
2. Engagement <ul style="list-style-type: none"> Fit & Belonging Economic Interdependence Emotional Reward Trust & Reciprocity Status & Identity 	2. Leadership	<ul style="list-style-type: none"> Develop 8 key drivers to the best leader/OHI score Clarify Role and Responsibility
3. Culture <ul style="list-style-type: none"> Organization Leadership Individual 	3. Improve Engagement Driver	<ul style="list-style-type: none"> Develop engagement score/OHI score Cross functional team building activities Job evaluation and salary survey
	4. Manpower Planning	<ul style="list-style-type: none"> Utilize internal staff and demography arrangement MSP as appropriate
	5. Talent & Successor	<ul style="list-style-type: none"> Implement success profile for development
	6. Performance Based Culture	<ul style="list-style-type: none"> Enhance 4 areas of HR system <ul style="list-style-type: none"> Performance management Competency management Career development Remuneration management Develop OHI Score

6 strategies and guidelines to achieve 3 objectives are as followed

- Utilize HR information such as the development of human resource information system (HRIS), which takes human resource data through processing and generate information on manpower planning, recruitment, HR management, employees' benefits, compensation, and reporting.
- Leadership Development by strengthening capability in 8 aspects, which are financial knowledge for executives, corporate governance knowledge, leadership skills in performance and growth, building a team, persuasion, listening and servicing skills, emotional intelligence, and recruiting and retaining the right person to the right job as well as clearly identifying roles and responsibilities of each position.
- Improve Engagement Driver by improving employees' engagement factors such as the feelings towards colleagues and personal interests in alignment with corporate's growth strategies, the feelings of being as one with the organization, employees have trust and confidence that they are being equitably treated by the executives, encouraging collaboration between departments and a fair compensation, etc.
- Manpower Planning includes manpower landscaping according to the need of department and organization structure such as supporting manpower for headquarter, production units and core businesses, etc.



- Talent and Successor recruitment by selecting and developing candidates based on personal performance, considering from work experience, result, capability and knowledge and skills
- Building of performance-based culture in 4 aspects includes performance management, competency management, career development and remuneration management.

All 6 strategies mentioned above focus mainly on improving the capability of employees and together bringing the organization to success by having leadership skills, being able to efficiently respond to the business, and feeling more attached to the organization to create corporate shared value and culture

In order to succeed in the implementation of these strategies and become HR excellence, in 2013, IRPC had come up with a short-term project called “Delta”, which comprises of organizational structure improvement, HR system improvement for excellence, and leadership development. These are to be continuously carried out in 2014.

Key Initiatives

In 2013, IRPC had designed and implemented an online functional & technical competency assessment, Leadership assessment in all aspects, and a 180 degree assessment, which is done every 6 months. The results of the assessments are then fed back to management for improvement. An employee’s engagement survey and organization health index (OHI) are used as information to improve HR system and encourage the involvement of the executives in organization development, which is an important mechanism in driving the business to align with the strategies and directions of the company to achieve its objectives. In addition to the aforementioned tasks, IRPC continuously carry out projects to improve employee’s capability as followed

I-ChEPs (IRPC Chemical Engineering Practice School)

IRPC has carried out the I-ChEPs project for 2 consecutive years. This project, for those, who show an outstanding potential, aims to develop an integrated chemical engineering learning process by emphasizing on practical work and assigning projects throughout the course. I-ChEPs is a collaborated project between IRPC and King Mongkut’s University of Technology Thonburi to empower the operational leveled employees with knowledge, analytical skills, and abilities to reduce loss and increase production efficiency, and also promote career advancement. In 2013, all participants had completed all regulated criteria and graduated. These employees had shown a significant improvement in several aspects include 44% increase in learning and analyzing skills, 52.5% increase in yield management and 59.7% increase in chemical engineering knowledge.



Operation Development System (ODS) and Operator Training Simulator (OTS)

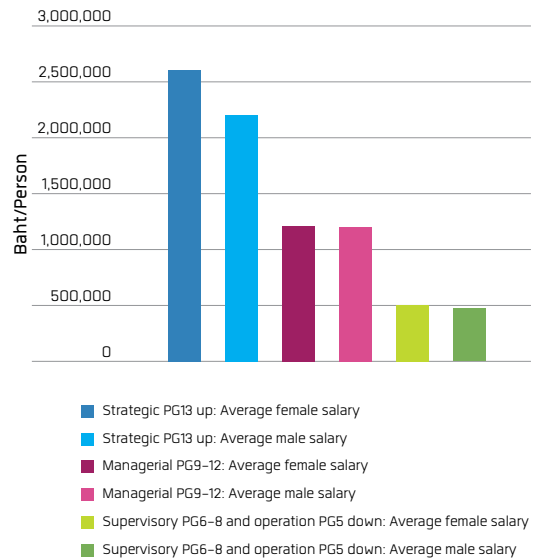
IRPC implemented operation development system and operator training simulator in order to improve capability of a production line staff to operate with more efficiency, less production loss, as well as increase an opportunity to advance in their career. In 2013, IRPC had successfully developed a competency standard and training module, which was initially implemented at our lube base plant, to assess employees' capability and help with gap assessment in order to develop more suitable courses.

Employees' competency assessment and remuneration

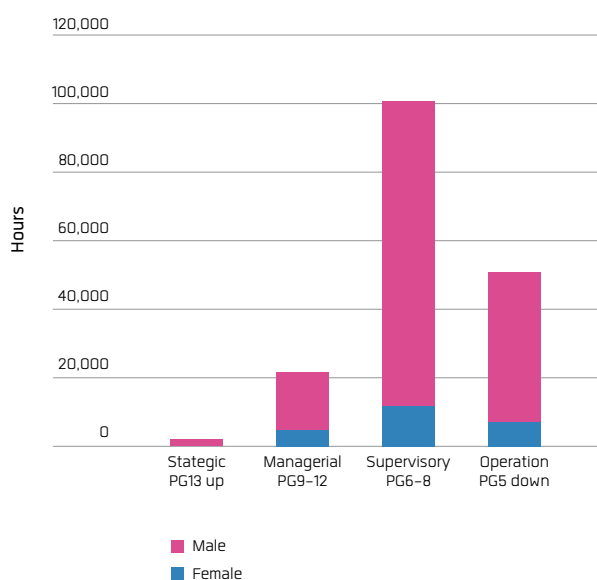
IRPC practice and enforce the same policy of employee benefits and welfare throughout IRPC's group companies with regards to the diversity of employees, working behavior. Moreover, there are benefits and welfare adjustments based on a changing environmental and social conditions and benchmark with other companies in the same industry. Also, comments from employee engagement survey and employee committee are included into consideration. In addition, IRPC has applied performance and behavior based indicators, which reflect individual performance, to

evaluate impartial and acceptable remuneration, as well as a pay for performance incentive to motivate and encourage those, who perform exceptionally, and promote excellence within the organization

An average salary of permanent employees, classified by level and gender, 2013



The numbers of training hours of the employees, classified by level and gender, 2013



Channel of complaint of the violation of human and labor rights

IRPC has set a policy stated that all management leveled employees have a responsibility to look after their subordinates and provide any means of communication necessary to listen to all comments regarding work or any questions that may arise regarding individual rights in according to work regulations. IRPC has, in place, a grievance process through command line and grievance channels as stated in the company's regulations.

IRPC has clearly stated regulations regarding complaints and protection of complainants and other involved parties by not holding penalty or disciplinary action against them.

To embed all level of employees with knowledge, understanding, and responsibility to prevents employees from violating others' rights and being violated. IRPC had conducted an orientation to communicate with new recruits about their rights and responsibility according to labor regulations and organized training for both operations and management to inform them of their rights and responsibilities to comply with the company's regulation and law

What's Next

IRPC plan to proceed with Delta project to improve and tighten up the organization structure, development of HR excellence and leadership development, which would cover the whole organization

Performance

IRPC had successfully operated accordingly to the HR excellence framework, which has reflected in a 78.98% result of the employee engagement survey, where 87.28% of all employees participated, 85.99% of all female employees, and 87.52% of all male employees. In addition, OHI survey scored 52.6, which is moderate.

In terms of employees' training, due to the characteristic of IRPC's businesses, which are refinery and petrochemical complex, therefore, the number of male employees is significantly more than the number of female employees, which consequently results in more training hours for male employees than that of female employees. In 2013, the numbers of training hours for male employees were 151,248 hours, while 23,761 hours were spent on female employees' training. The numbers of training hours for both male and female employees in PG 6-8, which is a supervisory level, were of the highest compared to other levels. This is according to roles and responsibilities that require certain skills, knowledge, and understanding to be able to supervise tasks to achieve the desired targets.

Performance

Key performance indicators	2010	2011	2012	2013	Target in 2014
Total Employee (Person)	5,086	5,186	5,248	5,223	-
New Employee (Person)	179	160	110	100	-
Employee Wages and Benefits (million Baht)	5,229	5,885	5,914	6,749	-
Employee Engagement (%)	78.52	90.76	85.51	78.98	85
Turnover Rate (%)	0.73	1.02	0.90	1.17	-



Occupational Health and Safety

Case Study MANSAFCOM: Management Safety Committee

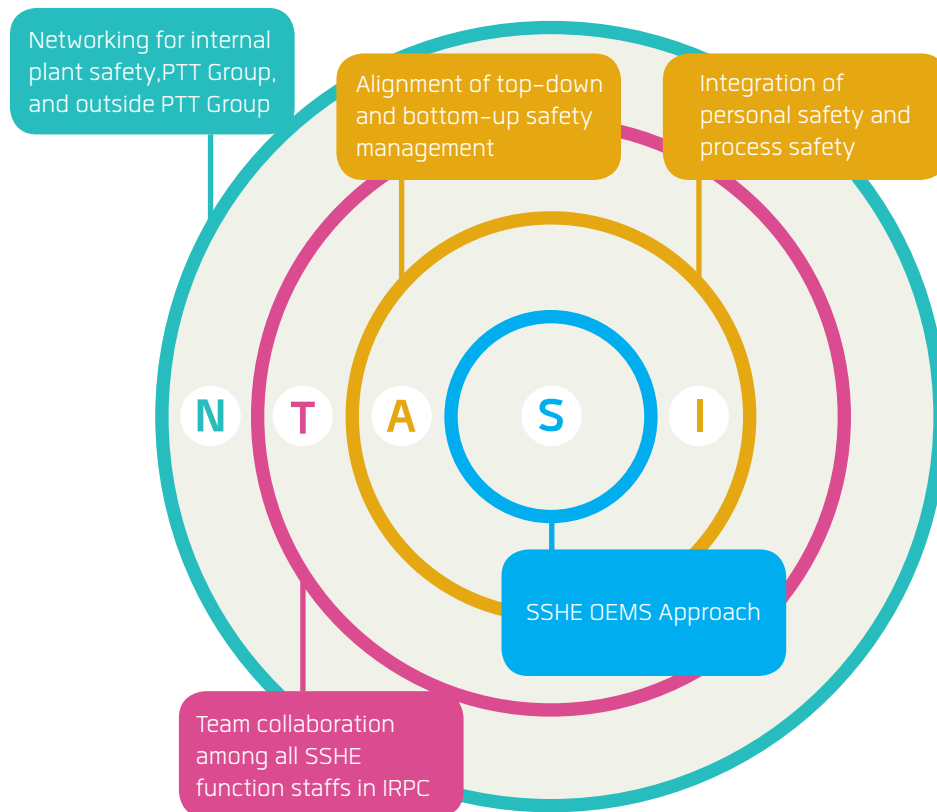
The Management Safety Committee is responsible for setting up policy for safety and health within IRPC's industrial area, which includes all IRPC group's companies and other companies within the area, and inspecting sites on a quarterly basis, as well as arranging a monthly meeting, where the safety and health performance results, and the safety inspection results for both internals and externals are reported and monitored in order to find ways to fix deficiencies. Any regulations regarding safety and health are also approved in the meeting. The Management Safety Committee is also responsible for communicating any changes in laws and regulations throughout the organization, as well as being a channel to receive corporate safety and health related complaints



■ Our Commitment

IRPC is committed to operating with high safety standard in order to become an accident free workplace. Every employee and contractor is truly aware and committed to creating a safety culture throughout the organization.

Safety Strategy: The SAINT



Management Approach

In order for IRPC to become a safe workplace, and the employees and contractors to be embedded with a safety culture, IRPC has developed a safety strategy called “SAINT”, which consists of 5 operational dimensions, as followed

- **SSHE OEMS** : Applying management system in terms of security, safety, health, and environmental excellence in line with PTT group’s OEMS manual
- **Alignment of Top-Down and Bottom-Up Safety Management**
- **Integration of Personal Safety and Process Safety**
- **Networking for Internal Plant Safety, PTT Group and outside PTT Group**
- **Team Collaboration among all SSHE Functions Staffs in IRPC**

SAINT is intended to focus on encouraging the employees and the contractors to operate with a high standard of safety. Safety performance indicators were set for both employee and contractor, which are Lost Time Injury Frequency Rate (LTIFR) and Total Reportable Injury Rate (TRIR), with the objective to reduce these stats to zero.

In terms of contractor’s safety, IRPC selects contractors based on the approved contractor list. The selected contractor must attend a safety training before begin the operation, and during the operation, IRPC’s personnel will regularly carry out the inspection in order to ensure that the contractor is strictly following the safety regulations, and after the operation is completed, IRPC will conduct an assessment to evaluate the performance and later review the approved contractor list.

Key Initiatives

The safety and health performance results in 2013 are as followed

Hearing conservation program

The hearing conservation program began in 2006 and has been continuously carried on with the objective to promote hearing conservation of the employees, who operate in the area with a averaged noise of more than 85 dB(A), in line with the Department of Labor Protection and Welfare's announcement regarding regulations and procedures for the preparation of the hearing conservation in the workplace 2010

The hearing conservation program covers all business units. The program is modeled to comprise of PR news on trainings and knowledge via the company's media, training sessions in the forms of classroom and online for all targeted employees regarding the dangers from noises, an inspection

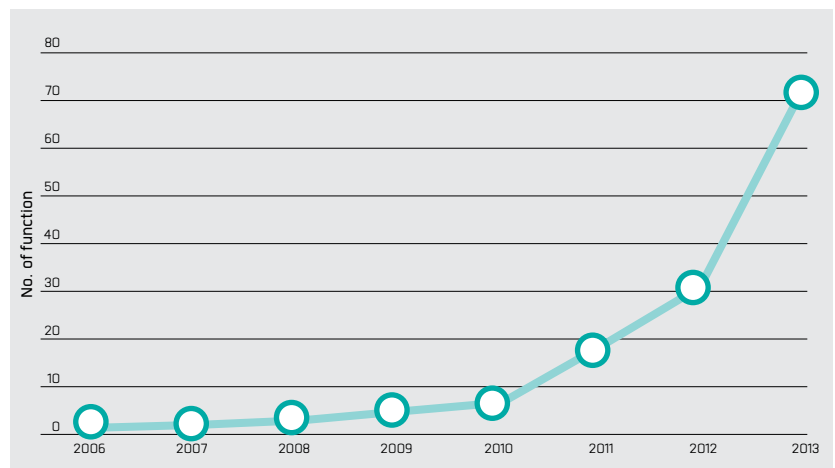
of areas at risk and an assessment of noise exposure in the workplace by the QSHE team in order to find solutions to loud noises, set measures to prevent noise, and conduct an audiometric testing on employees, who were exposed to noise louder than 85 dB(A) for 8 working hours, at least once a year. The progress of the program is regularly reported to the executives. In 2013, there 40 functions attended hearing conservation training resulting in a total of 71 functions has attended since the program started.

VOCs monitoring Program

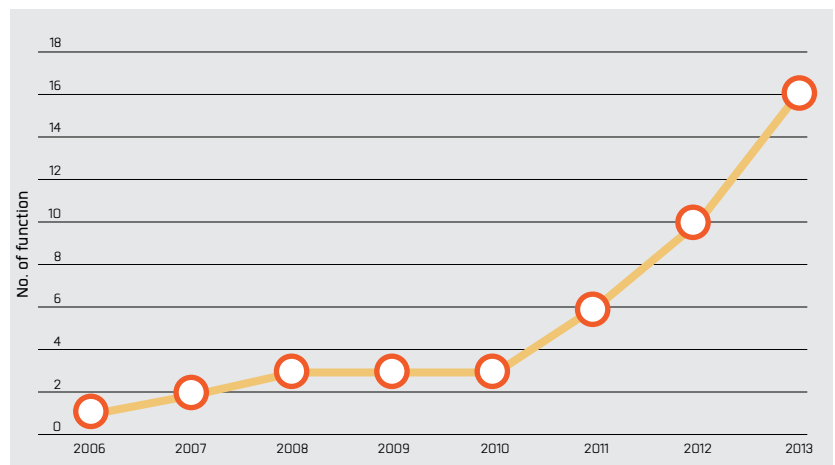
IRPC has given the importance to the employees' health, especially risk from VOCs exposure. IRPC has carried out the VOCs monitoring program since 2006. The program includes the survey of VOCs related work, trainings regarding the dangers of VOCs in the forms of classroom and online, the atmospheric inspection of VOCs in the workplace both stationary and portable types, and the biological health examination for the employee at risk, as well as the



A number of functions attended training in the hearing conservation program, 2006-2013



A number of function attended training in the VOCs monitoring program, 2006-2013



setup prevention and control measures. The progress of the program is consistently reported to the executives. In 2013, there were 6 function attended the VOCs monitoring program resulting in a total of 16 function having attended.

Lung disease monitoring program

IRPC is aware of the likelihood that the employees be exposed to dust and chemical during the operation. These dust and chemicals may have an impact on their lungs; therefore, IRPC has initiated the lung disease monitor program in 2012 with the objectives to educate the employees about lung disease in the workplace, protections, and to create awareness for targeted group of employee regarding impact of dust and chemical to their lungs. The program includes trainings for the employees, assessments of exposure to particles in the area, and lung capacity testing. Additionally, the program working team also conducts impact analysis, prevention measure monitoring, and measure improvement review, as well as informs progress to the executives. In 2013, there were 4 functions attended in the training resulting in a total of 8 functions attended.

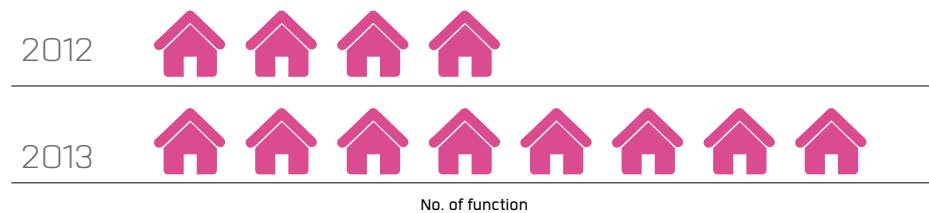
Improper Postures
Proper Postures



Ergonomics program

In addition to the safety and health program for the production staff, IRPC is equally concern for the health of the employees, who work in the office as well. The main health issue for those working in the office is of ergonomic issues include injuries from lifting heavy stuff, working in an unnatural postures, inappropriate conditions of desk and chair, etc. The ergonomic program was started in 2012 in order to educate the employees about the ergonomics. Training sessions were arranged for office staff, production staff, and maintenance staff. Moreover, new chairs are to be provided for targeted group of the office staff

A number of function attended training in the lung disease monitoring program, 2012-2013



Education for employees and families to reduce the risk of infecting AIDs and TBs

IRPC received the AIDs and TBs management platinum award by the Department of Disease Control, Ministry of Public health, and the department of Labor Protection and Welfare, Ministry of Labor, on the 31st of March 2010. IRPC had announced “the policy and guidelines to deal with Immunodeficiency, Tuberculosis and chronic diseases for IRPC and subsidiaries” to prevent and mitigate the risk of disease spreading as well as to take care of infected employees. The policy focuses on trainings and PR news to communicate with the employees regarding AIDs, TBs, and other chronic diseases, as well as campaigning to prevent and mitigate the risk of being infected via certain activities. Nevertheless, IRPC does not force blood tests or terminate employment due to HIV infection, yet promote fair treatment, personal secrecy, and provide aids to infected employees

In order to reduce TBs risk, IRPC provided chest x-ray for the employees in the annual health check to screen for TBs. In addition, IRPC allows infected employees to take a special leaves, not considered as sick leaves, and appoints mentors to supervise on taking medication (DOT), as well as arranges teams to assist infected employees and ensures that they receive a proper treatment.

What's Next

IRPC plans to carry out key initiatives in 2014 as followed

- **Hearing conservation program:** targeting 34 more functions to participate in the program including petroleum business, petrochemical business, and port business. In all participated functions, there were 13 EIA plants. The program includes trainings on the dangers of noise, noise exposure assessment, and hearing capacity tests.
- **VOCs monitoring program:** targeting ABS 1, 2, and 3, Phrapadeang's depot. The program includes training on the dangers of VOCs, VOCs exposure assessment, and detection of VOCs in the body.
- **Lung disease monitoring program:** targeting C11B and ST33 sections. The program includes lung disease in the workplace training, particle exposure assessment, and lung capacity testing.
- **Ergonomic program:** mainly targeting the office staff both at Bangkok and Rayong offices, Production staff and Maintenance staff. The program focuses on sharing ergonomic knowledge.

Performance

Key performance indicators	2010	2011	2012	2013	Target in 2014
LTIFR (Lost Time Injury Frequency Rate) (case per million working hours)					
• Employee	0.66	0.61	0.37	0.28	0
• Contractor	1.50	0.37	0.95	0.76	0
TRIR (Total Reportable Injury Rate) (case per million working hours)					
• Employee	1.07	1.23	0.65	0.55	<0.65
• Contractor	2.70	0.44	1.37	1.52	<0.65
Fatality (person)					
• Employee	0	0	0	0	0
• Contractor	1	0	0	0	0



New Project Development



The work of multilateral committee focuses on a concrete outcome in order for communities and IRPC to co-exist harmoniously. For example, when the committee received a concern from the community regarding the diffusion of coal used in the power plant, IRPC would immediately be informed of this concern. IRPC, then, installed the equipment to prevent the problem reoccurring. The community truly appreciated IRPC's genuinity in solving problems.

I, personally, am grateful that IRPC is sincerely receptive to the suggestions, concerns, and willing to find solutions together through multilateral committee meetings and public sector audit.

Rangsan Kulnil
Multilateral committee member
Community Leader, Moo 4, Ta Phong



The work of multilateral committee can efficiently unravel conflicts between the communities and IRPC. I have to admit that IRPC has clearly become much better in problem solving than 10 years ago, due to the introduction of new technology as well as willingness to disclose and continuously communicate with the communities regarding a new project development



Udom Siripakdee
Multilateral Committee member



IRPC has set up a multilateral committee about 2-3 years ago, designating that committee be comprised of representatives from IRPC, Public sector, and government agencies. Furthermore, information on the upcoming projects is presented in the committee's meeting before being proceeded, which helps ensure the understanding and allows any constructive comments from all sectors.

This actually demonstrate IRPC's transparency in disclosing information, reiterating IRPC's true intention to grow sustainably alongside the communities

Thanit Angkawinijwong
Multilateral Committee member
Rayong's Deputy Mayor





■ Our Commitment

IRPC intends to operate strictly on the principal to create social license and trust by conducting environmental and health impact assessments, people participation practice guidelines, and social impact assessment in compliance with legal regulations in order to ensure sustainable business operation and community acceptance.

Management Approach

IRPC believes that stakeholders' trust is a key success factor in business growth, therefore, every time a new project is being under development, IRPC will carry out a project's feasibility studies covering economic, social and environmental aspects and if any particular projects are found to have any social or environmental impact, IRPC will present the findings to the Development capability of the project, community and society surrounding the industrial zone multilateral committee, which is comprised of representatives from relevant government agencies, luminaries, local representatives, community representatives, and IRPC representatives, to discuss and consider a possible solutions. After the solution is achieved, IRPC will carry out an assessment regarding environmental, social, health, bio-diversity, and local economic impacts in line with the Ministry of Natural Resources and Environment's and the Office of Natural Resources and Environmental Policy



and Planning's regulations. Public Participation hearing is organized at least twice as regulated by laws. The first hearing is to set boundary and method to study the impact of the project, while, the second hearing is to present findings, impact prevention and monitoring measures. Lastly, the project is presented to the relevant government agency to gain approval as well as to get additional comments from independent entities before proceeding.

For all approved projects, IRPC implemented and strictly followed the impact prevention and monitoring measures. Furthermore, mitigation and monitoring measures by third party had been set up and the performance results are to be annually reported to the relevant government agencies.

Case Study Hearing session and complaint management through multilateral committee (CSR in process sub-committee)

Multilateral committee assigned a subcommittee, which consists of local representatives, such as village chiefs and headmen, to carry out an inspection on the complaints, for example, odor problems. The subcommittee is allowed to inspect around plant area and the findings will be presented in a meeting. In 2013, multilateral subcommittee had presented complaint management focusing on the efficient and effective operations, especially odor related complaints. The operation is done in parallel in 3 situations, which are normal, during complaints and during turn around period or any special activities, by regularly sending out working teams to visit the communities, establishing a complaint center to explain and create understanding to the communities. As a result of these operations, number of complaints has been reduced by 50% in 2013 compared to the previous year.



Key Initiatives

During 2010-2013, IRPC and IRPC's group companies had prepared Environmental Impact Assessment (EIA) and Environmental Health Impact Assessment (EHIA). There are 12 projects, which have been approved by a committee of experts, the Office of Natural Resources and Environmental Policy and Planning. 9 of which had to prepare EIA, while 3 projects had to submit EHIA. Details are as followed

9 Projects with EIA approval are

1. ABS expansion project
2. Multi product pipeline project, co-invested with PTTGC
3. Rayong industrial estate (Ban Khai)
4. Propylene compound project
5. IRPC's industrial area's natural gas pipeline project
6. Combined heat and power project (CHP2)
7. Natural gas pipeline for Rayong's combined heat and power project
8. A new Rayong's office building project
9. UHV project

3 Projects with EHIA approval are

1. EBSM expansion project
2. Propylene Plant project
3. IRPC's industrial park expansion project

For projects with EHIA, after approved by the committee of experts, must, again, be presented to the Department of Industrial Work for further approval. Currently, EBSM expansion and Propylene Plant projects have already been approved, meanwhile, IRPC's industrial area expansion project is currently in process.

Case Study Combined Heat and Power Project (CHP2)

On the 26th of September 2013, Combined Heat and Power Project received EIA approval from the committee of experts. This project used natural gas as fuel to generate electricity with 240 megawatts in capacity. Its' primary objectives are to create stability to the electrical system in the east region and lighten the investment burden of the government sector. The electrical utilities will be in place ready for the industrial plants in the area. Combined Heat and Power project will also help





to increase the efficiency of a centralised power generation management; benefits include better safety in power generation, reduction of air pollution, such as reduction of CO₂, NO₂, SO₂ emission and particulate matter smaller than 10 microns (PM-10)

Further to those mentioned above, this project also has in place a water recovery unit, 596 m³ per day of clean water generated will be used in the cooling tower, meanwhile, waste water will be treated at the centralised water treatment unit. The property of waste water must be within the regulation to be accepted into IRPC's central treatment unit.

Case Study Upstream Project For Hygiene And Value Added Products (UHV)

IRPC initiated UHV project in order to transform heavy oil, which is high in sulphur, yet low in value, into propylene and other products that can be used in household products, consumers' goods, and other petroleum products. The benefits derived from this project include reducing raw material costs in propylene production, creating added value to the existing raw material, and reducing impact to air quality around the industrial area, since UHV transforms sulphur in the heavy oil into liquefied sulphur, which can be used in other industries. Therefore, Sulphur dioxide generated can be reduced. UHV has a propylene production capacity of 320,000 tonnes per annual and in order to further enhance an environmental friendliness, Ultra Low NOx Burner has been installed to control the amount of Nitrogen oxide released; Electrostatic Precipitator (ESP) and Cyclone have also been installed to control dust particles, and lastly, the installation of CEMs to monitor air quality throughout the production process. Currently, the UHV project has already been approved by the Office of Natural Resources and Environmental Policy and Planning on the 25th of April 2013 and is now in the construction phase

What's Next

In 2014, Polypropylene expansion project (phase II) is in process of EIA preparation to submit to the Office of Natural Resources and Environmental Policy and Planning for approval, and IRPC's industrial area expansion is during a process to get the permission from The department of Industrial Work. (DIW)

- Polypropylene expansion Project (phase II): the 1st public participation hearing session is planned during the end of March and the beginning of April 2014. A technical hearing session will be held on the 31st of March 2014 and A subgroup hearing session will be held during the 1st-4th of April 2014
- IRPC's industrial area expansion project had already received comments from the Independent Commission on Environment and Health (ICEH) on the 20th of January 2014. The next step is a public participation hearing session organized by DIW. It is anticipated that the first hearing session could be arranged in May 2014 and DIW to consider approval in December 2014

Performance

During 2010-2013, IRPC and IRPC's group companies had prepared Environmental Impact Assessment (EIA) and Environmental Health Impact Assessment (EHIA) for a total of 12 projects, 9 of which have been approved by committee of experts, 6 of which were approved in 2013. There are 2 projects with EHIA approved by both committee of experts and the DIW. In 2012, during the carrying out period of these projects, IRPC had strictly followed the impact prevention and mitigation measures, the regulated monitoring measures as well as allowing an independent party to carry out an inspection and report back to the relevant government agencies.

IRPC is committed to operating in accordance to the corporate good citizenship guidelines, where IRPC and the communities can grow sustainably together.

Community Relations and Development



Poverty and unemployment are the main problems in Takard village. I am grateful that IRPC had supported us with a sustainable way to earn livings, such as a mushroom cultivation program, which is truly what the community needs. **IRPC does not give us fish; instead IRPC teaches us how to fish.** Currently, we have established Baan Takard's mushroom cultivation community enterprise.

Boonrueen Krajarngjaeng,
Chairman of mushroom cultivation group,
Ban Takard, Moo16, Taphong, Muang, Rayong



Management Approach

The essence of IRPC's community development is to assist and encourage them to be able to rely on themselves in daily basis, which is one of the CSR strategies (Happy Rayong), IRPC has been using as a framework along with the corporate good citizenship guidelines. IRPC's CSR department takes primary responsibilities to oversee this mission. The Project Capacity and Community and Social Development Committee, IRPC's Industrial Zone Committee is a multilateral committee overseeing environmental and community aspects and the CSR in Process Sub-Committee acting as a subcommittee to carry out a performance inspection to ensure alignment with an environmental impact assessment. These 2 committees are comprised of representatives from IRPC, communities, government agencies, local organizations, and NGOs. Meeting is regularly held monthly to discuss issues, share ideas, and come up with activities or programs to develop the communities surrounding IRPC's industrial area. Furthermore, IRPC has also built up connection with leaders from several sectors, such as teacher connection, provincial health, health care volunteering group, environmental conservation group, and leaders from local authorities to ensure that activities or programs developed could truly elevate the overall quality of livings of the communities including education, health, environmental conservation, and career development for sustainable income.

IRPC has set the performance indicator to measure success of the CSR programs in terms of community satisfaction, which is expected to increase every year.

>100,000 people per year

received a better medical service at Tapong Tambol Health Promotion Hospital



>160 students per year

at Plauk ket temple school receive a better education

>3

Million Baht

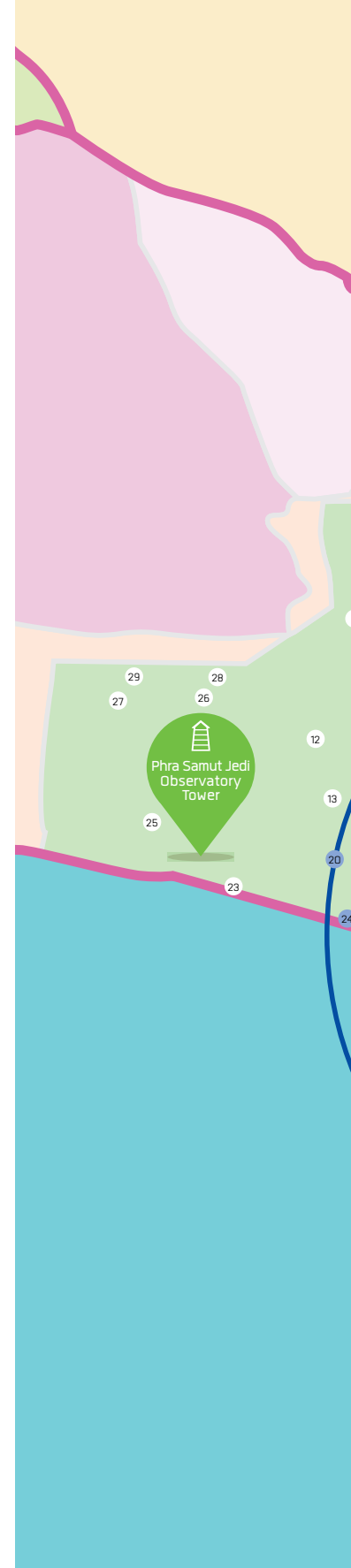
in the incremental income for fisherman from the Rope receiving project



>60,999 people visit and purchase goods with

>600,000 Baht

spent at the souvenir shop, IRPC learning Center





IRPC and Community and Social development

Community in Rayong's Municipality

- | | | | |
|----------------------|-------------------|------------------------|-------------------|
| 1. Kohkloi community | 9. Taksinmaharaat | 16. Kangaumpur-Tangpai | 23. Paknaam1 |
| 2. Chaikrapom | 10. Saparnraat | 17. Korpuek-Pakklong | 24. Paknaam2 |
| 3. Reunchum | 11. Lungwatkord | 18. Rimnaam-Taked | 25. Samutchadi |
| 4. Tecnner-Kohwai | 12. Suanwatkord | 19. Muslim-Pakklong | 26. Thungtanod |
| 5. Wapapradoo1 | 13. Bangchak | 20. Samrit | 27. Nernphra |
| 6. Watpapradoo2 | 14. Sanampao | 21. Leamrungreung | 28. Kwangkarntang |
| 7. Soonkarnka | 15. Shongponong | 22. Banpakklong | 29. Nhongsanom |
| 8. Poonchai | | | |

- Community, Village
- 1 km. radius
- 3 km. radius
- IRPC's Industrial Zone
- Sub-District Administrative boundary
- District Administrative boundary



65 Million Baht
in benefits to the communities from IRPC's CSR activities

>63 households with more income as a result of IRPC's support in career development and the operation of the community enterprise



Key Initiatives

IRPC focuses on creating jobs, generating incomes to the communities to alleviate poverty and unemployment, building infrastructure for public health care and education to accommodate an increasing population as well as ensuring that local people receive adequate education and have good health. Details are as followed

Ban Takard's Mushroom Cultivation Program

Mushroom cultivation program was initiated as one of the CSR-DIW (Corporate Social Responsibility-Department of Industrial Works) programs, where the community had requested IRPC to provide support in mushroom cultivation. Therefore, IRPC has started this program in 2012 and carried on until today, educating people with mushroom cultivation knowledge, product transformation, packaging, and how to establish a community enterprise. As a result, the community is able to cultivate mushroom to feed the families and earn a supplementary income from selling it as well as alleviate poverty and employments, which were the main problems in the community. Moreover, Ban Takard, as a pilot community, can share knowledge to other communities. Currently, Ban Takard's community enterprise has been established with 12 members.

Rope Receiving Program to develop strong fishing community with IRPC

IRPC's port business promotes local economy through rope receiving employment at IRPC's port. In 2013, IRPC had employed more than 30 people in the communities to operate in rope receiving coupled with fishing. As a result, households in the community were able to generate around 3.2 million Baht in additional income and create an impregnable group of profession and strong community. In addition to the economic benefits, the harbor bridge pylons also became residence for mussels and other marine animals. Evidently, IRPC's port business not only creates zero impact to the environment, it is also a potential fishing source for locals as well. This program leads to the creation of good understanding, which is a key factor leading towards sustainable development in a near future, between IRPC and the community surround IRPC's port

Ban Nhong Chok's Multi-purpose Cloth Program

Ban Nong Chok's community enterprise produces multi-purpose clothes using tatters in order to generate income to the community. These clothes will be supplied



to the machine cleaning industry. IRPC provides support by purchasing clothes valued over 480,680 Baht in 2013 to promote strength within the community and enable them to have a stable jobs to earn a sustainable income for the family, as well as build a good relationship between the community and IRPC

OTOP Center, IRPC's Learning Center

Not only implementing policy to create jobs and incomes, IRPC also provides the community enterprise with a space to sell their products in the IRPC's learning center's souvenir shop. In 2013, a total of 84 communities with OTOP products valued around 643,125 Baht, 63 of which were from Rayong with product value of 420,000 Baht, 10 were from other area in the east region with product value of 123,125 Baht, while other 12 were from other regions with product value of 100,000 Baht. Therefore, It is plain to see that IRPC's learning center's souvenir shop is one of the channels to sell the OTOP products.

IRPC also offers support in building and improving infrastructure for public benefits and improve living standard of the people, including health care, education, religion, agriculture, and environment, as followed

Construction of a new building for Tapong hospital

IRPC had arranged several hearing session with the communities' leaders, for example, hearing session regarding IRPC's business expansion and field visit to improve public health in the community. it has been agreed that an increasing numbers of patient is the problem leading to insufficient number of hospitals in the community, in terms of



vacancy of admitted patients, number of medical personnel, and medical supplies. Therefore, on the 3rd of July 2013, IRPC signed the MOU to allocate 12 million Baht in budget to build a new 2 story building, consists of 30 inpatient beds, for Tapong hospital, Rayong province. Currently, the project is during a construction phase, where progress is being closely monitored. IRPC expects that when the building is complete, the hospital will be able to accommodate 100,000 more patients per year around the industrial park from Banlang, Choengnoen, Tapong, Natakhwon, Pae, Samnak-Thong Sub-districts and Rayong municipal.





Construction of a new building for Plaukhet temple school

Plaukhet temple school is fenced next to IRPC's industrial park with a total of 160 students. IRPC has visited the school and found that a building for small children was dilapidated and unsafe, shortage of stationery, and academic personnel. In order to elevate the quality of the school education and to accommodate an increasing numbers of students, IRPC allocated a budget of 4,650,025 Baht to build a new 2 story building consisting of 4 classrooms, dean's office, library, and nursing room, and hire 2 new teachers. On the 9th of September 2013, The building was officially handed over to the school. The delivering ceremony was honored by Mr. Warawut Pinthong, Rayong's Deputy Governor, communities' leaders, school director, and Mr. Peerapong Achariyacheevin, SEVP, IRPC, as a chairman in the delivering ceremony

Stupa's renovation at Ban Lang temple

As a result of a hearing session with communities' leaders, IRPC has acknowledged the problem that the stupa at Ban Lang temple is being deteriorated. A stupa is an ancient Khmer art form and a spiritual center for the community surrounding the industrial park, comprising of 7 villages, 2,000 households, and 6,700 people in population. Therefore, IRPC had allocated a budget of 2.2 million Baht for stupa's renovation in order to preserve a historic landmark for younger generations and develop into a tourist attraction spot, which will generate income, employment, and reputation to the temple and the community. Presently, the renovation had already been completed.

Communities' Agricultural Research Center

IRPC, in academic collaboration with the Faculty of Agriculture, Kasetsart University, had established the IRPC-Kasetsart University's Communities Agricultural Research Centre to develop an agriculture to encourage the communities' participation within Rayong's municipal area and 4 more districts include Natakwan, Tapong, Ban Lang and Choengnoen. The project focuses mainly on research and academic services to solve any problems according to the needs of the farmers as well as improve production system and agricultural harvests, which will eventually lead to development and stability in agriculture. Furthermore, people



with a different profession within the area could sustainably co-exist together. The activities, which has been carried out, are as followed

- 1) A transfer of agricultural technology:** emphasizes on sharing knowledge for the farmers to appropriately apply into their actual work. 20 sessions with 1,404 participants
- 2) An agricultural clinic:** emphasizes on solving productivity problems for the farmers. 22 sessions with 300 participants
- 3) Network development:** emphasizes on communities' participation and a building of a sustainable agricultural development. 815 farmers joined the network
- 4) An agricultural research:** conducts series of research on 7 agricultural farms in 3 districts (Tapong, Ban Lang, and Natakwan) and applies research findings into practise, as well as, on IRPC's area to promote and demonstrate to the farmers.

All activities mentioned above were started since October 2011 and have been carried on until present, with 19,883,500 Baht in budget for the past 2 years

Scenery route project in Tha Chud Mountain, Ban Lang Sub-District

Tha Chud Mountain, located on the area of 2,500 rais in Ban Lang sub-district, is a natural attraction with abundance of variety of flora and fauna. In order to promote tourism and conserve natural resources, IRPC, in collaboration with Ban Lang's conservation group, Department of Parks and Forestry, and local authorities, has allocated a budget of 2.4 million Baht to build a scenery route, 2.1 kilometers in length, and flora labels to make easy for tourists and students. At the present, the construction has been finished and flora labels are being prepared, expected to be done by January 2014. As a result of this project, government agencies, communities' leaders, and people in Ban Lang are satisfied with IRPC' commitment to improve the communities coupled with creating a sustainable business.



What's Next

2014 action plan for 5 aspects of Happy Rayong strategy are as followed

- Safety, Health, and Economic aspect: a construction of a new building for Tapong Tambol health promotion hospital, targeting 25% in progress in 2014, ensure the continuous operation of medical clinic at IRPC's learning center and mobile clinic, and improve health monitoring system for the communities that cooperate with Rayong hospital
- Community development aspect: OTOP center program at IRPC's learning center, targeting sales value of 708,000 Baht
- Strategic communication and management aspect: an open house program to communicate with the community regarding IRPC's performance, Field coordination center to proactively solve all complaints

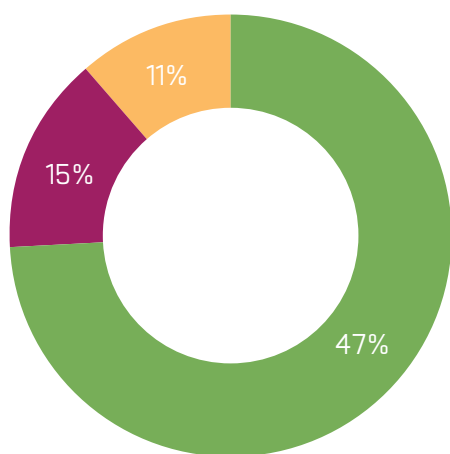
- Environmental conservation aspect: continuously carry on reforestation program around the industrial area, Communities' forestation program, Mangrove forestation program at Kon Puek, Natural education center program at Phra Samut Chedi.
- Environmentally friendly production process: Details in chapter of Environmental Management.

The overall performance of all projects are measured in the form of community satisfaction with 83% target

Performance

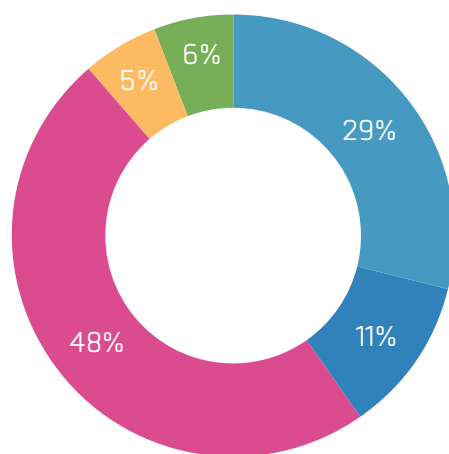
IRPC measured success in social projects in the form of community satisfaction. In 2013, IRPC scored 92.8% in community satisfaction survey, which is higher than 82% target.

The ratio of indirect economic benefits to the community from IRPC's operations in 2013



- OTOP Center at IRPC's Learning Center
- Multi-Purposed Cloth Purchase
- Rope Receiving Employment and Fishery

The ratio of IRPC's budget allocated to construction and infrastructure improvement for public benefits in 2013

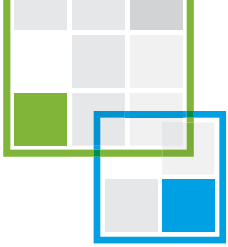


- Community Agricultural Research Center
- Renovation of Stupa at Ban Lang Temple
- Scenery route at Tha Chud Mountain
- Building construction at Tapong health promotional hospital
- Building construction at Plaukhet temple school

Remark : Mushroom cultivator program is not included due to unavailability of information on sales revenue

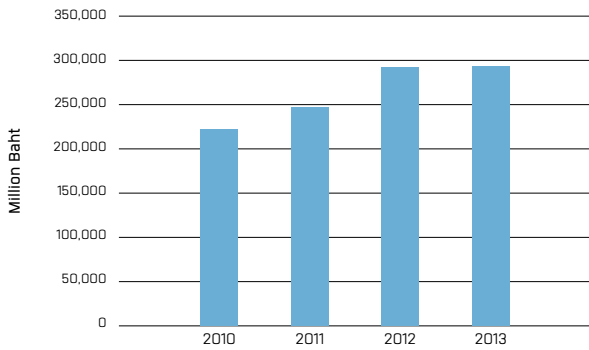
Performance

Key performance indicators	2010	2011	2012	2013	Target in 2014
Cash contribution to Social (Baht)	155,460,058	154,123,422	124,109,082	134,848,855	117,369,422



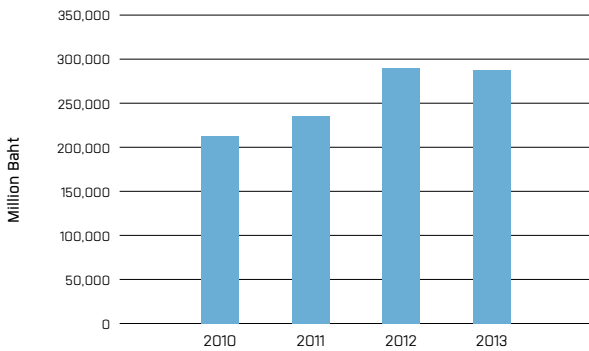
Performance Summary

Sales Revenue



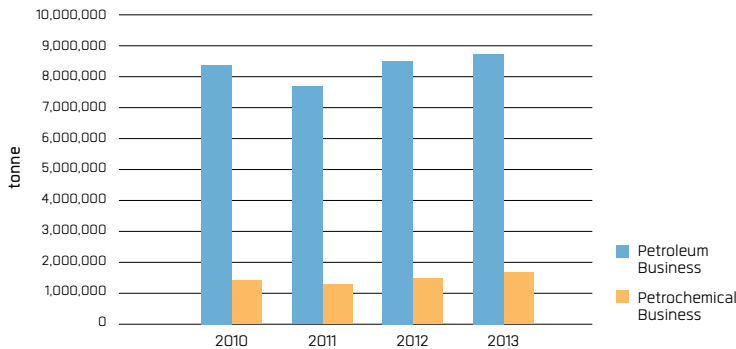
Sales revenue in 2013 was 292,593 Million Baht, 163 Million Baht more than in 2012

Operating Costs



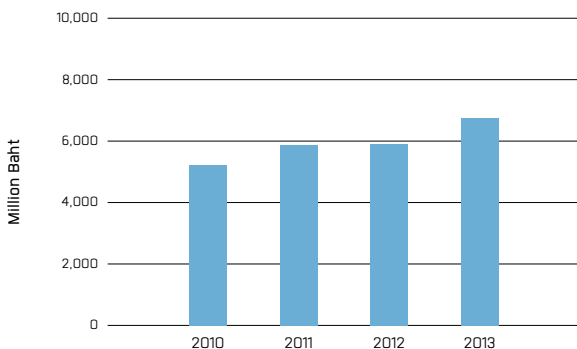
Operating costs in 2013 decreased by 2,075 Million Baht compared to 2012

Annual Production

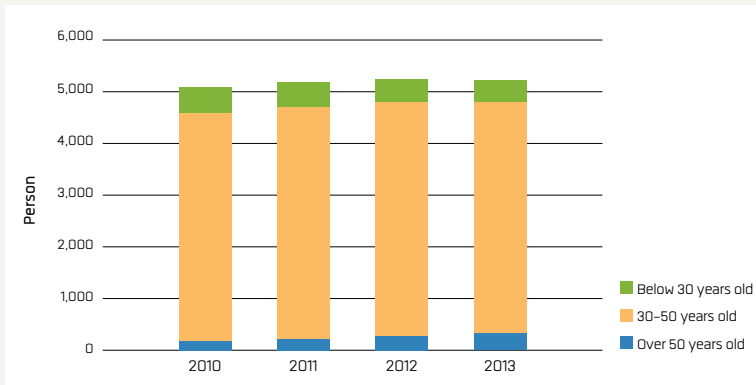


Annual production in 2013 increased by 4.32% compared to 2012

Employee Wages and Benefits

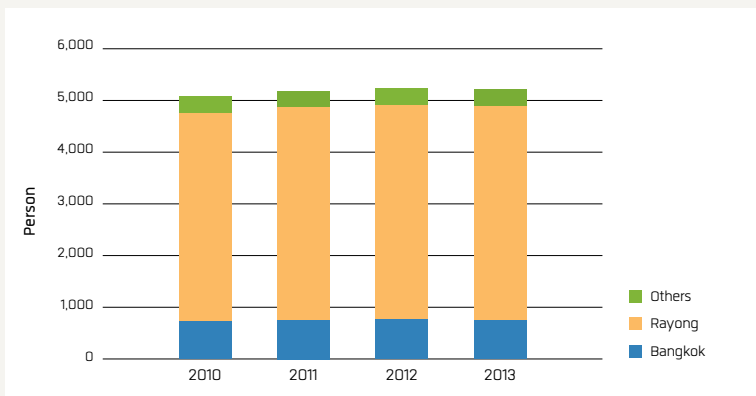


Employees' wages and benefits increased by 835 Million Baht compared to 2012



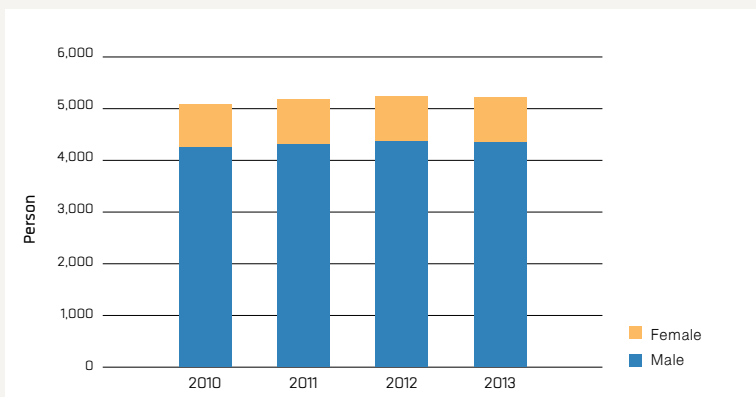
Employee by Age

Number of employees in 2013 was not significantly different from 2012. 86% of all employees aged between 30-50 years old, which is considered an important workforce to IRPC's operation.



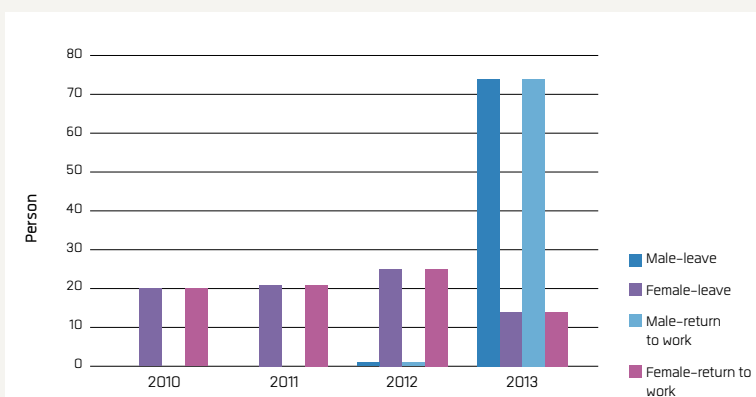
Employee by Area

80% of all employees work in Rayong province, where refinery units and petrochemical plants are located



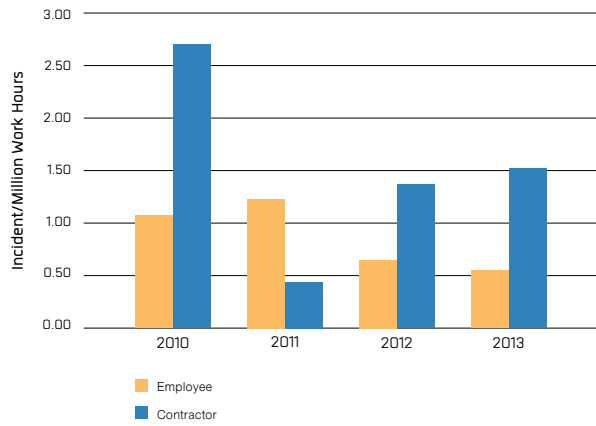
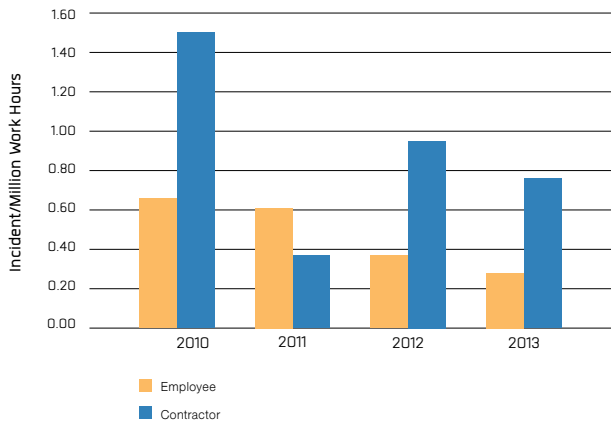
Employee by Gender

IRPC offers equal opportunity in recruiting both male and female employees, yet due to the nature of IRPC's business, Male employees outnumber female employees. Nonetheless, it is found that the ratio of female employees to male employees has increased in the past few years.



Parental Leave and Return to Work

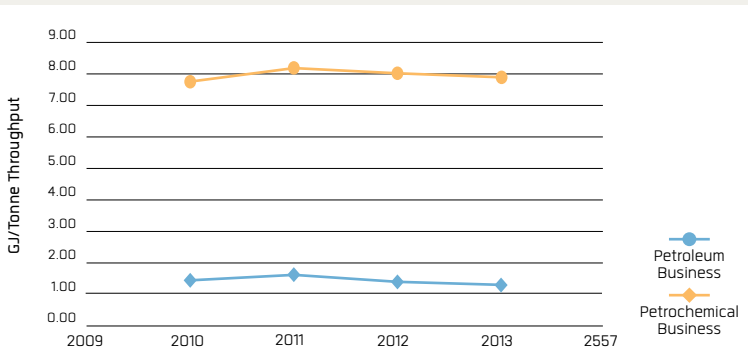
During 2010-2013, all employees, both male and female, taking maternity leaves have returned to work. IRPC began to collect data on male employees taking maternity leaves since the change in labor legislations that allows male employees to take leaves in 2012,



Lost Time Injury Frequency Rate (LTIFR)

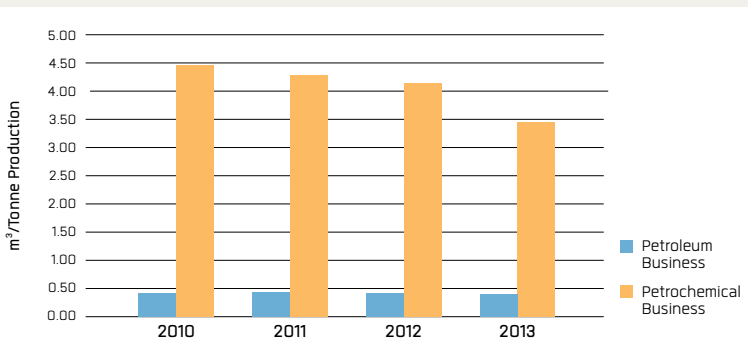
Total Recordable Injuries Rate (TRIR)

Lost Time Injuries Frequency (LTIFR) in 2013 has decreased continuously compared to 2012 as a result of employees' and contractors' safety awareness program. Meanwhile, Total Recordable Injuries Rate (TRIR) tended to decrease on the employee side, yet show a slight increase on the contractor side, as a result of jobs involving in working in high altitude. IRPC has carried out an investigation and conducted measures and training to prevent reoccurrence.



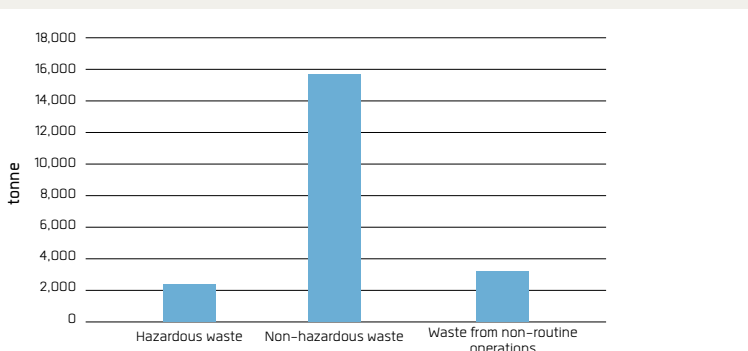
Energy Intensity

As a result of the energy conservation program and energy efficiency project, in 2013, petroleum and petrochemical businesses showed a 7% and 2% decrease in the energy intensity, which depicts the use of energy per tonne of production, respectively



Water Consumption Intensity

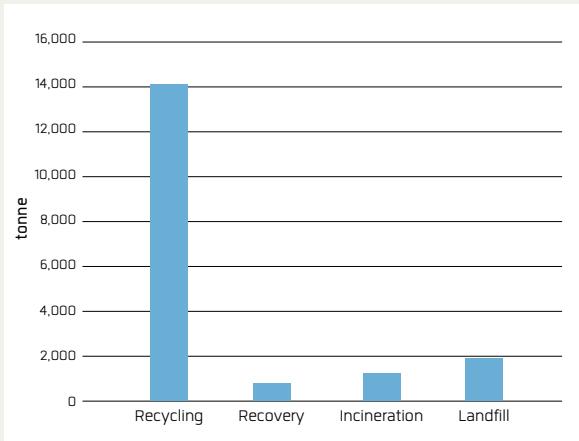
In 2013, Water consumption intensity for petrochemical business showed sign of improvement with 3.45 M³ per tonne of production of water usage rate. Meanwhile, water usage rate for petroleum business was 0.4 M³ per tonnes of production, which was similar to the previous year



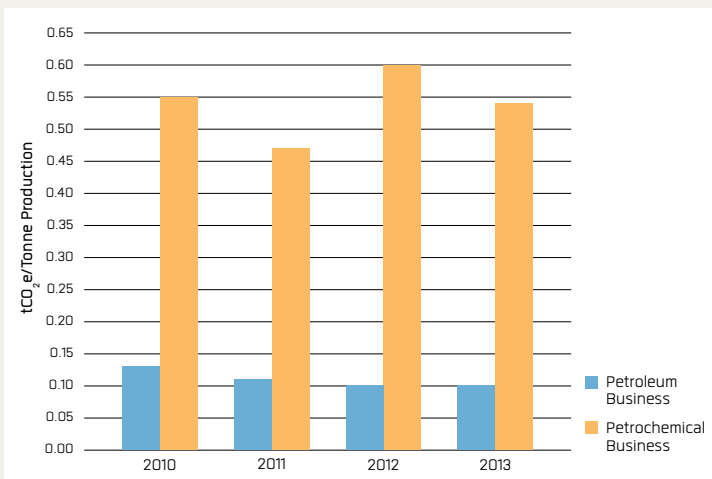
Waste in 2013

In 2013, IRPC generated a total of 21,238 tonnes of waste, classified into 2,386 tonnes of hazardous waste, 15,642 tonnes of non-hazardous waste, and 3,210 tonnes of waste generated from non-routine operations (during turn around period)

Waste from Routine Operation by Disposal Method in 2013

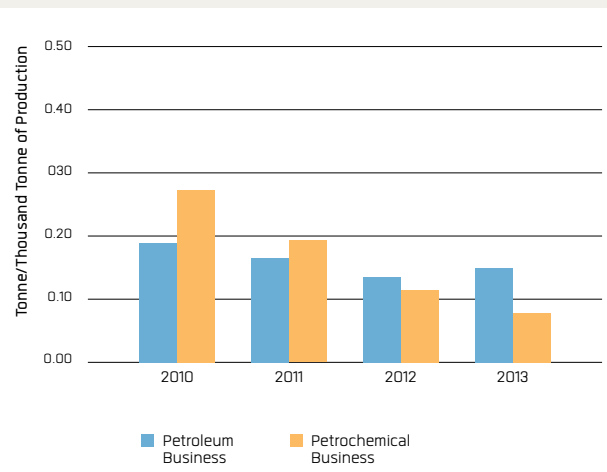
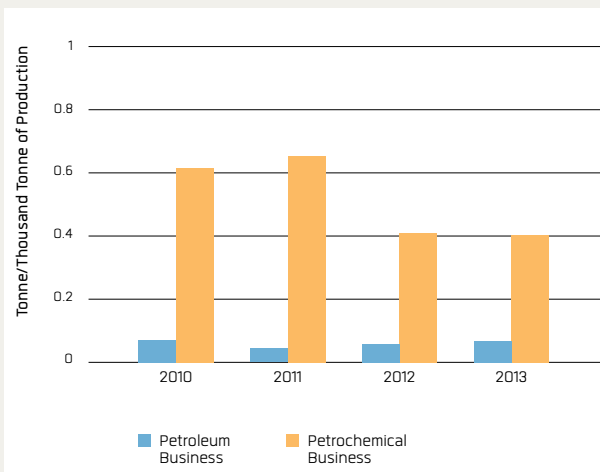


In order to reduce environmental impact from landfills, IRPC carried 3R-Reduce, Reuse, and Recycle program to reduce waste generated. It is clear to see that more than 78% of waste generated from all operations (except those generated from non-routine operation) have been reused and 4% have been sent through other forms of recovery, which include burning for energy or being used as feeds in other industries, etc. only 11% of waste is landfilled



Carbon Intensity

In 2013, Carbon intensity for the petroleum business has reduced by 5%, whereas, reduced by 9% for the petrochemical business when compared with 2012 as a result of the energy efficiency program in terms of a change in the production process and energy conservation program, for example, installation of variable speed drive to control motor rotation speed and save energy used in the motor, temperature control in the production process to be within range, and installation of hot oil to improve efficiency in the production process, etc.



NOx Intensity

NOx and SOx generated from fuel combustion in the production process. In 2013, the amount of NOx and SOx released per tonne of production in petroleum and petrochemical business showed sign of decreasing due to energy efficiency improvement program, which results in a reduction of energy used per tonnes of production and ,consequently, NOx and SOx released was also reduced.

Remark: the amount of SOx is reported as SO₂

SOx Intensity

REPORTING BOUNDARY

The reporting boundary of this report covers IRPC, subsidiaries, in which IRPC holds more than 50% shares, which includes Thai ABS, IRPC Oil, and IRPC Polyol.

ECONOMICS

Sales revenue of
292,593
Million Baht

9,241
Million Baht
in tax payment

6,749
Million Baht
in Employees'
wages and
benefits

GRI	Data	Unit	2010	2011	2012	2013
EC1	Sale Revenues	Million Baht	221,611	246,888	292,430	292,593
	Operating Costs	Million Baht	212,319	235,491	289,770	287,695
	Employee Wages and Benefits	Million Baht	5,229	5,885	5,914	6,749
	Payments to Providers of Capital	Million Baht	3,600	3,666	816	1,632
	Payment to Governments	Million Baht	22,365	9,785	8,189	9,241
EC4	Tax Privileges from the Board of Investment, Thailand	Million Baht	47	212	144	212
	Tax Compensation from Export	Million Baht	175	189	209	203

Production

GRI	Data	Unit	2010	2011	2012	2013
	Annual Production	Tonne	9,789,908	8,968,382	9,978,631	10,409,243
	Production of Petroleum Business	Tonne	8,372,649	7,684,770	8,505,358	8,732,610
	Production of Petrochemical Business	Tonne	1,417,259	1,283,612	1,473,273	1,676,633

Supply Chain Management

GRI	Data	Unit**	2010	2011	2012	2013
	Supplier Assessment for Crude Oil, Petroleum and Petrochemical Raw Materials*					
	• Total Number of Supplier in Approved Vendor List (AVL)	Supplier	-	-	-	107
	• Total Number of New Supplier Registered in AVL	Supplier	-	-	-	21
	• Number of Supplier rejected during the Pre-Qualification Process	Supplier	-	-	-	7
	Supplier Assessment for Other Raw Materials and Chemicals*					
	• Total Number of Supplier and Contractor in					
	- Supplier-Approved Vendor List	Supplier/ Contractor	-	-	-	431
	- Contractor-Approved Contractor List	Supplier/ Contractor	-	-	-	411
	- Total Number of New Supplier Registered in AVL					
	- Supplier-Approved Vendor List	Supplier/ Contractor	-	-	-	17
	- Contractor-Approved Contractor List	Supplier/ Contractor	-	-	-	26
	- Number of Supplier rejected during the Pre-Qualification Process					
	- Supplier-Approved Vendor List	Supplier/ Contractor	-	-	-	6

GRI	Data	Unit	2010	2011	2012	2013
	- Contractor-Approved Contractor List		-	-	-	0
HR2	Human Right Screening					
	• Supplier of Crude Oil	Supplier/ Contractor	-	-	-	78
	• Supplier and Contractor of Other Raw Materials and Chemicals					
	- Supplier-Approved Vendor List	Supplier/ Contractor	-	-	-	23
	- Contractor-Approved Contractor List	Supplier/ Contractor	-	-	-	26
EO6	• Spending on purchasing of products and services from suppliers and contractors in Rayong	Million Baht	1,625	2,396	2,539	1,594
	• Percentage of spending in Rayong comparing to the total budget	%	16.10	16.49	19.86	16.22

Remark: * These indicators are not under the GRI G3.1, but they are new indicators based on GRI G4: EN32 and LA14. Indicators relevant to supply chain management are becoming important and has been asked in other sustainability reporting standard e.g. DJSI. Since these are new indicators required by GRI G4, only 2013 data are needed to be reported.

** Suppliers include suppliers, contractors and vendors.

Customer Relationship Management

GRI	Data	Unit	2010	2011	2012	2013
PR5	Annual customer satisfaction survey results	Satisfaction rate	87	86	87	86
PR8	Number of substantiated complaints received concerning breaches of customer privacy	Case	0	0	0	0
	Total number of identified leaks, thefts, or losses of customer data	Case	0	0	0	0



GRI	Data	Unit	2010	2011	2012	2556
LA1	Total Employee	Person (s)	5,086	5,186	5,248	5,273
	• Male	Person (s)	4,262	4,324	4,382	4,409
	• Female	Person (s)	824	862	866	864
	Total Long-Term Contractors	Person (s)	0	0	0	0
LA13	Total Employee by Area	Person (s)	5,086	5,186	5,248	5,273
	• Bangkok	Person (s)	729	756	771	756
	- Male	Person (s)	320	324	333	324
	- Female	Person (s)	409	432	438	432
	• Rayong	Person (s)	4,038	4,110	4,156	4,199
	- Male	Person (s)	3,647	3,705	3,753	3,792
	- Female	Person (s)	391	405	403	407

GRI	Data	Unit	2010	2011	2012	2556
	• Others	Person (s)	319	320	321	318
	- Male	Person (s)	295	295	296	293
	- Female	Person (s)	24	25	25	25
	Total Employee by Level	Person (s)	5,086	5,186	5,248	5,273
	• Executive (Level 13-18)	Person (s)	68	69	84	81
	- Male	Person (s)	53	54	67	64
	- Female	Person (s)	15	15	17	17
	• Middle Management (Level 10-12)	Person (s)	304	314	338	346
	- Male	Person (s)	243	254	275	282
	- Female	Person (s)	61	60	63	64
	• Senior (Level 8-9)	Person (s)	769	845	951	933
	- Male	Person (s)	632	680	759	745
	- Female	Person (s)	137	165	192	188
	• Employee (Level 7 and below)	Person (s)	3,945	3,958	3,875	3,913
	- Male	Person (s)	3,334	3,336	3,281	3,318
	- Female	Person (s)	611	622	594	595
	Employee by Age	Person (s)	5,086	5,186	5,248	5,273
	• Over 50 years old	Person (s)	183	217	271	329
	- Male	Person (s)	152	117	219	270
	- Female	Person (s)	31	100	52	59
	• 30-50 years old	Person (s)	4,395	4,478	4,516	4,477
	- Male	Person (s)	3,691	3,753	3,784	3,745
	- Female	Person (s)	704	725	732	732
	• Below 30 years old	Person (s)	508	491	461	467
	- Male	Person (s)	419	395	379	394
	- Female	Person (s)	89	96	82	73
LA2	Total Turnover	Person (s)	37	53	47	70
	• Male	Person (s)	28	45	38	57
	• Female	Person (s)	9	8	9	13
	Turnover Rate	%	0.73	1.02	0.90	1.33
	• Male	%	0.55	0.87	0.72	1.08
	• Female	%	0.18	0.15	0.17	0.25
	Turnover by Area	Person (s)	37	53	47	70
	• Bangkok	Person (s)	14	13	14	20
	- Male	Person (s)	5	8	8	9
	- Female	Person (s)	9	5	6	11

GRI	Data	Unit	2010	2011	2012	2556
	• Rayong	Person (s)	20	37	33	49
	- Male	Person (s)	20	34	30	47
	- Female	Person (s)	0	3	3	2
	• Others	Person (s)	3	3	0	1
	- Male	Person (s)	3	3	0	1
	- Female	Person (s)	0	0	0	0
	Turnover Rate by Area	%	0.73	1.02	0.90	1.33
	• Bangkok	%	0.28	0.25	0.27	0.38
	- Male	%	0.10	0.15	0.15	0.17
	- Female	%	0.18	0.10	0.11	0.21
	• Rayong	%	0.39	0.71	0.63	0.93
	- Male	%	0.39	0.66	0.57	0.89
	- Female	%	0.00	0.06	0.06	0.04
	• Others	%	0.06	0.06	0.00	0.02
	- Male	%	0.06	0.06	0.00	0.02
	- Female	%	0.00	0.00	0.00	0.00
	Turnover by Age	Person (s)	37	53	47	70
	• Over 50 years old	Person (s)	5	7	7	10
	- Male	Person (s)	5	7	5	9
	- Female	Person (s)	0	0	2	1
	• 30-50 years old	Person (s)	17	34	24	41
	- Male	Person (s)	14	28	19	32
	- Female	Person (s)	3	6	5	9
	• Below 30 years old	Person (s)	15	12	16	19
	- Male	Person (s)	9	10	14	16
	- Female	Person (s)	6	2	2	3
	Turnover Rate by Age	%	0.73	1.02	0.90	1.33
	• Over 50 years old	%	0.10	0.13	0.13	0.19
	- Male	%	0.10	0.13	0.10	0.17
	- Female	%	0.00	0.00	0.04	0.02
	• 30-50 years old	%	0.33	0.66	0.46	0.78
	- Male	%	0.28	0.54	0.36	0.61
	- Female	%	0.06	0.12	0.10	0.17
	• Below 30 years old	%	0.29	0.23	0.30	0.36
	- Male	%	0.18	0.19	0.27	0.30
	- Female	%	0.12	0.04	0.04	0.06

Remark: *No data prior to 2012 due to the allowance of male employees to take parental leave in 2012 (announced 17 December 2012)

GRI	Data	Unit	2010	2011	2012	2556
	New Employee Hired	Person (s)	179	160	110	100
	• Male	Person (s)	145	111	98	88
	• Female	Person (s)	34	49	12	12
	New Employee Hire Rate	%	3.52	3.09	2.10	1.90
	• Male	%	2.85	2.14	1.87	1.67
	• Female	%	0.67	0.94	0.23	0.23
	New Employee by Area	Person (s)	179	160	110	100
	• Bangkok	Person (s)	28	48	25	11
	- Male	Person (s)	10	15	16	4
	- Female	Person (s)	18	33	9	7
	• Rayong	Person (s)	145	112	85	89
	- Male	Person (s)	129	96	82	84
	- Female	Person (s)	16	16	3	5
	• Others	Person (s)	6	0	0	0
	- Male	Person (s)	6	0	0	0
	- Female	Person (s)	0	0	0	0
	New Hire Rate by Area	%	3.52	3.09	2.10	1.90
	• Bangkok	%	0.55	0.93	0.48	0.21
	- Male	%	0.20	0.29	0.30	0.08
	- Female	%	0.35	0.64	0.17	0.13
	• Rayong	%	2.85	2.16	1.62	1.69
	- Male	%	2.54	1.85	1.56	1.59
	- Female	%	0.31	0.31	0.06	0.09
	• Others	%	0.12	0.00	0.00	0.00
	- Male	%	0.12	0.00	0.00	0.00
	- Female	%	0.00	0.00	0.00	0.00
	New Employee by Age	Person (s)	179	160	110	100
	• Over 50 years old	Person (s)	2	4	5	2
	- Male	Person (s)	2	2	5	2
	- Female	Person (s)	0	2	0	0
	• 30-50 years old	Person (s)	20	23	15	4
	- Male	Person (s)	13	10	9	1
	- Female	Person (s)	7	13	6	3
	• Below 30 years old	Person (s)	157	133	90	94
	- Male	Person (s)	130	99	84	85
	- Female	Person (s)	27	34	6	9

GRI	Data	Unit	2010	2011	2012	2556
	New Hire Rate by Age	%	3.52	3.09	2.10	1.90
	• Over 50 years old	%	0.04	0.08	0.10	0.04
	- Male	%	0.04	0.04	0.10	0.04
	- Female	%	0.00	0.04	0.00	0.00
	• 30-50 years old	%	0.39	0.44	0.29	0.08
	- Male	%	0.26	0.19	0.17	0.02
	- Female	%	0.14	0.25	0.11	0.06
	• Below 30 years old	%	3.09	2.56	1.71	1.78
	- Male	%	2.56	1.91	1.60	1.61
	- Female	%	0.53	0.66	0.11	0.17
	Employee Satisfaction	%	78.52	90.76	85.51	78.98
LA15	Employee Entitle for Parental Leave*					
	• Male	%	N/A	N/A	100	100
	• Female	%	100	100	100	100
	Number of Employee Taken Parental Leave	Person (s)	20	21	26	88
	• Male	Person (s)	N/A	N/A	1	74
	• Female	Person (s)	20	21	25	14
	Number of Employee Return to Work After Parental Leave	Person (s)	20	21	26	88
	• Male	Person (s)	N/A	N/A	1	74
	• Female	Person (s)	20	21	25	14
	Return to Work Rate					
	• Male	%	N/A	N/A	100	100
	• Female	%	100	100	100	100
	Employee Entitle for Parental Leave Who Still Employed for the Next 12 Months					
	• Male	%	N/A	N/A	100	100
	• Female	%	100	100	100	100
	Retention Rate					
	• Male	%	N/A	N/A	100	100
	• Female	%	100	100	100	100
LA4	Total Employees Covered by Collective Bargaining	%	89	86	86	86
LA10	Training Hours of Male Employees Based in Bangkok	Hours	14,140.00	16,724.50	21,806.00	18,060.50
	• Strategic PG13 Up	Hours	816.00	1,084.50	1,831.00	975.50
	• Managerial PG9-12	Hours	4,380.00	4,349.00	4,060.50	2,760.00
	• Supervisory PG6-8	Hours	5,047.00	6,362.00	9,725.50	9,773.50
	• Operation PG5 Down	Hours	3,897.00	4,929.00	6,189.00	4,551.50
	Training Hours of Female Employees Based in Bangkok	Hours	10,676.00	10,298.00	13,007.00	9,958.00

GRI	Data	Unit	2010	2011	2012	2556
	• Strategic PG13 Up	Hours	482.00	618.00	541.50	123.00
	• Managerial PG9-12	Hours	3,849.00	3,540.50	3,909.00	3,274.50
	• Supervisory PG6-8	Hours	5,274.00	5,049.00	7,255.00	5,617.50
	• Operation PG5 Down	Hours	1,071.00	1,090.50	1,301.50	943.00
	Training Hours of Male Employees Based in Other Areas	Hours	192,500.85	162,073.00	156,636.50	133,187.00
	• Strategic PG13 Up	Hours	2,608.00	2,575.00	1,727.00	1,046.00
	• Managerial PG9-12	Hours	38,245.50	28,189.00	21,872.00	14,065.00
	• Supervisory PG6-8	Hours	88,243.00	65,056.00	81,139.00	79,107.50
	• Operation PG5 Down	Hours	63,404.35	66,253.00	51,898.50	38,968.50
	Training Hours of Female Employees Based in Other Areas	Hours	18,859.50	14,859.00	15,356.00	13,802.50
	• Strategic PG13 Up	Hours	-	-	-	-
	• Managerial PG9-12	Hours	3,667.00	2,129.00	2,165.50	1,492.00
	• Supervisory PG6-8	Hours	7,261.50	5,369.00	6,254.00	6,077.00
	• Operation PG5 Down	Hours	7,931.00	7,361.00	6,936.50	6,233.50
LA14	Equal Remuneration Female/Male					
	Strategic PG13 Up					
	• Average Female Salary (Base Salary Only)	Baht/Person	-	-	-	2,604,160.94
	• Average Male Salary (Base Salary Only)	Baht/Person	-	-	-	2,270,505.74
	Managerial PG9-12					
	• Average Female Salary (Base Salary Only)	Baht/Person	-	-	-	1,213,769.05
	• Average Male Salary (Base Salary Only)	Baht/Person	-	-	-	1,203,528.20
	• Average Female Remuneration (Base Salary and Other Case Incentives e.g. Bonus)	Baht/Person	-	-	-	1,640,343.30
	• Average Male Remuneration (Base Salary and Other Case Incentives e.g. Bonus)	Baht/Person	-	-	-	1,625,359.48
	Supervisory PG6-8 and Operation PG5 Down					
	• Average Female Salary (Base Salary Only)	Baht/Person	-	-	-	506,134.70
	• Average Male Salary (Base Salary Only)	Baht/Person	-	-	-	473,488.10
LA7	Absentee Rate					
	• Male	%	0.39	0.48	0.63	0.46
	• Female	%	0.55	0.60	1.16	0.75

Remark: *No data prior to 2012 due to the allowance of male employees to take parental leave in 2012 (announced 17 December 2012)

SAFETY

0
Fatality

0
case
of oil and
chemical spills
at the sea

24% reduction
in LTIFR for
employee
and 20%
for contractor

Oil and Chemical Spills

GRI	Data	Unit	2010	2011	2012	2013
EN23	Hydrocarbon Spills	Cases	3	7	1	6
	• Petroleum Business	Cases	1	1	0	2
		m ³	50	0.09	0	1
	• Petrochemical Business	Cases	1	4	1	3
		m ³	0.2	0.1	1.06	0.01
	• Port Business	Cases	1	2	0	0
		m ³	0.1	0.12	0	0
	• Other business	Cases	0	0	0	1
		m ³	0	0	0	0.05

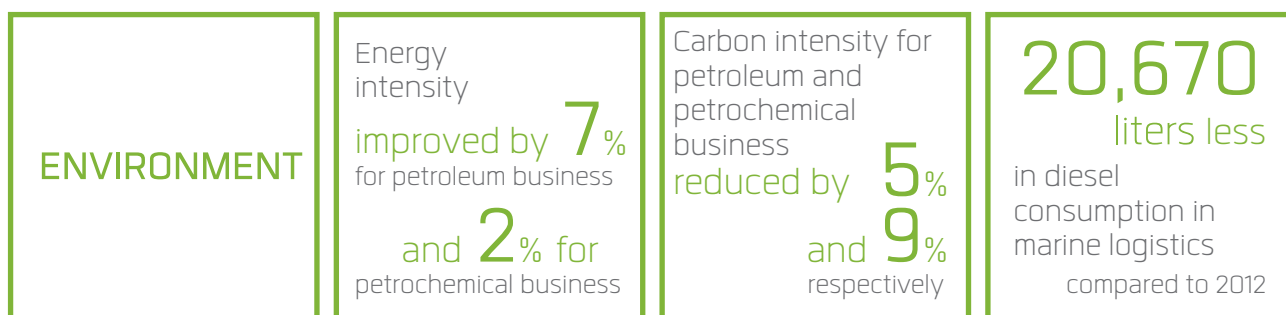
Process Safety

GRI	Data	Unit	2010	2011	2012	2013
OG13	Number of Tier 1 Process Safety Events	Cases	6	11	10	9
	Number of Tier 2 Process Safety Events	Cases	12	17	17	19

Occupational Health and Safety

GRI	Data	Unit	2010	2011	2012	2013
LA7	Total Recordable Injuries Case (TRIC)					
	• Employee	Cases	6	11	6	3
	• Contractor	Cases	6	6	11	16
	Total Recordable Injuries Rate (TRIR)					
	• Employee	Per million hours worked	1.07	1.23	0.65	0.55
	• Contractor	Per million hours worked	2.7	0.44	1.37	1.52
	Lost Time Injuries Frequency Rate (LTIFR)					431
	• Employee	Per million hours worked	0.66	0.61	0.37	0.28
	• Contractor	Per million hours worked	1.5	0.37	0.95	0.76
	Lost Work Day Case (LWC)					
	• Employee	Cases	3	6	3	3

GRI	Data	Unit	2010	2011	2012	2013
	• Contractor	Cases	2	5	7	6
	Fatalities					
	• Employee	Fatalities	0	0	0	0
	• Contractor	Fatalities	1	0	0	0
	Occupational Illness Frequency Rate (OIFR)					78
	• Employee	Per million hours worked	0	0	0	0
	• Contractor	Per million hours worked	0	0	0	0



Materials Consumption

GRI	Data	Unit	2010	2011	2012	2013
EN1	Petroleum Business - Crude Oil	Tonne	8,333,040	7,590,783	8,443,110	8,638,824
	Petrochemical Business - Naphtha	Tonne	724,039	601,586	740,741	781,570

Energy Consumption

GRI	Data	Unit	2010	2011	2012	2013
EN3	Total direct energy consumption	GJ	33,362,081	39,258,292	46,996,100	46,514,605
	• Petroleum Business	GJ	12,166,832	10,757,250	11,923,361	11,313,903
	• Petrochemical Business	GJ	17,207,893	14,656,725	16,997,924	17,645,011
	• Other Business	GJ	9,868,599	18,317,837	23,428,352	24,118,593
	Total direct energy consumption	MWh	9,267,245	10,905,081	13,054,472	12,920,724
	• Petroleum Business	MWh	3,379,676	2,988,125	3,312,045	3,142,751
	• Petrochemical Business	MWh	4,779,970	4,071,312	4,721,645	4,901,392
	• Other Business	MWh	2,741,277	5,088,288	6,507,876	6,699,609
	Direct energy consumption by fuel					
	• Petroleum business					
	Fuel Oil	GJ	3,203,964	3,351,327	2,914,571	2,151,181
	Natural Gas	GJ	0	0	0	0
	LPG	GJ	3,746,437	2,930,538	4,006,012	3,547,694

GRI	Data	Unit	2010	2011	2012	2013
	Diesel	GJ	0	0	0	0
	Gasoline	GJ	0	0	0	0
	Fuel Gas	GJ	731,258	705,236	826,642	936,211
	Coke	GJ	2,032,396	2,032,396	2,302,937	2,344,800
	H ₂ S	GJ	0	1,263	167	135
	Steam	GJ	1,025,945	685,187	723,091	1,025,024
	Electricity generated by IRPC Power Plant	GJ	1,426,834	1,051,303	1,149,941	1,308,858
	Others	GJ	0	0	0	0
	• Petrochemical business					
	Fuel Oil	GJ	3,508,453	1,884,055	1,884,877	1,109,462
	Natural Gas	GJ	0	0	0	0
	LPG	GJ	598,974	714,456	1,198,284	952,315
	Diesel	GJ	747,259	811,245	693,898	544,483
	Gasoline	GJ	0	0	0	0
	Fuel Gas	GJ	8,799,261	8,498,805	9,718,756	10,815,465
	Coke	GJ	0	0	0	0
	Propane	GJ	84,371	0	0	0
	Waste Monomer	GJ	20,776	882	0	0
	Recycle Monomer	GJ	20,334	16,131	23,641	0
	Steam	GJ	1,858,628	1,465,472	1,848,535	2,590,111
	Electricity generated by IRPC Power Plant	GJ	1,569,837	1,265,677	1,629,933	1,633,174
	Others	GJ	0	0	0	0
	• Other Business					
	Fuel Oil	GJ	2,554,224	0	0	0
	Natural Gas	GJ	0	12,888,717	18,196,884	19,746,980
	LPG	GJ	0	0	0	0
	Diesel	GJ	0	69,223	1,040	0
	Gasoline	GJ	0	0	0	0
	Fuel Gas	GJ	0	0	0	0
	Coke	GJ	0	0	0	0
	Steam	GJ	0	0	0	0
	Coal	GJ	7,314,375	5,354,008	5,228,391	4,365,879
	Electricity generated by IRPC Power Plant	GJ	0	5,879	2,037	5,733
	Others	GJ	0	0	0	0
	Energy intensity					
	• Petroleum Business	GJ/ Tonne throughput	1.46	1.42	1.41	1.31

GRI	Data	Unit	2010	2011	2012	2013
	• Petrochemical Business	GJ/ Tonne throughput	23.77	24.36	22.95	22.58
	Total electricity sold to other companies outside IRPC boundary e.g. EGAT, PEA	MWh	382,233	363,196	479,458	485,569
	Total steam sold to other companies outside IRPC boundary	Tonne	1,020,344	1,103,830	1,175,711	1,039,163
EN4	Total electricity purchased from other companies outside IRPC boundary e.g. EGAT, PEA	MWh	1,000,163	184,932	4,080	1,838
	Total steam purchased from other companies outside IRPC boundary	Tonne	50,252	3,365	102	0
EN6	Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirement as a result of these initiatives	GJ	20,819	253,714	1,397,443	263,863
EN29	Total diesel consumed by IRPC owned marine vessels	Litre	1,272,821	761,826	831,056	810,386

Flared and Vented Hydrocarbon

GRI	Data	Unit	2010	2011	2012	2013
OG6	Volume of flared hydrocarbon					
	• Petroleum Business	m ³	5,763	2,899	9,021	14,246
	• Petrochemical Business	m ³	6,522	8,906	3,978	16,852
	• Other Business	m ³	0	0	118	0

Remark: IRPC is working towards the operational excellence, which aims to reduce losses as much as possible. We recover vented and flared gas e.g. monomer recovery unit at PP plant, flared gas recovery unit, etc.

Greenhouse Gas

GRI	Data	Unit	2010	2011	2012	2013
EN16	Total direct emissions of greenhouse gas (1)	Million tCO ₂ e	3.36	2.85	3.41	3.39
	• Petroleum Business	Million tCO ₂ e	1.12	0.84	0.87	0.85
	• Petrochemical Business	Million tCO ₂ e	0.79	0.61	0.88	0.91
	• Other Business	Million tCO ₂ e	1.46	1.40	1.65	1.63
	Total indirect emissions of greenhouse gas(2)	Million tCO ₂ e	0.510	0.094	0.002	0.001
	GHG Intensity					
	• Petroleum Business	tCO ₂ e/Tonne production	0.133	0.110	0.103	0.097
	• Petrochemical Business	tCO ₂ e/Tonne production	0.554	0.472	0.598	0.543

Remark: 1. Direct emissions of greenhouse gases from all sources owned or controlled by IRPC, which includes IRPC Power Plant.

2. Indirect emissions of greenhouse gases from the generation of purchased electricity, heat, or steam, which corresponds with energy consumption reported under EN4.

Air Emissions

GRI	Data	Unit	2010	2011	2012	2013
EN20	Total NOx	Tonne	3,691	2,776	2,745	4,138
	• Petroleum Business	Tonne	596	337	504	588
	• Petrochemical Business	Tonne	871	840	603	677
	• Other Business	Tonne	2,224	1,599	1,638	2,873
	NOx Intensity					
	• Petroleum Business	Tonne/ thousand tonne of production	0.071	0.044	0.059	0.067

GRI	Data	Unit	2010	2011	2012	2013
	• Petrochemical Business	Tonne/ thousand tonne of production	0.615	0.654	0.409	0.404
	Total SOx	Tonne	5,778	2,067	1,357	1,667
	• Petroleum Business	Tonne	1,563	1,261	1,096	1,268
	• Petrochemical Business	Tonne	386	244	161	124
	• Other Business	Tonne	3,829	562	100	275
	SOx Intensity					
	• Petroleum Business	Tonne/ thousand tonne of production	0.187	0.164	0.129	0.145
	• Petrochemical Business	Tonne/ thousand tonne of production	0.272	0.190	0.109	0.074
	Total VOCS					
	• Petroleum Business	Tonne	N/A	N/A	766	684
	• Petrochemical Business	Tonne	N/A	N/A	343	342
	VOC Intensity					
	• Petroleum Business	Kg VOC/ barrel of crude oil	N/A	N/A	0.013	0.011
	• Petrochemical Business	Kg/ tonne naptha	N/A	N/A	0.464	0.437

Remark: (1) IRPC starts tracking its VOC emission in 2012.
(2) N/A = Not Available
(3) SOx reported in the Table is in the form of sulfur dioxide (SO₂).

Water Consumption and Wastewater

GRI	Data	Unit	2010	2011	2012	2013
EN8	Water withdrawn by source	m ³	36,646,788	38,303,016	40,351,785	40,612,460
	• Provincial / Municipal Waterworks Authority	m ³	0	0	0	0
	• IRPC water utility plant	m ³	19,126,788	20,783,016	22,831,785	23,092,460
	• Salt / brackish water	m ³	17,520,000	17,520,000	17,520,000	17,520,000
	• Other source	m ³	0	0	0	0
	Water withdrawn by operations					
	• Petroleum Business					
	Provincial / Municipal Waterworks Authority	m ³	0	0	0	0
	IRPC water utility plant	m ³	3,507,929	3,314,126	3,496,699	3,532,909
	Salt / brackish water	m ³	0	0	0	0
	Other source	m ³	0	0	0	0
	• Petrochemical Business					
	Provincial / Municipal Waterworks Authority	m ³	0	0	0	0
	IRPC water utility plant	m ³	6,313,123	5,490,544	6,104,041	5,776,408
	Salt / brackish water	m ³	0	0	0	0
	Other source	m ³	0	0	0	0
	• Other Business					

GRI	Data	Unit	2010	2011	2012	2013
	Provincial / Municipal Waterworks Authority	m ³	0	0	0	0
	IRPC water utility plant	m ³	9,305,736	11,978,346	13,231,044	13,783,143
	Salt / brackish water	m ³	17,520,000	17,520,000	17,520,000	17,520,000
	Other source	m ³	0	0	0	0
	Water withdrawal intensity					
	- Petroleum business	m ³ /tonne production	0.419	0.431	0.411	0.405
	- Petrochemical business	m ³ /tonne production	4.454	4.277	4.143	3.445
EN21	Total volume of water discharge	Million m ³	1.46	1.59	1.55	1.75
	- Petroleum business	Million m ³	0.92	1.02	1.05	1.23
	- Petrochemical business	Million m ³	0.54	0.57	0.50	0.52
	- Other business	Million m ³	0	0	0	0
	Chemical oxygen demand (COD) in treated wastewater discharged					
	- Petroleum business	Tonne	64.43	79.54	68.73	77.57
	- Petrochemical business	Tonne	93.88	96.89	88.12	87.54
	- Other business	Tonne	0	0	0	0
	Biochemical oxygen demand (BOD) in treated wastewater discharged					
	• Petroleum business	Tonne	12.25	9.75	3.27	5.69
	• Petrochemical business	Tonne	11.46	8.73	1.44	3.08
	• Other business	Tonne	0	0	0	0
	Wastewater discharge intensity		0.615	0.654	0.409	0.404
	• Petroleum business	m ³ / tonne production	0.110	0.133	0.123	0.141
	• Petrochemical business	m ³ / tonne production	0.381	0.444	0.339	0.310

Solid Waste

GRI	Data	Unit	2013
EN22	Total waste disposed	Tonne	21,238
	Non-hazardous waste	Tonne	15,642
	Hazardous waste	Tonne	2,386
	Waste from non-routing operation	Tonne	3,210
	Total waste disposed by method	Tonne	18,029
	Reuse	Tonne	0
	Recycling	Tonne	14,121
	Recovery	Tonne	788
	Incineration	Tonne	1,217
	Landfill	Tonne	1,903
	Others	Tonne	0
	Petroleum business: total hazardous waste disposed	Tonne	716

GRI	Data	Unit	2013
	Reuse	Tonne	0
	Recycling	Tonne	37
	Recovery	Tonne	330
	Incineration	Tonne	320
	Landfill	Tonne	29
	Others	Tonne	0
	Petroleum business: total non-hazardous waste disposed	Tonne	193
	Reuse	Tonne	0
	Recycling	Tonne	184
	Recovery	Tonne	0
	Incineration	Tonne	0
	Landfill	Tonne	9

GRI	Data	Unit	2013
	Others	Tonne	0
	Petrochemical business: total hazardous waste disposed	Tonne	1,630
	Reuse	Tonne	0
	Recycling	Tonne	110
	Recovery	Tonne	419
	Incineration	Tonne	855
	Landfill	Tonne	246
	Others	Tonne	0
	Petrochemical business: total non-hazardous waste disposed	Tonne	348
	Reuse	Tonne	0
	Recycling	Tonne	0
	Recovery	Tonne	0
	Incineration	Tonne	42
	Landfill	Tonne	306
	Others	Tonne	0
	Other business: total hazardous waste disposed	Tonne	40

GRI	Data	Unit	2013
	Reuse	Tonne	0
	Recycling	Tonne	0
	Recovery	Tonne	38
	Incineration	Tonne	0
	Landfill	Tonne	2
	Others	Tonne	0
	Other business: total non-hazardous waste disposed	Tonne	15,102
	Reuse	Tonne	0
	Recycling	Tonne	13,790
	Recovery	Tonne	0
	Incineration	Tonne	0
	Landfill	Tonne	1,312
	Others	Tonne	0
	Total waste from non-routine operation	Tonne	3,209
	Petroleum business	Tonne	480
	Petrochemical business	Tonne	470
	Other business	Tonne	2,259

Environmental Protection Expenditures and Investment and Fines

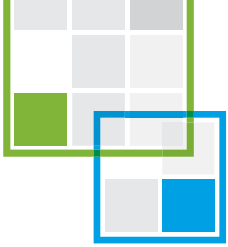
GRI	Data	Unit*	2010	2011	2012	2013
EN30	Costs identified as environmental operations*	Million Baht	-	-	-	154
EN28	Monetary value of significant fines	Million Baht	0	0	0	0
	Number of non-monetary sanctions	Case	0	0	0	0
	Case brought through dispute resolution mechanisms	Case	0	0	0	0

Remark: *IRPC starts tracking its environmental expenditure and investment in 2013.



Philanthropy

GRI	Data	Unit	2010	2011	2012	2013
EC1	Cash contribution	Baht	155,460,058	154,123,422	124,109,082	134,848,855



Awards and Recognitions



International Awards:

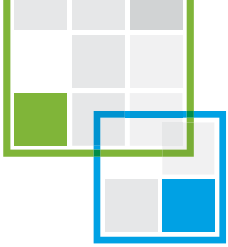
- Asia Outstanding Company on Corporate Governance 2013 award from Corporate Governance Asia Magazine, Hong Kong
- Best Investor Relation award, 3rd Asian Excellence Recognition Awards 2013 program by Corporate Governance Asia Magazine, Hong Kong
- Top 50 Public Listed Companies-Thailand by Asian Development Bank (ADB) in partnership with ASEAN Capital Markets Forum in line with OECD guidelines and Corporate Governance Scorecard
- IRPC reported 4 aspects of the operational performance in line with UN Global Compact commitment since November 2011. In 2013, IRPC had uploaded Sustainability report 2011-2012 on UNGC website on the 11th of September 2013
- IRPC participated in The Dow Jones Sustainability Indices (DJSI) assessment under emerging market universe for the first time in 2013. As a result, IRPC received the score ranged in the top 15% of Oil & Gas producers and has been included in RebecoSam's sustainability yearbook 2014 issued in January 2014

National Awards:

- Thailand Top Company Awards 2013: CSR of the year by University of the Thai Chamber of Commerce in partnership with Business Plus magazine
- IRPC's Ayutthaya depot, received the award of "The Best Health and Environmental Company Award 2013" by the Occupational Health and Safety Bureau, Department of Labor Protection and Welfare.
- Thailand Energy Award 2013 by the Department of Alternative Energy Development and Efficiency, Ministry of Energy: award for the best energy management team, award for the best energy control manufacture, and complimentary award for innovation energy from ZAKID project
- CSRI Recognition 2013 Awards by the Corporate Social Responsibility Institute, Stock Exchange of Thailand, as A listed company with a focus to develop a socially responsible business, which is a good model in sustainable business
- The Prime Minister's Industry Award 2013 by the Ministry of Industry Thailand for Energy Management for Polypropylene production plant



- Sustainability Report Award 2013 by CSR club, Thai Listed Companies Association supported by the Securities and Exchange Commission, Stock Exchange of Thailand and Thaipat Institute.
- IRPC has been assessed with a good corporate governance survey for listed companies 2013 by the Thai Institute of Director. IRPC received “Excellence” for 5 consecutive years (2009-2013)
- IRPC received “Excellence” in the AGM assessment 2013 by the Thai Investor Association for 4 consecutive years (2010-2013)
- IRPC’s AGM meeting 2013 was certified under the concept of “Green Meeting” by Thailand Business Council for Sustainable Development (TBCSD) and Thailand Environment Institute Foundation
- Polypropylene production plant was rewarded with the certificate in participation of the development of infrastructure to support voluntary GHG reduction activities in Thailand using market mechanisms program by Thailand Greenhouse Gas Management Organization (Public Organization) to move towards a low carbon industry.
- Polypropylene production plant received Thailand Quality Class Award-TQC 2013 by Thailand Quality Award
- Thailand ICT Excellence Award 2012 from IRPC Business Intelligence Project. The winner in core process development category and A consolation prize in Behavior Based Safety Program



GRI Content Index & UNGC COP

Approach

This report communicates IRPC's policy, management approach, and economic, social, and environmental aspects of performance spanning from 1st January 2013 to 31st December 2013. To achieve this, IRPC applies the approach of the Global Reporting Initiative (GRI), G3.1 oil and gas sector supplement. IRPC's assessment of content integrity is against GRI at the A level. IRPC will develop its Sustainability Report for 2014 in accordance with GRI G4, which is the latest version of GRI launched in 2012.

Scope

Information disclosure of this report is based on IRPC's degree of control over our affiliates. This report therefore covers only operated businesses, namely the Petroleum Business Unit, Petrochemical Business Unit, Port Business Unit, and Asset Management Business Unit, and subsidiaries with more than 50% IRPC ownership. This report encompasses the policy and management approach to sustainability of IRPC Public Company Limited, Thai ABS Co., Ltd., IRPC Polyol Co., Ltd., and IRPC Oil Co., Ltd. For more information, please refer to our annual report.

Internal Process

Compared with last year, scope of this year's report extends to cover not only IRPC Public Co., Ltd., but also, subsidiaries with more than 50% IRPC ownership. Reviewing and concurring with material issue was the IRPC Corporate Strategic Planning, which ensured accurate and proper content definition and verification of our accuracy.

To download the current and past reports, please log on to www.irpc.co.th

For any inquiry, please contact

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Khet Chatuchak Bangkok 10900 Thailand
Tel. 66 (0) 2649-7000, 66 (0) 2649-7777

1. Strategy and Analysis

Indicator	Description	Page	UNGC Principle	Remarks
1.1	CEO statement	4-5	Statement of Continuing Support	
1.2	Description of key impacts, risks, and opportunities	4-5, 22-23		

2. Organizational Profile

Indicator	Description	Page	UNGC Principle	Remarks
2.1	Name of the organization	6	-	IRPC is public company listed in the Stock Exchange of Thailand. For more information about IRPC please visit our website: http://www.irpc.co.th/other/ir_home_th.html
2.2	Primary brands, products, and/or service	7-9	-	
2.3	Operational structure of the organization	7, 19	-	
2.4	Location of organization's headquarters	6, 114	-	IRPC is a public company listed in the Stock Exchange of Thailand. For more information about IRPC, please visit our website: http://irpc.co.th/en/about.php
2.5	Number of countries where the organization operates	115	-	IRPC has operation in Thailand only.
2.6	Nature of ownership and legal form	6	-	A list of major shareholders can be found on http://www.irpc.co.th/ir_home_th.php
2.7	Markets served	8-9	-	
2.8	Scale of the company	7-9, 98-99	-	
2.9	Significant changes (size/structure/ownership) during the reporting period	115	-	No significant change
2.10	Awards	112-113	-	IRPC Awards: http://www.irpc.co.th/awards.php

3. Report Parameters

Indicator	Description	Page	UNGC Principle	Remarks
3.1	Reporting period	114	-	
3.2	Date of most recent previous report (if any)	115	-	2012. 'IRPC Sustainability Report 2012 provided on http://irpc.co.th/imgadmins/download_file/SDReportENwithGRIstatementforweb.pdf
3.3	Reporting cycle	115	-	Annual basis
3.4	Contact point	114	-	
3.5	Process of defining report content	23, 114	-	
3.6	Boundary of the report	114	-	
3.7	Limitations on the scope/boundary of the report	115	-	This report covers IRPC group, which IRPC are IRPC Public Co., Ltd., IRPC Oil Co., Ltd., IRPC Polyol Co., Ltd., and Thai ABS Co., Ltd. Major shareholder of IRPC Oil, IRPC Polyol and Thai ABS is IRPC holding 99.99% of share. This report exclude other IRPC's entities, subsidiaries and joint ventures which are not stated above i.e. IRPC A&L, PTT Polymer Marketing, Ube Chemicals, Rak Phasak, IRPC Technology, IRPC Clean Power, and PTT Energy Solution.
3.8	Basis for reporting on other partners	115	-	Suppliers and contractors are reported on supply chain management and occupational health and safety sustainability aspects.
3.9	Data measurement techniques and the bases of calculation	99, 104, 108-109, 111, 114	-	
3.10	Re-statements	94-111, 114	-	IRPC expanded the reporting scope to cover IRPC group in 2013.
3.11	Significant changes (scope/boundary/measurement method) from previous reporting periods	114	-	
3.12	GRI content index	114-123	-	
3.13	External assurance policy and practice	115	-	Financial data are externally audited by Third party. Non-financial data are internally reviewed.

4. Governance, Commitments, and Engagement

Indicator	Description	Page	UNGC Principle	Remarks
4.1	Governance structure	17-19	1-10	For more information about our governance, please visit our website: <ul style="list-style-type: none"> • Organization Structure: http://www.irpc.co.th/en/cg_organiz.php • Board of Directors: http://www.irpc.co.th/en/about_board.php • Management Team: http://www.irpc.co.th/en/about_manage.php • Annual Report: http://www.irpc.co.th/en/library.php?typeID=7 • Third Party Assessment of Board: http://www.irpc.co.th/en/cg_level.php • Roles of Board and Executives: http://www.irpc.co.th/en/cg_policy_good.php
4.2	Whether the chair of the highest governance body is also an executive officer	18	1-10	
4.3	Number and gender of board members that are independent and non-executive	18	1-10	
4.4	Mechanisms for providing recommendations	23	1-10	
4.5	Linkage between compensation of seniors & executives and company's performance	19-20	1-10	In 2013 AGM Meeting, the board decided not to receive bonus for the year 2012 due to the business loss.
4.6	Process in place to ensure conflicts of interest are avoided	31-32	1-10	CG handbook: 4.6 Conflict of Interest (http://www.irpc.co.th/pdf/CG/IRPC'CorporateGovernance'Handbook.pdf).
4.7	Process for determining the composition, qualifications, and expertise of the highest governance body	18	1-10	
4.8	Developed statements of mission or values, codes of conduct and principles	21-22, 31-32		
4.9	Procedure overseeing organization's identification and management of economic, environmental and social performance	18-19, 22, 31	1-10	
4.10	Evaluating board effectiveness	19	1-10	
4.11	Precautionary principle	22	7	
4.12	Principles or external initiatives on economic, environmental and social aspects	116	1-10	International standards: http://www.irpc.co.th/en/good_working.php The annual Communication on Progress can be found on http://www.irpc.co.th/en/cg_level_unglobal.php
4.13	Memberships in associations and national/international advocacy organizations	116	-	IRPC is member in various associations and national/international sustainability organizations such as CSR-DIW, UNGC, Responsible Care. For more details of the standards IRPC adopts please visit our website http://www.irpc.co.th/other/ir_home_th.html
4.14 _{COMM}	Stakeholder groups	23	-	
4.15	Basis for identification and selection of stakeholders	23	-	
4.16	Approaches to stakeholder engagement	23, 36, 38-39, 45, 80-81, 85	-	
4.17 _{COMM}	Stakeholders' topics and concerns	23, 81	-	

5. Disclosures on Management Approach

Indicator	Description	Page	UNGC Principle	Remarks
DMA EC	Economics	8-10, 26-29, 35, 38	1,4,6,7	For more information, please refer to our Annual Report.
DMA EN	Environment	26, 34-36, 43, 50, 55, 58-60, 62, 83	7,8,9	
DMA LA	Labor Rights	68-74, 95	1,3,6	
DMA HR	Human Rights	35, 71, 80-81, 83, 85, 93	1,2,3,4,5,6	For more information, please refer to UNGC COP (http://www.irpc.co.th/pdf/CG/irpc-communication_en.pdf), and IRPC's code of ethics: http://irpc.co.th/cg_policy_ethics.php
DMA SO	Society	31-32, 35-36, 50-52, 74, 80-81, 85, 93	10	IRPC abides PTT Group's CG Policies and Codes of Conduct. Thus, IRPC is a politically neutral organization and does not support any political party, group, or politician at the national, international or global levels. IRPC does not support lobbying on inappropriate, unreasonable, or unethical principles such as utilizing personal relationships or offering paybacks.
DMA PR	Product Responsibility	26, 29, 38-39, 61	1,8	The customer's satisfaction and confidence are of great value to IRPC as much as the sustainable relations with customers and the public. To ensure the delivery of good quality and affordable services, IRPC has established procedures as defined in codes of ethics: http://irpc.co.th/en/cg_policy_ethics.php

Performance Indicators

6. Economics

Indicator	Description	Page	UNGC Principle	Remarks
EC1 _{COMM}	Direct economic value generated and distributed	94, 98	-	
EC2 _{COMM}	Implications of climate change	55-62	7	
EC3	Defined benefit plan obligations	70	-	IRPC employees receive compensations and benefits that are above the minimum required by Thai labor laws.
EC4	Financial assistance	98	-	
EC5	Range of ratio of standard entry level wage by gender compared to minimum local wage	70	-	Local minimum wage for workers working in Rayong, where IRPC main operation is located, is at 300 Baht per day (http://www.mol.go.th/en/employee/interesting_information/6319)
EC6 _{COMM}	Locally based suppliers	36-37, 60, 99	-	
EC7 _{COMM}	Local hiring	95	6	IRPC only has its operation in Thailand and all of its employees are Thai
EC8 _{COMM}	Indirect economic impact	86-93	-	
EC9 _{COMM}	Describe significant indirect economic impacts	86-93	-	
OG1	Volume and type of estimated proved reserves and production	117	-	Not applicable. This is because IRPC's petroleum business covers petroleum refinery and lubricant production only.

7. Environment

Indicator	Description	Page	UNGC Principle	Remarks
EN1 _{COMM}	Materials used by weight or volume	106	7,8,9	
EN2 _{COMM}	Percentage of recycled materials used	118	7,8,9	Not material. This is because IRPC main raw material is crude oil, which is difficult to be replaced by other recycled materials.
EN3	Direct energy consumption	106-108	8	
EN4	Indirect energy consumption	108	8	Reported electricity and steam purchased from companies outside IRPC boundary i.e. PEA, IPP, SPP. Those electricity and steam providers use different and several kinds of fuel to produce electricity and steam combining with inaccessibility to fuel consumption data of those energy providers, amount of primary fuel consumed to produce electricity and steam IRPC purchased cannot be acquired.
EN5	Energy saved	58-59	8,9	
EN6	Energy-efficient or renewable energy based products/services	61-62, 108		
EN7	Indirect energy consumption reduction	118	8,9	Not material. This is because, in 2013, IRPC purchased electricity about 0.6% of total electricity consumption and none for steam.
OG2	Renewable energy investment	118	-	Not material. This is because IRPC core business is petroleum and petrochemical businesses. However, IRPC is aware of the importance of clean energy. Both IRPC electricity power plants are combined heat and power plants (CHP) and IRPC promotes the use of natural gas..
OG3	Renewable energy generation	118	-	Not material. This is because IRPC core business is petroleum and petrochemical businesses. However, IRPC is aware of the importance of clean energy. Both IRPC electricity power plants are combined heat and power plants (CHP) and IRPC promotes the use of natural gas.
EN8 _{COMM}	Water withdrawal	109-110	8	
EN9 _{COMM}	Water sources affected by water withdrawal	56-57	8	
EN10	Water recycled and reused	56	8, 9	
EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	118	8	IRPC main facilities are located at IRPC Industrial Estate, where biodiversity is not a concern. However, IRPC is aware that its operation i.e. ship-to-ship lightering and loading/unloading at IRPC Ports may cause an impact on biodiversity. IRPC conducted oil spill model according to international standard. The study covers oil spill patterns, sensitive areas, and potentially impacted marine species. IRPC has developed a prevention and respond plan based on these results. However, results of the study are considered business sensitive and confidential.
EN12	Description of significant impacts on biodiversity	118	8	
EN14 _{COMM}	Strategies and plans for managing impacts on biodiversity	50	8	
OG4	Operating sites with biodiversity risk assessment	50	-	
EN16 _{COMM}	Direct and indirect GHG	108	8	
EN17 _{COMM}	Other relevant indirect GHG	118	8	Not available. IRPC calculates its Scope 1 & 2 GHG based on PTT Group GHG accounting and reporting standard. Scope 3 GHG emission will be included once the latest version of PTT Group GHG standard are officially launched.
EN18 _{COMM}	Initiative to reduce GHG	58-60	8	

Indicator	Description	Page	UNGC Principle	Remarks
EN19	Emission of ODS	119	8	Thailand has participated as a party to the Vienna Convention so the Government has prohibited the import and production of CFC, a significant ozone depletion substance, since 2010 and is reducing the import of HCFC aiming to achieve zero production and import of HCFC by 2030. IRPC is in the process of phasing the ozone-depleting substances (ODS) by substituting ODS with non-ODS refrigerants in which we hope to complete the phase-out process in near future.
EN20 _{COMM}	NOx, SOx, and other emissions	108-109	8	
EN21	Water discharge	110	8	Wastewater treatment process of IRPC is effectively designed, operated and monitoring to assure qualities of treated wastewater are in compliance with relevant standards, prior to discharging to the industrial estate receiving canal and to the sea.
EN22 _{COMM}	Waste	110-111	8	
EN23 _{COMM}	Spills	105	8	
OG6	Volume of flared and vented hydrocarbon	108	-	Vented hydrocarbon is not material since IRPC is working towards the operational excellence, which aims to reduce losses as much as possible. IRPC recovers vented and flared gas by, for example, monomer recover unit at PP plant, flared gas recovery unit, etc.
EN26 _{COMM}	Initiatives to mitigate environmental impacts of products and services	26-29, 61-62	7,8,9	
EN27	Percentage of products sold and their packaging materials that are reclaimed by category.	119	8,9	Reporting of percentage of packaging materials is not material. Due to highly varied end uses in which IRPC products are consumed, no estimate of the downstream product reclamation rates have been undertaken. IRPC does not directly supply to end-users and our customers receive IRPC products in bulk.
OG8	Benzene, Lead and Sulfur content in fuels.	119	-	IRPC's products are in compliance with environmental laws and regulations. For more information please visit: http://www.irpcpetroleum.com/en/ProductRefined.aspx
EN28	Environmental fines and sanctions	111	8,9	No fine and non-monetary sanction for non-compliance with environmental law and regulations in 2013.
EN29	Environmental impact of product and services transportation	108	-	
EN30	Total environmental protection expenditures and investment by type	111	-	

8. Labor Practices and Decent Work

Indicator	Description	Page	UNGC Principle	Remarks
LA1	Total workforce	99	6	
LA2	Rate of new employee hires and employee turnover	100-103	6	
LA3	Benefits for employees	69-70, 99		
LA4	Employees covered by collective bargaining agreements	103	1, 3	
LA5	Notice period regarding operational changes	120	3	Reporting on the minimum notice regarding significant operation changes is not material. IRPC keeps employees well informed of operational changes through a variety of channels. Business and functional specific news are communicated through our intranet that can be accessed by any employee in Thai language. In addition, leaders consistently communicate any changes to IRPC employees in a timely and effective manner. While there is no minimum time frame for notifying our employees of significant operational changes, IRPC makes every effort to give a reasonable amount of notice to all employees in the event of a significant change.
LA7 _{COMM}	Rates of injury, occupational diseases, lost days, absenteeism, fatality	104-106	1	
LA8	Training regarding serious diseases.	76-77	1	
LA9	Health and safety topics covered in formal agreements with trade unions	72	-	
LA10	Training hours	103-104	-	
LA11	Programs for skills management and lifelong learning	69-70	-	
LA12	Employee performance review	120	-	IRPC mandates the performance review to be conducted on a regularly basis. Individual performance is reviewed against agreed key individual performance indicators set forth. Results are to be used to determine salary and benefits.
LA13	Composition of governance bodies and breakdown of employees	99-100	1, 6	
LA14	Basic salary and remuneration	104	1, 6	
LA15	Return to work after parental leave	103	-	

9. Human Rights

Indicator	Description	Page	UNGC Principle	Remarks
HR1	Significant investment agreements and contracts undergone human rights screening	121	1-6	IRPC only conducts business with supplier/vendor/contractor who do not violate human rights. This can be seen that IRPC includes the human right screening during local and international vendor/supplier/contractor screening process. The human right clauses are included in IRPC Approved Vendor List and Approved Contractor List. Find more details in page 25-26. Additionally, human rights are included in the Thai Labour Law and Constitution; thus, all companies residing in Thailand must follow those Law and regulations.
HR2	Significant suppliers and contractors undergone human rights screening	99	1-6	
HR3	Employee training concerning aspects of human rights	121	-	IRPC include human rights in its regular training sessions. The training is provided to new employees during the orientation and to existing employees during the refresher sessions. Hours of training are collected in total; thus, we cannot separate human right training hours from other categories.
HR4	Non-discrimination	121	1,2,6	No incidents of discrimination in 2013
HR5	Freedom of association and collective bargaining	121	1,2,3	There was no case of child labor, forced labor, employee dismissal or any obstruction against the assembling of employees for negotiation process.
HR6	Child labor	121	1,2,5	There was no case of child labor, forced labor, employee dismissal or any obstruction against the assembling of employees for negotiation process.
HR7	Forced and compulsory labor	121	1,2,4	There was no case of child labor, forced labor, employee dismissal or any obstruction against the assembling of employees for negotiation process.
HR8 _{COMM}	Security practices	121	-	UNGC Communication on Progress (COP), Page 8 (http://www.irpc.co.th/en/cg_level_unglobal.php)
HR9 _{COMM}	Violation involving rights of indigenous people	121	-	Not applicable. Bangkok and Rayong, where IRPC businesses are located, do not have any indigenous people living in those Provinces according to UN definitions.
HR10	Operations that have been subject to human rights reviews/or impact assessments	121	-	Human rights are included in the public participation hearing, environmental, health, and social impact assessment.
HR11	Grievances related to human rights	121	-	No incident of human rights grievance and violation in 2013
OG9	Operations where indigenous communities are present or affected by activities	121	-	None of our site is involved with indigenous communities according to UN definitions.

10. Society

Indicator	Description	Page	UNGC Principle	Remarks
SO1	Impacts of operations on communities	80-83, 85, 93	-	
SO2	Business units analyzed for risks related to corruption	33	10	
SO3	Anti-corruption training	122	10	IRPC communicates the Policies and Code of Conduct via internal magazines and intranet. IRPC is also preparing the anti-bribery and corruption training session for both non- and management employees. It is expected that the training sessions will be held in 2014.
SO4	Response to corruption incidents	31	10	Rules regarding actions in case of failure to comply with CG handbook including corruption are stated in CG handbook. However in 2013, there was no finding with regards to corruption, thus no action was taken.
SO5 _{COMM}	Participation in public policy development and lobbying	122	1-10	IRPC abides PTT Group's CG Policies and Codes of Conduct. Thus, IRPC is a politically neutral organization and does not support any political party, group, or politician at the national, international or global levels. IRPC does not support lobbying on inappropriate, unreasonable, or unethical principles such as utilizing personal relationships or offering paybacks.
SO6	Political contribution	122	10	IRPC abides PTT Group's CG Policies and Codes of Conduct. Thus, IRPC is a politically neutral organization and does not support any political party, group, or politician at the national, international or global levels. IRPC does not support lobbying on inappropriate, unreasonable, or unethical principles such as utilizing personal relationships or offering paybacks.
SO7	Actions for anti-competitive behavior	122	-	No legal actions for anti-competitive behaviors, anti-trust, and monopoly practices in 2013.
SO8 _{COMM}	Fines and non-monetary sanctions for non-compliance with laws	122	-	No incidents of non-compliance with law and regulations in 2013.
SO9 _{COMM}	Operations with potential/actual impacts	82-83	-	
SO10 _{COMM}	Preventions and mitigations measures	80-83	-	
OG10	Number and description of significant disputes with local communities and indigenous peoples	122	-	Not applicable. Bangkok and Rayong, where IRPC businesses are located, do not have any indigenous people living in those Provinces according to UN definitions.
OG11	Numbers of sites that have been decommissioned and sites that is in the process of being decommissioned	122	-	No sites were decommissioned in 2013.
OG12	Operations where involuntary resettlement took place, the number of households resettled in each and how their livelihoods were affected in the process	122	-	All IRPC capital projects and operations are located within IRPC property to avoid impacts to communities and resettlement. Thus in 2013, none of our projects or operations has required relocation.
OG13	Number of process safety events, by business activity	105	-	

11. Product Responsibility

Indicator	Description	Page	UNGC Principle	Remarks
PR1	Health and safety impacts of products and services	26	1	IRPC business is considered as business-to-business type, meaning that IRPC products are used as raw materials for its clients. Thus, life cycle of product considers from cradle-to-gate. Packaging, marketing, distribution, use, and disposal stages are not material for IRPC.
PR2	Incidents of non-compliance concerning health and safety impacts of products	123	1	No incidents of non-compliance concerning product health and safety impacts in 2013.
PR3	Product information requirements	26	8	
PR4	Incidents of non-compliance concerning products and service information and labeling	123	8	No significant fine for non-compliance with laws, regulations and voluntary codes concerning products and service information and labeling was reported in 2013.
PR5	Customer satisfaction	39, 99	-	
PR6	Programs for adherence to laws related to marketing communications	123	-	IRPC marketing communications are in compliance with Thailand's laws and regulations.
PR7	Incidents of non-compliance with regulations concerning marketing communications	123	-	No significant fine for non-compliance with laws, regulations and voluntary codes concerning marketing communications was reported in 2013.
PR8	Complaints regarding breaches of customer privacy and losses of customer data.	99, 123	1	No complaints regarding breaches of customer privacy and losses of customer data in 2013.
PR9	Fines for non-compliance with laws and regulations concerning the provision and use of products and services.	123	-	No significant fine for non-compliance with laws and regulations concerning products and services was reported in 2013.
OG14	Volume of biofuels produced and purchased meeting sustainability criteria.	61-62	-	

Note:

Blue text means additional indicators

Subscript COMM means indicators with added commentary in GRI Oil and Gas Sector Supplement

AR: Annual Report (<http://www.irpc.co.th/en/library.php?typeID=7>) [English/Thai]

CG: Corporate Governance Handbook (http://www.irpc.co.th/pdf/CG/MANUAL_CG_2552.pdf) [Thai]

CG Policy: http://www.irpc.co.th/en/cg_policy_good.php [English/Thai]

Code of Ethics: http://www.irpc.co.th/en/cg_policy_ethics.php [English/Thai]

Code of Conduct: http://www.irpc.co.th/en/cg_policy_conduct.php [English/Thai]

UNGC COP: UNGC Communication on Progress 2013 (http://www.irpc.co.th/pdf/CG/irpc-COMMunication_en.pdf) [English]



Statement GRI Application Level Check

GRI hereby states that **IRPC Public Company Limited** has presented its report "Excellence For Sustainability"(2014) to GRI's Report Services which have concluded that the report fulfills the requirement of Application Level A.

GRI Application Levels communicate the extent to which the content of the G3.1 Guidelines has been used in the submitted sustainability reporting. The Check confirms that the required set and number of disclosures for that Application Level have been addressed in the reporting and that the GRI Content Index demonstrates a valid representation of the required disclosures, as described in the GRI G3.1 Guidelines. For methodology, see www.globalreporting.org/SiteCollectionDocuments/ALC-Methodology.pdf

Application Levels do not provide an opinion on the sustainability performance of the reporter nor the quality of the information in the report.

Amsterdam, 21 March 2014

A handwritten signature in black ink, appearing to read "Ásthildur Hjaltadóttir".

Ásthildur Hjaltadóttir
Director Services
Global Reporting Initiative

The Global Reporting Initiative (GRI) is a network-based organization that has pioneered the development of the world's most widely used sustainability reporting framework and is committed to its continuous improvement and application worldwide. The GRI Guidelines set out the principles and indicators that organizations can use to measure and report their economic, environmental, and social performance. www.globalreporting.org

Disclaimer: Where the relevant sustainability reporting includes external links, including to audio visual material, this statement only concerns material submitted to GRI at the time of the Check on 12 March 2014. GRI explicitly excludes the statement being applied to any later changes to such material.



Readers' Feedback



Please make symbol X in and provide any additional comments

1. Where did you read IRPC Sustainability Report 2013 (Can choose more than 1 answer)

Workplace Library Governmental office/academic institution Others, please specify

2. Please rate your satisfaction score of IRPC Sustainability Report 2013

Overall satisfaction of the content and format of presentation		<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Cover	Interestedness	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Content	Interestedness	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
	Usefulness of information	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Picture	Interestedness	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
	Relation to content	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
	Picture size	<input type="checkbox"/> Too small	<input type="checkbox"/> Good	<input type="checkbox"/> Too big
	Improve understanding of content	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Little
Writing Language		<input type="checkbox"/> Difficult to understand	<input type="checkbox"/> Easy to understand	<input type="checkbox"/> Not understand

1. Please rate your interest in the contents of IRPC Sustainability Report 2013

CEO Statement	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Business Context	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
IRPC's EIZ Progress	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Sustainability Management of IRPC	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Product Specialty	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Anti-Bribery and Corruption	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Supply Chain Management	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Customer Relationship Management	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Environmental Management	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Oil and Chemical Spills and Response Plan	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Climate Change Risk Assessment and Adaptation	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Employee Readiness	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Occupational Health and Safety	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
New Project Development	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Community Relations and Development	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Performance Summary	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Awards and Recognition	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low

4. What additional contents would you like to find in IRPC Sustainability Report 2013?

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5. Please specify types of reader's perspective

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.....

Please send the form to this address

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