



ANNUAL REPORT 2014
PTT Global Chemical Public Company Limited

PTTGC operates in accordance
with international standards
by Thais...**FOR THAIS**

1

1st ranked ASEAN's
Olefins production capacity

8.8
million TPA of
petrochemicals
capacity totally

18
plants operated
in Thailand

8
8th ranked ASIA's
Olefins production
capacity.

6

6th ranked
and is TOP 10%
DJSI world members

MEMBER OF
**Dow Jones
Sustainability Indices**
In Collaboration with RobecoSAM



7

international business
operation in
7 countries

2

consecutive years of
Carbon Disclosure
Leadership Index



22

22nd rank in 100 **leading
chemicals companies**
in highest revenue earning



100

1 of 100 in **Global Compact**
100 Sustainability Index
from the United Nations



100+

products exported
to more than
100 countries
worldwide

EXCELLENCE CREATES **SUSTAINABILITY**



DELIVERING SUSTAINABLE GROWTH THROUGH WORLD-CLASS STANDARD



To create maximum and sustainable return

Strive toward generating maximum return to shareholders and stakeholders, through excellent and professional performance. This is to create a balance in sustainable business operation.



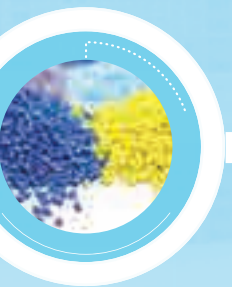
To create competitiveness

Create new business opportunity through business investment expansion overseas for enhanced competitiveness as well as growth on green chemicals and high volume specialty products.



To create trust

On the ground that we are Thai company, we devoted to deliver a better quality of life of Thais. The trust from Thai citizens is essential for business operation, taken as a driving force to do our best for society.



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VISION

“ TO BE A LEADING
CHEMICAL COMPANY
FOR BETTER LIVING ”

- We deliver the best business performance through trustworthiness to create fair and sustainable value for shareholders
- We engage and integrate social and environment to our business with responsibility and care for sustainable development
- We provide superior solutions from innovative products and services to be the best choice for business partners
- We create a learning organization and a happy workplace to cultivate proficient workforces with profound engagement and commitment to professional excellence

MISSION

Objectives and Goals

PTT Global Chemical Public Company Limited (PTTGC) reviews the Vision, Mission and Corporate direction annually through strategic planning process to ensure the alignment with an ever-changing global contexts and future business trends. For the year 2014-2023, we have aspirations to become the industry's leader in 3 dimensions as follows ;



Business growth : We aim to generate continuous and sustainable growth as we are a leading petrochemical producer with integrated value chain, prominent competitiveness and many operations and subsidiaries in various countries



Return on investment : We aim to achieve a top quartile performance among Asia Pacific's leading players in terms of the return on investment and fairly deliver the return to all stakeholders



Sustainability : We aim to operate our business based on the balance between economy, society and environment to ensure sustainability



Corporate Strategy

PTTGC's corporate direction and strategies focus on creating and sustaining the competitiveness of core asset to build a strong foundation for business growth, as well as preparing the key enablers to support future plans. We engage these strategies as a framework for business operation with regular monitoring to ensure the achievement of short term and long term goals. Our strategies consist of 3 strategic pillars and 1 enabler strategy as below ;

1) Sustain core

To sustain competitiveness of current assets among challenging and volatile business environment, we focus on 3 main initiatives

- Feedstock optimization to ensure reliability of supply and competitiveness by sourcing alternative feedstock from global market. Also, reconfigure current assets to be ready for new types of feedstock
- Regularly keep up with the operational excellence to attain first quartile performance through various programs, i.e. plant reliability, energy efficiency, turnaround excellence, utility management and synergy projects among PTT Group
- Maximize value creation from existing business through marketing excellence, new product derivatives with value added and debottlenecking projects

2) Accelerate growth

To explore investment opportunities both locally and internationally where there is the growth potential through business partnerships

- Build new competitive sites to capture feedstock and market opportunities
- Move towards High Volume Specialties (HVS) to create value added and response to growing end use market demand in Thailand, ASEAN and China

3) Green

Leveraging Thailand competitive advantage in abundant agriculture products by using as bio based feedstock to create more value and paving the way for new business opportunity in green business for sustainability

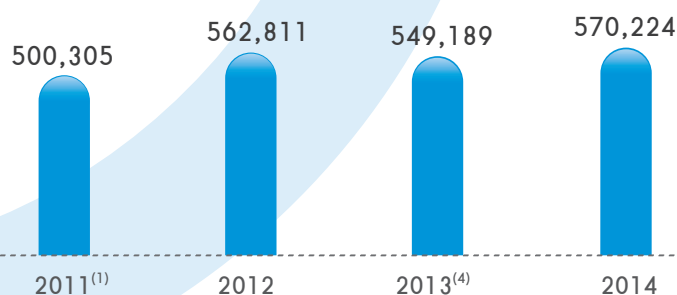
4) Strengthen enablers

Strengthen the key enablers to support corporate strategy by developing organization's capabilities and accelerate tangible outcomes from functional excellence programs, i.e. improve management system to reinforce organizational effectiveness, build up people competency to cultivate performance oriented culture and enhance sustainability development by embracing the balance among economy, society and environment

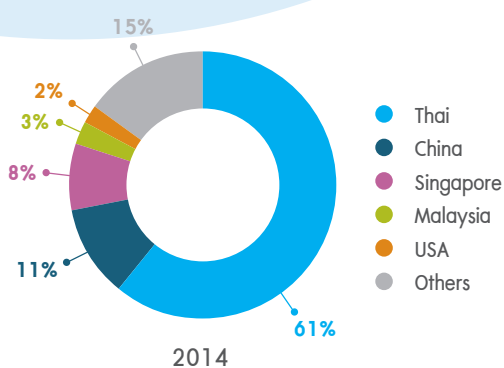
FINANCIAL HIGHLIGHTS

Sales Revenue

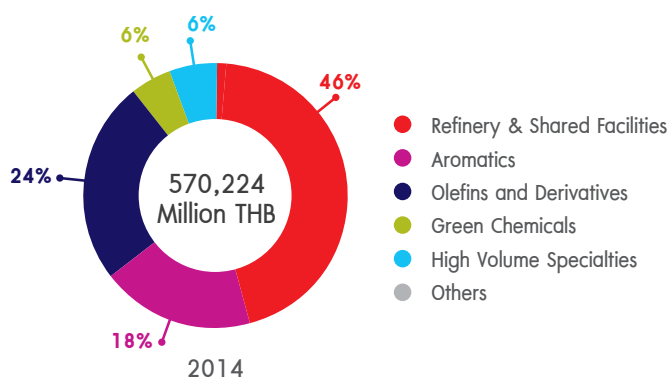
Unit : Million THB



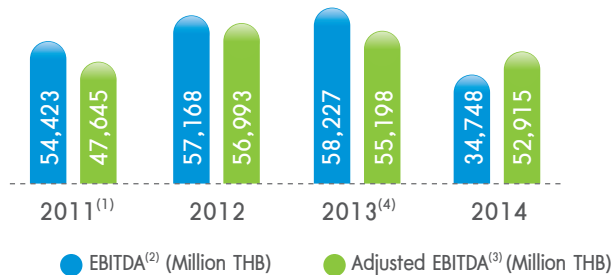
Sales Revenue Breakdown by Geography



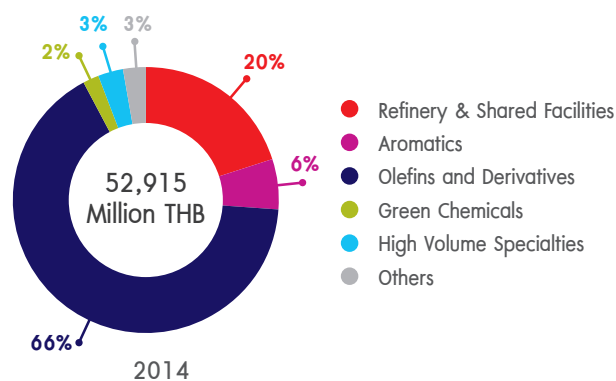
Sales Revenue Breakdown by Business



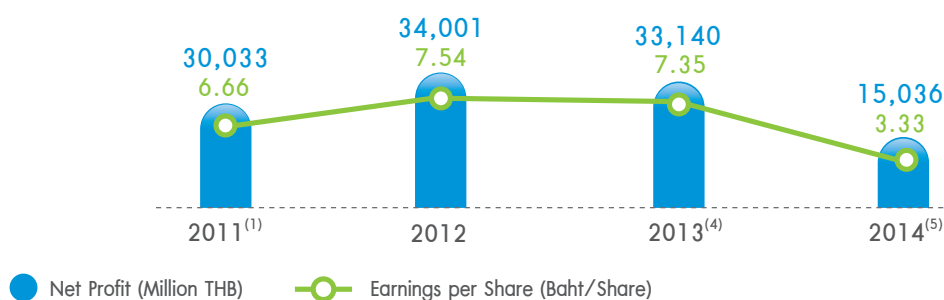
EBITDA⁽²⁾



Adjusted EBITDA⁽³⁾ Breakdown by Business



Net Profit



STATEMENT OF FINANCIAL POSITION (Million THB)	2011 ⁽¹⁾	2012	2013 ⁽⁴⁾	2014
TOTAL ASSETS	372,967	436,062	432,710	404,752
Cash and Cash Equivalents + Short-term Investment	22,606	60,062	44,384	47,405
Current Assets	82,631	100,830	116,132	84,135
Property, Plant and Equipment	235,343	240,497	230,934	231,209
Non-current Assets	32,387	34,673	41,261	42,003
TOTAL LIABILITIES	164,513	198,017	187,352	162,876
Loan	120,165	136,856	120,222	118,249
Other Liabilities	44,348	61,161	67,130	44,627
TOTAL EQUITY	208,454	238,045	245,358	241,876

FINANCIAL RATIO	2011 ⁽¹⁾	2012	2013 ⁽⁴⁾	2014
Current Ratio (times)	1.75	2.31	1.93	2.13
EBITDA to Revenue (%)	10.88	10.16	10.60	6.09
Net Profit on Revenue (%)	6.00	6.04	6.03	2.64
Return on Total Assets (%)	10.79	10.43	9.39	4.68
Return on Equity (%)	15.13	16.16	14.38	6.29
Interest Bearing Debt to Equity (times)	0.58	0.57	0.49	0.49
Net Interest Bearing Debt to Equity (times)	0.47	0.32	0.31	0.29
Net Interest Bearing Debt to EBITDA (times)	1.79	1.34	1.30	2.04

Dividend Paid (Baht/Share)			Earnings per Share (Baht/Share)	Dividend Pay out Ratio (%)	
1 st Half	2 nd Half	Full year			
2014 ⁽⁵⁾	1.37	1.00	2.37	3.33	71%
2013 ⁽⁴⁾	1.62	1.78	3.40	7.35	46%
2012	0.95	2.45	3.40	7.54	45%
2011 ⁽¹⁾	1.68	1.30	2.98	6.66	45%

Note :

- (1) From Pro-forma consolidated financial statements.
- (2) EBITDA is Earnings before Interest, Taxes, Depreciation and Amortization.
- (3) Adjusted EBITDA refers EBITDA excluding impact of inventory value (Inventory and NRV) and the impact from business restructuring of Vencorex.
- (4) Restated 2013 Income Statement from the implementation of new accounting standard no. 19 regarding employee benefit.
- (5) The Board of Directors of the Company at the Meeting No. 2/2015 held on February 16, 2015, passed the resolution to propose the 2015 Annual General Meeting of Shareholders for approval on the dividend payment for the year 2014 operating performance of Baht 2.37 per share or 71% of the net profit of consolidated financial statements (62% of the net profit of separated financial statements), of which Baht 1.37 per share was paid as an interim dividend on September 12, 2014 and the final dividend payment will be Baht 1 per share. However, the right to receive dividend is subject to the approval of Shareholders at the 2015 Annual General Meeting.

MAJOR EVENTS AND ACTIVITIES IN 2014

● January 2nd, 2014 Change in shareholdings of the Myriant Corporation

The Myriant Corporation, has purchased shares from existing shareholders totaling 3,406,569 shares and decreased some issued and outstanding shares. This resulted in the company's shareholding of Myriant to 84.21%. As of year ended 2014, the Company holds 84% of Myriant's share from employee warrants exercise.

the two parties. The partnership would encompass the study for collaboration opportunities in the Cracker Downstream Olefins Industry, the provision of technical support, petrochemical development, as well as, the possibilities to establish a joint venture that focuses on marketing research and sales development of premium-grade polymer - including the establishment of a Polymer Development and Service Center in the People's Republic of China.

● January 13th, 2014 Business Continuity Management

PTTGC enacted its Business Continuity Management plan in the face of political instability during 2014. Employees were able to work, and the Company was able to conduct their normal business without any impact on business partners.

● May 27th, 2014 MOU Signing Ceremony between CPRAM and PTTGC

PTTGC signed MOU to participate in a collaborative project with CPRAM Co., Ltd. to develop innovative packaging, to improve the quality and increase the value of plastic products, helping to best meet market demands and customer expectations. Furthermore, this allows PTTGC to expand its plastic resin business into the packaging industry for both domestic and foreign customers.

● January 23rd, 2014 Certification for Carbon Footprint Organization

PTTGC's Olefins plant I-1 was certified by Carbon Footprint Organization by the Thailand Greenhouse Gas Management Organization (Public Organization)



● January 29th, 2014 Piling Ceremony for the HDI Derivative Project

Executives from PTTGC and Vencorex presided over a piling ceremony for HDI derivative project located in the Hemaraj Industrial Estate in Rayong Province.



● February 18th, 2014 Shutdown of Olefins Plant I-4/1

PTTGC halted the operations of its Olefins plant I-4/1, normally capable of producing 515,000 KTA of ethylene and 310,000 KTA of propylene. Shutdown was due to repair of the Quench Oil Tower.

● February 20th, 2014 LOI Signing Ceremony Between Sinochem Group and PTTGC

PTTGC signed the Letter of Intent (LOI) with Sinochem Group to determine the scope of business collaboration between



● June 19th, 2014 Piling Ceremony for the Aromatics II – Debottlenecking Project

A ceremonial piling ritual for the Aromatics II - Debottlenecking project was held in the RIL Industrial Estate in Rayong Province. The project's aim is to expand the production of Aromatics to reach levels of 1,240,000 KTA.

● June 23rd, 2014 Registered capital in PT Indo Thai Trading

PTT Chemical International Private Limited (CH Inter; a 100% owned subsidiary of PTTGC) registered capital in PT Indo Thai Trading (ITT) with PT Pertamina Patra Niaga (Patra Niaga; a 100% owned subsidiary of Pertamina), located in Jakarta, Indonesia. By Patra Niaga owned 51% of PT Indo Thai Trading's shareholding, while CH Inter owned 49%.



● **August 8th, 2014 Issuance and Offering of Bond Debentures (in THB)**

PTTGC issued and offered “Debentures of PTT Global Chemical Public Company Limited No. 1/2014 due 2021”, with a principal amount 10 billion THB. Bearing interest at a rate 4.5% annually. The debentures are unsecured and unsubordinated with a debentures' representative and are issued in a name - registered form.

● **August 19th, 2014 Launching Bioplastic (PLA) of Yogurt Cup for the First Time in Thailand and Asia**

PTTGC, Dairy Home Co., Ltd., and NatureWorks Asia Pacific Co., Ltd., a subsidiary of PTTGC proportionate by 50% shareholding, jointly announced the use of bioplastic (PLA) yogurt cup. For the first time that have been used in a commercially viable way in Thailand and Asia.



● **August 28th, 2014 Change in Shareholding Structure of Vencorex Holding**

PTTGC Internationals (Netherlands) B.V.(a 100% owned subsidiary of PTTGC), has purchased 34% of the registered capital in Vencorex Holding from Perstorp Holding AB and will make PTTGC Group's shareholding in Vencorex Holding change from 51% to 85%.

● **September 15th, 2014 Shutdown of Aromatics Complex II**

PTTGC shutdown its Aromatics Complex II, which was able to produce 1,070,000 KTA of aromatics products. Stoppage was done to repair the reactor of the Platforming Unit.

● **September 22nd, 2014 Appointment of President & Chief Executive Officer**

At the meeting of the Company Board of Directors No. 9/2014, a resolution was passed to select Mr. Supattanapong Punmeechaow to be President & Chief Executive Officer and

acting Secretary to Board of Director. The effective date from October 1st, 2014 onwards.

● **September 24th, 2014 Carbon Footprint Certification**

PTTGC's Olefins Plant I-4 and Oil Refinery was certified for Carbon Footprint Reduction (CFR). Furthermore, the Company's Olefins Plant I-4 and Ethylene Plant was certified as Carbon Neutral. These certifications were provided in Sustainability Report 2013 and Annual Report 2013 from the Thailand Greenhouse Gas Management Organization (Public Organization).

● **September 30th, 2014 The Inaugural Ceremony of the new Chief Executive Officer**

Mr.Bowon Vongsinudom, the outgoing President & Chief Executive Officer, passed on duties and responsibilities as well as welcomed Mr.Supattanapong Punmeechaow as PTTGC's President & Chief Executive Officer, effective from October 1st, 2014 onwards.



● **November 5th, 2014 Business Continuity Management System Certification**

PTTGC's Olefins Plant I-1 was certified for its Business Continuity Management System that met ISO22301 : 2012 standards. Certification was performed by the Management System Certification Institute.

● **December 15th, 2014 Opening of Vencorex Holding Office in Shanghai**

PTTGC opened its Vencorex Holding office in Shanghai, People's Republic of China. The office expands the operation's footprint further into the Asia Pacific region. The office will function as a trading company to help meet the needs of its customers in a more efficient way.

AWARDS AND RECOGNITIONS



MEMBER OF
Dow Jones Sustainability Indices
In Collaboration with RobecoSAM

TOP

DOW JONES SUSTAINABILITY INDICES

Second consecutive years ranked in Top 10% of Dow Jones Sustainability Indices (DJSI) - World Members, and as 6th of the world's leading chemicals companies in 2014



EXCELLENCE

ICIS 2014

Ranked 22nd out of ICIS's top 100 leading petrochemical companies, based on performance excellence and acceptance by businesses and stakeholders in 2014



TRUST

GLOBAL COMPACT 100 SUSTAINABILITY STOCK INDEX 2014-2015

Only Thai company was recognized among the top 100 companies worldwide by the Global Compact for conducting outstanding social responsibility with business continuity following the UNGC principles. PTTGC has been member of the UNGC Advanced Level for 3 years in a row.



EXCELLENCE

GLOBAL REPORTING INITIATIVES

PTTGC Sustainability Report 2014 was prepared according to the GRI G4 Guidelines at in accordance core level and verified by LRQA.



EXCELLENCE

CARBON DISCLOSURE PROJECT

Ranked among Climate Strategy leading companies under the Carbon Disclosure Project (CDP) for two consecutive years



RESPONSIBILITY

ISO 50001

ENERGY MANAGEMENT SYSTEM

All PTTGC group's plants have received certifications of ISO 50001 Standard, Energy Management System

The commitments to operate our business with sustainability can be demonstrated through the awards and success we received both nationally and internationally. Our pride from the awards and recognitions has been motivating us in striving for better things to improve.



EXCELLENCE

FORBES 2014 GLOBAL 2000

Ranked 687th out of 2,000 listed companies worldwide, based on sales revenue, profits, assets, and market capitalization



EXCELLENCE

CORPORATE GOVERNANCE ASIA AWARDS 2014

THE BEST OF ASIA 2014: Asia's Most Promising Company on Corporate Governance. One of 12 Asian companies so recognized by the Corporate Governance Asia journal



EXCELLENCE

PLATTS GLOBAL ENERGY AWARDS 2014

Received the Awards of Excellence plaque in Midstream category, recognizing companies with clear business strategies for their supply chains as well as decent business performance by Platts



EXCELLENCE

THAILAND TOP CORPORATE BRAND VALUES 2014

Winning this top award in the Industrial Goods category for the three consecutive years, PTTGC boasts 48.852 billion Baht in organization brand value, measured by Corporate Brand Success Valuation (CBS Valuation).



EXCELLENCE

ASIA RESPONSIBLE ENTREPRENEURSHIP AWARDS 2014

The Luffala project won Asia Responsible Entrepreneurship Awards 2014 - CSR SME which underscored PTTGC's social responsibility excellence in sustainable development.



EXCELLENCE

ASIA SUSTAINABILITY

According to Channel News Asia-Sustainability Ranking 2014, PTTGC ranked 1st and 11th in Thailand and Asian, respectively.



TRUST

CSR RECOGNITION AWARDS 2014 TOP CORPORATE GOVERNANCE REPORT AWARDS 2014

Received CSR Recognition Awards 2014 (Rising Star) for outstanding CSR activities companies, and Top Corporate Governance Report Awards 2014 for listed companies with an outstanding good corporate governance reporting for 2014



TRUST

COLLECTIVE ACTION COALITION AGAINST CORRUPTION

Received certificate of Collective Action Coalition Against Corruption (CAC) from Anti-Corruption Organization of Thailand.



RESPONSIBILITY

CARBON NEUTRAL

Thailand's first company received Carbon Neutral certifications for the Annual Report and Sustainability report 2013, presented by Thailand Greenhouse Gas Management Organization (Public Organization).



RESPONSIBILITY

CARBON FOOTPRINT OF PRODUCT CARBON FOOTPRINT FOR ORGANIZATION

Received Carbon Footprint of Product certifications for all product grades and Carbon Footprint for Organization certifications for Branch No. 2, 3 and 6 presented by Thailand Greenhouse Gas Management Organization (Public Organization)



RESPONSIBILITY

THAILAND ENERGY AWARDS 2014

Thailand Energy Awards 2014 for outstanding energy conservation by Branch No. 3, presented by Ministry of Energy



EXCELLENCE

PRIME MINISTER'S INDUSTRY AWARDS 2014

PTTGC branch No. 2 was recognized for safety management; Branch No. 5 and 12 for energy management; Branch No. 11 for quality management; and TOCGC for productivity in Prime Minister Energy Awards 2014.



Thailand's resources are
invaluable and should be
optimized for the benefits of
Thai people whether today
or tomorrow

MESSAGE FROM THE CHAIRMAN

Dear Shareholders,

PTT Global Chemical Public Company Limited has aimed to strike a balance between the economy, society and the environment through conducting business responsibly, in accordance with a management framework that focuses on sustainable development. At the most basic, importance has been placed on operating transparently and with complete integrity in compliance with the good governance principles towards each of our stakeholder groups. On account of this, PTTGC has been selected as one of the 10 leading global petrochemical companies for its sustainable development by the Dow Jones Sustainability Indices for the 2nd straight year (2013-2014). Furthermore, we are the only leading Thai company to be selected for the Global Compact 100 Index Constituents in 2014 by the United Nations Global Compact. These recognitions are a testament to our continuous efforts to implement sustainable development into the business operations of PTTGC.

In terms of the overall economic picture in 2014, PTTGC faced a variety of different challenges throughout the year. Regardless of the fact that the United States economy continues to recover from the recession as a whole and the political situation in Thailand has shown signs of easing which increasingly boosting confidence in the local investment climate, economic adversity was still being felt markedly during the second half of the year in the aftermath of a decline in world crude oil prices and currency fluctuations in the petrochemical industry. Nevertheless, PTTGC management and employees were able to achieve their strategic direction and cooperate to operate under the stated goals of our business framework.

In 2014, PTTGC was profitable and achieved revenue from sales of 570,224 Million THB, with a net profit of 15,036 Million THB, with an earnings per share of 3.33 THB.

During the past year, PTTGC focused on accelerating the implementation of our Core Uplift plans, a ready-to-action and low cost-project, to strengthen our current businesses. We identified an opportunity to implement a low cost project that would have high yields. It will also increase PTTGC's competitiveness by enhancing production in our main plants, as well as shorten the timeline for construction of our Synergy Project. Plans to increase feasibility studies and production capacities were accelerated. Sales and marketing efforts of our products and services were expanded and our preparedness to enter into new business ventures was increased. As for overseas ventures, we completed the establishment of our joint venture PT Indo Thai Trading (ITT), which began commercial operations in September 2014. In addition, through acquisitions made by Perstorp Holding AB, PTTGC now holds 85% share of Vencorex. This shareholding will help PTTGC achieves its strategic direction in expanding businesses for downstream products. It will also help increase the value of our operations and opportunities for future growth.

In addition to strengthening our current operations and expanding into new areas of business, PTTGC also sought for prospective business opportunities. It is active in researching Green Products in an effort to increase our competitive advantages in our main and peripheral business operations. PTTGC continues to innovate and develop itself through collaboration with various ventures overseas.

PTTGC was recognized for its successes by a number of different organizations, both domestically and internationally. This includes being recognized as 1 of 7 leading companies for the 2nd straight year in the Climate Disclosure Leadership Index, a project hosted by the Carbon Disclosure Project. PTTGC was ranked 22nd out of 100 of the top leading global petrochemical companies, as determined by ICIS. PTTGC also received an award for its excellence in Corporate Governance in 2014 from the Stock Exchange of Thailand. Moreover, we were a member of the Collective Action Coalition Against Corruption, demonstrating PTTGC's commitment to combating corrupt practices and implementing anti-corruption policies in a concrete fashion. These aforementioned renowned deeds have proved PTTGC's steadfast commitment to sustainable development.





BUSINESS STRUCTURE

PTT Global Chemical Public Company Limited (PTTGC), as a Chemical Flagship of PTT Group with a combined chemical and petrochemical capacity of 8.75 million tons per year and crude oil and condensate distillation capacity of 280,000 barrels per day. PTTGC consists of seven business groups.



GROUP PERFORMANCE CENTER
- REFINERY & SHARED FACILITIES



GROUP PERFORMANCE CENTER
- AROMATICS



GROUP PERFORMANCE CENTER
- OLEFINS



POLYMERS BUSINESS UNIT



EO-BASED PERFORMANCE BUSINESS UNIT



GREEN CHEMICALS BUSINESS UNIT



HIGH VOLUME SPECIALTIES BUSINESS UNIT



SERVICES AND OTHERS

- Jetty and chemical tank farms
- Utility businesses
- Plant maintenance and engineering design services
- Safety, occupational health, and environmental services
- Pipeline infrastructural services
- Information technology services
- Labor outsourcing services
- Marketing and sales for health and nutrition products
- Polymer sales and marketing services

- Operated by TTT
- Operated by GPSC
- Operated by PTTME and PTES
- Operated by NPC S&E
- Operated by EFT
- Operated by PTT ICT
- Operated by BSA
- Operated by Bio Creation
- Operated by PTTM, ITT



MAIN PRODUCTS

CAPACITY *

OPERATED BY

GROUP PERFORMANCE CENTER - REFINERY & SHARED FACILITIES

- LPG
- LIGHT NAPHTHA
- REFORMATE
- JET A1
- DIESEL
- FUEL OIL

- CRUDE OIL DISTILLATION
145,000 BARRELS/DAY

- PTTGC

GROUP PERFORMANCE CENTER - AROMATICS

- BENZENE
- TOLUENE
- PARAXYLENE
- ORTHOXYLENE
- MIXED XYLENES
- CYCLOHEXANE

- CONDENSATE DISTILLATION
135,000 BARRELS/DAY
- AROMATICS 2,259 KTA **

- PTTGC

GROUP PERFORMANCE CENTER - OLEFINS

- ETHYLENE
- PROPYLENE
- BUTADIENE
- BUTENE-1

- ETHYLENE / PROPYLENE
2,888 KTA **
- BUTADIENE / BUTENE-1 100 KTA **

- PTTGC

POLYMERS BUSINESS UNIT

- HDPE
- LDPE
- LLDPE
- PS

- POLYETHYLENE 1,500 KTA **
- POLYSTYLENE 90 KTA **

- PTTGC
- TSCL

EO-BASED PERFORMANCE BUSINESS UNIT

- ETHYLENE GLYCOL
- ETHANOLAMINE
- ETHOXYLATE

- 470 KTA **

- TOCGC
- TEX

GREEN CHEMICALS BUSINESS UNIT

- METHYL ESTER
- FATTY ACID
- FATTY ALCOHOL
- GLYCERIN
- SPECIALTY OLEOCHEMICALS
- BIOPLASTICS

- 829 KTA **

- TOL
- TFA
- BIO SPECTRUM
- EMERY
- NATUREWORKS
- MYRIANT
- AURIA BIOCHEMICAL

HIGH VOLUME SPECIALTIES BUSINESS UNIT

- PHENOL
- BISPHENOL A
- ACETONE
- TOLUENE DIISOCYANATE
- HEXAMETHYLENE DIISOCYANATE
AND DERIVATIVES

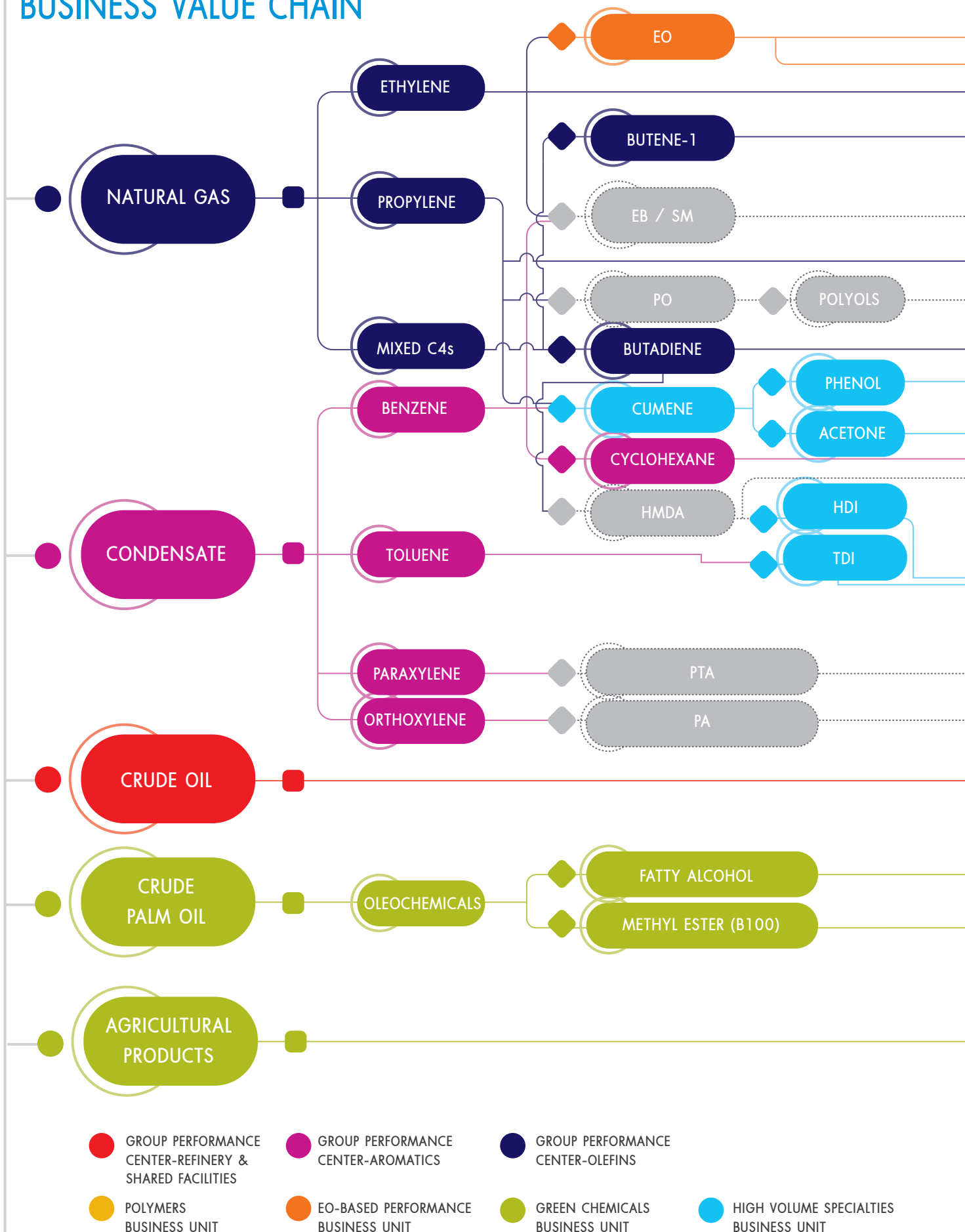
- 610 KTA **

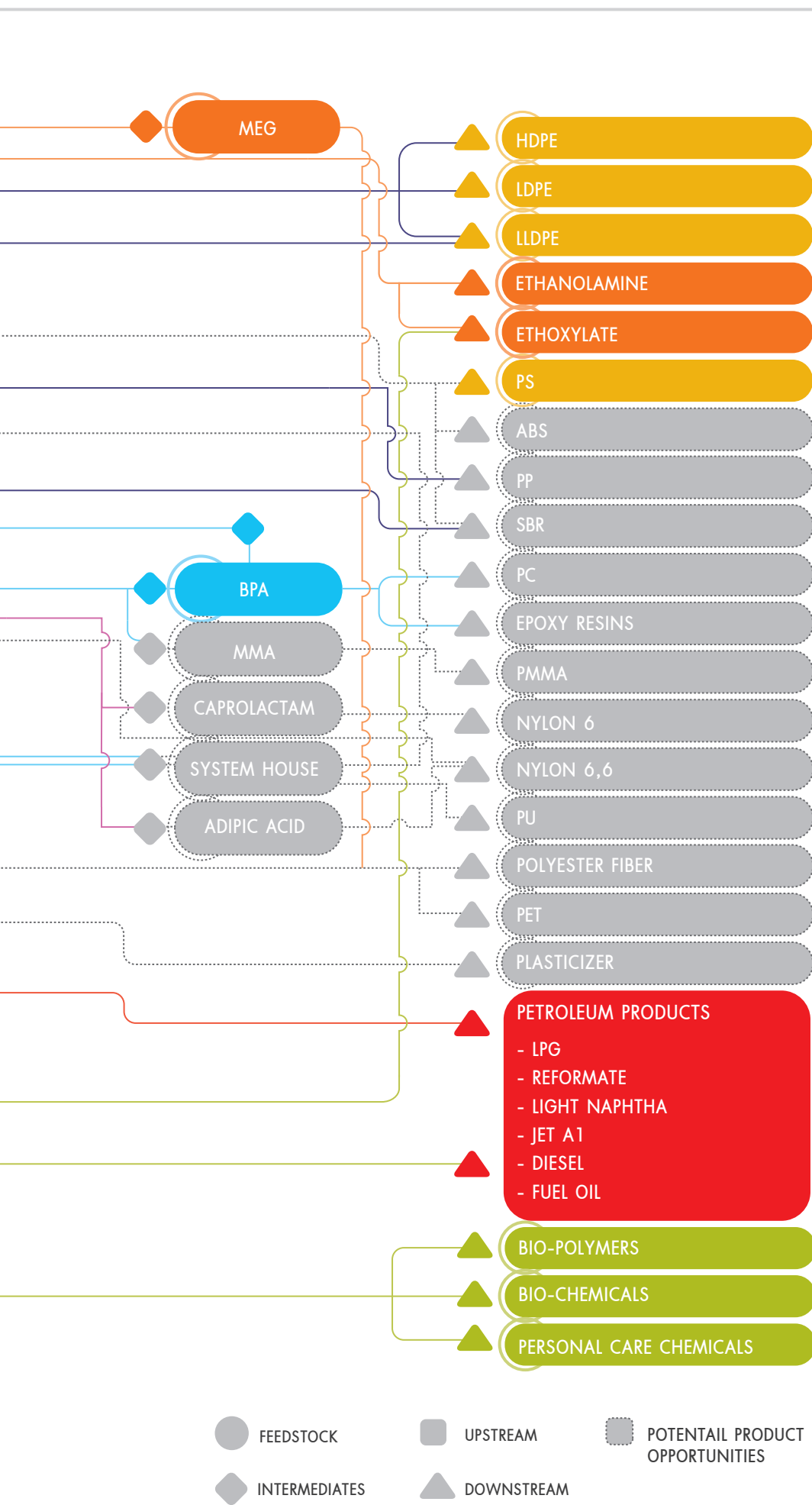
- PPCL
- VENCOREX

Remarks : * Only capacity that PTTGC hold equal to or more than 50% share and calculate proportionate by percent share

** KTA is THOUSAND TONS PER YEAR

BUSINESS VALUE CHAIN





INDUSTRIAL SECTORS



PACKAGING



PERSONAL CARE



PHARMACEUTICAL



AUTOMOTIVE



CONSTRUCTION



ELECTRONIC



TEXTILE



AGRICULTURE

GROUP PERFORMANCE CENTER - REFINERY AND SHARED FACILITIES

Overview

PTTGC is one of the leading refineries and producers of petroleum in Thailand, owning and operating modern complex refinery (our refinery is able to convert fuel oil to more valuable middle distillate products). Refining capabilities stand strong at 145,000 barrels / day. Additionally, PTTGC refinery is flexible and are able to adjust capacity according to customer needs, as well as any volatility in the markets. A summary of our petroleum production capabilities and their uses are as follows:

Petroleum Products		Product Uses
Light Distillates	Liquefied Petroleum Gas or LPG	- Fuel - Petrochemical feedstock (Olefins plants)
	Light Naphtha	- Gasoline blending component - Petrochemical feedstock (Olefins plants)
	Reformate	- Gasoline blending component - Petrochemical feedstock (Aromatics plants)
Middle Distillates	Jet Fuel	- Aviation fuel
	Diesel	- Industry fuel and automotive fuel
Heavy Distillates	Fuel Oil	- Industry fuel and bunker fuel

In 2014, PTTGC has a total crude intake of 53.8 million barrels with equivalents capacity utilization rate of 102%. 83% of Petroleum Production domestic sales are mainly from Diesel and Jet which make up to 22% of the domestic market share, where our major petroleum's products customer is PTT PLC (PTT).

Environmentally Friendly Operations

PTTGC's refinery adhere to compliance requirements and strict environmental laws. Operations are conducted according to ISO 14001 Environmental Standards, and priority has been given to limiting adverse effects on the environment. Furthermore, Environmental Impact Assessments or EIAs are performed to protect against and reduce any effect on the environment. Additional efforts

are made to increase the environmental friendliness and efficiency of PTTGC's resources, including constant monitoring, application of quality controls, and retrofitting of equipment. A summary of major operations to reduce the effects on the environment has been listed below:

- Certification was received in Energy Management Systems or ISO 50001 by the Management System Certification Institute (Thailand), showing the Company's commitment to handling energy management in an efficient manner.
- Energy efficiency was increased through the retrofitting and regular cleaning of equipment, such as the heat exchangers, and cogeneration processes were used in electricity production to reduce greenhouse gas emissions.
- PTTGC was certified for its principles and requirements at the organization level for quantification and reporting

of greenhouse gas emissions and removals (ISO 14064-1). This certification helps to show the concrete steps being made to combat climate change. PTTGC was the first company in Thailand to have one of its refinery receive this certification.

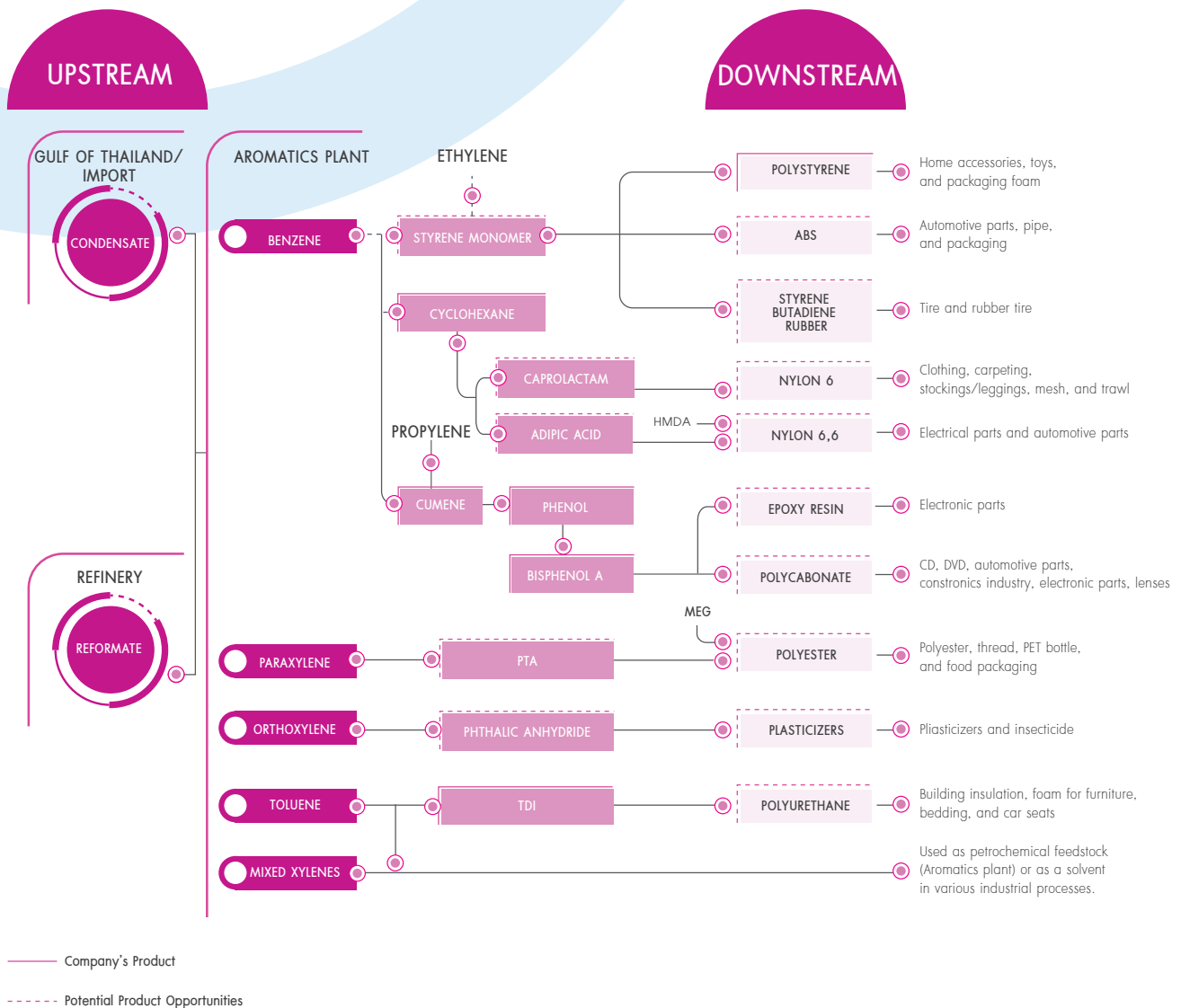
- Low NO_x Emissions systems have been used continuously in our gas turbine generators to reduce nitrogen oxide emissions.
- Zero emission of Volatile Organic Compounds (VOCs) was achieved with the installation of Vapor Recovery Units (VRUs) on storage tanks, as well as on product dispensers, which are attached to transport trucks.
- PTTGC made efforts to decrease the levels of pollution through planting of trees, which leads to the increase of green space, especially along the fences adjacent to neighboring communities.
- The production of low-sulfur Diesel that meets Euro IV standards helps reduce the emissions of sulfur dioxide from the production processes of our facilities located in the Map Ta Phut Industrial Estate, as well as from the combustion of diesel fuels from vehicles.
- The 3Rs principle (Reduce, Reuse and Recycle) has been implemented to minimize waste, and it has earned PTTGC a “3Rs Award” from the Department of Industrial Works.
- PTTGC is dedicated to the proper disposal of industrial waste. It has enjoyed success with its “Zero Waste to Landfill” initiative, with focus on finding uses for its waste products.
- PTTGC conducts regular visits to surrounding communities and listens to opinions on any environmental impact on local communities. Furthermore, whenever turnaround works are due to be undertaken, PTTGC always informs local communities well in advance of work commencement.
- Each of PTTGC's petroleum products has had its Carbon Footprint of Products certified by the Thailand Greenhouse Gas Management Organization (Public Organization). This is in recognition of operational standards that not only meet, but exceed, the quality generally practiced or mandated by law. This certification reflects the company's genuine commitment and responsibility to society and the environment.



GROUP PERFORMANCE CENTER - AROMATICS

Overview

PTTGC is a manufacturer and seller of Aromatics products, such as Paraxylene, Benzene, Orthoxylene, Mixed Xylenes, Toluene and Cyclohexane. These products are used as feedstock in various industrial processes, and are detailed in the chart below:



Aside from the products listed above, our Aromatics Plants also manufacture a number of by-products. These include LPG and Light Naphtha, which is used as feedstock in Olefins plants, as well as Condensate Residue, which is used as feedstock in Refinery operations to create Jet, Diesel and Fuel Oil.

PTTGC currently operates 2 Aromatics plants. The overall capacities have been shown in the table below.

Company	Product	Nameplate Capacity (Thousands of tons/yr)
PTTGC	Benzene	662
	Toluene	60
	Paraxylene	1,195
	Orthoxylene	66
	Mixed Xylenes	76
	Cyclohexane	200

PTTGC used a total of feedstock for Aromatics and by-product productions about 5.6 million tons of feedstock in the productions of Aromatics products. An important type of feedstock in this was Condensate, which was procured through PTT Plc., in an amount of 40 million barrels (approximately 4.8 million tons) at market price. 63% of Aromatics products have been sold to domestic customers. Major customers for Paraxylene are PTT Plc. (PTT), TPT Chemical, Indorama Petrochem and Siam Mitsui. While PTT Phenol (a subsidiaries of PTTGC) is a major customer for Benzene product. Leading domestic market shares were captured of around 48% in Benzene sales and of approximately 58% in sales of Paraxylene.

Other Aromatics products were exported internationally around 37% of its total production. PTTGC will sell all exported products to PTT according to their Long term sales agreement and supply products directly to the customers.

Environmentally Friendly Operations

PTTGC's Aromatics plants adhere to compliance requirements and strict environmental laws. All operations are conducted according to ISO 14001 Environmental Standards. Priority has been given to limiting any adverse effects on the environment. The Company performs Environmental Impact Assessments or EIA to protect against and reduce effects on the environment. In addition, efforts are made to increase environmental friendliness and the efficiency of PTTGC's resources, including constant monitoring, quality controls, and retrofitting of equipment. A summary of major operations to reduce the effects on the environment have been listed below:

- Certification was received in Energy Management Systems or ISO 50001 by the Management System Certification Institute (Thailand), showing the Company's commitment to handling energy management in an efficient manner.
- Energy efficiency was increased through the retrofitting and regular cleaning of equipment such as heat exchangers. This contributed to reducing the amount of greenhouse gas emissions, helping to combat global warming.
- PTTGC was certified for its principles and requirements at the organization level for quantification and reporting

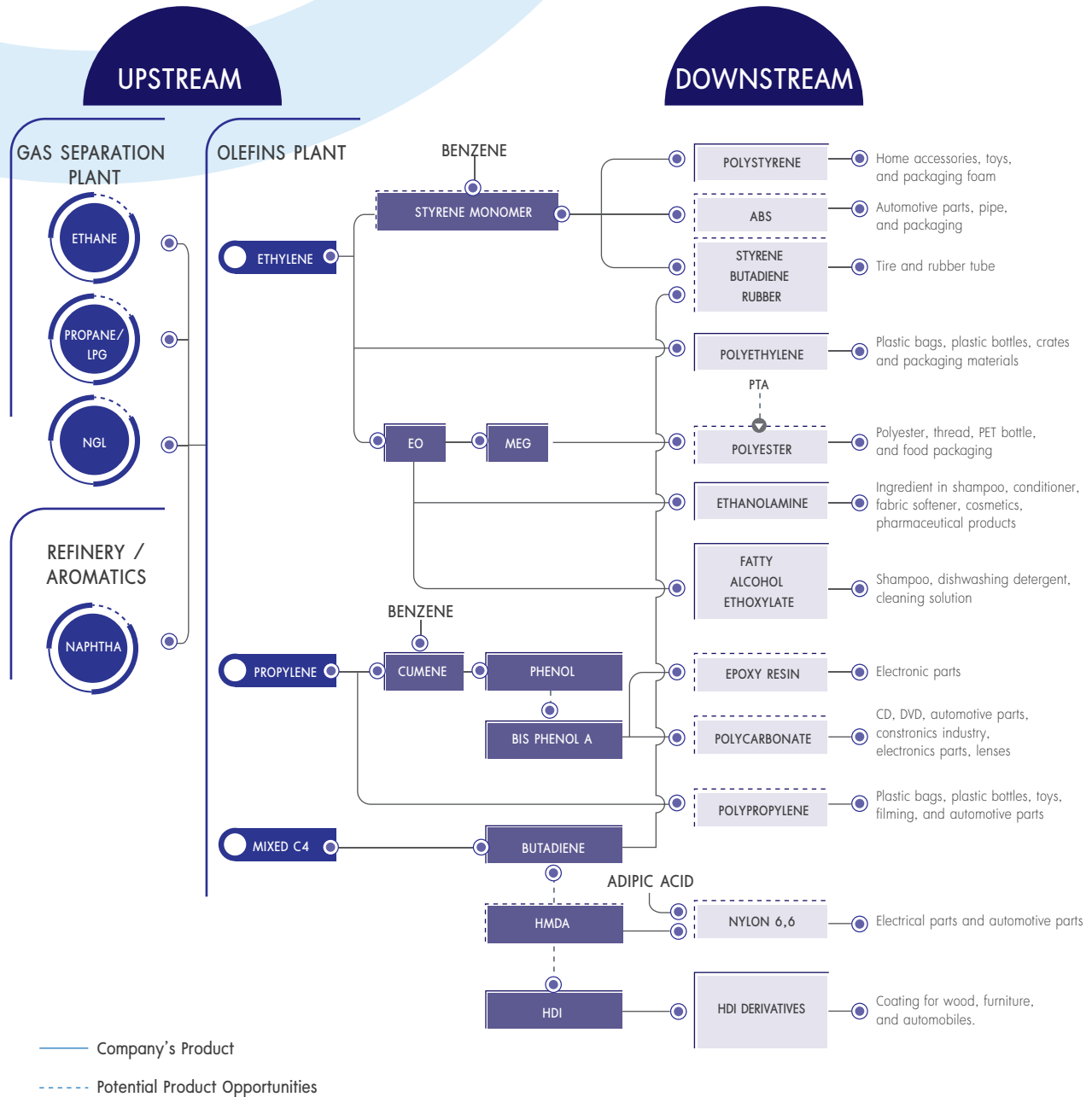
of greenhouse gas emissions and removals (ISO 14064-1). This certification helps to show the concrete steps that are being made to combat climate change. PTTGC was the first company in Thailand to have one of its refineries receives this certification.

- Zero emission of volatile organic compounds (VOCs) was achieved with the installation of vapor recovery units (VRUs) on storage tanks as well as on product dispensers, which are attached to transport trucks.
- PTTGC made efforts to decrease levels of pollution through the planting of trees to increase the amount of green space, especially along fences adjacent to neighboring communities.
- The 3Rs principle (Reduce, Reuse and Recycle) has been implemented to minimize waste, and it has earned PTTGC a "3Rs Award" from the Department of Industrial Works.
- PTTGC is dedicated to the proper disposal of industrial waste. It has enjoyed success with its "Zero Waste to Landfill" initiative, with focus placed on finding uses for its waste products.
- PTTGC conducts regular visits to surrounding communities and listens to opinions on any environmental impact on the local communities. Furthermore, whenever turnaround works are due to be undertaken, PTTGC always informs local communities well in advance of work commencement
- The Office of the Map Ta Phut Industrial Estate, together with representatives of communities located near the Map Ta Phut Industrial Estate, joined a site visit to the Company's facilities located in this industrial estate to increase their confidence in PTTGC operations. The Company was also recognized for its excellent score for Corporate Government in regards to the environment (White Flag - Green Star Award).
- Each of PTTGC's petroleum products has had its Carbon Footprint of Products certified by the Thailand Greenhouse Gas Management Organization (Public Organization). This is in recognition of operational standards that not only meet, but exceed, the quality generally practiced or mandated by law. This certification reflects the Company's genuine commitment and responsibility to society and the environment.

GROUP PERFORMANCE CENTER - OLEFINS

Overview

PTTGC's Olefins plants are capable of manufacturing Olefins such as Ethylene and Propylene. The chart below shows the flow of feedstock used in upstream plants to the downstream products, as well as their associated uses:



PTTGC's Olefins plants also manufacture various by-products such as Pyrolysis Gasoline, Mixed C4, Tail Gas, Cracker Bottom, and Hydrogen. These by-products are used as feedstock in our Refinery and Aromatics plants to increase value. For example, Pyrolysis Gasoline is turned into Aromatics products. Cracker Bottom will be distilled to petroleum products and Hydrogen is used in our Refinery as a substitute for Hydrogen produced by Hydrogen Manufacturing Unit (HMU), which have higher production costs.

Additionally, the PTTGC's Olefins plants also manage the production and distribution of various utilities, which include Treated Water, Potable Water and Demineralized Water for use in its own Olefins plants and other downstream plants as well as for other companies located in the Map Ta Phut Industrial Estate to use.

PTTGC currently operates 5 Olefins plants. The overall Nameplate Capacities have been shown in the table below.

Company	Product	Nameplate Capacity (Thousands of Tons/Yr)
PTTGC	Ethylene	2,376
	Propylene	512
	Butadiene	75
	Butene-1	25

Main feedstock used in Olefins production include Ethane, Propane, LPG and NGL – all of which are products manufactured from natural gas. In 2014, PTTGC was able to secure procurement of 98% of its required feedstock needs through PTT. Although the PTTGC feedstock supply is highly dependent on PTT, yet PTT has exhibited a high level of competency in the securing of feedstock for procurement. Furthermore, PTT operates 6 different natural gas separation plants and the potential for all 6 of them to falter at the same time is minute. Additionally, PTT maintains stockpiles of different feedstock so that it is able to consistently meet all long and short-term procurement obligations. PTTGC and PTT collaborate closely to ensure that feedstock logistics is performed according to plan, encountering as few obstacles as possible.

Domestic sales of Olefins products mostly come from Sales Agreement with downstream Petrochemical Plants in the Map Ta Phut Industrial Estate area. In 2014, a total of 38,388 ton of Ethylene and 162,964 ton of Propylene were export. this makes up a respective 6% and 39% of total Ethylene and Propylene sales.

Environmentally Friendly Operations

PTTGC's Olefins plants adhere to compliance requirements and strict environmental Laws. Operations are conducted according to ISO 14001 Environmental Standards. Priority has been given to limiting the adverse effects on the environment. PTTGC ensures that, the Environmental Impact Assessments or EIA are performed to protect against and reduce effects on the environment. Additional efforts are made to increase both the environmental friendliness and efficiency of PTTGC's resources, including constant monitoring and enacting quality control measures.

PTTGC is highly aware of the way its operations could affect those in nearby communities. Steps have been taken to reduce these possible effects, such as the installation of an enclosed ground flare at Olefins No.3 Plant, eliminating hydrocarbons and exhaust emissions. Heat and sound absorbers have also been installed to reduce any impact on surrounding communities. Furthermore, the enclosed nature of the ground flare prevents light from radiating outwards. Its operations are controlled automatically so that gas is let into the combustion system in an effective manner. A summary of activities conducted to reduce effects on the environment can be seen below:

- Certification was received in Energy Management Systems or ISO 50001 by the Management System Certification Institute (Thailand), showing the Company's commitment to handling energy management in an efficient manner.
- Energy efficiency was increased through the retrofitting and regular cleaning of equipment, such as heat exchangers. This contributed to reducing the amount of greenhouse gas emissions, helping to combat global warming.
- PTTGC was certified for its principles and requirements at the organization level for quantification and reporting of greenhouse gas emissions and removals (ISO 14064-1). This certification helps to show the concrete steps that are being made to combat climate change. PTTGC was the first company in Thailand to have one of its refineries receives this certification.
- PTTGC made efforts to decrease levels of pollution through the planting of trees to increase the amount of green space, especially along fences adjacent to neighboring communities.
- The 3Rs principle (Reduce, Reuse and Recycle) has been implemented to minimize waste, and it has earned PTTGC a "3Rs Award" from the Department of Industrial Works since 2012.
- PTTGC is dedicated to its proper disposal of industrial waste. It has enjoyed success with its "Zero Waste to Landfill" initiative, with focus placed on finding uses for its waste products.
- PTTGC conducts regular visits to surrounding communities and listens to opinions on any environmental impact on the local communities. Furthermore, whenever turnaround works are due to be undertaken, PTTGC always informs local communities well in advance of work commencement.
- The Office of the Map Ta Phut Industrial Estate, together with representatives of communities located near the Map Ta Phut Industrial Estate, joined a site visit to the Company's facilities located in this industrial estate to increase their confidence in PTTGC operations. The Company was also recognized for its excellent score for Corporate Government in regards to the environment (White Flag - Green Star Award).



POLYMERS BUSINESS UNIT

Overview

Polymers are a downstream petrochemical product primarily used as feedstock in the manufacturing of everyday plastic products. They are used in the molding of plastic containers such as plastic bags, plastic bottles, engine lubricant containers, or plastic crates, and can also be used as feedstock in the manufacturing of other downstream industries, such as the appliances, fisheries, agriculture and construction businesses. The following is a list of important polymer-based PTTGC products:

1. HDPE (High Density Polyethylene)
2. LLDPE (Linear Low Density Polyethylene)
3. LDPE (Low Density Polyethylene)
4. PS (Polystyrene)

Polyethylene resins are a downstream product produced from Ethylene. All Polyethylene resins are sold under the trademark “InnoPlus”. Polystyrene resins, which are available in both GPPS (General Purpose Polystyrene) and HIPS (High Impact Polystyrene) types, are produced by Thai Strynics Co., Ltd. (TSCL), which is a company operated under the supervision of the PTTGC Polymers Business Unit. Polystyrene resins are sold under the trademark “DIAREX”.

PTTGC currently operates a total of 5 commercial Polymers plants. Their overall Nameplate Capacity have been summarized as below table.

Company	Product	Nameplate Capacity (Thousands of Tons/Yr)
PTTGC	HDPE	800
	LLDPE	400
	LDPE	300
TSCL	PS	90

The Ethylene used in the Company’s Polyethylene plants is mostly supplied by the Company’s own Olefins plants, except for the Polystyrene plants which use Styrene Monomer (SM) imported from Southeast Asia. In addition, the Company has signed agreements to purchase from SM suppliers within Thailand as well, in order to maintain its bargaining and competitive advantages for effective cost management.

PTTGC aims to support an enhanced market by managing sales costs and a competitively supply chain system to build an effective distribution channel throughout the region. Although we have more than 1,000 domestic molding factories partners and 80 customers internationally, our present export rate of Polyethylene and Polystyrene products is 65% and 30% where most of the products were exported to China.

Environmentally Friendly Operations

PTTGC has made environmental performance a primary focus. Resources are used efficiently and cost-effectively to minimize impact on the environment. All of the Company’s factories and systems have been designed to be in compliance with applicable environmental Laws, both domestic and international Law. In addition, the Company has thoroughly compiled relevant studies on environmental impact in its Environmental Impact Assessment (EIA), and has strictly adhered to measures on minimizing environmental impact as specified in the EIA, both during the construction of its factories and during the production process. Quality of the environment is also closely monitored to ensure the quality of wastewater released from its factories, as well as the quality of air emitted from production processes. Waste is properly managed by dividing it into general waste and industrial waste. Production noise level is also monitored and

maintained at levels specified by law. All these measures are already in place to ensure that the environment is properly cared for and assure total peace of mind for people in surrounding communities.

In order to create an effective environmental management system that is highly regarded internationally, the PTTGC Polymers Business Unit has specified the following measures to lay a foundation for continual improvement:

1. Equipments has been installed to increase efficiency in an effort to reduce environmental impacts. This includes a bag filter System that collects dust from product loading and unloading and deposits it into silos, as well as silencers which have been installed at production machines.
2. Regular checks are to be maintained for all production machines of the Polymers Business Unit to detect and prevent any leakage of volatile organic compounds (VOCs).
3. Production waste is to be systematically managed according to the following steps:
 - Production wastewater is to be properly treated in the Company's wastewater treatment system before release.
 - Solid wastes are to be separated for sale or elimination by professional waste elimination companies listed with the Department of Industrial Works.
 - Liquid wastes, such as Oligomers, are to be eliminated by professional waste elimination companies listed with the Department of Industrial Works.
4. The Company always informs surrounding communities in advance through notices, community radio programs and its own dedicated CSR teams if and when there will be any activity organized by the Company that may present loud noise, bright lights or images that may result in any discomfort or dissatisfaction, among others. The Company is always willing to listen to the opinions and suggestions of surrounding communities so it can continue to improve itself for sustainable growth alongside the nearby communities.

5. The 'Green Shutdown Program' has been applied to our production lines to plan for annual maintenance shutdowns. For example, this includes the recycling of insulation, the reduction of wastes from oils and polymers from the cleaning of production machines, the use of wiper paper, etc.
6. Each of PTTGC's Polymers products has had its Carbon Footprint of Products certified by the Thailand Greenhouse Gas Management Organization (Public Organization). Currently, a total of 69 grades of the Company's HDPE, LLDPE, LDPE and PS Polymers-based products have been certified.

In 2014, the PTTGC Polymers Business Unit received the White Flag-Green Star. Such an award reflects the Company's genuine commitment to good environmental governance and transparent environmental management. Some of these distinctions have been detailed below:

- The prestigious White Flag-Green Star award has been granted for the 8th time in a row to the Polymers Business Unit's PS production line (TSCL), with the award being promoted to 'White Flag - Golden Star'. The Company's HDPE No.1 production line received the award for the 5th time. Furthermore, the Company's LLDPE and LDPE production lines were recognized for the second time.
- The CSR-DIW Award 2014 was granted by the Ministry of Industry, recognizing the Company's dedication to environmental responsibility standards applied by its Polymers Business Unit. Each production line was recognized by this award.
- A national recognition for Outstanding Safety was awarded in 2014 to the Company, showing our high standards for safety, health and environmental preservation. The LLDPE and LDPE production lines were recognized for the second straight year for their adherence to related regulations and best practices.
- The LLDPE production line received the EIA Monitoring 2014 award for the first time.

EO-BASED PERFORMANCE BUSINESS UNIT

Overview

PTTGC has expanded its business to cover the production of EO-Based Performance Products for a number of reasons. Not only are they seen as an option to increase the value of Olefins products and meet the rising needs of industry and consumers, EO-based performance production will also fill a domestic demand that normally is filled by imports from various countries. The PTTGC's EO-Based Performance products and their intended uses can be described as follows.

Ethylene Oxide (EO) and Ethylene Glycol (EG)

EO is a downstream product of Ethylene, which is a feedstock in the production of EG. Products that are EG-based include Mono Ethylene Glycol (MEG), Diethylene Glycol (DEG), Triethylene Glycol (TEG), and Polyethylene Glycol (PEG). MEG is mainly used as a feedstock together with Purified Terephthalic Acid (PTA) in the production of Polyester meant for industrial use, as well as textiles and PET bottles.

Ethanolamines (EA)

EA is produced from EO and primarily comes in the forms of Monoethanolamine (MEA), Diethanolamine (DEA), and Triethanolamine (TEA). EA is used as an ingredient in the

production of shampoos, conditioners, fabric softeners, cosmetics, and pharmaceutical products.

Fatty Alcohol Ethoxylates

Fatty Alcohol Ethoxylates are downstream products of EO and can be used as feedstock in the production of shampoo, dishwashing detergent, cleaning solutions, as well as in the textile industry. Fatty Alcohol Ethoxylates can also be used as feedstock for scouring agents, as well as an agent to assist in the process of thread softening and finishing processes.

PTTGC's production of EO, EG and EA is supervised by TOC Glycol Co., Ltd. (TOCGC), while Fatty Alcohol Ethoxylates are produced by Thai Ethoxylate Co., Ltd. (TEX), a joint-venture between PTTGC and BASF.

In 2014, the EO Business unit operated 3 commercial production plants. They are located in the Hemaraj Eastern Industrial Estate in Rayong province. Their Nameplate Capacity are detailed below:

Company	Product	Nameplate Capacity (Thousands of Tons/Yr)
TOCGC	MEG	395
	EA	50
TEX	Fatty Alcohol Ethoxylate	50

The Primary feedstock for MEG and EA production is Ethylene, which TOCGC obtains from PTTGC under a long-term contract. PTTGC's Olefins plants have sufficient production capacity to produce enough Ethylene for the production of EO/EG. Meanwhile, the production of Ethoxylate relies on EO obtained from TOCGC, also under a long-term trade contract, as well as Fatty Alcohol produced by Thai Fatty Alcohol Co., Ltd., which is an affiliated company of PTTGC.

TOCGC sells MEG products domestically about 88% from all products. TOCGC is also leading domestic market shares captured of around 67% in MEG sales, 12% export sales to international market. TOCGC has planned to expand its customer's base to niche market where the needs of product use is lower but has higher sales price.

For EA Product, TOCGC has planned to extend its domestic market share by Focusing on direct sales to major customers and sells through sales agent to minor customers.

In 2014 TOCGC has 59% market share in of EA product.

For the production of Fatty Alcohol Ethoxylate, TEX has planned to increase and maintain its market share. For exportation, TEX will focus on exporting in Asia because of the production base in Personal Care and Home Care which could increase the business opportunity of EA product.

Environmentally Friendly Operations

PTTGC's EO-Based Performance Business Unit has made environmental performance a primary focus. Plant design and construction follow international benchmarks and standards. Resources are used efficiently and cost-effectively to minimize impact on the environment by designing all of its factories and systems to be in compliance with applicable environmental laws both in Thailand and overseas. In addition, the Company has strictly adhered to measures on minimizing environmental impact as specified in its Environmental and Health Impact Assessment (EHIA), and has trained its staff members to always be socially aware of any impact on the environment. Such efforts signify the Company's determination to operate its business in sustainable harmony with nature. A variety of environmental

contribution activities have been consistently organized by the EO-Based Performance Business Unit. Which include the close monitoring of such impact as atmospheric chemical contamination, quality of underground water, quality of air when released from production plants, quality of wastewater released from plants, as well as regular checks to detect and prevent any leakage of volatile organic compounds (VOCs). In 2014, TOCGC was recognized nationally for the third straight year by the White Flag – Green Star award and CSR. The Thai Ethoxylate Co., Ltd. (TEX) received the award of Corporate Carbon Footprint: CCF as awarded by the Thailand Greenhouse Gas Management Organization (Public Organization). This award recognizes greenhouse gas emission standards or ISO14064-1. Furthermore, TEX was given the Green Meeting Award by the Thailand Environment Institute. This award is given to recognize the efficient use of resources in a way that reduces impacts on the environment as well as adheres to best practices in safety, health and the environment. It also received the White Flag - Green Star award from the Industrial Estate Authority of Thailand in 2014, underlining genuine commitment to good environmental governance.



GREEN CHEMICALS BUSINESS UNIT

Overview

Green Chemicals are products created from natural feedstock such as palm oil, palm kernel oil, vegetable oil, and corn. These products, when processed, leave a variety of valuable by-products that can be used in downstream industrial processes. These include processes in the personal care industry, pharmaceutical industry and the Bioplastic industries. PTTGC's Green Chemical products can be summarized into the following two categories:

Value Added Oleochemicals (VAO)

- **Methyl Ester** is a basic Oleochemical substance. The use of Methyl Ester combined with Diesel oils can create a Biodiesel that meets EN14214 European standards. Methyl Ester helps to increase the efficiency of diesel oils, both in lubrication and ignition processes in engines. When used in engines it also increases their lifespan and minimizes environmental impact.
- **Fatty Alcohol** is a basic Oleochemicals product. It is used as an important substrate in a number of different processes in the personal care industry.
- **Glycerin** is a by-product from the production of Methyl Ester and Fatty Alcohol. It is used in the pharmaceutical industry, food industry, and personal care products sector.
- **Fatty Acid** is basic Oleochemicals product used in the production of soap and cosmetics, as well as in personal care products.
- **Specialty Oleochemicals** are created from basic Oleochemical substances. These specialty products are used in a variety of industries, such as those related to cleansing products, personal care products, lubricants, and plastics. Examples of specialty Oleochemicals include Triacetines, Polyol, Ozone Acids, plastic additives, and chemicals used in the oil drilling industry.

Bioplastics/Biochemicals

Bio-Based Chemicals and Bioplastic are produced from natural feedstock, for example sugar, tapioca, cassava, and corn. They are used in the production of Lactic Acid and Succinic Acid, which are used as substrates in the production of Bioplastics such as Polylactic Acid (PLA) and polyesters such as 1, 4 Butanediol.

The Company's production of value added oleochemicals (VAO) was performed by Thai Oleochemicals Co., Ltd. (TOL) and Thai Fatty Alcohol Co., Ltd. (TFA), currently Thailand's only producer of Fatty Alcohol. Another company contributing to VAO production is Emery Oleochemicals (M) Sdn. Bhd. (Emery) in Malaysia, which is a joint-venture between PTTGC and Sime Darby Plantation Limited (Malaysia), a company with Oleochemical production plants located throughout the world.

PTTGC's production of Bioplastics/Biochemicals was conducted by Myriant Corporation. Myriant is a company specializing in Bioplastics/Biochemicals production technology development and is a proprietor of several intellectual properties regarding the production of Succinic Acid. Myriant has a pilot-plant of Succinic Acid (capacity of 14,000 tons / annum), and is preparing for commercial production in the foreseeable future. NatureWorks LLC is a joint venture between PTTGC and Cargill Inc., from the United States. NatureWorks is the proprietor of the PLA production technology and has a production capacity of 150,000 tons / annum.

In 2014, the Green Chemicals Business Unit operated a number of commercial production plants both in Thailand and overseas. Their Nameplate Capacity are summarized below.

Company	Product	Nameplate Capacity (Thousands of Tons/Yr)
TOL/TFA	Methyl Ester	200
	Glycerin	31
	Fatty Alcohol	100
Emery	Fatty Acid	530
	Glycerin / Triacetin	77
	Fatty Alcohol	80
	Methyl Ester / Methyl Ester Sulfate	116
	Ester-Plastic	53
	Ozone Acid	18
	Home & Personal Wellness Surfactants	40
NatureWorks	Polylactic Acid or PLA	150

The primary feedstocks for VAO are vegetable and animal oils, depending on what is more readily available in the region where they are produced. For example, in America the primary feedstock is animal oils. In Asia, the primary feedstock is palm oil. The primary feedstock for the production of Methyl Ester, Fatty Alcohol and Glycerin is palm oil and palm seed oil. The producing companies - TOL and TFA - usually procure palm oil and palm seed oil from domestic sources to help generate income for Thai farmers and promote Thailand's domestic supply chains. However, there were times when the domestic supply of palm seed oil was not enough for the demand of TOL and TFA, so they occasionally had to import palm seed oil or coconut oil from Malaysia and Indonesia. However, both companies have a policy to procure their feedstock from domestic sources first.

Methyle Ester Products of TOL are mostly sold to producers and oil refinery business in domestic market such as PTT, ESSO and Thai Oil which makes up 24% of domestic share market. TOL sells Fatty Alcohol products to TEX (a joint

venture between PTTGC and BASF) for the production of Fatty Alcohol Ethoxylate as well as exports its products to international customers.

For Glycerin products, TOL sells most of its products through distributors while only a few is directly sold to customer such as Colgates and Pharmaceutical industry in India.

Environmentally Friendly Operations

By nature, Green Chemicals are made from natural feedstock and are kind to the environment. PTTGC's Green Chemicals Business Unit has a policy to always maximize the use of natural resources, while at the same time, minimize any impact on the environment by strictly adhering to environmental standards and applicable laws.



HIGH VOLUME SPECIALTIES BUSINESS UNIT

Overview

High-volume specialties are used as a component in a variety of high-potential industries, including the automotive industry, the construction industry, and the engineering plastics industry. The following is a list of PTTGC specialty products and their uses:

Phenol

Phenol is an intermediate-stream petrochemical product, which is created from Benzene and Propylene feedstock. It is used as an important substrate in the production of Bis phenol A (BPA) and Phenolic resin.

BPA

Bisphenol A is an intermediate-stream petrochemical product that is used as feedstock in the production of Polycarbonate (PC). PC is an engineering plastic that is used in various industries, including the automotive components industry, the computer industry, the CD/ DVD disk industry, and the home appliance industry. It can also be used during the production of Epoxy resin.

Acetone

Acetone is manufactured through the production of Phenol. It is widely used as a solvent in various industries, such as the chemicals, cosmetics and medical industries. Furthermore, it can be used as a substrate in the production of BPA and Methyl Methacrylate, which are used in plastics, fibers, drugs and other chemicals.

Toluene Diisocyanate (TDI)

Toluene Diisocyanate (TDI) is an important intermediate-stream petrochemical product that is used as feedstock in the production of Polyurethane (PU). PU is important in both the construction, as well as the automotive industry. It can be used as insulation in buildings to make them more energy efficient, as well as in the form of an all-purpose foam used in furniture, bedding, and car seats.

Hexamethylene Diisocyanate (HDI) and HDI Derivatives

These intermediate-stream petrochemical products are used as feedstock in the production of PU coating. PU coating is an important product in both the construction and automotive industries. It is used to coat the surfaces of wood, furniture, and automobiles to make them more resistant to scratches.

PTTGC's production of Phenol and BPA is performed by PTT Phenol Company Limited (PPCL), while TDI, HDI and other HDI derivatives products are produced overseas by Vencorex Holding in France (Vencorex).

PPCL operates a total of two commercial production plants, located in the Hemaraj Eastern Industrial Estate in Rayong province. They are currently overseeing the construction of 2nd Phenol plants, which are expected to complete in 2015. At the same time, Vencorex operates three commercial production plants, located in industrial estates in France and the United States. Their overall Nameplate Capacity are summarized below.

Company	Product	Nameplate Capacity (Thousands of Tons/Yr)
PPCL	Phenol	200
	Aceton	124
	Bis phenol A	150
Vencorex	Toluene diisocyanate (TDI)	125
	HDI and HDI Derivatives	35

Currently, PPCL use feedstock (Benzene and Propylene) supplied by PTTGC's Aromatics and Olefins plants under a long-term trade contract. On the other hand, Vencorex's TDI production uses Toluene and Nitric Acid as the primary feedstock, and the Company's HDI production depends on Hexamethylene Diamine (HMDA) as the primary feedstock. All feedstock used by Vencorex has been sourced by suppliers in France under both short-term and long-term trade contracts.

For distribution, PPCL distributes its products through sales agent and directly to customers, leading domestic market share for Phenol and Bis phenol A of 19% and 6%. For international distribution, PPCL focuses on selling Phenol and Acetone to China and India which have higher demands of use and highly competitive in pricing and conditions, while Bisphenol A's distribution is focuses only in China for its high demand needs.

Vencorex, the producer of TDI and HDI sells its products through sales agent and customers mostly in Europe, Middle East and North Africa respectively under its competitive sales conditions. For HDI Products and derivatives, Vencorex is the second largest player in the world market with the market share of 17%.

Environmentally Friendly Operations

The High Volume Specialty Business Unit of PTTGC has made environmental performance a primary focus. Resources are used efficiently and cost-effectively to minimize impact on the environment by designing all of its factories and systems to be in compliance with applicable environmental Laws both Thai Law and International Law. In addition, the Company has strictly adhered to measures on minimizing environmental impact as specified in its Environmental Impact Assessment (EIA), and has trained its staff members to always be socially aware of any impact on the environment. Such efforts signify the Company's determination to operate its business in sustainable harmony with nature.

In 2014, a variety of environmental contribution activities were consistently organized. For example, PPCL has made sure that all of its production wastes were professionally treated by authorized industrial waste management companies, and certain organic wastes, which were safe to the environment, were made good use of by turning them into fertilizers. As well as regular checks were also maintained to detect and prevent any leakage of volatile organic compounds (VOCs). In addition to these efforts from PPCL, Vencorex in France has run campaigns to reduce energy consumed during production processes, with a target to decrease energy use by 5% from 2013.



SERVICES AND OTHERS

Apart from the 7 business groups, PTTGC also focuses on support activities that help to increase the stability and integration of its main business areas. These various activities are listed below:

1) Jetty and Chemical Tank Farms

These activities are managed by Thai Tank Terminal Limited (TTT). Services are also provided as a concession to industrial organizations that are located within the Map Ta Phut Industrial Estate.²⁾

2) Utility Businesses

The Global Power Synergy Company Limited (GPSC) manages these businesses and is responsible for the production and sale of industrial electricity, steam, and industrial water to PTT group and nearby plants.

3) Plant Management and Engineering Design Services

Such services are provided by PTT Maintenance and Engineering Company Limited (PTTME). A variety of services are provided, which include plant maintenance, design and engineering consultation, construction, procurement, material work, and production administration. PTTME also assists industrial organizations located in the Map Ta Phut Industrial Estate, as well as industrial organizations located throughout Thailand and in neighboring Asian countries. Additionally, PTTGC, together with other companies in the PTT Group, invest in PTT Energy Solutions Company Limited (PTTES), a company responsible for providing technical engineering consultations for the PTT Group.

4) Safety, Occupational Health, and Environmental Services

The NPC Safety and Environmental Services Company Limited (NPC S&E) provides the above services. Examples of these services include safety training, occupational health and environmental training of all types, as well as design and installation of fire protection systems. Consultation is also provided in regards to management systems, quality control systems, as well as safety, occupational health, and environmental systems.

5) Pipeline Infrastructure Systems

These services are provided by the Eastern Fluid Transport Company Limited (EFT), which supervises pipeline infrastructure for Petroleum and Petrochemical enterprises located within the Map Ta Phut Industrial Estate and nearby areas.

6) Information Technology Services

Information technology is provided by PTT ICT Solutions Company Limited (PTT ICT), which offers communications services to entities within the PTT Group. Their comprehensive services include the design, development and maintenance of IT systems that respond to the demands of PTTGC businesses.

7) Labor Outsourcing Services

PTT and other companies within PTT Group provide these services through the Business Services Alliances Company Limited (BSA).

8) Marketing and Sales for Health and Nutrition Products

Bio Creation Company Limited (BIO Creation) subsidiary of PTTGC, responsible for trading related to health & nutrition products in the food and supplement industry, personal care products and related compounds, plus various other by-products.

9) Polymers Sale and Marketing Services

PTT Polymer Marketing Company Limited (PTTPM) is responsible for the marketing and distribution of PTTGC's polymers-based products. Currently, PTTPM performs with a far-reaching network of designated dealers in Thailand and all regions of the world. This year, PTTGC has designated PT Indo Thai Trading (ITT) in Jakarta as the distributor of polymer and petrochemical products, handling marketing and expansion of future sales channels in Indonesia.

INDUSTRY OVERVIEW IN 2014 AND OUTLOOK IN 2015

Global Economic Overview in 2014

The International Monetary Fund (IMF)'s latest report in January 2015 forecasted world's Gross Domestic Product (GDP) in 2014 at 3.3%, or at the same level of previous year. In 2014, global economy had faced many volatilities, not only the oil price slump since the second half of 2014 from over 100 USD / barrel to merely 50 USD / barrel, but also the geopolitical issue between Russia and Ukraine, high unemployment rate and government's tightening policy in Euro zone that came with volatile Euro currency, Japanese's new stimulus packages while US decided to unwind its QE (Quantitative Easing) measures. China's new policy to make its economy slow down for more sustainable growth also impacted the global supply chain and supply-demand balance. On top of that, epidemics such as Ebola outbreaks in West Africa also caused this region a state of economic stagnation and recession.

Petroleum and Petrochemical Market Overview in 2014

Petroleum Market

2014 Crude oil price was highly volatile due to not only unrest in Middle East and North Africa (MENA) and oversupply from unconventional oil production, i.e. US shale oil, but also OPEC's policy changed from one who balances world crude oil supply and keeps market price at high level to one who competes in the oil price war to protect its market share. Dubai crude oil price in 2014 was highest at 111 USD / barrel and lowest at 52 USD / barrel, while the whole year average was at 96.6 USD / barrel.

A key factor contributing to the crude oil price slash was the increasing output from US's shale oil by more than 1.07 million barrels on average per day, which reduced its crude oil imports by 0.39 million barrels / day. Another factor for oil oversupply was due to OPEC's decision on

November 27th, 2014 to maintain production level at 30 million barrels / day while lower oil demand as forecasted by the International Energy Agency (IEA) from fragile global economy.

For the competition in Thailand's refining industry in 2014, production capacity was still higher than domestic demand, led to some export portion of Diesel and Jet fuels. However, domestic demand gradually increased as the country's economy began to recover with no new domestic Refinery capacity. The proportion of domestic sales is expected to rise in the future.

Aromatics Market

Overall, Aromatics market in 2014 had additional supply from new producers in China, South Korea, Singapore and India, yet it still experienced a lower rate of demand growth. Global demand for Paraxylene in 2014 increased by 2.1 million tons (from 35.6 million tons / year to 37.7 million tons / year), with most of this rising demand was from Asian, especially from China. However, global supplies for Paraxylene expanded to more than 5.2 million tons / year (from 40.9 million tons / year to 46.1 million tons / year). This caused global capacity utilization rate of Paraxylene dropped to 81.6% from 86.9% in 2013 and caused the average price of Paraxylene at 1,236 USD / ton, which was lower than that of previous year.

Yet declining from 2013, Benzene global demand expanded about 1.0 million tons / year (from 43.5 million tons / year to 44.5 million tons / year), largely from Asia and China. However, Benzene global supply expanded up to about 2.5 million tons / year (from 59.8 million tons / year to 62.3 million tons / year), also mainly from Asia. With demand growing at slower pace than supply, Benzene global capacity utilization was down from 72.7% in 2013 to 71.3% in 2014 and lower average price of Benzene to 1,211 USD / ton.

Olefins Market

For Olefins producers, 2014 was considered a good year, especially during the first half of the year due to tight market supply driven by series of scheduled shutdown for annual maintenance of many crackers in Asia. Supported by reduction in production capacity due to technical difficulties, Ethylene supply has loss at about 6.1 million tons from the market. In terms of downstream products, such as Polyethylene (PE) and Polypropylene (PP), demand still grew at a positive rate leading to high level of price and margin. Though Ethylene price was substantial decrease during fourth quarter due to collapse of crude oil price, Ethylene price remained steadily high compared to 2013. In 2014, average Ethylene Southeast Asia was priced at 1,395 USD / ton.

On the contrary, Propylene price was hugely oversupply as numbers of new crackers and on-purpose units came on stream in 2014. On top of that, some downstream plants in Indonesia and Singapore temporarily encountered technical difficulties led to more Propylene available in global market. Therefore, average Propylene Southeast Asia price fell from 2013, standing at 1,245 USD / ton in 2014.

Polymer Market

Despite global concerns over economic situations in Euro zone and China, as well as oil prices decreased in the latter half of the year, 2014 average Southeast Asia price of HDPE, LLDPE and LDPE still rose from that of 2013 to 1,544, 1,543 and 1,571 USD / ton respectively.

Average price of Polystyrene (PS) continued to fall due to lower feedstock price – Styrene Monomer (SM), as well as lower demand from uncertainty in economic situations of Euro zone and China. Moreover, product substitution of Polypropylene (PP) and Polyethylene Terephthalate (PET) to substitute GPPS (General Purpose Polystyrene) and Acrylonitrile-Butadiene-Styrene (ABS) in place of HIPS (High Impact Polystyrene) still unfavored PS market.

EO-Based Product Market

Mono Ethylene Glycol (MEG) is a commodity product which is used as a main feedstock for the production of Polyester – a main feedstock of textile and PET-bottle

production industries. MEG market situation will be in line with Polyester industry. Although overall MEG supply in 2014 seemed to be rather tight, Polyester market remained subdued, leading MEG price to decrease to 2014 average at 1,113 USD / ton accordingly. For Ethanolamine (EA), there was growing demand in the household, personal care, construction and glyphosate industries while supply seemed unchanged. 2014 average price of Monoethanolamine (MEA) then increased to 1,495 USD / ton.

Green Chemicals Market

In 2014, domestic Methyl Ester (ME) market was improved as government mandated for Biodiesel B7 instead of B5 from January 2014 onwards (except from February 17th to May 13th, 2014 when Biodiesel B7 was temporarily changed to Biodiesel B4 due to low inventory of domestic Palm Oil). ME demand in 2014 was at about 0.96 million tons or an approximately increased 6% from 2013. Average ME price then rose to 1,158 USD / ton in 2014. Basic Oleochemical products, including Fatty Acid, Fatty Alcohols and Glycerin, also enjoyed continuous growth of about 6% for the year, which largely supplied to personal care industry, especially in Asia-Pacific region.

Bioplastics and biochemical also experienced escalating demand, which global production capacity of bioplastics was predicted to grow from 1.5 million tons per year in 2011 to 6.7 million tons per year in 2017.

Specialty Chemical Product Market

Better market sentiment of Phenol in 2014, compared to the year before, due to the relatively low additional supply, which resulted to steady and even slightly higher Phenol price at 1,427 USD / ton. Bis Phenol A (BPA) price slightly decreased to 1,695 USD / ton due to the lower demand.

Average growth rates in the global market of Toluene Di-isocyanate (TDI) and Hexamethylene Di-isocyanate (HDI) were at 4.3% and 4.8% for the year respectively, while Asian remained the largest market with highest growth rates for both products. Average prices of TDI and HDI in 2014 were 2,520 USD / ton and 6,990 USD / ton.

Market Outlook in 2015

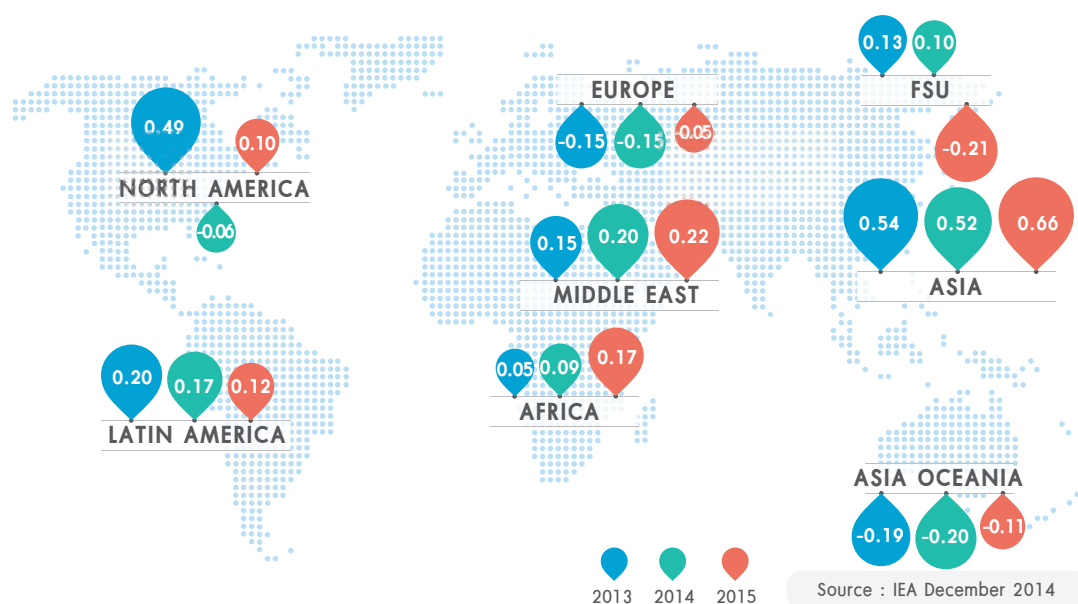
IMF expects improving 2015 global economy with 3.5% expansion, thanks to declining crude oil price, stronger US economy from recovery of labor market and interest rates remains low. European countries and Japan will still see relatively slow economic growth, while China will focus on slower but steady and sustainable economic growth at around 6.8% per year.

For 2015 Petroleum market, global demand for crude oil, projected by International Energy Agency (IEA), will increase from last year by about 0.9 million barrels / day, making the demand reach 93.4 million barrels / day. East Asia

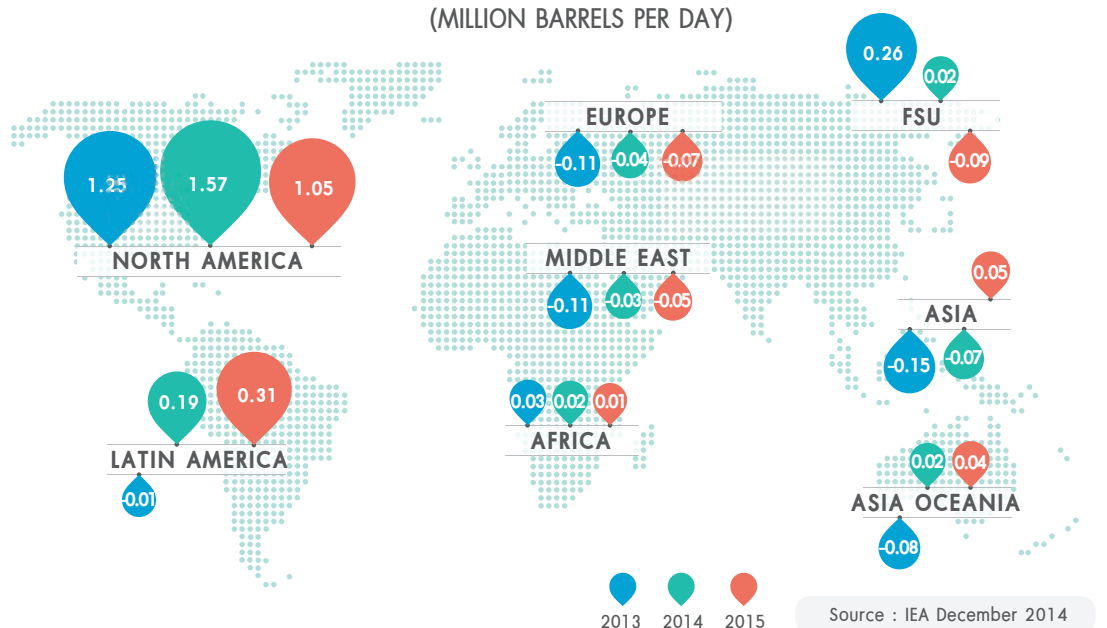
and Middle East are key contributors to this rising in demand. On the contrary, oil demand from Former Soviet Union (FSU) tends to reduce as a result of US sanction. Main driver of demand growth (about 40%) is from Diesel, using in transportation sector, especially in developing countries, followed by Benzene and Naphtha.

Projected by IEA, crude oil production capacities by non-OPEC members in 2015 are likely to increase about 1.3 million barrels / day, reaching 57.8 million barrels / day, most of which are from the United States. Therefore, with OPEC members continue to maintain crude oil output, global oil price tends to weaken, particularly in the first half of the year. However, it's expected that lower oil price will support the demand growth, especially in developing countries.

GLOBAL OIL DEMAND GROWTH 2013/2014/2015
(MILLION BARRELS PER DAY)



GLOBAL OIL SUPPLY GROWTH 2013/2014/2015 (MILLION BARRELS PER DAY)



Asian refining capacity forecasted to have net increase of about 1.4 million barrels / day in 2015, most of which will come from Middle East, leading to excess supply of refined products, especially middle distillates, high competition and pressure on margin of export market.

For 2015 Aromatics industry, an excess supply of Paraxylene is likely to continue. Global supply of Paraxylene will increase by 3.5 million tons / year while its demand will increase by only 2.5 million tons / year in accordance with textile and PET-bottle industries growth of 6.2% and 6.8% respectively. On the contrary, Benzene is likely to increase about 1.2 million tons / year while demand increases 1.5 million tons / year. However, with persistent low crude oil price, more Benzene supply is expected due to surge of Pyrolysis Gasoline supply (as feedstock of Benzene) from higher production rate of Naphtha crackers.

Olefins supply is estimated to grow substantially as new plants in Asia and Middle East going to commence operations in 2015 and fewer turnaround of Asian crackers, leading to more Ethylene and Propylene supply at 6.5 million tons / year and 7.6 million tons / year respectively. However, market demand is likely to expand slowly along with global economic recovery which would partially help Asian olefins market steer away from a state of oversupply.

Though global economy is showing signs of improvement, Asian Polyolefins market will still be pressured by two key factors, which are low crude oil price, resulting from OPEC's decision to maintain 30 million barrels / day oil output, and new production capacities, particularly in East Asia. As a result, 2015 Asian Polymer price would be lower than that of 2014.

Green chemical, including basic oleochemicals, specialty oleochemicals and bioplastics are expected to grow continuously from the rising consumer demand for environmentally-friendly chemical products.

Regarding specialty chemicals market in 2015, Phenol is forecasted to weaken when compared to 2014, due to new supply of about 1.03 million tons, most of which are from China. Furthermore, demand for Phenol in 2015 is expected to decline and have a lower growth due to slowdown in China's real estate sector. Market situation for BPA is projected to be unchanged from 2014, while the TDI and HDI markets will continue to grow with the largest market remaining in the Asian region.

MANAGEMENT'S DISCUSSION AND ANALYSIS

Executive Summary

In 2014 PTT Global Chemical Public Company Limited ("the Company") had a net profit of 15,036 MB with earnings per share (EPS) of 3.33 baht per share, decreased 55% from year 2013 with a net profit of 33,140 MB or 7.35 baht per share.

Table : Performance Summary

(Unit: Million Baht)	2013**	2014	YoY% + /(-)
Sales Revenue	549,189	570,224	4%
EBITDA	58,227	34,748	-40%
EBITDA Margin (%)	11%	6%	-5%
Net Profit	33,140	15,036	-55%
EPS (Baht/Share)	7.35	3.33	-55%
Adjusted EBITDA*	55,198	52,915	-4%
Adjusted EBITDA Margin (%)	10%	9%	-1%

Note: * Adjusted EBITDA is EBITDA excluding impact of inventory value (Inventory and NRV) and the impact from business restructuring of Vencorex

** Restated 2013 Income Statement from the implementation of new accounting standard no. 19 regarding employee benefit

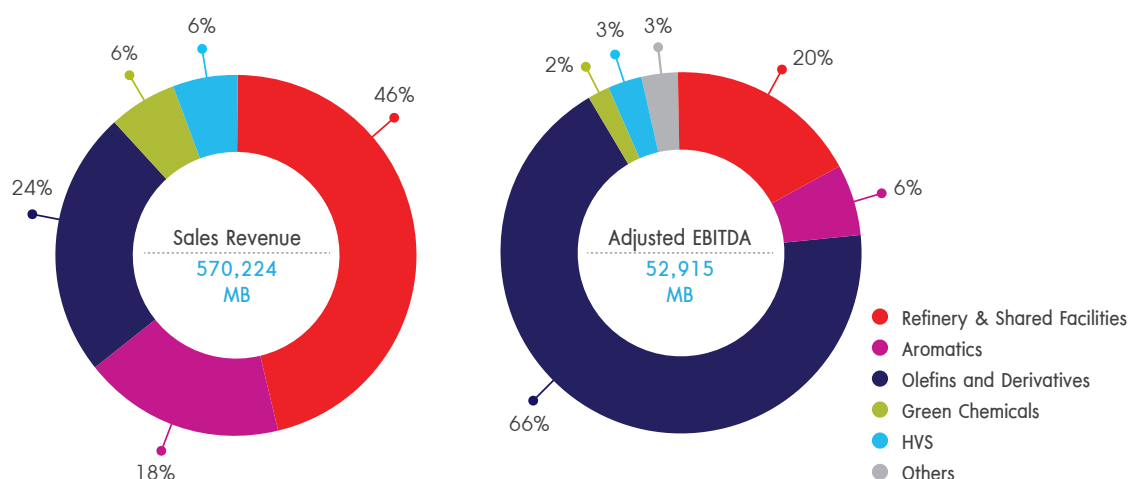
The net profit of 2014 decreased 55% from prior year mainly due to significant decrease in crude price in the 4Q/2014 which caused huge amount of stock loss and NRV (Net Realizable Value) however, when considering the performance without impact from stock, the adjusted EBITDA decreased only 4% with adjusted EBITDA margin of 9%, decreased from 10% in prior year. The decrease was due to the decline of aromatics performance 73% from prior year as spread of paraxylene significantly decreased from the oversupply situation, while refinery and olefins and derivatives businesses improved 75% and 5% accordingly from higher utilization rate and the increase in polymer price.

In 2014, Dubai crude decreased approximately 55 USD/bbl, opened in the beginning of the year at 107.80 USD/bbl and closed at 52.89 USD/bbl, and continued to decrease after year ended. This has caused to report stock loss and NRV of 15,928 MB. Moreover, in 2014, the Company has recorded the provision for business restructuring of Vencorex (the Company holds shares of 51% as of 2Q/2014) contributing to the shareholding portion of Baht 1,142 million.

Table : Adjusted EBITDA Margin (%)

% Adj. EBITDA Margin	2013	2014
Business Unit :		
Refinery & Shared Facilities	2	4
Aromatics	10	3
Olefins and Derivatives	27	25
Green Chemicals	7	3
HVS	2	5
Average	10	9

2014 Performance by Business Unit



Summary of Core Business Performance

The performance of refinery business excluding the impact of stock in 2014 (adjusted EBITDA) improved from prior year due to an increase of refinery utilization rate to 102% from 91% in previous year which had a planned shutdown. In price aspect, average 2014 petroleum spread over Dubai crude decreased however, as average crude price in 2014 decreased, the value for fuel loss and fuel used also decreased. This resulted in the Company's improved GRM from prior year. CDU GRM was at 5.61 USD/bbl increased 28% from 4.37 USD/bbl in 2013. However, due to significantly decrease in crude price especially in 4Q/2014, the Company reported stock loss of 9,053 MB and NRV (loss) of 1,519 MB for refinery business.

The performances of aromatics business worsen with adjusted EBITDA decreased 73% in 2014. This was due to a decreased in aromatics product margin especially paraxylene (PX) from oversupply problem. PX-Condensate spread decreased 28% from 557 USD/ton in 2013 to 400 USD/ton in 2014. In addition, product price significantly decreased in 4Q/2014 and resulted in the Company's reporting of aromatics stock loss of 3,782 MB and NRV of 1,431 MB.

Olefins and olefins derivatives' performance in 2014 improved from prior year due to the increase in product price and volume. HDPE price average at 1,544 USD/ton, 4% increase from 2013, while olefins utilization rate increased from 90% to 91% in 2014. However, EBITDA margin of olefins and olefins and derivatives in 2014 decreased to 25% from 27% in prior year, which was due from (1) Shutdown of 2 olefins plants in 1Q/2014 (2) Ethane volume received from PTT's gas separation plant (GSP) decreased in first half of 2014 as GSP could not run at its full capacity until 3Q/2014 when GSP could resume to its full capacity. (3) HDPE price and spread decreased significantly in the end of 2014

Change in Accounting Standard

In 2014 the Company has implemented a new accounting standard no. 19 (revised 2014) regarding employee benefit to recognize all actuarial gains and losses of defined benefit plans in other comprehensive income instead of previously recognized in profit and loss. This resulted in a restatement of profit and loss statement in 2013 for same basis comparison purpose, the net profit of 2013 reduced by 137 MB.

Summary of events that had significant impact on financial statements in 2014:

- On May 2, 2013, the Company has acquired 40% of PPCL from PTT which resulted in the Company having 100% share in PPCL. Subsequently, non-controlling interest of PPCL decreased from 40% to 0%.
- On December 23, 2013, the Company exercised right to purchase Myriant Corporation's shares from existing shareholders. As a result, on January 2, 2014 the Company's shareholding in Myriant changed from 47.18% to 84.21%, and Myriant has changed its status from the Company's affiliate to subsidiary. As of year ended 2014, the Company held 84% of Myriant's share from employee warrants exercise.
- On August 8, 2014, the company issued unsecured and unsubordinated, and name-registered Thai Baht Bond of Baht 10,000 million with 7-year tenor and a fixed coupon rate of 4.5% per annum with the objective to support its investment projects and to be used as working capital.
- On August 28, 2014, the Company purchased 34% of the registered capital in Vencorex from Perstorp Holding AB and this changed PTTGC's shareholding in Vencorex from 51% to 85%. As at the date of acquisition, the Company paid for an initial payment of the shares as agreed and will pay the outstanding in the future, where the total value of the shares will be in accordance with the operating performance of Vencorex for fiscal year 2014 and 2015.
- On September 15, 2014, the Company has shutdown Aromatics plant unit#2 (Aromatic production capacity of 1,070,000 ton/year) to repair the reactor of platforming unit.
- On September 22, 2014, the Company's Board of Directors has passed resolution to appoint Mr. Supattanapong Punmeechaow, to be President and Chief Executive Officer and acting secretary to the Board of Director in replacement of Mr. Bowon Vongsinudom due to his retirement, effective from October 1, 2014 onwards.
- On February 16, 2015, the Board of Director passed the resolution to propose the Annual General Meeting of Shareholders to consider and approve the dividend payment for year 2014 of 2.37 Baht/share or 71% of consolidated net profit. On September 12, 2014 the Company had paid interim dividend of 1.37 Baht/share and will pay final dividend of 1 Baht/share. This is still subject to approval of Annual General Meeting of shareholder 2015.

Market Overview

Table : Crude Price & Petroleum Product Spreads

Unit : USD/bbl	2013	2014	YoY% + /(-)
Dubai Crude Oil	105.52	96.61	-8%
Jet-Dubai	17.47	15.88	-9%
Diesel-Dubai	17.86	16.06	-10%
Fuel Oil-Dubai	-8.06	-8.30	-3%
Gasoline-Dubai	13.66	14.31	5%

In 2014, Dubai crude price dropped significantly from the beginning of the year at 107.80 USD/bbl to close at 52.89 USD/bbl, or decreased 51%. As for 2014, crude price averaged at 96.61 USD/bbl, dropped from the previous year which averaged at 105.52 USD/bbl, or decreased 8%. This year, the market was very volatile as crude oil price has risen from unrest situation in Iraq early 2014. After that, it continually declined to its lowest level at the end of the year as a result of excess supply. This was due to increasing in operating rate of US Shale Oil, in which production increased by 1.07 MBD and consequently reduced the import volume by 0.39 MBD. Meanwhile, OPEC has changed its position from

supply balancer to market player who competes for market share and maintains its production level at 30 MBD.

The spread between products and Dubai crude declined from last year, in line with the reduction in crude price. In 2014, the average spread of Jet-Dubai was 15.9 USD/bbl, decreased 1.6 USD/bbl from previous year, and Diesel-Dubai spread was at 16.1 USD/bbl, decreased 1.8 USD/bbl from previous year. The main factors that put pressure on oil price in the region include the increasing in Refinery capacity in the US and Middle East, the economic slowdown in China as well as unrecovered European economy. Hence, oil demand remained sluggish and oil price dropped.

Aromatics Market Overview

Table : Aromatics Product Prices and Spreads over Condensate

Unit : USD/ton	2013	2014	YoY% + /(-)
Condensate	922	836	-9%
Paraxylene (FECF)	1,479	1,236	-16%
Paraxylene (FECF)-Condensate	557	400	-28%
Benzene (Spot Korea)	1,301	1,211	-7%
Benzene (Spot Korea)-Condensate	380	375	-1%

Overall Aromatics market was still in down cycle according to the huge additional supply from new producers in China, Korea, Singapore and India. In addition, the demand growth decreased because of the slowdown in global economy

that was the driver of decline in demand for end products of benzene and paraxylene, including electronics appliances, computer parts, automotive, toys, furniture and garments.

Paraxylene

Paraxylene price for 2014 averaged at 1,236 USD/ton, decreased by 243 USD/ton or 16% from previous year. Meanwhile, condensate price dropped by 86 USD/ton, or 9%, causing the paraxylene-condensate spread averaged at 400 USD/ ton with a decrease of 157 USD/ ton or 28%. This was mainly due to the surplus of supply from addition capacity around 3.6 million tons, while operating rate of main derivative, PTA, remained low. In addition, a sharp drop in crude price in 4Q/2014 resulted in lower feedstock cost, so Polyester and PTA producers slowed down their purchased volume with expectation that paraxylene price would decrease accordingly. Moreover, paraxylene producers that temporary shutdown plants in 3Q/2014 resumed their operations in 4Q/2014, as a result, paraxylene-condensate spread reduced in 4Q/2014.

Benzene

In 2014, benzene price averaged at 1,211 USD/ton, decreased from previous year by 90 USD/ton or 7%. While the average benzene-condensate spread for 2014 was 375 USD/ton, a 1% decrease from previous year.

In the first three quarters of the year benzene market experienced a shortage of raw material, pyrolysis gasoline; benzene-condensate spread remained at a high level during this period. This was due to the use of shale gas as a feedstock instead of naphtha, as a result, pyrolysis gasoline derived from naphtha cracker reduced as a consequence. However, a sharp drop of crude price and naphtha price in 4Q/2014 caused naphtha cracker producers returned to profitability and hence, increased their production volume. Thereby, the problem of raw material shortage resolved and reflected to the reduction in benzene-condensate spread in the latter half of the year. Overall, average benzene-condensate spread in 2014 was slightly decreased from last year.

Olefins and Olefin Derivatives Market Overview

Table : Prices and Spreads of Olefins and Olefins derivatives

Unit : USD/ton	2013	2014	YoY% + /(-)
Naphtha (MOPJ)	921	861	-7%
Ethylene (SEA)	1,352	1,395	3%
HDPE (SEA)	1,488	1,544	4%
HDPE-Naphtha	566	682	21%
LLDPE (SEA)	1,487	1,543	4%
LLDPE-Naphtha	566	681	20%
LDPE (SEA)	1,534	1,571	2%
LDPE-Naphtha	613	710	16%
MEG (ACP)	1,202	1,113	-7%
MEG-0.65 Ethylene	323	206	-36%

Ethylene price in 2014 averaged at 1,395 USD/ton, increased by 43 USD/ton or 3% increase from previous year. This was due from the demand and supply of ethylene market that became more balanced. The demand continued to grow while supply in Asia became tighter as many olefins cracker went under maintenance shutdown. However,

ethylene price declined sharply in 4Q/2014 from the decrease in crude oil and naphtha price which used as olefins feedstock for this region.

The HDPE price averaged at 1,544 USD/ton, increased by 56 USD/ton or 4% increase from prior year. LLDPE price

averaged at 1,543 USD/ton, increased by 56 USD/ton or 4% increase from prior year. The LDPE price averaged at 1,571 USD/ton, increased by 37 USD/ton or 2% increase from prior year. The increase was according to the increase in demand while polymer producers in Asia and Middle East had maintenance shutdown. Moreover, Middle East producers exported their products to Latin America instead of to Asia coupled with consistent demand for plastic resins. This helped maintain Asian polymer price in high level even though in 4Q/2014, the polymer price decreased following the decreasing crude oil price, but

the average price was still higher than 2013. The spread of HDPE over naphtha was at 682 USD/ton, increased 116 USD/ton or 21% increase from 2013.

MEG price for 2014 averaged at 1,113 USD/ton, decreased 89 USD/ton or 7% decrease from supply surplus of downstream products such as PTA and polyester. Coupled with the demand which has not fully recovered and the impact of crude price which declined in the end of 4Q/2014 caused buyers to become more cautious in buying and kept their inventory to the minimum.

Performance Analysis by Business Unit

Group Performance Center - Refinery & Shared Facilities

Table : Refinery Intake

		2013	2014	YoY% + /(-)
Crude	(M.BBL)	48.34	53.83	11%
	(KBD)	132.45	147.48	11%
Condensate Residue & Others	(M.BBL)	19.96	20.52	3%
	(KBD)	54.68	56.21	3%
Total Intake	(M.BBL)	68.30	74.35	9%
	(KBD)	187.13	203.69	9%
CDU Utilization Rate		91%	102%	

The performance of refinery business, regardless of the impact from stock loss and NRV, improved in 2014 mainly due to the better utilization rate. The utilization rate of crude distillation unit (CDU) was at 102% in 2014, increased from 2013 at 91% as there was a planned shutdown of the refinery for 38 days in 2Q/2013 and another 9 days to fix hydrocracking unit while there was no shutdown of the refinery in 2014. The total refinery intake increased 9% to 203.69 KBD in 2014, of which the crude intake increased 11% and condensate residue and other intake increased only 3%. This was due to an unplanned shutdown of an aromatics

unit #2 plant which was not able to produce condensate residue for refinery as a feedstock during its shutdown time. Sales volume of petroleum products also increased 11% in 2014 from previous year.

Most petroleum refinery product spreads decreased in 2014. Diesel-Dubai spread decreased 10%, Jet-Dubai spread decreased 9% and Fuel Oil- Dubai spread decreased 3%. The mentioned 3 products accounted for 77% of petroleum production volume in 2014.

Table : Petroleum Sales Volume

Product	2013		2014		YoY% + /(-)
	'000 barrels	%	'000 barrels	%	
Light Naphtha	5,005	8%	4,902	7%	-2%
Reformate	3,701	6%	4,955	7%	34%
Jet	7,472	12%	8,995	13%	20%
Diesel	25,247	42%	34,038	51%	35%
Bio Diesel	5,758	10%	0	0%	-100%
Fuel Oil	8,507	14%	9,213	14%	8%
Others	5,048	8%	5,342	8%	6%
Total	60,738	100%	67,446	100%	11%

Table : Gross Refinery Margin

Unit: USD/bbl	2013	2014	YoY % + /(-)
Market GRM	3.52	4.41	25%
CDU GRM	4.37	5.61	28%
CRS GRM	2.87	2.77	-4%
Hedging Gain/(Loss)	0.78	0.94	20%
Stock Gain/(Loss) Net NRV	0.84	-4.36	-617%
Accounting GRM	5.14	0.98	-81%

In 2014, the Company report market GRM from CDU (CDU GRM) of 5.61 USD/bbl, 28% increased from CDU GRM of 2013 which was at 4.37 USD/bbl. In price aspect, even though average petroleum spreads over crude decreased in 2014, but average crude price decreased, so the value for fuel loss and fuel used also decreased. This resulted in the Company's improved GRM from previous year. Moreover, in 2Q/2014, there were shutdowns of 2 refineries within PTT group and resulted in domestic supply disruption. On the other hand, the Company was able to sell more petroleum products to domestic market which had positive impact to 2014 GRM. Also, in early year 2013, the Company's refinery used some of the crude intake which had higher quality; caused the overall feedstock cost higher and pushed the GRM of 2013 to be lower. In addition, in 2014, the crude oil price declined sharply while petroleum price slowly

declined. Thus, the Company realized better spread; CDU GRM of 4Q/2014 was at 6.30 USD/bbl, highest in 2014 and supported a higher average CDU GRM.

In 2014, the Company had gain from commodity hedging of 0.94 USD/bbl, however, with the declined crude oil price especially in 4Q/2014 and after the quarter ended. The Company also reported stock loss and NRV as Dubai crude decreased 55 USD/bbl to close at 52.89 USD/bbl and continued to decrease after the quarter ended. This resulted in stock loss of 9,053 MB and NRV (loss) of 1,519 MB or a total of 4.36 USD/bbl, in comparison with 2013 when the Company had stock gain of 0.84 USD/bbl. The accounting GRM of 2014 concluded at 0.98 USD/bbl, 81% decrease from 2013 accounting GRM of 5.14 USD/bbl.

Group Performance Center - Aromatics

Table : Aromatics Intake and Production

	2013	2014	YoY% + /(-)
Condensate ('000 tons)	4,993	4,666	-7%
Others ('000 tons)	1,020	936	-8%
Total Intake ('000 tons)	6,012	5,602	-7%
BTX Production ('000 tons)	2,094	1,892	-10%
BTX Utilization Rate	90%	81%	

* Aromatics capacity 2.259 Mton/year

The performance of aromatics had a huge decrease in 2014 comparing to previous year. The adjusted EBITDA decreased 73% from the decrease in price and volume. The utilization rate of aromatics (BTX utilization) in 2014 was at 81%, decreased from 2013 at 90%. This was due to an unplanned shutdown of Aromatics Unit #2 in 3Q/2014 and a planned shutdown of Aromatics Unit #1 of 42 days, while there were shutdowns of only some units in 2013. Therefore, the volume of aromatics product produced (BTX) decreased 10% when total intake decreased 7% to 5.6 Mton.

The aromatics product spread decreased in 2014. Paraxylene-condensate spread decreased 28% while benzene-condensate spread decreased 1%. This pulled down product to feed margin (P2F) of aromatics business unit to 174 USD/ton in 2014, a 41% decrease from 2013 at 296 USD/ton. Adjusted EBITDA margin of aromatics also decreased in 2014 from 10% in 2013 to 3% in 2014.

As a result from the mentioned factor of price and feedstock, the Company reported stock loss of 3,782 MB or loss of 62.3 USD/ton BTX and a loss from NRV of 1,431 MB or loss of 23.6 USD/ton BTX. The Company also record accounting P2F in 2014 at 88 USD/ton BTX, 72% decrease from 2013.

Table : Aromatics Sales Volume

Product	2013		2014		YoY% + /(-)
	'000 barrels	%	'000 barrels	%	
Benzene (BZ)	610	18%	552	17%	-10%
Cyclohexane	175	5%	162	5%	-7%
Paraxylene (PX)	1,196	36%	1,092	35%	-9%
Other BTX Products	64	2%	53	2%	-17%
Total BTX Products	2,046	61%	1,860	59%	-9%
Naphtha and Raffinate	930	28%	945	30%	2%
Condensate Residue	20	1%	0	0%	-100%
Other By-Products	350	10%	351	11%	0%
Total	3,346	100%	3,156	100%	-6%

Table : Aromatics market P2F

Unit: USD/ton	2013	2014	YoY% + /(-)
Market P2F	296	174	-41%
NRV	0	-23.6	N/A
Hedging Gain/(Loss)	-0.2	-0.1	N/A
Stock Gain/(Loss)	17.5	-62.3	N/A
Accounting P2F	313	88	-72%

Group Performance Center - Olefins and Olefins Derivatives

Table : Sales volume and utilization rate of Olefins and Olefins derivatives

Product	2013		2014		YoY % + /(-)
	'000 tons	%	'000 tons	%	
Olefins *	756	90%	708	91%	-6%
HDPE	834	106%	873	107%	5%
LLDPE	397	103%	407	100%	3%
LDPE	218	76%	323	105%	48%
Total PE	1,449	99%	1,603	105%	11%
MEG	372	94%	382	95%	3%

Note: * Sales Volume of Olefins is external sales volume.

In 2014, the performance of olefins and olefins derivatives improved from previous year due to the increase in product price and sales volume in 2014. HDPE price averaged at 1,544 USD/bbl in 2014, 4% increase from prior year. The utilization rate of olefins in 2014 was at 91%, increased from 90% in 2013 even with the shutdowns of Olefins I-1 and I-4/1 plants in 1Q/2014. Even though the performance of olefins and olefins derivatives improved but the EBITDA margin of the business decreased to 25% in 2014 from 27% in 2013 due to (1) Shutdown of 2 olefins plants in 1Q/2014 (2) The decrease in ethane volume from PTT's gas separation plant #5 in the first half of 2014 which was able to start running

at its full capacity in 3Q/2014 (3) HDPE price and spread decreased significantly in the end of 2014

Performance of HDPE

The performance of HDPE in 2014 improved with 17% revenue improved. This was due to a slight improvement of 3 HDPE plants utilization rate to 107% in 2014 from 106% in 2013 while sales volume increased 5% from previous year to 873 KTon in 2014 from inventory sales. This resulted in a 25% decrease in inventory at period end. Moreover, HDPE price increased 4% to 1,544 USD/ton.

Performance of LLDPE

The performance of LLDPE in 2014 improved when compared to 2013. LLDPE sales revenue increased 13% from previous year due to a 3% increase of sales volume to 407 Kton. In 2014, the Company also sold its inventory and this resulted in 21% decrease in period end inventory level, while LLDPE utilization rate decreased to 100% from 103% in 2013. Moreover, LLDPE average price in 2013 was at 1,543 USD/ton, 4% increase from 2012.

Performance of LDPE

The performance of LDPE in 2014 improved with an increase of 70% in sales revenue. This was due to an increase in sales volume of 48% and an increase in LDPE utilization rate to 105% from 76% in 2013, reason being that there was an unplanned shutdown of LDPE plant to fix booster/primary compressor for 77 days last year. Moreover, LDPE price improved 2% from previous year to 1,571 USD/ton.

Performance of Ethylene Oxide

The performance of ethylene oxide in 2014 softened mainly due to decrease in product price and product spread. On top of this, the sales volume also decreased. The utilization rate of ethylene oxide (EO) in 2014 decreased to 103% from 106% in previous year due to the 28 days planned shutdown in 1Q/2014.

The total production capacity of Ethylene Oxide (feed stock for Ethylene Glycol (EG) products including MEG, DEG, TEG and EO derivatives: Ethoxylate and Ethanolamine) was 335,925 tons as of 2014 with the MEG portion of 81% of total Ethylene Oxide Equivalent (EOE) while the utilization rate of MEG in 2014 was 95% increased from 94% in 2013 (The reference for calculation of this utilization rate was the total capacity of 395,000 tons per year.)

As for price aspect, MEG price decreased significantly. MEG spread decreased 36% to 206 USD/ton. This resulted in a decrease in ethylene oxide business in 2014 when compared to 2013 with the decrease in EBITDA of 25% from prior year.

Table : Utilization Rate and Sales of EOE

	2013	2014	YoY% + /(-)
Sales Volume ('000 Ton)	356	346	-3%
Utilization Rate	106%	103%	-3%

Operating Performance

	2013***		2014		YoY% + /(-)	
	MB	%	MB	%	MB	%
Sales Revenue	549,189	100	570,224	100	21,035	4
Feedstock Cost	(444,890)	(81)	(463,693)	(81)	18,803	4
Product to Feed Margin	104,299	19	106,531	19	2,232	2
(1) Variable Cost	(26,611)	(5)	(29,703)	(5)	3,092	12
(2) Fixed Cost	(16,991)	(3)	(18,312)	(3)	1,321	8
(3) Stock Gain/(Loss) & NRV	3,029	1	(15,928)	(3)	(18,957)	(626)
(4) Gain/(Loss) Commodity Hedging	1,626	0	2,257	0	631	39
Other Income	5,440	1	5,395	1	(45)	(1)
(5) SG&A	(12,565)	(2)	(13,253)	(2)	688	5
(6) Provision for Business Restructuring **	0	0	(2,239)	(0)	(2,239)	100
EBITDA	58,227	11	34,748	6	(23,479)	(40)
Depreciation & Amortization	(16,670)	(3)	(17,323)	(3)	653	4
EBIT	41,557	8	17,425	3	(24,132)	(58)
Finance Cost	(4,525)	(1)	(4,475)	(1)	(50)	(1)
(7) FX Gain/(Loss)	(2,272)	(0)	607	0	2,879	127
(8) Shares of Profit/(Loss) from Investments	(77)	(0)	534	0	611	794
(9) Income Tax Expense	(1,976)	(0)	(559)	(0)	(1,417)	(72)
Net Profit	32,707	6	13,532	2	(19,175)	(59)
Profit/(loss) attributable to:						
Owners of the Company	33,140	6	15,036	3	(18,104)	(55)
Non-controlling interests	(433)	(0)	(1,504)**	(0)	(1,071)	(247)
Adjusted EBITDA*	55,198	10	52,915	9	(2,283)	(4)

Note: * Adjusted EBITDA refers to EBITDA excluding impact of inventory value (excludes Inventory and NRV) and the impact from business restructuring of Vencorex

** Vencorex business restructuring provision expense totaling to Baht 2,239 million contributes to shareholders' portion by Baht 1,142 million and non-controlling interests' portion by Baht 1,097 million

*** Restated 2013 Income Statement from the implementation of new accounting standard no. 19 regarding employee benefit.

Performance Comparison

(1) Variable Cost

Variable cost increased by Baht 3,092 million or 12% from FY2013 in line with 3% increase in overall production and sales volume and 7% increase in average unit cost of all products. The increasing in average unit cost mainly came from the depreciation of Baht against USD. Excluding impact of exchange rate, variable cost per unit slightly increased from last year.

(2) Fixed Cost

In 2014, fixed cost increased by Baht 1,321 million or 8% from 2013. This was mainly due to an increase in staff cost around Baht 423 million from the increment in number of employees as well as annual salary adjustment. In addition there was an increase in maintenance cost around Baht 833 million as a result of planned and unplanned maintenance shutdown during the year.

(3) Stock Gain/(Loss) and NRV

In 2014, the Company reported Stock Loss and NRV of Baht 15,928 million, of which Stock Loss was Baht 12,835 million, and NRV was Baht 3,093 million.

The Stock Loss of Baht 12,835 million in 2014 comprised of Stock Loss from Aromatics of Baht 3,782 million and Stock Loss from Refinery of Baht 9,053 million. The major factor was from the significantly decline in crude price that opened at 107.80 USD/bbl in the beginning of the year and closed at 52.89 USD/bbl in the end of the year.

Additionally, NRV of Baht 3,093 million in 2014 was mainly from Aromatics and Refinery business as the product prices continued to decrease after period ended.

Previously, the Company had total Stock Gain of 3,139 and NRV of Baht 110 million in 2013.

(4) Gain/(Loss) Commodity Hedging

In order to manage risk, the Company has done Crack Spread Hedging, Fuel Loss Hedging and Inventory

Hedging to hedge the margin and ending inventory value to the targeted level. In 2014, the Company reported gain from Commodity Hedging of Baht 2,257 million in which Baht 990 million was gain from Crack Spread Hedging and Fuel Loss Hedging and the remaining Baht 1,267 million was gain from Inventory Hedging. Previously, the Company had gain from Commodity Hedging of Baht 1,626 million in 2013.

(5) SG&A

In 2014, SG&A expense increased by Baht 688 million or 5% from 2013 due mainly to the increment in SG&A expense of Myriant around Baht 1,040 million after consolidation in 1Q/2014. This was according to the change in the proportion of investment in Myriant from 47% to 84% and its status changed from associate to subsidiary. Moreover, there was a Baht 697 million donation for the foundation of PTT Group Science and Technology Institution in Rayong in 2014. However, there was one-time/special expense as a result of Oil Spill that the Company accrued in 3Q/2013 of Baht 1,059 million.

(6) Provision for Business Restructuring

In 2Q/2014, the Company recorded the provision for business restructuring of Vencorex in France as an extraordinary item. This included impairment of assets, employee compensation and other related expense totaling to Baht 2,239 million which contributes to shareholders' portion by Baht 1,142 million and non-controlling interests' portion by Baht 1,097 million.

(7) Gain/(Loss) from Foreign Exchange

In 2014, the Company reported gain from foreign exchange of Baht 607 million which was mainly came from foreign currency forward contract and cross currency swap contract (CCS). This year, Thai Baht was slightly depreciated by Baht 0.16 per USD comparing to last year (Based on average sales BOT, end of 2014 at Baht 33.11 per USD against end of 2013 at Baht 32.95 per USD). In 2013, the Company had loss from foreign exchange by Baht 2,272 million as a result of translation of loan denominated in foreign currency. This was due to Baht 2.17 per USD depreciation in last year (Based on

average sales BOT, end of 2013 at Baht 32.95 per USD against end of 2012 at Baht 30.78 per USD). At the end of 2014 and 2013, the Company had foreign liabilities of USD 2,019 million and USD 2,204 million, respectively.

(8) Share of Profit/(Loss) from Investments

In 2014, the Company realized total share of profit from investments of Baht 534 million, increased from loss of Baht 77 million in 2013 or an increase by Baht 611 million from 2013. The major factor was the change in the method to recognize the performance of Myriant from Taking Equity to Consolidation since 1Q/2014. The Company

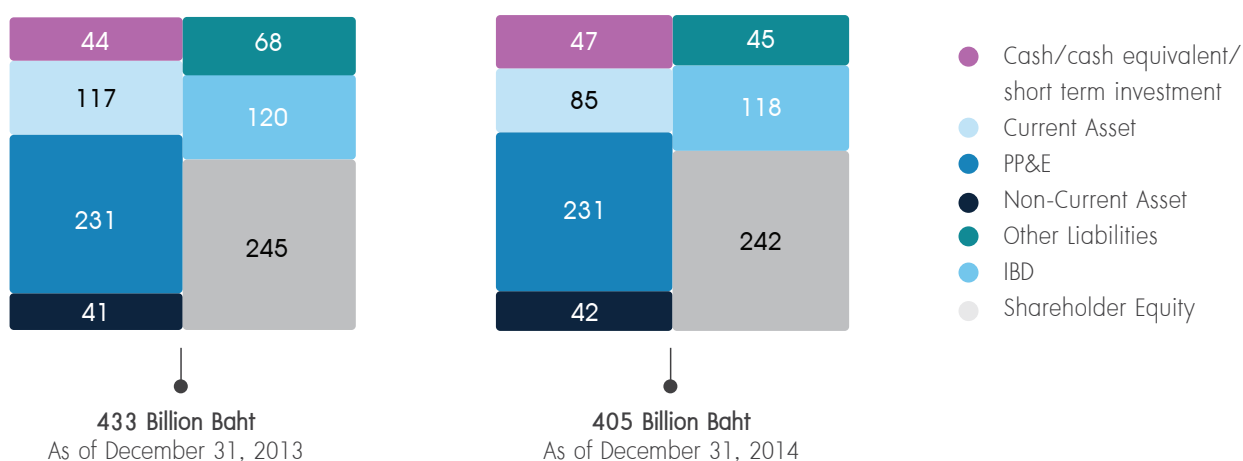
realized loss from Myriant totaling to Baht 597 million in 2013, whereas there was no such amount in 2014.

(9) Income Tax Expense

The Company reported income tax expense totaling to Baht 559 million in 2014, a decrease of Baht 1,417 million or 72% from 2013 (Effective tax rate: ETR decreased from 5.6% in 2013 to 3.6% in 2014). The major reason was from Refinery and Aromatics business that had negative performance from Stock Loss in 2014, while generated high profit in 2013 from Stock Gain which was subject to 10-20% tax rate.

Statement of Financial Position

Unit: Billion Baht



Assets

As at December 31, 2014, the Company had total asset of Baht 404,753 million, decreased by Baht 27,974 million from December 31, 2013 which came from a decrease in current asset of Baht 28,974 million while non-current asset increased by Baht 1,017 million.

1) Current asset decreased Baht 28,974 million or 18% mainly due to the following reasons:

- Cash and cash equivalents and current investments increased by Baht 3,023 million or 7% which was mainly due to cash received from operation of Baht 45,641 million and cash received from bond issuing

of Baht 10,000 million, while there was cash used in purchasing assets totaling to Baht 20,195 million, net repayment of loan and interest of Baht 17,033 million and payment of dividend totaled Baht 15,097 million.

- Accounts receivable decreased by Baht 17,639 million or 30% that was mainly due to a decrease in accounts receivable of Refinery and Aromatics business totaling to Baht 10,305 million and Baht 5,929 million, respectively. This was because of a sharp drop in product price comparing to the end of last year. In addition, accounts receivable of Olefin and Derivatives business decreased by Baht 698 million from the decline in Olefins and Polymers

price even though sales volume significantly rose in December 2014 in comparison to the same period of last year.

	2013 (Days)	2014 (Days)	+ / (-) (Days)
AR Turnover	33	30	-3

- AR Turnover for 2014 averaged at 30 days, 3 days decreased from 2013 which was due mainly to a decrease in AR days in almost all business units. For Refinery business, AR days decreased from averaged at 27 days to 22 days and for Aromatics business, AR days decreased from averaged at 40 days to 33 days. This was because domestic sales portion of these two business units increased in comparison to last year and credit term of domestic sales is by nature shorter than export sales.
- Inventory decreased by Baht 14,478 million or 29%. A decrement was mainly because of a sharp drop in crude price, therefore, the Company has policy to manage inventory level to minimize loss from NRV. Moreover, as crude price declined, overall feedstock and product prices dropped accordingly.

	2013 (Days)	2014 (Days)	+ / (-) (Days)
Inventory Turnover	21	19	-2

- Inventory turnover for 2014 averaged at 19 days, decreased from end of year 2013 by 2 days as a result of inventory management policy as mentioned.
- Other current asset decreased by Baht 120 million or 2%, resulted from (1) a decrease of VAT receivable of Baht 909 million as the Company get the refund during the year (2) a decrease of receivable from Oil Fuel Fund totaled Baht 454 million because of the cancelation of compensation in diesel at the beginning of the year together with the reduction in compensation rate of LPG. (3) other receivable increased by Baht 1,094 from gain from Crack Spread Hedging and Inventory Hedging during December 2014.

2) Non-current asset decreased by Baht 1,017 million which was mainly due to:

- Property, plant and equipment increased by Baht 275 million or 0.1%. This came from an increase in assets cost by Baht 15,440 million, net off the depreciation recognized in the period by Baht 14,127 million and impairment of assets from Vencorex restructuring at the amount of Baht 1,038 million. The increment in assets cost was mainly resulted from additional assets and construction-in-progress from on-going projects such as Phenol II, Aromatics II Debottlenecking and TOCGC improvement project. In addition, there was an increase in plant turnaround recognized as asset during the period.
- Other non-current asset increased by Baht 742 million or 2% due mainly from an increase of investment in associates from share of profit recognized during 2014.

Liability

As at December 31, 2014, the Company had total liability of Baht 162,877 million, decreased by Baht 24,475 million from December 31, 2013 which resulted from a decrease in current liability of Baht 21,425 million and a decrease in non-current liability of Baht 3,050 million.

1) Current liability decreased Baht 21,425 million or 26% from the following reasons:

- Accounts payable decreased by Baht 22,719 million or 50%, which was mainly from a significant drop in crude price as well as product price comparing to the end of last year. Moreover, the Company has reduced purchase quantities according to inventory management policy. In addition, accounts payable of Aromatics business decreased because of the reduction in material purchased to align with planned shutdown of Aromatics 1 plant in October to December 2014.
- Other accounts payable increased by Baht 733 million or 9% as a result of an increase in accrued expense for contribution to Oil Fuel Fund and excise tax.

- Current portion of long-term loan increased by Baht 3,249 million or 16% from the reclassification of long term loan and debenture to current portion by Baht 23,087 million. However, there had been repayment of debenture and loan during the period totaled to Baht 15,000 million and Baht 4,775 million, respectively.
- Income tax payable decreased by Baht 1,209 million or 94% due mainly to the performance of second half this year was lower than the same period of last year.

2) **Non-current liability decreased by Baht 3,050 million or 3% which was mainly due to:**

- Long-term loan decreased by Baht 4,544 million or 5%. This was mainly due to the reclassification of long term loan and debenture to current portion at the amount of Baht 23,087 million. However, the Company issued new loan and bond totaling to Baht 8,543 million and Baht 10,000 million in 2014 with the objective to support investment projects and to be used as working capital and repayment of existing loan.
- Deferred tax liability decreased by Baht 321 million or 8% from last year due to the reversal from actual tax paid in 2Q/2014 totaled to Baht 300 million.
- Employee benefit obligation increased by Baht 729 million or 22% due to the re-calculation of employee benefit provision that will be performed every three years by a qualified actuary using the current variables.
- Other non-current liability increased by Baht 1,086 million or 126% from provision for business restructuring of Vencorex which comprised of staff compensation and factory development cost amounting to Baht 752 million. The addition also included estimated consideration to be paid for step up investment in Vencorex (increase shareholding interest from 51% to 85%). As a result, the Company estimated the consideration at EUR 5.97 million or approximately Baht 239 million and recognized a liability for that amount in other non-current liability.

3,482 million from December 31, 2013. This included an increase in the Company's portion of Baht 923 million whereas non-controlling interest portion reduced by Baht 4,405 million.

The Company's portion increased by Baht 923 million or 0% arose from the Company's net profit during the year of Baht 15,036 million, profit from an increase in shareholding portion of Vencorex from 51% at the end of 2013 to 85% totaled to Baht 1,761 million, net loss from an increase in shareholding portion of Myriant from 72.21% at the end of 2013 to 84.18% amounting to Baht 258 million, dividend payment of Baht 14,198 million and loss in the foreign currency translation differences for international operations and loss from financial derivative valuation to reduce risk of cash flow for Baht 1,418 million.

However, non-controlling interest portion reduced by Baht 4,405 million or 64%. This included loss from operation during the period of Baht 1,504 million, dividend payment to non-controlling interest portion of Baht 556 million, a decrease in non-controlling interest portion in Vencorex and Myriant of Baht 2,127 million, loss from foreign currency translation of Baht 213 million and loss of non-controlling interest portion from investment in subsidiaries of Baht 5 million.

Statement of Cash Flows

For statement of cash flows the year ended December 31, 2014, the Company had net cash from operating activities of Baht 45,641 million, net cash used in investing activities of Baht 25,527 million which was mainly from investment in on-going projects such as Phenol II, Aromatics 2 Debottlenecking and TOCGC improvement project, etc. In addition, the Company had net cash used in financing activities of Baht 22,739 million from repaying debenture and long-term loan, interest expense, and dividend payment. Adding up together with beginning cash and cash equivalents and effect of exchange rate changes on balances held in foreign currencies of Baht 18,041 million, the Company had cash and cash equivalents at the end of 2014 of Baht 15,416 million. Including current investments, the Company reported cash and cash equivalents and current investments totaled to Baht 47,405 million.

Shareholder's Equity

As of December 31, 2014, the Company reported total shareholders' of Baht 241,876 million, decreased by Baht

Key Financial Ratios

Financial Ratios	2013	2014
Current Ratio (Times)	1.93	2.13
EBITDA to sales revenue (%)	10.60%	6.09%
Net Profits to sales revenues (%)	6.03%	2.64%
Return on total assets (%)	9.39%	4.68%
Return on equity (%)	14.38%	6.29%
Interest Bearing Debt to equity (Times)	0.49	0.49
Net interest bearing debt to equity (Times)	0.31	0.29
Net interest bearing debt to EBITDA (Times)	1.30	2.04

Note:

Current ratio	=	Current assets divided by current liabilities
EBITDA to sales revenue	=	EBITDA divided by sales revenue (for the last 4 quarters)
Net profit on sale revenue	=	Net profit divided by sales revenue (for the last 4 quarters)
Return on total assets	=	Net profit (for the last 4 quarters) divided by average total assets
Return on equity	=	Net profit (for the last 4 quarters) divided by average total shareholder's equity
Interest Bearing Debt to Shareholders' Equity	=	Interest Bearing Debt divided by shareholder's equity
Net Interest Bearing Debt to Shareholders' Equity	=	Interest Bearing Debt net from cash and cash equivalent and current investments divided by shareholder's equity
Net Interest Bearing Debt to EBITDA	=	Interest Bearing Debt net from cash and cash equivalent and current investments divided by EBITDA (for the last 4 quarters)



RISK MANAGEMENT AND RISK FACTORS

Risk Management

At PTTGC, we are aware of risks associated with our business operation, investment and strategy. Therefore, we have adopted enterprise-wide risk management in a systematic manner in accordance with COSO ERM (2004), which is the standard for risk management created by The Committee of Sponsoring Organization of the Treadway Commission in the United States of America. The committee is internationally respectable in internal audit and risk management. We have also adopted risk management process in accordance with ISO 31000 (2009), which is the standard for risk management created by International Organization for Standardization, whose task is to set a standard for a process management.

We emphasize on proactive risk management in both short and long terms. We employ our own pioneered Early Warning System (EWS) as a system used to monitor and analyze risks and uncertainties both of which emerge from external factors and, if any risks were to materialize, may affect our performance and/or investment considerably.

We conduct both qualitative and quantitative risk assessments using a Risk Map, a 4x4 matrix, in evaluating risk severity in term of relationship between impact and likelihood of the risk in question. There are a clear process and criteria for PTTGC risk assessment. The risk map, along with its risk profile, is required at corporate, business unit and function as well as important investment levels. We employ Monte Carlo simulation in assessing risk severity by deriving a Value-at-Risk (VaR) against our financial performance target. The analysis helps us in identifying potential impact on our financial performance under a possible scenario.

We have set a key risk indicator (KRI) for each important risk. The KRI will alert us of changes in the potential impact of the risk in question and/or the likelihood of its occurrence. This will allow the risk owner, management and RMC to be aware of a tendency of the risks we are facing. So we can be well-prepared in a timely and more efficient manner.

Moreover, PTTGC has been ranked in the Dow Jones Sustainable Indices by S&P Dow Jones Indices LLC., in the collaboration with the appraiser RobecoSAM, in 2014. The indices are worldwide respectable as an indicator reflecting the ranked company's business sustainability. In 2014, PTTGC was the one amongst 10 listed companies in the Stock Exchange of Thailand (SET) that were ranked in the indices; the one in 11 leading chemical companies worldwide that have been ranked in the indices for the second consecutive year; and the only one chemical company in Asia that was ranked in the indices. PTTGC received a full 100-point score under Risk and Crisis Management which could demonstrate an international recognition of our management under the concerned area.

In addition to the DJSI, we strive to manage risk in accordance with the requirement under the good corporate governance principles of the Board of the Year for Distinctive Practices Award (2013) we received from The Thai Institute of Directors Association (IOD). The IOD is recognized by the SET and internationally in its roles in developing professional qualification of a director and in promoting good corporate governance in Thailand.

Risk Factors

We place importance in managing risk to meet an international standard. However, due to the unique nature of the industries we involved, it may not be possible to avoid certain risks inherent in the industries that, if any of them were to occur, may significantly affect our business objectives or performance, and/or shareholders' expected return from investment in PTTGC.

Outside the risk factors that are discussed in this report, there may be a number of other risk factors that we do not know or are not aware of their significance at the time of this report preparation; are evaluated to fall within our risk tolerance but they later develop to be severe risk factors, which if they were to materialize could impact our businesses, investments or strategic objectives seriously; or exacerbate beyond our risk tolerance in the subsequent period.

In 2015, the key risks that could obstruct us in achieving business, investment and/or strategic objectives are summarized as follows:

Business Risk

Price Risk

PTTGC operates in the industries that always face a risk from prices. PTTGC Group's raw material/feedstock and product prices may fluctuate and/or change from a business plan significantly in a particular period during the year which could adversely impact our business performance. In the normal circumstances, we employ mechanism to manage the fluctuation and changes of these prices and our product-feedstock margin. However, in the period of tremendous fluctuation and/or changes of the prices, such mechanism may not be a full-effective response to the situation as occurred in the fourth quarter of 2014 during a sharp decline in crude oil prices. In the period, a hedging derivative and forward contract in crude oil and the petroleum products were more limited in usage than in the normal period. An opportunity to buy and sell the derivative and/or engage in the forward contract was extremely narrower than usual. Besides crude oil and petroleum products, our management of the price risk using hedging mechanism via a derivative or forward contract for other raw materials/feedstock and products is yet limited due to the absence of the market or lack of the market liquidity.

The prices of raw materials/feedstock we use and of product we produce are of or linked to the world markets, which are directly affected by a change in market expectation over demand for and supply of the respective raw materials/feedstock and products during a particular period of time. These demand and supply usually relate to a state of the world economy, which is beyond our control. Therefore, should the risk of these prices were to materialize, there could be a severely negative impact on our business performance.

Mitigation Measures : We have a policy in managing the price risk using natural hedging approach, wherever possible and appropriate, by setting a price formula in a

sales-and-purchase agreement between us and a company under PTTGC, and amongst the companies under PTTGC themselves. The price formula of the raw materials/feedstock should link to the prices of the end products produced from them. Wherever possible, we endeavor to set the price formula to reflect several market prices which help reducing price volatility to a certain extent.

We centralize a production plan with the built-in process on close coordinating with GPCs and BUs, Olefins, Polymers and EO-Based in particular, in terms of ethylene allocation for the production units to use as feedstock that would yield the highest economic value to PTTGC under any existing constraints including the relevant sales-and-purchase agreements and market conditions. Were such practice to be efficient, effects on PTTGC from raw material/feedstock and product price volatility should reduce substantially.

We also manage the risk of raw material/feedstock and product prices of crude oil in particular and other feedstock and products whenever feasible and appropriate. We use, under the RMC policy and framework, a derivative and/or forward contract in managing this risk. Should the risk measures be effective, effects from the price risk on the company performance are expected to reduce substantially.

To counter the situation that the prices fluctuate and/or change abnormally as in the fourth quarter of 2014 - the period in which the crude oil prices declined sharply, we carried out a number of measures, most important namely: a setup of a special task force comprised of relevant executives and functions, primarily accountable in managing various relevant operations including monitoring of crude oil prices on a daily basis; an acceleration of sales without disruption in the market; a lowering of inventory; an entrance into gross refinery margin (GRM) hedging when practicable and appropriate; a cut of expenses without negative effect on PTTGC operation.

Feedstock Risk

Feedstock risk is the risk that we may not be able to secure raw materials/feedstock from suppliers especially ethane and crude oil. Ethane feedstock risk is that PTT Gas Separation Plants (GSPs) could not supply ethane per contract obligations

including the agreed volume and reliability. Should this ethane risk were to materialize, there would be a severely impact on PTTGC Group's production. In our crude oil sourcing risk, it depends largely on the capability of PTT acting as a primary supplier of crude oil for us. Therefore, in the event PTT is unable to source crude oil per agreement with us, there would be a significant impact on our production as well.

Mitigation Measures : We have a close coordination with PTT in our production and ethane offtaking planning from the start of and throughout each fiscal year. Such coordination practice reduces the opportunity that we would receive ethane less than planned.

As PTT is the largest shareholder in PTTGC and its supply of feedstock to us is mostly under a long-term contract, it is the unique nature of petrochemical industry where the chance that the supplier of our key feedstock will not comply with or deviate from its contract obligation in a short notice is unlikely. On the perspective of our crude oil sourcing through PTT, it is considered that the risk related to the sourcing risk is also limited. Therefore, it is business as usual for PTT.

Operational Risk

Plant Operational and Disaster Risks

Plant operational and disaster risks are the two important operational risks of PTTGC. Plant operational risk is the risk that PTTGC Group's production or logistics of raw materials/feedstock and products on land and in the sea may malfunction or be disrupted caused by unexpected internal and/or external factors. Such factors could be, for instance, human error, accident, machinery breakdown and malfunctioned/broken logistics system. Should these factors were to materialize, PTTGC Group's businesses could be disrupted or miss the target plan which could subsequently impact our business performance seriously.

Disaster risk is naturally high in impact but low in likelihood. This risk, if it were to occur, could cause an adverse impact. One source of the risk is from the plant operational risk that materializes and then escalates. Disaster risk could cause a significant financial loss; a casualty of our employees and/or third party; or a severe damage to the environment. The

incidents that could be a disaster risk are, for instance, a fire and an explosion occurred at one of our plants, equipment malfunction/breakdown, a leak in a piping system and/or from a storage tank; and a natural disaster. Should any of such the incidents were to take place, there would be an impact in various forms which could greatly damage our reputation and/or business performance both short and long terms.

Mitigation Measures : As we are aware of the risk associated in a plant operation, we set a plan in response to the business disruption as to cease emergency, control cause of difficulty, lessen loss of assets, protect lives and the environment from danger and recover plant operation back to normal as soon as possible. We also set preventive and predictive maintenance plans as to minimize a chance of the risks associated with equipment. We urge the necessity of having a manual and/or procedure of the processes related with plant operation and maintenance. We recognize the need for a regular training as to have our employees review their relevant manuals and procedures. This practice is expected to minimize the incidents caused by human errors, accidents or other disruptive events relevant to the plant operation.

In addition to the typical management of the plant operational risks, PTTGC Group also engage in setting up a system and process of Operational Risk Management (ORM) under the framework of Operational Excellence Management System (OEMS) of PTT Group. This ORM aims to raise a capability to protect and response of its group members to the accidents and incidents that may cause loss of life and danger to health or the environment. The ORM requires us to have the processes of an operational risk management throughout our organization.

Moreover, we are aware of a type of risks that are very low in the probability of occurrence like fire, explosion and natural disaster, all of which, if they were to occur, could severely disrupt our supply chain; cause casualty or danger to health of employees or the third party; and seriously damage our assets or the third party. We therefore implement Business Continuity Management (BCM). In 2014, our Branch 2 Olefins Plant I-1 and HDPE Plant have been certified by Management System Certification Institute (Thailand) for their Business Continuity Management System that meets ISO22301:

2012 standard. We are also in the process of expansion our BCM to other plants in 2015 which we believe that BCM will shorten the disruption period and/or lessen impact from the disruptions should any unplanned event were to materialize.

PTTGC adheres to the policies regarding health, safety, and the environment starting from the inception of each key activity/project. All aspects of key activity/project include technologies used and process selection, design and installation, operation methods, adherence to safety culture, environmental risk assessment activities, protection and reduction of environmental impact on stakeholders, compliance with applicable laws, rules and regulations and continued improvement and development of environmental management as well as communication to all relevant parties. With regard to environmental management, ISO14001 standard is maintained. On a regular basis, we prepare a report of the results from the implementation of environmental protection and correction; and from the monitoring of quality of the environment for the Office of Natural Resources and Environmental Policy and Planning. We believe that by adherence to the above practices, the likelihood and/or impact of the plant operational and disaster risks on environment will reduce significantly.

Moreover, we have a policy to hold an All Risks Insurance Policy, Business Interruption Policy and a Third Party Liability Insurance Policy, all of which meets an international standard. This practice aims to minimize losses to us in case a disaster risk actualizes.

By reviewing and raising our measures in disaster risk management in terms of prevention, correction and prediction and the transfer of such risks whenever appropriate, we believe that our plant operational and disaster risks will reduce significantly.

Raw Water Shortage Risk

Raw water shortage risk is the risk that PTTGC Group may not have sufficient amount of water for a plant operation for the water suppliers are unable to supply types of water as specified in the contracts. A potential drought in Rayong province and the surrounding areas in 2015 and in any given year may, if it were to occur adversely, cause a sizeable

reduction in raw water in the key reservoirs in the province. Consequently, our water suppliers may not be able to secure raw water for subsequently supplying to their customers, including us. Should this risk were to materialize, we may have to slow or even shut down our operation at some or all plants, which could impact our business performance seriously.

Mitigation Measures: Although the water shortage risk is beyond our control, we have kept an eye on this risk constantly in the past years as we wish to be well-prepared for the shortage when it comes. We are monitoring the change in raw water in the reservoirs and potential drought in the Eastern region of the country, Rayong and Chonburi provinces in particular. We have continued a follow-up of the progress of the preventive-and-corrective plan for drought under management of the responsible agencies. In the event of the shortage, we would activate our water management plan with regard to PTTGC Group's economic value, impact on our raw material/feedstock suppliers and customers, and logistics limitation as well as other remaining constraints. Our plan will be more intense when the probability of the risk occurrence rises as in our preparation for this risk last year. We believe that PTTGC Group readiness for the risk will lessen the impact to a certain extent should it were to materialize.

Reputational Risk

The nature of refinery and petrochemical industries in which we are doing business has an inherent risk of causing an event that may harm health, safety and/or property of our employees and people in the communities surrounding our production bases and logistics systems. Despite the fact that the probability of such risk occurrence is low, should our stakeholders, people in the communities and the public are not well-informed in the essence of the control and mitigation measures of the risk, they may refuse or distrust our business operation to the degree that we may not be able to operate normally and/or expand investment as planned.

In addition, PTTGC is an LPG user in an upstream petrochemical process. Likewise the household and transportation sectors are also LPG users. As a consequence, regarding the price structure and usage of LPG, the information and news from sources available to the public could, if incorrect materially,

cause our stakeholders and/or the public misunderstand the essence of our LPG usage. Consequently, this could damage our image and reputation considerably.

Mitigation Measures : We place importance in reaching out to our neighboring communities as to respond to the issues in question, their expectations, our responsibility and the trust establishment. We have engaged more than 80 communities in the areas of education, economics, health and sports, and the environment.

With respect to the information about our LPG use, we emphasize a continued explanation about the fact and relevant consequence regarding the use of natural gas in petrochemical industry via media such as our website.

Financial Risk

Foreign Exchange Risk

Foreign exchange (FX) risk is our prime financial risk. FX fluctuation and changes in an unfavorable direction cause this risk. Our revenues and raw material/feedstock costs are mostly in or referred to the prices in the US dollar. We also possess the US dollar-denominated assets and liabilities, of which the latter is caused by our financing in the US dollars. As a result, the rate of and fluctuation between the Thai baht and US dollar would have an impact on us in baht term.

Mitigation Measures : To protect our businesses from the FX fluctuation and excessive changes in the rate of exchange beyond our acceptable level, we employ a FX hedging instrument by selling and/or buying the US dollar forward according to our FX target and consistent with PTTGC Group's business and investment plans. All the hedging activities are under the framework approved by the RMC.

Strategic Risk

Long-term Feedstock Risk

Long-term feedstock risk is the risk related to PTTGC Group inability to secure raw materials/feedstock, ethane in particular, sufficiently and/or at a competitive price according to our long-term plan. The risk involved the issues covering

the potentially declining volume of natural gas in the gulf of Thailand; changes in laws and/or regulations all of which may cause the prices of our key raw materials/feedstock and/or logistics cost to rise; the inability of the existing logistics system to facilitate a larger volume of import raw materials/feedstock - should the need to import the raw materials/feedstock substitute arise; and a possible change in the assumptions adhered to the price formula in our purchase-and-sale agreement with PTT, creating an amendment of the agreement which could result in the reduced ethane to be received from PTT and/or a higher price for ethane. Should any of the above issues occur, our business performance and/or long-term growth plan could be seriously affected.

Mitigation Measures : We closely follow forecasts of natural gas in the gulf of Thailand which will directly affect the ethane volume we will be offtaking from PTT GSPs, and a tendency and change in relevant laws and regulations which could affect our ethane sourcing from the domestic GSPs. Although we do not have control over this long-term feedstock risk, we endeavor to lessen the impact from it by conducting the feasibility study of alternative feedstock usage and import. The study covers economic justification, logistics readiness and other related issues.

Investment Risk

PTTGC is in the industries which are capital intensive and require technological advancement, large production to achieve economies of scale, vertical integration to realize synergy throughout supply chain, as well as rely on special experts. With regard to the chance and necessity to achieve the above characteristics of the industries, there is therefore the need for us to broaden our investment abroad. Consequently, we may have to encounter the investment risk from greenfield investment, joint venture, merger and acquisition, especially from abroad. Such risk may cause investment delay, cost overrun and investment under-performance all of which, if any of them were to materialize, could severely impact our cash flow, raise our financial cost, cause our objectives to fail and/or hinder our growth.

In fact, the investment risk can come in various forms from a study phase to an execution period. The study phase starts

from investment opportunity seeking down to feasibility study. In the study phase, the risk factors are usually highly uncertain. They are, for instance, a change in government policy, uncertainty in law and regulation practices or interpretation, a protest from a community/the public, difficulty in seeking for strategic partner, misalignment in business model, inaccessibility of required technology, higher competitiveness of substitute technology, inability to source raw material/feedstock to meet the amount required, ill-prepared staffs accountable for investment subjects, greater impact on environment than expected, a change in market structure, a difficulty in long-term forecast of market, a significant change in trend or price structure of raw materials/feedstock, products or utilities, foreign exchange rate uncertainty and/or volatility, organizational culture and/or structure of an investment misaligned with those of us.

Should we continue with the investment we complete a study in depth, some risk factors in the execution period may differ from the study phase. They are, for instance, higher-than-expected impact on the environment and health of the communities nearby; delays in project design, authority approval, equipment and machinery procurement, and construction; plant commissioning difficulty; inability to source raw materials/feedstock per the amount required and/or at the investment assumption prices; ill-prepared logistics system for raw materials and products; inability to penetrate existing and/or new market at the level desired; and lower-than-expected product-feedstock margin.

Mitigation Measures : We prescribe the owner of investment or project to assess and manage investment/project risk in accordance with the policy, management framework as approved by the RMC. The risk assessment process will follow our investment Stage Gates which cover from the opportunity seeking to the requesting for the Board of Directors' approval. Each process of investment consideration requires management to provide an opinion regarding various concerns such as an alignment with the growth strategy of PTTGC and the assessment and management of the investment risk.

In fact, PTTGC requires that all sizable investments and projects must be processed through the RMC for consideration and approval regarding the sufficiency and appropriateness of risk assessment and risk mitigation plan before the investments/projects in question can be proposed to the Board of Directors for approval. Owners of the investments and projects that assess and manage risks have to review their assessment and report the progress of risk management on a regular basis as guided.

We believe that if we can effectively manage the investment/project risks according to our policy, framework and guideline for investment risk management, it will help reduce the likelihood of risk to materialize. Furthermore, we have a policy to insure the project while in the process of construction according to the international standard as to minimize an impact to us should the project risk were to take place.

Human Resources Risk

Human resources (HR) risk of PTTGC is the risk that we are not able to recruit a staff as required or retain an existing qualified staff for our existing operation and strategic growth. Due to the needs of a knowledgeable, skillful and experienced staffs in the growing refinery and petrochemical including Specialty industries worldwide, it is difficult for us to recruit a certain qualified staff as planned. On the other hand, to retain and develop the existing staffs to meet our strategic direction is yet important. If we cannot manage it efficiently, we may lose these valuable employees as well.

Mitigation Measures : We are aware of the above HR risk so we set a number of measures including an increase in the channel to recruit a potential staff both domestically and internationally by joining with leading academic institutions and professional recruitment agency. Such activities aim to seek a required staff to fill in the vacant position in the areas like special chemical expert, for instance. Additionally, to develop a capability of our existing staffs, we urge them to set their individual development plans (IDPs). We emphasize our organizational culture to be consistent throughout PTTGC. We believe that by managing as mentioned we can lessen the HR risk to a certain degree.

Fraud Risk

Fraud risk is the risk that our executives, employees and the third parties acting in our orders, on behalf of or in the task assigned by us commit fraud against PTTGC or the other third parties. As a consequence from this kind of activities, there could be an impact on our financial performance and/or reputation severely.

Mitigation Measures : We require any relevant employees to identify and assess the probability of a fraud and corruption in their key working processes, and review the sufficiency of the existing controls and additional mitigations to control the risk to be within our acceptable level. Our process of this practice is in our internal control system. We also have Corporate Compliance Policy covering the subjects of Antitrust Law/ Competition Law Policy, Anti-Corruption and Anti-Bribery Policy, Human Rights Policy, Intellectual Property Policy, Anti-Money Laundering and Combating the Financing of

Terrorism Policy, Confidentiality of Information Policy, and the policy over other laws, rules and regulations which concern businesses of PTTGC and PTTGC Group. We encourage our directors, executives and employees to follow PTTGC Business Code of Conduct.

In spite of our systematic risk management, we have been impacted from the price risk significantly, from the volatility and decline in the prices of crude oil and our products; and in the margins between our product prices and their feedstock costs in particular. Also, we have been affected from the aforementioned plant operational risk. Nevertheless, we endeavor to learn and develop our practice in risk management aiming to raise its effectiveness to the maximum level possible. We believe that the more effective risk management it will be, the higher the chance that we can succeed our business, investment and strategic objectives in the future.



INTERNAL CONTROL

PTT Global Chemical Public Company Limited values the importance of Internal Control System which designed to be in accordance with the international standards to ensure its operations to maintain accuracy, transparency, accountability and to mitigate or prevent losses from unexpected risks.

Board of Directors Meeting No. 2/2015 held on February 16th, 2015, evaluated PTTGC's Internal Control System based on the internal control assessment report prepared by the Management, together with the Audit Committee report and the result of the Audit Committee's internal control review. The Board viewed that PTTGC's Internal Control System has been functioning properly in an adequate and effective manner. The operation has been efficiently managed with sufficient number of qualified and competent personnel. In addition, PTTGC has implemented monitoring system to ensure safeguard of PTTGC Group assets against misuse or unauthorized use by the Board or the Management.

In this regard, the Audit Committee agrees with the Board on the adequacy and effectiveness of the PTTGC's Internal Control System.

PTTGC's Internal Control System can be summarized as follows:

Control Environment

The Board and the Management strived to promote corporate culture values that focused on integrity and ethics. The Board also provides supervision of PTTGC's operations to ensure its compliance with the organizational vision and missions and to ensure that PTTGC's control environment is appropriate and effective, as has been detailed below:

- The Board maintains its independence from the Management and it is responsible for supervising the overall operation of PTTGC as well as expressing views on the directions and strategy of PTTGC which will be used as guidelines to formulate business and operating plan. Furthermore, the Board regularly monitors the

performance of PTTGC and its Sub-committees to ensure achievement of PTTGC's objectives and goals.

- The Board and the Management have established Corporate Governance Policy, Business Code of Conduct, and Internal Control System Policy which provide preferred practices for all Directors, the Management and Employees. All Employees are accountable for their internal control activities and maintain effective internal control system. Moreover, PTTGC has developed Whistleblower system as a mechanism to enable individuals to voice concerns on non-compliance as well as to investigate and verify complaint in order to arrive at appropriate response to the non-compliance in a timely manner.
- PTTGC's corporate structure has been grouped into business units and functions in a way to best support its business operations in an efficient manner and good governance. This structure comes with a system of checks and balances which delegates duties and responsibilities appropriately.
- PTTGC has specified personnel qualifications for individual positions. These qualifications form the basis for recruitment and personnel development. PTTGC has also put in placed succession plan for important management positions to ensure business continuity. Furthermore, it has established performance management and fair rewarding system as incentives provided to motivate efficient towards employees.

Risk Assessment

The Board recognizes the significance of business strategies and goals setting. The Board has appointed the Risk Management Committee to oversee PTTGC's risk management in an appropriate and efficient manner in order to support the achievement of its strategies and business goals, as following details:

- PTTGC has established Risk Management Framework which follows international standards of ISO 31000 - Risk Management and COSO Enterprise Risk Management. Furthermore, Risk Management Policy has been set as a guideline to manage risks that might have an effect on business operations or PTTGC's strategic direction
- PTTGC identifies and assesses risks across the entity, which consists of corporate level, business unit level, department level, and process level. In addition, PTTGC considers the changes from internal and external factors, and the potential of fraud and corruption in assessing risks to the achievement of objectives. Moreover, mitigation plan is identified in order to manage those risks. Risks and mitigation plan are reviewed and monitored on a monthly basis. All departments are responsible for managing risks to maintain an acceptable level.

Control Activities

PTTGC has developed efficient and effective control activities that contribute to the mitigation of risks to the achievement of objectives to acceptable levels. They have been detailed below:

- PTTGC has designed its control activities which follow internal control principles. These include the segregation of duties, policies and good practices for conflicts of interest transactions. In addition, business is operated in a transparent, fair and auditable manner. There is a transparent transaction approval process which takes into account the utmost benefit of the organization.
- PTTGC has written rules, regulations, policies, and procedures to specify work process and appropriately limit the power and authority of Chief Executive Officer, the Management, as well as all levels of Employees. Furthermore, operations are reviewed regularly to ensure their compliance with rules, regulations, policies, and procedures.
- PTTGC has implemented the information technology system to support operating process and the Management's decision making, which include automated

controls. For example, automated control on Segregation of Duties will segregate authorization function, recording function and custody of asset for appropriate level of checks and balances.

- PTTGC has established Information Technology Security Policy in accordance with the ISO27001 – Information Security Management standard to ensure efficiency and effectiveness of PTTGC's information technology security.
- PTTGC has established guidelines to govern and manage companies invested by PTTGC in each business units. The purpose of this is to ensure that these companies align with PTTGC in terms of working direction as well as comply with PTTGC's policies, procedures and strategic direction. Operations of these companies are monitored regularly and continuously.

Information & Communication

PTTGC recognizes the quality of Information & Communication which largely supports the effectiveness of PTTGC's Internal Control System, as has been detailed below:

- PTTGC has set information classification, instructions for filing important documents and controlled documents. This includes information from both internal and external sources. This process is intended to ensure the accuracy, completeness and adequacy of important information concerning PTTGC and its business operations.
- PTTGC communicates appropriately with the Board, the Management, Employees and Stakeholders. Crucial information relevant to PTTGC's performance will be delivered to Directors prior to the Board of Directors meetings in order that they will have sufficient time to study, review and make decisions. When necessary, Directors may request additional information from relevant specific departments or personnel.
- PTTGC has set up several internal communication channels, for example, Town Hall activities for facilitating communication from Senior Managements to Employees,

the organization's intranet and e-mail. In addition, new employees receive important information through orientation. Employees receive useful information through Knowledge Based System and E-Learning System.

- PTTGC has set up external communication channels to communicate with stakeholders via the PTTGC website and e-mail.
- PTTGC has established the Whistleblower System as another channel for receiving and managing internal and external complaints.

Monitoring Activities

PTTGC has monitored and evaluated the sufficiency of its internal control system. Development and improvement processes have also been in place to ensure the efficiency and effectiveness of PTTGC's Internal Control System. They have been detailed below:

- PTTGC evaluates sufficiency of corporate's internal control system on an annual basis. In addition, PTTGC

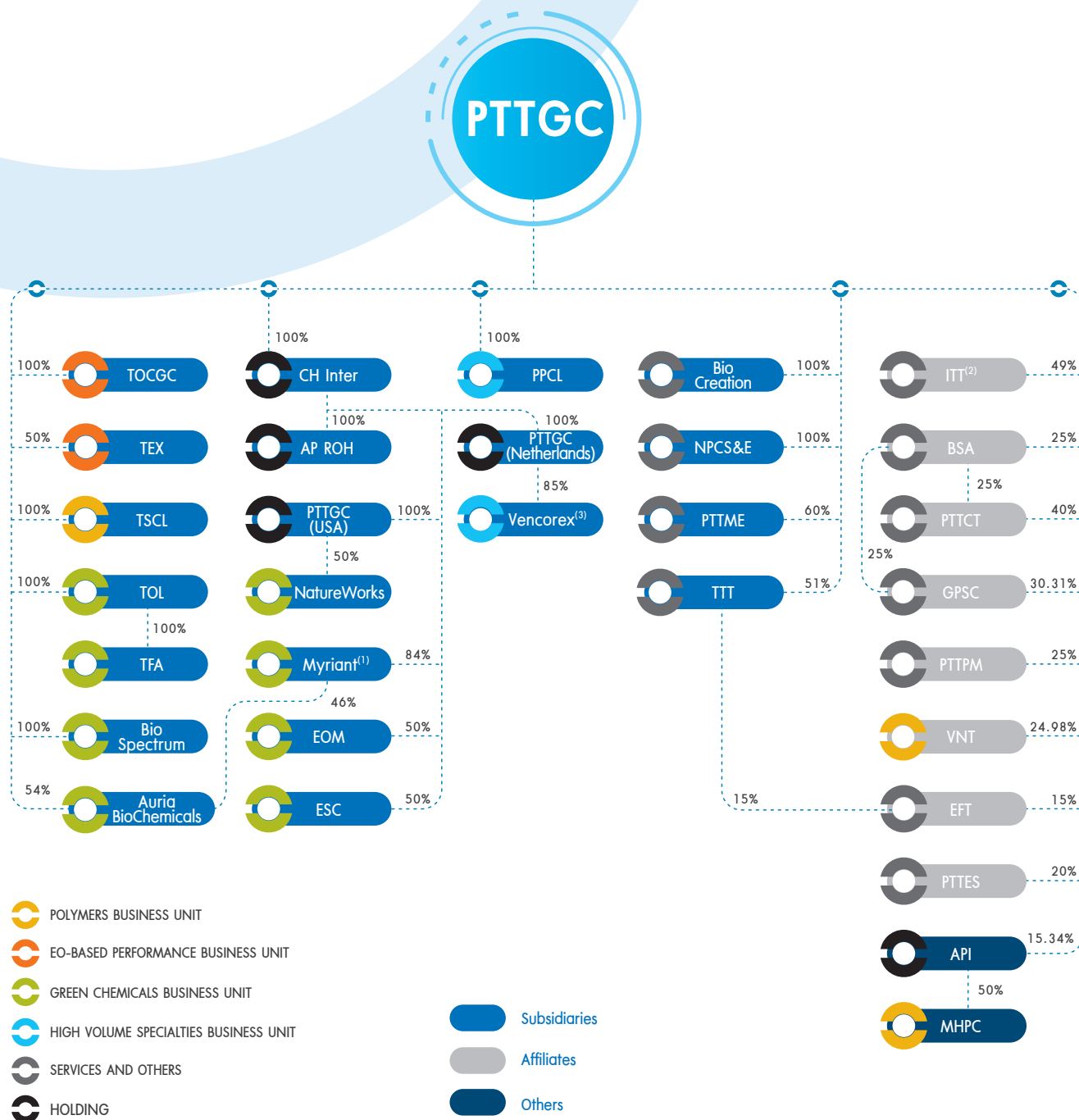
has implemented Control Self-Assessment (CSA) to evaluate internal control mechanisms at process level. The adequacy and appropriateness of CSA results will be verified by the Internal Control System Division, which also provides recommendations for improvement on internal control deficiencies, if any. A monitoring process is also in place to tracks whether deficiencies are remediated on a timely basis.

- The Internal Audit Department, which is an independent unit reporting directly to the Audit Committee, examines and evaluates the effectiveness of internal control activities according to the audit plan approved by the Audit Committee. Deficiencies and recommendations are communicated to parties responsible for implementation. The audit reports and findings are presented to the Audit Committee on a quarterly basis.

In 2014, the Audit Report did not find any issues related to conflicts of interest, fraudulent activities, or any other significant deficiency in the Internal Control System. Furthermore, no violations of SEC and SET rules and regulations or other laws related to PTTGC were found.



SHAREHOLDING STRUCTURE IN SUBSIDIARIES AND AFFILIATES



Remarks : Changes in the shareholding structure

- (1) At the end of 2014 : Myriant Corporation Employee's ESOP warrants has been exercised. As a result, CH Inter shares in Myriant has changed to 84.00%.
- (2) June 23rd, 2014 : A Joint venture in PT Indo Thai Trading between PTT Chemical International Private Limited and PT Pertamina Patra Niaga "Patra Niaga" was established. As a result, CH Inter now holds 49% of the share and Pertamina holds 51% of the share.
- (3) August 28th, 2014 : PTTGC International (Netherlands) B.V. has purchased 34% of the registered capital in Vencorex Holding from Perstorp Holding AB. As a result, PTTGC Group's shareholding in Vencorex changed from 51% to 85%.

Subsidiaries

TOCGC	TOC Glycol Company Limited
PPCL	PTT Phenol Company Limited
TOL	Thai Oleochemicals Company Limited
TFA	Thai Fatty Alcohols Company Limited
TSCL	Thai Styrenics Company Limited
Bio Creation	Bio Creation Company Limited
Bio Spectrum	Bio Spectrum Company Limited
NPC S&E	NPC Safety and Environmental Service Company Limited
CH Inter	PTT Chemical International Private Limited
PTTGC (Netherlands)	PTTGC International (Netherlands) B.V.
PTTGC (USA)	PTTGC International (USA) Inc.
AP ROH	PTT Chemical International (Asia Pacific ROH) Limited
Myriant	Myriant Corporation
PTTME	PTT Maintenance and Engineering Company Limited
Auria BioChemicals	Auria BioChemicals Company Limited
TTT	Thai Tank Terminal Limited
TEX	Thai Ethoxylate Company Limited
Vencorex	Vencorex Holding
NatureWorks	NatureWorks LLC
EOM	Emery Oleochemicals (M) Sdn. Bhd.
ESC	Emery Specialty Chemicals Sdn. Bhd.

Affiliates

ITT	PT Indo Thai Trading
BSA	Business Services Alliance Company Limited
PTTICT	PTT ICT Solutions Company Limited
GPSC	Global Power Synergy Public Company Limited
PTTPM	PTT Polymer Marketing Company Limited
VNT	Vinythai Public Company Limited
EFT	Eastern Fluid Transport Company Limited
PTTES	PTT Energy Solutions Company Limited

Others

API	Alliance Petrochemical Investment (Singapore) Private Limited
MHPC	Mehr Petrochemical Company

REVENUE STRUCTURE

Business Units	For the period from October 19 th , 2011 to December 31 st , 2011		2012		2013		2014	
	Revenue (Million THB)	%	Revenue (Million THB)	%	Revenue (Million THB)	%	Revenue (Million THB)	%
1. Refinery and Shared Facilities								
(1) Sales revenue from Light Naphtha	3,548	3	17,830	3	15,245	3	14,460	3
(2) Sales revenue from Reformate	3,802	4	23,121	4	14,755	3	19,027	3
(3) Sales revenue from Jet Fuel	6,489	6	25,170	4	37,842	7	40,810	7
(4) Sales revenue from Diesel	25,912	25	159,404	28	131,655	24	149,336	26
(5) Sales revenue from Fuel Oil	7,297	7	38,262	7	35,027	6	34,236	6
(6) Others	2,062	2	6,472	1	10,149	2	4,537	1
Total	49,109	47	270,259	48	244,673	45	262,406	46
2. Aromatics								
(1) Sales revenue from Benzene	2,628	3	14,651	3	15,670	3	13,876	2
(2) Sales revenue from Paraxylene	9,764	9	52,636	9	54,585	10	43,614	8
(3) Sales revenue from Cyclohexane	951	1	7,387	1	7,579	1	7,215	1
(4) Sales revenue from Light and Heavy Naphtha	6,575	6	22,753	4	26,738	5	26,764	5
(5) Sales revenue from Condensate Residue	2,832	3	1,455	0	471	0	-	-
(6) Others	2,812	3	15,042	3	11,505	2	10,904	2
Total	25,562	24	113,924	20	116,548	21	102,373	18
3. Olefins								
(1) Sales revenue from Ethylene	2,693	3	16,427	3	18,027	3	16,718	3
(2) Sales revenue from Propylene	1,999	2	10,982	2	11,144	2	12,402	2
(3) Sales revenue from Derivatives	820	1	5,287	1	6,242	1	4,617	1
(4) Others	742	1	3,864	1	3,892	1	4,246	1
Total	6,254	6	36,560	6	39,305	7	37,983	7
4. Polymers								
(1) Sales revenue from Plastic Pellets	11,105	11	60,504	11	64,806	12	80,242	14
(2) Sales revenue from Polystyrene	457	0	3,148	1	3,017	1	2,720	0
Total	11,562	11	63,652	11	67,823	12	82,962	14
5. EO-Based Performance								
(1) Sales revenue from EO/EG	2,797	3	12,710	2	13,930	3	13,631	2
(2) Sales revenue from EO Derivatives	638	1	3,528	1	3,211	1	3,272	1
Total	3,435	4	16,238	3	17,141	3	16,903	3

Business Units	For the period from October 19 th , 2011 to December 31 st , 2011		2012		2013		2014	
	Revenue (Million THB)	%	Revenue (Million THB)	%	Revenue (Million THB)	%	Revenue (Million THB)	%
6. Green Chemicals								
(1) Sales revenue from ME/FA	2,520	2	12,636	2	12,380	2	14,434	3
(2) Sales revenue from Emery	3,029	3	16,098	3	13,826	3	15,434	3
(3) Sales revenue from NatureWorks	-	-	1,349	0	2,798	1	3,185	1
(4) Others	-	-	-	-	-	-	33	0
Total	5,548	5	30,083	5	29,004	5	33,086	6
7. High-Volume Specialties (HVS)								
(1) Sales revenue from Phenol	527	1	6,602	1	5,578	1	5,223	1
(2) Sales revenue from Acetone and Derivatives	426	0	3,728	1	4,432	1	4,272	1
(3) Sales revenue from Bis Phenol A	1,056	1	6,086	1	8,076	1	8,512	1
(4) Sales revenue from HDI / TDI	-	-	10,156	2	16,585	3	16,665	3
(5) Others	-	-	750	0	1,219	0	1,113	0
Total	2,009	2	27,321	5	35,890	6	35,785	6
8. Services & Others								
(1) Sales revenue from Electricity / Water / Steam	945	1	5,475	1	119	0	-	-
(2) Others	406	0	2,105	0	2,378	0	2,512	0
Total	1,351	1	7,580	1	2,497	0	2,512	0
Net Total	104,830	100	565,617	100	552,881	100	574,010	100

Remarks : Net total after deduction from connected transaction.



CONNECTED TRANSACTION

Connected Transaction between Related Companies

For the 2014 accounting period, PTTGC conducted significant business transactions with its subsidiaries and related companies with common shareholders and/or Directors, as can be considered from the notes to the Company's financial statements. Connected transactions are based on market or contractual prices (the prices agreed in previous contracts) - if there are no reference market prices. Details of the relationships with these companies are as follows:

Company	Relationship (as of 31 st December 2014)	Connected Transaction	For the period from October 19 th 2011 to December 31 st 2011	2012	2013	2014
Bath (Million)						
1. PTT Public Company Limited (PTT)	- Major shareholder holding 48.89% of the shares in PTTGC - Common Director : Mr. Prasert Bunsumpun - Directors who are PTT Executives : 1. Mr. Sarun Rungkasiri 2. Mrs. Boobpha Amornkiatkajorn 3. Mr. Supattanapong Punmeechaow 4. Mr. Bowon Vongsinudom* - Sales/Purchase transaction of products and services *(Mr. Bowon Vongsinudom has resigned from directorship on Dec 31, 2014)	Statements of Income Transactions				
		Sales of goods or rendering of services	51,838	264,841	192,740	198,065
		Purchases of goods or services	60,671	395,808	363,601	380,555
		Other incomes	135	27	105	102
		Other expenses	891	199	241	303
		Financial costs	61	167	-	-
		Statements of Financial Position Balances				
		Trade accounts receivable – related parties	17,576	22,347	16,113	8,856
		Other accounts receivable – related parties	241	293	289	1,475
		Trade accounts payable – related parties	23,152	31,553	33,850	15,380
		Other accounts payable – related parties	1,207	585	171	203
		Payables to contractor – related parties	-	-	1	3
2. PTT Polymer Marketing Company Limited (PTTPM)	- Affiliate company (PTTGC holds 25% of the shares) - Major shareholder - PTT holds 50% of the shares - Common Directors : 1. Mr. Sarun Rungkasiri 2. Mrs. Boobpha Amornkiatkajorn - Executives who are Directors of PTTPM: 1. Mr. Athavudhi Hirunburana 2. Mrs. Sriwan Eamrungraj - Sales transaction of products	Statements of Income Transactions				
		Sales of goods or rendering of services	11,561	63,646	67,820	82,960
		Purchases of goods or services	-	1	3	1
		Other incomes	3	12	14	14
		Other expenses	-	10	16	13
		Statements of Financial Position Balances				
		Trade accounts receivable – related parties	5,411	6,462	7,023	6,919
		Other accounts receivable – related parties	3	6	4	5
		Other accounts payable – related parties	-	1	1	1

Company	Relationship (as of 31 st December 2014)	Connected Transaction	For the period from October 19 th 2011 to December 31 st 2011	2012	2013	2014		
Bath (Million)								
3. Vinythai Public Company Limited (VNT)	- Affiliate company (PTTGC holds 24.98% of the shares) - Common Director : Mr. Supathanapong Punmeechow - Executive who is Director of VNT : Mrs. Puntip Oungpasuk - Sales/Purchase transaction of products	Statements of Income Transactions						
		Sales of goods or rendering of services	1,187	6,529	6,996	7,288		
		Purchases of goods or services	7	61	51	58		
		Other incomes	-	2	5	-		
		Statements of Financial Position Balances						
		Trade accounts receivable – related parties	631	602	992	471		
		Other accounts receivable – related parties	-	-	-	1		
		Trade accounts payable – related parties	-	-	-	11		
		Other accounts payable – related parties	6	12	13	-		
		4. PTT ICT Solutions Company Limited (PTTICT)	- Affiliate company (PTTGC holds 40% of the shares) - Executives who are Directors of PTTICT : 1. Mr. Varit Namwong 2. Mr. Patiparn Sukorndhaman* - Services transaction *(Mr. Patiparn Sukorndhaman has resigned from directorship on Jan 31, 2015)	Statements of Income Transactions				
Purchases of goods or services	2			9	2	13		
Other incomes	18			43	38	48		
Other expenses	55			306	317	351		
Statements of Financial Position Balances								
Other accounts receivable – related parties	17			21	13	25		
Other accounts payable – related parties	79			84	40	54		
Payables to contractors – related parties	9			32	51	67		
5. Star Petroleum Refining Company Limited (SPRC)	- Major shareholder - PTT holds 36% of the shares - Sales/Purchase transaction of products			Statements of Income Transactions				
				Sales of goods or rendering of services	1,936	12,422	12,260	9,810
		Purchases of goods or services	3,074	12,112	12,540	14,904		
		Other incomes	5	-	2	-		
		Other expenses	4	15	15	18		
		Statements of Financial Position Balances						
		Trade accounts receivable – related parties	327	666	755	296		
		Other accounts receivable – related parties	8	7	2	6		
		Trade accounts payable – related parties	464	443	710	392		
		Other accounts payable – related parties	23	20	10	6		

Company	Relationship (as of 31 st December 2014)	Connected Transaction	For the period from October 19 th 2011 to December 31 st 2011	2012	2013	2014
Bath (Million)						
6. PTTEP Siam Limited (PTTEPS)	- Subsidiary of PTTEP - Sales transaction of products and services	Statements of Income Transactions				
		Sales of goods or rendering of services	12	71	78	77
		Statements of Financial Position Balances				
		Trade accounts receivable – related parties	6	11	9	5
		Other accounts receivable – related parties	-	-	1	-
7. PTT Exploration and Production Public Company Limited (PTTEP)	- Major shareholder - PTT holds 65.29% of the shares - Sales transaction of products and services	Statements of Income Transactions				
		Sales of goods or rendering of services	11	39	22	21
		Other incomes	-	-	-	1
		Statements of Financial Position Balances				
		Trade accounts receivable – related parties	3	2	3	3
Other accounts receivable – related parties	-	1	-	-		
8. PTT Asahi Chemical Company Limited (PTTAC)	- Major shareholder - PTT holds 48.50% of the shares - Sales/Purchase transaction of products and services	Statements of Income Transactions				
		Sales of goods or rendering of services	176	1,220	896	1,635
		Purchases of goods or services	-	60	196	162
		Other incomes	-	78	2	5
		Statements of Financial Position Balances				
		Trade accounts receivable – related parties	77	320	103	132
		Other accounts receivable – related parties	24	30	9	-
		Trade accounts payable – related parties	-	20	17	20
		Other accounts payable – related parties	1	1	-	-
		9. IRPC Public Company Limited (IRPC)	- Major shareholder - PTT holds 38.51% of the shares - Common Director : Mr. Sarun Rungkasiri - Sales/Purchase transaction of products	Statements of Income Transactions		
Sales of goods or rendering of services	1,358			22,949	26,110	28,926
Purchases of goods or services	212			18,827	20,339	20,066
Other incomes	1			6	1	36
Other expenses	-			-	2	-
Statements of Financial Position Balances						
Trade accounts receivable – related parties	2,147			1,458	3,495	2,161

Company	Relationship (as of 31 st December 2014)	Connected Transaction	For the period from October 19 th 2011 to December 31 st 2011	2012	2013	2014
Bath (Million)						
		Other accounts receivable – related parties	1	-	1	-
		Trade accounts payable – related parties	13	1,696	2,771	1,567
		Other accounts payable – related parties	13	12	11	-
10. HMC Polymers Company Limited (HMC)	- Major shareholder - PTT holds 41.44% of the shares - Shareholder of PTTGC with 1.85% of the shares - Common Director : Mr. Veerasak Kositpaisal* - Executive who is Director of HMC : Mr. Narong Bunditkamol** - Sales/Purchase transaction of products and services * Appointed as Director of PTTGC on Jan 26, 2015 **Retried on Dec 31, 2014	Statements of Income Transactions Sales of goods or rendering of services Purchases of goods or services Statements of Financial Position Balances Trade accounts receivable – related parties Other accounts receivable – related parties Trade accounts payable – related parties Other accounts payable – related parties	1,264 61 550 12 25 425	6,192 210 803 5 71 237	4,965 384 470 1 106 -	5,295 450 444 - 40 -
11. Bangchak Petroleum Public Company Limited (BCP)	- Major shareholder - PTT holds 27.22% of the shares - Sales/Purchase transaction of products	Statements of Income Transactions Sales of goods or rendering of services Purchases of goods or services Statements of Financial Position Balances Trade accounts receivable – related parties Trade accounts payable – related parties	- - - 1	42 32 - -	1,381 23 58 9	4,012 - 4 -
12. PTT International Trading Private Limited (PTTT)	- Major shareholder - PTT holds 100% of the shares - Sales/Purchase transaction of products	Statements of Income Transactions Sales of goods or rendering of services Purchases of goods or services Other expenses Statements of Financial Position Balances Trade accounts receivable – related parties Trade accounts payable – related parties Other accounts payable – related parties	129 224 - - 57 -	2,621 1,059 - 1,284 97 -	35,521 642 9 6,094 51 7	50,391 250 12 4,272 - 6

Company	Relationship (as of 31 st December 2014)	Connected Transaction	For the period from October 19 th 2011 to December 31 st 2011	2012	2013	2014
Bath (Million)						
13. Dhipaya Insurance Public Company Limited (DHIPAYA)	- Major shareholder - PTT, holds 13.33% of the shares - Services transaction	Statements of Income Transactions				
		Purchases of goods or services	42	473	713	1,029
		Other incomes	-	346	121	233
		Other expenses	31	63	59	19
		Statements of Financial Position Balances				
		Other accounts receivable – related parties	257	702	690	1,119
		Other accounts payable – related parties	77	85	7	38
		Payables to contractors – related parties	-	-	15	-
14. Energy Complex Company Limited (ENCO)	- Major shareholder - PTT holds 50% of the shares - Services transaction	Statements of Income Transactions				
		Purchases of goods or services	1	4	5	2
		Other expenses	37	145	158	139
		Statements of Financial Position Balances				
		Other accounts receivable – related parties	1	1	-	32
		Other accounts payable – related parties	4	3	2	2
15. Thai Oil Public Company Limited (TOP)	- Major shareholder - PTT holds 49.10% of the shares - Sales/Purchase transaction of products and services	Statements of Income Transactions				
		Sales of goods or rendering of services	2,552	1,912	1,019	605
		Purchases of goods or services	1,183	3,322	860	6
		Other incomes	-	8	7	5
		Statements of Financial Position Balances				
		Trade accounts receivable – related parties	45	33	23	44
		Other accounts receivable – related parties	-	2	2	1
		Other accounts payable – related parties	-	-	-	1
16. Business Services Alliance Company Limited (BSA)	- Affiliate company (PTTGC holds 25% of the preference shares) - Services transaction	Statements of Income Transactions				
		Purchases of goods or services	56	202	218	178
		Other expenses	8	56	134	139
		Statements of Financial Position Balances				
		Other accounts receivable – related parties	-	13	13	-
		Trade accounts payable – related parties	-	-	-	16

Company	Relationship (as of 31 st December 2014)	Connected Transaction	For the period from October 19 th 2011 to December 31 st 2011	2012	2013	2014
			Bath (Million)			
		Other accounts payable – related parties	34	38	69	74
		Payables to contractor – related parties	-	-	1	10
17. PTT Polymers Logistic Company Limited (PTTPL)	- Major shareholder - PTT holds 100% of the shares - Services transaction	Statements of Income Transactions				
		Sales of goods or rendering of services	8	48	15	9
		Purchases of goods or services	94	872	585	632
		Other incomes	-	-	-	3
		Other expenses	50	191	227	245
		Statements of Financial Position Balances				
		Trade accounts receivable – related parties	5	7	7	1
		Other accounts receivable – related parties	1	2	1	-
		Trade accounts payable – related parties	-	-	-	1
		Other accounts payable – related parties	134	225	219	231
18. Eastern Fluid Transport Company Limited (EFT)	- Affiliate company (PTTGC holds 22.65% of the shares) - Executive who is Director of EFT : Mr. Varit Namwong - Services transaction	Statements of Income Transactions				
		Purchases of goods or services	2	27	24	30
		Statements of Financial Position Balances				
		Other accounts receivable – related parties	4	2	7	-
		Other accounts payable – related parties	9	-	-	-
19. PTT Energy Solutions Company Limited (PTTES)	- Affiliate company (PTTGC holds 20% of the shares) - Executive who is Director of PTES : Mr. Kun Patumraj - Services transaction	Statements of Income Transactions				
		Sales of goods or rendering of services	-	-	-	9
		Purchases of goods or services	7	83	103	168
		Other incomes	1	12	4	3
		Other expenses	-	4	9	-
		Statements of Financial Position Balances				
		Trade accounts receivable – related parties	-	-	-	4
		Other accounts receivable – related parties	2	6	-	28
		Other accounts payable – related parties	-	1	9	29

Company	Relationship (as of 31 st December 2014)	Connected Transaction	For the period from October 19 th 2011 to December 31 st 2011			
			2012	2013	2014	Bath (Million)
20. PTT Maintenance and Engineering Company Limited (PTTME)	- Subsidiary company (PTTGC holds 60% of the shares) - Major shareholder - PTT holds 40% of the shares - Executive who is Director of PTTME : Mr. Kun Patumraj - Services transaction	Statements of Income Transactions				
		Purchases of goods or services	128	313	465	915
		Other incomes	51	190	161	126
		Other expenses	6	-	17	20
		Dividends	-	43	14	-
		Statements of Financial Position Balances				
		Other accounts receivable – related parties	131	58	87	43
		Other accounts payable – related parties	96	72	155	151
		Payables to contractors – related parties	66	375	473	691
21. Global Power Synergy Public Company Limited (GPSC)	- Affiliate company (PTTGC holds 30.31% of the shares) - Major shareholder - PTT holds 30.10% of the shares - Common Director : Mr. Supattapong Punmeechaow - Executive who is Director of GPSC: Mr. Patiparn Sukorndhaman* - Sales/Purchase transaction of products and services * Appointed as Director of GPSC on Jan 29, 2015	Statements of Income Transactions				
		Sales of goods or rendering of services	-	-	41	65
		Purchases of goods or services	300	1,688	7,387	8,586
		Other incomes	4	15	17	15
		Other expenses	-	-	6	-
		Statements of Financial Position Balances				
		Trade accounts receivable – related parties	-	-	7	16
		Other accounts receivable – related parties	5	6	538	193
		Trade accounts payable – related parties	114	340	1,987	783
		Other accounts payable – related parties	1	2	3	1
22. PTT Phenol Company Limited (PPCL)	- Subsidiary company (PTTGC holds 100% of the shares) - Executives who are Directors of PPCL : - Mrs. Puntip Oungpasuk - Mr. Patiparn Sukorndhaman - Sales transaction of products and services	Statements of Income Transactions				
		Sales of goods or rendering of services	1,231	11,409	-	-
		Other incomes	2	18	-	-
		Statements of Financial Position Balances				
		Trade accounts receivable – related parties	258	2,448	-	-
		Other accounts receivable – related parties	3	6	-	-

Company	Relationship (as of 31 st December 2014)	Connected Transaction	For the period from October 19 th 2011 to December 31 st 2011	2012	2013	2014
Bath (Million)						
23. PTT Tank Terminal Company Limited (PTT TANK)	• Major shareholder • PTT holds 100% of the shares • Sales transaction of products and services	Statements of Income Transactions				
		Sales of goods or rendering of services	-	5	168	431
		Other incomes	-	4	-	-
		Statements of Financial Position Balances				
		Trade accounts receivable – related parties	-	2	141	185
		Other accounts receivable – related parties	1	1	19	-
24. Thai Petroleum Pipeline Company Limited (THAPPLINE)	• Major shareholder • PTT holds 33.19% of the shares • Services transaction	Statements of Income Transactions				
		Sales of goods or rendering of services	-	2	2	2
25. PTT LNG Company Limited (PTTLNG)	• Major shareholder • PTT holds 100% of the shares • Sales transaction of products and services	Statements of Income Transactions				
		Sales of goods or rendering of services	-	1	2	2
		Statements of Financial Position Balances				
		Trade accounts receivable – related parties	-	-	-	1
26. PTTEP International Limited (PTTEPI)	• Subsidiary of PTTEP • Services transaction	Statements of Income Transactions				
		Sales of goods or rendering of services	-	2	7	4
		Statements of Financial Position Balances				
		Trade accounts receivable – related parties	-	1	1	-
		Other accounts receivable – related parties	-	-	3	-
27. PTT Energy Resources Company Limited (PTTER) (Formerly PTT International Company Limited (PTTI))	• Major shareholder • PTT holds 100% of the shares • Services transaction	Statements of Income Transactions				
		Sales of goods or rendering of services	-	-	2	-
		Other expense	-	-	-	1
		Statements of Financial Position Balances				
		Other accounts receivable – related parties	-	-	2	-
		Other accounts payable – related parties	-	-	-	1

Company	Relationship (as of 31 st December 2014)	Connected Transaction	For the period from October 19 th 2011 to December 31 st 2011	2012	2013	2014
Bath (Million)						
28. PTT Retail Management Company Limited (PTTRM)	- Major shareholder - PTT holds 100% of the shares - Services transaction	Statements of Income Transactions				
		Purchases of goods or services	-	-	1	-
29. PTT International Trading DMCC	- Subsidiary of PTTT - Sales transaction of products	Statements of Income Transactions				
		Sales of goods or rendering of services	-	-	-	437
30. PTT MCC Biochem Company Limited (PTTMCC)	- Major shareholder - PTT holds 50% of the shares - Sales transaction of products and services	Statements of Income Transactions				
		Sales of goods or rendering of services	-	-	-	4
		Statements of Financial Position Balances				
		Trade accounts receivable – related parties	-	-	-	1
31. IRPC Polyol Company Limited (IRPCP)	- Subsidiary of IRPC - Sales transaction of products	Statements of Income Transactions				
		Sales of goods or rendering of services	-	-	-	9
		Statements of Financial Position Balances				
		Trade accounts receivable – related parties	-	-	-	9

Need and Justification of Connected Transaction

The sales of products by PTTGC to connected companies have been carried out mainly so that they may process its products into their own products for sale at prices corresponding to long-term off-take agreements or spot prices. Prices must prove mutually beneficial and based on market prices without any undue transfer of interests or extraordinary items to both parties. When providing services to connected companies, transactions must cover transportation or storage costs of products. The charges for services are both market-based and benefit-based without any undue transfer of interests or extraordinary items.

For the product and feedstock supply and/or services as well as the volume of products, feedstock or services given by connected companies must meet the needs and business operation of PTTGC. Prices of products trading or services are as agreed by PTTGC and connected companies without any undue transfer of interests or extraordinary items. In addition, PTTGC is required to purchase feedstock from connected companies because the capacity and quality of such feedstock meet its needs. PTTGC also saves on transportation expenses since the feedstock can be transferred safely by PTTGC's pipeline systems from their plants in Map Ta Phut Industrial Estate, Rayong.

Measure and Procedure for Approval of Connected Transaction

The Company's Articles of Association stated that a Director can acquire or dispose of PTTGC assets or perform any business transaction involving PTTGC either by himself or herself or on behalf of others only with the approval from the Board of Director. Any Director who personally gains from any acquisition or disposal of PTTGC asset or any transaction of PTTGC is not allowed to vote on that matter. After receiving approval from the Board of Directors, PTTGC can perform any business transaction or acquire or dispose of major assets in line with the announcement of the Stock Exchange of Thailand (SET). This also applies to PTTGC's subsidiaries in the SET announcement concerning connected transaction of listed companies as well as the buying and selling of registered company assets.

Opinion of Independent Directors

The Independent Directors agreed with the Board of Directors.

Policy and Trend on Future Connected Transaction

Future connected transactions between PTTGC and connected companies will be conducted as part of the normal course of business with no special favors and no transfer of benefits. For the pricing policy between PTTGC and connected companies, the price of products or feedstock purchased will be set in agreement and or linked to market prices. In addition, service charges paid to connected companies will also be at arm's length. The price of product sold or purchased between PTTGC and connected companies will, as a rule, be linked to Map Ta Phut Market prices. Disclosure of the Company's connected transaction is to comply with the rules and regulations of the Securities and Exchange Commission (SEC) and the Stock Exchange of Thailand (SET). The audit standards for connected parties will be as specified by the Federation of Accounting Professions and Office of the Auditor General.



SHAREHOLDING STRUCTURE

- List of Top Ten Major Shareholders (register book closing date on October 31st, 2014)

No.	Shareholders	Shares	(%)
1	PTT Public Company Limited	2,204,318,913	48.89%
2	Thai NVDR Company Limited	364,610,765	8.09%
3	State Street Bank Europe Limited	138,963,075	3.08%
4	HMC Polymers Company Limited	83,427,636	1.85%
5	HSBC (Singapore) Nominees Pte Ltd	77,901,025	1.73%
6	The Siam Cement Public Company Limited	67,089,975	1.49%
7	State Street Bank and Trust Company	53,243,401	1.18%
8	Bangkok Synthetics Company Limited	43,420,625	0.96%
9	The Bank of New York Mellon	40,624,534	0.90%
10	Social Security Office (2 cases)	39,268,871	0.87%

Remarks:

- (1) PTT Group Shareholders includes:
 1. PTT Public Company Limited
 2. HMC Polymers Company Limited (PTT Plc. holds 41.44% of the shares)
- (2) Shareholders of Thai NVDR Company Limited holding Non-Voting Depository Receipt: NVDR, are ineligible for voting at shareholder's meeting except when exercising their voting rights on delisting the shares from SET.
- (3) The Siam Cement Group Shareholders includes:
 1. The Siam Cement Public Company Limited / Number of Shares holding in PTTGC : 67,089,975 shares
 2. Bangkok Synthetics Company Limited (SCC Plc. holds 48.84% of the shares) / Number of Shares holding in PTTGC: 43,420,625 shares
 3. Thai Plastic and Chemicals Public Company Limited (SCC Plc. and its subsidiaries hold 90.66% of the shares) / Number of Shares holding in PTTGC: 8,541,081 shares.

- In practice the major shareholders with significant influence on the establishment of PTTGC's policy and strategy is PTT Group Shareholders, which in total holds 49.66% in PTTGC.
- Foreign Shareholders
As of October 31st, 2014; there are 326 foreign shareholders, holding a combined of 930,190,386 shares (20.63% of paid-up capital).

PTTGC has foreign shareholding limitation as specified in article 8 of the Articles of Association that "The Company's shares can be transferred without any restriction, except in the case where the said transfer would result in more than thirty-seven (37) percent of the Company's total paid up shares being held by foreigners".

DIVIDEND PAYMENT POLICY

PTT Global Chemical Public Company Limited

The Board of Directors Meeting No. 1/2011, held on October 19th, 2011, resolved that the dividend payment policy of PTTGC is to pay dividend at a rate of no less than 30% of net profit after tax and allocation to all reserve funds of PTTGC. Such dividend payment however is subject to the investment plan, other necessary and appropriate considerations in the future.

Subsidiaries' Dividend Payment Policy

The dividend payment policy for PTTGC's subsidiaries shall be considered and proposed by the Board of Directors of each subsidiary for approval at the Annual General Meeting of each subsidiary. The dividend payment of subsidiaries shall be calculated based on the investment plans and other requirements and considerations, such as the adequacy of cash flow of each subsidiary after deducting reserve funds in accordance with the law.



BOARD OF DIRECTORS



Mr. Prasert Bunsumpun
Chairman

Age 62

● **Appointed** : October 19th, 2011 / April 8th, 2014 (re-elected)

● **Education / Training**

- Honorary Doctoral of Arts (Innovation and Management) Faculty of Humanities and Social Sciences, Suan Sunandha Rajabhat University
- Honorary Doctoral of Management, Mahasarakham University
- Honorary Doctoral in Management Science, Phetchaburi Rajabhat University
- Honorary Doctoral in Management, National Institute of Development Administration (NIDA)
- Honorary Doctoral in Engineering, Chulalongkorn University
- MBA, Utah State University, U.S.A.
- B.Eng. (Civil Engineering), Chulalongkorn University
- Diploma, National Defence Course for the Joint State-Private Sector, Class 10, The National Defence College
- Certificate in Advance Management Program (Class 155), Harvard Business School, U.S.A.
- Advanced Certificate Course in Politics and Governance in Democratic System for Executives, Class 6, King Prajadhipok's Institute
- Capital Market Academy Leadership Program, Class 3, Capital Market Academy
- Certificate, Executive Program on Energy Literacy for a Sustainable Future (TEA), Class 3, Thailand Energy Academy

● **Director Training**

- Director Accreditation Program (DAP) Class 26/2004 and Role of the Chairman Program (RCP) Class 28/2012, Thai Institute of Directors Association (IOD)

● **Board member / management in Listed Company - The Stock Exchange of Thailand** : 5

- Chairman, PTT Global Chemical Public Company Limited
- Director / Member of the Enterprise Risk Management Committee, PTT Public Company Limited
- Chairman / Chairman of the Executive Board of Directors, Thoresen Thai Agencies Public Company Limited
- Chairman of the Board of Executive Directors Krung Thai Bank Public Company Limited
- Independent Director / Chairman of the Nomination and Governance Committee / Member of the Leadership Development and Compensation Committee / Member of the Strategic and Organizational Review Committee, Intouch Holdings Public Company Limited

● **Board member / management in Non-Listed Company - The Stock Exchange of Thailand** : 1

- Chairman / Non-Executive Chairman, Mermaid Maritime Public Company Limited

● **Position in Other Organization / Institutions** : 5

- Member of the National Legislative Assembly of Thailand
- Chairman, Thailand Business Council for Sustainable Development (TBCSD)
- Chairman, Small and Micro Community Enterprise
- Distinguished Member of Chulalongkorn University Council
- Distinguished Member of the Suranaree University of Technology Council Office

● **Work Experiences (5-years Past Experiences)**

- 2003 - 2011 President and Chief Executive Officer / Director and Secretary to the Board of Directors, PTT Public Company Limited
- 2012 - Apr. 2013 Chairman / Chairman of the Executive Board of Directors, IRPC Public Company Limited
- 2005 - Apr. 2013 Chairman, Thai Lube Base Public Company Limited
- 2000 - 2011 Chairman / Director, PTT Exploration and Production Public Company Limited
- 2007 - 2011 Director, PTT Aromatics and Refining Public Company Limited
- 2005 - 2010 Chairman / Director, PTT Chemical Public Company Limited
- Sep. 2003 - Mar. 2011 Chairman, Independent Power of Thailand Company Limited
- Apr. 2003 - Mar. 2011 Chairman / Director, Thai Oil Power Company Limited
- 2008 - 2010 Director, Siam City Bank Public Company Limited
- 2004 - 2010 Director, Thai Oil Public Company Limited

Shareholding : 271,142 shares (0.006014%) as of December 31st, 2014

Relation among Family with other Directors, management, Major Shareholders of the Company or Subsidiaries : None



Mr. Somchai Kuvijitsuwan
Chairman of the Independent Directors
Chairman of the Audit Committee

Age 63

● **Appointed :** October 19th, 2011 / April 2nd, 2012 (re-elected)

● **Education / Training**

- LL.B., Ramkhamhaeng University Class 1
- Barrister at Law, Class 27, Institute of Thai Bar Association
- Master of Political Science, National Institute of Development Administration
- Provincial Public Prosecutor Program, Class 9/1987
- Capital Market Academy Leadership Program, Class 9, Capital Market Academy
- Certificate, Executive Program on Energy Literacy for a Sustainable Future (TEA), Class 2, Thailand Energy Academy

● **Director Training**

- Director Certification Program (DCP) Class 76/2006
- Director Accreditation Program (DAP) Class 56/2006
- Understanding the Fundamental of Financial Statement (UFS) Class 3/2006 and Role of the Chairman Program (RCP) Class 28/2012, Thai Institute of Directors Association (IOD)

● **Board member / management in Listed Company - The Stock Exchange of Thailand :** 1

- Chairman of the Independent Directors / Chairman of the Audit Committee, PTT Global Chemical Public Company Limited

● **Board member / management in Non-Listed Company - The Stock Exchange of Thailand :** None

● **Position in Other Organization / Institutions :** 2

- Director-General, Department of Economic Crime Litigation
- Commissioner / Chairman of the Audit Committee and Chairman of the Board of Appeals Office of the Securities and Exchange Commission, Thailand

● **Work Experiences (5-years Past Experiences)**

- 2011 - 2014 Director / Chairman of Corporate Governance and Social Responsibility Committee / Chairman of Risk Management and Internal Control Committee, Provincial Electricity Authority
- 2011 - 2013 Director-General, Department of Public Prosecutor Commission, Office of the Attorney General
- 2001 - 2013 Chairman, Krungthai Laws Company Limited
- 2008 - 2011 Independent Director, Chairman / Director of the Corporate Governance Committee, Director of the Remuneration Committee, PTT Chemical Public Company Limited
- 2008 - 2011 Director-General, Office of Regional Appellate Litigation, Region 9
- 2008 - 2011 Director-General, Department of Policy, Strategy and Budget Planning
- 2009 - 2011 Managing Director, Forest Industry Organization
- 2008 - 2011 Director, Metropolitan Electricity Authority

Shareholding : None

Relation among Family with other Directors, management, Major Shareholders of the Company or Subsidiaries : None



Mr. Vasin Teeravechyan

Independent Director
Chairman of the Nomination and Remuneration Committee

Age 66

● **Appointed :** October 19th, 2011 / April 2nd, 2012 (re-elected)

● **Education / Training**

- M.A. (Law), Chulalongkorn University
- B.A. (Law), Chulalongkorn University
- Barrister at Law, Thailand, 1972
- The National Defence College of Thailand, Class 40

● **Director Training**

- Director Accreditation Program (DAP) Class 94/2012
- Director Certification Program (DCP) Class 155/2012 and Role of the Nomination and Governance Committee (RNG) Class 5/2013
- Thai Institute of Directors Association (IOD)

● **Board member / management in Listed Company - The Stock Exchange of Thailand :** 1

- Independent Director / Chairman of the Nomination and Remuneration Committee, PTT Global Chemical Public Company Limited

● **Board member / management in Non-Listed Company - The Stock Exchange of Thailand :** None

● **Position in Other Organization / Institutions :** 7

- Advisor, Ministry of Foreign Affairs
- Chairman (Thailand), Thai - Malaysia Land Boundary Committee
- Member of the Special Committee for the Consideration of Treaties, Ministry of Foreign Affairs
- Special Lecturer on Public and Private International Law, School of Law, Mae Fah Luang University, Chiang Rai
- Vice Chairman (Thailand), Thai - Laos Boundary
- Vice Chairman (Thailand), Thai - Myanmar Joint Committee on Demarcation for Land Boundary
- Advisor, Mittr Phol Sugar Corp. Ltd.

● **Work Experiences (5-years Past Experiences)**

- 2011 - 2014 Vice Chairman, Thai - Korean Friendship Association
- 2008 - 2014 Chairman (Thailand), Thai-Myanmar Joint Committee on Demarcation for Land Boundary
- Chairman (Thailand), Senior Officials' Meeting on Thai - Laos Boundary
- 2009 - 2014 Vice-Chairman (Thailand), Thai - Cambodia Joint Technical Committee (Delimitation of Sea Boundary)
- 2011 - Aug. 2013 Director, Bank for Agriculture and Agricultural Co-Operatives
- 2008 - 2010 Chairman (Thailand), Thai - Cambodian Joint Commission on Demarcation for Land Boundary
- 2008 - 2009 Thai Eminent Person, ASEAN - Korea Eminent Persons Group
- 2008 - 2009 Chairman, ASEAN's High Level Legal Experts Group on Follow - Up to the ASEAN Charter

Shareholding : None

Relation among Family with other Directors, management, Major Shareholders of the Company or Subsidiaries : None



Mr. Anon Sirisaengtaksin Age 62
Director / Chairman of the Risk Management Committee

● **Appointed** : September 22nd, 2014

● **Education / Training**

- Honorary Doctor of Public Administration, Bangkok Thonburi University
- M.B.A., Thammasat University
- B.Sc. (Geology), Chulalongkorn University
- Certificate in Project Investment Appraisal and Management and Certificate in Global Leadership, Harvard University, U.S.A.
- Capital Market Academy Leadership Program, Class 1, Capital Market Academy

● **Director Training**

- Director Certification Program (DCP) Class 73/2006 and Director Accreditation Program (DAP) Class 52/2006
- Thai Institute of Directors Association (IOD)

● **Board member / management in Listed Company - The Stock Exchange of Thailand** : 1

- Director / Chairman of the Risk Management Committee, PTT Global Chemical Public Company Limited

● **Board member / management in Non-Listed Company - The Stock Exchange of Thailand** : 10

- Chairman, PTT Chemical International Private Limited
- Chairman, PTT Chemical International (Asia Pacific ROH) Limited
- Chairman, Emery Oleochemicals (M) Sdn. Bhd.
- Chairman, Emery Specialty Chemical Sdn. Bhd.
- Chairman, NatureWorks LLC
- Chairman, Vencorex Holding
- Director, Myriant Technologies, Inc.
- Director / President, PTTGC International (USA) Inc.
- Director / Managing Director, PTTGC International (Netherlands) B.V.
- Director, Bangkok Commercial Asset Management Company Limited

● **Position in Other Organization / Institution** : 1

- Member of the National Reform Council

● **Work Experiences (5-years Past Experiences)**

- 1 Oct. 2013 - 21 Sep. 2014 Advisor, PTT Global Chemical Public Company Limited
- 2012 - 2013 Director / Chief Executive Officer, PTT Global Chemical Public Company Limited
- 2008 - 2013 Senior Executive Vice President, PTT Public Company Limited
- 2009 - 2013 Council Committee, King Mongkut's Institute of Technology Ladkrabang Council
- 2010 - 2012 President and Chief Executive Officer, PTT Exploration and Production Public Company Limited
- 2010 - 2012 Director, PTTEP FLNG Holding Company Limited
- 2010 - 2012 Director, PTT FLNG Limited

Shareholding : 86,027 shares / Spouse 6,705 shares (0.002057%)
as of December 31st, 2014

Relation among Family with other Directors, management, Major Shareholders of the Company or Subsidiaries : None



Professor Surapon Nitikraipot Age 54
Independent Director / Chairman of the Corporate Governance Committee / Director to the Nomination and Remuneration Committee

● **Appointed** : September 22nd, 2014

● **Education / Training**

- Honorary Doctoral, Soka University, Japan
- Doctorat en droit (mention très honorable) l'Université Robert Schuman de Strasbourg, France
- Diplôme d' études approfondies (D.E.A.) de droit Public Strasbourg III, France
- Barrister at Law, Class of 35th, Institute of Thai Bar Association of Thailand
- Bachelor of Laws (Second Class Honors), Thammasat University
- Certificat, La Décentralisation et l' Administration Locale, Institut International d' Administration Publique (IIAP), Paris, France
- Capital Market Academy Leadership Program, Class 4, Capital Market Academy
- Diploma, National Defence Course for the Joint State-Private Sector, Class 23, The National Defence College, 2010

● **Director Training**

- Director Certification Program (DCP) Class 102/2008 and Role of the Chairman Program (RCP) Class 25/2011
- Thai Institute of Directors Association (IOD)

● **Board member / management in Listed Company - The Stock Exchange of Thailand** : 1

- Independent Director / Chairman of the Corporate Governance Committee / Director to the Nomination and Remuneration Committee, PTT Global Chemical Public Company Limited

● **Board member / management in Non-Listed Company - The Stock Exchange of Thailand** : 1

- Chairman, The Krungthep Thanakom Company Limited

● **Position in Other Organization / Institutions** : 6

- Professor Faculty of Law, Thammasat University
- Member of Council of State, Office of the Council of State
- Honorable Member of the Civil Service Commission in Higher Education
- Chairman of the Executive Directors, Thammasat University Hospital
- Member of the 8th Committee of Council of State, Office of the Council of State
- Distinguished Member of the Navamindradhiraj University Council

● **Work Experiences (5-years Past Experiences)**

- 2010 - 2014 Honorable Member and Chairman of the Audit Committee, Mahidol Wittayanusorn School
- 2010 - 2012 Independent Director / Director to the Corporate Governance Committee, PTT Public Company Limited
- 2009 - 2011 Chairman of the Board, MCOT Public Company Limited
- 2004 - 2010 Rector of Thammasat University

Shareholding : None

Relation among Family with other Directors, management, Major Shareholders of the Company or Subsidiaries : None



Mr. Sarun Rungkasiri

Age 57

Director / Director to the Nomination and Remuneration Committee / Director to the Corporate Governance Committee

● **Appointed** : October 18th, 2013 / April 8th, 2014 (re-elected)

● **Education / Training**

- Master of Science in Management, Polytechnic Institute of New York, U.S.A.
- Bachelor of Engineering in Industrial Engineering, Chulalongkorn University
- Thirty Fourth Oxford Energy Seminar, St. Catherine's College, Oxford University, U.K.
- NIDA-Wharton Executive Leadership Program 2009, The Wharton School of the University of Pennsylvania, U.S.A.
- The Joint State - Private Sector Course, National Defence College, (Class of 23rd)
- Top Executive in Industrial Development and Investment, Class 1, Institute of Business and Industrial Development (IBID)
- The Executive Program in Energy Literacy for a Sustainable Future, Class 5, Thailand Energy Academy (TEA)

● **Director Training**

- Company Secretary Program (CSP) Class 8/2004
- Director Certification Program (DCP) Class 61/2005 and Finance for Non-Finance Director (FND) Class 19/2005, Thai Institute of Directors Association (IOD)

● **Board member / management in Listed Company - The Stock Exchange of Thailand : 3**

- Chief Operating Officer, Downstream Petroleum Business, PTT Public Company Limited
- Director / Director to the Nomination and Remuneration Committee / Director to the Corporate Governance Committee, PTT Global Chemical Public Company Limited
- Director and Chairman of the Risk Management Committee, IRPC Public Company Limited

● **Board member / management in Non-Listed Company - The Stock Exchange of Thailand : 1**

- Chairman, PTT Polymer Marketing Company Limited

● **Position in Other Organization / Institutions : None**

● **Work Experiences (5-years Past Experiences)**

- 2011 - 30 Sep. 2013 Senior Executive Vice President, Oil Business Unit, PTT Public Company Limited
- 2010 - 2011 Executive Vice President, Retail Marketing, PTT Public Company Limited
- 2009 - 2010 Executive Vice President, Commercial & International Marketing, PTT Public Company Limited

Shareholding : None

Relation among Family with other Directors, management,

Major Shareholders of the Company or Subsidiaries : None



Mr. Siri Jirapongphan

Age 60

Independent Director
Director to the Risk Management Committee

● **Appointed** : September 22nd, 2014

● **Education / Training**

- Sc. D., Chemical Engineering, Massachusetts Institute of Technology
- B. Sc., (Honor) Chemical Engineering, California Institute of Technology

● **Director Training**

- Director Certification Program (DCP) Class 77/2006 Thai Institute of Directors Association (IOD)

● **Board member / management in Listed Company - The Stock Exchange of Thailand : 1**

- Independent Director / Director to the Risk Management Committee, PTT Global Chemical Public Company Limited

● **Board member / management in Non-Listed Company - The Stock Exchange of Thailand : None**

● **Position in Other Organization / Institutions : 3**

- Member of the National Reform Council
- Executive Director, Petroleum Institute of Thailand (PTIT)
- Director and Secretary, Foundation for Petroleum Institute of Thailand (PTIT)

Shareholding : None

Relation among Family with other Directors, management,

Major Shareholders of the Company or Subsidiaries : None



Mr. Samerjai Suksumek
Independent Director

Age 60



Miss. Ruenvadee Suwanmongkol
Independent Director
Director to the Audit Committee

Age 50

● **Appointed** : April 8th, 2014

● **Education / Training**

- Master of Science Degree in Economics, University of North Texas
- Bachelor of Art (Political Science), Chiang Mai University

● **Board member / management in Listed Company - The Stock Exchange of Thailand** : 1

- Independent Director, PTT Global Chemical Public Company Limited

● **Board member / management in Non-Listed Company - The Stock Exchange of Thailand** : None

● **Position in Other Organization / Institutions** : 3

- Sub-Committee to Consider the Study and Monitoring of Renewable Energy
- Sub-Committee to Consider the Study and Monitoring of Fossil Energy
- Sub-Committee to Consider the Study and Monitoring of Electric Energy
- National Legislative Assembly of Thailand

● **Work Experiences (5-years Past Experiences)**

- 2014 Deputy Permanent Secretary, Ministry of Energy
- 2013 - 2014 Director General, Energy Policy and Planning Office (EPPO), Ministry of Energy
- 2013 Inspector General, Ministry of Energy
- 1998 - 2013 Deputy Director General, Energy Policy and Planning Office in charge of Power Policy Bureau and Energy Forecast and Information Technology Center, Ministry of Energy

Shareholding : None

Relation among Family with other Directors, management, Major Shareholders of the Company or Subsidiaries : None

● **Appointed** : March 21st, 2014

● **Education / Training**

- M.B.A. Walter A. Haas School of Business, University of California at Berkeley
- L.L.M. Harvard Law School, Cambridge Massachusetts, U.S.A.
- Barrister-at-Law Legal Training Institute, Thai Bar Association
- LL.B. (1st Class Honor and Gold Medal) Chulalongkorn University
- Advanced Certificate Course in Promotion of Peaceful Society Class 2 King Prajadhipok's Institute
- The Programme of Senior Executives on Justice Administration Batch 15 National Justice Academy Judicial Training Institute Office of Judiciary
- Diploma, National Defence College, The Joint State - Private Sector Course - Class 25 The National Defence College (NDC)
- The Programme of Junior Executives on Anti-Corruption Class 5, Office of the National Anti-Corruption Commission

● **Director Training**

- Director Certification Program (DCP) Class 127/2010, Thai Institute of Directors Association (IOD)

● **Board member / management in Listed Company - The Stock Exchange of Thailand** : 1

- Independent Director / Director to the Audit Committee, PTT Global Chemical Public Company Limited

● **Board member / management in Non-Listed Company - The Stock Exchange of Thailand** : 2

- Director / Audit Committee, Dhanarak Asset Development Company Limited
- Director, DAD SPV Company Limited

● **Position in Other Organization / Institutions** : 6

- Director - General, Legal Execution Department, Ministry of Justice
- Committee Member, The Foundation Assanee Pollajan
- Committee Member, Thai Committee for Refugees Foundation
- Committee Member, The Foundation of Business Lawyer Promotion
- Committee Member, Women for Peace Foundation
- Committee Member, Law Chula Alumni Association

● **Work Experiences (5-years Past Experiences)**

- 2012 - 2014 Director - General, Department of Probation Ministry of Justice
- 2014 Sub-Committee / Management Committee Member, Pinkanokorn Development Agency (Public Organization)
- 2012 Inspector and Spokesperson of the Ministry of Justice
- 2009 - 2011 Deputy Director - General, Office of Justice Affairs, Ministry of Justice

Shareholding : None

Relation among Family with other Directors, management, Major Shareholders of the Company or Subsidiaries : None



Mr. Amnuay Preemonwong
Independent Director
Director to the Audit Committee

Age 56

● **Appointed** : October 19th, 2011 / April 8th, 2014 (re-elected)

● **Education / Training**

- M.P.A., National Institute of Development Administration
- L.L.B., Sukhothai Thammathirat Open University
- B.A. in Economics, Ramkhamhaeng University
- Advanced Executive Program, Kellogg School of Management, Northwestern University, U.S.A.
- National Defence College, Class 51

● **Director Training**

- Director Certification Program (DCP) Class 80/2006
- Financial Statement for Directors (FSD) Class 11/2011
- Audit Committee Program (ACP) Class 38/2012
- and Anti-Corruption for Executive Program (ACEP) Class 13/2014, Thai Institute of Directors Association (IOD)

● **Board member / management in Listed Company - The Stock Exchange of Thailand** : 2

- Independent Director / Director to the Audit Committee, PTT Global Chemical Public Company Limited
- Independent Director, Nusasiri Public Company Limited

● **Board member / management in Non-Listed Company - The Stock Exchange of Thailand** : None

● **Position in Other Organization / Institutions** : 3

- Deputy Permanent Secretary of Ministry of Finance
- Director, Thailand Tobacco Monopoly, Ministry of Finance
- Director, Don Muang Tollway Public Company Limited

● **Work Experiences (5-years Past Experiences)**

- 2012 - 2014 Director, Tourism Authority of Thailand
- 2012 - 2014 Committee Member, Government Savings Bank
- 2012 Chairman, Thailand Tobacco Monopoly
- 2009 - 2012 Chairman, CAT Telecom Public Company Limited
- 2009 - 2013 Inspector General, Ministry of Finance
- 2008 - 2009 State Property Development Advisor, Treasury Department

Shareholding : None

Relation among Family with other Directors, management, Major Shareholders of the Company or Subsidiaries : None



Mrs. Boobpha Amornkiatkajorn
Director

Age 56

● **Appointed** : October 1st, 2014

● **Education / Training**

- Master of Business Administration (MBA) Finance (Honor), NIDA
- Bachelor of Science Program in Economics (Honor), Kasetsart University
- Breakthrough Program for Senior Executives (BPSE) Class 2012, IMD Institute in Switzerland
- Leadership Development Program Class 2009, Institute Center for Creative Leadership, U.S.A.
- Army War College Class 2008, Institute of Army Academics
- Senior Executive Program Class 2003, Sasn Graduate Institute of Business Administration of Chulalongkorn University

● **Director Training**

- Director Certification Program (DCP) Class 152/2011, Thai Institute of Directors Association (IOD)

● **Board member / management in Listed Company - The Stock Exchange of Thailand** : 2

- Senior Executive Vice President, International Trading Business Unit, PTT Public Company Limited
- Director, PTT Global Chemical Public Company Limited

● **Board member / management in Non-Listed Company - The Stock Exchange of Thailand** : 1

- Director, PTT Polymer Marketing Company Limited

● **Position in Other Organization / Institutions** : 1

- Vice Chairman Executive Committee, The Institute of Industrial Energy, The Federation of Thai Industries

● **Work Experiences (5-years Past Experiences)**

- 2014 Executive Vice President, Trading Operation – International Trading Business Unit, PTT Public Company Limited
- 2010 - 2014 Executive Vice President – Downstream Business Group Alignment, PTT Public Company Limited
- 2010 - 2013 Director, Thai Oil Marine Company Limited

Shareholding : 61,704 shares (0.001369%) as of December 31st, 2014

Relation among Family with other Directors, management, Major Shareholders of the Company or Subsidiaries : None



Mrs. Watanan Petersik
Independent Director

Age 54



Colonel Nithi Chungcharoen
Independent Director
Director to the Corporate Governance Committee

Age 43

● **Appointed** : September 22nd, 2014

● **Education / Training**

- AB Bryn Mawr College, PA, U.S.A.
- Bursatra Sdn. Bhd. : Mandatory Accreditation Programme (MAP) for Directors of Public Listed Companies (March 2010)

● **Director Training**

- Director Accreditation Program (DAP) Class 83/2010 and Certificate, Singapore Institute of Directors Course : Role of Director Thai Institute of Directors Association (IOD)

● **Board member / management in Listed Company - The Stock Exchange of Thailand** : 2

- Independent Director, PTT Global Chemical Public Company Limited
- Independent Director, CIMB Thai Bank Public Company Limited

● **Board member / management in Non-Listed Company - The Stock Exchange of Thailand** : 3 :

- Independent Director, CIMB Group, Malaysia
- Director, Asia Capital Advisory PTE Ltd
- Senior Advisor/Consultant, TPG Capital Asia

● **Position in Other Organization / Institution** : 1

- Director, Lien Centre for Social Innovation Singapore Management University

Shareholding : None

Relation among Family with other Directors, management, Major Shareholders of the Company or Subsidiaries : None

● **Appointed** : September 22nd, 2014

● **Education / Training**

- Master of Engineering (Mechanical), Stevens Institute of Technology, New Jersey, U.S.A.
- Bachelor of Science, Chulachomklao Royal Military Academy
- Command and General Staff College, Class 80
- Peace Keeping Operation Course
- Peace Mediation Course

● **Director Training**

- Director Certification Program (DCP) Class 200/2015 Thai Institute of Directors Association (IOD)

● **Board member / management in Listed Company - The Stock Exchange of Thailand** : 1

- Independent Director / Director to the Corporate Governance Committee, PTT Global Chemical Public Company Limited

● **Board member / management in Non-Listed Company - The Stock Exchange of Thailand** : None

● **Position in Other Organization / Institution** : 1

- Attached to Directorate of Intelligence

● **Work Experiences (5-years Past Experiences)**

- 2013 - 2014 Deputy Chief of Staff, 11th Army Circle
- 2012 - 2013 Staff Officer Commanding General Office
- 2010 - 2012 Battalion Commander, 3rd Battalion 21st Regiment Queen Guard

Shareholding : None

Relation among Family with other Directors, management, Major Shareholders of the Company or Subsidiaries : None



Mr. Bowon Vongsinudom

Age 60

Director

Director to the Risk Management Committee

- **Appointed** : October 19th, 2011 / April 8th, 2014 (re-elected)
(Resigned from Directorship on December 31st, 2014)

- **Education / Training**

- Master of Management, Sasin Graduate Institute of Business Administration of Chulalongkorn University
- M.Eng. in Chemical Engineering, Chulalongkorn University
- B.Eng. in Chemical Engineering, Chulalongkorn University
- National Defence Course, Class 17, National Defence College

- **Director Training**

- Director Accreditation Program (DAP) Class 76/2008, Thai Institute of Directors Association (IOD)

- **Board member / management in Listed Company - The Stock Exchange of Thailand** : 1

- Director / Director to the Risk Management Committee
PTT Global Chemical Public Company Limited

- **Board member / management in Non-Listed Company - The Stock Exchange of Thailand** : 3

- Chairman, PTT Phenol Company Limited
- Director, Thai Tank Terminal Limited
- Director, Metropolitan Waterworks Authority

- **Position in Other Organization / Institutions** : 6

- Director, Thai Listed Companies Association
- Vice Chairman, The Federation of Thai Industries
- Executive Chairman, Water Institute for Sustainability, The Federation of Thai Industries
- Member, Petroleum Institute of Thailand
- Member, Plastics Institute of Thailand
- Member, Industrial Estate Authority of Thailand

- **Work Experiences (5-years Past Experiences)**

- 2006 - 2014 Senior Executive Vice President, Downstream Petroleum Business Group, PTT Public Company Limited
- 2013 - 2014 President & Chief Executive Officer, PTT Global Chemical Public Company Limited
- 2012 - 2014 Director, PTT Chemical International Private Limited
- 2012 - 2014 Director, PTT Chemical International (Asia Pacific ROH) Limited
- 2012 - 2014 Director, Global Power Synergy Public Company Limited
- 2012 - 2014 Vice Chairman, Vinythai Public Company Limited
- 2012 - 2014 Chairman, NPC Safety and Environmental Service Company Limited
- 2012 - 2014 Chairman, PTT Maintenance and Engineering Company Limited

Shareholding : 223,868 shares (0.004965%) as of December 31st, 2014

Relation among Family with other Directors, management, Major Shareholders of the Company or Subsidiaries : None



Mr. Veerasak Kositpaisal

Age 60

Director

Director to the Risk Management Committee

- **Appointed** : January 26th, 2015

- **Education / Training**

- Master of Science (Mechanical Engineering), Texas A&I University, U.S.A.
- Bachelor of Engineering (Mechanical), Chulalongkorn University
- Top Executive Program in Commerce and Trade (TEPCoT) Class 2/2009
- Capital Market Academy Leadership Program, Class 11, Capital Market Academy
- Certificate in Leadership Development Program "Enhancing Competitiveness" by International Institute for Management Development (IMD) 2012
- Certificate in Top Executives in the Energy Education Program, Thailand Energy Academy (Class 5/2014)

- **Director Training**

- Director Certification Program (DCP) Class 82/2006 and Finance for Non-Finance Directors Program (FND) Class 30/2006 Thai Institute of Directors Association (IOD)

- **Board member / management in Listed Company - The Stock Exchange of Thailand** : 2

- Director / Director to the Risk Management Committee, PTT Global Chemical Public Company Limited
- Independent Director, MCOT Public Company Limited

- **Board member / management in Non-Listed Company - The Stock Exchange of Thailand** : 1

- Chairman, HMC Polymers Company Limited

- **Position in Other Organization / Institutions** : 3

- Vice Chairman, The Federation of Thai Industries
- Chairman, The Institute of Industrial Energy, The Federation of Thai Industries
- Member of Energy Private Sector and Government Working Team, Ministry of Energy

- **Work Experiences (5-years Past Experiences)**

- 2009 - 2014 Senior Executive Vice President, Downstream Petroleum Business Group, PTT Public Company Limited
- 2012 - 2014 President and Chief Executive Officer, Thai Oil Public Company Limited
- 2011 - 2012 Director / Chief Executive Officer, PTT Global Chemical Public Company Limited
- 2008 - 2011 President and Chief Executive Officer, PTT Chemical Public Company Limited

Shareholding : 196,095 shares / Spouse 20,000 shares (0.004795%) as of January 26th, 2015

Relation among Family with other Directors, management, Major Shareholders of the Company or Subsidiaries : None



Mr. Supattana Ponmeechaow

Age 55

Director and Secretary to the Board of Directors / Director to the Risk Management Committee

● **Appointed** : September 25th, 2014

● **Education / Training**

- M.B.A., Chulalongkorn University
- B. Eng. (Chemical Engineering), Chulalongkorn University
- Advance Management Program, INSEAD University, France
- The National Defence Course (Class 50) and The Joint State-Private Sector Course (Class 20), National Defence College
- Oxford Energy Seminar 2013, United Kingdom
- Certificate in Top Executives in the Energy Education Program, Thailand Energy Academy (Class 4)
- Corporate Governance Program for Directors and Executives of State Enterprises and Public Organizations (Class 12), 2014, King Prajadhipok's Institute-State Enterprise Policy Office and Office of the Public Sector Development Commission

● **Director Training**

- Director Certification Program (DCP) Class 131/2010 and Role of the Chairman Program (RCP) Class 30/2013, Thai Institute of Directors Association (IOD)

● **Board member / management in Listed Company - The Stock Exchange of Thailand** : 3

- Senior Executive Vice President, PTT Public Company Limited
- Director and Secretary to the Board of Directors / Director to the Risk Management Committee / President & Chief Executive Officer, PTT Global Chemical Public Company Limited
- Vice Chairman, Vinythai Public Company Limited

● **Board member / management in Non-Listed Company - The Stock Exchange of Thailand** : 4 :

- Director, Global Power Synergy Public Company Limited
- Director, PTT Chemical International Private Limited
- Director, PTT Chemical International (Asia Pacific ROH) Limited
- Chairman, Sport Services Alliance Limited

● **Position in Other Organization / Institutions** : 1

- Member, Council of Trustees, Petroleum Institute of Thailand

● **Work Experiences (5-years Past Experiences)**

- 1 Aug 2014 - 31 Dec 2014 Director, Islamic Bank of Thailand
- 1 Apr 2012 - 30 Sep 2014 Senior Executive Vice President, Corporate Strategy, PTT Public Company Limited
- 2009 - 2011 Executive Vice President, Business Development, PTT International Company Limited and Executive Vice President, Corporate Strategy, PTT Public Company Limited
- 30 Oct 2013 - 25 Sep 2014 Director / Director of the Nomination and Remuneration Committee, Bangchak Petroleum Public Company Limited
- 27 May 2011 - 19 Sep 2014 Director, Sakari Resources Limited

Shareholding : 40,000 shares (0.000887%) as of December 31st, 2014

Relation among Family with other Directors, management, Major Shareholders of the Company or Subsidiaries : None



EXECUTIVE TEAM



01

Mr. Supattanapong Punmeechaow

President & Chief Executive Officer

04

Mr. Patiparn Sukorndhaman

Executive Vice President -
Finance & Accounting

05

Mrs. Puntip Oungpasuk

Executive Vice President -
Corporate Strategy

06

Mrs. Sriwan Eamrunroj

Executive Vice President -
Marketing, Commercial and Supply

07

Mr. Varit Namwong

Executive Vice President -
Organizational Effectiveness

08

Mr. Suvit Tinnachote

Executive Vice President -
Group Performance Center - Olefins

09

Mr. Sermsak Sriyaphai

Executive Vice President - EO-Based
Performance Business Unit /
Project Executive Director

10

Mr. Kongkrapan Intarajang

Executive Vice President -
International Business Operations

11

Mr. Athavuth Vikitsreth

Executive Vice President -
External Affairs



12

13

14

15

16

17

18

02

Mr. Kun PatumrajChief Operating Officer -
Upstream Petrochemical Business

03

Mr. Athavudhi HirunburanaChief Operating Officer -
Downstream Petrochemical Business

12

Mr. Anutin ChuaypenSenior Vice President - Group Performance
Center - Refinery and Shared Facilities

13

Mr. Pairush SoovanSenior Vice President - Group
Performance Center - Aromatics

14

Mr. Pairote UtaisupSenior Vice President -
Polymers Business Unit

15

Mr. Dumrong PinpuvadolSenior Vice President -
Green Chemicals Business Unit

16

Mr. Booncherd SuwantipSenior Vice President - Quality, Safety,
Occupational Health and Environment

17

Mrs. Warawan TippawanichSenior Vice President - Corporate Affairs
and Corporate Secretary

18

Mr. Siridech KumvongdeeSenior Vice President - Acting Head of
Science and Innovation

EXECUTIVES

Mr. Supattanapong Punmeechaow

President & Chief Executive Officer

● Age : 55

● Appointed : October 1st, 2014

● Education / Training

- M.B.A., Chulalongkorn University
- B. Eng. (Chemical Engineering), Chulalongkorn University
- Advance Management Program, INSEAD University, France
- The National Defence Course (Class 50) and The Joint State-Private Sector Course (Class 20), National Defence College
- Oxford Energy Seminar 2013, United Kingdom
- Certificate in Top Executives in the Energy Education Program, Thailand Energy Academy (Class 4)
- Corporate Governance Program for Directors and Executives of State Enterprises and Public Organizations (Class 12), 2014, King Prajadhipok's Institute-State Enterprise Policy Office and Office of the Public Sector Development Commission
- Director Certification Program (DCP) Class 131/2010 and Role of the Chairman Program (RCP) Class 30/2013, Thai Institute of Directors Association (IOD)

● Board member / management in Listed Company – The Stock Exchange of Thailand : 3

- Senior Executive Vice President, PTT Public Company Limited
- Director and Secretary to the Board of Directors / Director to the Risk Management Committee / President & Chief Executive Officer, PTT Global Chemical Public Company Limited
- Vice Chairman, Vinythai Public Company Limited

● Board member / management in Non-Listed Company – The Stock Exchange of Thailand : 4

- Director, Global Power Synergy Public Company Limited
- Director, PTT Chemical International Private Limited
- Director, PTT Chemical International (Asia Pacific ROH) Limited
- Chairman, Sport Services Alliance Limited

● Position in Other Organization / Institutions : 1

- Member, Council of Trustees, Petroleum Institute of Thailand

● Work Experiences (5-years Past Experiences)

- 1 Aug 2014 - 31 Dec 2014 Director, Islamic Bank of Thailand
- 1 Apr 2012 - 30 Sep 2014 Senior Executive Vice President, Corporate Strategy, PTT Public Company Limited
- 2009 - 2011 Executive Vice President, Business Development, PTT International Company Limited and Executive Vice President, Corporate Strategy, PTT Public Company Limited
- 30 Oct 2013 - 25 Sep 2014 Director / Director of the Nomination and Remuneration Committee, Bangchak Petroleum Public Company Limited
- 27 May 2011 - 19 Sep 2014 Director, Sakari Resources Limited

● Shareholding : 40,000 shares (0.000887%) as of December 31st, 2014

● Relation among Family with other Directors, management, Major Shareholders of the Company or Subsidiaries : None

Mr. Kun Patumraj

Chief Operating Officer - Upstream Petrochemical Business and Acting Executive Vice President - Engineering and Maintenance

● Age : 58

● Appointed : November 1st, 2013

● Education / Training

- B.Sc., in Chemical Engineers, New Jersey Institute of Technology, U.S.A.
- M.Eng., in Chemical Engineers, Manhattan College, New York, U.S.A.
- Certificate of Senior Executive Program (SEP), Sasun Graduate Institute of Business Administration of Chulalongkorn University
- Advance Management Program (AMP), Harvard Business School, U.S.A.
- PTT Executive Leadership Program, GE Crotonville, U.S.A.
- Director Accreditation Program (DAP) Class 91/2011 and Role of the Chairman Program (RCP) Class 27/2012, Thai Institute of Directors Association (IOD)

● Board member / management in Listed Company – The Stock Exchange of Thailand: 1

- Chief Operating Officer - Up Stream Petrochemical Business and Acting Executive Vice President Engineering and Maintenance, PTT Global Chemical Public Company Limited

● Board member / management in Non-Listed Company – The Stock Exchange of Thailand : 7

- Chairman, PTT Energy Solutions Company Limited
- Chairman, NPC Safety and Environmental Service Company Limited
- Chairman, PTT Maintenance and Engineering Company Limited
- Director, Thai Tank Terminal Limited
- Director, Vencorex Holding
- Director, Myriant Corporation
- Director, PTTGC International (Netherlands) B.V.

● Work Experiences (5-years Past Experiences)

- 2011 - 2013 Executive Vice President Engineering and Maintenance, PTT Global Chemical Public Company Limited
- 2013 Director, PTT Polyethylene Company Limited
- 2010 - 2011 Executive Vice President - Technology Engineering & Maintenance, PTT Aromatics and Refining Public Company Limited
- 2006 - 2011 Director, PTT Phenol Company Limited
- Jan. - Apr. 2010 Executive Vice President - Asset Management, PTT Aromatics and Refining Public Company Limited

● Shareholding : 114,629 shares (0.002542%) as of December 31st, 2014

● Relation among Family with other Directors, management, Major Shareholders of the Company or Subsidiaries : None

Mr. Athavudhi Hirunburana

Chief Operating Officer - Downstream Petrochemical Business

● Age : 59

● Appointed : November 1st, 2013

● Education / Training

- Master of Science (Mechanical), Manhattan College, New York, U.S.A.
- Bachelor of Science (Mechanical), New York Institute of Technology, U.S.A.
- Senior Executive Program 2007, Stanford University, U.S.A.
- Executive Program for Senior Management 2005, Fiscal Policy Research Institute Foundation
- Managing People for HR Executive, Thammasat University
- Senior Executive Program, Sasin Graduate Institute of Business Administration of Chulalongkorn University
- Director Certification Program (DCP) Class 79/2006, Thai Institute of Directors Association (IOD)

● Board member / management in Listed Company – The Stock Exchange of Thailand : 1

- Chief Operating Officer - Downstream Petrochemical Business and Acting Executive Vice President – High Volume Specialties Business Unit, PTT Global Chemical Public Company Limited

● Board member / management in Non-Listed Company – The Stock Exchange of Thailand : 9

- Chairman, Thai Styrenics Company Limited
- Chairman, TOC Glycol Company Limited
- Chairman, Thai Oleochemicals Company Limited
- Chairman, Thai Fatty Alcohols Company Limited
- Chairman, Bio Creation Company Limited
- Chairman, PT Indo Thai Trading
- Director, PTT Polymer Marketing Company Limited
- Director, Alliance Petrochemical Investment (Singapore) Private Limited
- Director, Mehr Petrochemical Company Limited

● Position in Other Organizations / Institutions : 2

- Chairman, The Plastic Industry Club, The Federation of Thai Industries
- Director, The Federation of Thai Industries

● Work Experiences (5-years Past Experiences)

- 2013 - 2014 Member of the Board Directors and President, PTTGC International (USA) Inc.
- 2013 - 2014 Member Representative to the Governance Board, NatureWorks LLC
- 2013 Director, Bangkok Polyethylene Public Company Limited
- 2013 Director, PTT Polyethylene Company Limited
- 2011 - 2013 Executive Vice President – Polymers Business Unit, PTT Global Chemical Public Company Limited
- 2005 - 2011 Executive Vice President, Organizational Effectiveness, PTT Chemical Public Company Limited

● Shareholding : 16,991 shares; Spouse 22,500 shares (0.000876%) as of December 31st, 2014

● Relation among Family with other Directors, management, Major Shareholders of the Company or Subsidiaries : None

Mr. Patiparn Sukorndhaman

Executive Vice President - Finance & Accounting

● Age : 53

● Appointed : October 19th, 2011

● Education / Training

- M.B.A. (Finance), The American University, U.S.A.
- B.A. Political Science (Public Administration - Public Finance), 2nd Class Honors, Chulalongkorn University
- Graduate Diploma in Public Law and Management (PLM 8), King Prajadhipok's Institute
- Certification Program for Senior Management 5 (Ex - PSM 5), Fiscal Policy Research Institute Foundation
- Certificate Program for GE : PTT Executive Program, GE U.S.A., 2012
- Certification Program for "Breakthrough Program for Senior Executives", IMD Executive Development Services, Switzerland, 2014
- Certification Program for "Leadership Development Program III (LDP III)", PTT Leadership and Learning Institute, 2014
- Director Certification Program (DCP) Class 73/2006, Thai Institute of Directors Association (IOD)

● Board member / management in Listed Company – The Stock Exchange of Thailand : 1

- Executive Vice President - Finance & Accounting, PTT Global Chemical Public Company Limited

● Board member / management in Non-Listed Company – The Stock Exchange of Thailand : 6

- Director, Global Power Synergy Public Company Limited
- Director, PTT Chemical International Private Limited
- Director, PTT Chemical International (Asia Pacific ROH) Limited
- Director, Thai Oleochemicals Company Limited
- Director, Thai Fatty Alcohols Company Limited
- Director, PTT Phenol Company Limited

● Work Experiences (5-years Past Experiences)

- 2011 - 31 Jan 2015 Director, PTT ICT Solutions Company Limited
- 2011 - 2014 Director, TOC Glycol Company Limited
- 2011 - 2014 Director, Bio Creation Company Limited
- 2009 - 2012 Director, PTT Polyethylene Company Limited
- 2009 - 2012 Director, Thai Ethanolamines Company Limited
- 2009 - 2011 Executive Vice President, Finance & Accounting, PTT Chemical Public Company Limited
- 2003 - 2009 Senior Executive Vice President Accounting and Finance (CFO), Bangchak Petroleum Public Company Limited

● Shareholding : None

● Relation among Family with other Directors, management, Major Shareholders of the Company or Subsidiaries : None

Mrs. Puntip Oungpasuk

Executive Vice President - Corporate Strategy

● Age : 54

● Appointed : October 19th, 2011

● Education / Training

- Master's Degree in Business Administration (Commerce & Accountancy), Thammasat University
- Bachelor's Degree in Chemical Engineering, Prince of Songkla University
- The Advance Management Program (AMP), Harvard Business School, U.S.A
- Chief Finance Officer (CFO) Class 1/2004, The Institute of Certified Accountants and Auditors of Thailand
- Director Certification Program (DCP) Class 67/2005, Thai Institute of Directors Association (IOD) and Australian Institute of Company Directors

● Board member / management in Listed Company – The Stock Exchange of Thailand : 2

- Executive Vice President - Corporate Strategy, PTT Global Chemical Public Company Limited
- Director and Chairperson of the Business Advisor Committee, Vinylthai Public Company Limited

● Board member / management in Non-Listed Company – The Stock Exchange of Thailand : 6

- Director, PTT Phenol Company Limited
- Director, PTT Chemical International Private Limited
- Director, Emery Oleochemicals (M) Sdn. Bhd.
- Director, Emery Specialty Chemical Sdn. Bhd.
- Director, PTT Chemical International (Asia Pacific ROH) Limited
- Director, Bio Creation Company Limited

● Work Experiences (5-years Past Experiences)

- 1 Jan 2013 - 13 Mar 2014 Chairperson of PTT Group Technology, PTT Public Company Limited
- 2012 - 2014 Director, Vencorex Holding
- 2012 - 2014 Director, PTTGC International (Netherlands) B.V.
- 2005 - 2014 Director, TOC Glycol Company Limited
- 2010 - 2013 Director, Advanced Biochemical (Thailand) Company Limited
- 2009 - 2012 Director, Pimai Salt Company Limited
- 2011 Director, Myriant Corporation
- 2008 - 2011 Executive Vice President, Strategy & International Affairs, PTT Chemical Public Company Limited
- 2008 - 2011 Director, Thai Tank Terminal Limited
- 2008 - 2010 Director, Thai Styrenics Company Limited
- 2007 - 2010 Director, PTT Polyethylene Company Limited

● Shareholding : 158,389 shares (0.003513%) as of December 31st, 2014

● Relation among Family with other Directors, management, Major Shareholders of the Company or Subsidiaries : None

Mrs. Sriwan Eamrungraj

Executive Vice President Marketing, Commercial and Supply

● Age : 57

● Appointed : October 19th, 2011

● Education / Training

- MBA., Thammasat University
- B.Eng. (Mechanical Engineering), Second Class Honors, Chulalongkorn University
- Advance Management Program (AMP), Class 183/2012, Harvard Business School, U.S.A.
- The Strategy Challenge (TSC) Program, Class 2010, IMD
- INSEAD Business School, Class 2010, INSEAD Executive Education, France
- NIDA-Wharton Executive Leaders, Class 2005, Wharton School of Business, University of Pennsylvania, U.S.A.
- The Board's Role in Mergers and Acquisitions Class 1/2011 and Director Certification Program (DCP) Class 160/2012, Thai Institute of Directors Association (IOD)

● Board member / management in Listed Company – The Stock Exchange of Thailand : 2

- Executive Vice President, Petrochemicals & Refining Business Unit, PTT Public Company Limited
- Executive Vice President - Marketing, Commercial and Supply PTT Global Chemical Public Company Limited

● Board member / management in Non-Listed Company – The Stock Exchange of Thailand : 6

- Director, PTT Chemical International Private Limited
- Director, PTT Chemical International (Asia Pacific ROH) Limited
- Director, PTT Polymer Marketing Company Limited
- Director, Thai Styrenics Company Limited
- Director, Thai Tank Terminal Limited
- Director, Bio Creation Company Limited

● Work Experiences (5-years Past Experiences)

- 2011 - 2014 Director, Global Power Synergy Public Company Limited
- 2011 - 2013 Director, PTT Phenol Company Limited
- 2009 - 2012 Director, HMC Polymers Company Limited
- 2007 - 2008 Executive Vice President, Corporate Strategies & Planning, PTT Public Company Limited

● Shareholding : None

● Relation among Family with other Directors, management, Major Shareholders of the Company or Subsidiaries : None

Mr. Varit Namwong

Executive Vice President Organizational Effectiveness

- **Age** : 51
- **Appointed** : October 19th, 2011
- **Education / Training**
 - Master of Business Administration, Business Administration (International Program), Ramkhamhaeng University
 - Bachelor of Business Administration, Marketing, Assumption Business Administration College
 - Certificate of Senior Executive Program (SEP), Sasin Graduate Institute of Business Administration of Chulalongkorn University
 - Certificate of Leadership Development Program III (LDP III), PTT Leadership and Learning Institute
 - Certificate of Advanced Human Resource Executive Program, The Stephen M. Ross School of Business, University of Michigan
 - Director Accreditation Program (DAP) Class 91/2011 and Director Certification Program (DCP) Class 160/2012, Thai Institute of Directors Association (IOD)
- **Board member / management in Listed Company – The Stock Exchange of Thailand** : 1
 - Executive Vice President - Organizational Effectiveness, PTT Global Chemical Public Company Limited
- **Board member / management in Non-Listed Company – The Stock Exchange of Thailand** : 7
 - Director, PTT Chemical International Private Limited
 - Director, PTT Chemical International (Asia Pacific ROH) Limited
 - Director, Eastern Fluid Transport Company Limited
 - Director, PTT ICT Solutions Company Limited
 - Director, Sport Services Alliance Limited
 - Director, Bio Creation Company Limited
 - Director, Vencorex Holding
- **Work Experiences (5-years Past Experiences)**
 - 2014 Director, Myriant Corporation
 - 2011 - 2014 Director, Thai Styrenics Company Limited
 - 2009 - 2011 Executive Vice President - Human Resources & Corporate Administration, PTT Aromatics and Refining Public Company Limited
- **Shareholding** : 108,939 shares (0.002416%) as of December 31st, 2014
- **Relation among Family with other Directors, management, Major Shareholders of the Company or Subsidiaries** : None

Mr. Kongkrapan Intarajang

Executive Vice President

- **Age** : 47
- **Appointed** : October 1st, 2014
- **Education / Training**
 - Ph.D. Chemical Engineering, University of Houston, U.S.A.
 - B. Eng., Chemical Engineering (2nd Class Honors), Chulalongkorn University
 - Director Certification Program (DCP) Class 119/2009 and Role of the Chairman Program (RCP) Class 21/2009, Thai Institute of Directors Association (IOD)
- **Board member / management in Listed Company – The Stock Exchange of Thailand** : 1
 - Executive Vice President - International Business Operations, PTT Global Chemical Public Company Limited
- **Board member / management in Non-Listed Company – The Stock Exchange of Thailand** : 9
 - Director, Emery Oleochemicals (M) Sdn. Bhd.
 - Director, Emery Specialty Chemicals Sdn. Bhd.
 - Director, PTT Chemical International Private Limited
 - Director, PTT Chemical International (Asia Pacific ROH) Limited
 - Director, PTTGC International (USA) Inc.
 - Director, NatureWorks LLC
 - Director, Vencorex Holding
 - Director, Myriant Corporation
 - Director, PTTGC International (Netherlands) B.V.
- **Work Experiences (5-years Past Experiences)**
 - 2011 - 2012 Senior Vice President under Chief Executive Officer, PTT Global Chemical Public Company Limited
 - 2009 - 2011 Senior Vice President, PTT Chemical Public Company Limited, Appointed as Chief Executive Officer - Emery Oleochemicals (M) Sdn. Bhd.
 - 2007 - 2010 Director, Thai Ethoxylate Company Limited
- **Shareholding** : None
- **Relation among Family with other Directors, management, Major Shareholders of the Company or Subsidiaries** : None

Mr. Athavuth Vikitsreth

Executive Vice President
External Affairs

- **Age** : 55
- **Appointed** : October 1st, 2013
- **Education / Training**
 - Bachelor of Business Administration (BBA.) Abilene Christian University, Texas, U.S.A.
 - Bachelor of Business Administration, Accounting, Assumption Business Administration College
 - National Defence Course, Class 23, National Defence College
 - Advanced Certificate Course in Politics and Governance in Democratic System for Executives, Class 12, King Prajadhipok's Institute
 - Corporate Governance for Directors and Senior Executive of State Enterprises and Public Organizations, Class 2, Public Director Institute (PDI)
 - Training Course on Administrative Justice for Executives (BYP), Class 4, The Administrative Courts
 - World Petrochemical Conference 2006 & Visit GE BCT, U.S.A.
 - Director Certification Program (DCP) Class 106/2008 / Audit Committee Program (ACP) Class 24/2008 / Monitoring the System of Internal Control and Risk Management (MIR) Class 5/2009 and Monitoring the Internal Audit Function (MIA) Class 5/2009, Thai Institute of Directors Association (IOD)
- **Board member / management in Listed Company – The Stock Exchange of Thailand** : 1
 - Executive Vice President - External Affairs, PTT Global Chemical Public Company Limited
- **Board member / management in Non-Listed Company – The Stock Exchange of Thailand** : None
- **Position in Other Organization / Institutions** : 1
 - Director / Director to the Internal Audit Committee and Sub-Committee on promoting services of broadcasting and telecommunication, Office of the National Broadcasting and Telecommunication Commission (NBTC)
- **Work Experiences (5-years Past Experiences)**
 - 2011 - 2013 Senior Executive Vice President – External Affairs, PTT Global Chemical Public Company Limited
 - 2010 - 2011 Senior Vice President - Industry & Independent Organization Management, PTT Aromatics and Refining Public Company Limited
 - 2010 - 2011 Advisor, Ministry of Industry
 - 2010 - 2011 Executive Director / Member of evaluation of Managing Director Sub-Committee, Software Industry Promotion Agency (Public Organization), Ministry of Information and Communication Technology
 - 2010 - 2011 Honorary Advisor to Commission on Economy, Commerce and Industry, Senate
- **Shareholding** : None
- **Relation among Family with other Directors, management, Major Shareholders of the Company or Subsidiaries** : None

Mr. Suvit Tinnachote

Executive Vice President
Group Performance Center - Olefins

- **Age** : 58
- **Appointed** : October 19th, 2011
- **Education / Training**
 - Master of Public and Private Management, National Institute of Development Administration (NIDA)
 - Bachelor's Degree in Electrical Engineering, King Mongkut's Institute of Technology (Ladkrabang)
 - ASEAN Executive Program (AEP), GE Crotonville
 - Director Certification Program (DCP) Class 92/2007, Thai Institute of Directors Association (IOD)
- **Board member / management in Listed Company – The Stock Exchange of Thailand** : 1
 - Executive Vice President - Group Performance Center – Olefins, PTT Global Chemical Public Company Limited
- **Board member / management in Non-Listed Company – The Stock Exchange of Thailand** : 2
 - Director, Thai Tank Terminal Limited
 - Director, TOC Glycol Company Limited
- **Work Experiences (5-years Past Experiences)**
 - 2011 - 2013 Director, PTT Polyethylene Company Limited
 - 2011 - 2013 Director, PTT Phenol Company Limited
 - May - Aug. 2012 Member Representative to the Governance Board, NatureWorks LLC
 - 2011 - Aug. 2012 Member of the Board Directors and President, PTTGC International (USA) Inc.
 - 2009 - 2012 Chairman, Thai Stylenics Company Limited
 - 2009 - 2011 Director, Bangkok Polyethylene Public Company Limited
 - 2008 - 2012 Director, NPC Safety and Environmental Service Company Limited
 - 2008 - 2011 Executive Vice President, Polymers Products Value Center, PTT Chemical Public Company Limited
- **Shareholding** : 96,086 shares; Spouse 24,313 shares (0.002670%) as of December 31st, 2014
- **Relation among Family with other Directors, management, Major Shareholders of the Company or Subsidiaries** : None

Mr. Sermsak Sriyaphai

Executive Vice President
EO-Based Performance Business Unit

- **Age :** 59
- **Appointed :** October 19th, 2011
- **Education / Training**
 - Master's Degree in Public and Private Management, National Institute of Development Administration (NIDA)
 - Bachelor's Degree in Electrical Engineering, Feati University, the Philippines
 - Certificate Senior Executive Program, Kellogg/Sasin (SEP Class 19)
 - Certificate Business Program, NIDA-Wharton (Class 3)
 - Director Certification Program (DCP) Class 117/2009 and Financial Statements for Directors (FSD) Class 4/2009, Thai Institute of Directors Association (IOD)
- **Board member / management in Listed Company – The Stock Exchange of Thailand :** 1
 - Executive Vice President - EO-Based Performance Business Unit and Project Executive Director, PTT Global Chemical Public Company Limited
- **Board member / management in Non-Listed Company – The Stock Exchange of Thailand :** 3
 - Director, TOC Glycol Company Limited
 - Director, Thai Ethoxylate Company Limited
 - Director, PT Indo Thai Trading
- **Work Experiences (5-years Past Experiences)**
 - 2012 Chairman / MD, Thai Ethanolamines Company Limited
 - 2012 Director, PTT Maintenance and Engineering Company Limited
 - 2009 - 2011 Senior Vice President, EO-Based Performance Product Value Center, PTT Chemical Public Company Limited
- **Shareholding :** 97 shares (0.000002%) as of December 31st, 2014
- **Relation among Family with other Directors, management, Major Shareholders of the Company or Subsidiaries :** None

Mr. Anutin Chuaypen

Senior Vice President
Group Performance Center – Refinery and Shared Facilities

- **Age :** 50
- **Appointed :** January 1st, 2014
- **Education / Training**
 - Master of Science in Computer & Engineering Management, Assumption University
 - B.Sc. in Chemical Engineering, Chulalongkorn University
 - Director Certification Program (DCP) Class 200/2015, Thai Institute of Directors Association (IOD)
- **Board member / management in Listed Company – The Stock Exchange of Thailand :** 1
 - Senior Vice President, Group Performance Center – Refinery and Shared Facilities, PTT Global Chemical Public Company Limited
- **Board member / management in Non-Listed Company – The Stock Exchange of Thailand :** 1
 - Director, PTT Maintenance and Engineering Company Limited
- **Work Experiences (5-years Past Experiences)**
 - 2011 - 2013 Vice President - Refinery and Shared Facilities & Aromatics Maintenance, PTT Global Chemical Public Company Limited
 - 2008 - 2009 Vice President - Aromatics 2 Production, PTT Aromatics and Refining Public Company Limited
- **Shareholding :** 34,591 shares (0.000767%) as of December 31st, 2014
- **Relation among Family with other Directors, management, Major Shareholders of the Company or Subsidiaries :** None

Mr. Pairush Soovan

Senior Vice President - Group Performance Center - Aromatics

- **Age** : 55
- **Appointed** : January 1st, 2015
- **Education / Training**
 - Bachelor of Mechanical Engineering, Chulalongkorn University
 - Certificate of Senior Executive Program (SEP), Sasri Graduate Institute of Business Administration of Chulalongkorn University
- **Board member / management in Listed Company – The Stock Exchange of Thailand** : 1
 - Senior Vice President - Group Performance Center - Aromatics, PTT Global Chemical Public Company Limited
- **Board member / management in Non-Listed Company – The Stock Exchange of Thailand** : None
- **Work Experiences (5-years Past Experiences)**
 - 2013 - 2014 Vice President - Integrity and Reliability, PTT Global Chemical Public Company Limited
 - 2011 - 2013 Vice President - Operational, E&M, Technical Standard and Policy, PTT Global Chemical Public Company Limited
 - 2009 - 2011 Vice President - Engineering and Maintenance Standard and Policy, PTT Chemical Public Company Limited
- **Shareholding** : None
- **Relation among Family with other Directors, management, Major Shareholders of the Company or Subsidiaries** : None

Mr. Pairote Utaisup

Senior Vice President - Polymers Business Unit

- **Age** : 58
- **Appointed** : January 1st, 2014
- **Education / Training**
 - B.Eng. (Mechanical Engineering), Chulalongkorn University
 - NIDA-Wharton Executive Leadership Class 2008, Wharton School of Business, University of Pennsylvania. U.S.A.
 - Director Certification Program (DCP) Class 127/2010, Thai Institute of Directors Association (IOD)
- **Board member / management in Listed Company – The Stock Exchange of Thailand** : 1
 - Senior Vice President - Polymers Business Unit, PTT Global Chemical Public Company Limited
- **Board member / management in Non-Listed Company – The Stock Exchange of Thailand** : 1
 - Director, Thai Styrenics Company Limited
- **Work Experiences (5-years Past Experiences)**
 - 2009 - 2013 Managing Director, Bangkok Polyethylene Public Company Limited
 - 2011 - 2013 Vice President, Operations - Polymers Business Unit, PTT Global Chemical Public Company Limited
 - 2005 - 2013 Vice President, Operations - Polymers Business Unit, PTT Chemical Public Company Limited
- **Shareholding** : None
- **Relation among Family with other Directors, management, Major Shareholders of the Company or Subsidiaries** : None

Mr. Dumrong Pinpuvadol

Senior Vice President
Green Chemicals Business Unit

- Age : 58
- Appointed : August 1st, 2014
- Education / Training
 - Master of Business Administration, National Institute of Development Administration
 - Master of Engineering (Civil Engineering), Chulalongkorn University
 - Bachelor of Science (Civil Engineering), Kasetsart University
 - Director Certification Program (DCP) Class 191/2014, Thai Institute of Directors Association (IOD)
- Board member / management in Listed Company – The Stock Exchange of Thailand : 1
 - Senior Vice President - Green Chemicals Business Unit, PTT Global Chemical Public Company Limited
- Board member / management in Non-Listed Company – The Stock Exchange of Thailand : 2
 - Director, Thai Oleochemicals Company Limited
 - Director, Thai Fatty Alcohols Company Limited
- Work Experiences (5-years Past Experiences)
 - 2013 – 2014 Executive Vice President, Trading Operations, International Trading Business Unit, PTT Public Company Limited
 - 2011 – 2012 Executive Vice President (Business), PTT Phenol Company Limited
 - 2009 - 2010 Vice President, Corporate Strategy, PTT Aromatics and Refining Public Company Limited
- Shareholding : None
- Relation among Family with other Directors, management, Major Shareholders of the Company or Subsidiaries : None

Mr. Booncherd Suwantip

Senior Vice President - Quality, Safety,
Occupational Health and Environment

- Age : 58
- Appointed : August 1st, 2013
- Education / Training
 - Bachelor's Degree in Chemistry, Prince of Songkla University
 - Certificate of Senior Executive Program (SEP 16), Sasin Graduate Institute of Business Administration of Chulalongkorn University
 - Leadership Development Program (LDP)
 - Director Certification Program (DCP) Class 198/2014, Thai Institute of Directors Association (IOD)
- Board member / management in Listed Company – The Stock Exchange of Thailand : 1
 - Senior Vice President, Quality, Safety, Occupational Health and Environment, PTT Global Chemical Public Company Limited
- Board member / management in Non-Listed Company – The Stock Exchange of Thailand : 1
 - Director, NPC Safety and Environmental Service Company Limited
- Work Experiences (5-years Past Experiences)
 - 2011 - 2013 Vice President, Technical and Enhance SHE / Quality, Safety, Occupational Health and Environmental, PTT Global Chemical Public Company Limited
 - 2005 - 2011 Vice President, Technical and Enhance SHE / Safety, Occupational Health and Environmental, PTT Chemical Public Company Limited
- Shareholding : None
- Relation among Family with other Directors, management, Major Shareholders of the Company or Subsidiaries : None

Mrs. Warawan Tippawanich

Senior Vice President – Corporate Affairs
and Corporate Secretary

- **Age** : 51
- **Appointed** : January 1st, 2015
- **Education / Training**
 - Master of Business Administration, Management, Chulalongkorn University
 - B.Sc., in Chemical Engineering, Chulalongkorn University
 - PTT Group VP Leadership Development Program IV (Nov. 2012)
 - Company Reporting Program (CRP) Class 10/2014 and Director Certification Program (DCP) Class 190/2014
 - Thai Institute of Directors Association (IOD)
- **Board member / management in Listed Company – The Stock Exchange of Thailand** : 1
 - Senior Vice President – Corporate Affairs and Corporate Secretary and acting Vice President – Corporate Secretary, PTT Global Chemical Public Company Limited
- **Board member / management in Non-Listed Company – The Stock Exchange of Thailand** : 3
 - Director, TOC Glycol Company Limited
 - Director, PTT Chemical International Private Limited
 - Director, PTT Chemical International (Asia Pacific ROH) Limited
- **Work Experiences (5-years Past Experiences)**
 - Jan 2014 – Dec 2014 Vice President – Corporate Secretary, PTT Global Chemical Public Company Limited
 - Oct. 2011– Dec. 2013 Vice President - Strategy and Planning, PTT Global Chemical Public Company Limited
 - 2010 - Oct 2011 Vice President - Corporate Planning, PTT Chemical Public Company Limited
- **Shareholding** : None
- **Relation among Family with other Directors, management, Major Shareholders of the Company or Subsidiaries** : Yes
 - Spouse is Mr. Chawalit Tippawawich, Director of PTTGC's subsidiary

Mr. Siridech Kumvongdee

Senior Vice President - Acting Head of Science and Innovation

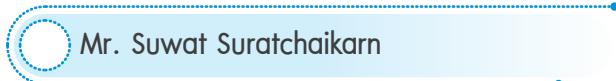
- **Age** : 49
- **Appointed** : January 1st, 2015
- **Education / Training**
 - Master of Science (Chemical Engineering), Washington University, U.S.A
 - Bachelor of Science (Chemistry), Ramkhamhaeng University
 - Certificate of Senior Executive Program (SEP), Sasin Graduate Institute of Business Administration of Chulalongkorn University
- **Board member / management in Listed Company – The Stock Exchange of Thailand** : 1
 - Senior Vice President - Acting Head of Science and Innovation, PTT Global Chemical Public Company Limited
- **Board member / management in Non-Listed Company – The Stock Exchange of Thailand** : 1
 - Director, PTT ICT Solutions Company Limited
- **Work Experiences (5-years Past Experiences)**
 - 2013 – 2014 Executive Vice President, PTT Phenol Company Limited
 - 2011 – 2012 Senior Vice President-Supply Chain Management, PTT Global Chemical Public Company Limited
- **Shareholding** : 2,091 shares (0.000046%) as of December 31st, 2014
- **Relation among Family with other Directors, management, Major Shareholders of the Company or Subsidiaries** : None

Mr. Adisorn Vichaikatka

Vice President – Internal Audit

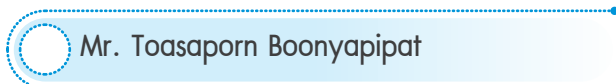
- **Age** : 57
- **Appointed** : August 1st, 2013
- **Education / Training**
 - Bachelor's Degree in Engineering Program, King Mongkut's University of Technology Thonburi
 - Effective Audit Committee Program
 - Best Practices in Value – Added Auditing
 - The Executive Program for Senior Management (EX-PMS)
 - Enterprise Fraud Prevention
- **Board member / management in Listed Company – The Stock Exchange of Thailand** : 1
 - Vice President – Internal Audit, PTT Global Chemical Public Company Limited
- **Board member / management in Non-Listed Company – The Stock Exchange of Thailand** : None
- **Work Experiences (5-years Past Experiences)**
 - Oct 2011 – Aug 2013 Vice President – Corporate Risk Management and Internal Control, PTT Global Chemical Public Company Limited
 - 2005 – Oct 2011 Vice President – Internal Audit, PTT Chemical Public Company Limited
- **Shareholding** : 20,523 shares (0.000455%) as of December 31st, 2014
- **Relation among Family with other Directors, management, Major Shareholders of the Company or Subsidiaries** : None

PTTGC's Senior Vice President



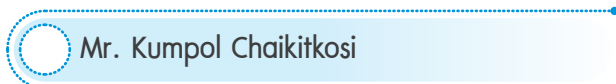
Mr. Suwat Suratchaikarn

Senior Vice President, CAPEX Excellence



Mr. Toasaporn Boonyapipat

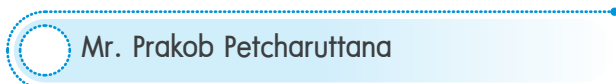
Senior Vice President, International Performance Management



Mr. Kumpol Chaikitkosi

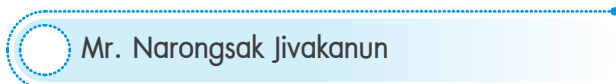
Senior Vice President reporting to Chief Operating Officer - Downstream Petrochemical Business
Seconded as Executive Vice President - Operations; PTT Phenol Company Limited

Senior Vice President appointed as Executives of PTTGC'S Subsidiaries



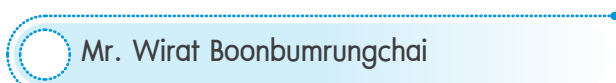
Mr. Prakob Petcharuttana

Senior Vice President, reporting to Chief Operating Officer - Upstream Petrochemical Business,
Seconded as Managing Director; NPC Safety and Environmental Service Company Limited



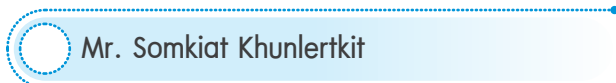
Mr. Narongsak Jivakanun

Senior Vice President, reporting to Executive Vice President, International Business Operations
Seconded as Chief Executive Officer; PTT Chemical International (Asia Pacific ROH) Limited



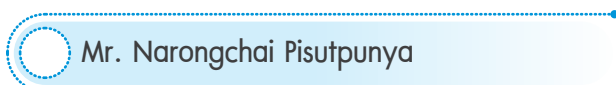
Mr. Wirat Boonbumrungchai

Senior Vice President, reporting to Chief Operating Officer - Upstream Petrochemical Business,
Seconded as President; PTT Maintenance and Engineering Company Limited



Mr. Somkiat Khunlertkit

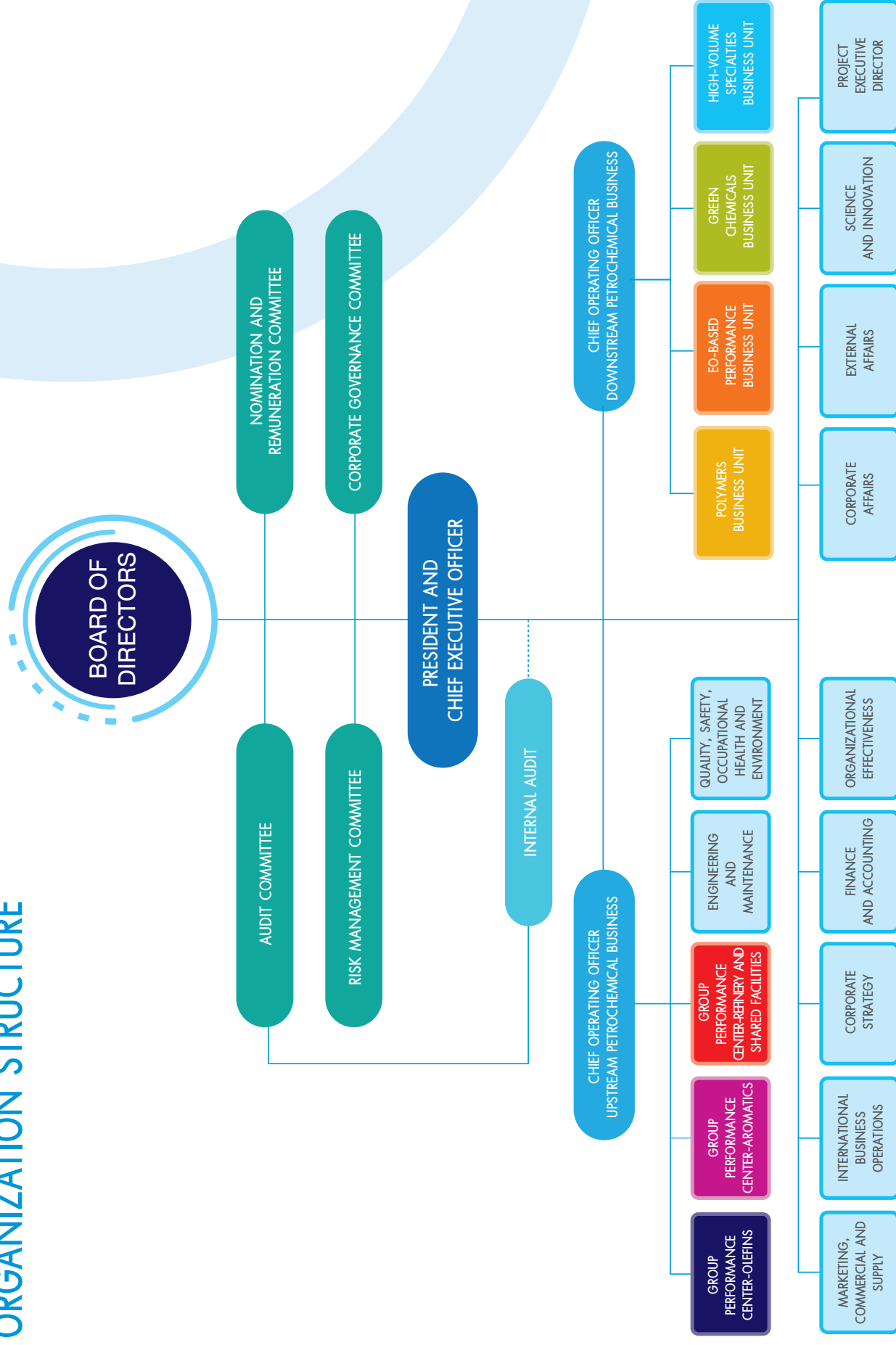
Senior Vice President, reporting to Chief Operating Officer - Upstream Petrochemical Business,
Seconded as President; Thai Tank Terminal Limited



Mr. Narongchai Pisutpunya

Senior Vice President, reporting to Chief Operating Officer - Downstream Petrochemical Business,
Seconded as President; PTT Polymer Marketing Company Limited

ORGANIZATION STRUCTURE



MANAGEMENT STRUCTURE

The Board of Directors

The Board of Directors as of January 31st, 2015 is as follows:

Name	Position	Appointed Date
1. Mr. Prasert Bunsumpun	Chairman	October 19 th , 2011
2. Mr. Somchai Kuvijitsuwan	Chairman of the Independent Director Chairman of the Audit Committee	October 19 th , 2011
3. Mr. Vasin Teeravechyan	Independent Director Chairman of the Nomination and Remuneration Committee	October 19 th , 2011
4. Mr. Anon Sirisaengtaksin ⁽¹⁾	Director Chairman of the Risk Management Committee	September 22 nd , 2014
5. Professor Surapon Nitikraipot ⁽¹⁾	Independent Director Chairman of the Corporate Governance Committee Director to the Nomination and Remuneration Committee	September 22 nd , 2014
6. Mr. Sarun Rungkasiri	Director Director to the Nomination and Remuneration Committee Director to the Corporate Governance Committee	October 18 th , 2013
7. Mr. Siri Jirapongphan ⁽¹⁾	Independent Director Director to the Risk Management Committee	September 22 nd , 2014
8. Mr. Samerjai Suksumek ⁽²⁾	Independent Director	April 8 th , 2014
9. Miss. Ruenvadee Suwanmongkol ⁽³⁾	Independent Director Director to the Audit Committee	March 21 st , 2014
10. Mr. Amnuay Preemonwong	Independent Director Director to the Audit Committee	October 19 th , 2011
11. Mrs. Boobpha Amornkiatkajorn ⁽⁴⁾	Director	October 1 st , 2014
12. Mrs. Watanan Petersik ⁽¹⁾	Independent Director	September 22 nd , 2014
13. Colonel Nithi Chungcharoen ⁽¹⁾	Independent Director Director to the Corporate Governance Committee	September 22 nd , 2014
14. Mr. Veerasak Kositpaisal ⁽⁵⁾	Director Director to the Risk Management Committee	January 26 th , 2015
15. Mr. Supattanapong Punmeechaow ⁽⁶⁾	Director and Secretary to the Board of Directors Director to the Risk Management Committee	September 25 th , 2014

Remarks:

(1) Directors who were appointed, to replace those who previously resigned, on September 22nd, 2014 are as follows:

- Mr. Siri Jirapongphan was appointed as Independent Director, replacing Mr. Suthep Liumsinjarern, who resigned on August 30th, 2014.
- Colonel Nithi Chungcharoen was appointed as Independent Director and Director to the Corporate Governance Committee, replacing Police General Sombat Amornvivat, who resigned on August 30th, 2014.
- Mr. Anon Sirisaengtaksin was appointed as Director, replacing Mr. Pailin Chuchottaworn, who resigned on August 30th, 2014.
- Mrs. Watanan Petersik was appointed as Independent Director, replacing Mr. Areepong Bhoocha-oom, who resigned on July 4th, 2014.
- Professor Surapon Nitikraipot was appointed as Independent Director, replacing Air Chief Marshal Somchai Thean-anant, who resigned on September 1st, 2014.

(2) Mr. Samerjai Suksumek was appointed as Director, replacing Mr. Prajya Phinyawat, who ended his term on April 8th, 2014.

(3) Miss. Ruenvadee Suwanmongkol was appointed as Independent Director, replacing Mrs. Raweporn Kuhirun, who resigned when she reached 70 years of age on February 27th, 2014.

(4) Mrs. Boobpha Amornkiatkajorn was appointed as Director, replacing Mr. Atikom Terbsiri, who resigned on October 1st, 2014.

(5) Mr. Veerasak Kositpaisal was appointed as Director, replacing Mr. Bowon Vongsinudom, who resigned on December 31st, 2014.

(6) Mr. Supattanapong Punmeechaow was appointed as Director, replacing Police Lieutenant General Prawut Thavornsiri, who resigned on August 30th, 2014.

He also serves as President and Chief Executive Office, and Secretary to the Board of Directors from October 1st, 2014 onwards, replacing Mr. Bowon Vongsinudom.

Directors who resigned or terminated their terms during the year 2014 are as follows:

Name	Position	Term of Office
1. Mrs. Raweporn Kuhirun	Independent Director Director to the Audit Committee	October 19 th , 2011 – February 27 th , 2014
2. Mr. Prajya Phinyawat	Independent Director Director to the Nomination and Remuneration Committee Director to the Corporate Governance Committee	November 11 th , 2011– April 8 th , 2014
3. Mr. Areepong Bhoocha-oom	Independent Director Director to the Nomination and Remuneration Committee Director to the Risk Management Committee	October 25 th , 2013 – July 4 th , 2014
4. Police General Sombat Amornvivat	Chairman of Independent Directors Chairman of the Corporate Governance Committee	October 19 th , 2011 – August 30 th , 2014
5. Mr. Suthep Liumsinjarern	Independent Director Chairman of the Risk Management Committee	October 19 th , 2011 – August 30 th , 2014
6. Mr. Pailin Chuchottaworn	Director	October 18 th , 2013 – August 30 th , 2014
7. Police Lieutenant General Prawut Thavornsiri	Independent Director Director to the Audit Committee Director to the Corporate Governance Committee	April 4 th , 2013 – August 30 th , 2014
8. Air Chief Marshal Somchai Thean-anant	Independent Director Director to the Nomination and Remuneration Committee Director to the Corporate Governance Committee	October 19 th , 2011 – September 1 st , 2014
9. Mr. Atikom Terbsiri	Director	October 18 th , 2013 – October 1 st , 2014
10. Mr. Bowon Vongsinudom	Director Director to the Risk Management Committee	October 19 th , 2011 – December 31 st , 2014

Authorized Directors

According to the Company's Articles of Association and its Certification of Incorporation from the Department of Business Development of the Ministry of Commerce, on February 4th, 2015 the following Directors will be enabled to sign their names on behalf of PTTGC. "(1) Mr. Supattanapong Punmeechaow - Chief Executive Officer can sign and attach PTTGC seal on behalf of PTTGC or (2) Two of these four Directors can sign together and attach PTTGC seal on behalf of PTTGC: Mr. Sarun Rungkasiri, Mr. Anon Sirisaengtaksin, Mrs. Boobpha Amornkiatkajorn, Mr. Veerasak Kositpaisal."

Composition of the Board of Directors

The Company's Articles of Association mandate that the Board of Directors must be composed of no less than 5 but no more than 15 Directors. Each Director will be on a three-year term. At least one third (1/3) and not less than three Directors of the entire Board must be an Independent Director. According to the principles of Good Corporate Governance, more than half of the Board of Directors must be an Independent Director, who resides in the Kingdom of Thailand, and each of them must be fully qualified by law. Additionally, they must not be older than 70 years.

The compositions and qualifications of the Board of Directors complies with the Articles of Association as well as the principles of Good Corporate Governance and regulations as stipulated by law without gender discrimination. The Board of Directors is composed of individuals with diverse fields of both knowledge and expertise, with experience beneficial to PTTGC's business operations. In addition, each Director is allowed to be a Director of no more than five listed companies on the Stock Exchange of Thailand, and no more than three entities which are state enterprises or juristic persons whose company shares are held by state enterprises. The Board of Directors comprises a total of 15 Directors, which is the number appropriate for its business size and type. These Directors are divided into the following:

- 1) Non-Executive Directors: 14
- 2) Executive Director: 1 (President and Chief Executive Officer)
- 3) Independent Directors: 9 (this is more than half of the Board – a stricter criteria than that set forth by the Securities and Exchange Commission), three of whom are female Directors.

Authorities and Responsibilities of the Board of Directors

The Board of Directors has duties and responsibilities to oversee PTTGC's operations and ensure strict compliance with applicable laws, objectives, regulations and shareholder resolutions. The Board has strictly followed the principles of both Good Corporate Governance and Best Practices for Directors of Listed Companies, as set forth by the Stock Exchange of Thailand. Each Director also possesses suitable knowledge, capabilities and the understanding of their roles while performing tasks for the benefit of PTTGC and shareholders. Important approval authorities and responsibilities of the Board are summarized as follows:

- 1) To dedicate its time and attention to the vision, mission and strategic direction of PTTGC. Directors of the Board of Directors should freely express their opinions and actively seek out information that could be useful to PTTGC's interests and benefits.
- 2) To review and approve strategies and important policies, as well as objectives, financial goals, budgets, investments, projects, business contracts and agreements – that beyond the authority of the

President and CEO, and PTTGC plans. The Board will continuously reviewed and revised at least every year and supervise and monitor management to ensure their adherence to PTTGC's strategic plans, making sure that management is able to implement the strategies, direction and vision within its working processes in an efficient manner.

- 3) To set Corporate Governance Policy as well as the Business Code of Conduct, defining principles and guidelines for the Board of Directors, and members of both management and staff. These documents are to increase the awareness of responsibilities and duties. It is also intended to build understanding of and encourage strict adherence to policies. All parties are to work hand in hand with PTTGC rules and regulations, and ensure fairness is provided to all stakeholders.
- 4) To ensure that systems for accounting, financial reporting, and auditing are reliable. This includes ensuring internal control measurement systems, and making certain that internal audits are performed in an efficient and effective manner.
- 5) To consider all relevant risk factors and create a most comprehensive management approach to mitigate against such risks. This is to ensure the systematic management of efficient processes involved in risk management, as well as explore all possible business opportunities that might arise from such risk factors. Additionally, the Board is to provide sufficient and efficient internal controls.
- 6) To monitor and manage all conflicts of interest, as well as connected transactions, that may arise. The Board shall place great importance on key transactions while maximizing shareholder and stakeholder value.
- 7) To provide appropriate channels to communicate with shareholders and make disclosures. The Board is to ensure that information is conveyed in an accurate, transparent and reliable manner and meets the highest standards.
- 8) To regularly perform assessments and reviews of themselves, and of the President and Chief Executive Officer.
- 9) To provide a system and various mechanisms to

determine an appropriate level of remuneration for the Company's senior management, relative to the profitability of the Company's business operations. Financial incentives should be provided for performance both in the short and in the long term.

- 10) To act as leader and role model in practicing the business code of conduct in compliance with the Company's Corporate Governance Policies.
- 11) To assess adherence to Corporate Governance policies and business code of conduct no less than once per year.
- 12) To determine assessment criteria for the filling of important management appointments. Also, the recruitment process should be made fair and transparent. Prior approval with majority of the vote from the Board is required for senior management serving as executive vice president or equivalent upward including President & CEO.
- 13) Reports must be made to PTTGC of any conflicts of interest the Directors may have, including relationships and conflicts that they may have with other members of management as well as with subsidiaries.
- 14) Each Director must attend every Board meeting as well as every shareholders meeting. If under any circumstances attendance cannot be fulfilled, notification must be sent to the Chairman of the Board.
- 15) Importance is placed on the business operations with responsibility toward society and the environment, as well as promoting the well-being and sustainability of Thai society. This includes the raising of living standards of community members in the areas around PTTGC plants, creating an environment where PTTGC and those who live around its operations can co-exist.

Additionally, the Board of Directors must receive permission during shareholders meetings before acting for or against the following issues:

- Entering into any related transactions, in regard to the acquisition or sale of important PTTGC assets. The specifics of this point are outlined by law, as well as by the Capital Market Supervisory Board.
- Conduct a sale or transfer of PTTGC enterprises or important components to other entities.
- Conduct the purchase or acquisition of enterprises on behalf of PTTGC.
- Initiate, modify or terminate lease contracts, either wholly or partially, that are of relevance to Company business. Assignments of lease contracts to other individuals are included, as well as entry into partnerships with other entities to share profit/loss.
- Make addendums or changes to Company's Memorandum or Articles of Association.
- Make an increase or decrease of the registered capital.
- Make issuances of debt to the public.
- Conduct dissolution of PTTGC or undertake a merger with another company.
- Announce annual dividends.
- Other various activities as mandated by law or requiring prior approval of shareholders, per the Company's Articles of Association.

Appointment to and Termination from the Board of Directors

The Articles of Association provisions as related to the appointments to and terminations from the Board of Directors are summarized as follows:

Appointment

- Shareholders will cast their votes in Board of Director elections according to the below guidelines.
 - (1) Shareholders will have one vote for each share they own.
 - (2) In the event that the number of nominees do not exceed the number of vacant positions being voted on during Board elections, shareholders will vote on those eligible nominees. Shareholders must allocate their votes to one nominee as per (1), without dividing them across more than one nominee.

- (3) In the event that the number of nominees exceeds the number of vacant positions, shareholders will still have to allocate all of their votes to one nominee as per (1), without dividing them across more than one nominee. Nominees receiving the most votes will receive appointments to the Board, until there are no vacancies left. If there are any ties in voting, the Chairman of the Board will cast the deciding vote.
- The Board of Directors will nominate one Director to serve as Chairman. Decisions made during Board meetings will be carried on a majority basis, with the Chairman voting only when a deciding vote is needed. In the event that the Director's seat is vacated for any reason other than the end of rotation, the Board will hold a new election to decide on a new Director who is fully qualified and meets all related laws and regulations. However, if the remaining term is less than two (2) months, the new Director will only serve the remaining term of the previous Director. This decision must be made with the agreement of three quarters (3/4) of the remaining Directors.
 - In the event that vacancies cause the number of Directors to fall below the necessary quorum, the only authority the Directors has remaining is to call for a shareholders meeting to elect new Directors to fill the vacancies. This must be done within one (1) month from the date the quorum is unable to be made. New Directors will serve the remaining terms of the Directors they are replacing.

Termination

- In each Annual General Meeting, one in every three serving Directors should step down from their positions. If this ratio of one to three cannot be equally met, the number of Directors stepping down should do so in a way to reach the closest ratio of 1:3 as possible. First and second year Directors will be randomly selected to step down. However, for later years the Director with the longest tenure will be the one having to step down. Directors who step down are able to be re-elected to the Board.

- In addition to tenure expiration, the causes for Directorship termination include demise, resignation, or disqualification due to lack of ability or prohibition by law. Additionally, Directors can be terminated by shareholder vote or by court order.
- Directors can advise of their resignation by submitting notice to PTTGC. A resignation is effective the day it is received by PTTGC. Also, Directors may also submit their resignation through the Registrar.
- Votes may be held at the shareholders meeting to force termination of a Director's position before term expiration. Attending shareholders must vote to approve of such a measure by a 3/4 majority. Additionally, at least 1/2 of outstanding shares must be represented in this vote.

Independent Directors

According to the principles of Good Corporate Governance of PTTGC, Independent Directors must comprise more than half of the entire Board. Each Independent Director will hold office for a term of not more than 9 years or 3 consecutive terms. The term begins from the date of the 2014 Annual General Meeting by not taking into account their previous term in the position. These Independent Directors must be experienced and fully qualified as per the Capital Market Supervisory Board. Additionally, they must not hold larger than a 0.5% share in PTTGC (a stricter regulation than the SEC's limit of 1%). Qualifications of Independent Directors are defined in the Good Corporate Governance Handbook and the website of PTTGC.

Independent Directors must be able to attend meetings regularly and freely express their opinions during these meetings. They must have access to and be able to adequately speak to matters of finance and other matters central to PTTGC in a way that is independent. They will protect stakeholder interests and make sure to prevent conflicts of interest arising between PTTGC, members of management, the Board of Directors, major shareholders, and other companies that involve the same groups of people.

In 2014, PTTGC comprises a total of nine Independent Directors, which is more than one third of the entire Board and beyond the criteria as required by law and also more than half of the entire Board according to the good corporate governance policy of PTTGC. In addition, the “Charter of Independent Directors” has been formulated to ensure their clear and tangible performance. Duties and responsibilities of Independent Directors toward the Board of Directors according to the Charter are as follows:

- To provide suggestions and opinions to the Board of Directors concerning important issues related to the operations or interests of PTTGC and its shareholders.
- To request for outside consultations if needed, with PTTGC providing the budget for expenses.
- To ensure that PTTGC operates according to all rules and regulations of the Corporate Governance Department concerning Independent Directors that apply to listed companies. The definition applying to Independent Directors will also be reviewed to ensure that it is appropriate and complete according to the legal requirements.

- To review and make adjustments to the Charter of Independent Directors in an effort to make it more appropriate and up to date.
- To perform other duties as assigned by the Board of Directors, as long as they do not interfere with the independent nature required of Independent Directors.

Sub-Committees

The Board of Directors, during its Meeting No. 1/2011 held on October 19th, 2011, agreed to establish four different Sub-Committees in accordance with the principles of Good Corporate Governance. The Committees comprise of the Audit Committee, the Nomination and Remuneration Committee, the Corporate Governance Committee and the Risk Management Committee, each being on a three-year term. These Sub-Committees were set up to place special focus on their specific task with a sense of diligence and efficiency. All the Committees are to present their findings to the Board of Directors.

The list of names and the roles of each Sub-Committee member as of January 31st, 2015 is as follows:

Audit Committee

Name	Position
1. Mr. Somchai Kuvijitsuwan	Chairman of the Audit Committee (Independent Director)
2. Miss. Ruenvadee Suwanmongkol	Director to the Audit Committee (Independent Director)
3. Mr. Amnuay Preemonwong	Director to the Audit Committee (Independent Director)

Remarks:

- (1) Mrs. Raweporn Kuhirun assumed her role from October 19th, 2011 to February 27th, 2014.
- (2) Police Lieutenant General Prawut Thavornsiri assumed his role from May 23rd, 2014 to August 30th, 2014.

Mr. Adisorn Vichaikatka, Vice President – Internal Audit, serves as Secretary to the Audit Committee.

The Audit Committee is comprised of at least three Independent Directors. Terms for the Audit Committee are three years, or shorter if a Director resigns or is forced to leave the position. Directors whose terms have expired are eligible to be re-appointed by the Board of Directors. Each Director of the Committee has thorough qualifications as well as duties and responsibilities in line with standards set forth by the Securities and Exchange Commission, as well as, scope of work as defined by the Capital Market Commission.

Additionally, the Board of Directors gave an approval for the Charter of the Audit Committee, which identifies the composition, qualification, term and the scope of duties according to Good Corporate Governance principles. Details of the Charter are disclosed in PTTGC’s Good Corporate Governance Handbook and its website.

All Directors of the Audit Committee are Independent Directors who have knowledge, experience and received training

and developed knowledge and expertise in the area of Finance and Accounting with long-established experience in conducting reviews of financial statements are responsible for making certain that the Company has accountable financial and audit reporting, which is done following accounting and other related standards as well as applicable laws. In addition, it is to ensure that internal controls and risk management is being conducted appropriately and efficiently, and that internal processes concerning whistle blowing and receiving complaints are reviewed efficiently. Aside from overseeing the election, appointment and dismissal of independent auditors who, in his discretion, fail to perform or omit to perform or wrongfully perform their duties, the Audit Committee will ensure that the Company's internal auditing system is appropriate and efficient, and that internal auditing bodies conduct all their

responsibilities according to internal auditing standards. Also, the Committee is to consider reports of vested interests or conflicts of interest in a manner that is lawful and subscribes to SET regulations. These will be disclosed in a reasonable and thorough manner. These reports must be conducted in such a way that creates the greatest benefit to PTTGC.

In 2014, the Audit Committee held a total of 7 meetings and an additional meeting, which included PTTGC's auditors without the attendance of the management. All members of this Sub-Committee attended every meeting. This was to ensure their strict performance within the scope of their duties and responsibilities as stated in its Charter, including tasks as assigned to them by the Board of Directors. In addition, the Audit Committee will report their monitoring results to the Board on a quarterly basis before further submitting a summary to shareholders in the Annual Report.

Nomination and Remuneration Committee

Name	Position
1. Mr. Vasin Teeravechyan	Chairman of the Nomination and Remuneration Committee (Independent Director)
2. Mr. Sarun Rungkasiri	Director to the Nomination and Remuneration Committee
3. Professor Surapon Nitikraipot	Director to the Nomination and Remuneration Committee (Independent Director)

Remarks:

(1) Mr. Areepong Bhoocha-oom assumed his role from October 25th, 2013 to July 4th, 2014.

(2) Air Chief Marshal Somchai Thean-anant assumed his role from May 23rd, 2014 to September 1st, 2014.

[Mrs. Warawan Tippawanich](#) Senior Vice President – Corporate Affairs, serves as Secretary to the Nomination and Remuneration Committee, replacing Mrs. Thasnalak Santikul, who retired from January 1st, 2015 onwards.

This Sub-Committee is comprised of at least three Directors, with more than half being an Independent Director. The Chairman of the Nomination and Remuneration Committee must also be an Independent Director. Directors of the Nomination and Remuneration Committee will hold office for a term of three years or until a time in which they are no longer able to serve as a Director. Other reasons for termination of duty include resignation or dismissal. Their responsibilities include nominating appropriate individuals to be considered for new Directors, Sub-Committees or Chief Executive Officer (CEO). The nomination and remuneration processes should follow set guidelines and be transparent, both for the CEO and Directors. These processes should also be fair and reasonable. Furthermore, they must be approved at the shareholders meeting.

The Board of Directors expressed an approval to the Charter of the Nomination and Remuneration Committee. The Charter identifies the composition, qualification, term and scope of duties that conform to the principles of Good Corporate Governance. The Charter detail is disclosed in the Good Corporate Governance Handbook and PTTGC website.

The Committee held a total of 5 meetings in 2014 to perform their duties as stated in its Charter, as well as those assigned by the Board of Directors. The Committee reported their performance to the Board before further submitting a summary to shareholders in the Annual Report.

Corporate Governance Committee

Name	Position
1. Professor Surapon Nitikraipot	Chairman of the Corporate Governance Committee (Independent Director)
2. Mr. Sarun Rungkasiri	Director to the Corporate Governance Committee
3. Colonel Nithi Chungcharoen	Director to the Corporate Governance Committee (Independent Director)

Remarks:

- (1) Mr. Prajya Phinyawat assumed his role from October 18th, 2013 to April 8th, 2014.
- (2) Police General Sombat Amornvivat assumed his role from October 19th, 2011 to August 30th, 2014.
- (3) Air Chief Marshal Somchai Thean-anant assumed his role from May 23rd, 2014 to September 1st, 2014.
- (4) Miss. Ruenvadee Suwanmongkol assumed her role from May 23rd, 2014 to September 22nd, 2014.

[Mrs. Warawan Tippawanich](#) Senior Vice President – Corporate Affairs, serves as Secretary to the Corporate Governance Committee, replacing Mrs. Thasnalak Santikul, who retired, from January 1st, 2015 onwards.

The Corporate Governance Committee is comprised of at least three Directors, with more than half being an Independent Director. The Chairman of the Corporate Governance Committee must also be an Independent Director. Each Director of the Committee will hold office for a term of three years, or until a time in which they are no longer able to serve as a Director. Other reasons for termination of duty include resignation or dismissal. Their responsibilities include determining methods and policies related to the business Code of Conduct in compliance with the Corporate Governance Policies. These methods and policies are presented to the Board of Directors so that they may be approved and implemented in an effort to meet the same standard across the organization.

In 2014, the Corporate Governance Committee held a total of 4 meetings, to ensure that the Committee had performed within the scope of the authorities and responsibilities as outlined in its Charter as well as following the Board of Directors' assignments. Also, monitoring reports were submitted concerning the compliance with the Corporate Governance Policies. These reports were submitted to the Board on a quarterly basis, and a summary of the reports were then submitted to shareholders in the Annual Report.

Risk Management Committee

Name	Position
1. Mr. Anon Sirisaengtaksin	Chairman of the Risk Management Committee
2. Mr. Siri Jirapongphan	Director to the Risk Management Committee (Independent Director)
3. Mr. Veerasak Kositpaisal	Director to the Risk Management Committee
4. Mr. Supattanapong Punmeechaow	Director to the Risk Management Committee

Remarks:

- (1) Mr. Areepong Bhoocha-oom assumed his role from November 15th, 2013 to July 4th, 2014.
- (2) Mr. Suthep Liumsinjarern assumed his role as Chairman of the Risk Management Committee from November 15th, 2013 to August 30th, 2014 (appointed as Director to the Risk Management Committee since October 19th, 2011).
- (3) Mr. Bowon Vongsinudom assumed his role from October 19th, 2011 to December 31st, 2014.
- (4) Mr. Sarun Rungkasiri assumed his role from October 18th, 2013 to September 22nd, 2014.

Mr. Amorn Putiphrawan, Vice President - Corporate Risk Management and Internal Control System, serves as Secretary to the Risk Management Committee.

The Risk Management Committee is comprised of at least three Directors, with at least one being an Independent Directors. Each Director holds office for a term of three years, or until a time in which they are no longer able to serve as a Director. Other reasons for termination of duty include resignation or dismissal. Those whose terms have expired are eligible to be re-appointed at the request of the Board of Directors. Responsibilities include setting appropriate and effective risk management policies that are relevant to PTTGC operations. They also include maintaining risk management plans, systems and processes in an effort to reduce the exposure of PTTGC's business to various risks.

Monitoring and assessments of the compliance with the risk management framework will be conducted throughout the organization to ensure that PTTGC has an appropriate level of risk management at all times.

In 2014, the Risk Management Committee held a total of 5 meetings, to ensure that the Committee had performed within the scope of authorities and responsibilities as outlined in its Charter as well as following the Board of Directors' assignments. Also, the Committee's reports were submitted to the Board on a quarterly basis, and a summary of these reports were then submitted to shareholders in the Annual Report.

Board Meetings

Name of Director	Meetings in 2014						Taking Office as a Director during the Year
	Board of Directors	Independent Directors	Audit Committee	Nomination and Remuneration Committees	Corporate Governance Committee	Risk Management Committee	
	14 Times*	1 Time	7 Times	5 Times	4 Times	5 Times	
1. Mr. Prasert Bunsumpun	14/14	-	-	-	-	-	
2. Mr. Somchai Kuvijitsuwan	14/14	1/1	7/7	-	-	-	
3. Mr. Vasin Teeravechyan	12/14	-/1	-	4/5	-	-	
4. Mr. Anon Sirisaengtaksin	3/3	-	-	-	-	1/1	September 22 nd , 2014 (Replacing Mr. Pailin Chuchottaworn)
5. Professor Surapon Nitikraipot	3/3	1/1	-	2/2	2/2	-	September 22 nd , 2014 (Replacing Air Chief Marshal Somchai Thean-anant)
6. Mr. Sarun Rungkasiri	14/14	-	-	2/2	2/2	4/4	
7. Mr. Siri Jirapongphan	2/3	1/1	-	-	-	1/1	September 22 nd , 2014 (Replacing Mr. Suthep Liumsirjarem)
8. Mr. Samerjai Suksumek	9/9	-	-	-	-	-	April 8 th , 2014 (Replacing Mr. Prajya Phinyawat)
9. Miss. Ruenvadee Suwanmongkol	8/9	1/1	3/3	-	1/1	-	March 21 st , 2014 (Replacing Mrs. Raweporn Kuhirun)
10. Mr. Amnuay Preemonwong	13/14	1/1	7/7	-	-	-	
11. Mrs. Boobpha Amornkiatkajorn	3/3	-	-	-	-	-	October 1 st , 2014 (Replacing Mr. Atikom Terbsiri)
12. Mrs. Watanan Petersik	1/3	1/1	-	-	-	-	September 22 nd , 2014 (Replacing Mr. Areepong Bhoocha-oom)
13. Colonel Nithi Chungcharoen	3/3	1/1	-	-	2/2	-	September 22 nd , 2014 (Replacing Police General Sombat Amornvivat)
14. Mr. Bowon Vongsinudom**	14/14	-	-	-	-	5/5	
15. Mr. Supattanapong Punmeechaow***	3/3	-	-	-	-	1/1	September 25 th , 2014 (Replacing Police Lieutenant General Prawut Thavornsiri)

Remarks:

* Total 12 regular meetings (pre-scheduled) and 2 special meetings

** Mr. Bowon Vongsinudom resigned as Director on December 31st, 2014.

*** Mr. Supattanapong Punmeechaow was appointed as President and CEO, and also Secretary to the Board, replacing Mr. Bowon Vongsinudom, the former President and CEO who retired from October 1st, 2014.

Name of Director	Meetings in 2014						Term of Office in 2014
	Board of Directors	Independent Directors	Audit Committee	Nomination and Remuneration Committees	Corporate Governance Committee	Risk Management Committee	
	14 Times*	1 Time	7 Times	5 Times	4 Times	5 Times	
Attendance of directors who resigned during the year							
1. Mrs. Raweporn Kuhirun	2/2	-	1/1	-	-	-	October 19 th , 2011 - February 27 th , 2014
2. Mr. Prajya Phinyawat	3/3	-	-	-	1/1	-	November 11 th , 2011- April 8 th , 2014
3. Mr. Areepong Bhoocha-oom	4/5	-	-	3/3	-	2/2	October 25 th , 2013 – July 4 th , 2014
4. Police General Sombat Amornvivat	9/10	-	-	-	2/2	-	October 19 th , 2011- August 30 th , 2014
5. Mr. Suthep Liumsirijareen	10/11	-	-	-	-	4/4	October 19 th , 2011 - August 30 th , 2014
6. Mr. Pailin Chuchottaworn	10/11	-	-	-	-	-	October 18 th , 2013 - August 30 th , 2014
7. Police Lieutenant General Prawut Thavornsiri	9/11	-	2/2	-	-/1	-	April 4 th , 2013 – August 30 th , 2014
8. Air Chief Marshal Somchai Thean-anant	10/11	-	-	3/3	1/1	-	October 19 th , 2011 – September 1 st , 2014
9. Mr. Atikom Terbsiri	11/11	-	-	-	-	-	October 18 th , 2013 - October 1 st , 2014

Remarks:

* Total 12 regular meetings (pre-scheduled) and 2 special meetings

In 2014, the Board of Directors, Sub-Committees and Independent Directors, held meetings as detailed in page 118-119. All the meetings were pre-scheduled. Directors who could not attend due to urgent matter had notified the Chairman in writing, with the reasons for their absence being clearly stated. The Chairman then informed attendees of such a matter prior to the commencement of each meeting.

The Executives

To ensure the efficiency of organizational management, the Board of Directors established a Management Committee (MC) and a Group Management Committee (GMC), comprising senior executives from the level of Senior Vice

President upward. Both committees are under the supervision of the President and Chief Executive Officer, who, as the highest level of all PTTGC's employees, has the authority to manage PTTGC's business in compliance with the policies, as well as plans and budgets approved by the Board.

The Management Committee is responsible for setting up strategies while offering advice concerning PTTGC's policies and direction. They will also ensure the strict adherence of the management to the policies of the Board of Directors. The Group Management Committee has a responsibility to consider as well as offer advice and views in regard to the relevance of PTTGC's policies to its different business units.

List of PTGC Executives according to the Organization Structure as of January 1st, 2015

No.	Name	Position
1.	Mr. Supattanapong Punmeechaow	President and Chief Executive Officer
2.	Mr. Kun Patumraj	Chief Operating Officer - Upstream Petrochemical Business and Acting Executive Vice President – Engineering and Maintenance
3.	Mr. Athavudhi Hirunburana	Chief Operating Officer – Downstream Petrochemical Business and Acting Executive Vice President – High-Volume Specialties Business Unit
4.	Mr. Patiparn Sukornthaman	Executive Vice President – Finance & Accounting
5.	Mrs. Puntip Oungpasuk	Executive Vice President – Corporate Strategy
6.	Mrs. Sriwan Eamrungraj	Executive Vice President – Marketing, Commercial and Supply
7.	Mr. Varit Namwong	Executive Vice President – Organizational Effectiveness
8.	Mr. Kongkrapan Intarajang	Executive Vice President – International Business Operations
9.	Mr. Athavuth Vikitsreth	Executive Vice President – External Affairs
10.	Mr. Suvit Tinnachote	Executive Vice President – Olefins
11.	Mr. Sermsak Sriyaphai	Executive Vice President – EO-Based Performance and Project Executive Director
12.	Mr. Anutin Chuaypen	Senior Vice President – Group Performance Center – Refinery and Shared Facilities
13.	Mr. Pairush Soovan	Senior Vice President – Aromatics
14.	Mr. Pairote Utaisup	Senior Vice President – Polymers
15.	Mr. Dumrong Pinpuvadol	Senior Vice President – Green Chemicals
16.	Mr. Booncherd Suwantip	Senior Vice President – Quality, Safety, Occupational Health and Environment
17.	Mrs. Warawan Tippawanich	Senior Vice President – Corporate Affairs and Company Secretary
18.	Mr. Siridech Kumvongdee	Senior Vice President (Acting) – Science and Innovation

Remark : Numbers 1-11 are 'Executives' as defined by the SEC.

Changes in Management (as defined by the SEC) in 2014

- 1) Mr. Supattanapong Punmeechaow was appointed as the President and Chief Executive Officer in replacement of Mr. Bowon Vongsinudom who retired. The appointment was made through resolution at the Board Meeting No. 9/2014 held on September 22nd, 2014, which was effective on October 1st, 2014 onwards. The Board of Directors has considered Mr. Supattanapong Punmeechaow as a suitable candidate with skill, knowledge, competency and wide experience in energy field, petroleum and finance. He also has leadership qualities together with experience as an organization leader.
- 2) Mr. Vanchai Tadadoltip, Executive Vice President – Green Chemicals Business Unit resigned from the position effective on June 2nd, 2014.

- 3) Mr. Dhanes Charoensupaya, Executive Vice President – Strategic Execution and Excellence resigned from the position effective on June 12nd, 2014.
- 4) Mr. Narong Bunditkamol, Executive Vice President, Group Performance Center - Aromatics, who retired on of December 31st, 2014.
- 5) Mrs. Thasnalak Santikul, Executive Vice President – Corporate Affairs, who retired on December 31st, 2014.

Company Secretary

In compliance with the Securities and Exchange Commission Act (No. 4) 2008 Section 89/15 and 89/16, the Board of Directors granted an approval for the appointment of Mrs. Warawan Tippawanich Senior Vice President – Corporate Affairs and acting Vice President of the Corporate Secretary

as Company Secretary. By law, the responsibilities of this position include the preparation and storage of important Company information as well as documents. This includes the roster of Directors, meeting notices, Board and Shareholders' meeting minutes, the Company's annual reports, and reports of connected transactions of Directors and Executives. Additionally, Company Secretary is tasked with the preparation of meetings of the Board or its shareholders. The Company Secretary also has the responsibility to give counsel related to various laws and regulations that the Board of Directors and Executives should be aware of so that they are able to perform their duties in a way that creates the greatest benefit for the Company. The Company Secretary should also organize both training and orientation, and also provide any necessary information to new Directors of the Board of Directors that might help them perform their duties better. Company Secretary should also supervise and encourage cooperation within the Company to closely comply with all related laws, restrictions, and resolutions in a full and accurate fashion. The Company Secretary has received a complete range of important training courses central to her duties.

The Board of Directors and Executives Remuneration Board Remuneration

Board Remuneration

The Board of Directors set up a policy on the determination of the Director's remuneration in a fair and reasonable manner with adherence to the principles of Good Corporate Governance. The Nomination and Remuneration Committee has a duty to conduct reviews on suitability and relevance in terms of PTTGC's financial status. This will be conducted in comparison with criteria used in other listed companies on the Stock Exchange of Thailand that share similarity in both business type and size. Also taken into account are the duties of the Directors and their assigned responsibilities. Any Director being assigned as a Director of a Sub-Committee will also be entitled to additional remuneration, depending on the added responsibility.

Remuneration for the Directors must be approved at the shareholders meeting. At the PTTGC's 2014 Annual General Meeting of Shareholders, held on April 8th, 2014, approval was given in regard to the remuneration for Directors of the Board of Directors and Sub-Committees in 2014, as well as bonuses of the Board for their performance in 2013. Details of the remuneration are as follows:

(1) Remuneration for the Board of Directors and Sub-Committees

Type of Remuneration	Rate
1. Board of Directors' Remuneration	Monthly Remuneration - Chairman 60,000 THB/Month - Director 50,000 THB/Month/Director Monthly Remuneration for Meeting Attendance - Chairman 40,000 THB/Meeting - Director 30,000 THB/Meeting/Director
2. Sub-Committee Directors' Remuneration	Remuneration for Meeting Attendance - Audit Committee - Chairman 50,000 THB/Meeting - Director 40,000 THB/Meeting/Director - Nomination and Remuneration Committee - Corporate Governance Committee - Risk Management Committee

(2) Directors' bonuses were considered and given based on PTTGC's business operating results in 2013. The Board of Directors received bonuses only when dividend is paid to shareholders within the same year. The maximum amount of Directors bonuses was 0.30% of PTTGC's net profit achieved within that year, and the amount did not exceed 50 million THB. It was calculated

according to the time served in 2013, and it was determined that the Chairman should receive a bonus of 25% higher than other Directors. Affective from the date of the 2013 Annual General Meeting of Shareholder onwards until the AGM passes a new resolution. In 2013, the Board received the amount of 50 million THB.

Directors Remuneration in 2014

Name	Monthly Remuneration for PTGC Directors	Remuneration per Meeting Attendance	Remuneration for Meeting Attendance of Sub-Committees (THB)				2014 Bonuses* (THB)	Total (THB)
			Audit Committee	Nomination and Remuneration Committee	Corporate Governance Committee	Risk Management Committee		
1. Mr. Prasert Bunsumpun	720,000.00	320,000.00					4,195,595.19	5,235,595.19
2. Mr. Somchai Kuvijitsuwan	600,000.00	240,000.00	300,000.00				3,356,476.16	4,496,476.16
3. Mr. Vasin Teeravechyan	600,000.00	210,000.00		200,000.00			3,356,476.16	4,366,476.16
4. Mr. Anon Sirisaengtaksin*****	165,000.00	60,000.00				50,000.00	2,593,222.68	2,868,222.68
5. Professor Surapon Nitikraipot	165,000.00	60,000.00		80,000.00	40,000.00			345,000.00
6. Mr. Sarun Rungskasiri	600,000.00	240,000.00		80,000.00	30,000.00	160,000.00	689,686.88	1,799,686.88
7. Mr. Siri Jirapongphan	165,000.00	60,000.00				40,000.00		265,000.00
8. Mr. Samerjai Suksumek	438,333.33	240,000.00						678,333.33
9. Miss. Ruenvadee Suwanmongkol	467,741.94	180,000.00	80,000.00		40,000.00			767,741.94
10. Mr. Amnuay Preemonwong	600,000.00	240,000.00	240,000.00				3,356,476.16	4,436,476.16
11. Mrs. Boobpha Amornkiatkajorn	150,000.00	60,000.00						210,000.00
12. Mrs. Watanan Petersik	165,000.00	30,000.00						195,000.00
13. Colonel Nithi Chungcharoen	165,000.00	60,000.00			30,000.00			255,000.00
14. Mr. Bowon Vongsinudom**	600,000.00	240,000.00				200,000.00	3,356,476.16	4,396,476.16
15. Mr. Supattanapong Punmeechaow**	160,000.00	60,000.00				40,000.00		260,000.00

Directors who resigned and terminated their terms during 2013-2014, and received remuneration in 2014

1. Mrs. Raweporn Kuhirun***	96,428.57		40,000.00				3,356,476.16	3,492,904.73
2. Mr. Prajya Phinyawat***	161,666.67				80,000.00		3,356,476.16	3,598,142.83
3. Mr. Areepong Bhoocha-oom****	304,838.71	30,000.00		80,000.00		80,000.00	625,316.11	1,120,154.82
4. Police General Sombat Amornvivat****	400,000.00	150,000.00			150,000.00		3,356,476.16	4,056,476.16
5. Mr. Suthep Liumsirijarn****	400,000.00	150,000.00				200,000.00	3,356,476.16	4,106,476.16
6. Mr. Pailin Chuchottaworn****	400,000.00	150,000.00					689,686.88	1,239,686.88
7. Police Lieutenant General Prawut Thavornsiri****	400,000.00	120,000.00	80,000.00		40,000.00		2,501,264.43	3,141,264.43
8. Air Chief Marshal Somchai Thean-anant****	400,000.00	150,000.00		80,000.00	40,000.00		3,356,476.16	4,026,476.16
9. Mr. Atikom Terbsiri****	450,000.00	180,000.00					689,686.88	1,319,686.88
10. Police General Sereepisut Tameeyaves*****							101,154.08	101,154.08
11. Mr. Sukrit Surabotsopon*****							2,510,460.25	2,510,460.25
12. Mr. Nuttachat Charuchinda*****							2,593,222.68	2,593,222.68
13. Mr. Kriengkrai Thiennukul*****							2,602,418.50	2,602,418.50
Total	8,774,009.22	3,230,000.00	740,000.00	520,000.00	450,000.00	770,000.00	50,000,000.00	64,484,009.22

Remarks: Providing the corporate car which is provided to the Chairman to carry out corporate-related while in chairmanship.

* 2013 bonuses that were paid in 2014 were according to the Directors' time served in 2013 (not more than 50 million THB)

** Shows the remuneration for Directors, not as members of management

*** Mrs. Raweporn Kuhirun resigned from her position as she reached 70 years, effective February 27th, 2014. Mr. Prajya Phinyawat terminated his term on April 8th, 2014.

**** Police Lieutenant General Prawut Thavornsiri assumed his position of Independent Director from April 4th, 2013 to August 30th, 2014.

Mr. Pailin Chuchottaworn assumed his position of Director from October 18th, 2013 to August 30th, 2014.

Mr. Atikom Terbsiri assumed his position of Director from October 18th, 2013 to October 1st, 2014.

Mr. Areepong Bhoocha-oom assumed his position of Independent Director from October 25th, 2013 to July 4th, 2014.

Police General Sombat Amornvivat assumed his position of Independent Director from October 19th, 2011 to August 30th, 2014

Mr. Suthep Liumsirijarn assumed his position of Director from October 19th, 2011 to August 30th, 2014

Air Chief Marshal Somchai Thean-anant assumed his position of Independent Director from October 19th, 2011 to August 30th, 2014

***** Police General Sereepisut Tameeyaves resigned from his position, effective January 11th, 2013.

Mr. Sukrit Surabotsopon resigned from his position, effective September 30th, 2013.

Mr. Nuttachat Charuchinda resigned from his position, effective October 9th, 2013.

Mr. Anon Sirisaengtaksin resigned from his position, effective October 9th, 2013 and was later appointed as Director in replacement of Mr. Pailin Chuchottaworn, effective September 22nd, 2014.

Mr. Kriengkrai Thiennukul resigned from his position, effective October 10th, 2013.

Remuneration for Directors in Major Subsidiaries

Directorships in PTTGC subsidiaries are held in order to supervise the business interests of PTTGC and its subsidiaries and ensuring that they operate according to the PTTGC Group's policies.

Name	Position	Total Remuneration (THB)
NPC Safety and Environmental Service Company Limited (NPC S&E) (A Wholly-Owned Subsidiary of PTTGC)		
● Mr. Bowon Vongsinudom	Director	91,613 THB (January 1 st – May 19 th , 2014)
PTT Chemical International Private Limited (CH Inter) (A Wholly-Owned Subsidiary of PTTGC)		
● Mr. Anon Sirisaengtaksin	Chairman	30,000 Singapore Dollars
● Mr. Bowon Vongsinudom	Director	15,000 Singapore Dollars (January 1 st – Oct 1 st , 2014)
PTT Phenol Company Limited (PPCL) (A Wholly-Owned Subsidiary of PTTGC) as of April 26 th , 2013		
● Mr. Bowon Vongsinudom	Chairman	360,000 THB
PTT Maintenance and Engineering Company Limited (PTTME) (60% owned by PTTGC)		
● Mr. Bowon Vongsinudom	Director	120,000 THB (January 1 st – June 30 th , 2014)
Thai Tank Terminal Limited (TTT) (51% owned by PTTGC)		
● Mr. Bowon Vongsinudom	Director	240,000 THB (January 1 st – January 31 st , 2015)
Emery Oleochemicals (M) Sdn Bhd. (EOM) (50% owned by PTTGC)		
● Mr. Anon Sirisaengtaksin	Director	117,500 Malaysian Ringgit

Share Holding of the Board of Directors as of December 31st, 2014

Name	Number of Shares			Remarks
	As of January 1 st , 2014	As of December 31 st , 2014	Increase / (Decrease) During the Year (Shares)	
1. Mr. Prasert Bunsumpun	271,142	271,142	-	-
2. Mr. Somchai Kuvijitsuwan	-None-	-None-	-	-
3. Mr. Vasin Teeravechyan	-None-	-None-	-	-
4. Mr. Anon Sirisaengtaksin	-N/A-	86,027	-	Newly-appointed Director
Spouse	-N/A-	6,705	-	effective September 22 nd , 2014
5. Professor Surapon Nitikraipot	-N/A-	-None-	-	Newly-appointed Director,
				effective September 22 nd , 2014
6. Mr. Sarun Rungkasiri	-None-	-None-	-	-
7. Mr. Siri Jirapongphan	-N/A-	-None-	-	Newly-appointed Director,
				effective September 22 nd , 2014
8. Mr. Samerjai Suksumek	-None-	-None-	-	-
9. Miss. Ruenvadee Suwanmongkol	-None-	-None-	-	-
10. Mr. Amnuay Preemonwong	-None-	-None-	-	-
11. Mrs. Boobpha Amornkiatkajorn	-N/A-	61,704	-	Newly-appointed Director,
				effective October 1 st , 2014
12. Mrs. Watanan Petersik	-N/A-	-None-	-	Newly-appointed Director,
				effective September 22 nd , 2014
13. Colonel Nithi Chungcharoen	-N/A-	-None-	-	Newly-appointed Director,
				effective September 22 nd , 2014
14. Mr. Bowon Vongsinudom	223,868	223,868	-	Resigned, effective December 31 st , 2014
15. Mr. Supattanapong Punmeechaow	-N/A-	40,000	40,000 (as of Dec. 2014)	Newly-appointed Director,
				effective September 25 th , 2014

Remark: No shares are held by Directors' spouses and minor children, except for Director number 4.

Shareholding of Executives as defined by the SEC, as of December 31st, 2014

Name	Number of PTTGC Shares			Remarks
	As of January 1 st , 2014	As of December 31 st , 2014	Increase / (Decrease) During the Year (Shares)	
1. Mr. Supattanapong Punmeechaow	-N/A-	40,000	40,000	Appointed as President and Chief Executive Officer, effective October 1 st , 2014
2. Mr. Kun Patumraj	114,629	114,629	-	
3. Mr. Athavudhi Hirunburana	16,991	16,991	-	
Spouse	25,000	22,500	(2,500)	
4. Mr. Patiparn Sukorndhaman	-None-	-None-	-	
5. Mrs. Puntip Oungpasuk	158,389	158,389	-	
6. Mrs. Sriwan Eamrungraj	-None-	-None-	-	
7. Mr. Varit Namwong	108,939	108,939	-	
8. Mr. Kongkrapan Intarajang	-None-	-None-	-	
9. Mr. Athavuth Vikitsreth	-None-	-None-	-	
10. Mr. Suvit Tinnachote	96,086	96,086	-	
Spouse	24,313	24,313	-	
11. Mr. Sermsak Sriyaphai	97	97	-	

Remark: No shares are held by Executives' spouses and minor children, except for Executives number 3 and 10.

Remuneration for Executives

PTTGC has implemented a Key Performance Indicator (KPI) as the evaluation criteria for the performance of Executives. Factors used in these criteria include PTTGC's financial status, the compliance with long-term strategic objectives, and its operating results and business profits, with practice guidelines of other listed companies of similar business size within the industry being considered as well. Such evaluation must also be conducted in regards to the weight of each member's duties and responsibilities, as well as management development of executives and the economic situation as a whole.

Compensation for the President and Chief Executive Officer is determined in an appropriate manner using transparent, fair and reasonable criteria. The position's duties and responsibilities will also be taken into account in conjunction with the person's performance for the year. The Nomination and Remuneration Committee gives consideration as well as reviews, and these are further submitted to the Board of Directors. It should be noted that, at the highest level of the Company's management, the President & CEO will be awarded compensation and other benefits in addition to that received as a Director on the Board of Directors.

A total of 16 Executives as defined by the SEC, who had held office in 2014 (including those who reached their retirement or resigned during the year), were awarded the total remuneration in 2014 as follows:

	Number of Executives	Total (THB)
Total Combined Salary	16	70,508,793.35
Special Awards	16	32,512,825.82
Provident Fund Contributions	16	9,725,002.06
Total	16	112,746,621.23

Board of Directors appointed as Directors of Subsidiaries / Affiliates / Associated and Related Companies

No.	Name	Subsidiaries										Affiliates / Associated and Related Companies						
		PTGC	CH Inter	PTGC (Netherlands)	PTGC (USA)	AP ROH	Myriant	Vencorex	NatureWorks	EOM	ESC	PTT	IRPC	HMC	GPSC	PTTGM	VNT	
1	Mr. Prasert Bunsumpun	△										○						
2	Mr. Somchai Kuvijitsuwan	○																
3	Mr. Vasin Teeravechyan	○																
4	Mr. Anon Sirisaengtaksin	○	△	○	○	△	○	△	△	△								
5	Professor Surapon Nitikraipot	○																
6	Mr. Sarun Rungkasiri	○									□	○			△			
7	Mr. Siri Jirapongphan	○																
8	Mr. Samerjai Suksumek	○																
9	Miss. Ruenvadee Suwanmongkol	○																
10	Mr. Amnuay Preemonwong	○																
11	Mrs. Boobpha Amomkiatkajorn	○									□				○			
12	Mrs. Watanan Petersik	○																
13	Colonel Nithi Chungcharoen	○																
14	Mr. Veerasak Kositpaisal	○											△					
15	Mr. Supattanapong Punmeechaow	□	○								□					○	○	

Remark : ○ = Director □ = Executive △ = Chairman

Executive appointed as Directors of Subsidiaries / Affiliates / Associated and Related Companies

No.	Name	Subsidiaries																				Affiliates / Associated and Related Companies															
		PTGC	TOCGC	PPCL	TOL	TFA	TSCL	Bio Creation	NPC S&E	CH Inter	PTGC (Netherlands)	PTGC (USA)	AP ROH	Myriant	PTTME	TTT	TEX	Vencorex	NatureWorks	EOM	ESC	PTT	ITT	PTTICT	GPSC	PTTPM	VNT	EFT	PTTES	API	MHPC						
1	Mr. Supattanapong Punmeechaow	○	○							○												□				○											
2	Mr. Kun Patumraj	□						△			○			○	△				○										△								
3	Mr. Athavudhi Hirunburana	□	△		△	△	△																△		○					○		○					
4	Mr. Patipam Sukomdhaman	□			○	○				○			○												○												
5	Mrs. Puntip Oungpasuk	□			○					○			○							○							○										
6	Mrs. Sriwan Eamrungrroj	□					○	○		○			○									□			○												
7	Mr. Varit Namwong	□						○		○			○						○						○				○								
8	Mr. Kongkrapan Intarajang	□								○		○	○	○					○	○	○																
9	Mr. Suvit Tinnachote	□																																			
10	Mr. Semsak Sriyaphai	□	○																													○					

Remark : ○ = Director □ = Executive △ = Chairman

Subsidiaries

TOCGC	=	TOC Glycol Company Limited	PTIME
PPCL	=	PTT Phenol Company Limited	TTT
TOL	=	Thai Oleochemicals Company Limited	TEX
TFA	=	Thai Fatty Alcohol Company Limited	
TSCL	=	Thai Styrenics Company Limited	Vencorex
Bio Creation	=	Bio Creation Company Limited	NatureWorks
NPC S&E	=	NPC Safety and Environmental Service Company Limited	EOM
CH Inter	=	PTT Chemical International Private Limited	ESC
PTGC (Netherlands)	=	PTTGC International (Netherlands) B.V.	
PTGC (USA)	=	PTTGC International (USA) Inc.	
AP ROH	=	PTT Chemical International (Asia Pacific ROH) Limited	
Myriant	=	Myriant Corporation	

Affiliates

ITT	=	PT Indo Thai Trading
PTTCT	=	PTT ICT Solutions Company Limited
GPSC	=	Global Power Synergy Company Limited
PTPM	=	PTT Polymer Marketing Company Limited
VNT	=	Vinythai Public Company Limited
EFT	=	Eastern Fluid Transport Company Limited
PTTES	=	PTT Energy Solutions Company Limited

Others

API	=	Alliance Petrochemical Investment (Singapore) Private Limited
MHPC	=	Mehr Petrochemical Company Limited

Associated and Related Companies

PTT	=	PTT Public Company Limited
IRPC	=	IRPC Public Company Limited
HMC	=	HMC Polymers Company Limited

Board of Directors of PTTGC's Subsidiaries – wholly owned by PTTGC (as of February, 2015)

No.	Name	Subsidiaries / Number of Directors												
		PTTGC	TOGC	PPCL	TOL	TFA	TSCL	Bio Creation	Bio Spectrum	NPC S&E	CH Inter	PTTGC (Netherlands)	PTTGC (USA)	AP ROH
			5	4	4	4	4	5	3	4	9	4	3	9
1.	Mr. Anon Sirisaengtaksin	○									△	○□	△	△
2.	Mr. Supattanapong Punmeechaow	○□									○			○
3.	Mr. Kun Patumraj	□								△		○		
4.	Mr. Athavudhi Hirunburana	□	△		△	△	△	△						
5.	Mr. Patiparn Sukorndhaman	□		○	○	○					○			○
6.	Mrs. Puntip Oungpasuk	□		○				○			○			○
7.	Mrs. Sriwan Eamrunroj	□					○	○			○			○
8.	Mr. Varit Namwong	□						○			○			○
9.	Mr. Kongkrapan Intarajang	□									○	○	○	○
10.	Mr. Suvit Tinnachote	□	○											
11.	Mr. Sermsak Sriyaphai	□	○											
12.	Mr. Pairote Utaisup	□					○							
13.	Mr. Dumrong Pinpuvadol	□			○	○								
14.	Mr. Booncherd Suwantip	□								○				
15.	Mrs. Warawan Tippawanich	□	○								○			○
16.	Mr. Prakob Petcharuttana	□								○□				
17.	Mr. Narongsak Jivakanun	□							△		○			○
18.	Mr. Suwat Suratchaikarn	□								○				
19.	Mr. Toasaporn Boonyapipat	□										○		
20.	Mr. Pana Naksuk	□	○□											
21.	Mr. Jirawat Nooritanon	□			○□	○□								
22.	Mr. Choy Juhong	□					○□							
23.	Mr. Kittiphong Limsuwannarot	□						○□						
24.	Mr. Thitipong Jurapornsiridee	□							○					
25.	Mr. Anucha Somjitchob	□							○□					
26.	Mr. Bowon Vongsinudom	□		△										
27.	Mr. Pramin Phantawesak			○□										
28.	Mr. Chawalit Tippawanich												○	
29.	Mr. Pipat Suvanajata										○			

Remarks : ○ = Director □ = Executive △ = Chairman

Subsidiaries

TOGC = TOC Glycol Company Limited
 PPCL = PTT Phenol Company Limited
 TOL = Thai Oleochemicals Company Limited
 TFA = Thai Fatty Alcohol Company Limited
 TSCL = Thai Styrenics Company Limited

Bio Creation = Bio Creation Company Limited
 Bio Spectrum = Bio Spectrum Company Limited
 NPC S&E = NPC Safety and Environmental Service Company Limited
 CH Inter = PTT Chemical International Private Limited

PTTGC (Netherlands) = PTTGC International (Netherlands) B.V.
 PTTGC (USA) = PTTGC International (USA) Inc.
 AP ROH = PTT Chemical International (Asia Pacific ROH) Limited







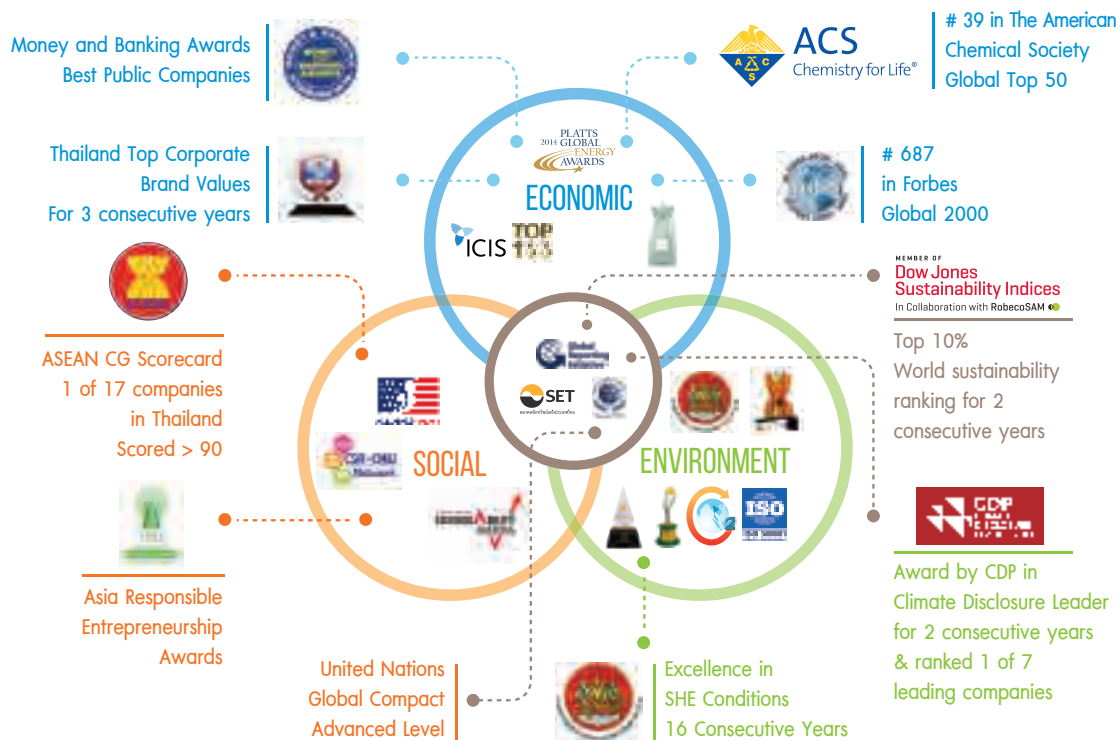
SUSTAINABLE DEVELOPMENT

Sustainable Development in Business Operations

Since the Company's merger in 2011, PTTGC has been employing best practices of sustainable development in its operations. A focus on operational excellence has been used in all aspects. This lays the framework for managing principles of PTT Global Chemical's sustainable development. The three pillars of this framework include society, economy and environment. Under principles of Corporate Governance, the most important aim is to uphold the Company's vision and conduct its operations in a sustainable way, making sure it is consistent with the Company's strategic direction.

PTTGC has been named as one of the world's leaders in sustainability by the Dow Jones Sustainability Indices. We have been recognized for maintaining our leadership in sustainability in the face of a rapidly changing business environment. The Company plans to remain on the cutting edge of global sustainability, building confidence among all of its stakeholders. We hold ourselves to a number of various standards as detailed below:

Important Awards and Honors in 2014



- PTTGC was recognized as one of the world's ten leading organizations (Industry Group Leaders 2013/2014) in the Chemical Sector by the Dow Jones Sustainability Indices (DJSI). Only leading global companies that operate according to Sustainable Best Practices are considered for the indices. PTTGC was the first and only petrochemical company in Asia to receive such prestigious honor. It

is the second time we have been recognized on the global stage in such a way.

- PTTGC received a G4 designation for meeting the requirements laid out in the framework for Global Sustainability and Global Reporting Initiatives. This designation was given for the accuracy, integrity and thoroughness of the data PTTGC submitted.

- PTTGC was recognized for its compliance with the United Nations for operating at the highest level possible (United Nations Global Compact Advanced Level). PTTGC was the first organization in Thailand to achieve the highest level and has been operating in accordance to the Principles since the acceptance of the company.
- PTTGC was recognized as one of seven leading organizations judged by the Climate Disclosure Leadership Index, as conducted by the Carbon Disclosure Project. It is the second straight year that PTTGC has received this honor, beating out more than 4,000 other global organizations that were considered as well.
- On a national level, PTTGC was awarded with the Rising Star Award for Sustainable Development, conferred by the Stock Exchange of Thailand.

In addition to these various recognitions for compliance with international and national standards, In 2014 PTTGC continues to focus on improvement. Our mission is towards reaching Operational Excellence in respect to the economy, society as well as the environment.

1. Economic Performance

Due to our efforts to develop and improve the efficiency of our operations, PTTGC has been recognized by various institutions on both International and national level.

- **Forbes Global 2000 Leading Companies:** PTTGC was ranked as the 687th leading major corporation among 2,000 companies worldwide. Four factors were used for judging: revenue, profits, assets and market value.
- **ICIS:** An institute that analyzes information from the world's leading petrochemical companies, ICIS recognized PTTGC as one of the world's top 100 petrochemical companies. PTTGC rank 22nd on the list, based on its outstanding performance.
- **The American Chemical Society (ACS):** This organization recognized PTTGC as 39th among 50 of the leading

global petrochemical companies for its growth and profit earned from business operations.

- **PLATTS:** PTTGC received a Midstream award of excellence for being a company with a clear business strategic outlook for its supply chain management, as well as its proven track record in terms of performance.
- **Money and Banking Awards 2014:** PTTGC was selected as one of the Best Public Companies of the Year 2014 in the industrial sector. The honor was earned due to the Company's strong banking foundation, as well as its strong influence in the overall development of Thailand.
- **Thailand Top Corporate Brand Value 2014:** PTTGC was recognized for the best brand valuation among organizations in the industrial sector. It is the third consecutive year it has received this honor. using a Corporate Brand Success (CBS) Valuation method, its brand was valued at 48.852 billion Baht.
- **Corporate Governance Asia:** PTTGC was awarded with The Best of Asia 2014: Asia's Most Promising Company on Corporate Governance. The recognition was given by the Corporate Governance Asia publication, entitling PTTGC as one of 12 top companies in Asia.

2. Environmental Performance

PTTGC utilizes an integrated approach for our environmental management, which is a systematic approach where environmental aspect is included in company's strategic direction. This includes, maintaining clear operating procedures and policies, engagement in constant development of our employees to improve the culture of our company and the behavior of our employee as well as internal and external engagement. As an organization whose business is exhausting raw materials in the production of energy and resources, PTTGC understands that environmental management is a significant matter. Promoting sustainable growth is an extremely important part of our operations. Consequently, we have made efforts to raise environmental standards within the company, as listed below:

● **Energy Conservation:** Management ensures it provides enough power for its production processes by employing cutting-edge technology, and we aim to raise awareness of energy conservation. Furthermore, we implement the 3Rs in efforts to improve our operations. These efforts have been recognized by various prestigious certification agencies both domestically and globally, including:

- The Prime Minister's Award 2014 was given to organization in the industrial sector that showed excellence in energy management during 2014.
- The Thailand Energy Award was given for excellence in energy operations during 2014, awarded by the Department of Energy.
- An ISO 50001 : 2001 certification was given for PTTGC's energy management system. It was granted by the Management System Certificate Institution.

● **Environmental Responsibility:** Green Star & Gold Star Awards were given for Corporate Governance on environmental and safety principles. It was conferred by the Industrial Estate Authority of Thailand.

● **Greenhouse Gas Management:** PTTGC has implemented a program to study the amount of greenhouse gas emitted throughout the life-cycle of its products. This study was done in collaboration with the Thailand Greenhouse Gas Management Organization (public organization). Furthermore, registration of the Company's carbon footprint is done for all product grades, with a focus on reducing the footprint. This shows the level of commitment PTTGC has to the effectiveness and efficiency of reducing its greenhouse gas emissions.

● **Becoming Carbon Neutral:** In addition to our efforts to reduce greenhouse gas emissions, PTTGC took another step to offset the carbon it does emit in an effort to become carbon neutral. We are the first company in Thailand to aim to achieve this goal, as recognized by the Thailand Greenhouse Gas Management Organization (public organization).

3. Social Performance: Resilient society and community are important factor for country's development toward sustainability. We look to support society and surrounding communities so that they can sustain themselves. We have classified groups according to their own unique needs, as summarized in the following table:



Summary of Social Activities held in 2014:

Group	Important Social Contribution Activities Conducted in 2014
Staff Members	Health and safety standards have been appropriately set. A culture of safety has been fostered throughout the workplace (B-Cares).
Surrounding Communities	The Company supported and encouraged employees to participate in various activities and projects to help improve conditions of surrounding communities and society in a continuous manner.
Consumers	Monitor safe and environmentally-friendly manufacturing processes to protect consumers, using the Responsible Care management criteria for chemical companies.
Other Stakeholders	- Development of strong and sustainable communities in collaboration with the Luffala Career Development Project, employing the use of local expertise. - Development of various youth education initiatives: - Project for the establishment of the Rayong Advanced Institute of Science and Technology and Rayong Science Academy, in collaboration with PTT Group - University Entrance Assistance Project - The Chemical Engineering Technician V-ChEPC Development Program - Other Various Public Projects: - Biodegradable Nursery Bag Project, in collaboration with the Royal Project - The Empowerment against Breast Cancer Project, supported by providing plastic pellets for use in artificial breast implants - The InnoPlus Water Tank Project, to be used in the Royal Initiative Projects of the Chaipattana Foundation - The For Hopeful Children Project, helping underprivileged youth country wide. - The Blanket Donation project as a tribute to His Majesty the King, in collaboration with EO business group customers - Environmental Preservation and Conservation Projects: - Bio-diversity Development Project: 'Forest Restoration, Water Conservation', in the Huai Ma hat Mountain Area - Nature Restoration Project through the release of sea turtles and fish - Plastic Flapped Sack Project to help prevent landslides

PTTGC's continuous efforts to build sustainable communities have been recognized by a variety of awards:

- The CSR-DIW Continuous Award is given for continual social responsibility, presented by the Department of Industrial Works from the Ministry of Industry.
- PTTGC received the AMCHAM CSR Excellence Recognition 2014 - Gold Class and Creative Partnership Designation.
- PTTGC was ranked 1st in Thailand and 11th in Asia by Channel News Asia-Sustainability Ranking 2014.
- PTTGC received an Asia Responsible Entrepreneurship Award 2014-CSR SME from the Luffala Program, representing the Company's commitment to social responsibility in terms of improving the lives, for the long term, of those in the communities.

SAFETY, OCCUPATIONAL HEALTH AND ENVIRONMENTAL MANAGEMENT

PTTGC has operated its business by following Quality, Security, Safety, Occupational Health, Environment and Business Continuity (QSHEB) Policy. Such policy is in compliance with international standards and is also based on the principles of Good Corporate Governance. In addition to this, other environmental standards, as well as applicable laws and regulations, have also been strictly followed. Such business practice has contributed not only to the business success of PTT Global Chemical Public Company Limited, but also to the winning of a number of prestigious awards and accolades, which embody the determination of PTTGC to drive the business to excellence, now and into the future.

Quality, Security, Safety, Occupational Health, Environment and Business Continuity Policy

PTT Global Chemical Public Company Limited (PTTGC) commits to be a Leading Chemical Company for Better Living with innovation, filling with Corporate Social Responsibility (CSR), and improving continuously of Quality, Security, Safety, Occupational Health, Environment, and Business Continuity (QSHEB) effectiveness as the following:

1. Comply with quality, security, safety, occupational health, environment, and business continuity laws and regulations as well as related standards and other requirements.
2. Implement Total Quality Management (TQM) together with quality management system, knowledge management, and productivity in order to meet customer's satisfactions, including product development with environmental friendly concept.
3. Implement risk management to prevent hazards, work-related illnesses, losses caused by accident, injuries, and property damages, together with B-CAREs safety culture and Process Safety Management (PSM) for caring everybody's safety.
4. Be aware of security threats in order to protect life, asset, information (data), and business continuity of the organization.

5. Pay attention to occupational health and work environment, including promote of good health and happy workplace.
6. Assess and minimize environmental impacts by focusing on improvement and prevention at-source, including resources consumption efficiency. And strengthen environmental culture by disseminating and supporting employees and stakeholders in order to increase their awareness and participation on our environmental culture.

All PTTGC in management levels are responsible to implement suitably and accordingly to company's objectives and targets. Moreover, all PTTGC in management levels are also accountable to be role models to maintain and improve of QSHEB management systems with adequate resources provided to ensure employees participation and implementation, including widely communicate of QSHEB performance throughout the organization.

PTTGC's operating results in regard to Quality, Safety, Occupational Health and Environmental management in 2014 can be summarized as follows:

1. Safety Management

PTTGC has placed emphasis on the safety of both employees and contractors. This is managed by instilling in them an awareness of their own safety as well as that of their colleagues under the B-CAREs safety culture: "believe in safe behaviors, caring each others, and stop if unsafe". Aiming to become an organization that is free from work accidents and injuries, PTTGC has conducted its business along with the implementation of Safety rules, Occupational Health and Environmental management measures, as well as efficient Process Safety Management, together with Contractor Safety Management.

PTTGC's 2014 statistics in regards to safety at work were considered excellent when compared to those in 2013 and 2012. PTTGC achieved above the mean rate of the Top 25% (First Quartile) of global chemical and oil refinery industries at an international level. Total Recordable case rates of these industries did not exceed 2 cases per 1 million working hours,

while the Company's rate in 2012 was only 1.2 cases per 1 million working hours (from 18 million working hours in total). In 2013, PTTGC completed a total of 28 million working hours - 10 million hours more than the total in 2012. Nevertheless, the 2013 Total Recordable case rate was only 0.6 cases per 1 million working hours, reduced by half from the previous year. In 2014, PTTGC completed a total of 31 million total working hours, up by 3 million working hours from 2013. The Total Recordable case rate was only 0.5 cases per 1 million working hours which declines gradually.

As a consequence, plants operated by PTTGC Group received an Outstanding Establishment Award in Safety, Occupational Health and Work Environment at the national level for the 17th consecutive year (1998-2014). In addition, PTTGC was the only company in Thailand to be granted the recognition of Excellence in Industry Award 2014 for Safety Management (Prime Minister's Award) presented by the Ministry of Industry.

Top executives have also placed great importance on creating awareness of Safety, Occupational Health and the Environment. An event to promote the awareness of such aspects as Safety, Health, and the Environment, or "SHE and Energy-Minded Day 2014" was organized under the theme of "Safeguard the World and Safeguard the Factory through Safety". The President and CEO gave a lecture on Sustainable Safety and Energy is Everybody's Business. Outstanding Awards were given to employees who provided good examples of work, safety and the environment. A contest exhibition was held to share knowledge, boost pride, and enjoy the achievements we have collectively made in Safety, Health and Environmental Management.

Process Safety Management (PSM) also plays an important role in this regard. Each item engaged in a process is designed and passed through the Process Hazard Analysis (PHA) even prior to the construction phase for the safety assurance of surrounding communities. PTTGC has introduced and operated a Contractor Safety Management system, selecting highly-skilled and safety-conscious contractors. In addition, competency measures, such as skill testing and training sessions concerning safety, have been organized for both employees and contractors on a regular basis.

If any modification is due to occur in a process, a Hazard and Operability Study (HAZOP) and Management of Change (MOC) study will be conducted prior to the modification or construction or machine operation. Then, all equipment in the process will undergo the Pre-Startup Safety Review (PSSR) carried out by an engineering expert for permission to start the operation. Furthermore, anyone performing their work within the production area must be granted a Permit to Work and conduct communications in compliance with the safety measures prior to commencement of any work function. PTTGC is a founding member of the Emergency Mutual Aid Group (EMAG), which took part in drawing up emergency plans of Rayong province and the Map Ta Phut Industrial Estate. PTTGC also joined a group of industrial plants in Map Ta Phut Industrial Estate in undergoing provincial-level emergency and evacuation drills of the surrounding communities. In addition, competent employees who have experience and expertise in responding and suppressing any state of emergency have been assigned in helping nearby communities set up and undergo emergency drills, as a preparation to handle any possible accidents which could occur and affect them. Such efforts were carried out in cooperation with the Governor of Rayong province, Voluntary Civil Emergency Relief Center Rayong, Map Ta Phut municipality, and a group of plants in Map Ta Phut.

As PTTGC engages in the marine transport of crude oil and petrochemicals, our capability to clean up oil spills at sea is therefore of crucial importance. Apart from the availability of required resources, such an activity as Rayong Oil Spill Emergency Response was practiced in collaboration with the Oil Industry Environmental Safety Group Association (IESG) and other relevant government agencies, such as the Industrial Estate Authority of Thailand (IEAT), the Marine Department and the Royal Thai Navy. This was conducted to exercise the efficacy of an emergency response plan, as well as that of an oil spill clean-up operation and system to communicate to nearby communities the plans of both the Company and the Sub-committee to Prevent and Solve Oil Spill Problems in the Rayong Area.

2. Occupational Health Management

PTTGC highly values good health of its employees, particularly those operating in the production processes. Therefore, physical checkup programs for current employees have been regularly conducted with a focus on those whose duties involve exposure to hazardous substances, as a proactive approach to such employees' health. In addition, regulatory industrial hygiene measures have been implemented in all operational areas, covering temperature (heat), illumination, noise and chemicals. The acquired data was used in improving safe working conditions. The data was also applied to the Health Risk Assessment (HRA) so as to review the measures to prevent any work-induced illnesses. To assist in promoting employee healthcare, two Pan Nam Jai Clinics (Shared Heart Clinics) have been established, located at the Aromatics 2 and Nong Fab near Olefins 3. Both clinics provide free medical treatment to those people living in nearby communities with an annual operational budget of approximately 4 Million Baht. Additionally, in collaboration with the Community Partnership Association (CPA), a mobile clinic unit was initiated to provide basic checkups and health care to residents in 34 communities surrounding Map Ta Phut Industrial Estate. Also, our admirable public-minded staff members volunteered to help in this activity, even on public holidays. In response to flu epidemics that have occurred in Thailand on a yearly basis, PTTGC has provided free Influenza vaccination to all employees and directly hired contractors. PTTGC's concerns also reached out to their family members, who could receive the vaccinations at a budget price.

3. Environmental Management

PTTGC Group has strictly followed all environmental standards, laws and regulations. The environmental management system conforming to the international standard, ISO 14001, have been used as a fundamental standard in operations. Other international standards and good practices are also applied; such as Environmental, Health, and Safety Guidelines by the International Finance Corporation (IFC) of World Bank Group. In addition to this, Proactive Environmental Management has been implemented along with the Company's long-term business operations.

The prevention of environmental impact is also given great importance for PTTGC. A stringent set of prevention and control measures was established in this regard. This covers everything from the designing phase to the conduct of a thorough study on the possible environmental impacts of each project. This study was based on the Environmental Impact Assessment (EIA), which covers various aspects in detail. Also, it covers measures to prevent and mitigate the impact as well as those to monitor the quality of the environment, and these are to be strictly followed consistently. The measures must be submitted to the responsible government authority to get approval / permission prior to the commencement of work. The results of such compliance will then be reported to the supervisory authorities involved on a regular basis.

PTTGC Group has been certified with ISO 14064-1:2006 regarding specifies principles and requirements at the organization level for quantification and reporting of greenhouse gas (GHG) emission based on international standards of measurements. The Company was among the first organizations in the country to receive this designation. Such adherence to the set international standard enables PTTGC to employ efficient greenhouse gas management along with setting up guidelines and policies that positively contribute to climate change situations now and into the future. PTTGC Group takes pride in proclaiming the target to voluntarily reduce greenhouse gas emitted from general operations by 10% within 2022, in comparison with the base year 2012. Approximately 0.3 Million t-CO₂e was reduced until 2014* and PTTGC achieved its targeted 0.15 Million t-CO₂e reduction. Determined efforts have been made in operating company business with effective energy and resources use while ensuring environmental impact control and minimization. Such endeavors led PTTGC to be given the Climate Disclosure Leadership Index (CDLI) award from the Carbon Disclosure Project (CDP) for the second year continually. This is a very prominent award given to a company of outstanding climate change management on an international level.

* This reduction has not yet been verified as PTTGC is in the process of external third party verification of its emissions according to the ISO 14064-1 standard will be published through www.pttgcgroup.com after the verification is complete.

PTTGC Group initiated Eco-Efficiency Project, a significant project that reflects our management efficiency in regard to the optimal use of natural sources. The Eco-Efficiency Indicators have been applied to environmental performance monitoring systematically and continuously. These indicators include Water Use, Energy Use, Wastewater Generation, Global Warming Contribution, and Ozone Depleting Substances. This is aimed to improve the effective use of resources while minimizing environmental impact from all plant manufacturing activities and processes. All in all, PTTGC can ensure that its businesses are environmentally-friendly and positively contribute to both the country's economy as well as environmental management as a whole, both now and into the future.

PTTGC Group has determinedly operated its businesses toward sustainable development with serious attention being devoted to the environment. In addition to environmental management, which has been conducted strictly in line with applicable laws and covered the plants' processes and activities, the Zero Waste to Landfills goal was set to be complete in 2015. In order to achieve this goal, the 3Rs principle has been implemented in conjunction with suitable innovation technologies. They include Reducing waste at the source, Reusing waste and Recycling waste, both inside and outside the plants' processes. PTTGC also supports the conduct of research and development to seek ways to increase value, which is part of established Eco-Industry. Furthermore, PTTGC has voluntarily stipulated and implemented other measures in addition to the requirements mandated by law. These included the establishment of stringent criteria for selecting industrial waste management processors. In other words, these selected companies must employ proper methods of waste management, which are practical and effective, as well as install a Global Positioning System (GPS) on all conveyances that transport hazardous waste from the plants. This is in order to avoid illegal dumping or management, and make the optimal use of waste, which can no longer be reused in the plants. Furthermore, PTTGC has provided staffs with knowledge and training concerning the environment with environmental management being communicated to new staff during the orientation session. Also, a knowledge refreshment through staff training is organized every two years, and environmental

knowledge has been included into meetings as well as on occasions such as the meeting of the Committee on Safety, Occupational Health and Environment, the meeting of the Welfare Committee, the SHE & Energy-minded Day and the 'Reforestation and Water Conservation' at the Huai Ma Haad Mountain Area. As for special activities such as a maintenance event, additional training sessions to provide knowledge about environmental management have been held to educate all contractors involved in the operation before they commence their work. Here, all contractors are required to take a safety introduction course, which also contains environmental issues, as a reminder to all of both safety and environmental precautions in their daily work.

PTTGC highly values the significance of the communities surrounding the plants and has realized some potential problems. Construction of an Enclosed Ground Flare at Olefins 3 plant was invested in accordingly to mitigate possible impact. Through this enclosed ground flare, the combustion of hydrocarbons is complete and smokeless. Aside from eliminating the light from the flaring process, it incorporates an absorbent material that prevents both heat radiation and noise from being emitted into the atmosphere. This construction is the first and largest of its type in Thailand.

In addition, PTTGC installed Vapor Recovery Units (VRU) to recover hydrocarbon vapors emitted from the raw material and product tanks before returning them to the manufacturing process. Such a recovery method helps in reducing emissions of the vapors into the atmosphere and also ensures the optimal use of resources. The VRU system employed by PTTGC is regarded as the largest of its kind in Thailand.

PTTGC Group began its construction of groundwater monitoring wells in 1992. To date, a total of 115 wells have been completed, which are ahead of the promulgation of a law on soil and groundwater contamination control within the production area.

In response to green market demand, all products of PTTGC Group have been accredited the Carbon Footprint of Products by the Thailand Greenhouse Gas Management Organization (Public Organization), under the Ministry of Natural Resources and Environment.

This achievement was indeed beyond our general operational framework and the requirement by law. Also, such accreditation exemplifies the success of our socially and environmentally conscious operations and reflects well on our existence as an organization with responsibility in regard to our operations.

Every production plant in the PTTGC Group obtained the ISO 50001:2011 standard concerning energy management. Such an accomplishment signifies our energy efficiency management as well as our continuous improvement and strict compliance with applicable conditions and legal regulations. These practices stemmed from our awareness of and concern about energy conservation, which plays a crucial role in all of our operations.

PTTGC has implemented a set of pollution prevention measures as follows:

- To keep a record of Volatile Organic Compounds (VOCs) emissions inventory and control equipment to ensure the minimum emission of the substance into the air. These tasks are performed in addition to the installation of the VRU system on truck loading stations.
- To install the hydrocarbon vapor return lines to carry vapors that can possibly be emitted into the atmosphere back into the product tanks for proper air management and control.

- To study the way to enhance capability for the production of low-sulfur diesel in line with the Euro IV standard for the Clean Fuels Project. Achieving this capability will enable PTTGC to provide environmentally-friendly fuel oils, which ultimately will contribute to the overall reduction of air pollution in Thailand.
- To apply clean fuel use measures to lower the emission of Sulfur dioxide (SO_2), and improve the ignition of the gas-turbine power generator to lower the emission of Oxides of nitrogen (NO_x).
- To employ a Continuous Emission Monitoring System (CEMS) by installing equipment at the top of every stack in our plants, and constantly send round the clock data to the Environmental Monitoring and Control Center (EMC²) located at the Map Ta Phut Industrial Estate Office.
- To install an effective system to make optimal use of water in the production process, while minimizing release of effluent by recycling treated water in other activities of the plant. A water treatment system is employed so as to monitor and ensure that, prior to its release, the quality of wastewater conforms to the effluent standards.

As a chemical industry leader as well as an organization of innovation, PTTGC Group is fully determined to operate its businesses with a strong commitment to both society and the community. In the longer term, such endeavors will allow us to become a Leading Chemical Company for Better Living.









CORPORATE GOVERNANCE

Corporate Governance Policy

The Board of Directors of PTT Global Chemical Public Company Limited places importance on Good Corporate Governance and adhering to PTTGC's Business Code of Conduct. These efforts will help PTTGC realize its vision of "TO BE A LEADING CHEMICAL COMPANY FOR BETTER LIVING". Furthermore, it will help build confidence among shareholders and stakeholders. The Board has set a policy to provide the framework of Good Corporate Governance, and has tasked the Corporate Governance Committee with ensuring that the operations of PTTGC are in line with this policy. The Corporate Governance Committee must work to develop and raise standards to that of an international level. Each year, an assessment and review of the effectiveness of the policy must be made. Following this, the Corporate Governance Committee will provide its suggestions as to how to improve this policy so that it is up-to-date with industry best practices, as well as conforming to PTTGC's strategic direction. The policy must be able to help PTTGC steer its course through the turbulent and ever-changing business environment. For example, the policy must keep PTTGC among industry leaders in terms of Corporate Governance trends. It must conform to regulations set forth by the Stock Exchange of Thailand and other relevant regulatory bodies. Additionally, it requires that there be a review of the roles and responsibilities of the Board and Charters of the Sub-Committees, to ensure that they are in line with the laws and regulations of the Stock Exchange of Thailand, the Securities and Exchange Commission (SEC), and the criteria set by the Thai Institute of Directors (IOD).

Corporate Compliance

A set of guidelines has been drawn up to govern compliance related to various Laws, Rules and Regulations found both in domestic and international. This acts as an extension of PTTGC's Good Corporate Governance Policy, and serves to reduce the risk of operating against related rules and regulations. PTTGC has formally set up [Corporate Compliance Policy](#), together with the Compliance

Division to facilitate in the communication of this policy throughout the organization. The Corporate Compliance Policy represents a tangible framework that oversees the Corporate Compliance Program, which has been established to efficiently govern Corporate Governance according to international standards and ensure that they are in line with PTTGC's business operations.

PTTGC's 2014 Corporate Compliance Program comprises the following.

1. Communication & Dissemination

- Continuous implementation by highlighting the "Tone at/from the top" training method among high-level executives and provided "Corporate Compliance Overview" training program as a mandatory course for 12 classes of its 365 Division Managers (94%, from a total of 387 Division Managers), from March to November 2014. At the end of the training programs, participants were also tested to evaluate their understanding, and certificates were also sent to participants who passed their respective tests.
- In 2015, PTTGC plans to provide training on Corporate Compliance for its employees and organize roadshows to its subsidiaries both in Thailand and overseas according to its Corporate Compliance Framework. The framework has been established as a guideline for Corporate Compliance enforcement within the PTTGC Group.
- Corporate Compliance has been inscribed as a key Company Policy in order to ensure all of PTTGC's business operations are always in compliance with relevant Laws Rules and Regulations. Also, through multiple communication channels, employees at all levels are kept up to date with any development in applicable Laws Rules and Regulations as well as

any relevant case studies so that they are well aware of latest developments involving with their duties. Such communication channels include Compliance E-Learning materials via the company's intranet system and through email communication.

2. Corporate Compliance Program 2013 : Standards and Policies

- PTTGC created and implemented the Antitrust Manual as a guideline for company executives and employees regarding trading and investment activities both within Thailand and overseas. In addition, a series of Antitrust Workshop activities were organized for the departments dealing with antitrust issues so that personnel working in those departments were equipped with the knowledge to perform their duties in compliance with the growth directions of the Company and PTTGC Group.
- PTTGC initiated "Whistleblower" channels to receive and respond appropriately to complaints regarding Corporate Compliance issues. This represents the Company's genuine efforts and commitment to comply with applicable Laws Rules and Regulations and to ensure transparency and traceability as well as impartiality for all stakeholder groups both within and outside the Company. In addition, such efforts also contribute to preventing, detecting, monitoring and auditing any possible violation of its Corporate Compliance Policy. Any possible misconduct or negligence of duty according to the Company's Business Code of Conduct and Corporate Compliance Policy is encouraged to be reported to the Company through this channels which have been made available. Such notification is welcomed from both PTTGC's employees and outsiders alike and they will be fully protected under 'Non-Retaliation' Policy.

3 Compliance Monitoring, Auditing and Reporting

- PTTGC annually assessed Executives and High Level Management of the Company through Compliance Health Check in order to compile a yearly database on non-comply according to the Company Compliance Program .

- PTTGC also conduct a Risk Assessment on its Corporate Compliance program on a regular basis and report it to the Company's Board of Directors in order to ensure sustainable Corporate Compliance Program in the long term.

Corporate Governance and Business Code of Conduct

The Board of Directors has approved the [Corporate Governance and Business Code of Conduct Handbook](#) to put PTTGC's Corporate Governance policy into practice. The Handbook outlines various working practices and criteria to follow that are in accordance with international standards. The Corporate Governance Committee will provide monitoring to ensure that PTTGC operations follow the 2014 Corporate Governance Plan, as well as conform to a standard and criteria of Corporate Governance that other companies listed in the Stock Exchange of Thailand follow. Throughout 2014, the Corporate Governance Committee held a series of meetings to ensure that the Corporate Governance plan was followed as decided by its Committee. Regular reports were made to the Board as well as to shareholders during the Annual General Meeting of Shareholders.

PTTGC ensures that there is clear communication of the pillars of the PTTGC's Good Corporate Governance Policy. These pillars are the Creation of Long-Term Value, Responsibility, Equitable Treatment, Accountability, Transparency and Ethics (CREATE). This communication begins as early as during new employee orientation. Instilling a deep understanding of these values is important. Staff members are required to know and follow principles of Good Corporate Governance as well as of other important criteria set forth by the Securities and Exchange Commission, the Stock Exchange of Thailand, the Thai Institute of Directors (IOD), and the Thai Investors Association. Armed with a good understanding of Good Corporate Governance, our staff members become the main driver behind raising standards to meet international levels.

Business Code of Conduct of PTT Global Chemical Group

reflects the organization's values and how they are implemented during the course of PTTGC operations. Directors, management and staff members must all move in the same direction in terms of Corporate Governance. PTTGC's Board of Directors and management must be on

the leading edge of implementing these standards. They need to act as a role model to look up to. Furthermore, they need to look after the interests of all related stakeholders. This includes respecting basic human rights, consumer rights, and fair labor practices. With management system for auditing, evaluating and review Business Code of Conduct to ensure that every employee abide and comply with Corporate Governance Policy.

The Code of Conduct is outlined in PTTGC's Corporate Governance and Business Code of Conduct Handbook. This Handbook is distributed to each of the Company's Directors, management, and staff members. Their acknowledgement and understanding of the Code of Conduct is important; they are required to sign a pledge that they will uphold these values and place them at the center of their working practices. Furthermore, the Handbook is also distributed to all business partners and stakeholders, including PTTGC customers and partners. Moreover, it is also posted on the PTTGC website under the heading of Good Corporate Governance so that all shareholders, investors, and interested parties are able to access it in a convenient manner.

Compliance with International Principles of Good Corporate Governance

The Corporate Governance Committee is tasked with the continuous development of Corporate Governance Policy to ensure that Corporate Governance criteria meet various standards and are used to execute PTTGC's strategic direction. This policy is also in place to ensure that PTTGC is ready to expand through ASEAN once the ASEAN Economic Community opens. In 2014, PTTGC was recognized by the ASEAN CG Scorecard and DJSI for its successes domestically and internationally as shown in "Awards and Recognitions" page.

PTTGC has conformed to Good Corporate Governance principles for listed companies with the Stock Exchange of Thailand, ASEAN CG Scorecard and Dow Jones Sustainability Indices (DJSI), as follows:

Rights of Shareholders

PTTGC fully respects the rights and equitable treatment of its shareholders. Shareholders have the right to purchase, sell or transfer their shares. They have the right to exercise their

ownership rights to attend shareholder meetings or assign proxies. They have the right to vote on important meeting agenda items set forth by the Board of Directors. These items include the nomination and appointment of Directors, the remuneration of directors, the nomination and remuneration of independent auditors, reports of connected transactions, the approval of the acquisition or the sale of particularly large assets which have legal restrictions placed upon them, as well as other important matters that have a large effect on the operations of PTTGC. Furthermore, shareholders have the equal right to share in PTTGC's disbursement of profits, sell shares back to PTTGC, as well as the right to receive information related to PTTGC in a sufficient and timely manner. PTTGC gives shareholders additional rights that are not required by law. These rights have been summarized below:

1. **Providing Important and Pertinent Information to Shareholders:** PTTGC discloses information that is important to shareholders, even if it is not required by laws. If PTTGC determines that information would indeed be useful to shareholders, it is posted to be seen on the Company's website as well as through the Stock Exchange of Thailand's reporting system.
2. **Organization of the 2014 Annual General Meeting of Shareholders,** PTTGC held its 2014 Annual General Meeting of Shareholders on Tuesday, April 8th, 2014. It was held in Room EH 101-102 on the first floor of the BITEC Exhibition and Convention Center located on Bangna-Trat Highway in Bangkok, Thailand. Shareholders were able to comfortably attend the meeting despite the political turmoil at the time. A full accounting of the meeting has been detailed below:

Before the Meeting

- 1) PTTGC provided minority shareholders the opportunity to raise items for inclusion on the Meeting agenda, as well as nominate qualified candidates to be considered for Director positions. A single minority shareholder or a group of shareholders can come together for these purposes, as long as they control a total of no less than 0.5% of shares with eligible voting rights. Through an announcement to the Stock Exchange of Thailand, and a posting on PTTGC's

website www.pttgcgroup.com, the criteria and steps for the nomination of Directors, along with a channel to make inquiries into the Meeting's agenda, were able to be accessed between [September 25th, 2013 to December 31st, 2013](#). This information could be found under the heading of Corporate Governance / Shareholder Information / General Annual Meeting of Shareholders. In the event that a shareholder raises an item to be included on the agenda, the Nomination and Remuneration Committee will screen for suitable nominees and the Corporate Governance Committee will give consideration to the motion and present its findings to the meeting of the Board of Directors for a final decision to be made. In 2014, there were no agenda items brought up for consideration by any shareholder, nor did any shareholder make nominations for a Director position. The Board released these findings to the shareholders at the Annual General Meeting of Shareholders, including them in the Meeting Minutes without creating any barriers to allowing shareholders to communicate with each other about the proceedings.

- 2) In an effort to provide shareholders with clear, complete and timely information, PTTGC submits news releases to the Stock Exchange of Thailand. On February 19th, 2014, a resolution was passed by the Board of Directors to set the 2014 Annual General Meeting of Shareholders to be held on Tuesday, April 8th, 2014. The Record Date for shareholders to exercise their meeting attendance right was set to be March 5th, 2014. Also, dates for dividend receipt, closing of share transfers, and dividend payment methods were announced on PTTGC's website.
- 3) PTTGC published an invitation to the Annual General Meeting of Shareholders on its website for a period of more than 30 days before the Meeting was held. Posted alongside this invitation were documents related to the nature of the meeting, the steps in assigning a proxy, a location map of the meeting, as well as phone number. Meeting invitations were then sent out 22 days before the Meeting was held. Each shareholder received their invitation, which also

included the meeting agenda and information that described the scope of each item as well as opinions of the Board of Directors concerning their contents. Furthermore, shareholder rights were explained in detail to let shareholders know more about their rights to registration and details regarding attending the meeting, or having a proxy attend to vote in the shareholders' stead. The following issues were given automatic shareholder consideration:

- Determining Director Remuneration – PTTGC considers all forms of remuneration during this agenda item. This includes monthly salary, meeting allowance and annual bonus. Furthermore, this consideration allows for the determination of remuneration criteria and remuneration policy. Company profits are normally used when giving consideration to the remuneration of each Director.
- Appointment and Nomination of Directors – PTTGC allows for shareholders to nominate suitable candidates for a Director position. The required information that must be provided includes the candidate's full name, age, educational history and work experience. Any directorships currently held must be disclosed and separated by category: listed company on the Stock Exchange of Thailand, private limited companies, and other organizations. For the re-nomination of Directors presently serving, consideration is given to past performance as a Director of the Board, as well as their length of service so that shareholders may make an appropriate decision that will be the most beneficial to PTTGC.
- Nomination of Auditors – Details must be given in full about nominated auditors as well as their firms. This must include the scope of their expertise, any company affiliations and the experience of individual auditors. Furthermore, shareholders are able to give consideration to audit fees as well as the ability of auditors to remain independent.
- Dividend Payments – The dividend payment policy, dividend, and the record date are made available and explained in details. The financial is also detailed to help explain the current dividend payment.

- 4) In the event that shareholders are unable to attend the Meeting themselves, PTTGC provides them with the opportunity to nominate a proxy. This may either be 1 of 5 Independent Directors or another individual of their choosing. Paperwork necessary for the assignment of a shareholder's proxy is included in the meeting invitation. This form also allows for the shareholder to select how they would like to vote, as mandated by the Ministry of Commerce. Furthermore, shareholders can download this form from PTTGC's website in both English and in Thai, so that foreign investors are able to appoint proxies in a convenient manner. Furthermore, shareholders are allowed to join the Meeting after it has begun, allowing for voting on resolutions currently being discussed.

During the Meeting

- 1) PTTGC held its Annual General Meeting on April 8th, 2014. The meeting commenced at 14.00 and was held in rooms EH 101-102 on the 1st floor of BITEC Exhibition and Convention Center on Bangna-Trad Highway (Km. marker 1) in Bangkok. Due to political instability, PTTGC decided to host meeting in an easily accessible location. The BITEC Exhibition and Convention Center is in close proximity to the Bangna-Trad Highway as well as the BTS elevated light rail system. Service was provided to ferry Meeting attendees to and from the BTS station during the entirety of the Meeting. Meeting proceedings went ahead smoothly and efficiently. Furthermore, exhibitions were on display to provide information about PTTGC and its operations in front of the Meeting room. Food and drink services were also provided.
- 2) The Meeting was attended by 13 of PTTGC's 14 Directors (1 Director, Mrs. Raweeporn Kuhiran, had resigned in February 2014 when she turned 70 years old, bringing the Company's 15 Directors down to 14). Mr. Areepong Bhooncha-oom was unable to attend the Meeting as he was overseas
- 3) PTTGC employed the use of a barcode scanner to verify the registration numbers of each shareholder.

This increased the speed and ease of shareholder registration, as well as in recording votes.

- 4) Before the Meeting commenced, the Chairman described the method to the shareholders in which votes would be counted/announced:
 - For resolutions to be considered, shareholders have a number of votes equal to the number of shares they control.
 - For resolutions to be considered, shareholders have the right to vote For, Against, or Abstain. Votes are to be recorded on their voting cards along with their name. PTTGC staff will count votes using a barcode system. Voting cards marked Against or Abstain are the only ones kept to speed up Meeting processes. Voting cards marked For will be kept until after the Meeting adjourns.
 - When counting votes, PTTGC will set aside all Against and Abstain votes from the total amount of votes present at that Meeting agenda item. All votes remaining will be considered as a For vote. Emphasis will be placed on recognizing the votes of proxies.
 - Votes will be counted if they are cast by a shareholder or proxy in attendance with voting rights. It is likely that there will be unequal votes cast between agenda items, as some shareholders will be joining the Meeting during its proceedings. A full accounting of votes made will be disclosed to all shareholders after the conclusion of the Meeting. In the event that counting votes for a particular agenda item might take an abnormally long amount of time, the Chairman of the Meeting might decide to consider other agenda items in the meantime to speed up the Meeting proceedings. When staff has finished their vote tabulation, a summary will be presented to those in attendance of the Meeting.
 - PTTGC provides shareholders with explanation of each agenda item in the Meeting invitation. Shareholders are able to voice their opinions, suggestions or make inquiries for each agenda item in a free manner before voting on a resolution. This allows shareholders to sufficiently gain a

thorough understanding of each issue. In the event shareholders have questions or would like to gain clarification, answers and explanations will be provided by the staff responsible for each agenda. This falls under the responsibility of the Boards. As for foreign shareholders, PTTGC has provided translator to assist as needed. Additionally, assigned staff, lawyer from independent law firm and volunteer shareholders will serve as independent proctors.

- The Chairman of the Meeting followed the agreed upon agenda order that has been set in advance. This agenda will be sent to shareholders ahead of the Meeting. The agenda order is fixed and will not include any items that were not previously disclosed in the Meeting invitation.

After the Meeting

- 1) A disclosure of resolutions made at the 2014 Annual General Meeting of Shareholders was made through the SET Portal to make the public aware of results. This disclosure was also made on PTTGC's website after the conclusion of the Meeting's proceedings.
- 2) Fourteen (April 22nd, 2014) days after the Meeting, PTTGC provided a report of the Annual General Meeting of Shareholders to the Stock Exchange of Thailand, with a full accounting of all details, and mailed to shareholders who attended the Meeting. This report was done in both English and Thai languages. A full recording of Meeting procedures was made to detail various important items such as Director Meeting attendance, Meeting resolutions, voting results on agenda items, questions raised, and suggestions and clarifications offered. Furthermore, shareholders were able to view Meeting minutes at the Stock Exchange of Thailand (SET) as well as view them on PTTGC's website at www.pttgcgroup.com.

Through continuous development and improvement of the Annual General Meeting of Shareholders, in 2014, Annual General Meeting-AGM Assessment evaluated the meeting's quality as "Excellent" for the 3rd consecutive year since the amalgamation, receiving a perfect 100% score. The AGM Assessment is performed by the Thai Investors Association.

The Equitable Treatment of Shareholders

PTTGC is determined to treat all shareholders equally, especially minority shareholders, regardless of their nationality, the size of their shareholdings, or their investor type. A description of these efforts is listed below:

1. **Shareholders are treated equally**, regardless of their gender, age, skin color, nationality, religion, beliefs, political views or health. PTTGC aims to protect the fundamental rights of each of its shareholders in a uniform manner. PTTGC aims to maintain strong relations with its shareholders. By operating in an efficient manner, sustainable growth can be achieved for the organization. Shareholders will receive appropriate returns for their investments. Stakeholders will be managed in a sustainable and suitable fashion through the employment of management tools that are modern and easily measurable.

2. Participation and Engagement with Each Shareholders

Minority shareholders have the right to offer suggestions or voice their concerns directly to the Chairman of the Corporate Governance Committee (Independent Director), as well as to the Company Secretary. This can be done by emailing cg@pttgcgroup.com. Corporate Governance Directors will give specialized attention to each issue raised and present to the Board and AGM if deemed necessary and benefit PTTGC. Institutional investors can make requests for information or offer their suggestions simply by emailing ir@pttgcgroup.com, which is the contact for the Investor Relations Department.

3. Building Strong Relationships with Shareholders

In 2014, beside AGM, PTTGC organized a number of CSR activities that were beneficial for society and the environment. This provided an additional opportunity to strengthen shareholder relations. Shareholders had an equal opportunity to participate regardless of the size of their shareholding. Events such as the "Company Visit 2014" in Rayong province for shareholders to meet with executives, visit PTTGC's plants and engage in CSR activities and the "Set in the City 2014" were examples of how PTTGC engaged with its shareholders.

Role of Stakeholders

PTTGC places importance on operating in a responsible manner in its interactions with stakeholders of all groups. This is important to maintain sustainable growth. The Board of Directors focus on the role of each stakeholder and have set systematic management principles to help ensure the rights of our various stakeholders and stakeholder groups. These principles have been put into writing in PTTGC's Corporate Governance and Business Code of Conduct Handbook. They outline our philosophy to society, the environment, and how to operate in today's turbulent business setting. Stakeholder groups are not as easy to define as in the past. Furthermore, stakeholders have higher expectations of fairness and participation. They wish to have a louder voice in decision making, especially when PTTGC operations affect them. As such, stakeholder management has become a much more important issue. PTTGC has set a "Responsibility towards Stakeholders" policy to give staff members a clear direction in terms of how to follow business processes in a way that respects the rights of stakeholders in a fair manner. Stakeholder voices must be heard and PTTGC must understand their concerns. Creative collaboration with interested stakeholders must be embraced. Furthermore, PTTGC must work to help develop society and the environment to ensure that it can operate sustainably on a truly equitable platform.

● Stakeholder Relationship Policy

PTTGC has established both policies and working practices about PTTGC and its responsibilities towards each of its stakeholder groups. They have been put into writing and published on PTTGC's website since 2011. Staff members who interact with stakeholders now have clear direction in how to handle stakeholder relations. The Board of Directors have approved this policy and made adjustments to it to ensure it is in line with what is considered appropriate stakeholder relations. PTTGC has separated its stakeholders into 8 different groups, with separate relationship principles set for different stakeholder groups. They have been outlined below:

1. **Shareholders** : Support is provided to ensure that shareholders maintain and exercise their basic rights. A focus is placed on increasing shareholder satisfaction

with an emphasis on sustainable growth, adding value to the organization, and making proper dividend payments. Business operations must be conducted according to principles of Good Corporate Governance. This includes the right of shareholders to attend and vote at the Annual General Meeting of Shareholders, set the Meeting agenda, as well as offer nominations for Director roles. Every year, PTTGC organized "Company Visit" event in Rayong province for shareholders, in 2014 from November 25-26, set up a channel for shareholders to directly contact PTTGC on website: www.pttgcgroup.com and E-mail: ir@pttgcgroup.com, cg@pttgcgroup.com .

2. **Customers** : PTTGC aims to provide the greatest benefit possible to its customers and those who use its products, encompassing aspects ranging from quality to fair pricing. In this regard, maintaining confidential information and sustainable relationships are the key. Marketing Commercial and Supply working teams are responsible for looking after both customers and business partners when they purchase feedstock or products. PTTGC wants to make sure it is the right choice for its customers. It aims to make sure its products and services are innovative. Efforts such as these are conducted according to the principles of Good Corporate Governance and Business Code of Conduct, which serve as an outline for working practices and responsibility towards customers. This outline intends to be fair, appropriate, transparent and accountable. It aims to build satisfaction and trust with not only our customers, but also members of the public who purchase our goods and services. Goods and services are to be of good quality and priced appropriately. Strong and sustainable relationships with our customers need to be maintained. PTTGC engaged in a variety of efforts in 2014 to ensure this, including:

- **Marketing Excellence** - A Marketing Back Strategy takes a Customer Centric approach in five areas: 1. Building value for customers; 2. Development of new products; 3. Pricing strategies; 4. Channel strategies; and 5. Staff development and efficiency.
- **Customer Satisfaction Surveys** – In 2014, PTTGC adjusted its performance indicators to raise customer satisfaction levels according to international and industry standards. The 6 main indicators were

Product Quality, Service Quality (Sales Rep & Tech Support), Process Quality, Value & Price, Image, and Business Relationship. Customer Satisfaction Surveys were able to reflect the success that grows out of strong customer relations.

- **Building Strong Relationships with Customers** – Site visits to customers occur on a regular basis for the purpose of gathering customer thoughts and gauging changes in their industry. It is important to find out about our customers' product order schedule, maintenance stoppages, and industry trends related to crude oil prices. Information is provided to customers so that they are able to add value to their processes. Site visits are made to factories so that customers can learn about our production processes, building trust and understanding the value of the quality of our products. Various "thank you" activities are held for customers in each of our business groups in an effort to strengthen relations with customers. This also helps to expand our network of future potential customers. Furthermore, **Customer Feedback Management** is handled in a systematic manner to ensure that customer needs are met in a timely fashion. Channels have been set up to receive customer complaints. These include PTTGC website, email, and phone numbers. Furthermore, Customer Relationship Management (CRM) software assists in improving customer relations. Processes have been established to promptly solve issues and protect against potential problems in the future. Constant monitoring and assessment is done for customer complaints. PTTGC has set its course to ensure Marketing Excellence and assess Customer Satisfaction in an effort to improve processes and plans in the future.

3. **Business Partners** : Dealings with business partners are conducted in a uniform manner, ensuring value between the parties. PTTGC operates according to applicable laws and strictly follows agreed-upon business terms. Constant efforts are made to improve the quality of our goods and services. Warranties guarantee the quality of our goods and services. PTTGC also makes regular announcements related to the quality of its goods and services. Customer relationship management assesses

the satisfaction of our business partners. Activities are organized to provide knowledge to our business partners, serving to strengthen the relationship. Code of Conducts are implemented in our procurement teams.

A **Gift Acceptance Policy** prohibits the acceptance or giving of gifts or benefits in a dishonest manner. This policy is outlined in the Corporate Governance and Business Code of Conduct Handbook. It is also detailed in the Corporate Compliance Policy, dictating that employees will conduct their responsibilities according to the laws. They will refuse all forms of corruption and bribery from entities in both the public and private sectors, both domestic and foreign. **Any action that could be construed as against the laws in this regard is strongly rejected and is not according to our policies of business conduct.** Staff members of every level must condemn corrupt practices and act in a transparent manner, as well as avoid any conflicts of interest. Furthermore, they must not support such unlawful actions by others.

Adhering to Terms of our Business Partners – Contracts with business partners are always in written form. They are adhered to strictly. Furthermore, we meet with our business partners on a regular basis in an effort to help each other develop and improve ourselves. These meetings also serve as an opportunity to discuss any adjustments that need to be made. PTTGC aims to remain flexible when any of its business partners are unable to fulfill their contractual obligations. This entails researching the root cause of the problem and evaluating the best way to overcome the problem. Solutions must be mutually agreed upon. They must be executed to completion to ensure that the problem does not arise again.

- The procurement of feedstock must be performed in a fair, transparent and efficient way. The selection of our vendors must follow principles set by the Procurement Committee. An Examination Committee will inspect feedstock to ensure that it meets any conditions set forth. Under no circumstances may the Procurement and Examination Committees be made up of the same people.

- PTTGC emphasizes the importance of our Supplier Relationship Management (SRM) and arranges a series of activities to help support Company partnerships. Activities are held each year, and a convention for our business partners is held on November. PTTGC aims to compete on a more international level, particularly with concepts such as the Green Procurement network. PTTGC participated in the Supplier Conference 2014 under the theme of "Networking – Link Us Together". This event helped PTTGC communicate its dedication to Green Procurement to its business partners. Green Procurement will help PTTGC work in a more sustainable manner. The cooperation of PTTGC's partners has been solicited so that we can all move together in the spirit of maintaining a green network.
- Furthermore, similar efforts are being made with anti-corruption concepts when choosing trade partners or contractors, with a push being made to operate in a fair and transparent manner, opposing any practices that may be against applicable laws or regulations.
- PTTGC has implemented the principles laid out in the UN Global Compact to reaffirm our commitment to oppose all forms of corruption and graft. Implementation began in 2012 and focused on business practices that are transparent and fair. This includes [the prohibition of the payment or receipt of goods or services that might be considered dishonest in business dealings](#). PTTGC policies are clear on the stance taken against corrupt practices. The acceptance or payment of bribes is expressly forbidden both within PTTGC as well as within its business partners. Business partners are required to sign a pledge to condemn any corrupt business practices. Furthermore, business partners are made aware of PTTGC's policy of prohibiting inappropriate gifting, including allowing its staff members to receive special benefits or incentives. Our business partners are also required to share the same vision in terms of safety, health, and environmental compliance. This mentality is to be extended in the compliance with laws and regulations regarding human rights and labor, to help improve the quality of life in communities and society, as well as the quality of the environment.

4. **Business Competitors** : PTTGC's dealings with its competitors are performed in a way that is in line with applicable and appropriate laws. Furthermore, PTTGC aims to interact with its competitors in a fair manner. This includes operating under the strict framework set by laws, adhering to business terms with competitors, not engaging in slander, and not infringing on the intellectual property rights of our competitors. Training is provided to our staff members so that they understand the importance of interacting with our competitors in a lawful manner.

Responsibility to our Business Competitors : PTTGC has a policy that dictates that its dealings with competitors should be done according to international standards, in line with applicable laws and trade rulings. Business terms will be followed in a fair manner. PTTGC organizes training for its staff to increase their understanding of laws and regulations that provide the framework for competitor interactions. This includes both domestic and international competitors. In 2014, an Antitrust Manual was created to implement principles such as these among both Company management and staff members. Workshops were held for work teams that needed to learn more about laws regarding competitors. Our goal is to feel confident that staff members are able to conduct their work duties according to the laws. Over the last year, no instances of unfair competitor practices were reported against PTTGC.

Policy and Management of Sensitive Information : PTTGC has policies in place to prevent staff members from seeking or sharing sensitive information that might provide others with a competitive advantage, including information related to pricing, discounts, production capacity, investments, research and development, inventories, cash assets, or customer lists. In the event that such information is required by a staff member, it must always be given approval by the Company's legal department first.

Not Engaging in the Slander of Competitors : PTTGC does not tolerate the slander of its competitors. Misleading information will not be provided about them. Each staff member of PTTGC must adhere to this principle.

5. **Creditors** : PTTGC makes sure to strictly comply with all terms of any loan agreement it enters into in a responsible, transparent, and timely manner.

PTTGC understand the importance of protecting the rights of its creditors. All stakeholders are treated in a uniform manner. All pertinent information is disseminated to its creditors. Special emphasis is placed on the accuracy, thoroughness, speed, and transparency of information relayed, including both financial and non-financial information.

There will be full disclosure of this type of information to all stakeholders, in particular bondholders and other creditors. The issuing of any debentures will be made strictly according to the laws and any notices made by the Securities and Exchange Commission, as well as the policies and resolutions agreed upon at the Shareholders Meeting. Furthermore, measures are in place in case any stakeholder might realize losses from the actions of PTTGC's failure to act totally in compliance with the agreed-upon provisions. This includes: 1) Provisions related to the repayment of investment capital or guarantees of collateral; 2) The consistent announcement of financial information; 3) Repayment in full as per agreed-upon timeline; 4) Graft, bribery, or the trading of benefits-for-favor. In terms of these aspects of our Creditor policy, no instances of non-compliance have been reported by any of our creditors.

6. **Public Sector** : PTTGC places importance on its relationship with the public sector, both domestically as well as in markets abroad. It is important that the investments made in foreign markets must be done in a way that will not have an adverse effect on general business operations. Business activities must be performed according to applicable regulations and laws. Information must be shared through collaboration with members of the public sector. This collaboration must be done in a transparent manner.

In 2014, PTTGC entered into collaboration with the Office of the Public Sector Development Commission of Thailand. The aim of this was to increase the visibility

of anti-corruption campaigns, increasing awareness of corruption and anti-corruption efforts in the public and private sectors. This campaign was launched under the theme of "You have the power to put a stop to corruption."

7. **Employees** : PTTGC strives to become an organization that values learning, constantly develops its culture, works as a team, provides fair remuneration, and protects the health and safety of employees. Importance is placed on sharing knowledge and personnel development. Suggestions and opinions are always fielded from employees in a uniform manner, regardless of their position within the organization. We work endlessly to instill a corporate culture where each of our employees feels like an important part of our organization.

- Strictly manage our operations according to applicable rules and regulations, laws, and international standards in respect to human rights, the environment, as well as employee health and safety.
- Remuneration will be provided to our employees in line with norms accepted within the industry we operate in Thailand. Regular reviews and adjustments are made to PTTGC's remuneration system to ensure that they are in line with our short-term and long-term goals. Remuneration will be provided as a retention incentive for skilled employees who help in running the business in an efficient manner. Salaries and financial incentives will be tied to work performance, attitude, and skill sets.
- PTTGC provides a fair benefits package to its employees. Special importance is placed on benefits that will improve the life and family life of our employees. A Welfare Committee has been formed and is comprised of members who have been elected by their peers. This committee meets with members of management every two months to discuss employee benefits. This is done in an effort to strike a balance between employee happiness and long-term financial performance of the Company. PTTGC was recognized for its excellent employee relations and benefits in 2014 by the Ministry of Labor. The category that PTTGC was recognized in was large-scale enterprise non-union. PTTGC was determined to have systematic

management of labor relations that was made up of both members of management as well as staff members. The result is a strong working relationship with employees that enjoy a high quality of life.

- PTTGC believes in the importance of developing and training its employees. Employees are an integral resource needed to accomplish the aims and goals of PTTGC. Regular training is provided to our employees through a variety of courses. In addition to hard skill training, such as engineering and technical knowledge, PTTGC provides opportunities for its employees to engage in self-development. Each employee has their own Key Performance Indicator (KPI) related to personal development. Courses and training are provided in which they may volunteer to join. Employees are instilled with core values so that they are able to perform their duties in a standardized manner. The end result is that PTTGC is able to leverage its skilled employees to fulfill business objectives. Our training department is responsible for overseeing continual training exercises and courses for our employees. Each year, 29.5 hours/staff of our employees engage in training exercises, totaling.
- Our Director to Management (D2M) channel was implemented into PTTGC's Intranet system to provide employees with an outlet to voice their comments and suggestions. Members of management are able to use this channel to provide employees with responses and help to address or resolve their concerns.

8. **Community, Society, and the Environment** : PTTGC operates responsibly towards surrounding communities, society and the environment. Emphasis is on maintaining safety and protecting natural resources. Energy-saving initiatives are promoted. Furthermore, systematic management of stakeholders in communities, the society, and the environment is an integral part of our business. A **Quality, Security, Safety, Occupational Health, Environmental, and Business Continuity (QSHEB) Policy** governs efforts to improve the quality of life of those in surrounding communities as well as care for the environment, including:

- Using resources in an efficient manner to maximize reductions of their impact on society and the environment.

- Raise awareness of environmental responsibility.
- Distribute a share of profits in an effort to improve affected communities, the society, and the environment
- Emphasis is placed on environmentally friendly efforts, beginning with plant construction and ranging to the choice of technologies as well as production and waste disposal processes.
- Engage in research and development efforts to provide newer and more efficient innovations.

PTTGC believes that the quality of life of those in our society provides an important basis for sustainable development. As such, PTTGC strives to execute its business plans in step with efforts to improve the quality of life of surrounding communities, as well as assists in the preservation of the environment. PTTGC prepares social responsibility and sustainable development reports. In 2014, a report was prepared using a framework provided by the Global Reporting Initiative (GRI). Sustainability was detailed and described through Communication on Progress (CoP) efforts organized by the United Nations Global Compact. Information was provided about how each group of our stakeholders has been affected in a detailed manner.

The Board provides support for a number of different projects that create value through the development of communities, society and the environment. These projects undergo constant evaluation and assessment to ensure that they are correctly addressing issues at hand and fulfilling the goals of various PTTGC policies. An example is making sure that resources are used efficiently as mandated by our **Energy Management Policy is Energy-Minded Day**. Announcement and dissemination of such information related to careful use of resources are made to employees.

Anti-Corruption

PTTGC's **Board of Directors** has set a policy of Good Corporate Governance along with a Good Corporate Governance and Business Code of Conduct Handbook. These provide an outline for anti-corruption efforts, expressly forbidding the acceptance or issuing of bribes.

These policies have been put in writing and state that “PTTGC does not tolerate corruption of any form, including offerings, promising, soliciting, demanding, or the giving and accepting of bribes, as well as any activity that may be construed as corruption”. Steps have been described to help employees avoid corrupt practices. Management and employees are instructed to utilize these steps as a foundation for their working processes.

PTTGC has made Ethics one of the organization's core values. Efforts have been made to instill this value among employees at all levels. PTTGC meets both domestic and international anti-corruption standards. We have joined an anti-corruption network of Thai companies, organized by the Thai Institute of Directors Association, which collectively aims to root out and banded corruption. A working group was set up to collaborate with organizations in the private sector to oppose dishonest practices. This group was joined by members of relevant departments within the organization to put together a coherent framework the policies and conduct systematic management of anti-corruption efforts. Their efforts were summarized and presented the Board of Directors for their review and approval. On July 4th, 2014, PTTGC participated in the Collective Action Coalition (CAC), organized by the Thai Institute of Directors Association. PTTGC was recognized by Mr. Pramont Sutheewong, Chairman of The Thai Anti-Corruption Organization, during the 5th National Meeting held for the private sector.

Additionally, PTTGC executed its anti-corruption policies into concrete form through the following efforts:

- PTTGC communicated its anti-corruption policies internally and externally through PTTGC's Intranet and public website. Directors, management and employees all participated in ethics training and activities, either classroom or net-based. A “PTTGC Collectively Fights Against Corruption: Know the Tricks so You can Protect Yourself” workshop was hosted for employees and management. Also, an event “PTT Group CG Day 2014 : The Power is in our Hands” was held under the theme “We can work together creatively as PTT Group to help confront and oppose corruption”. Staff and management of PTT Group also participated in this workshop.
- PTTGC communicated its anti-corruption efforts to individuals and organizations outside of the Company, outlining the lawful framework of operation that it operates under. The target audience included countries that PTTGC is actively investing in. Efforts were outlined in the Code of Conduct Handbook and distributed in 4 different languages (Thai, Chinese, English and French). It was distributed to business partners, customers, and members of our joint ventures so that they can align their anti-corruption conduct with ours. Our No-Gifting policy was provided to the Company's business partners at our Supplier Conference, which is held each year. Furthermore, our procurement and marketing teams collaborated to draw up a letter expressly forbidding gifting during the New Year holidays in an effort to build understanding of the PTTGC's policies.
- An internal control system has been put into place to fight corruption and protect against corruption within PTTGC. It has set policy, criteria, and control processes. This includes limiting autonomy in writing various Company reports. It also details various internal control steps such as the approval of considerations, payment approvals, payments, accounting, auditing and monitoring standards. Systematic controls for product and service distribution has been set up to ensure that distribution is handled in a proper and efficient manner. Audits are held on a regular basis to reinforce efficient and effective systematic management of anti-corruption activities.
- Regulations have been set to help control and protect against corruption. These regulations have been put into practice by the formation of a Whistleblower Policy. Whistleblowers from inside and outside the organization are able to offer their testimony or proof of inappropriate behavior, and violations of the Corporate Governance & Business Code of Conduct and/or the Corporate Compliance Policy.
- The organization's risk management policies have included the cost of dishonest and corrupt practices. These threats could end in the realization of losses. Steps have been put into place to follow related regulations to ensure that activities are conducted according to the laws.
- A risk management working group has been established to assess the potential of risk realization of any aspect, including corruption. The framework of PTTGC's risk

management systems is based upon principles approved by the Risk Management Committee. The scope of the organization's internal control systems extends to cover the risk of corruption. An assessment of these systems is conducted on a yearly basis to ensure that PTTGC's internal control systems are adequate and appropriate to the operations of PTTGC.

- A review of anti-corruption compliance measures is conducted annually. This review looks into the possible improvements and developments of these compliance measures to be more properly in line with various circumstances and risks. This review is presented to the Corporate Governance Committee, the Audit Committee, and the Board of Directors.

Additionally, PTTGC has joined the United Nations Global Compact (UNGC), an organization with the scope of collaborating with members of every sector worldwide to achieve sustainable economic development. A focus on business responsibility is split into four key areas: 1) The promotion of human rights; 2) Standards in hiring; 3) Environment protection; and 4) Anti-corruption.

● Whistleblower

PTTGC has set a whistleblower policy to be open-minded when fielding complaints. This policy represents a commitment and readiness to listen to comments, suggestions, questions or complaints that are related to Corporate Governance or Governance practices. PTTGC field inquiries from stakeholders from all sectors, whether it comes from within or outside the organization. Whistleblowers are handled with transparency, fairness, confidentiality, and in good faith. Protection and measures are in place to protect the complainant. Complainants are treated in good faith both during the investigation as well as after the investigation. Monitoring and auditing activities are important to PTTGC. It is necessary for these activities to be conducted in an efficient manner. They stress the importance of fielding complaints from all groups of stakeholders. These complaints act as a sort of surveillance tool to track or monitor business. Moreover, they act as an early warning mechanism that can help ward off other damages that would have otherwise been realized by our stakeholders.

Complainants will be protected. A policy of non-retaliation has been implemented and meets international standards. Complainants will not be subject to any adverse treatment by PTTGC Whistleblowing will not constitute grounds for dismissal or sanctions. According to our Whistleblower Policy, employees will be able to freely report misconduct through set channels. Upon receiving the complaint, the investigation process will be conducted in a confidential manner to protect the identity of the complainant. The Whistleblower channel has been published on PTTGC's website in the Corporate Governance / Whistleblower section. Complaints will be forwarded to the Chairman of Corporate Governance as well as the Corporate Secretary.

Disclosure and Transparency

● Disclosure of Information

PTTGC understands the importance of properly disclosing information, as it affects the decisions of shareholders, investors and stakeholders. Therefore, it is necessary to have set controls and definitions of clear procedures on how both financial and non-financial information should be disclosed in accordance with the laws. Information will be disclosed in an adequate, reliable, straightforward and timely manner both in Thai and English. It will be disclosed through the SET Portal system hosted by the Stock Exchange of Thailand, as well as via the website www.pttgcgroup.com. All disclosures of information will be governed by regulations set forth by the Securities and Exchange Commission as well as the Stock Exchange of Thailand. It will also strictly abide the laws set by the State. Changes to applicable laws and regulations will be tracked closely to ensure that PTTGC is operating according to up-to-date procedures. Implementing an accurate, transparent and straightforward Investor Relations (IR) system has enabled PTTGC to secure the confidence of its shareholders. Furthermore, the Corporate Governance and Corporate Secretary Department make sure to provide accurate information and answer all questions put forward.

During 2014, PTTGC's important financial and non-financial information was properly reviewed and audited by certified auditors. GAAP principles were used by auditors before the information was approved by the Board of Directors. Following this, the information was disclosed to the shareholders and to the general public. Furthermore, this information was

included in PTTGC's annual and quarterly reports. Non-financial information was disclosed according to principles set forth by the Stock Exchange of Thailand and the Securities and Exchange Commission. Management's discussion and analysis of risk management and Corporate Governance are reported in the Annual Report as well as the 56-1 form.

In addition, PTTGC has provided all other important information for viewing on PTTGC's website. This includes all activities which have been conducted to date. Shareholders, investors, and the general public are able to use this information as a reference in a convenient and timely manner. This information includes useful information about current projects as well as the development of new innovations. Information about various investments and their performance are presented on a quarterly basis. Furthermore, information is also provided about the schedule for road shows and presentations as well as other news and public relations pieces.

The Board of Directors follows PTTGC's Disclosure Policy pursuant to rules and regulations defined by the Office of the Securities and Exchange Commission, The Stock Exchange of Thailand and other state agencies. A systematic and rigorous system is in place to track changes to these regulations to ensure that PTTGC is operating according to the most recently updated set of laws and regulations. This practice has helped to gain the confidence of shareholders, investors, stakeholders and the public who are now able to rely on transparent, accurate and straightforward information that is properly disclosed.

1. The operating structure of PTTGC includes the companies under PTTGC, subsidiaries, joint venture companies, and affiliates. This information is disclosed along with the Company's shareholding structure, including shares held by major investors and institutional investors. This numbers makes up more than 5%. Shares held in Free Float make up more than 40% (51.07%)
2. A policy exists mandating that Directors and Executives must report their connected transaction as well as the stakeholdings of individuals closely related to them. Their shareholdings in PTTGC as well as its subsidiaries must be reported. Furthermore, when individuals are nominated for Director positions or Executives positions for the first time,

they must also do a full disclosure of their shareholdings in PTTGC. Furthermore, they must report changes in their shareholdings on a monthly basis to the Board of Directors as well as make a disclosure each year in the Annual Report.

3. Preventing Conflicts of Interest - Directors or Executives may not engage in activities that could create conflicts of interest. They are prohibited from setting meeting agenda items and also participating in the discussion of said agenda items. In the event that they must provide information regarding such agenda items, they must refrain from voting on the item. The Corporate Secretary or the Secretary of that Sub-Committee will record any associations that Directors or Executives have in writing. This will be included in the meeting minutes. Policies regarding conflicts of interest are included in the Good Corporate Governance Handbook. Each Director, Executive and employee must follow these regulations. Furthermore, designated personnel at each level of PTTGC is tasked with the duty of reporting suspected potential conflicts of interest within PTTGC. Disclosures of potential conflicts of interest must be reported upon initial appointment to their position, as well as at the end of the year and when conflicts arise. This represents the commitment that PTTGC has towards working transparently and avoiding conflicts of interest.

In 2014, PTTGC organized its conflict of interest reporting system online in an effort to reduce paper and also to increase the convenience of storing records. Additionally, supervisors and employees can record entries more conveniently as well.

4. PTTGC made full disclosure of the process it used to nominate and appoint Directors, as well as the processes it used in evaluating working processes and the results of the Board of Directors during 2014.
5. Disclosures are made of policies related to Director and Executives' remuneration, including the exact nature of the remuneration made as well as the amount paid out to each set of Directors serving on different Sub-Committees. These disclosures include a full history of the accomplishments of the Sub-Committees as

well as attendance records for each of their Directors. Furthermore, information related to individual remuneration for each Director is disclosed as well.

6. Disclosures are made of PTTGC's investment structure, as well as any changes to the investment structure. These disclosures are made through various channels so that shareholders, investors, members of the media and other related entities can be made aware of them in an accurate and transparent manner. These channels also allow for stakeholders and the general public to contact and provide their suggestions to PTTGC. It can be found on PTTGC's website under "Contact Us" , in both Thai and English languages. Queries may be sent to Public Relations, Good Corporate Governance, Products and Services, Investor Relations, or to the Social Responsibility Departments.

The following is a list of channels that PTTGC releases disclosures to in both [Thai and English languages](#):

- The SET Community Portal hosted by the Stock Exchange of Thailand
- Website www.pttgcgroup.com, information on website is constantly updated. It provides an outlet for Directors and various departments to be contacted in a direct manner.
- News is released to various stakeholders through the Better Living journal, newspaper announcements, press releases, email, various publications, and during different events and activities.

● Investor Relations

PTTGC maintains an [Investor Relations Department](#) to handle communications with shareholders and institutional investors, as well as various analysts and regulatory agencies. This ensures that communication with PTTGC is made in a convenient manner with a focus on accuracy, completeness, speed and fairness – in both Thai and English. Our Investor Relations Department can be contacted directly through our website www.pttgcgroup.com or by email at ir@pttgcgroup.com, as well as by phone. This year, PTTGC established "[Investor](#)

[Relations Code of Conduct](#)" to define the role and guidelines of investor relations officers of all types to ensure that all shareholders are treated equally.

Investor Relations Events

Overseas Investors Meetings	10 times
Domestic Investors Meetings	4 times
Fixed Income Roadshow	1 time
SET Opportunity Day	4 times
Meetings with Financial Analysts	4 times
On-Site Investor Meetings	73 times
Telephone Investor Meetings	20 times

Disclosures of Information

Disclosures Made via SET Portal and PTTGC Website	54 times
Investors' Newsletter ("The Better Living")	4 issues

Activities

Exhibitions (e.g., SET in the City)	1 time
Bondholders Site Visit	1 time
Bankers Site Visit	1 time
Analysts/Fund Site Visit	3 times
Shareholders Site Visit	1 time

In 2014, PTTGC hosted a number of events where the President and Chief Executive Officer along with Executives were made available to be met by shareholders, institutional investors and analysts. A summary of what was discussed in terms of operations, budgeting, and financial positions were explained in the Management Discussion & Analysis.

Investors or other interested individuals can make information inquiries through the following 4 channels:

- 1) By Mail : PTT Global Chemical Public Company Limited, Department of Investor Relations
555/1 Energy Complex Center
Building A, Floors 14th-18th
Vibhavadi Rangsit Road, Chatuchak District, Bangkok 10900
- 2) By Phone : 66(0) 2265-8574, 66(0) 2140-8712, 66(0) 2140-8714, 66(0) 2265-8327, 66(0) 2265-8533, 66(0) 2140-8713
- 3) By E-mail : ir@pttgcgroup.com
- 4) Fax : 66(0) 2265-8500

Additionally, PTTGC maintains an email address that is convenient for use as a direct line to PTTGC. It is listed on PTTGC's website under the section "Good Corporate Governance". This means that anyone, including shareholders, investors or the public, can use it to directly contact the Chairman of the Corporate Governance Committee or Company Secretary. The email address is cg@pttgcgroup.com

Board Responsibility

PTTGC's Board of Directors is at the heart of Good Corporate Governance. It fulfills its mission and various responsibilities as described in "Management Structure" page and in the following:

1. Setting Business Strategy, Policy, and Direction

The Board performs important responsibilities such as determining and reviewing the organization's vision, mission, strategy, operations plans and budget. It must adapt to a quickly evolving business environment. The Board must approve important aspects of PTTGC's operations such as its vision, mission, strategy, financial goals, risk tolerance, operational plans and budget at least once a year. In 2014, the Board reviewed at its meetings on August and November. The Board must also guide President & CEO and strive to achieve company goals, while maintaining a balance between business, society and the environment in order to develop sustainable growth in the future.

2. Good Corporate Governance and Business Code of Conduct

The Board has set Good Corporate Governance and Business Code of Conduct for Directors, Executives and each employee to follow. It acts as a means of guiding the operations of PTTGC to the highest standards of ethics, transparency, efficiency and accountability. It protects the rights of shareholders, who should be treated in a fair manner to build confidence in PTTGC. The Corporate Governance Committee is tasked with overseeing the Corporate Governance activities of PTTGC. It ensures that PTTGC is in strict compliance with all applicable laws, regulations and resolutions made by shareholders. It determines regulations, policies and internal controls. Regular reviews are made on an independent basis to ensure that PTTGC information is up to date, as well as to assist in protecting the interests and rights of all shareholders equally. Furthermore, it raises awareness of how to follow the Good Corporate Governance policies of PTTGC.

3. Internal Control and Internal Audit Systems

The Board understands the importance of internal controls and internal audits. PTTGC and companies under PTTGC must have effective internal controls that are consistent with the level of risk that they are exposed to. The Audit Committee and Internal Audit Department are responsible for performing reviews and monitoring internal audits on a regular basis. It must ensure that operations are conducted in compliance with all laws, rules and regulations. Furthermore, it must build confidence among Executives, investors, and other stakeholders by implementing an internal control system that meets international standards. Emphasis needs to be placed on potential risks that could have an effect on PTTGC's operations. Communications need to be done both internally and externally. An adequate and reliable tracking system must be executed regularly. It has been described in the "Internal Control" section.

4. Risk Management

The Board oversees PTTGC's risk management systems. Risk is a barrier to achieving PTTGC's strategic objectives. The Risk Management Committee is tasked with determining

the policies and framework of risk management. Risk management must be conducted in an efficient manner. It must assess both organizational and project risks. It must monitor, assess, and make adjustments to the risk management system to decrease exposure to risk to an acceptable level. Furthermore, it must provide risk management reports to the Board on a regular and prompt basis. These reports will be disclosed under the section of "Risk Management and Risk Factors."

5. Conflicts of Interest

PTTGC has set guidelines regarding conflicts of interest in the Good Corporate Governance and Business Code of Conduct Handbook for Directors, Executives and staff to comply with. Executives of the level of Executive Vice President and upwards, as well as financial controllers, must satisfy requirements set forth by the Securities and Exchange Commission. Directors, Executives and staff must make reports of personal conflicts of interest as well as those of entities they are closely related to on an annual basis. In the event a conflict of interest does arise, parties involved must make an immediate and detailed report to PTTGC.

PTTGC is very cautious in ensuring it complies with this policy. Transactions must not be conducted if they are in violation of the rules of the Stock Exchange of Thailand or the Securities and Exchange Commission.

PTTGC has set the following standards to prevent improper conflicts of interest:

- 1) Directors, Executives, staff members and related entities must avoid financial transactions with entities outside the organization if this would result in an adverse effect in which PTTGC would lose benefit or a conflict of interest would arise.
- 2) Directors, Executives, employees and stakeholders who may have conflicts of interest must make their superiors aware of such transactions. They must report these conflicts of interest or otherwise withdraw from any participation of the process related to the conflict of interest.

Board of Directors and Sub-Committees

Board of Directors

Directors are appointed by a vote of the shareholders at the Annual General Meeting of Shareholders. Each of the Directors must be highly qualified, knowledgeable and experienced in fields such as petroleum, petrochemicals, energy, management, accounting and finance, laws, security, and auditing. The combination of these skills and qualities is aimed to bring the greatest benefit possible to PTTGC. The devotion of their time and effort is essential to their duties. The Board must provide PTTGC with strong leadership, vision and independence in decision-making processes so as to maximize shareholder value. It must understand its responsibilities in upholding the laws and adhering to all regulations and rules, as well as principles of Good Corporate Governance. It must avoid any actions that would be against the best interests of PTTGC, and avoid conflicts of interest with PTTGC that would decrease efficacy. The Board must always be kept at an appropriate level as determined by the size of the organization, as well as the approval given at the Shareholders Meeting. In 2014, PTTGC adjusted the structure and requirements of the Board. These adjustments have been recorded in the Good Corporate Governance Handbook as well as disclosed on PTTGC's website.

The Board has the power to assign one or many Directors to run the operations of PTTGC as well as to oversee special projects. This will be done under the supervision of the Board or the aforementioned person assigned to overseeing such tasks. The Board may revoke or modify this authorization at any time.

Sub-Committees

The Board has selected individuals with specialized expertise to serve on our various Sub-Committees that have been authorized by the Articles of Association. These Directors assist in working under the scope set for each Sub-Committee. They fulfill the roles and responsibilities of their Sub-Committee according to the charter of each Sub-Committee. Members of the Audit Committee must all serve as Independent Directors. The majority of members of the Nomination and Remuneration

Committee and Corporate Governance Committee must serve as Independent Directors. Furthermore, the Chairman of the Board of Directors must not serve as the Chairman or as a member of any of the Sub-Committees. Each Sub-Committee must be chaired by an Independent Director, with the exception of the Risk Management Committee. Member of the Risk Management Sub-Committee must have an appropriate amount of expertise in that particular field of petrochemical and refining industries, therefore the Board resolved that the composition of the Risk Management Committee is to comprised of at least one Independent Director. Sub-Committees will provide a report of their activities to the meeting of the Board of Directors, as well as provide a report at the Annual General Meeting of Shareholders using the 56-1 form and annual report.

At the present moment, PTTGC has 4 separate Sub-Committees. They are: the 1) Audit Committee; 2) Nomination and Remuneration Committee; 3) Corporate Governance Committee; and 4) Risk Management Committee. Information related to details of Sub-Committee Directors, their responsibilities and meeting attendance may be found under the section of "Management Structure".

Nomination and Appointment of Directors and Executives

1. Nomination and Appointment of Directors and Independent Directors

In an effort to conduct the nomination and appointment of Directors in a principled and transparent fashion, policies of Good Corporate Governance are strictly followed. The Board of Directors nominated 3 Directors to serve on the Nomination and Remuneration Committee. These Directors are responsible for determining the nomination criteria, as well as performing the nomination of Company Directors. The Nomination and Remuneration Committee is responsible for allowing the majority shareholder and minority shareholders to nominate individuals for Directorships. The suitability of these individuals is determined based on how they match criteria set forth by PTTGC as well as the Stock Exchange of Thailand and Directors' Pool database from the State Enterprise Policy Office. Nominations are to be made to find individuals that are appropriately qualified according

to Company's Articles of Association, have a high level of expertise, and are experienced in various related fields that the Board may currently be lacking. Potential conflicts of interest are also considered and may disqualify a candidate. The Nomination and Remuneration Committee will qualify the characteristics of the candidate to ensure that only the most suitable and appropriate individuals are selected for Company Directorships. This process will be conducted in a full and thorough manner, with an emphasis on transparency. The different positions to be nominated and appointed are listed below:

1.1 Directors

- **Nomination of New Directors** : Consideration encompasses the suitability of the nominee, as well as their compliance to related laws and regulations. Nominees will be judged on the basis of their expertise and the benefit this expertise would bring to the organization's structure. A Skill Matrix is used to assess suitability related to the operations of PTTGC. Furthermore, conflicts of interests and connected transactions that may affect PTTGC are also considered.
- **Nomination of Directors Presently Serving** : Consideration will take into account past performance of the Directors.

1.2 Independent Directors

The nomination and appointment of Independent Directors begins by determining the number of Independent Directors that are necessary to meet criteria set forth by the Securities and Exchange Commission. As of December 31st, 2014, of the 15 Directors, 9 of them are Independent Directors, exceeding the requirement mandated by the Securities and Exchange Commission as well as meeting the requirements listed under the section "Management Structure". Independent Directors are defined as having the quality of being independent, as explained in the Good Corporate Governance Handbook and listed on PTTGC's website.

In the event an Independent Director needs to be nominated and appointed to replace a position not vacated by expiry of term, the Nomination and Remuneration Committee must casted by no less than $\frac{3}{4}$ of the votes. The term of

service for replacement Directors may be no longer than the length of service remaining for the Directors they replaced.

2. Nomination and Appointment of Chief Executive Officer

When making the nomination and appointment of Chief Executive Officer, the Nomination and Remuneration Committee makes sure to propose the most qualified individual by evaluating their qualifications, skills, experience, management and leadership skills, as well as their performance at the posts held previously. Furthermore, consideration is given to other important aspects such as the time and effort they have available to devote to their position, ensuring that PTTGC receives the highest amount of benefit from any individual who assumes this position. Furthermore, any conflict of interest must be considered and approved by the Board. These are detailed under "Succession Plan".

In 2014, the Board nominated and appointed Mr. Supattanapong Punmeechaow as Chief Executive Officer. A fully qualified individual according to the criteria set by the Nomination and Remuneration Committee in replacement of Mr. Bowon Vongsinudom, who retired, as of October 1st, 2014. The criteria that was set forth by the Nomination and Remuneration Committee, as detailed below:

- Serving as a Director of the Company, as per the Company's Charter
- Knowledgeable and skilled in business operations
- Experienced in business, energy, petroleum and petrochemicals
- Experienced in organizational leadership
- Strong leadership skills
- Well-recognized by leading organizations in the industry

Directors' Term of Office and Number of Directorships

- The Board of Directors rotate out of their position one-third at a time during the Annual General Meeting of Shareholders, as per PTTGC's Charter. There shall not be more than 15 Directors at any one time and their term should be 3 years.

- Independent Directors should not serve more than 3 consecutive terms (counting from 2014 AGM for a total of 9 years). The purpose of this is to ensure that the independent nature of the Director be suitable and variable to provide PTTGC with the greatest benefit.
- In an effort to gain the highest benefit for PTTGC, the Company will not limit the number of terms to be served by its Directors to fully leverage their experience, expertise and knowledge. The Nomination and Remuneration Committee will be responsible for determining the suitability of potential nominees and present the benefits they will bring to PTTGC and its shareholders. [At the present moment, there are no Directors (including Independent Directors) that have been serving 3 consecutive terms or 9 consecutive years.
- PTTGC has determined basic qualifications that Directors must have. Directors must not hold directorship in 5 or more other companies. Furthermore, the nature of directorship relations must be disclosed to PTTGC. (At the present moment, no PTTGC Director is serving as a Director or Executive of more than 5 other companies listed on the Stock Exchange of Thailand). The President & CEO does not serve more than 3 companies.
- In regards to PTTGC's various Sub-Committees including the Audit Committee, Nomination and Remuneration Committee, the Corporate Governance Committee and the Risk Management Committee, the term of service is 3 years. At meeting No. 9/2014 held on September 22nd, 2014, the Board passed the resolution to re-appointed all the Sub-Committee members who is due to ended 3 years term on October 2014.

The Board understands the value of experience gained from serving as a Director in other sectors. However, providing service in this capacity must not diminish the participant's role in the operations of PTTGC. The act of serving as a Director for another organization must first be approved by PTTGC's Board of Directors. Any such service must not compromise the business operations of PTTGC or any companies under PTTGC. Furthermore, it must be reported and disclosed in "Management Structure" section.

Roles of the Chairman, President and Chief Executive Officer

The Chairman of the Board, the President and Chief Executive Officer are all positions to be elected and filled by separate individuals. The roles they execute are different as well. The Chairman of the Board does not interfere with the day-to-day operations of PTTGC. His responsibilities lie in ensuring the efficient operation of the Board of Directors. He assists in determining the agenda of the Board along with the President and Chief Executive Officer. He also assists in determining the smooth running of the meeting of the Board and the Annual General Meeting of Shareholders. Furthermore, the Chairman of the Board may not serve on any of PTTGC's Sub-Committees. Instead, the Chairman assists in ensuring that the roles and responsibilities of PTTGC's Sub-Committees are clearly stated in an effort to ensure that their responsibilities are clear and appropriate. Furthermore, it is the job of the Chairman to strengthen the independent nature of Independent Directors. The Chairman must exhibit strong leadership capabilities and have a thorough understanding of petroleum, petrochemicals and Good Corporate Governance. He must also be well respected among leading organizations in the petrochemical industry.

The President & Chief Executive Officer is nominated and appointed by the Board from one of the Directors. He is responsible for the management of PTTGC under the authority granted by the Board of Directors. This is detailed in the PTTGC's Articles of Association and is disclosed on PTTGC's website in both Thai and English languages (www.pttgcgroup.com). PTTGC's Articles of Association also stated that, at the highest level of the PTTGC's management, the President & CEO will be awarded compensation and other benefits in addition to that received as a Director.

Board of Directors Meetings

The Board of Directors will determine the dates of its meetings over a year in advance, as well as set a clear agenda to be discussed each month. In 2014, scheduled on the 2nd Friday of each month and special meetings (urgent) will be held if the need arises. During 2014, there were a total of 12 meetings held, with an additional 2 special meetings conducted. The Board received copies of their invitations, minutes of meeting drafts, and information pertaining to agenda items at least five days before each meeting was held.

The Chairman and the President and Chief Executive Officer are normally responsible for setting the Meeting Agenda. However, Directors are entitled to make suggestions as well. In an effort to better conform to practices of Good Corporate Governance, PTTGC has established that Board Meetings must be attended by at least two in three Directors before a quorum can be attained. High-level Executives and members of management are invited to attend the meetings and provide useful information directly to the Board. Exceptions to this are when agenda items concern specific issues related to special committees, which need to be given independent consideration or meeting for Non-Executive Directors.

The Chairman is responsible for and presides over meetings, providing every Director with an opportunity to openly voice his/her opinions. Meeting resolutions are then decided by a majority vote. Each Director is entitled to one vote except for anyone who has conflicts of interest with the agenda item being discussed. In the event that the final vote ends in a tie, the Chairman will cast the deciding vote. In 2014, importance was given to the reduction of conflicts of interest. Efforts are made to operate in a careful, fair and transparent manner. Full disclosure is made of any conflicts of interest. In the event a Director might have a conflict with an agenda item being discussed, that Director must abstain from engaging in consideration of the matter.

After the conclusion of the meeting, the Company Secretary is responsible for preparing the meeting minutes and presenting them at the following meeting for approval as the meeting's first agenda item. The minutes are to be signed off by the Chairman, verifying their accuracy. Minutes are stored in a systematic fashion with all necessary confidential information protected. PTTGC's electronic storage system allows for ease in reference or searching.

Meetings of the Independent Directors was held once. This meeting allowed Independent Directors to exchange opinions and suggestions on how to best maintain their independence as an Independent Director. No members of management were in attendance to avoid the creation of conflicts of interest between PTTGC and its stakeholders. Independent Directors need to execute internal controls and risk management principles in a suitable and efficient manner.

Throughout 2014, PTTGC implemented an E-Meeting system to manage the dissemination of information and meeting minutes to Directors. iPads are given to each Director to increase convenience and speed in this manner, as well as reduce the use of paper. Transmission is done to ensure protection of the data. The mobile phone application LINE is used to create a Group LINE channel for the Board of Directors and the Corporate Secretary to communicate more easily and notify of important information's such as news related to PTTGC, articles on the medias, and notification to SET.

Assessment of the Board of Directors

● The Board of Directors

PTTGC requires the annual performance evaluation of the Board of Directors. These reviews are made to assess the working operations, problems and obstacles that had been dealt with over the year. Three types of assessment are performed: assessments on the Board as a whole, as well as individual self-assessments, and cross-assessments. Criteria of appropriate standards are used. Results of assessments are then examined during Director's remuneration consideration. The assessments are presented to the Board of Directors. Then it is used accordingly to draw up a set of guidelines that would improve the future performance of the Board in an efficient and concrete fashion.

1. **Assessment of the Board as a Whole** focused on six main areas: 1.) Board Policy, 2.) Board Performance, 3.) Board Structure, 4.) Board Style, 5.) Board Meetings, and 6.) Board Development

Overall Board assessment results concluded that performance was at an excellent level with an average score of 97.5%

2. **Individual Self-Assessment of Directors** focused on three main areas: 1.) Business Code of Conduct and Ethics Compliance, 2.) Duties and Responsibilities, and 3.) Self-Development and Teamwork

Overall entire individual self-assessment results concluded that the performance was at an excellent level with an average score of 95.9%

3. **Cross Assessment of Individual Directors** focused on three main areas: 1.) Independence, 2.) Time Devoted and Meeting Attendance, and 3.) Knowledge and Specialized Expertise

Overall cross-assessment of individual Directors results concluded that their performance was excellent with an average score of 97.7%

● Assessment of Sub-Committees

1. **Audit Committee** : Through an analysis of results of assigned tasks and responsibilities, the Audit Committee received an average score of 98%.
2. **Nomination and Remuneration Committee** : Through an analysis of results of assigned tasks and responsibilities, the Nomination and Remuneration Committee received an average score of 99%.
3. **Corporate Governance Committee** : Through an analysis of results of assigned tasks and responsibilities, the Corporate Governance Committee received an average score of 98.9%.
4. **Risk Management Committee** : Through an analysis of results of assigned tasks and responsibilities, the Risk Management Committee received an average score of 95%.

Director and Executive Development

● Orientation for New Directors

PTTGC's New Director Orientation is detailed below:

- 1) A briefing is given about the nature of PTTGC's business, information about PTTGC, as well as various guidelines and business practices. It includes information about related regulations, Good Corporate Governance and Business Code of Conduct. The orientation is performed by high-level Executives and also includes information that will be useful for Directors during their tenure.
- 2) Manuals and various documents are distributed to new Directors. They include information about the Company's strategic plans, Articles of Association, Memorandum of Association, Annual Report, rules and regulations, Good Corporate Governance and Business Code of Conduct Handbook and Corporate Compliance Policy. This literature is constantly kept up-to-date and is intended to help Directors perform their duties.

● Director Training

PTTGC Directors are knowledgeable, skilled, and they are constantly seeking more information about developments in the Company's industry. PTTGC is supportive in providing extra training to Directors to help them better perform their duties.

In 2014, PTTGC Directors attended the Anti-Corruption for Executive Program (ACEP) held by the Thai Institute of Directors. The two PTTGC Directors in attendance were from the Audit Committee and were interested in information related to anti-corruption efforts. Additionally, the majority of other Directors had already received the training.

Directors/ IOD Courses

1. Mr. Amnuay Preemonwong
Anti-Corruption for Executive Program (ACEP)
Class 13/2014
2. Police Lieutenant General Prawut Thavornsiri
Anti-Corruption for Executive Program (ACEP)
Class 13/2014

New Directors have already arranged their 2015 training schedule. PTTGC has also applied to support the Thai Institute of Directors (IOD) to gain benefits related to increasing knowledge. Whenever PTTGC receives training materials or documents, it will be sent on to PTTGC Directors so that they may study and learn from them. A full listed of training courses attended/to be attend by PTTGC Directors, showed in the table below.

In 2014, the Board of Directors attended a number of domestic events to raise standards of Good Corporate Governance. These events were used as a platform to exchange ideas with regional leaders. They include plant visits, which were utilized to inspect operations within and outside of the country. PTTGC Directors need to have a thorough understanding of PTTGC's operations to provide the greatest benefit during their tenure.

Training Courses of the Board of Directors as of January 31st, 2015

Names	DCP	DAP	ACP	RCP	FND	UFS	FSD	RNG	PDI	ACEP	CSP	CMAL	SJA
1. Mr. Prasert Bunsumpun		26/2004		28/2012								Class 3	
2. Mr. Somchai Kuvijitsuwan	76/2006	56/2006		28/2012		3/2006						Class 9	
3. Mr. Vasin Teeravechyan	115/2012	94/2012						5/2013					
4. Mr. Anon Sirisaengtaksin	73/2006	52/2006										Class 1	
5. Professor Surapon Nitikraipot	102/2008			25/2011								Class 4	
6. Mr. Sarun Rungkasiri	61/2005				19/2005						8/2004		
7. Mr. Siri Jirapongphan	77/2006												
8. Mr. Samerjai Suksumek	204/2015	117/2015											
9. Miss. Ruenvadee Suwanmongkol	127/2010												Batch 15
10. Mr. Amnuay Preemonwong	80/2006		38/2012				11/2011			13/2014			
11. Mrs. Boobpha Amornkiatkajorn	152/2011												
12. Mrs. Watanan Petersik		83/2010											
13. Colonel Nithi Chungcharoen	200/2015												
14. Mr. Veerasak Kositpaisal		80/2006			30/2006								
15. Mr. Supattanapong Punmeechaow	131/2010			30/2013					Class 12				

DCP : Director Certification Program

ACP : Audit Committee Program

FND : Finance for Non-Finance Director Program

FSD : Financial Statements for Director

PDI : Corporate Governance Program for Directors and Executives of State Enterprises and Public Organizations

CSP : Company Secretary Program

DAP : Director Accreditation Program ACP: Audit Committee Program

RCP : Role of the Chairman Program

UFS : Understanding the Fundamental of Financial Statement

RNG : Role of the Nomination and Governance Committee

ACEP : Anti-Corruption for Executive Program

CMAL : Capital Market Academy Leadership Program

SJA : The Programme of Senior Executives on Justice Administration

Succession Plan

PTTGC has designed its succession plan to work in a systematic manner that is able to evaluate management performance. Consideration is given to competency, personal attitude, organizational knowledge, experience and also to leadership. Candidates must have vision and be able to execute growth plans that have been laid out by the Board. They must be able to support business expansion and the changing nature of PTTGC's organizational structure. As members of senior management retire, this succession plan helps to ensure continuity in management. It also helps to prepare candidates for succession to help PTTGC meet its strategic goals in the future in an efficient manner.

Additionally, succession planning has been implemented to ensure the smooth replacement of vacancies created through retirement as well as vacancies created in the organizational structure during PTTGC's planned domestic and international expansion. The Nomination and Remuneration Committee is responsible for deciding the proper plan of succession. It will take into account the qualifications, knowledge, skills and experience needed for future vacancies. When a list of possible successors has been made, PTTGC will decide on both a short and long-term individual development plan to ensure that the successor is ready to serve when the time comes.

Governance Policy for PTTGC and Companies under PTTGC

The Board has approved PTTGC's Corporate Governance Policy for companies it holds ownership stakes in. This policy is meant to ensure that the same standards (PTTGC Business Principles) apply to the management and operations of those entities, helping to increase their efficiency. [The Board has tasked the Chief Executive Officer with the duty of establishing the policy, its criteria, and its mechanisms of enforcement. In terms of the responsibilities of individuals nominated to serve as Directors for companies under PTTGC are listed in the HR Rules and Regulations Policy](#), this policy states that those individuals have the duty and responsibility to

act in the best interest of the company in which they serve as a Director. Furthermore, the Board has determined that important policies set by its subsidiaries must adhere to all restrictions and regulations set forth by the Securities and Exchange Commission. Additionally, the Board provides supervision for various policies of its subsidiaries, including Management Policies, Corporate Governance Policies, Corporate Compliance Policies, Accounting and Finance Policies, Safety Health and Environment Policies, Social Responsibility Policies, Personnel Management Policies, as well as other various important policies. Such supervision is provided to make sure that they are in compliance with the requirements of the Securities and Exchange Commission as well as of other related rules and regulations.

PTTGC's Board of Directors has mechanisms to help oversee the company. Policies are set and executed. [Guidelines are in place for regulatory and investment policy by PTT Global Chemical Public Company Limited](#). Subsidiaries of PTTGC are required to conduct their business strategy and operations according to the policies of PTTGC. Management and oversight of PTTGC is done in a systematic manner. PTTGC will appoint representatives to attend shareholder meetings of PTTGC's subsidiaries and PTTGC joint ventures to ensure that management is conducted in an efficient, transparent and fair manner.

Representatives from PTTGC must ensure that subsidiary companies operate according to PTTGC regulations as well as report connected transactions to PTTGC. They must ensure that information is reported and stored properly, as well as make sure that financial statements are accountable and consolidated in a timely fashion.

Control of the Use of Inside Information

The Board has placed great importance on disclosure and transparency. Policies related to this can be found in the Corporate Governance and Business Code of Conduct Handbook, as well as on PTTGC's website. They are available not only for shareholders to read, but also to reinforce the

responsibilities of Directors, Executives and staff members. The details have been summarized, as follows:

- (1) Directors and Executives (including Executive Vice President of Finance and Accounting) are responsible for conducting their work according to SEC regulations. They have signed an agreement to report any changes to their shareholdings in PTTGC within 3 days of any transaction. This responsibility is assumed upon their appointment to their position. The Corporate Secretary will make an organized list of these transactions to be included as an agenda item at each meeting of the Board of Directors.

Furthermore, the Board ensures that constant monitoring of the use of inside information is being conducted. Whenever it needs to be used, a copy of a report needs to be sent to the Corporate Secretary. Reports are also sent to the Board during their meetings for their acknowledgement. Disclosures of changes in shareholding need to be made at the beginning, middle and end of the year in the annual report. The Corporate Secretary is responsible for monitoring compliance with the Business Code of Conduct on a very close basis. Reports of this are made to the Board for their acknowledgement during Board meetings.

- (2) Notifications are issued to both the Directors and Executives to remind them of the policy prohibiting the purchase or sale of stock 45 days before the disclosure of quarterly/annual financial reports, as well as before any major decisions are disclosed that may have an effect on the price of PTTGC's stock. Furthermore, they are also prohibited from purchasing or selling stock until after 24 hours has passed since any such event has been published to the public.
- (3) A Confidentiality of Information Policy has been set. This policy applies to all Executives and staff members. They have responsibility to ensure that confidential information remains secret at all times. They are also required to prevent others from accessing such information concerning PTTGC, its customers or business partners, or

any other personal information. They need to also comply with those measures safeguarding confidential and non-public information for the benefit of business operations and compliance with all of the legal requirements regarding the standard of information confidentiality, both in Thailand and overseas.

- (4) Rules and policies related to the use of inside information are communicated to Executives and employees on a regular basis. This notification is executed through various channels to ensure that PTTGC's rules and policies are known and followed, as well as to prevent the exploitation of information by Executives, employees or other individuals. Disciplinary actions are made known and suggested to supervisors. In recent years, there have been no reported instances of improper use of inside information. The trading of securities is prohibited during specific given periods.

Compliance with other Principles of Good Corporate Governance

PTTGC understands the importance of practicing Good Corporate Governance and Business Code of Conduct to an international standard. In doing so, each stakeholder group will be treated in a uniform and equal manner. PTTGC strives to exceed the requirements of Good Corporate Governance set by the Stock Exchange of Thailand. Examples of this have been detailed as follows:

- Independent Directors may not serve more than three consecutive terms, or 9 consecutive years without exception (their tenure begins at the Annual General Meeting of Shareholders in 2014), in order to allow PTTGC to nominate Directors with varied qualities, as appropriate, for the highest benefit.
- Restrictions are made on Directors that maximize the value of their benefits to PTTGC. Directors are limited from serving on the Board of more than 5 other companies. Details of information related to the directorship of those companies must be made as well.

- Directors serving on Sub-Committees are limited to terms of 3 years. This restriction is limited to the Audit Committee, Nomination and Remuneration Committee, Corporate Governance Committee, and Risk Management Committee. The Chairman of the Nomination and Remuneration Committee and Chairman of the Corporate Governance Committee must be Independent Directors, While the Audit Committee must be composed entirely of Independent Directors.
- The majority of Directors must be Independent Directors.
- No restrictions will be made on the gender of Directors. Currently, 3 of the Directors for PTTGC are female.
- Invitation letters are sent out to shareholders in advance, allowing them an appropriate amount of time to study agenda items. Invitation letters to the Annual General Meeting of Shareholders are sent out 22 days prior to the meeting. Furthermore, a posting of the notice will be made on PTTGC's website more than 30 days in advance.

Head of Internal Audit and Corporate Compliance

● Head of Internal Audit

At the Audit Committee Meeting No. 4/2013, held on July 5th, 2013, Mr. Adisorn Vichaikatka received approval to be appointed as Vice President - Internal Audit, the Head of the Internal Audit Department effective as of August 1st, 2013. His appointment was made due to his extensive knowledge and experience with PTTGC's internal audit systems. He has been working with the Internal Audit Department since 2005. He was provided with an extensive course of training related to internal audit systems. The Audit Committee is the body responsible for the appointment, removal and transfer of managers of the Company's Internal Audit Department, as specified by the Charter of the Audit Committee.

● Head of Corporate Compliance

PTTGC has appointed Mrs. Warawan Tippawanich - Senior Vice President - Corporate Affairs, to be the Head of the Company's Corporate Compliance. Her roles and responsibilities include promoting and supporting compliance activities among Executives and staff members of PTTGC and its subsidiaries, per the Corporate Compliance Policy, so that operations are conducted according to all related laws, rules and regulations.





PEOPLE MANAGEMENT AND DEVELOPMENT POLICY

Organizational and Personnel Management

PTTGC has expanded investments both domestic and overseas to increase business efficiency, as well as to ensure sustainable growth. The expansion has also been carried out together with developing environmentally-friendly products while being socially responsible. In response to business expansion overseas, PTTGC has restructured its management by establishing an international business unit to promote and oversee businesses abroad and ensure their compliance with the business context which becoming more diverse, either in business size or type.

A focus has been placed on the recruitment of employees in the groups that play an important role in driving the organization's strategies forward, such as the International Business Development Unit. An activity such as Recruitment Day is organized to seek for new employees for Engineering and Operation field of work. With regard to the expansion, PTTGC has planned to employ foreign professionals and expanded its global candidate base. PTTGC also participated in a Career Day held by Nanyang Technological University and National University of Singapore, leading educational institutions in Singapore. Such effort has made the Company well-known in the labor market while gaining a larger database abroad. Additionally, social media is another recruitment channel used in acquiring middle-level executives from both within and outside Thailand.

PTTGC has set out a policy on the performance appraisal system, encompassing the determination of annual goals, a follow-up on mid-year performance, and year-end performance evaluation. To ensure transparency and impartiality of the system, supervisors and employees are encouraged to discuss on Performance regularly with a peer review being arranged in the form of a committee in each business unit. The obtained results will be used in the calculation of salary increase and bonus payment for employees, which will be considered in consistent with their individual performance and the Company's business profits base on the remuneration Policy. Moreover, PTTGC also arrange welfare in compliance with Law, In order

for employees to have improvement on their life quality. Such policy helps motivate employees to be dedicated more on their work, which will further benefit the Company in the long term. In addition, PTTGC has developed the Talent & Succession Management System as a framework for its employee management and development in accordance with their capabilities and performance. The system is also used for preparing high-potential personnel for key management positions, from members of senior management to division managers, ensuring business continuity with competent personnel.

To develop successors, PTTGC has implemented the Individual Development Plan (IDP) with an emphasis on the 70:20:10 ratio approach – assigning work, transferring tasks and coaching, respectively. Trainings have been provided to enhance their potential, where necessary, in compliance with the plan.

In terms of Career Management System, PTTGC has established Job Family according to the Competency Set of business units that share similarity. A total of 15 Job Family have been organized, such as Business Development, Marketing, Finance and Accounting, and Human Resources. The Career path and Progression Scheme for each unit are determined for employees to see an opportunity to grow in their careers, as well as to boost morale and maintain high potential employees within the organization. PTTGC has implemented a guideline on developing its employees by equipping them with knowledge and sufficient capabilities for the business' current operations as well as for future competitiveness. The Career Management System is also applied to the Company's specialists, enabling those possessing the skills and in-depth expertise to gain an opportunity to grow as well as in the management level. This will encourage these personnel to improve their capabilities while also enabling the Company to permanently maintain such established knowledge and expertise.

In the past year, PTTGC developed and implemented the IDP in an earnest manner. Both supervisors and employees together determined and selected the appropriate and IDP-compliant development practices. This has led employees

to fully develop, with approximately 88% of the plan being achieved, exceeding the set target of 80%. Currently, the Competency and IDP for the year 2015 have already been prepared for the continuity of employee development.

For employee development, a wide range of internal and external trainings are carried out.

- To promote the strategy regarding Human Resources Management in support of company growth, PTTGC has offered the GC English Program to employees in order to develop their English skills and learn about foreign cultures in accordance with the of business expansion overseas. In addition to the program, other development schemes are also provided to employees, particularly to those working in units directly involved in expansion, such as the Business Development and Marketing Units.
- For the development of Executives, the Executive Coach has been provide to senior management member, and the Leadership Development Program is for those in the middle management to sharpen their management skills, both in terms of leadership and professionalism.
- PTTGC has made great efforts in promoting policies regarding the environment and energy efficiency. Emphasis has been placed on the skill and knowledge development of all employees involved in such areas. There were 24 training programmes held both in and outside the country which is 37.9% of overall training program for all staff i.e. Energy Awareness and ISO 50001, Pre-Assessment for PM Award-Energy Management, Energy Preservation, Introduction to Carbon Footprint, LCA, Grand Renewable Energy 2014 International.

In addition to organizational development, PTTGC has attached great importance to equip its personnel with potential and expertise, particularly new employees who require an adequate knowledge to efficiently perform their tasks. Knowledge Management has been implemented as a tool through a learning and sharing culture, along with the participation of both Executives and employees. This has led to the transfer of knowledge deep-rooted in each person's experience that can be obtained from learning both at individual and team levels. Knowledge Management will help

keep the acquired expertise within the Company while being able to prevent repeated mistakes. Furthermore, Best Practices were determined and adopted by PTTGC's internal units and those in the PTTGC Group. Such practices have been developed into innovations, which will further become valuable assets to the organizations, allowing them to keep pace with the ever-changing world of business. Importantly, PTTGC Group has established a Knowledge-Based System with storage efficiency that allows employees to reach and search for information rapidly and conveniently, and hence acquire knowledge at all times, despite working abroad. This system therefore helps take their work standards to even greater heights, leading to the operational excellence and stable growth of the PTTGC Group as a whole.

PTTGC has promoted the core values 'GC SPIRIT' and encouraged its personnel to understand and apply them on a continuous basis. For new employees, an intensive orientation program has been arranged internally and in the Bootcamp style to inform them of the values through first-hand experiences. Also, such activity helps employees to create a network of relationships which will enhance their cooperation in the long term. GC SPIRIT values are blended into work life through policies and practices, such as Effective Empowerment and Delegate Down, Employee Recognition, and Effective Meeting, all contributing to put the Company's core values into practice in an ongoing and sustainable manner.

In terms of international Human Resources Management, to support company growth abroad, PTTGC has revised the overseas employment contract, making sure it conforms to the Company's tax policy as well as applicable laws in each country. Additionally, a network has been built between PTTGC and the world's leading universities through an international internship program, which is organized on a continuous basis. This year, more students from top universities in Korea, Hong Kong and Indonesia, have joined the program and worked in several Company units. The purpose of this program is to increase opportunities to hire foreign workers while promoting the use of English among employees, as well as creating an international working atmosphere.

Lastly, PTTGC has always been determined to improve and strengthen organizational and personnel management capabilities as we are fully aware that personnel are a valuable asset that is crucial to our strong and sustainable growth.

REPORT OF THE CORPORATE GOVERNANCE COMMITTEE

Dear Shareholders,

The Corporate Governance Committee is chaired by Professor Surapon Nitikraipot with Mr. Sarun Rungkasiri and Colonel Nithi Chungcharoen as Directors. These Directors were appointed on September 22nd, 2014 to replace the resigned Directors in the Committee. Police General Sombat Amornvivat and Air Chief Marshal Somchai Thean-anant both stepped down from the Committee, while Miss. Ruenvadee Suwanmongkol took assignment with the Audit Committee.

In 2014, the Corporate Governance Committee, including both the former members and new appointees, executed its mandate in a full and efficient manner, as set forth by the Board of Directors. The Corporate Governance Committee held a total of 4 meetings to follow and give updates on the progress of good corporate governance. A summary of key developments can be found below:

1. The Committee performed its tasks in full compliance with applicable regulations, laws and good practice guidelines.

- An organization plan for the 2014 Annual General Shareholders' Meeting (AGM) was issued. Suggestions were also made to ensure that meeting was carried out in an orderly, transparent and effective manner in compliance with corporate governance in accordance with every point on the AGM Checklist of the Stock Exchange of Thailand. The Company's 2014 Annual General Shareholders' Meeting was awarded full marks of 100 for distinction for the third year in a row (since 2012).
- The Committee set up principles and a timeframe for the proposal of the meeting agenda by minority shareholders, along with the list of candidates up for consideration for the Board of Directors. To promote shareholders' rights and equality, a period of more than three months was allowed (September 16th to December 31st, 2014) prior to the holding of the 2015 Annual General Shareholders' Meeting for agenda and candidate submission.
- The Committee gave its approval to the 2015 operations plan for the Corporate Governance Committee. It also presented its suggestions for improving transparent operations and increasing awareness of the Company's Corporate Governance policies. Approval was given to proceed with the Company's Antitrust Manual, Whistleblower procedures, and Governance & Compliance Guidelines for the Company's subsidiaries and entire organizations, covering both domestic and international entities.

2. Operations in compliance with the policy on good corporate governance were promoted.

- The Committee approved the Company's Corporate Governance plan for 2015 operations, as well as reviewed reports of previous year's operations. Emphasis was placed on communicating and disseminating information related to principles of good corporate governance and business code of conduct. This communication was extended to not only those departments within the Company, but also to all entities the Company invests in. Suggestions were given on how to increase the efficiency of tracking good corporate governance in an effort to continuously raise standards in this regard.
- The Committee gave consideration to the reporting of good corporate governance activities in the Company's 2014 Annual Report, ensuring that reports were done in a full manner, adhering to good corporate governance guidelines both in Thailand and international.
- The Committee approved efforts done to combat corruption and dishonest practices. It conducted its own assessment of these efforts to help support the certification of the Company according to guidelines set forth by the Collective Action Coalition project to combat dishonest practices in the private sector. These efforts were given final approval from the project sub-committee on July 4th, 2014.

- The Committee offered its suggestions and approval to changes of the Company's principles of good corporate governance, in an effort to better align them with the criteria of the IOD. Furthermore, marks from the good corporate governance assessment were recorded, as part of the Company's participation in the ASEAN CG Scorecard.
- The Committee offered its suggestions concerning corporate governance to various groups of the Company's stakeholders.

3. The Committee's performance, assessment and development

- Pre-designated annual meeting plans for the Corporate Governance Committee were issued. This enabled the Committee to acknowledge and deliberate on various matters, including future plans in order to effectively make recommendations to the management.
- Oversaw the organizing of knowledge sharing activities for Directors on topics regarding good corporate governance. New-director orientation was provided under the topic "PTTGC Business Overview & Strategic Direction".
- The Committee prepared a report of all of its 2014 corporate governance activities as performed according to its charter. This report was presented to the Board of Directors for their consideration.

The Company's focus on transparency and fairness in its corporate governance activities has received widespread praise. The Stock Exchange of Thailand recognized the Company's corporate governance as "Excellent" in 2014. The Company also received an award for being "The Best of Asia 2014 : Asia's Most Promising Company on Corporate Governance" from the publication Corporate Governance Asia. Furthermore, the Company was ranked 1st among 11 leading companies in sustainable development in the chemicals sector during 2014 by the Dow Jones Sustainability Indices (DJSI), an indicator of the efficacy of sustainable development of leading companies worldwide.

It is widely accepted that good corporate governance practices are important in supporting the Company's operations. They should be executed efficiently and set up to be sustainable. The Corporate Governance Committee understands well that it must conduct its duties strictly according to policies of good corporate governance and business code of conduct. The Committee shall endeavor to continue to develop our policies of corporate governance so that they may reflect international standards practices. Doing so will help increase the confidence our stakeholders have in our Company and its operations now and into the future.

On behalf of the Corporate Governance Committee,



(Professor Surapon Nitikraipot)

Chairman of the Corporate Governance Committee

REPORT OF THE NOMINATION AND REMUNERATION COMMITTEE

Dear Shareholders,

The meeting of the Board of Directors of PTT Global Chemical Public Company Limited No. 9/2014, held on September 22nd, 2014, appointed the current Nomination and Remuneration Committee is chaired by Mr. Vasin Teeravechyan with Professor Surapon Nitikraipot and Mr. Sarun Rungkasiri serving as Directors, replacing the resigned Directors Air Chief Marshal Somchai Thean-anant and Mr. Areepong Bhoocha-oom.

In 2014, the Nomination and Remuneration Committee held 5 meetings in total, and conducted its efforts in accordance with its mandate as per the Nomination and Remuneration Committee's Charter.

Nominations

- The Committee conducted the nomination of candidates for vacant positions being left by Directors completing their tenures at the 2014 Annual General Shareholders' Meeting (AGM). Minority shareholders were allowed to submit names of candidates for the vacant positions for more than 3 months before the AGM. As of December 31st, 2014, no nominees were submitted within the scheduled period. The Committee therefore considered suitable candidates with the required experience and expertise for the maximum benefit of the Company. The nominations were proposed to the meeting of the Board of Directors for consideration, and further submitted to the 2014 AGM. Such proposal was approved by the shareholders.
- The Committee considered the nomination of appropriate nominees to replace Directors who were vacating ahead of schedule during the year of 2014. This evaluation was forwarded to the Board of Directors for their consideration.
- The Committee considered the nomination of suitable candidates for available positions in Sub-Committees. The scope of this consideration included the nature and desired qualities needed for such positions, as suggested by regulations set forth by the Securities and Exchange Commission, the Stock Exchange of Thailand, the Company's Articles of Association, as well as the Charter of each of the individual Sub-Committee. The Candidates' knowledge, expertise, and applicable experiences were also taken into account. A list of approved nominees was presented to the Board of Directors for their consideration.

Remuneration

- The Committee gave consideration to the remuneration of the Company's Board of Directors as well as the Directors of each of the Sub-Committees for the year 2014. Consideration was also given to bonuses awarded in 2013. The scope of this consideration was inclusive of information provided by the Board of Directors, the current economic status, the Company's performance, as well as market factors determined by similar comparisons among other industry leaders. A summary of this was presented to the Board of Directors for consideration, and further submitted to the 2014 AGM for consideration and approval. Such proposal was approved by the shareholders.
- The Committee determined an appropriate level of remuneration for the Company's new Chief Executive Officer. The level was determined by comparisons with that of leaders in other companies under the PTT Group and in other leading firms. Furthermore, future levels of annual remuneration will be dependent on the adherence to set goals, company performance, and salary growth among industry competition. Remuneration levels will be set that are fair and appropriate. They will be given final consideration and approval by the Board of Directors.

- The Committee reviewed all three types of the annual assessment form in 2014: entire Board assessment, individual self-assessment and cross-assessment. This was conducted by comparing them with the good practice guidelines provided by the Thai Institute of Directors (IOD) and the Stock Exchange of Thailand (SET). Aside from developing the Directors' performance, the assessment results will be taken into consideration for determining the annual remuneration of the Directors in addition to the operating results of the Company.
- The Committee conducted a self-assessment of its activities in 2014. A report of the self-assessment was provided to the Board of Directors, as well as disclosed in the Annual Report.
- The Committee also considered revisions to the Charter of the Nomination and Remuneration Sub-Committee. It was concluded that more than half of the Directors serving on all of the Committee, including the Chairman, must be Independent Directors. This revision was made based on a suggestion from the new good corporate governance guidelines, as well as to meet international standards.

The Nomination and Remuneration Committee is committed to perform its duties in a transparent manner with strict adherence to the principles of good corporate governance. This is to ensure confidence among the shareholders and stakeholders in the Committee's nomination and remuneration processes, leading to the increased stature of the Company in the long term.

On behalf of the Nomination and Remuneration Committee,



(Mr. Vasin Teeravechyan)

Chairman of the Nomination and Remuneration Committee

REPORT OF THE RISK MANAGEMENT COMMITTEE

Dear Shareholders,

The Risk Management Committee (RMC) of PTT Global Chemical Public Company Limited (PTTGC) is composed of four members, including one Independent Director, all of whom has expertise in risk management.

In 2014, the RMC performed its duties and responsibilities as mandated by the Board of Directors. There were regular meetings of the RMC during the year. Important issues discussed during the meetings are summarized below.

1. A review and approval of risk management policy and practices were established. PTTGC was found to practice within the RMC approved risk management framework and guidelines. Risks were identified and analyzed as well as evaluated. An existing control of a particular risk was identified. A mitigation plan was set up when appropriate or required. A monitoring and report were established. All the risk measures aimed to manage the identified risks which could have a negative impact on PTTGC's business performance in 2014, objectives or investment targets. PTTGC's risk management incorporated measures to manage risks to be within PTTGC's acceptable level.
2. Throughout each quarter, the RMC monitored and provided notices and recommendations regarding PTTGC risk management practices and results. It reviewed the identified risks and their assessment; and risk management results in the areas of PTTGC financial performance for the year 2014, corporate objectives, investment objectives, financial management objectives and the objectives of raw material/feedstock and product price volatility management.

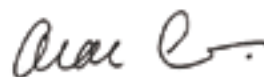
A review was made and recommendations were given in regard to an emerging risk, which, if it were to materialize, could cause a severe loss to PTTGC. PTTGC monitored such risks through the Early Warning System (EWS). These emerging risks are, for instance, drought risk in Map Ta Phut area, political risk in Thailand and risks caused by the oil price decline in the second half of the year. Despite the lack of PTTGC control over such emerging risks, the EWS allowed PTTGC to raise its readiness to lessen the adverse effects from these risks to a certain extent.

3. Prior to the Board of Directors' consideration, the RMC provided a review and approval of the risk management for major investments with high investment cost. As for the information for the RMC consideration, PTTGC identified, analyzed and evaluated relevant investment risks and set up mitigation plans accordingly.
4. The policies, frameworks, and methodologies employed in the risk management, including the Risk Management Committee Charter, were reviewed and revised, if appropriate. Adjustments were made to correspond with different aspects of risks experienced by PTTGC.

5. Performance evaluation of the RMC and of each individual member was carried out. The evaluation results were presented to the Board of Directors for acknowledgement.

Based on the consideration, review and monitoring of the risk management processes discussed above, PTTGC is believed to perform its risk management in a systematic manner with constant follow-up and improvement. Such execution plays an important role in the achievement of corporate objectives and targets which could potentially generate increased value to PTTGC's shareholders as well as other stakeholders in a sustainable fashion.

On behalf of the Risk Management Committee



(Mr. Anon Sirisaengtaksin)

Chairman of the Risk Management Committee





REPORT OF THE AUDIT COMMITTEE

Dear Shareholders:

PTT Global Chemical Public Company Limited's Audit Committee consists of three Independent Directors who are experienced in the fields of management, finance, accounting, economics and law. Mr. Somchai Kuvijitsuwan presides over the Committee as Chairman. The other two Directors are Mr. Amnuay Preemonwong and Ms. Ruenwadee Suwanmongkol. Each of them meets all requirements and criteria set forth by the Stock Exchange of Thailand. During the year 2014, two Directors serving in the Audit Committee stepped down from their posts. They included Ms. Raweporn Kuhirun who stepped down on February 27th, 2014, as well as Police Lieutenant General Prawut Thavornsiri who stepped down on August 30th, 2014.

The Audit Committee performs all duties and responsibilities laid out by PTTGC's Board of Directors and in its Charter, which is consistent with all announcements from the Stock Exchange of Thailand and the Securities and Exchange Commission. In performing their duties, the Audit Committee has emphasized the adherence to principles of Good Corporate Governance and compliance with all related laws, rules and regulations in both domestic and international operations including a review of the Company's internal control and internal audit systems to ensure their efficiency and appropriateness.

In 2014, the Audit Committee held a total of 7 meetings with all members in attendance. Directors acted independently in performing their duties with well cooperations provided by members of management, internal auditors and external auditors. The following is a summary of key activities undertaken by the Audit Committee in 2014:

1. Reviews of Financial Reports. The Audit Committee reviewed PTTGC's quarterly and annual financial statements for the year 2014. The reviews were attended by external auditors as well as related members of management to report audit findings and actions taken by management, and to clarify any questions that arose related to the accuracy, completeness and sufficiency of the information disclosed. External auditors provided observations and reports to the Audit Committee on a quarterly basis. Furthermore, the meeting between the Audit Committee and external auditors without the presence of management was held to make an independent discussion on the preparation process for financial statements and reporting, risk assessment, internal control, internal audit, allegation, fraud and other related issues. The Audit Committee's approval was in line with the opinion of the auditors as stated in the external auditor's report which indicated that any issues discovered had no significant effect on the material misstatement of the financial statements. PTTGC's financial reports present fairly in all material respect in accordance with Thai Financial Reporting Standards.

2. Reviews of Risk Management. The Board of Directors, the Risk Management Committee, and management in general has given precedence to risk management. Internal and external risk factors have been identified and assessed for their impacts and likelihoods, risk mitigation plans were developed, implemented and regularly monitored to ensure those risks were mitigated down to the acceptable level. The Risk Management Committee reported summaries of its activities to the Board of Directors on a regular basis. The above mentioned risk management process could reasonably assure that PTTGC would be able to sufficiently control and mitigate potential risks that may impact the achieving of Company's objectives. Furthermore, the Audit Committee set a policy for the Internal Audit Department to consider various risks to which the Company was exposed and incorporates such a policy into its annual audit planning process.

3. Reviews of Effectiveness of Internal Control System. The Audit Committee reviewed PTTGC's internal control system by reviewing the result of internal control assessment performed by the management. This assessment was conducted per the guidelines set forth by the Securities and Exchange Commission (SEC). Besides, the internal audit report and the progress of management response on audit finding were also considered. From this review, there were no major irregularities discovered and could be concluded that the company has given precedence to internal control, which could be reasonably assured in its adequacy and appropriateness.

4. Oversight of Internal Auditing. A review was performed to ensure the independency of the Company's Internal Audit Department, as well as the effectiveness of its systems. This was conducted by maintaining a direct reporting line from the Internal Audit Department, reviewing the Internal Audit Charter, approving the annual audit plan, performing quarterly tracking of internal audit activities to ensure the effectiveness and consistency with International Standards for the Professional Practice of Internal Auditing, giving recommendations to improve the efficiency of internal auditing and approving Internal audit strategy and action plans which give priority to the development of personnel and tools for Internal Auditing. During assessment of the Internal Audit Department, it was found that International Standards for the Professional Practice of Internal Auditing were complied. Also, expectations of the Audit Committee were met.

Additionally, the Audit Committee provided suggestions for continuously improving on Internal Auditing. Emphasis was placed on adding value to the organization, employing and developing knowledgeable and reputable individuals, communication of Internal audit role, well collaboration with management and ensuring the compliance with rules, regulations and accounting standards.

5. Compliance with Related Laws and Regulations set by Stock Exchange of Thailand and/or other Related Laws. The Audit Committee acknowledges the audit results and audit findings reported by Internal Audit Department which show no instance in which the law was intentionally not complied. Furthermore, The management presented to the Audit Committee the control processes employed by the company to ensure the compliance with laws and regulations related to safety and environment, operating licenses, tax privilege, foreign trade and investment, as well as laws and regulations related to listed companies. The topics of the presentation include organization structures and responsibilities, accessing gathering and preparing law and regulation list and controlling and monitoring the execution. The Audit Committee has provided its suggestions to the management in related areas. These could assure that the company has adequacy and effectiveness of compliance control.

6. Selection and Appointment of the External Auditors in 2015. The Audit Committee is responsible for reviewing, selecting, nominating and proposing the appointment, remuneration and removal of auditors in order to maintain their independency. After giving careful consideration to the work performance of auditors and their teams from KPMG Phoomchai Auditors Ltd. in performing previous year's financial report review, the independency of auditors and their proposed remuneration, the auditors were deemed appropriate and well qualified. The Audit Committee's resolution was submitted to the Board of Directors for their approval in proposing to the shareholders' meeting the appointment of Mr. Vairoj Jindamaneepitak (Auditor #3565), or Mr. Charoen Phosamritlert (Auditor #4068), or Mr. Winij Silamongkol (Auditor #3378), or Mr. Niran Lilamethawat (Auditor #2316) from KPMG Phoomchai Auditors Ltd. to serve as PTTGC's external auditors in 2015.

7. Consideration of Connected Transactions or Other Transactions that may result in Conflicts of Interest. The Audit Committee has reviewed transactions between company and related parties which are disclosed in quarterly and annual financial statements for 2014. This was done to assure the rationalization of the transactions, company benefit and compliance with requirements set by the Stock Exchange of Thailand and the Securities and Exchange Commission. In 2014, there was no connected transaction which required approval from shareholder.

8. Anti-Corruption Program Reviews in Collaboration with Private Sector Collective Action Coalition Against Corruption (CAC). The Audit Committee reviewed the accuracy of self-assessments that were conducted to gauge anti-corruption efforts in PTTGC. The Chairman of the Audit Committee signed off this review on June 17th, 2014. He added that initiatives from CAC were a positive movement, which all parties can agree upon. Affecting anti-corruption efforts in a concrete manner requires the ethical behavior of all those within our organization. As such, PTTGC should implement the policy in good faith and set key indicators to assess the effectiveness of such efforts. These efforts included increasing awareness, communication and training for executives and employees to increase their knowledge, understanding, and awareness of the importance of anti-corruption and anti-graft efforts.

9. Reviews of Audit Committee Charter. It was found that the Charter was in compliance with the various regulations and requirements set by the Stock Exchange of Thailand and the Securities and Exchange Commission, as well as the Audit Committee's handbook.

10. Assessments of Audit Committee Performance. Self assessments were made for the Audit Committee as a whole as well as for each individual in 2014. A report of these assessments was compiled and submitted to the Company's Board of Directors and disclosure in the annual report.

11. Performance Reports of Audit Committee. The Audit Committee provided reports on its operations and activities to the Board of Directors on a regular basis. In 2014, a total of 4 reports were made.

Based on the Audit Committee's duties performed in 2014 as summarized above, the Company is believed to operate with Good Corporate Governance, adequate and appropriate internal controls, effective risk management, and accurate and reliable accounting and financial reporting systems and operate in accordance with related law and regulations.

Additionally, the Audit Committee's performance in 2014 received good collaboration from all parties involved including the Company's Board of Directors, management, auditors, and various departments, and we would like to take this opportunity to thank each and every one concerned for all the support you have so willingly provided.

On Behalf of the Audit Committee



(Mr. Somchai Kuvijitsuwan)

Chairman of the Audit Committee

REPORT OF THE BOARD OF DIRECTORS' ACCOUNTABILITY TO FINANCIAL REPORT

The consolidated financial statements of PTT Global Chemical Public Company Limited and its subsidiaries was prepared in accordance with the Securities Exchange Commission under the Securities and Exchange Act B.E. 2535 and Department of Business Development, issued under the Accounting Act B.E. 2543 Section 11 paragraph 3 in accordance with the Federation of Accounting Professions' Thai Financial Reporting Standards.

The Company's Board of Directors is responsible for financial report of PTT Global Chemical Public Company Limited and its subsidiaries in providing reasonable assurance that the financial standards present fairly financial position, financial performance and cash flows. The accounting data is sufficiently and accurately recorded to preserve the Company's assets and prevent fraud and irregularity. The financial report has been prepared accordingly to appropriate accounting policy and consistency practices, and in accordance with Thai Financial Reporting Standards. Significant information has been sufficiently disclosed in notes to financial statements, where the auditor expressed an opinion on the financial statements of PTT Global Chemical Public Company Limited and its subsidiaries in the auditor's report.



(Mr. Prasert Bunsumpun)
Chairman



(Mr. Supatnanapong Punmeechaow)
President & Chief Executive Officer

INDEPENDENT AUDITOR'S REPORT

To the Shareholders of PTT Global Chemical Public Company Limited

I have audited the accompanying consolidated and separate financial statements of PTT Global Chemical Public Company Limited and its subsidiaries (the "Group"), and of PTT Global Chemical Public Company Limited (the "Company"), respectively, which comprise the consolidated and separate statements of financial position as at 31 December 2014, the consolidated and separate statements of income and comprehensive income, changes in equity and cash flows for the year then ended, and notes, comprising a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Consolidated and Separate Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated and separate financial statements in accordance with Thai Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of consolidated and separate financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

My responsibility is to express an opinion on these consolidated and separate financial statements based on my audit. I conducted my audit in accordance with Thai Standards on Auditing. Those standards require that I comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated and separate financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

Opinion

In my opinion, the consolidated and separate financial statements present fairly, in all material respects, the financial position of the Group and the Company, respectively, as at 31 December 2014 and their financial performance and cash flows for the year then ended in accordance with Thai Financial Reporting Standards.

Emphasis of Matter

Without qualifying my opinion, I draw attention to note 3 to the financial statements which describe the effect of the Company's adoption from 1 January 2014 of certain new accounting policy and note 5 to the financial statements, the finalization of the valuation of net assets of a foreign entity which the Company acquired on 23 December 2013 was completed in the 2nd quarter of 2014. The corresponding figures presented are based on the audited financial statements as at and for the year ended 31 December 2013 after making the adjustments described in notes 3 and 5.



(Vairoj Jindamaneepitak)
Certified Public Accountant
Registration No.3565
KPMG Phoomchai Audit Ltd.
Bangkok
16 February 2015

STATEMENT OF FINANCIAL POSITION

PTT Global Chemical Public Company Limited and its Subsidiaries

		Consolidated financial statements		Separate financial statements	
		31 December		31 December	
Assets	Note	2014	2013 (Restated)	2014	2013 (Restated)
		(in Baht)			
Current assets					
Cash and cash equivalents	8	15,415,568,606	18,582,200,903	10,136,107,441	10,703,289,676
Current investments	14	31,989,689,424	25,801,559,665	31,477,456,000	24,675,521,000
Trade accounts receivable and notes receivable	9	40,749,364,122	58,387,949,936	31,498,489,505	49,711,065,844
Other receivables	10	5,011,070,870	3,391,441,083	4,887,083,025	2,633,140,574
Inventories	11	35,762,023,808	50,239,792,354	25,890,645,365	39,937,558,590
Short-term loans to related parties	7	-	-	737,000,000	842,000,000
Current portion of long-term loans to related parties	7	-	-	2,907,214,080	37,000,000
Receivable from Oil Fuel Fund		356,719,353	811,183,718	356,719,353	811,183,718
Value-added tax receivable		1,034,161,356	1,943,315,306	276,308,487	1,364,182,553
Derivatives		29,576,637	50,976,856	6,792,909	6,042,175
Other current assets		1,173,886,021	1,306,872,744	1,006,704,745	1,030,742,383
Non-current assets held for sale		18,676,357	-	-	-
Total current assets		131,540,736,554	160,515,292,565	109,180,520,910	131,751,726,513
Non-current assets					
Investments in subsidiaries	7,12	-	-	44,938,436,336	42,071,912,790
Investments in jointly-controlled entity	7,12	-	-	210,000,000	210,000,000
Investments in associates	7,13	13,092,806,454	12,548,692,958	9,717,499,660	9,717,499,660
Other long-term investments	14	628,853,412	707,616,819	290,738,392	290,738,392
Long-term loans to related parties	7	-	-	3,093,896,038	4,853,012,537
Long-term loans to other parties		853,664,913	773,175,328	-	-
Property, plant and equipment	15	231,208,942,640	230,933,988,430	177,343,703,270	179,596,460,697
Goodwill	17	10,927,965,088	10,981,702,179	7,009,726,812	7,009,726,812
Land leasehold right	16	962,036,563	1,048,302,498	820,331,212	898,209,202
Intangible assets	18	10,848,187,146	10,437,604,810	6,799,455,212	5,908,268,546
Derivatives		66,609,527	33,526,953	66,609,527	13,050,856
Deferred tax assets	19	697,501,973	698,845,539	-	-
Other non-current assets		3,925,087,541	4,031,567,241	2,632,553,997	2,496,539,579
Total non-current assets		273,211,655,257	272,195,022,755	252,922,950,456	253,065,419,071
Total assets		404,752,391,811	432,710,315,320	362,103,471,366	384,817,145,584

The accompanying notes are an integral part of these financial statements.

STATEMENT OF FINANCIAL POSITION

PTT Global Chemical Public Company Limited and its Subsidiaries

Liabilities and equity	Note	Consolidated financial statements		Separate financial statements	
		31 December		31 December	
		2014	2013 (Restated)	2014	2013 (Restated)
<i>(in Baht)</i>					
Current liabilities					
Bank overdraft and short-term loans					
from financial institutions	20	3,919,501,369	4,598,869,012	-	-
Trade accounts payable	7,21	22,935,614,952	45,654,942,312	18,611,011,870	39,635,191,981
Other payables	7,22	8,952,727,211	8,219,243,556	5,621,009,526	5,007,294,848
Payables to contractors	7	2,450,812,289	3,125,859,492	2,243,113,902	2,950,373,658
Short-term loans from related parties	7,20	-	-	2,014,622,829	1,237,545,524
Current portion of long-term loans					
from financial institutions	20	7,965,038,303	4,757,633,027	6,047,285,394	3,168,819,861
Current portion of long-term loans					
from other parties	20	692,128,077	16,870,258	-	-
Current portion of debentures	20	14,430,805,807	15,064,682,465	14,430,805,807	15,064,682,465
Income tax payable		72,766,082	1,282,210,879	-	1,201,628,777
Derivatives		307,167,644	208,445,704	270,856,777	122,079,742
Short-term provision		9,608,916	118,025,794	9,608,916	118,025,794
Other current liabilities		59,946,749	175,471,474	-	48,469,591
Total current liabilities		61,796,117,399	83,222,253,973	49,248,315,021	68,554,112,241
Non-current liabilities					
Long-term loans from financial institutions	20	41,001,332,744	40,740,927,062	29,792,128,232	32,183,186,439
Long-term loans from other parties	20	1,544,457,472	2,165,632,086	-	-
Debentures	20	48,695,858,380	52,878,120,050	48,695,858,380	52,878,120,050
Deferred tax liabilities	19	3,894,625,913	4,216,410,660	2,708,961,941	2,941,838,307
Employee benefit obligations	23	3,997,191,202	3,267,899,913	1,817,878,472	1,353,469,815
Derivatives		117,731,965	129,574,958	117,731,965	129,574,958
Long-term provisions	6	752,716,512	-	-	-
Other non-current liabilities		1,076,346,972	731,688,528	260,273,868	190,958,872
Total non-current liabilities		101,080,261,160	104,130,253,257	83,392,832,858	89,677,148,441
Total liabilities		162,876,378,559	187,352,507,230	132,641,147,879	158,231,260,682

The accompanying notes are an integral part of these financial statements.

STATEMENT OF FINANCIAL POSITION

PTT Global Chemical Public Company Limited and its Subsidiaries

		Consolidated financial statements		Separate financial statements	
		31 December		31 December	
Liabilities and equity	Note	2014	2013 (Restated)	2014	2013 (Restated)
<i>(in Baht)</i>					
Equity					
Share capital	24				
Authorised share capital		45,088,491,170	45,088,491,170	45,088,491,170	45,088,491,170
Issued and paid-up share capital		45,088,491,170	45,088,491,170	45,088,491,170	45,088,491,170
Share premium	25	36,978,396,897	36,978,396,897	36,978,396,897	36,978,396,897
Surplus on business combination		11,745,983,030	11,745,983,030	13,121,061,611	13,121,061,611
Retained earnings					
Appropriated					
Legal reserve	25	4,512,930,269	4,512,930,269	4,512,930,269	4,512,930,269
Loan repayment reserve		807,802,564	807,802,564	807,802,564	807,802,564
Projects expansion reserve		12,446,994,126	12,446,994,126	12,446,994,126	12,446,994,126
Unappropriated		127,268,607,306	125,510,274,149	116,506,646,850	113,630,208,265
Other components of equity		577,058,369	1,411,870,394	-	-
Equity attributable to owners of the Company		239,426,263,731	238,502,742,599	229,462,323,487	226,585,884,902
Non-controlling interests		2,449,749,521	6,855,065,491	-	-
Total equity		241,876,013,252	245,357,808,090	229,462,323,487	226,585,884,902
Total liabilities and equity		404,752,391,811	432,710,315,320	362,103,471,366	384,817,145,584

The accompanying notes are an integral part of these financial statements.

STATEMENT OF INCOME

PTT Global Chemical Public Company Limited and its Subsidiaries

		Consolidated financial statements		Separate financial statements	
		For the year ended 31 December		For the year ended 31 December	
	Note	2014	2013	2014	2013
			(Restated)		(Restated)
(in Baht)					
Revenue from sale of goods and rendering of services	7	574,010,433,007	552,880,979,159	503,505,213,298	471,996,242,254
Cost of sale of goods and rendering of services	7	(543,647,288,865)	(500,672,951,917)	(483,396,502,521)	(438,162,091,334)
Gross profit		30,363,144,142	52,208,027,242	20,108,710,777	33,834,150,920
Investment income	7	1,012,437,432	1,559,396,459	5,837,038,973	25,429,074,416
Other income	7	1,608,999,395	1,522,145,991	1,753,623,214	1,239,905,516
Gain from disposal of investment in subsidiary		-	29,373,661	-	1,546,666,360
Gain from step acquisition		-	196,869,478	-	-
Selling expenses	7,27	(2,642,819,327)	(2,844,219,312)	(575,510,729)	(561,761,877)
Administrative expenses	7,28	(11,922,303,743)	(11,181,179,080)	(7,492,159,422)	(7,613,695,496)
Loss from impairment of investment		-	-	-	(1,040,697,483)
Provisions for business restructuring	6	(2,239,153,040)	-	-	-
Net derivative gain		2,739,027,203	675,830,022	2,665,629,289	813,477,239
Net foreign exchange gain (loss)		125,241,239	(1,322,051,191)	5,000,449	(1,443,275,248)
Finance costs	7,31	(5,487,228,724)	(6,084,079,971)	(4,806,062,185)	(5,574,333,251)
Share of profit (loss) of associates	13	534,400,332	(77,077,458)	-	-
Profit before income tax expense		14,091,744,909	34,683,035,841	17,496,270,366	46,629,511,096
Income tax expense	32	(559,364,768)	(1,975,911,538)	(131,225,835)	(1,991,878,338)
Profit for the year		13,532,380,141	32,707,124,303	17,365,044,531	44,637,632,758
Profit (loss) attributable to:					
Owners of the Company		15,036,028,869	33,139,703,569	17,365,044,531	44,637,632,758
Non-controlling interests	5	(1,503,648,728)	(432,579,266)	-	-
Profit for the year		13,532,380,141	32,707,124,303	17,365,044,531	44,637,632,758
Basic earnings per share					
	34	3.33	7.35	3.85	9.90

The accompanying notes are an integral part of these financial statements.

STATEMENT OF COMPREHENSIVE INCOME

PTT Global Chemical Public Company Limited and its Subsidiaries

	Consolidated financial statements		Separate financial statements	
	For the year ended 31 December		For the year ended 31 December	
	2014	2013	2014	2013
		(Restated)		(Restated)
	<i>(in Baht)</i>			
Profit for the year	13,532,380,141	32,707,124,303	17,365,044,531	44,637,632,758
Other comprehensive income (loss)				
Foreign currency translation differences for foreign operations	(990,489,527)	1,452,473,226	-	-
Effective portion of changes in fair value of cash flow hedges	(39,338,764)	47,794,681	-	-
Defined benefit plan actuarial gains (losses)	(602,562,371)	134,793,860	(290,740,658)	-
Share of other comprehensive income (loss) of associates	1,355,211	(553,639)	-	-
Other comprehensive income (loss) for the year, net of income tax	(1,631,035,451)	1,634,508,128	(290,740,658)	-
Total comprehensive income for the year	11,901,344,690	34,341,632,431	17,074,303,873	44,637,632,758
Total comprehensive income (loss) attributable to:				
Owners of the Company	13,618,223,547	34,347,466,714	17,074,303,873	44,637,632,758
Non-controlling interests	(1,716,878,857)	(5,834,283)	-	-
Total comprehensive income for the year	11,901,344,690	34,341,632,431	17,074,303,873	44,637,632,758

The accompanying notes are an integral part of these financial statements.

STATEMENT OF CHANGES IN EQUITY

PTT Global Chemical Public Company Limited and its Subsidiaries

Year ended 31 December 2013																
Balance at 1 January 2013																
	45,088,491,170	36,978,396,897	12,086,007,975	4,512,930,269	807,802,564	12,446,994,126	110,159,175,802	341,818,224	-	10,998,638	352,816,862	222,432,615,365	15,611,979,173	238,044,594,538		
35	-	-	-	-	-	-	(18,346,799,720)	-	-	-	-	(18,346,799,720)	(799,273,720)	(19,146,073,440)		
	-	-	-	-	-	-	(18,346,799,720)	-	-	-	-	(18,346,799,720)	(799,273,720)	(19,146,073,440)		
Changes in ownership interests in subsidiaries																
Recognition of non-controlling interests through business acquisition																
5	-	-	-	-	-	-	-	-	-	-	-	-	-	127,593,929	127,593,929	
	-	-	-	-	-	-	-	-	-	-	-	-	-	11,503,800	11,503,800	
12	-	-	-	-	-	-	80,458,878	-	-	(10,998,638)	(10,998,638)	69,460,240	(4,788,493,039)	(4,719,032,799)		
	-	-	(340,024,945)	-	-	-	340,024,945	-	-	-	-	-	(3,302,410,369)	(3,302,410,369)		
	-	-	(340,024,945)	-	-	-	420,483,823	-	-	(10,998,638)	(10,998,638)	69,460,240	(7,951,805,679)	(7,882,345,439)		
	-	-	(340,024,945)	-	-	-	(17,926,315,897)	-	-	(10,998,638)	(10,998,638)	(18,277,339,480)	(8,751,079,399)	(27,028,418,879)		
Comprehensive income (loss) for the year (Restated)																
	-	-	-	-	-	-	33,139,703,569	-	-	-	-	33,139,703,569	(432,579,266)	32,707,124,303		
	-	-	-	-	-	-	137,710,975	1,022,257,489	47,794,681	-	1,070,052,170	1,207,763,145	426,744,983	1,634,508,128		
	-	-	-	-	-	-	33,277,414,544	1,022,257,489	47,794,681	-	1,070,052,170	34,347,466,714	(5,834,283)	34,341,632,431		
	45,088,491,170	36,978,396,897	11,745,983,030	4,512,930,269	807,802,564	12,446,994,126	125,510,274,149	1,364,075,713	47,794,681	-	1,411,870,394	238,502,742,899	6,855,065,491	245,357,808,090		

The accompanying notes are an integral part of these financial statements.

STATEMENT OF CHANGES IN EQUITY

PTT Global Chemical Public Company Limited and its Subsidiaries

Year ended 31 December 2014

Balance at 1 January 2014

Effect from fair value recognition through business acquisition

Balance at 1 January 2014 (Restated)

Note	Issued and paid-up share capital	Share premium	Surplus on business combination	Legal reserve	Loans repayment reserve	Projects expansion reserve	Unappropriated	Currency transition changes	Change in fair value of cash flow hedge	Share of other comprehensive income of associates	Total other components of equity	Equity attributable to owners of the Company	Non-controlling interests	Total equity
5	45,088,491,170	36,978,396,897	11,745,983,030	4,512,930,269	807,802,564	12,446,994,126	125,510,274,149	1,364,075,713	47,794,681	-	1,411,870,394	238,802,742,599	6,730,825,176	245,233,267,775
	-	-	-	-	-	-	-	-	-	-	-	-	124,540,315	124,540,315
	45,088,491,170	36,978,396,897	11,745,983,030	4,512,930,269	807,802,564	12,446,994,126	125,510,274,149	1,364,075,713	47,794,681	-	1,411,870,394	238,802,742,599	6,855,065,491	245,357,808,090

Transactions with owners, recorded directly in equity

Contributions by and distributions to owners of the Company

Dividends to owners of the Company

Total contributions by and distributions to owners of the Company

35	-	-	-	-	-	-	(14,197,865,288)	-	-	-	-	(14,197,865,288)	(556,076,408)	(14,753,941,696)
	-	-	-	-	-	-	(14,197,865,288)	-	-	-	-	(14,197,865,288)	(556,076,408)	(14,753,941,696)

Changes in ownership interests in subsidiaries

Recognition of non-controlling interests in investment in subsidiary

Increase in investment holding in subsidiary

Total changes in ownership interests in subsidiaries

Total transactions with owners, recorded directly in equity

12	-	-	-	-	-	-	1,503,162,873	-	-	-	-	1,503,162,873	(2,127,407,645)	(4,953,060)
	-	-	-	-	-	-	1,503,162,873	-	-	-	-	1,503,162,873	(2,132,360,705)	(629,197,832)
	-	-	-	-	-	-	(12,694,702,415)	-	-	-	-	(12,694,702,415)	(2,688,437,113)	(15,383,139,528)

Comprehensive income (loss) for the year

Profit (loss)

Other comprehensive income (loss)

Total comprehensive income (loss) for the year

	-	-	-	-	-	-	15,036,028,869	-	-	-	-	15,036,028,869	(1,503,648,728)	13,532,380,141
	-	-	-	-	-	-	(582,993,297)	(796,828,472)	(39,338,764)	1,355,211	(834,812,025)	(1,417,805,322)	(213,230,129)	(1,631,035,451)
	-	-	-	-	-	-	14,453,035,572	(796,828,472)	(39,338,764)	1,355,211	(834,812,025)	13,618,223,547	(1,716,878,857)	11,901,344,690

Balance at 31 December 2014

	45,088,491,170	36,978,396,897	11,745,983,030	4,512,930,269	807,802,564	12,446,994,126	127,268,607,306	567,247,241	8,455,917	1,355,211	577,058,269	239,426,263,731	2,449,749,521	241,876,013,252
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The accompanying notes are an integral part of these financial statements.

PTT Global Chemical Public Company Limited and its Subsidiaries

		Separate financial statements						
		Retained earnings						
		Issued and paid-up share capital	Share premium	Surplus on business combination	Legal reserve	Loans repayment reserve	Projects expansion reserve	Total equity
Note								
	Year ended 31 December 2013							
	Balance at 1 January 2013	45,088,491,170	36,978,396,897	13,505,861,611	4,512,930,269	807,802,564	12,446,994,126	200,295,051,864
	Transactions with owners, recorded directly in equity							
	Contributions by and distributions to owners of the Company	-	-	-	-	-	-	(18,346,799,720)
	Dividends to owners of the Company	-	-	-	-	-	-	(18,346,799,720)
	Total contributions by and distributions to owners of the Company	-	-	-	-	-	-	(18,346,799,720)
	Change in ownership interests in subsidiary							
	Disposal of investment in subsidiary	-	-	(384,800,000)	-	-	-	384,800,000
	Total change in ownership interests in subsidiary	-	-	(384,800,000)	-	-	-	-
	Total transactions with owners, recorded directly in equity	-	-	(384,800,000)	-	-	-	(18,346,799,720)
	Comprehensive income for the year							
	Profit	-	-	-	-	-	-	44,637,632,758
	Other comprehensive income	-	-	-	-	-	-	-
	Total comprehensive income for the year	-	-	-	-	-	-	44,637,632,758
	Balance at 31 December 2013	45,088,491,170	36,978,396,897	13,121,061,611	4,512,930,269	807,802,564	12,446,994,126	226,585,884,902

STATEMENT OF CHANGES IN EQUITY

PTT Global Chemical Public Company Limited and its Subsidiaries

	Separate financial statements						
	Note	Issued and paid-up share capital	Share premium	Surplus on business combination	Retained earnings		
					Legal reserve	Loans repayment reserve	Projects expansion reserve
					(in Baht)		
Year ended 31 December 2014							
Balance at 1 January 2014		45,088,491,170	36,978,396,897	13,121,061,611	4,512,930,269	807,802,564	12,446,994,126
							226,585,884,902
Transactions with owners, recorded directly in equity							
Contributions by and distributions to owners of the Company							
Dividends to owners of the Company	35	-	-	-	-	-	(14,197,865,288)
Total contributions by and distributions to owners of the Company		-	-	-	-	-	(14,197,865,288)
Comprehensive income for the year							
Profit		-	-	-	-	-	17,365,044,531
Other comprehensive income (loss)		-	-	-	-	-	(290,740,658)
Total comprehensive income for the year		-	-	-	-	-	17,074,303,873
Balance at 31 December 2014		45,088,491,170	36,978,396,897	13,121,061,611	4,512,930,269	807,802,564	12,446,994,126
							116,506,646,850
							229,462,323,487

The accompanying notes are an integral part of these financial statements.

STATEMENT OF CASH FLOWS

PTT Global Chemical Public Company Limited and its Subsidiaries

	Consolidated financial statements		Separate financial statements	
	For the year ended 31 December		For the year ended 31 December	
	2014	2013 (Restated)	2014	2013 (Restated)
	(in Baht)			
Cash flows from operating activities				
Profit for the year	13,532,380,141	32,707,124,303	17,365,044,531	44,637,632,758
Adjustments for				
Depreciation and amortisation	17,370,726,358	16,737,141,729	12,298,566,202	10,818,542,692
Investment income	(1,012,437,432)	(1,559,396,459)	(5,837,038,973)	(25,429,074,416)
Finance costs	5,487,228,724	6,084,079,971	4,806,062,185	5,574,333,251
Gain from step acquisition	-	(196,869,478)	-	-
Unrealised loss on derivative	162,080,832	293,386,409	198,662,204	218,131,583
Unrealised loss on exchange rate	273,694,074	2,518,495,476	313,054,787	2,567,779,982
Allowance for doubtful accounts	7,221,557	28,942,734	-	303,239
Loss from written-off of assets	86,811,486	101,608,288	36,309,906	51,179,663
Allowance for loss on decline in value of inventories	3,092,882,471	109,869,448	2,955,139,936	57,443,897
Gain from disposal of investment in subsidiary	-	(29,373,661)	-	(1,546,666,360)
Loss from capital reduction in subsidiary	-	-	-	262,802,983
Loss from impairment of investments	-	-	-	1,040,697,483
Provisions for business restructuring	2,239,153,040	-	-	-
(Reversal) allowance for impairment of assets	4,407,915	82,780,507	-	(46,939,271)
Actuarial (gains) losses	26,689,237	(7,790,446)	14,153,020	-
Loss on disposal of property, plant and equipment	72,747,812	123,210,892	26,596,099	25,440,621
Short-term provision	9,608,916	118,025,794	9,608,916	118,025,794
Provision for employee benefit	316,175,730	332,361,506	158,892,206	144,250,216
Realised deferred pipeline income and equipment and other income	(17,122,947)	(12,060,648)	(18,751,417)	(13,706,956)
Share of (profit) loss of associates, net of income tax expense	(534,400,332)	77,077,458	-	-
Change in investment holding in subsidiary	(18,603,561)	-	-	-
Gain from change in investment holding in associate	-	(39,184,838)	-	-
Income tax expense	559,364,768	1,975,911,538	131,225,835	1,991,878,338
	41,658,608,789	59,445,340,523	32,457,525,437	40,472,055,497

The accompanying notes are an integral part of these financial statements.

STATEMENT OF CASH FLOWS

PTT Global Chemical Public Company Limited and its Subsidiaries

	Consolidated financial statements		Separate financial statements	
	For the year ended 31 December		For the year ended 31 December	
	2014	2013	2014	2013
		(Restated)		(Restated)
	(in Baht)			
<i>Changes in operating assets and liabilities</i>				
Trade accounts receivable and notes receivable	17,352,502,085	(5,953,524,998)	18,076,313,913	(2,977,991,993)
Other receivables	(1,078,655,282)	(518,106,579)	(1,903,727,536)	(290,821,951)
Inventories	11,004,950,786	(9,367,784,248)	11,055,463,383	(8,496,027,677)
Value-added tax receivable	904,286,863	123,997,692	1,087,874,067	398,695,290
Other current assets	511,120,014	(10,325,437)	448,974,837	(145,243,203)
Other non-current assets	(1,047,690,585)	(1,492,797,601)	(793,252,409)	(874,699,029)
Trade accounts payable	(22,238,288,433)	7,981,458,455	(20,682,407,795)	2,654,506,966
Other payables	792,908,017	(1,437,700,347)	502,147,187	(1,278,747,629)
Other current liabilities	(71,017,395)	(182,441,097)	(5,712,048)	(261,930,020)
Employee benefit obligations	(171,474,325)	(140,220,137)	(52,382,913)	(39,916,067)
Other non-current liabilities	641,803,086	297,941,238	81,331,462	176,203,113
Cash generated from operating activities	48,259,053,620	48,745,837,464	40,272,147,585	29,336,083,297
Income tax paid	(2,618,319,444)	(2,540,357,288)	(2,133,197,409)	(2,121,149,597)
Net cash from operating activities	45,640,734,176	46,205,480,176	38,138,950,176	27,214,933,700
<i>Cash flows from investing activities</i>				
Interest received	867,893,810	1,530,131,454	1,138,413,334	1,928,071,501
Dividends received	114,363,798	288,821,617	4,645,243,798	7,659,166,618
Purchase of property, plant and equipment	(19,113,888,626)	(17,172,950,143)	(9,776,371,771)	(10,520,877,261)
Sale of property, plant and equipment	26,919,785	90,511,797	13,162,484	35,819,631
(Increase) decrease in current investments	(6,100,251,454)	1,848,991,559	(6,733,421,687)	2,422,028,500
Increase in other long-term investments	-	(72,562,832)	-	-
Proceeds from short-term loans to related parties	-	-	621,167,213	1,013,000,000
Proceeds from long-term loans to related parties	-	-	431,000,000	4,186,000,000
Increase in short-term loans to related parties	-	-	(516,167,213)	(445,000,000)
Increase in long-term loans to related parties	-	(1,290,695,600)	(1,570,728,487)	(1,948,589,041)
Increase in long-term loans to other parties	(90,814,183)	(18,485,768)	-	-
Purchase of intangible assets	(1,107,975,133)	(871,952,310)	(963,653,251)	(226,544,848)
Proceeds from capital distribution in subsidiaries	-	-	-	26,001,305,293
Net cash inflow from business acquisition	-	1,684,089	-	-
Cash outflow for investment in subsidiary, associate and jointly-controlled entity	(122,947,181)	(6,605,381,810)	(2,866,523,545)	(7,627,681,797)
Net cash outflow from transfers of businesses	-	-	-	(25,965,821,570)
Net cash used in investing activities	(25,526,699,184)	(22,271,887,947)	(15,577,879,125)	(3,489,122,974)

The accompanying notes are an integral part of these financial statements.

STATEMENT OF CASH FLOWS

PTT Global Chemical Public Company Limited and its Subsidiaries

	Consolidated financial statements		Separate financial statements	
	For the year ended 31 December		For the year ended 31 December	
Note	2014	2013	2014	2013
		(Restated)		(Restated)
	(in Baht)			
Cash flows from financing activities				
Finance costs paid	(5,328,293,797)	(6,337,757,455)	(4,893,312,161)	(5,797,265,036)
Dividend paid	(15,096,941,696)	(19,104,423,304)	(14,197,865,288)	(18,346,799,720)
Finance lease payments	(251,232,706)	(252,122,744)	(174,663,612)	(142,922,510)
Proceeds from bank overdraft and short-term loans				
from financial institutions	3,448,269,735	7,126,276,154	-	4,300,000,000
Proceeds from short-term loans from related parties	-	-	931,384,038	2,085,643,719
Proceeds from short-term loans from other parties	48,250,315	-	-	-
Proceeds from long-term loans from financial institutions	22,204,937,701	15,737,635,318	16,387,500,000	14,000,000,000
Proceeds from long-term loans from other parties	97,701,875	71,681,389	-	-
Repayment of bank overdraft and short-term loans				
from financial institutions	(3,845,236,749)	(5,697,425,697)	-	(4,300,000,000)
Repayment of short-term loans from other parties	(66,848,657)	-	-	-
Repayment of short-term loans from related party	-	-	(154,306,733)	-
Repayment of long-term loans from financial institutions	(18,577,142,898)	(17,065,579,719)	(16,009,483,334)	(15,861,618,834)
Repayment of long-term loans from other parties	(14,925,061)	(12,282,114)	-	-
Proceeds from issue of debentures	10,000,000,000	-	10,000,000,000	-
Repayment of debentures	(15,000,000,000)	(8,000,000,000)	(15,000,000,000)	(8,000,000,000)
Purchase of treasury shares in subsidiary	(358,161,332)	-	-	-
Net cash used in financing activities	(22,739,623,270)	(33,533,998,172)	(23,110,747,090)	(32,062,962,381)
Net decrease in cash and cash equivalents	(2,625,588,278)	(9,600,405,943)	(549,676,039)	(8,337,151,655)
Cash and cash equivalents at beginning of year	18,582,200,903	31,269,311,119	10,703,289,676	19,002,725,615
Effect of exchange rate changes on balances held in				
foreign currencies at end of year	(541,044,019)	52,461,826	(17,506,196)	37,715,716
Decrease in cash and cash equivalents from disposal				
of investment in subsidiary	-	(3,139,166,099)	-	-
Cash and cash equivalents at end of year	8 15,415,568,606	18,582,200,903	10,136,107,441	10,703,289,676

The accompanying notes are an integral part of these financial statements.

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

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PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

These notes form an integral part of the financial statements.

The financial statements issued for Thai statutory and regulatory reporting purposes are prepared in the Thai language. These English language financial statements have been prepared from the Thai language statutory financial statements and, were approved and authorized for issue by the Board of Directors on 16 February 2015.

1 General information

PTT Global Chemical Public Company Limited, “PTTGC”, arose from the amalgamation between PTT Chemical Public Company Limited, “PTTCH”, and PTT Aromatics and Refining Public Company Limited, “PTTAR”, which was registered on 19 October 2011 in accordance with the Public Company Limited Act, B.E. 2535 (1992).

The Board of Governors of the SET approved the listing of the Company on the day that the Registrar accepted the registration of the amalgamation on 19 October 2011.

The Company is a company in the PTT Public Company Limited (“PTT”) group of companies. PTT is incorporated in Thailand and is the major shareholder of the Company, holding 48.89% of the Company’s issued and paid-up share capital.

PTT Global Chemical Public Company Limited, the “Company”, is incorporated in Thailand and has its registered offices as follows:

Head Office	: 555/1, Energy Complex, Building A, 14th - 18th Floor, Vibhavadi-Rangsit Road, Chatuchak, Bangkok, Thailand
Branch 1 (Rayong office Branch)	: 59, Radniyom Road, Tambon Noenphra, Amphoe Mueang Rayong, Rayong, Thailand
Branch 2 (Olefin 1 Branch)	: 14, I-1 Road, Tambon Map Ta Phut, Amphoe Mueang Rayong, Rayong, Thailand
Branch 3 (Olefin 2 Branch)	: 9, I-4 Road, Tambon Map Ta Phut, Amphoe Mueang Rayong, Rayong, Thailand
Branch 4 (Aromatics 1 Branch)	: 4, I-2 Road, Tambon Map Ta Phut, Amphoe Mueang Rayong, Rayong, Thailand
Branch 5 (Aromatics 2 Branch)	: 98/9, Rayong 3191 Road, Tambon Map Ta Phut, Amphoe Mueang Rayong, Rayong, Thailand
Branch 6 (Refining Branch)	: 8, I-8 Road, Tambon Map Ta Phut, Amphoe Mueang Rayong, Rayong, Thailand
Branch 7 (Jetty and Buffer Tank Farm Branch)	: 19, Rong Pui Road, Tambon Map Ta Phut, Amphoe Mueang Rayong, Rayong, Thailand

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Branch 8 (Aromatics reserve Branch)	: 11, I-4 Road, Tambon Map Ta Phut, Amphoe Mueang Rayong, Rayong, Thailand
Branch 9 (Lab Service Center Branch)	: 24/9, Pakorn Songkro-Rat Road, Tambon Map Ta Phut, Amphoe Mueang Rayong, Rayong, Thailand
Branch 10 (Applications & Quality Assurance Center Branch)	: 123, Suntowers Building B, 40th Floor, Soi Chaoey Phuang, Vibhavadi-Rangsit Road, Chomphon, Chatuchak, Bangkok, Thailand
Branch 11 (Olefin 3 Branch)	: 8, Phadang Road, Tambon Map Ta Phut, Amphoe Mueang Rayong, Rayong, Thailand
Branch 12 (Polyethylene Branch)	: 8, Mab Ta Phut Industrial Estate, I-10 Road, Tambon Map Ta Phut, Amphoe Mueang Rayong, Rayong, Thailand

The principal businesses of the Company are production and distribution of ethylene, propylene polyethylene and biochemical products. By-products are mixed C4, pyrolysis gasoline, cracker bottom and tail gas and refining and provision of integrated petroleum products and production and distribution of aromatics products with plans to proceed with the production of aromatic products. Minor activities are production and distribution of electricity, water, steam and other utilities. In addition, the Company also operates production support facilities such as jetty and buffer tank farm services for liquid chemical, oil and gas. Details of the Company's subsidiaries and jointly - controlled entities as at 31 December 2014 and 2013 were as follows:

Name of the entity	Type of business	Country of incorporation	Ownership interest (%)	
			2014	2013
Direct subsidiaries				
TOC Glycol Co., Ltd.	Manufacturing and distributing petrochemical products	Thailand	100	100
Thai Tank Terminal Limited	Service for the storage and handling of liquid chemicals, oil and gas	Thailand	51	51
Thai Styrenics Co., Ltd.	Manufacturing and distributing petrochemical products	Thailand	100	100
Thai Oleochemicals Co., Ltd.	Manufacturing and distributing biochemical products	Thailand	100	100
Bangkok Polyethylene Plc. (in process of liquidation)	Manufacturing and distributing petrochemical products	Thailand	100	100
Bio Creation Co., Ltd.	Manufacturing and distributing health and nutrition products	Thailand	100	100

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Name of the entity	Type of business	Country of incorporation	Ownership interest (%)	
			2014	2013
Direct subsidiaries (Continue)				
Bio Spectrum Co., Ltd.	Manufacturing and distributing biochemical products	Thailand	100	100
PTT Polyethylene Co., Ltd. (in process of liquidation)	Manufacturing and distributing petrochemical products	Thailand	100	100
PTT Phenol Co., Ltd.	Manufacturing and distributing petrochemical products	Thailand	100	100
PTT Maintenance and Engineering Co., Ltd.	Factory maintenance and engineering services	Thailand	60	60
Auria BioChemicals Co., Ltd. (54% Direct interest and 39% Indirect interest)	Research and development of bio-based chemicals	Thailand	93	87
NPC Safety and Environmental Service Co., Ltd.	Safety and environmental services	Thailand	100	100
PTT Chemical International Pte. Ltd.	Holding and operating international business	Singapore	100	100
Indirect subsidiaries				
Thai Fatty Alcohols Co., Ltd.	Manufacturing and distributing biochemical products	Thailand	100	100
PTT Chemical International (Asia Pacific ROH) Ltd.	Services rendering to the Group	Thailand	100	100
Myriant Corporation	Research and development of bio-based chemicals	United States of America	84	72
PTTGC International (USA) Inc.	Holding and operating international business	United States of America	100	100
PTTGC International (Netherlands) B.V.	Holding and operating international business	Netherlands	100	100
Vencorex Holding	Manufacturing and distributing chemical specialties	France	85	51
Jointly-controlled entity				
Thai Ethoxylate Co., Ltd.	Manufacturing and distributing petrochemical products	Thailand	50	50
Indirect jointly-controlled entities				
Emery Oleochemical (M) Sdn. Bhd.	Manufacturing and distributing biochemical products	Malaysia	50	50

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

Name of the entity	Type of business	Country of incorporation	Ownership interest (%)	
			2014	2013
<i>Indirect jointly-controlled entities (continue)</i>				
Emery Specialty Chemicals Sdn. Bhd.	Manufacturing and distributing chemical specialties	Malaysia	50	50
NatureWorks LLC	Manufacturing and distributing bioplastic products	United States of America	50	50

2 Basis of preparation of the financial statements

(a) Statement of compliance

The financial statements are prepared in accordance with Thai Financial Reporting Standards (TFRS); guidelines promulgated by the Federation of Accounting Professions (“FAP”); and applicable rules and regulations of the Thai Securities and Exchange Commission.

The FAP has issued the following new and revised TFRS relevant to the Group’s/Company’s operations and effective for accounting periods beginning on or after 1 January 2014:

TFRS	Topic
TAS 1 (revised 2012)	Presentation of financial statements
TAS 7 (revised 2012)	Statement of Cash Flows
TAS 12 (revised 2012)	Income Taxes
TAS 17 (revised 2012)	Leases
TAS 18 (revised 2012)	Revenue
TAS 19 (revised 2012)	Employee Benefits
TAS 21 (revised 2012)	The Effects of Changes in Foreign Exchange Rates
TAS 24 (revised 2012)	Related Party Disclosures
TAS 28 (revised 2012)	Investments in Associates
TAS 31 (revised 2012)	Interests in Joint Ventures
TAS 34 (revised 2012)	Interim Financial Reporting
TAS 36 (revised 2012)	Impairment of Assets
TAS 38 (revised 2012)	Intangible Assets
TFRS 2 (revised 2012)	Share-based Payment
TFRS 3 (revised 2012)	Business Combinations
TFRS 5 (revised 2012)	Non-current Assets held for Sale and Discontinued Operations
TFRS 8 (revised 2012)	Operating Segments
TFRIC 1	Changes in Existing Decommissioning, Restoration and Similar Liabilities
TFRIC 4	Determining whether an Arrangement contains a Lease
TFRIC 10	Interim Financial Reporting and Impairment
TIC 27	Evaluating the Substance of Transactions Involving the Legal Form of a Lease

The application of these new and revised TFRS have no material effect on the financial statements.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

In addition to the above new and revised TFRS, the FAP has issued a number of other new and revised TFRS which are effective for annual financial periods beginning on or after 1 January 2015 and have not been adopted in the preparation of these interim financial statements. Those new and revised TFRS that are relevant to the Group's/Company's operations are disclosed in note 41.

(b) Basis of measurement

The financial statements have been prepared on the historical cost basis except as otherwise stated in the accounting policies.

(c) Functional and presentation currency

The financial statements are presented in Thai Baht, which is the Company's functional currency. All financial information presented in Thai Baht has been rounded to the nearest million in notes to the financial statements unless otherwise stated.

(d) Use of estimates and judgements

The preparation of financial statements in conformity with TFRS requires management to make judgements, estimates and assumptions that affect the application of accounting policies and reported amounts of assets, liabilities, income and expenses. Actual results may differ from estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which estimates are revised and in any future periods affected.

Information about significant areas of estimation uncertainty and critical judgements in applying accounting policies that have the most significant effect on the amount recognised in the financial statements is included in the following notes:

Note 5	Acquisition of business
Note 17	Goodwill
Note 19	Deferred tax
Note 23	Measurement of defined benefit obligations
Note 36	Valuation of financial instruments
Note 38	Contingent liabilities and assets

3 Change in accounting policy and presentation of financial statements

(a) Change in accounting policy

From 1 January 2014, the Company has changed the accounting policy for employee benefits to align with the major shareholder's accounting policy and support TFRS which will be effective in 2015 by recognises all actuarial gains and losses of defined benefit plans in other comprehensive income instead of previously recognised in profit or loss.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

The effects of the change are recognised retrospectively in the financial statements. The impact on the financial statements is as follows:

	Consolidated financial statements	Separate financial statements
	<i>(in million Baht)</i>	
<i>Statement of income</i>		
<i>for the year ended 31 December 2013</i>		
Decrease in profit for the year	<u>(134)</u>	<u>-</u>
<i>Statement of comprehensive income</i>		
<i>for the year ended 31 December 2013</i>		
Increase in other comprehensive income	<u>134</u>	<u>-</u>
Decrease in basic earnings per share (<i>Baht</i>)	<u>(0.03)</u>	<u>-</u>

(b) ***Presentation of financial statements***

From 1 January 2014, the Group has started to present all items of recognised income and expense in the statement of income from single-step to multiple-step in order to clearly present the details of financial performance in the statement of income. However, this change only impacts presentation aspects and has no impact on reported profit or earnings per share.

4 **Significant accounting policies**

The accounting policies set out below have been applied consistently to all periods presented in these financial statements except as explained in note 3, which addresses changes in accounting policy and presentation of financial statements.

(a) ***Basis of consolidation***

The consolidated financial statements relate to the Company and its subsidiaries and jointly-controlled entities (together referred to as the “Group”) and the Group’s interests in associates.

Business combinations

The Group/Company applies the acquisition method for all business combinations other than those with entities under common control.

Control is the power to govern the financial and operating policies of an entity so as to obtain benefits from its activities. In assessing control, the Group/Company takes into consideration potential voting rights that currently are exercisable. The acquisition date is the date on which control is transferred to the acquirer. Judgment is applied in determining the acquisition date and determining whether control is transferred from acquiree to acquirer.

The Group recognises goodwill at the acquisition date measured as the excess of (1) over (2) as:

- (1) The aggregate of:
 - the fair value of the consideration transferred;
 - the recognised amount of any non-controlling interests in the acquiree; and
 - if the business combination is achieved in stages, the fair value of the existing equity interest in the acquiree.
- (2) The net fair value of the identifiable assets acquired and liabilities assumed.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

If value of (1) is less than (2), difference is contributed to gain on bargain purchase and recognised immediately in profit or loss.

The consideration transferred is recognised at fair value at the acquisition date.

Transaction costs that the Group/Company incurs in connection with a business combination, such as legal fees, and other professional and consulting fees are expensed as incurred.

Acquisitions from entities under common control

Business combinations of entities or businesses under common control are accounted for using a method similar to the pooling of interest method and in accordance with the Guideline issued in 2009 by the FAP.

Subsidiaries

Subsidiaries are entities controlled by the Group. Control exists when the Group has the power, directly or indirectly, to govern the financial and operating policies of an entity so as to obtain benefits from its activities. The financial statements of subsidiaries are included in the consolidated financial statements from the date that control commences until the date that control ceases.

The accounting policies of subsidiaries have been changed where necessary to align them with the policies adopted by the Group. Losses applicable to non-controlling interests in a subsidiary are allocated to non-controlling interests even if doing so causes the non-controlling interests to have a deficit balance.

Loss of control

Upon the loss of control, the Group derecognises the assets and liabilities of the subsidiary, any non-controlling interests and the other components of equity related to the subsidiary. Any surplus or deficit arising on the loss of control is recognised in profit or loss. If the Group retains any interest in the previous subsidiary, then such interest is measured at fair value at the date that control is lost. Subsequently it is accounted for as an equity-accounted investee or as an available-for-sale financial asset depending on the level of influence retained.

Jointly-controlled entities

Jointly-controlled entities are those entities over whose activities the Group has joint control, established by contractual agreement and requiring consent for strategic financial and operating decisions. The consolidated financial statements include the Group's proportionate share of the entities' assets, liabilities, revenue and expenses combined with items on a line by line basis, from the date that joint control commences until the date that joint control ceases.

Associates

Associates are those entities in which the Group has significant influence, but not control, over the financial and operating policies. Significant influence is presumed to exist when the Group holds between 20% and 50% of the voting power of another entity.

Investments in associates are accounted for in the consolidated financial statements using the equity method (equity-accounted investees) and are recognised initially at cost. The cost of the investment includes transaction costs.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

The consolidated financial statements include the Group's share of profit or loss and other comprehensive income of equity accounted investees after adjustments to align the accounting policies with those of the Group, from the date that significant influence commences until the date that significant influence ceases. When the Group's share of losses exceeds its interest in an equity accounted investee, the Group's carrying amount of that interest is reduced to zero and recognition of further losses is discontinued except to the extent that the Group has an obligation or has made payments on behalf of the investee.

Transactions eliminated on consolidation

Intra-group balances and transactions, and any unrealised income or expenses arising from intra-group transactions, are eliminated in preparing the consolidated financial statements. Unrealised gains arising from transactions with associates and jointly-controlled entities are eliminated against the investment to the extent of the Group's interest in the investee. Unrealised losses are eliminated in the same way as unrealised gains.

(b) Foreign currencies

Foreign currency transactions

Transactions in foreign currencies are translated to the functional currency at the dates of the transactions.

Monetary assets and liabilities denominated in foreign currencies at the reporting date are translated to the functional currency at the foreign exchange rates ruling at that date. Foreign exchange differences arising on translation are recognised in profit or loss.

Non-monetary assets and liabilities measured at cost in foreign currencies are translated to the functional currency using the foreign exchange rates ruling at the dates of the transactions.

Foreign currency differences arising on retranslation are generally recognised in profit or loss. However, foreign currency differences arising from the retranslation of qualifying cash flow hedges to the extent the hedge is effective are recognised in other comprehensive income.

Foreign operations

Foreign operation is defined as a subsidiary, associate and joint venture whose activities are based in a country or currency other than that of the reporting entity.

The assets and liabilities of foreign operations are translated to Thai Baht at the foreign exchange rates ruling at the reporting date.

Goodwill and fair value adjustments arising on the acquisition of foreign operations are stated at exchange rates ruling on the reporting date.

The revenues and expenses of foreign operations are translated to Thai Baht at rates approximating the foreign exchange rates ruling at the dates of the transactions.

Foreign exchange differences arising on translation are recognised in other comprehensive income and presented in the foreign currency translation reserve in equity until disposal of the investment.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

(c) *Derivative financial instruments*

Derivative financial instruments are used to manage exposure to foreign exchange, interest rate arising from operating and financing activities. Derivative financial instruments are not used for trading purposes. However, derivatives that do not qualify for hedge accounting are accounted for as trading instruments.

Derivatives are recognised initially at fair value; attributable transaction costs are recognised in profit or loss when incurred. Subsequent to initial recognition, they are remeasured at fair value. The gain or loss on remeasurement is recognised immediately in profit or loss.

The fair value of interest rate swaps are based on broker quotes at the reporting date. Those quotes are tested for reasonableness by discounting estimated future cash flows based on the terms and maturity of each contract and using market interest rates for a similar instrument at the reporting date.

The fair value of forward exchange contracts is based on their listed market price as the reporting date, if available. If a listed market price is not available, then fair value is estimated by forward contract with the same nature and maturity date at the reporting date.

(d) *Hedging accounting*

Cash flow hedges accounting of the non-financial assets or non-financial liabilities

When a derivative is designated as the hedging instrument in a hedge of the variability in cash flows of a non-financial asset or non-financial liability, the effective portion of gain or loss from subsequent measurement of fair value of the derivative financial instrument is recognised in other comprehensive income and presented in the hedging reserve in equity. Any ineffective portion is recognised immediately in profit or loss.

When a hedge of a non-financial asset or non-financial liability occurs, the gain or loss recognised in other comprehensive income is included in the cost of the non-financial asset or non-financial liability.

Discontinuing hedge accounting

When the hedging instrument expires or is sold, terminated, or no longer qualifies for hedge accounting, the hedge accounting is discontinued prospectively. Any cumulative gain or loss on the hedging instrument existing in equity is retained in equity. When the hedge of the non-financial assets or non-financial liabilities item ultimately occurs, the gain or loss is adjusted according to cash flow hedges accounting.

When the non-financial assets or non-financial liabilities item is no longer expected to occur, the cumulative gain or loss that was reported in equity is recognised in profit or loss immediately.

(e) *Cash and cash equivalents*

Cash and cash equivalents comprise cash balances, call deposits and highly liquid current investments.

(f) *Trade and other receivables*

Trade and other receivables are stated at their invoice value less allowance for doubtful accounts.

The allowance for doubtful accounts is assessed primarily on analysis of overdue aging and future expectations of customer payments. Bad debts are written off when incurred.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

(g) Inventories

Inventories are stated at the lower of cost and net realisable value.

Cost is calculated using the weighted average cost principle, and comprises all costs of purchase, costs of conversion and other costs incurred in bringing the inventories to their present location and condition. In the case of manufactured inventories and work-in-progress, cost includes an appropriate share of production overheads based on normal operating capacity.

Net realisable value is the estimated selling price in the ordinary course of business less the estimated costs to complete and to make the sale.

(h) Non-current assets held for sale

Non-current assets that are expected to be recovered primarily through sale rather than through continuing use, are classified as held for sale. The assets are measured at the lower of their carrying value and fair value less cost to sell.

(i) Investments

Investments in associates, subsidiaries and jointly-controlled entities

Investments in associates, subsidiaries and jointly-controlled entities in the separate financial statements of the Company are accounted for using the cost method. Investments in associates in the consolidated financial statements are accounted for using the equity method.

Investments in equity securities

Equity securities which are not marketable are stated at cost less any impairment losses.

Disposal of investments

On disposal of an investment, the difference between net disposal proceeds and the carrying amount is recognised in profit or loss.

If the Group/Company disposes of part of its holding of a particular investment, the deemed cost of the part sold is determined using the weighted average method.

(j) Property, plant and equipment

Recognition and measurement

Owned assets

Property, plant and equipment are stated at cost less accumulated depreciation and impairment losses.

Cost includes expenditure that is directly attributable to the acquisition of the asset. The cost of self-constructed assets includes the cost of materials and direct labour, any other costs directly attributable to bringing the assets to a working condition for their intended use, the costs of dismantling and removing the items and restoring the site on which they are located, and capitalised borrowing costs. Cost also may include transfers from other comprehensive income of any gain or loss on qualifying cash flow hedges of foreign currency purchases of property, plant and equipment. Purchased software that is integral to the functionality of the related equipment is capitalised as part of that equipment.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

When parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components) of property, plant and equipment.

Gains and losses on disposal of an item of property, plant and equipment are determined by comparing the proceeds from disposal with the carrying amount of property, plant and equipment, and are recognised net within other income in profit or loss.

Leased assets

Leases in terms of which the Group/Company substantially assumes all the risk and rewards of ownership are classified as finance leases. Property, plant and equipment acquired by way of finance leases are capitalised at the lower of their fair value and the present value of the minimum lease payments at the inception of the lease, less accumulated depreciation and impairment losses. Lease payments are apportioned between the finance charges and reduction of the lease liability so as to achieve a constant rate of interest on the remaining balance of the liability. Finance charges are charged directly to the profit or loss.

Subsequent costs

The cost of replacing a part of an item of property, plant and equipment is recognised in the carrying amount of the item if it is probable that the future economic benefits embodied within the part will flow to the Group/Company, and its cost can be measured reliably. The carrying amount of the replaced part is derecognised. The costs of the day-to-day servicing of property, plant and equipment are recognised in profit or loss as incurred.

Depreciation

Depreciation is calculated based on the depreciable amount, which is the cost of an asset, or other amount substituted for cost, less its residual value.

Depreciation is charged to profit or loss on a straight-line basis over the estimated useful lives of each component of an item of property, plant and equipment. The estimated useful lives are as follows:

Leasehold improvement	2-30 years
Plant, machinery, equipment and factory tools	3-35 years
Buildings and buildings improvement	2-30 years
Furniture, fixtures and office equipment	3-10 years
Vehicles	4-25 years

No depreciation is provided on freehold land or assets under construction.

Depreciation methods, useful lives and residual values are reviewed at each financial year-end and adjusted if appropriate.

(k) Intangible assets

Goodwill

Goodwill that arises upon the acquisition of businesses is included in intangible assets. Subsequent to initial recognition, goodwill is measured at cost less accumulated impairment losses.

Goodwill in investment in associates is included in the carrying amount of the investment in associates, impairment loss on such an investment is deducted directly in investment in associates.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Other intangible assets

Other intangible assets that are acquired by the Group/Company and have finite useful lives are measured at cost less accumulated amortisation and accumulated impairment losses.

Subsequent expenditure

Subsequent expenditure is capitalised only when it increases the future economic benefits embodied in the specific asset to which it relates. All other expenditure, including expenditure on internally generated goodwill and brands, are recognised in profit or loss as incurred.

Amortisation

Amortisation is based on the cost of the asset, or other amount substituted for cost, less its residual value.

Amortisation is recognised in profit or loss on a straight-line basis over the estimated useful lives of intangible assets, other than goodwill, from the date that they are available for use, since this most closely reflects the expected pattern of consumption of the future economic benefits embodied in the asset. The estimated useful lives for the current and comparative periods are as follows:

Right to use pipe rack	6-15 years
Right to use Jetty	9-17 years
Right to use - others	10-15 years
Production licence fees	10-30 years
Computer software	3-20 years
Customer contracts and the related customer relationships	5-12 years
Trademark	15 years

Amortisation methods, useful lives and residual values are reviewed at each financial year-end and adjusted if appropriate.

(I) Impairment

The carrying amounts of the Group's/Company's assets are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, the assets' recoverable amounts are estimated. For goodwill and intangible assets that have indefinite useful lives or are not yet available for use, the recoverable amount is estimated each year at the same time.

An impairment loss is recognised if the carrying amount of an asset or its cash-generating unit exceeds its recoverable amount. The impairment loss is recognised in profit or loss.

Calculation of recoverable amount

The recoverable amount of a non-financial asset is the greater of the asset's value in use and fair value less costs to sell. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For an asset that does not generate cash inflows largely independent of those from other assets, the recoverable amount is determined for the cash-generating unit to which the asset belongs.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Reversals of impairment

An impairment loss in respect of a financial asset is reversed if the subsequent increase in recoverable amount can be related objectively to an event occurring after the impairment loss was recognised in profit or loss.

An impairment loss in respect of goodwill is not reversed.

Impairment losses recognised in prior periods in respect of other non-financial assets are assessed at each reporting date for any indications that the loss has decreased or no longer exists. An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised.

(m) Interest-bearing liabilities

Interest-bearing liabilities are stated at cost.

(n) Trade and other payables

Trade and other payables are stated at cost.

(o) Employee benefits

Defined contribution plans

A defined contribution plan is a post-employment benefit plan under which an entity pays fixed contributions into a separate entity (Provident Fund) and will have no legal or constructive obligation to pay further amounts. Obligations for contributions to defined contribution pension plans are recognised as an employee benefit expense in profit or loss in the periods during which services are rendered by employees.

Defined benefit plans

A defined benefit plan is a post-employment benefit plan other than a defined contribution plan. The Group's/Company's net obligation in respect of defined benefit pension plans is calculated separately for each plan by estimating the amount of future benefit that employees have earned in return for their service in the current and prior periods; that benefit is discounted to determine its present value.

In case of plan assets (funded defined benefit plan), the estimating amount of future benefit that employees have earned in return for their service in the current and prior periods are deducted with the fair value of any plan assets.

The discount rate is the yield at the reporting date on corporate bond with high credit quality that have maturity dates approximating the terms of the Group's/Company's obligations and that are denominated in the same currency in which the benefits are expected to be paid.

The calculation is performed in every 3 years by a qualified actuary using the projected unit credit method.

The Group/Company recognises actuarial gains and losses arising from defined benefit plans in other comprehensive income and recognises all expenses related to defined benefit plans in profit or loss.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Other long-term employee benefits

The Group's/Company's net obligation in respect of long-term employee benefits other than pension plans is the amount of future benefit that employees have earned in return for their service in the current and prior periods; that benefit is discounted to determine its present value, and the fair value of any related assets is deducted. The discount rate is the yield at the reporting date on corporate bond with high credit quality that have maturity dates approximating the terms of the Group's/Company's obligations. The calculation is performed using the projected unit credit method. Any actuarial gains and losses are recognised in profit or loss in the period in which they arise.

Termination benefits

Termination benefits are recognised as an expense when the Group/Company is committed demonstrably, without realistic possibility of withdrawal, to a formal detailed plan to either terminate employment before the normal retirement date, or to provide termination benefits as a result of an offer made to encourage voluntary redundancy. Termination benefits for voluntary redundancies are recognised as an expense if the Group/Company has made an offer of voluntary redundancy, it is probable that the offer will be accepted, and the number of acceptances can be estimated reliably. If benefits are payable more than 12 months after the reporting period, then they are discounted to their present value.

Short-term employee benefits

Short-term employee benefit obligations are measured on an undiscounted basis and are expensed as the related service is provided.

Employee benefit obligations

A liability is recognised for the amount expected to be paid if the Group/Company has a present legal or constructive obligation to pay the amount as a result of past service provided by the employee, and the obligation can be estimated reliably.

Share based payments

The employee share option program allows certain of the Group's directors and employees to acquire shares of the Company under certain conditions. The proceeds received on exercise of the options, net of any directly attributable transaction costs, are credited to share capital (nominal value) and share premium when the options are exercised.

(p) Provisions

A provision is recognised if, as a result of a past event, the Group/Company has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. Provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. The unwinding of the discount on provisions is recognised as finance cost.

(q) Revenue

Revenue excludes value added taxes and is arrived at after deduction of trade discounts.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Sale of goods and services rendered

Revenue is recognised in profit or loss when the significant risks and rewards of ownership have been transferred to the buyer. No revenue is recognised if there is continuing management involvement with the goods or there are significant uncertainties regarding recovery of the consideration due, associated costs or the probable return of goods. Service income is recognised as services are provided.

Investments

Revenue from investments comprises dividend and interest income from investments and bank deposits.

Dividend income

Dividend income is recognised in profit or loss on the date the Group's/Company's right to receive payments is established.

Interest income

Interest income is recognised in profit or loss as it accrues.

(r) Finance costs

Finance costs comprise interest expense on borrowings, unwinding of the discount on provisions and contingent consideration, fair value losses on financial assets at fair value through profit or loss, impairment losses recognised on financial assets (other than trade receivables), and losses on hedging instruments that are recognised in profit or loss.

Borrowing costs that are not directly attributable to the acquisition, construction or production of a qualifying asset are recognised in profit or loss using the effective interest method.

(s) Lease payments

Payments made under operating leases are recognised in profit or loss on a straight line basis over the term of the lease.

Contingent lease payments which the lease adjustment is confirmed, are accounted for by revising the minimum lease payments over the remaining term of the lease.

(t) Income tax

Income tax expense for the year comprises current and deferred tax. Current and deferred tax are recognised in profit or loss except to the extent that they are relate to the items recognised in equity are recognised in equity are recognised in other comprehensive income.

Current tax is the expected tax payable on the taxable income for the year, using tax rates enacted at the end of the reporting period, and any adjustment to tax payable in respect of previous years.

Deferred tax is recognised in respect of temporary differences between the carrying amounts and taxable value of assets and liabilities, using tax rates enacted or substantively enacted to the temporary differences when they reverse.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Deferred tax is not recognised for the following temporary differences:

- the initial recognition of goodwill and related transactions;
- the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit or loss;
- differences relating to investments in subsidiaries and jointly-controlled entities to the extent that it is probable that they will not reverse in the foreseeable future.

The measurement of deferred tax reflects the tax consequences that would follow the manner in which the Group/Company expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

In determining the amount of current and deferred tax, the Group/Company takes into account the impact of uncertain tax positions and whether additional taxes and interest may be due. The Group/Company believes that its accruals for tax liabilities are adequate for all open tax years based on its assessment of many factors, including interpretations of tax law and prior experience. This assessment relies on estimates and assumptions and may involve a series of judgements about future events. New information may become available that causes the Group/Company to change its judgement regarding the adequacy of existing tax liabilities; such changes to tax liabilities will impact tax expense in the period that such a determination is made.

Deferred tax assets and liabilities on different tax entities are offset if there is a legally enforceable right to offset current tax assets and liabilities, and they relate to income taxes levied by the same tax authority.

A deferred tax asset is recognised to the extent that it is probable that deferred tax assets can be utilised as future tax benefit. Deferred tax assets are reviewed at each reporting date and reduced to the extent that it is no longer probable that the related tax benefit will be realised.

(u) *Earnings per share*

The Group/Company presents basic earnings per share (EPS) data for its ordinary shares. Basic EPS is calculated by dividing the profit or loss attributable to ordinary shareholders of the Company by the weighted average number of ordinary shares outstanding during the year.

(v) *Segment reporting*

Segment results that are reported to the Group's Management Committee (the chief operating decision maker) include items directly attributable to a segment as well as those that can be allocated on a reasonable basis.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

5 Acquisitions of businesses

Myriant Corporation, United States of America

On 23 December 2013, PTT Chemical International Private Limited., a subsidiary in which the Company holds a 100% interest, has acquired shares in Myriant Corporation (Myriant), which is incorporated in the United States of America representing a 25.03% interest from former shareholders for a cash consideration of USD 6.69 million (approximately Baht 218 million). The acquisition of shares in Myriant has resulted in an increase in the percentage of shareholding from 47.18% to 72.21% and changed the nature of investment from an associate to a subsidiary.

TFRS required Management to make preliminary assessment of the fair values of the assets, liabilities and contingent liabilities specified at the acquisition date. The Group hired an independent appraiser to determine the fair value of assets and liabilities acquired during the measurement period, which must not exceed one year from the acquisition date to reflect new information obtained about facts and circumstances that existed as of the acquisition date. Finalisation of the valuation of net assets of Myriant Corporation which the Company acquired on 23 December 2013 was completed in the 2nd quarter of 2014.

The following summarises the major classes of consideration transferred, and the recognised amounts of assets acquired and liabilities assumed at the acquisition date:

	Recognised value	Fair value (in million Baht)	Fair value adjustments
Cash and cash equivalents	220	220	-
Inventories	25	26	1
Accounts receivable	389	389	-
Property, plant and equipment	4,198	3,883	(315)
Intangible assests	-	985	985
Long term loan to other party	673	673	-
Trade accounts payable	(82)	(82)	-
Other payables	(385)	(401)	(16)
Long term loan from related party	(2,660)	(2,660)	-
Long term loan from other party	(1,582)	(1,554)	28
Deferred tax liabilities	(575)	(825)	(250)
Other assets/(liabilities), net	(210)	(195)	15
Net identifiable assets and liabilities	11	459	448
Less: non-controlling interests	(3)	(128)	(125)
Net assets acquired	8	331	323
Goodwill	1,064	741	(323)
Less: Fair value of the Group's interest in Myriant prior to business combination as of 23 December 2013	(854)	(854)	
Total consideration	218	218	
Cash acquired	(220)	(220)	
Net consideration transferred	(2)	(2)	

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Notes to the financial statements

The consolidated financial statements as at 31 December 2013 included in these financial statements has been related to reflect new information obtained about facts and circumstances that existed as of the acquisition date as follows;

The impact to the consolidated statement of financial position as at 31 December 2013:

Consolidated statement of financial position

(in million Baht)

Assets

Increase in inventories	1
Decrease in property, plant and equipment	(315)
Decrease in goodwill	(323)
Increase in intangible assets	985
Increase in total assets	348

Liabilities

Increase in other payables	16
Decrease in long-term loans from other parties	(28)
Increase in deferred tax liabilities	250
Decrease in other non-current liabilities	(15)
Increase in total liabilities	223

Equity

Increase in non-controlling interests	125
Increase in total liabilities and equity	348

This transaction have no material impact to the consolidated statement of income and the consolidated earning per share for the year ended 31 December 2013.

On 2 January 2014, Myriant had purchased shares from the existing shareholders. As a result, the percentage of shareholding in Myriant increased from 72.21% to 84.18% as described in note 12.

6 Business Restructuring of Vencorex group

During the 2nd quarter of 2014, Vencorex Group (“Vencorex”) which is incorporated in France has undertaken a business restructuring to improve the production unit of TDI (Toluene Diisocyanate) in France to HDI (Hexamethylene Diisocyanate) which is higher value product from 2016 onward. As a result of the restructuring, Vencorex recognised impairment charges and expenses relating to a provision totalling EUR 50.2 million or Baht 2,239 million of which 51% is attributable to the owners of the Company, amounting to Baht 1,142 million. The business restructuring is aligned with the Company’s strategy to develop TDI technology and manufacturing processes in Asia.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

The impairment charges and expenses relating to the restructuring provision recognised in the consolidated statement of income for the year ended 31 December 2014 were as follows:

		Consolidated financial statements
	<i>Note</i>	<i>(in million Baht)</i>
Impairment charges		
Property, plant and equipment	15	1,181
Intangible assets		101
Inventories		111
Expenses relating to provisions		
Redundancy costs		629
Cost of dismantling and restoring the site		217
Total provisions for business restructuring		2,239
Attributable to owners of the Company		1,142
Attributable to non-controlling interests		1,097
Total provisions for business restructuring		2,239

7 Related parties

For the purposes of these financial statements, parties are considered to be related to the Group/Company if the Group/Company has the ability, directly or indirectly, to control or joint control the party or exercise significant influence over the party in making financial and operating decisions, or vice versa, or where the Group/Company and the party are subject to common control or common significant influence. Related parties may be individuals or other entities.

Relationships with related parties were as follows:

Name of entities	Country of incorporation/ nationality	Nature of relationships
PTT Plc.	Thailand	Major shareholder, some common directors and management and the Company's director as a management
TOC Glycol Co., Ltd.	Thailand	Subsidiary, 100% shareholding and the Company's management as a director
Thai Tank Terminal Limited	Thailand	Subsidiary, 51% shareholding, and the Company's management as a director
Thai Styrenics Co., Ltd.	Thailand	Subsidiary, 100% shareholding and the Company's management as a director
Thai Oleochemicals Co., Ltd.	Thailand	Subsidiary, 100% shareholding and the Company's management as a director
Bangkok Polyethylene Plc. (In process of liquidation)	Thailand	Subsidiary, 100% shareholding

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

Name of entities	Country of incorporation/ nationality	Nature of relationships
Bio Creation Co., Ltd.	Thailand	Subsidiary, 100% shareholding and the Company's management as a director
Bio Spectrum Co., Ltd.	Thailand	Subsidiary, 100% shareholding
PTT Polyethylene Co., Ltd. (In process of liquidation)	Thailand	Subsidiary, 100% shareholding
PTT Phenol Co., Ltd.	Thailand	Subsidiary, 100% shareholding and the Company's management as a director
PTT Maintenance and Engineering Co., Ltd.	Thailand	Subsidiary, 60% shareholding and the Company's management as a director
Auria BioChemicals Co., Ltd.	Thailand	Subsidiary, 54% shareholding by the Company and 46% shareholding by subsidiary of the Company's subsidiary
NPC Safety and Environmental Service Co., Ltd.	Thailand	Subsidiary, 100% shareholding, some common directors and the Company's management as a director
PTT Chemical International Pte. Ltd.	Singapore	Subsidiary, 100% shareholding, some common directors and the Company's management as a director
Thai Fatty Alcohols Co., Ltd.	Thailand	Subsidiary of the Company's subsidiary, 100% shareholding by the Company's subsidiary and the Company's management as a director
PTT Chemical International (Asia Pacific ROH) Ltd.	Thailand	Subsidiary of the Company's subsidiary, 100% shareholding by the Company's subsidiary, some common directors and the Company's management as a director
Vencorex (Thailand) Co., Ltd.	Thailand	Subsidiary of subsidiary of subsidiary of the Company's subsidiary, 100% shareholding by subsidiary of subsidiary of the Company's subsidiary
Myriant Corporation	United States of America	Subsidiary of the Company's subsidiary, 84% shareholding by the Company's subsidiary, some common directors and the Company's management as a director
PTTGC International (Netherlands) B.V.	Netherlands	Subsidiary of the Company's subsidiary, 100% shareholding by the Company's subsidiary, some common directors and the Company's management as a director

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Name of entities	Country of incorporation/ nationality	Nature of relationships
PTTGC International (USA) Inc.	United States of America	Subsidiary of the Company's subsidiary, 100% shareholding by the Company's subsidiary, some common directors and the Company's management as a director
Vencorex Holding	France	Subsidiary of subsidiary of the Company's subsidiary, 85% shareholding by subsidiary of the Company's subsidiary, some common directors and the Company's management as a director
Thai Ethoxylate Co., Ltd.	Thailand	Jointly - controlled entity, 50% shareholding and the Company's management as a director
NatureWorks Asia Pacific Co., Ltd.	Thailand	Subsidiary of jointly - controlled entity of subsidiary of the Company's subsidiary, 100% shareholding by jointly - controlled entity of subsidiary of the Company's subsidiary
Emery Oleochemical (M) Sdn. Bhd.	Malaysia	Jointly - controlled entity of the Company's subsidiary, 50% shareholding by the Company's subsidiary, some common directors and management and the Company's management as a director
Emery Specialty Chemicals Sdn. Bhd.	Malaysia	Jointly - controlled entity of the Company's subsidiary, 50% shareholding by the Company's subsidiary, some common directors and management and the Company's management as a director
Emeryoleo Specialties (M) Sdn. Bhd.	Malaysia	Subsidiary of jointly - controlled entity of the Company's subsidiary, 100% shareholding by jointly - controlled entity of the Company's subsidiary
NatureWorks LLC	United States of America	Jointly - controlled entity of subsidiary of the Company's subsidiary, 50% shareholding by subsidiary of the Company's subsidiary, some common directors and the Company's management as a director
Global Power Synergy Plc.	Thailand	Associate, 30% shareholding, shareholding by the Company's major shareholders, some common directors and the Company's management as a director

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

Name of entities	Country of incorporation/ nationality	Nature of relationships
PTT Polymer Marketing Co., Ltd.	Thailand	Associate, 25% shareholding, shareholding by the Company's major shareholder, some common directors and the Company's management as a director
PTT Energy Solutions Co., Ltd.	Thailand	Associate, 20% shareholding, shareholding by the Company's major shareholder and the Company's management as a director
PTT ICT Solutions Co., Ltd.	Thailand	Associate, 40% shareholding, shareholding by the Company's major shareholder and the Company's management as a director
Vinythai Plc.	Thailand	Associate, 25% shareholding, some common directors and the Company's management as a director
Eastern Fluid Transport Co., Ltd.	Thailand	Associate, 15% shareholding, 15% shareholding by the Company's subsidiary and the Company's management as a director
PT. Indo Thai Trading	Indonesia	Associate of subsidiary of the Company's subsidiary, 49% shareholding by the Company's subsidiary and the Company's management as a director
Thai Petroleum Pipeline Co., Ltd.	Thailand	Shareholding by the Company's major shareholder
Dhipaya Insurance Plc.	Thailand	Shareholding by the Company's major shareholder
Thaioil Plc.	Thailand	Shareholding by the Company's major shareholders
Bangchak Petroleum Plc.	Thailand	Shareholding by the Company's major shareholder
Business Services Alliance Co., Ltd.	Thailand	Shareholding by the Company's major shareholder, the Company and two Company's associates, each of 25% shareholding of preferred stock
PTT Natural Gas Distribution Co., Ltd.	Thailand	Shareholding by the Company's major shareholder
PTT Retail Services Co., Ltd.	Thailand	Subsidiary of the Company's related party that has shareholding by the Company's major shareholder

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Name of entities	Country of incorporation/ nationality	Nature of relationships
PTT Retail Management Co., Ltd.	Thailand	Subsidiary of the Company's related party that has shareholding by the Company's major shareholder
PTTEP Siam Limited	Thailand	Subsidiary of the Company's related party that has shareholding by the Company's major shareholder
PTTEP International Limited	Thailand	Subsidiary of the Company's related parties that has shareholding by the Company's major shareholder
PTT Exploration and Production Plc.	Thailand	Shareholding by the Company's major shareholder
PTT Tank Terminal Limited	Thailand	Shareholding by the Company's major shareholder
PTT Polymer Logistic Co., Ltd.	Thailand	Shareholding by the Company's major shareholder
PTT Asahi Chemical Co., Ltd.	Thailand	Shareholding by the Company's major shareholder
PTT Energy Resources Co., Ltd. (Formerly PTT International Co.,Ltd.)	Thailand	Shareholding by the Company's major shareholder
PTT MCC Biochem Co.,Ltd.	Thailand	Shareholding by the Company's major shareholder
PTT LNG Co., Ltd.	Thailand	Shareholding by the Company's major shareholder
Rayong Olefins Co., Ltd.	Thailand	Shareholding by the Company's major shareholder
Star Petroleum Refining Plc.	Thailand	Shareholding by the Company's major shareholder
Community Partnership Association	Thailand	Some common directors
Amata Natural Gas Distribution Co., Ltd.	Thailand	Subsidiary of the Company's related party that has shareholding by the Company's major shareholder
HMC Polymers Co., Ltd.	Thailand	Shareholding by the Company's major shareholder

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

Name of entities	Country of incorporation/ nationality	Nature of relationships
Energy Complex Co., Ltd.	Thailand	Shareholding by the Company's major shareholder
IRPC Plc.	Thailand	Shareholding by the Company's major shareholder and some common directors
IRPC Polyol Co., Ltd.	Thailand	Subsidiary of the Company's related party that has shareholding by the Company's major shareholder
Carigali-PTTEPI Operating Company Sdn. Bhd.	Malaysia	Jointly - controlled entity of the Company's subsidiary that has shareholding by the Company's major shareholder
PTT Green Energy Pte. Ltd.	Singapore	Shareholding by the Company's major shareholder
PTT International Trading DMCC	United Arab Emirates	Subsidiary of the Company's related party that has shareholding by the Company's major shareholder
PTT International Trading Pte. Ltd.	Singapore	Shareholding by the Company's major shareholder

The pricing policies for particular types of transactions are explained further below:

Transactions	Pricing policies
Sale of goods	Contract price / Regional market price / World market price
Rendering of services	Contract price
Purchase of goods / raw materials / services	Contract price / Market price
Interest on loan	Average cost of fund / Contractually agreed rate

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Significant transactions for the year ended 31 December 2014 and 2013 with related parties were as follows:

	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
	<i>(in million Baht)</i>			
Major Shareholder				
Sales of goods or rendering of services	198,065	192,740	191,891	185,171
Purchases of goods or receiving of services	380,555	363,601	379,535	350,526
Other income	102	105	85	65
Other expense	303	241	92	195
Subsidiaries				
Sales of goods or rendering of services	-	-	20,478	31,436
Purchases of goods or receiving of services	-	-	2,566	11,311
Interest income	-	-	630	536
Dividend income	-	-	4,065	23,049
Other income	-	-	568	476
Interest expense	-	-	63	100
Other expense	-	-	653	1,061
Jointly-controlled entities				
Dividend income	-	-	114	133
Other income	-	-	22	22
Other expense	-	-	2	-
Associates				
Sales of goods or rendering of services	90,321	74,857	87,476	47,171
Purchases of goods or receiving of services	8,856	7,520	5,092	3,202
Interest income	-	237	-	237
Dividend income	-	-	106	288
Other income	82	118	81	77
Other expense	364	349	346	315
Other related parties				
Sales of goods or rendering of services	101,673	82,455	98,383	80,288
Purchases of goods or receiving of services	48,757	36,544	47,399	35,482
Other income	283	140	277	36
Other expense	595	603	414	383
Key management personnel				
Key management personnel compensation				
Short-term employee benefits	426	362	228	213
Post-employment benefits and other long-term benefits	7	11	4	4
Reversal of short-term benefits for the year 2012	-	(52)	-	(52)
Total key management personnel compensation	433	321	232	165

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

Balances as at 31 December with related parties were as follows:

<i>Trade accounts receivable - related parties</i>	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
	<i>(in million Baht)</i>			
Major Shareholder				
PTT Plc.	8,856	16,113	8,185	15,423
Subsidiaries				
TOC Glycol Co., Ltd.	-	-	782	722
Thai Tank Terminal Limited	-	-	7	6
Thai Styrenics Co., Ltd.	-	-	2	3
Thai Oleochemicals Co., Ltd.	-	-	7	17
PTT Phenol Co., Ltd.	-	-	796	2,131
Associates				
Global Power Synergy Plc.	16	7	-	-
PTT Polymer Marketing Co., Ltd.	6,919	7,023	6,758	6,773
PTT Energy Solutions Co., Ltd.	4	-	-	-
Vinythai Plc.	471	992	469	986
Other related parties				
Thaioil Plc.	44	23	-	-
Bangchak Petroleum Plc.	4	58	-	58
PTTEP Siam Limited	5	9	-	-
PTTEP International Co., Ltd.	-	1	-	-
PTT Exploration and Production Plc.	3	3	-	-
PTT Tank Terminal Co., Ltd.	185	141	4	4
PTT Polymer Logistic Co., Ltd.	1	7	-	-
PTT Asahi Chemical Co., Ltd.	132	103	-	-
PTT MCC Biochem Co., Ltd.	1	-	-	-
PTT LNG Co., Ltd.	1	-	-	-
Star Petroleum Refining Plc.	296	755	258	731
HMC Polymers Co., Ltd.	444	470	442	468
IRPC Plc.	2,161	3,495	2,139	3,449
IRPC Polyol Co., Ltd.	9	-	-	-
PTT International Trading Pte. Ltd.	4,272	6,094	4,272	6,094
Total	23,824	35,294	24,121	36,865
Less allowance for doubtful accounts	-	-	-	-
Net	23,824	35,294	24,121	36,865
Bad and doubtful debts expense for the year	-	-	-	-

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Other receivables - related parties

	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
	<i>(in million Baht)</i>			
Major Shareholder				
PTT Plc.	1,475	289	1,473	259
Subsidiaries				
TOC Glycol Co., Ltd.	-	-	25	28
Thai Tank Terminal Limited	-	-	5	362
Thai Oleochemicals Co., Ltd.	-	-	13	12
Bio Creation Co., Ltd.	-	-	2	2
PTT Phenol Co., Ltd.	-	-	8	9
PTT Maintenance and Engineering Co., Ltd.	-	-	43	87
Auria BioChemicals Co., Ltd.	-	-	1	1
NPC Safety and Environmental Service Co., Ltd.	-	-	11	14
Thai Fatty Alcohols Co., Ltd.	-	-	1	1
PTT Chemical International (Asia Pacific ROH) Ltd.	-	-	3	3
Vencorex (Thailand) Co., Ltd.	-	-	2	4
Myriant Corporation	-	-	630	54
Vencorex Holding	-	-	10	5
Jointly - controlled entities				
Thai Ethoxylate Co., Ltd.	-	-	6	5
NatureWorks Asia Pacific Co., Ltd.	-	-	-	1
Emery Oleochemicals (M) Sdn. Bhd.	-	-	2	1
Emeryoleo Specialties (M) Sdn. Bhd.	-	-	-	1
NatureWorks LLC	-	-	1	2
Associates				
Global Power Synergy Plc.	193	538	4	344
PTT Polymer Marketing Co., Ltd.	5	4	5	4
PTT Energy Solutions Co., Ltd.	28	-	28	-
PTT ICT Solutions Co., Ltd.	25	13	25	13
Vinythai Plc.	1	-	1	-
Eastern Fluid Transport Co., Ltd.	-	7	-	4
Other related parties				
Dhipaya Insurance Plc.	1,119	690	1,001	600
Thaioil Plc.	1	2	1	2
Business Services Alliance Co., Ltd.	-	13	-	13
PTTEP Siam Limited	-	1	-	-
PTTEP International Co., Ltd.	-	3	-	-
PTT Tank Terminal Ltd.	-	19	-	-
PTT Polymer Logistic Co., Ltd.	-	1	-	-
PTT Asahi Chemical Co., Ltd.	-	9	-	-
PTT Energy Resources Co., Ltd.	-	2	-	-
Star Petroleum Refining Plc.	6	2	6	1
HMC Polymers Co., Ltd.	-	1	-	-
Energy Complex Co., Ltd.	32	-	32	-
IRPC Plc.	-	1	-	-
Total	2,885	1,595	3,339	1,832
Less allowance for doubtful accounts	-	-	-	-
Net	2,885	1,595	3,339	1,832
Bad and doubtful debts expense for the year	-	-	-	-

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

<i>Loans to related parties</i>	Interest rate		Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013	2014	2013
	<i>(% per annum)</i>		<i>(in million Baht)</i>			
Short-term loans						
Subsidiaries						
Thai Styrenics Co., Ltd.	4.71-4.98	5.08-5.11	-	-	615	660
NPC Safety and Environmental Service Co., Ltd.	4.71-4.98	5.08-5.11	-	-	122	182
Total			-	-	737	842
Less allowance for doubtful accounts			-	-	-	-
Short-term loans to related parties, net			-	-	737	842
Long-term loans						
Subsidiaries						
Thai Oleochemicals Co., Ltd.	4.71-4.98	5.08-5.11	-	-	1,359	1,789
Myriant Corporation	greater of the U.S. Prime Rate plus margin or fixed rate	greater of the U.S. Prime Rate plus margin or fixed rate	-	-	4,239	2,647
Vencorex Holding	6.50	6.00	-	-	403	454
Total			-	-	6,001	4,890
Less current portion due within one year			-	-	(2,907)	(37)
Less allowance for doubtful accounts			-	-	-	-
Long-term loans to related parties, net			-	-	3,094	4,853
Summary of loans to related parties						
Short-term loans			-	-	737	842
Current portion due within one year			-	-	2,907	37
Long-term loans			-	-	3,094	4,853
Total			-	-	6,738	5,732
Less allowance for doubtful accounts			-	-	-	-
Total loans to related parties, net			-	-	6,738	5,732
Bad and doubtful debts expense for the year			-	-	-	-

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Movements during the year ended 31 December 2014 and 2013 of loans to related parties were as follows:

<i>Loans to related parties</i>	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
	<i>(in million Baht)</i>			
Short-term loans				
Subsidiaries				
At 1 January	-	-	842	1,905
Increase	-	-	516	445
Decrease	-	-	(621)	(1,013)
Transfers of businesses	-	-	-	(495)
At 31 December	-	-	737	842
Long-term loans				
Subsidiaries				
At 1 January	-	-	4,890	16,991
Increase	-	-	1,571	1,949
Decrease	-	-	(431)	(4,186)
Transfers of businesses	-	-	-	(11,272)
Transfers	-	-	-	1,220
Effect of change in exchange rates	-	-	(29)	188
	-	-	6,001	4,890
Indirect associate				
At 1 January	-	1,220	-	1,220
Increase	-	1,291	-	1,291
Transfers	-	(2,511)	-	(2,511)
	-	-	-	-
Total	-	-	6,001	4,890
<i>Less current portion due within one year</i>	<i>-</i>	<i>-</i>	<i>(2,907)</i>	<i>(37)</i>
At 31 December	-	-	3,094	4,853

	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
	<i>(in million Baht)</i>			
Investments in subsidiaries (Note 12)	-	-	44,938	42,072
Investments in jointly-controlled entity (Note 12)	-	-	210	210
Investments in associates (Note 13)	13,093	12,549	9,717	9,717

Trade accounts payable - related parties

	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
	<i>(in million Baht)</i>			
Major Shareholder				
PTT Plc.	15,380	33,850	15,319	33,753
Subsidiaries				
Thai Oleochemicals Co., Ltd.	-	-	49	40
PTT Phenol Co., Ltd.	-	-	4	1
Associates				
Global Power Synergy Plc.	783	1,987	437	1,199
Vinythai Plc.	11	-	10	-

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

Trade accounts payable - related parties
(continue)

	Consolidated		Separate	
	financial statements		financial statements	
	2014	2013	2014	2013
	<i>(in million Baht)</i>			
Other related parties				
Bangchak Petroleum Plc.	-	9	-	9
Business Services Alliance Co.,Ltd.	16	-	-	-
PTT Polymer Logistic Co.,Ltd.	1	-	1	-
PTT Asahi Chemical Co., Ltd.	20	17	-	-
Rayong Olefins Co., Ltd.	3	-	4	-
Star Petroleum Refining Plc.	392	710	392	710
HMC Polymers Co., Ltd.	40	106	40	106
IRPC Plc.	1,567	2,771	1,503	2,771
PTT International Trading Pte. Ltd.	-	51	-	51
Total	18,213	39,501	17,759	38,640

Other payables - related parties

	Consolidated		Separate	
	financial statements		financial statements	
	2014	2013	2014	2013
	<i>(in million Baht)</i>			
Major Shareholder				
PTT Plc.	203	171	165	155
Subsidiaries				
TOC Glycol Co., Ltd.	-	-	22	24
Thai Tank Terminal Limited	-	-	47	107
Thai Styrenics Co., Ltd.	-	-	3	2
Thai Oleochemicals Co., Ltd.	-	-	23	22
PTT Phenol Co., Ltd.	-	-	6	6
PTT Maintenance and Engineering Co., Ltd.	-	-	151	155
NPC Safety and Environmental Service Co., Ltd.	-	-	27	50
PTT Chemical International (Asia Pacific ROH) Ltd.	-	-	20	37
Vencorex (Thailand) Co.,Ltd.	-	-	1	-
Myriant Corporation	-	-	2	-
Jointly - controlled entity				
Emery Oleochemicals (M) Sdn. Bhd.	-	-	1	-
Associates				
Global Power Synergy Plc.	1	3	1	2
PTT Polymer Marketing Co., Ltd.	1	1	-	1
PTT Energy Solutions Co., Ltd.	29	9	29	9
PTT ICT Solutions Co., Ltd.	54	40	45	37
Vinythai Plc.	-	13	-	11
Other related parties				
Dhipaya Insurance Plc.	38	7	35	2
Thai Oil Plc.	1	-	-	-
Business Services Alliance Co., Ltd.	74	69	71	46
PTT Polymer Logistics Co., Ltd.	231	219	196	189
PTT Energy Resources Co.,Ltd.	1	-	1	-
Star Petroleum Refining Plc.	6	10	6	10
Energy Complex Co., Ltd.	2	2	2	2
IRPC Plc.	-	11	-	11
PTT International Trading Pte. Ltd.	6	7	5	7
Total	647	562	859	885

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Payables to contractor - related parties

	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
	<i>(in million Baht)</i>			
Major Shareholder				
PTT Plc.	3	1	-	-
Subsidiary				
PTT Maintenance and Engineering Co., Ltd.	-	-	691	473
Associate				
PTT ICT Solutions Co., Ltd.	67	51	67	51
Other related parties				
Dhipaya Insurance Plc.	-	15	-	-
Business Services Alliance Co., Ltd.	10	1	8	-
Total	80	68	766	524

Loans from related parties

	Interest rate		Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013	2014	2013
	<i>(% per annum)</i>		<i>(in million Baht)</i>			
Short-term loans						
Subsidiaries						
TOC Glycol Co., Ltd.	2.34-3.06	2.71-3.10	-	-	1,083	1,238
Bio Creation Co., Ltd.	2.34-3.06	-	-	-	18	-
Thai Oleochemicals Co., Ltd.	2.34-3.06	-	-	-	914	-
Total loans from related parties			-	-	2,015	1,238

Movements during the year ended 31 December 2014 and 2013 of loans from related parties were as follows:

Loans from related parties

	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
	<i>(in million Baht)</i>			
Subsidiaries				
At 1 January	-	-	1,238	3,936
Increase	-	-	931	2,086
Decrease	-	-	(154)	-
Transfers of businesses	-	-	-	(4,784)
At 31 December	-	-	2,015	1,238

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Significant agreements with related parties

As at 31 December 2014, the Group/Company has significant agreements with related parties as follows:

Olefins Sales Agreements

The Company has 4 Ethylene sales and purchase agreements with a major shareholder and 2 related parties. Selling prices are determined based on prices prevailing in the world market, Ethane price and Ethylene price in the world market. These agreements are for the periods from 7 years to 15 years, commencing from the effective date specified in each agreement. One agreement that is expired in July 2015 is automatically renewable except for advance cancellation not less than 1 year through written notice by each party. Other three agreements will expire in August 2021, December 2021 and May 2022.

The Company has 2 Propylene sales and purchase agreements with 2 related parties. Selling prices are determined based on Polypropylene and Propylene prices in the world market. These agreements are for the periods from 12 years to 15 years, commencing from the effective date specified in each agreement and expiring in December 2016 and December 2024.

By Product Sales and Purchase Agreements

The Company has a Hydrogen sales and purchase agreement with a related party. Selling price in the agreement is determined based on Natural Gas price for the industry. The agreement is for the period of 15 years, commencing from the date as specified in the agreement and expiring in March 2024.

The Company has a Tail Gas sales and purchase agreement with a related party. Selling price in the agreement is determined based on Natural Gas price for the industry. The agreement is for the period of 15 years, commencing from the date as specified in the agreement and expiring in July 2022.

Utilities and Other Services Agreements

The Company has 2 Power Supply agreements with 2 related parties. Selling prices in these agreements are determined based on reference price from the Provincial Electricity Authority. These agreements are for the periods of 15 years, commencing from the date as specified in each agreement and expiring in December 2016 and September 2028.

The Company has 2 Utilities agreements covering electricity, steam and demineralised water with a related party. These agreements are for the periods from 10 years to 15 years, commencing from the date as specified in each agreement and expiring in December 2016 and April 2023.

The Company and certain related parties have various Utilities agreements covering electricity, steam, and water with a related party. These agreements are for the periods from 15 years to 20 years, commencing from the date as specified in each agreement and expiring from December 2021, to February 2031. These agreements can be renewed for the period of 5 years with the terms and conditions agree by both parties.

The Company has a Product Transportation agreement with a related party. The agreement is for the period of 3 years, commencing from the date as specified in the agreement and expiring in December 2018. The agreement is automatically renewable for another period of 3 years except for advance cancellation through written notice by each party, not exceeding a total period of 15 years.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Feedstock and Fuel Gas Sales and Purchase Agreements

The Company has a LPG sales and purchase agreement with a major shareholder. Selling price is determined based on the Polypropylene price. The agreement is for the period of 15 years, commencing from the date as specified in the agreement and expiring in May 2021.

The Company has a Natural Gas sales and purchase agreement with a major shareholder. Selling price is determined based on fuel oil prices. The agreement is for the period of 20 years, commencing from the date as specified in the agreement and expiring in December 2018. The agreement is renewable for the period of 4 years, by providing not less than 1 year advance written notice to the counterparty.

The Company has 2 Natural Gas sales and purchase agreements with a major shareholder. Selling prices are determined based on gas price as specified in the agreement and on the Thailand Producer Price Index (PPI). These agreements are for the period of 10 years, commencing from the date as specified in each agreement and expiring in May 2018 and December 2018.

The Company and a related party have 2 Natural Gas sales and purchase agreements with a major shareholder. Selling price in an agreement is determined based on gas price as specified in the agreement and another agreement is determined based on the Thailand Producer Price Index. These agreements are for the periods from 10 years to 15 years, commencing from the date as specified in each agreement and expiring between November 2019 and July 2023.

The Company has a Benzene sales and purchase agreement with a related party. Selling price is determined based on the benzene price as specified in the agreement. The agreement is for the period of 15 years, commencing from the date as specified in the agreements and expiring in March 2024.

The Company has a Natural Gas Liquid sales and purchase agreement with a major shareholder. Selling price is determined based on the standard price of Naphtha in the region. The agreement is for the period of 15 years, commencing from the date as specified in the agreement and expiring in May 2021. The agreement is renewable for the period of 5 years with the agreement of both parties.

The Company has 2 Ethane, Propane and LPG sales and purchase agreements with a major shareholder. Selling price in the agreement is determined based on the Polyethylene and Polypropylene price and another agreement is determined based on the Polyethylene price. These agreements have been extended and consequently will expire in December 2020.

The Company has 2 LPG sales and purchase agreement with a major shareholder. Selling prices are determined based on Polypropylene price. These agreements are for the period of 8 years, commencing from the date as specified in each agreement and expiring in December 2020.

The Company has an Ethane sales and purchase agreement with a major shareholder. Selling price is determined based on prices prevailing in the high density Polyethylene price in the world market. The agreement is for the period of 15 years, commencing from the date as specified in the agreement and expiring in January 2025. The agreement is renewable for 5 years, by providing not less than 1 year advance written notice to the counterparty.

The Company has an Ethane Rich Gas sales and purchase agreement with a related party. Selling price is determined based on prevailing prices of Polyethylene and Polypropylene in the region. This agreement is for the period of 10 years and will expire in January 2021.

From 1 August 2012, the Company has entered into the adjustment of the pricing formula in the sales and purchase agreements of petrochemical natural gas feedstock with a major shareholder.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Petroleum Product Offtake Agreement

The Company has a Petroleum Product sales and purchase agreement with a major shareholder and another company. For domestic sales, the product price reflects prices prevailing in Thailand for products of a similar quality that are sold in or imported to Thailand. For export sales, the product price reflects the prevailing international spot price for that product. These agreements are for the period of 18 years, commencing from the date as specified in the agreement and expiring in February 2024. The agreement is automatically renewable except for advance cancellation through written notice by each party.

Expansion Phase Product Offtake Agreement

The Company has an expansion phase product offtake agreement with a major shareholder, whereas a major shareholder agree to purchase 100% of the volume of refined petroleum products produce by reforming and upgrading complexes. As specified in the Product Offtake Agreement, at least 50% of such volume will be sold at a competitive domestic market price and the remainder sold at a competitive export market price or other mutually agreed price. The agreement is for the period of 18 years, commencing from the date as specified in the agreement and expiring in February 2024. The agreement is automatically renewable except for advance cancellation through written notice by each party.

Long-term Crude Oil and Other Raw materials Supply Agreements

The Company entered into 2 supply agreements for crude oil and other raw materials with a major shareholder, the reference price being based on market price of crude oil and other raw materials. These agreements are for the periods of 15 years and 20 years, will expire in December 2016 and February 2024. The agreements are automatically renewable except for advance cancellation through written notice by each party.

Crack Spread Swap Agreements

The Company has entered into crack spread swap agreements with a major shareholder to hedge the Company's oil refinery margin. Under the agreements the floating amount of the basket refinery margin, (calculated based on the Singapore price of refined petroleum products, Gasoil, Kerosene and Fuel Oil against the price of Dubai crude oil), is swapped for a fixed amount of the basket refinery margin for a fixed quantity per month. Under the agreement, the Company shall make payment or receive of the crack spread difference according to terms and conditions stipulated in the agreements.

Crude Oil and Feedstock Time Spread Agreements

The Company has entered into crude oil and feedstock time spread agreements to mitigate price risk with a major shareholder, calculated based on the difference of the average price of crude oil and feedstock for the current month and the price of the following month. The Company shall make payment or receive of the difference according to terms and conditions stipulated in the agreements.

Sales and Purchase Aromatics Product Agreements

The Company, a major shareholder, related parties and various other companies have entered into raw material and product sales and purchase agreements. The sales and purchase prices of raw material and product are based on the prices specified in the agreements. These agreements are for the periods from 1 year to 15 years from the agreement date and expiring from 2014 to 2023. The agreements are automatically renewable except for an advance cancellation period of 3 months to 2 years through written notice by each party.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Polyethylene Sales and Purchase Agreements

The Company and a related party have the Polyethylene sales and purchase agreements with a related party. The Company agreed to sell all Polyethylene to a related party for distributing to the customers in the market. Under the agreement, the Polyethylene pricing structure is changed to link to the Polyethylene product price, which the Company sells to end customers, adjusted by the appropriate marketing expenses for fairness to both parties. These agreements are for the periods of 15 years, commencing from the effective date as specified in each agreement. Two agreements will expire in December 2021, one agreement will expire in January 2022 and another will expire in September 2023.

Loan Agreements

The Company has an unsecured loan agreement with a related party for the long-term credit facility of Baht 2,676 million. This loan bears interest at the rate of the Company's average cost of funds. This loan is repayable in semi-annually instalments, commencing from June 2012 and due within 10 years.

The Company have 6 secured loan agreements with a related party for the long-term credit facility of USD 137.2 million. The loan bears interest at the greater of United States Prime Rate plus margin or fixed rate. These long-term loans are repayable at the end of the loan agreement in March 2015, June 2015, July 2015, March 2016 and December 2016.

The Company has an unsecured loan agreement with a related party for the long-term credit facility of EUR 60 million. The loan bears interest at fixed rate. This long-term loan is repayable at the end of the loan agreement in July 2017.

The Company has unsecured short-term lending agreements for the period of 3 years through Liquidity Management System "LMS" with 3 related parties with the credit facility of Baht 1,000 million, Baht 3,100 million and Baht 20 million. These loans bear interest at the rate of the Company's average cost of funds.

The Company has unsecured short-term borrowing agreements for the period of 3 years through Liquidity Management System "LMS" with 3 related parties with the credit facility of Baht 4,000 million, Baht 2,500 million and Baht 50 million. These loans bear interest at the rate of the Company's average return on current investment minus 0.25% per annum.

The Company provides unsecured short-term loans to 2 related parties by receiving the promissory notes amounting to Baht 737 million. The loans bear interest at the rate of the Company's average cost of funds. The promissory notes are for the period of 3 months and are renewable.

The Company has an uncommitted and unsecured short-term Inter-Company Borrowing & Lending agreement (ICBL) for the period of 1 year with a major shareholder with the borrowing and lending credit facility of Baht 5,000 million and Baht 2,000 million, respectively. The agreement will expire on 19 December 2015. This facility bears interest based on market rate referenced to BIBOR or LIBOR plus interest rate spread by taking into account the return on short-term investment, short-term interest rate and the credit ratings of the Company or the borrowing company.

Service Agreements

The Company has Shared Service agreements with 12 related parties for the provision of general services. All of these agreements are effective from the date as specified in the agreements and are automatically renewable until either party agrees to terminate with 3 months written notice. The service charges will be agreed in the fourth quarter of each year.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

The Company has a Technical Services agreement with a related party. Under the contract, the Company agreed to obtain certain technical advisory services, limited to 2,100 service hours in each year. The agreement duration is 5 years, including the initial service fee as specified in the agreement which will be adjusted in line with the increase in the labour cost index. The agreement can be renewed for another 5 years.

The Company has Management and Engineering agreement, Design, Supply, Construction and Installation agreement, Inspection of Construction, Equipment and Machinery agreement and Management and Maintenance Work agreement with a related party. These agreements are for the periods from 1 year to 3 years, commencing from the date as specified in the agreement and expiring in February 2017.

The Company has 3 Services agreements to have the right to lay the pipelines for delivery of raw material and product on pipeline structure with a major shareholder. These agreements are for the period of 15 years from the agreement date and will expire in June 2025.

The Company has a Project Management Consultancy Services agreement with a related party for Convert Heavy Gas to Olefins Feedstock Project. The agreement is for the period of 28 months and will expire in March 2015.

The Company has a Security Service and Fire Protection agreement with a related party. The agreement is to provide security and fire protection service to asset, employees and visitors in the location of the Company. The agreement is for the period of 3 years and will expire in December 2017.

The Company has 2 Warehouse Management agreements with a related party. The agreements are for the period of 10 years and will expire in December 2019. These agreements are renewable by providing not less than 30 days written notice to the counterparty.

The Company has a Tank Maintenance Service agreement with a related party. The agreement duration is 2 years and 3 months and will expire in July 2015.

The Company has entered into Information and Communication Technology Service agreements with a related party. A related party will provide Information Technology system maintenance and support services, system structure and data center management, system supporting and advisory, including system design and development to meet the Company's requirements. These agreements are for the periods from 5 years to 15 years, commencing from the date as specified in the agreement and expired in December 2027.

The Company has the engineering, procurement, and construction contract for the Aromatics 2 Debottlenecking Project with a related party and another party. This agreement is for the period 2 years and will expire in September 2015.

Rental Agreements

The Company has Office Rental and Service agreement with a related party. The agreement is for the period of 2 years and will expire in September 2015 with rental and service rate and conditions as stipulated in the agreement.

The Company has entered into Land Lease agreement with a major shareholder to operate jetty and buffer tank farm services. The agreement is for the period of 22 years 6 months, commencing from the date signed in the agreement by both parties, with land lease rate and condition as specified in the agreement, and will expire in December 2037.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

8 Cash and cash equivalents

	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
	<i>(in million Baht)</i>			
Cash on hand	2	4	2	1
Cash at banks - current accounts	2,135	1,963	12	35
Cash at banks - savings accounts	4,671	2,419	2,037	972
Cash at banks - foreign accounts	5,170	3,840	5,085	3,691
Fixed deposits	40	2,052	-	4
Highly liquid current investments	3,398	8,304	3,000	6,000
Total	15,416	18,582	10,136	10,703

The currency denomination of cash and cash equivalents as at 31 December was as follows:

	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
	<i>(in million Baht)</i>			
Thai Baht (THB)	7,918	12,062	5,051	7,009
United States Dollars (USD)	6,406	5,306	5,085	3,692
Euro (EUR)	574	550	-	-
Singapore Dollar (SGD)	41	54	-	-
Japanese Yen (JPY)	52	74	-	-
Ringgit (MYR)	362	380	-	-
Brazilian Real (BRL)	51	106	-	-
Others	12	50	-	2
Total	15,416	18,582	10,136	10,703

9 Trade accounts receivable and notes receivable

	<i>Note</i>	Consolidated financial statements		Separate financial statements	
		2014	2013	2014	2013
		<i>(in million Baht)</i>			
Related parties	7	23,824	35,294	24,121	36,865
Other parties		17,005	23,178	7,396	12,865
Total		40,829	58,472	31,517	49,730
Less allowance for doubtful accounts		(80)	(84)	(19)	(19)
Net		40,749	58,388	31,498	49,711
Bad and doubtful debts expense for the year		7	29	-	-

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

Aging analyses for trade accounts receivable were as follows:

	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
	<i>(in million Baht)</i>			
Related parties				
Within credit terms	23,813	35,265	24,121	36,865
Overdue:				
Less than 3 months	11	28	-	-
3 - 6 months	-	-	-	-
6 - 12 months	-	1	-	-
Over 12 months	-	-	-	-
	<u>23,824</u>	<u>35,294</u>	<u>24,121</u>	<u>36,865</u>
Less allowance for doubtful accounts	-	-	-	-
Net	<u>23,824</u>	<u>35,294</u>	<u>24,121</u>	<u>36,865</u>
Other parties				
Within credit terms	16,336	22,539	7,313	12,845
Overdue:				
Less than 3 months	565	550	64	1
3 - 6 months	18	10	-	-
6 - 12 months	6	24	-	-
Over 12 months	80	55	19	19
	<u>17,005</u>	<u>23,178</u>	<u>7,396</u>	<u>12,865</u>
Less allowance for doubtful accounts	(80)	(84)	(19)	(19)
Net	<u>16,925</u>	<u>23,094</u>	<u>7,377</u>	<u>12,846</u>
Total	<u>40,749</u>	<u>58,388</u>	<u>31,498</u>	<u>49,711</u>

The normal credit term granted by the Group/Company ranges from 15 days to 90 days.

The currency denomination of trade accounts receivable as at 31 December was as follows:

	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
	<i>(in million Baht)</i>			
Thai Baht (THB)	27,762	40,749	25,139	39,378
United States Dollars (USD)	10,535	14,475	6,359	10,333
Euro (EUR)	2,201	2,775	-	-
Japanese Yen (JPY)	32	104	-	-
Ringgit (MYR)	73	209	-	-
Others	146	76	-	-
Total	<u>40,749</u>	<u>58,388</u>	<u>31,498</u>	<u>49,711</u>

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

10 Other receivables

	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
	<i>(in million Baht)</i>			
Prepaid expenses	1,741	1,780	1,130	1,304
Receivable from oil hedging contracts	1,310	148	1,310	148
Accrued income	615	571	998	882
Other receivables	404	560	722	218
Prepaid income tax expense	747	118	623	-
Receivable from Revenue Department	30	69	1	4
Others	164	145	103	77
Total	5,011	3,391	4,887	2,633

11 Inventories

	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
	<i>(Restated)</i>			
	<i>(in million Baht)</i>			
Finished goods	14,784	20,309	8,845	14,585
Work in progress	3,258	1,736	1,694	6
Raw materials	11,356	20,361	10,136	19,084
Factory supplies and spare parts	8,294	8,068	6,687	6,323
Goods in transit	1,644	103	1,619	3
	39,336	50,577	28,981	40,001
Less allowance for decline in value	(3,379)	(315)	(3,012)	(57)
allowance for obsolescence	(195)	(22)	(78)	(6)
Net	35,762	50,240	25,891	39,938
Inventories recognised as an expense in 'cost of sales of goods:				
- Cost	538,108	497,932	480,273	437,940
- Write - down to net realisable value	3,093	110	2,955	57
Net	541,201	498,042	483,228	437,997

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

12 Investments in subsidiaries and jointly-controlled entity

	Separate financial statements	
	2014	2013
	<i>(in million Baht)</i>	
<i>Subsidiaries</i>		
At 1 January	42,072	68,155
Acquisitions	2,866	5,809
Transfer of businesses	-	190
Impairment losses	-	(1,041)
Loss from capital reduction in subsidiary	-	(263)
Capital distribution	-	(26,273)
Disposals	-	(4,500)
Others	-	(5)
At 31 December	44,938	42,072
<i>Jointly-controlled entity</i>		
At 1 January	210	210
Acquisitions	-	-
Disposals	-	-
At 31 December	210	210
<i>Total</i>		
At 1 January	42,282	68,365
Acquisitions	2,866	5,809
Transfer of businesses	-	190
Impairment losses	-	(1,041)
Loss from capital reduction in subsidiary	-	(263)
Capital distribution	-	(26,273)
Disposals	-	(4,500)
Others	-	(5)
At 31 December	45,148	42,282

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Investments in subsidiaries and jointly-controlled entity as at 31 December 2014 and 2013, and dividend income from those investments for the years then ended were as follows:

Separate financial statements																			
	Ownership Interest (%)	Paid-up capital		Cost		Impairment		At cost-net		Fair value of listed securities		Dividend income for the year ended							
		2014	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014	2013						
		(in million Baht)																	
Subsidiaries																			
TOC Glycol Co., Ltd.	100	100	5,395	5,395	5,395	5,395	-	-	-	5,395	5,395	-	-	-	5,395	5,395	-	3,075	2,913
Thai Tank Terminal Co., Ltd.	51	51	900	900	459	459	-	-	-	459	459	-	-	-	459	459	-	575	552
Thai Styrenics Co., Ltd.	100	100	190	190	190	190	-	-	-	190	190	-	-	-	190	190	-	-	-
Thai Oleochemicals Co., Ltd.	100	100	7,400	7,400	7,400	7,400	-	-	-	7,400	7,400	-	-	-	7,400	7,400	-	415	-
Bangkok Polyethylene Plc.																			
(In process of liquidation)	100	100	1,700	1,700	1	1	-	-	-	1	1	-	-	-	1	1	-	-	318
Bio Creation Co., Ltd.	100	100	92	92	92	92	-	-	-	92	92	-	-	-	92	92	-	-	-
Bio Spectrum Co., Ltd.	100	100	146	146	146	146	-	-	(41)	105	105	-	-	-	105	105	-	-	-
PTT Polyethylene Co., Ltd.																			
(In process of liquidation)	100	100	22,000	22,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18,874
PTT Phenol Co., Ltd.	100	100	10,682	9,001	13,526	11,846	-	-	-	13,526	11,846	-	-	-	13,526	11,846	-	-	378
PTT Maintenance and Engineering Co., Ltd.	60	60	137	137	82	82	-	-	-	82	82	-	-	-	82	82	-	-	14
Auria BioChemicals Co., Ltd.	54	54	90	90	49	49	-	-	-	49	49	-	-	-	49	49	-	-	-
NPC Safety and Environmental Service Co., Ltd.	100	100	165	165	165	165	-	-	-	165	165	-	-	-	165	165	-	-	-
PTT Chemical International Pte. Ltd.	100	100	18,474	17,288	18,474	17,288	-	-	(1,000)	17,474	16,288	-	-	-	17,474	16,288	-	-	-
					45,979	43,113	-	-	(1,041)	44,938	42,072	-	-	-	44,938	42,072	-	4,065	23,049
Jointly-controlled entity																			
Thai Ethoxylate Co., Ltd.	50	50	420	420	210	210	-	-	-	210	210	-	-	-	210	210	-	114	133
					210	210	-	-	-	210	210	-	-	-	210	210	-	114	133
Total					46,189	43,323	(1,041)	(1,041)	(1,041)	45,148	42,282	-	-	-	4,179	23,182	-	4,179	23,182

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

The following summarised financial information on jointly-controlled entity which have been proportionately consolidated in the consolidated financial statements represents the Group's share:

	Owner- ship (%)	Current assets	Non- current assets	Total assets	Current liabilities	Non- current liabilities (in million Baht)	Total revenues for the year	Total expenses for the year	Profit for the year
31 December 2014									
Thai Ethoxylate Co., Ltd.	50	724	196	920	225	4	1,538	1,415	123
31 December 2013									
Thai Ethoxylate Co., Ltd.	50	694	201	895	211	2	1,426	1,311	115

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Change in investment in subsidiaries

On 2 January 2014, Myriant Corporation ("Myriant") has purchased shares from the existing shareholders totalling 3,406,569 shares and subsequently cancelled of those purchased shares. As a result, the group's shareholding in Myriant changed from 72.21% to 84.18%.

On 9 January 2014, PTT Phenol Co., Ltd. has called for paid-up capital from the capital increase by the Extraordinary General Meeting of shareholders held on 11 July 2013 for the purpose of Phenol 2 project at Baht 18 per share, 22.52 million shares, totalling Baht 405.4 million, of which fully received in January 2014.

On 27 June 2014, PTT Chemical International Pte. Ltd. has called for paid-up capital from the capital increase by the Board of Directors Meeting held on 27 April 2012 to invest in Emery Specialty Chemicals (M) Sdn. Bhd. for the purpose of Home and Personal Wellness Product's production unit construction (Co-Surfactants, Thickeners, Auxiliaries, SLS and SLES). The share capital was registered and called at USD 4.88 million (4.88 million shares at USD 1 par value), of which fully received in June 2014.

On 18 July 2014, PTT Chemical International Pte. Ltd. has called for paid-up capital from the capital increase by the Board of Directors Meeting held on 4 April 2014 to invest in PT. Indo Thai Trading for the purpose of polymer products marketing and distribution in Indonesia. The share capital was registered and called at USD 3.92 million (3.92 million shares at USD 1 par value), of which fully received in July 2014.

On 5 August 2014, PTT Phenol Co., Ltd. has called for paid-up capital from the capital increase by the Extraordinary General Meeting of shareholders held on 11 July 2013 for the purpose of Phenol 2 project at Baht 22 per share, 22.52 million shares, totalling Baht 495.4 million, of which fully received in August 2014.

On 28 August 2014, PTTGC International (Netherlands) B.V. ("PTTGC NL") in which the Company holds a 100% interest through a subsidiary PTT Chemical International Pte. Ltd. ("CH Inter"), and Perstorp Holding AB ("Perstorp") agreed to amend the Securityholders Agreement related to call and put options on the remaining 49% of equity still held by Perstorp. PTTGC NL acquired an additional 34% of the registered capital in Vencorex Holding ("Vencorex") from Perstorp, and as a result its shareholding interest in Vencorex increased from 51% to 85%. The consideration will be determined based on the financial performance of Vencorex during the years 2014 and 2015. As at 30 September 2014, the Company estimated the consideration at EUR 5.97 million or approximately Baht 245 million and recognised a liability for that amount in other non-current liabilities. The estimate will be remeasured at the end of the financial reporting period. In addition, Perstorp retained a put option to sell the remaining of shareholding in Vencorex to PTTGC NL and PTTGC NL retained call option to buy the remaining of Perstorp's shareholding in Vencorex.

Subsequently, under the amended agreement, Vencorex increased its registered share capital by EUR 20 million (2,000 million shares at par value EUR 0.01). As a result, the Company has increased its capital interest in Vencorex proportionately via CH Inter and PTTGC NL in accordance with the approval of the Board of Directors held on 18 February 2014. Vencorex fully received the paid-up capital in August 2014.

On 20 November 2014, PTT Chemical International Pte. Ltd. has called for paid-up capital from the capital increase by the Board of Directors Meeting held on 27 April 2012 to invest in Emery Oleochemicals (M) Sdn. Bhd. for the purpose of Bio Polyols manufacturing project. The share capital was registered and called at USD 2.50 million (2.50 million shares at USD 1 par value), of which fully received in November 2014.

On 1 December 2014, PTT Phenol Co., Ltd. has called for paid-up capital from the capital increase by the Extraordinary General Meeting of shareholders held on 11 July 2013 for the purpose of Phenol 2 project at Baht 30 per share, 25.99 million shares, totalling Baht 779.8 million, of which fully received in December 2014.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

On 19 December 2014, PTT Chemical International Pte. Ltd. has called for paid-up capital from the capital increase by the Board of Directors Meeting held on 27 April 2012 to invest in Emery Oleochemicals (M) Sdn. Bhd for the purpose of Specialties Oleochemicals' Research and Technology center project. The share capital was registered and called at USD 3.03 million (3.03 million shares at USD 1 par value), of which fully received in December 2014.

At the Board of Directors Meeting of the Company held on 15 March 2013, the Board approved to establish Auria BioChemicals Co., Ltd. ("Auria") with Myriant Corporation ("Myriant") to conduct Bio-based Chemicals research and development activities. Subsequently, Auria is incorporated in Thailand with the registered share capital of Baht 90 million on 3 May 2013. The Company holds 54% interest with investment cost totaling Baht 48.6 million and Myriant holds 46% interest.

At the Board of Directors Meeting of PTT Chemical International Pte. Ltd. held on 21 March 2013, the Board approved to increase the registered share capital to USD 6.69 million (divided into 6.69 million shares at 1 USD par value), to invest in Myriant Corporation of which the said Company called and fully received in December 2013.

At the Board of Directors Meeting of the Company held on 26 April 2013, the Board approved the 40% share acquisition of an interest in PTT Phenol Co., Ltd. ("PPCL") from PTT Plc. The Company signed the share sales and purchase agreement of 37.01 million shares, amounting to Baht 4,644 million. Sales and purchase transaction was completed in May 2013. As a result, the Company's shareholding in PPCL increased from 60% to 100% and recognised non-controlling interests to owners of the Company amounting to Baht 4,724 million.

At the Extraordinary General Meeting of shareholders of Bio Creation Co., Ltd. held on 27 May 2013, the shareholders approved the reduction of registered capital from Baht 560 million, 5.6 million shares to Baht 140 million, 1.4 million shares, at Baht 100 par value with the issued and paid-up capital at Baht 66 per share. As a result, the issued and paid-up capital decreased from Baht 369.6 million to Baht 92.4 million. The reduction of issued and paid-up capital of Baht 277.2 million has been offset a deficit in retained earnings, totalling Baht 262.8 million and paid the remaining balance totalling Baht 14.4 million to shareholder.

At the Extraordinary General Meeting of shareholders of PTT Phenol Co., Ltd. held on 11 July 2013, the shareholders approved to increase the registered share capital from Baht 9,252 million to Baht 11,851.20 million (divided into 25.99 million shares at 100 Baht par value) and approved to pay the additional registered share capital at Baht 25 per share, totalling Baht 649.80 million for the purpose of Phenol 2 project.

At the Extraordinary General Meeting of shareholders of Bio Spectrum Co., Ltd. held on 17 October 2013, the shareholders approved the reduction of registered share capital from Baht 300 million (paid-up Baht 221 million), 3 million shares, to Baht 225 million (paid-up Baht 146 million), 2.25 million shares at 100 Baht par value, with net reduction totalling Baht 75 million, 0.75 million shares for the existing ordinary shares held by a shareholder. The Company distributed the reduction in capital by transferred the Production Technology amounting to Baht 75 million to a shareholder. As a result of capital reduction, the Group's shareholding in Bio Spectrum Co., Ltd. increased from 75% to 100% and recognised non-controlling interests to owners of the Company amounting to Baht 65 million.

At the Board of Directors Meeting of PTT Chemical International Pte. Ltd. held on 27 April 2012, the Board approved to increase the registered share capital for an amount of USD 27.5 million, to invest in Emery Specialty Chemicals (M) Sdn. Bhd for the purpose of Home and Personal Wellness Product's production unit (SLS and SLES). The share capital was registered and called at USD 3.26 million and 4.66 million (divided into 3.26 million shares and 4.66 million shares at USD 1 par value), of which fully received in February 2013 and December 2013 respectively.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Dividends paid by subsidiaries and jointly-controlled entity

At the Annual General Meeting of the shareholders of Thai Ethoxylate Co., Ltd. held on 2 April 2014, the shareholders approved the appropriation of dividends of Baht 54.50 per share, amounting to Baht 228.90 million. The dividend was paid to the shareholders in May 2014.

At the Annual General Meeting of the shareholders of TOC Glycol Co., Ltd. held on 24 April 2014, the shareholders approved the appropriation of dividends of Baht 33 per share, amounting to Baht 1,780.35 million, of which amounting to Baht 1,079 million, was paid as an interim dividend in 2013. The remaining dividend at the rate of Baht 13 per share, amounting to Baht 701.35 million was paid to the shareholders in April 2014.

At the Annual General Meeting of the shareholders of Thai Tank Terminal Ltd. held on 27 April 2014, the shareholders approved the appropriation of dividends of Baht 125.33 per share, amounting to Baht 1,128 million. The dividend was paid to the shareholders in July and December 2014.

At the Board of Directors Meeting of TOC Glycol Co., Ltd. held on 29 May 2014, the Board approved the appropriation of interim dividends of Baht 5 per share, amounting to Baht 269.75 million. The dividend was paid to the shareholders in May 2014.

At the Board of Directors Meeting of TOC Glycol Co., Ltd. held on 28 August 2014, the Board approved the appropriation of interim dividends of Baht 17 per share, amounting to Baht 917.15 million. The dividend was paid to the shareholders in August 2014.

At the Board of Directors Meeting of Thai Oleochemicals Co., Ltd. held on 4 September 2014, the Board approved the appropriation of interim dividends of Baht 2.6 per share, amounting to Baht 192.40 million. The dividend was paid to the shareholders in September 2014.

At the Board of Directors Meeting of TOC Glycol Co., Ltd. held on 13 November 2014, the Board approved the appropriation of interim dividends of Baht 22 per share, amounting to Baht 1,186.90 million. The dividend was paid to the shareholders in November 2014.

At the Board of Directors Meeting of Thai Oleochemicals Co., Ltd. held on 13 November 2014, the Board approved the appropriation of interim dividends of Baht 3 per share, amounting to Baht 222 million. The dividend was paid to the shareholders in November 2014.

At the Annual General Meeting of the shareholders of Thai Tank Terminal Ltd. held on 5 April 2013, the shareholders approved the appropriation of dividends of Baht 120.22 per share, amounting to Baht 1,082 million. The dividend was paid to the shareholders in July 2013 and January 2014.

At the Board of Directors Meeting of PTT Phenol Co., Ltd. held on 11 April 2013, the Board approved the appropriation of interim dividends of Baht 630 million and set up legal reserve of 5% of retained earnings at the end of 2012 or equivalent to Baht 204.45 million. The dividend was paid to the shareholders in July 2013.

At the Annual General Meeting of the shareholders of PTT Polyethylene Co., Ltd. held on 19 April 2013, the shareholders approved the appropriation of dividends of Baht 43 per share, amounting to Baht 9,460 million, of which Baht 26 per share, amounting to Baht 5,720 million, was paid as an interim dividend in 2012. The remaining dividend at the rate of Baht 17 per share, amounting to Baht 3,740 million was paid to the shareholders in April 2013.

At the Annual General Meeting of the shareholders of TOC Glycol Co., Ltd. held on 25 April 2013, the shareholders approved the appropriation of dividends of Baht 78 per share, amounting to Baht 4,208 million, of which amounting to Baht 2,374 million, was paid as an interim dividend. The remaining dividend at the rate of Baht 34 per share, amounting to Baht 1,834 million was paid to the shareholders in April 2013.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

At the Annual General Meeting of the shareholders of Thai Ethoxylate Co., Ltd. held on 25 April 2013, the shareholders approved the appropriation of dividends of Baht 63.25 per share, amounting to Baht 266 million. The dividend was paid to the shareholders in May 2013.

At the Annual General Meeting of the shareholders of PTT Maintenance and Engineering Co., Ltd. held on 29 April 2013, the shareholders approved the appropriation of dividends of Baht 11.75 per share, amounting to Baht 24 million. The dividend was paid to the shareholders in May 2013.

At the Board of Director Meeting of PTT Polyethylene Co., Ltd. held on 20 June 2013, the Board approved the appropriation of interim dividends of Baht 67.53 - 69.80 per share, amounting to Baht 14,856.6 - 15,356.0 million and has assigned Managing Director to finalise the final payment. Subsequently on 30 June 2013, Managing Director approved the interim dividend of Baht 68.79 per share, amounting to Baht 15,133.8 million. The dividend was paid to the shareholders in July 2013.

At the Board of Director Meeting of Bangkok Polyethylene Plc. held on 21 June 2013, the Board approved the appropriation of interim dividends of Baht 12.20 - 13.32 per share, amounting to Baht 2,074.0 - 2,264.4 million and has assigned Managing Director to finalise the final payment. Subsequently on 30 June 2013, Managing Director approved the interim dividend of Baht 12.60 per share, amounting to Baht 2,142 million. The dividend was paid to the shareholders in July 2013.

At the Board of Directors Meeting of TOC Glycol Co., Ltd. held on 21 November 2013, the Board approved the appropriation of interim dividends of Baht 20 per share, amounting to Baht 1,079 million. The dividend was paid to the shareholders in November 2013.

Impairment loss on investment in subsidiary

The Company recognised impairment loss on the investment in PTT Chemical International Pte. Ltd. totalling Baht 1,000 million in the separate financial statements for the year ended 31 December 2013 as a result of recoverable amount in investment in Myriant Corporation held by PTT Chemical International Pte. Ltd. was less than its carrying amount.

Others

At the Annual General Meeting of shareholders of the Company held on 4 April 2013, the shareholders approved the entire business transfer and other activities in relation to the matter of Bangkok Polyethylene Plc. ("BPE") and PTT Polyethylene Co., Ltd. ("PTTPE"). Both companies are the Company's subsidiaries. Subsequently on 1 July 2013, the entire business transferred of BPE and PTTPE to the Company is completed under the law and the Company will proceed with the dissolution of BPE and PTTPE accordingly.

On 30 August 2013, PTT Polyethylene Co., Ltd. ("PTTPE") and Bangkok Polyethylene Plc. ("BPE") had registered to dissolve the business with Department of Business Development, Ministry of Commerce. As at 31 December 2014, both companies are in the liquidation process.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

13 Investments in associates

	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
	<i>(in million Baht)</i>			
At 1 January	12,549	6,151	9,717	3,399
Share of net profit (loss) of equity- accounted associates	534	(77)	-	-
Acquisitions	124	7,434	-	6,318
Dividend income	(109)	(291)	-	-
Gain from change in investment holding	-	39	-	-
Disposals	-	(648)	-	-
Effect of change in exchange rates	(5)	(59)	-	-
At 31 December	13,093	12,549	9,717	9,717

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Investments in associates as at 31 December 2014 and 2013, and dividend income from those investments for the years then ended were as follows:

Consolidated financial statements										
	Ownership interest (%)		Paid-up capital		Cost		Equity		Impairment	
	2014	2013	2014	2013	2014	2013	2014	2013	2014	2013
<i>(in million Baht)</i>										
Associates										
Global Power Synergy Plc.	30	30	11,237	11,237	6,318	6,318	8,391	7,761	-	-
PTT Polymer Marketing Co., Ltd.	25	25	40	40	10	10	235	223	-	-
PTT Energy Solution Co., Ltd.	20	20	150	150	30	30	44	38	-	-
PTT ICT Solutions Co., Ltd.	40	40	150	150	60	60	373	303	-	-
Vinythai Plc.	25	25	7,111	7,111	3,297	3,297	3,947	4,205	-	-
Eastern Fluid Transport Co., Ltd.	23	23	10	10	2	2	18	19	-	-
					<u>9,717</u>	<u>9,717</u>	<u>13,008</u>	<u>12,549</u>	<u>-</u>	<u>-</u>
									<u>13,008</u>	<u>12,549</u>
									<u>109</u>	<u>291</u>
Indirect associates										
PT. Indo Thai Trading	49	-	255	-	-	-	85	-	-	-
					<u>124</u>	<u>124</u>	<u>85</u>	<u>-</u>	<u>-</u>	<u>-</u>
									<u>85</u>	<u>-</u>
Total					<u>9,841</u>	<u>9,717</u>	<u>13,093</u>	<u>12,549</u>	<u>-</u>	<u>291</u>

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

Ownership interest		Separate financial statements										Dividend income for the year ended		
		Paid-up capital		Cost		Impairment		Equity - net		Market price of listed securities				
2014	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014	2013	
(in million Baht)														
</														

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

The following summarised financial information on associates which have been accounted for using the equity method is not adjusted for the percentage of ownership held by the Group:

	Owner- ship (%)	Total assets	Total liabilities <i>(in million Baht)</i>	Total revenues for the year	Profit (loss) for the year
31 December 2014					
Associates					
PTT Polymer Marketing Co., Ltd.	25	8,888	7,949	90,366	137
Vinythai Plc.	25	19,773	4,701	17,847	(964)
Eastern Fluid Transport Co., Ltd.	23	111	44	98	32
PTT ICT Solutions Co., Ltd.	40	2,531	1,598	3,023	238
PTT Energy Solutions Co., Ltd.	20	426	209	582	39
Global Power Synergy Plc.	30	44,002	16,839	23,738	1,978
Total		75,731	31,340	135,654	1,460
31 December 2013					
Associates					
PTT Polymer Marketing Co., Ltd.	25	9,203	8,313	76,666	262
Vinythai Plc.	25	21,783	5,638	17,513	198
Eastern Fluid Transport Co., Ltd.	23	114	42	104	38
PTT ICT Solutions Co., Ltd.	40	1,947	1,190	2,371	220
PTT Energy Solutions Co., Ltd.	20	410	224	463	16
Global Power Synergy Plc.	30	45,490	20,180	26,633	1,187
Total		78,947	35,587	123,750	1,921

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

14 Other investments

	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
	<i>(in million Baht)</i>			
<i>Current investment</i>				
Promissory notes -financial institutions	31,990	25,802	31,477	24,676
	31,990	25,802	31,477	24,676
<i>Other long - term investments</i>				
Debt securities held to maturity	55	77	-	-
Alliance Petrochemical Investment (Singapore) Pte. Ltd. (15.34% shareholding by the Company)	290	290	290	290
Guangzhou Keylink Chemical Co., Ltd. (15% Shareholding by the Group)	-	21	-	-
Exeltium SAS (4% shareholding by the Group)	283	319	-	-
Business Services Alliance Co., Ltd. (50% Preferred share shareholding)	1	1	1	1
	629	708	291	291
Total	32,619	26,510	31,768	24,967

The currency denomination of other investments as at 31 December was as follows:

	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
	<i>(in million Baht)</i>			
Thai Baht (THB)	16,781	20,848	16,291	20,001
United States Dollars (USD)	7,844	2,117	7,766	1,761
Euro Dollars(EUR)	283	319	-	-
Chinese Yuan (CNY)	7,711	3,226	7,711	3,205
Total	32,619	26,510	31,768	24,967

15 Property, plant and equipment

Consolidated financial statements						
	Land & improvement	Plant, machinery, factory equipment and tools	Buildings & buildings improvement	Furniture, fixtures and equipment	Vehicles	Asset under construction
			<i>(in million Baht)</i>			
Cost						
At 1 January 2013	7,387	308,490	15,375	3,308	884	347,190
Additions	4	522	120	214	45	16,949
Acquired through business acquisition (Restated)	-	-	419	49	-	4,332
Transfers	25	7,209	399	13	1	(247)
Disposals	(7)	(469)	(15)	(60)	(79)	(630)
Disposals of investment in subsidiary	(226)	(20,469)	(494)	(39)	-	(21,738)
Effect of change in exchange rates	39	844	219	2	-	1,520
At 31 December 2013 and 1 January 2014 (Restated)	7,222	296,127	16,023	3,487	851	347,376
Additions	11	816	48	246	87	19,044
Transfers	116	14,005	452	113	-	(919)
Disposals	(10)	(420)	(138)	(263)	(37)	(868)
Effect of change in exchange rates	(36)	(1,157)	(235)	(36)	-	(1,815)
At 31 December 2014	7,303	309,371	16,150	3,547	901	362,818

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

	Consolidated financial statements					
	Land& improvement	Plant, machinery, factory equipment and tools	Buildings& buildings improvement	Furniture, fixtures and equipment	Vehicles	Asset under construction
			<i>(in million Baht)</i>			
Depreciation and impairment losses						
At 1 January 2013	(445)	(98,969)	(4,245)	(2,303)	(526)	(106,693)
Depreciation charge for the year	(66)	(12,870)	(789)	(364)	(103)	(14,192)
Transfers	-	147	(137)	16	(1)	25
Disposals	-	276	12	59	72	419
Disposals of investment in subsidiary (Reversal) impairment losses	-	3,977	106	17	-	4,100
Effect of change in exchange rates	-	35	9	1	-	22
At 31 December 2013 and 1 January 2014	(511)	(107,515)	(13)	1	-	(123)
Depreciation charge for the year	(80)	(13,902)	(5,057)	(2,573)	(558)	(116,442)
Transfers	-	(222)	(658)	(367)	(90)	(15,097)
Disposals	6	368	91	5	-	(126)
Impairment losses	(4)	(1,064)	91	257	30	752
Effect of change in exchange rates	(15)	393	(37)	-	-	(1,157)
At 31 December 2014	(604)	(121,942)	(5,533)	(2,639)	(618)	(131,609)

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

	Consolidated financial statements						
	Land & improvement	Plant, machinery, factory equipment and tools	Buildings & buildings improvement	Furniture, fixtures and equipment	Vehicles	Asset under construction	Total
				(in million Baht)			
<i>Net book value</i>							
At 1 January 2013							
Owned assets	6,942	209,521	11,130	912	191	11,541	240,237
Assets under finance leases	-	-	-	93	167	-	260
	6,942	209,521	11,130	1,005	358	11,541	240,497
31 December 2013 and 1 January 2014 (Restated)							
Owned assets	6,711	188,612	10,966	770	165	23,438	230,662
Assets under finance leases	-	-	-	144	128	-	272
	6,711	188,612	10,966	914	293	23,438	230,934
At 31 December 2014							
Owned assets	6,652	187,255	10,611	693	93	25,273	230,577
Assets under finance leases	47	174	6	215	190	-	632
	6,699	187,429	10,617	908	283	25,273	231,209

The gross amount of the Group's fully depreciated property and equipment that was still in use as at 31 December 2014 amounted to Baht 19,687 million. (2013: Baht 15,756 million)

Security

At 31 December 2014, the Group's properties with a net book value of Baht 8,930 million (2013: Baht 8,221 million) were registered to secure Bank loan (see note 20).

Property, plant and equipment under construction

Capitalised borrowing costs relating to the acquisition of the land and the construction of the new factory amounted to Baht 111 million (2013: Baht 23 million), with a capitalisation rate of 4.18% to 5.35% (2013: 4.94%).

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

Separate financial statements

	Land & improvement	Plant, machinery, factory equipment and tools	Buildings & buildings improvement	Furniture, fixtures and equipment (in million Baht)	Vehicles	Asset under construction	Total
Cost							
At 1 January 2013	3,930	194,530	6,881	2,179	519	8,369	216,408
Additions	2	305	3	169	23	9,915	10,417
Transfer of businesses	1,204	39,861	1,317	26	104	887	43,399
Transfers	5	4,920	45	(14)	1	(5,146)	(189)
Disposals	-	(181)	(1)	(42)	(62)	-	(286)
At 31 December 2013 and 1 January 2014	5,141	239,435	8,245	2,318	585	14,025	269,749
Additions	11	422	17	142	39	8,897	9,528
Transfers	38	10,827	705	60	-	(12,444)	(814)
Disposals	(10)	(100)	(80)	(213)	(21)	-	(424)
At 31 December 2014	5,180	250,584	8,887	2,307	603	10,478	278,039
Depreciation							
At 1 January 2013	(299)	(76,496)	(2,256)	(1,802)	(357)	-	(81,210)
Depreciation charge for the year	(40)	(8,494)	(339)	(231)	(69)	-	(9,173)
Transfers	-	(4)	(10)	15	(1)	-	-
Disposals	-	131	1	42	56	-	230
At 31 December 2013 and 1 January 2014	(339)	(84,863)	(2,604)	(1,976)	(371)	-	(90,153)
Depreciation charge for the year	(55)	(10,234)	(395)	(180)	(68)	-	(10,932)
Transfers	-	-	-	5	-	-	5
Disposals	6	72	79	213	15	-	385
At 31 December 2014	(388)	(95,025)	(2,920)	(1,938)	(424)	-	(100,695)

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

Separate financial statements

Net book value

At 1 January 2013

Owned assets
 Assets under finance leases

At 31 December 2013 and 1 January 2014

Owned assets
 Assets under finance leases

At 31 December 2014

Owned assets
 Assets under finance leases

	Land & improvement	Plant, machinery, factory equipment and tools	Buildings & buildings improvement	Furniture, fixtures and equipment	Vehicles	Asset under construction	Total
	3,631	118,034	4,625	298	22	8,369	134,979
	-	-	-	79	140	-	219
	3,631	118,034	4,625	377	162	8,369	135,198
	4,802	154,572	5,641	202	102	14,025	179,344
	-	-	-	140	112	-	252
	4,802	154,572	5,641	342	214	14,025	179,596
	4,792	155,559	5,967	194	128	10,478	177,118
	-	-	-	175	51	-	226
	4,792	155,559	5,967	369	179	10,478	177,344

The gross amount of the Company's fully depreciated property and equipment that was still in use as at 31 December 2014 amounted to Baht 6,459 million (2013: Baht 5,197 million).

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

16 Land leasehold right

	Consolidated financial statements	Separate financial statements
	<i>(in million Baht)</i>	
<i>Cost</i>		
At 1 January 2013	2,470	2,306
Additions	46	-
Transfers	(47)	-
Effect of change in exchange rates	(4)	-
At 31 December 2013 and 1 January 2014	2,465	2,306
Additions	2	-
Effect of change in exchange rates	(8)	-
At 31 December 2014	2,459	2,306
<i>Amortisation</i>		
At 1 January 2013	(1,338)	(1,330)
Amortisation charge for the year	(80)	(78)
Disposal of investment in subsidiary	1	-
At 31 December 2013 and 1 January 2014	(1,417)	(1,408)
Amortisation charge for the year	(80)	(78)
At 31 December 2014	(1,497)	(1,486)
<i>Net book value</i>		
At 1 January 2013	1,132	976
At 31 December 2013 and 1 January 2014	1,048	898
At 31 December 2014	962	820

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

17 Goodwill

	Consolidated financial statements		
	Goodwill from business combination	Goodwill from acquisition (in million Baht)	Total
<i>Cost</i>			
At 1 January 2013	7,709	3,060	10,769
Acquired through business acquisitions (Restated)	-	783	783
Disposal of investment in subsidiary	(633)	-	(633)
Effect of change in exchange rates	-	63	63
At 31 December 2013 and 1 January 2014	7,076	3,906	10,982
Effect of change in exchange rates	-	(54)	(54)
At 31 December 2014	7,076	3,852	10,928
<i>Impairment losses</i>			
At 1 January 2013	-	-	-
Impairment loss	-	-	-
At 31 December 2013 and 1 January 2014	-	-	-
Impairment loss	-	-	-
At 31 December 2014	-	-	-
<i>Net book value</i>			
At 1 January 2013	7,709	3,060	10,769
At 31 December 2013 and 1 January 2014	7,076	3,906	10,982
At 31 December 2014	7,076	3,852	10,928
Separate financial statements			
	Goodwill from business combination	Goodwill from acquisition (in million Baht)	Total
<i>Cost</i>			
At 1 January 2013	7,010	-	7,010
Effect of change in exchange rates	-	-	-
At 31 December 2013 and 1 January 2014	7,010	-	7,010
Effect of change in exchange rates	-	-	-
At 31 December 2014	7,010	-	7,010
<i>Impairment losses</i>			
At 1 January 2013	-	-	-
Impairment loss	-	-	-
At 31 December 2013 and 1 January 2014	-	-	-
Impairment loss	-	-	-
At 31 December 2014	-	-	-
<i>Net book value</i>			
At 1 January 2013	7,010	-	7,010
At 31 December 2013 and 1 January 2014	7,010	-	7,010
At 31 December 2014	7,010	-	7,010

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

	Consolidated financial statements				
	License for production process	Software licences	Customer contracts and the related customer relationships	Right to use pipeline	Intangible in progress
			(in million Baht)	other operation	Total
Amortisation and impairment losses					
At 1 January 2013	(1,363)	(1,005)	(416)	(201)	-
Amortisation charge for the year	(238)	(274)	(355)	(27)	-
Disposals	-	2	-	-	-
Transfers	-	-	-	-	-
Disposals of investment in subsidiary	-	15	15	3	-
Effect of change in exchange rates	-	(195)	(5)	-	-
At 31 December 2013 and 1 January 2014	(1,601)	(1,457)	(761)	(225)	(228)
Amortisation charge for the year	(215)	(267)	(256)	(27)	-
Disposals	-	14	-	-	-
Transfers	4	(36)	-	-	-
Impairment loss	-	-	-	-	-
Effect of change in exchange rates	-	29	1	-	-
At 31 December 2014	(1,812)	(1,717)	(1,016)	(252)	(5,460)
Net book value					
At 1 January 2013	3,727	964	2,902	224	574
At 31 December 2013 and 1 January 2014 (Restated)	3,517	952	2,458	194	623
At 31 December 2014	3,679	1,878	2,201	167	688
					10,080
					10,438
					10,848

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

	Separate financial statements				
	License for production process	Software licences	Customer contracts and the related customer relationships (in million Baht)	Right to use other operation	Intangible in progress
			Right to use pipeline		Total
Cost					
At 1 January 2013	1,415	1,315	311	115	5,992
Additions	36	12	13	-	125
Transfer of businesses	2,100	32	31	7	2,182
Transfers	-	109	-	-	108
At 31 December 2013 and 1 January 2014	3,551	1,468	355	122	8,407
Additions	4	16	-	-	910
Transfers	377	1,145	-	(122)	582
At 31 December 2014	3,932	2,629	355	-	9,899
Amortisation					
At 1 January 2013	(836)	(699)	(150)	(29)	(1,966)
Amortisation charge for the year	(146)	(143)	(21)	(21)	(533)
At 31 December 2013 and 1 January 2014	(982)	(842)	(171)	(50)	(2,499)
Amortisation charge for the year	(176)	(180)	(24)	(13)	(595)
Transfers	(34)	(34)	-	63	(5)
At 31 December 2014	(1,192)	(1,056)	(195)	-	(3,099)
Net book value					
At 1 January 2013	579	616	161	86	4,026
At 31 December 2013 and 1 January 2014	2,569	626	184	72	5,908
At 31 December 2014	2,740	1,573	160	-	6,800

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

19 Deferred tax

Deferred tax assets and liabilities as at 31 December were as follows:

	Consolidated financial statements			
	Assets		Liabilities	
	2014	2013	2014	2013 (Restated)
	<i>(in million Baht)</i>			
Total	2,331	2,207	(5,528)	(5,724)
Set off of tax	(1,633)	(1,508)	1,633	1,508
Net deferred tax assets (liabilities)	698	699	(3,895)	(4,216)

	Separate financial statements			
	Assets		Liabilities	
	2014	2013	2014	2013
	<i>(in million Baht)</i>			
Total	1,557	1,371	(4,266)	(4,313)
Set off of tax	(1,557)	(1,371)	1,557	1,371
Net deferred tax assets (liabilities)	-	-	(2,709)	(2,942)

Movements in total deferred tax assets and liabilities during the year were as follows:

	Consolidated financial statements				
	(Charged) / credited to:				
At 1 January 2014 (Restated)	Profit and loss (note 32)	Other comprehensive income	Acquisition of subsidiary	Exchange differences	At 31 December 2014
	<i>(in million Baht)</i>				
Deferred tax assets					
Inventories	32	(11)	-	-	21
Employee benefit expenses	391	101	155	(13)	634
Fair value adjustment at amalgamation date	314	(31)	-	(37)	246
Coverable oil spill expenses from insurance	150	(1)	-	-	149
Capital distribution from subsidiaries	365	-	-	-	365
Others	955	(44)	-	5	916
Total	2,207	14	155	(8)	2,331
Deferred tax liabilities					
Property, plant and equipment	(3,316)	(236)	-	38	(3,514)
Finance lease assets	(9)	3	-	-	(6)
Fair value adjustment at amalgamation date	(1,720)	126	-	63	(1,531)
Gain on disposal of investment	(310)	310	-	-	-
Others	(369)	(80)	-	(42)	(477)
Total	(5,724)	123	-	(4)	(5,528)
Net	(3,517)	137	155	(12)	(3,197)

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

	Consolidated financial statements					
		(Charged) / credited to:				
	At 1 January 2013	Profit and loss <i>(note 32)</i>	Other comprehensive income	Acquisition of subsidiary	Exchange differences	At 31 December 2013 (Restated)
<i>Deferred tax assets</i>						
Inventories	6	25	-	-	1	32
Employee benefit expenses	319	35	-	-	37	391
Fair value adjustment at amalgamation date	305	9	-	-	-	314
Coverable oil spill expenses from insurance	-	150	-	-	-	150
Capital distribution from subsidiaries	-	365	-	-	-	365
Others	885	62	-	(20)	28	955
Total	1,515	646	-	(20)	66	2,207
<i>Deferred tax liabilities</i>						
Property, plant and equipment	(2,710)	(105)	-	(471)	(30)	(3,316)
Finance lease assets	(10)	1	-	-	-	(9)
Fair value adjustment at amalgamation date	(2,057)	203	-	134	-	(1,720)
Gain on disposal of investment	-	(310)	-	-	-	(310)
Others	-	(6)	-	(361)	(2)	(369)
Total	(4,777)	(217)	-	(698)	(32)	(5,724)
Net	(3,262)	429	-	(718)	34	(3,517)

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

		Separate financial statements (Charged) / credited to:			
	At 1 January 2014	Profit and loss (note 32)	Other comprehensive income (in million Baht)	Transfer of business	At 31 December 2014
<i>Deferred tax assets</i>					
Inventories	13	(9)	-	-	4
Employee benefit expenses	269	42	53	-	364
Fair value adjustment at amalgamation date	251	(5)	-	-	246
Coverable oil spill expenses from insurance	150	(1)	-	-	149
Capital distribution from subsidiaries	365	-	-	-	365
Loss carry forward	-	87	-	-	87
Others	323	19	-	-	342
Total	1,371	133	53	-	1,557
<i>Deferred tax liabilities</i>					
Inventories	(6)	(94)	-	-	(100)
Property, plant and equipment	(2,372)	(265)	-	-	(2,637)
Finance lease assets	(8)	4	-	-	(4)
Fair value adjustment at amalgamation date	(1,616)	126	-	-	(1,490)
Gain on disposal of investment	(310)	310	-	-	-
Others	(1)	(34)	-	-	(35)
Total	(4,313)	47	-	-	(4,266)
Net	(2,942)	180	53	-	(2,709)

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

	At 1 January 2013	Separate financial statements (Charged) / credited to:			At 31 December 2013
		Profit and loss (note 32)	Other comprehensive income (in million Baht)	Transfer of business	
<i>Deferred tax assets</i>					
Inventories	5	8	-	-	13
Employee benefit expenses	215	37	-	17	269
Fair value adjustment at amalgamation date	242	9	-	-	251
Coverable oil spill expenses from insurance	-	150	-	-	150
Capital distribution from subsidiaries	-	365	-	-	365
Others	202	(136)	-	257	323
Total	664	433	-	274	1,371
<i>Deferred tax liabilities</i>					
Inventories	(19)	13	-	-	(6)
Property, plant and equipment	(1,991)	(339)	-	(42)	(2,372)
Finance lease assets	(9)	1	-	-	(8)
Net gain on fair value remeasurement of interest rate swap contracts	(3)	3	-	-	-
Fair value adjustment at amalgamation date	(1,819)	203	-	-	(1,616)
Gain on disposal of investment	-	(310)	-	-	(310)
Others	-	(1)	-	-	(1)
Total	(3,841)	(430)	-	(42)	(4,313)
Net	(3,177)	3	-	232	(2,942)

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

20 Interest-bearing liabilities

Interest bearing liabilities are defined as bank overdrafts, loans and finance lease liabilities which are as follows;

		Consolidated financial statements		Separate financial statements	
	<i>Note</i>	2014	2013 (Restated)	2014	2013
		<i>(in million Baht)</i>			
Current					
Bank overdrafts and short-term loans from financial institutions					
secured		1,203	1,407	-	-
unsecured		2,717	3,192	-	-
Short-term loans from related parties					
unsecured	7	-	-	2,015	1,238
Short-term loans		3,920	4,599	2,015	1,238
Current portion of long-term loans from financial institutions					
secured		1,212	960	-	-
unsecured		6,753	3,798	6,047	3,169
Current portion of long-term loans from other parties					
unsecured		692	17	-	-
Current portion of debentures					
unsecured		14,431	15,065	14,431	15,065
Current portion of long-term loans		23,088	19,840	20,478	18,234
Current portion of financial lease liabilities		253	234	124	151
Total current		27,261	24,673	22,617	19,623
Non-current					
Long-term loans from financial institutions					
secured		8,426	7,619	-	-
unsecured		32,575	33,122	29,792	32,183
Long-term loans from other parties					
secured		1,215	1,883	-	-
unsecured		329	283	-	-
Debentures					
unsecured		48,696	52,878	48,696	52,878
Long-term loans		91,241	95,785	78,488	85,061
Finance lease liabilities		258	290	100	116
Total non-current		91,499	96,075	78,588	85,177
Total		118,760	120,748	101,205	104,800

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

The currency denomination of interest-bearing liabilities as at 31 December was as follows:

	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
		(Restated)		
		(in million Baht)		
Thai Baht (THB)	62,004	66,651	54,004	59,130
United States Dollars (USD)	50,838	49,273	47,201	45,670
Euro (EUR)	3,520	3,414	-	-
Japanese Yen (JPY)	39	-	-	-
Ringgit (MYR)	2,322	1,379	-	-
Others	37	31	-	-
Total	118,760	120,748	101,205	104,800

As at 31 December 2014, the Group and the Company had unutilised credit facilities totalling Baht 48,303 million and 40,064 million, respectively. (2013: Baht 55,210 million and 37,180 million, respectively)

The periods to maturity of interest-bearing liabilities, excluding finance lease liabilities, as at 31 December were as follows:

	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
		(Restated)		
		(in million Baht)		
Within one year	27,008	24,439	22,493	19,472
After one year but within five years	37,720	49,725	29,843	43,422
After five years	53,521	46,060	48,645	41,639
Total	118,249	120,224	100,981	104,533

Long-term loans as at 31 December were secured on the following assets;

	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
		(in million Baht)		
Property, plant and equipment	8,930	8,221	-	-

Debentures and Loans from financial institutions of the Group were as follow;

Debentures

As at 31 December 2014, the Company had unsubordinated and unsecured debentures in US dollar and Thai Baht in the amount of Baht 63,127 million (2013: Baht 67,943 million (Original amount of Baht 67,878 million and fair value adjustment of debentures from business combination of Baht 65 million)). These debentures have maturity periods between 7 years to 10 years, bear different interest rates and repayment schedules as specified in each agreement.

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

Details of the Company's debentures as at 31 December 2014 were as follows:

	Currency	Facilities (in million)	Face value per share	Years	Interest rates (%) p.a.	Repayment Terms
Unsubordinated debentures at 99.46% of the face value unsecured	USD	300	10,000	10	5.5	Interest is payable on semi-annual basis and maturity in June 2015
Unsubordinated debenture unsecured	Baht	2,800	1,000	10	5.5	Interest is payable on semi-annual basis and maturity in October 2017
Unsubordinated debenture unsecured	Baht	500	1,000	7	5.6	Interest is payable on semi-annual basis and maturity in October 2015
Unsubordinated debenture unsecured	Baht	4,000	1,000	1-3 4-5 6-7	5.3 6 6.45	Interest is payable on quarterly basis and maturity in December 2015
Unsubordinated debenture unsecured	Baht	1,058	1,000	7	4.9	Interest is payable on semi-annual basis and maturity in June 2016
Unsubordinated debenture unsecured	Baht	1,942	1,000	10	5.5	Interest is payable on semi-annual basis and maturity in June 2019
Unsubordinated debenture at 99.108% of the face value unsecured	USD	1,000	1,000	10	4.25	Interest is payable on semi-annual basis and maturity in September 2022
Unsubordinated debenture unsecured with a debenture holders' representative	Baht	10,000	1,000	7	4.50	Interest is payable on semi-annual basis and maturity in August 2021

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

On 8 August 2014, the Company issued the 7-year unsubordinated and unsecured Debentures with a debenture holders' representative in the name-registered certificate in an amount of up to 10 million units at the offering price of Baht 1,000 per unit. The aggregate offering amount of the debentures is Baht 10 billion. The debentures were offered to public investors (exclusive of institutional investors). The Company intends to use the proceeds from the sale of the debentures for the Company's strategic investment and/or general corporate purposes and/or refinancing of existing debentures or debt. The debentures bear interest at a fixed rate of 4.5% per annum.

Loans from financial institution

As at 31 December 2014, the Group and the Company had long-term and revolving long-term credit facility agreements with several financial institutions totalling Baht 48,966 million and 35,839 million, respectively (Original amount of Baht 48,799 million and 35,730 million and fair value adjustment of loans from business combination of Baht 167 million and 109 million, respectively), (2013: Baht 45,499 million and Baht 35,352 million, respectively (Original amount of Baht 45,304 million and 35,222 million and fair value adjustment of loans from business combination of Baht 195 million and 130 million, respectively)), bear different interest rates as specified in each agreement. The Company is required to comply with certain covenants pertaining to maintenance of certain financial ratios, percentage of share held by the major shareholder and other conditions as specified in each agreement.

Details of the Group's loans as at 31 December 2014 were as follows:

Currency	Facilities (in million)	Interest Rates (%) p.a.	Repayment Terms
The Company			
Baht	1,000	THBFIX 6 M plus margin	Principal is repayable on semi-annual basis, in 9 instalments commencing from October 2011.
Baht	7,500	Highest interest rate for 6 month-fixed deposit plus margin	Principal is repayable on semi-annual basis, in 15 instalments commencing from August 2011.
Baht	1,500	Fixed rate	Principal is repayable on semi-annual basis, in 9 instalments commencing from September 2011.
Baht	1,600	THBFIX 6 M plus margin	Principal is repayable on semi-annual basis, in 8 instalments commencing from March 2013.
Baht	2,500	THBFIX 6 M plus margin	Principal is repayable on annual basis, in 3 instalments commencing from July 2016.
Baht	2,000	Highest interest rate for 6 month-fixed deposit plus margin	Principal is repayable at the end of contract, in May 2017.
Baht	2,000	Highest interest rate for 3 month-fixed deposit plus margin	Principal is repayable in 2 instalments at 28 September 2018 and 30 September 2020.

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

Currency	Facilities (in million)	Interest Rates (%) p.a.	Repayment Terms
The Company (continue)			
Baht	3,000	Prime Rate less discount	Principal is repayable at the end of contract, in December 2017.
Baht	9,898	Highest interest rate for 6 month-fixed deposit plus margin	Principal is repayable on semi-annual basis, in 20 instalments commencing from March 2011.
USD	80	LIBOR 1M/3M/6M plus margin	Principal is repayable at the end of contract, in September 2015.
USD	100	LIBOR 6M plus margin	Principal is repayable on semi-annual basis, in 10 instalments commencing from March 2016.
Baht	7,000	FDR 6 M plus margin	Principal is repayable on semi-annual basis, in 15 instalments commencing from September 2013.
Baht	3,000	FDR 6 M plus margin	Principal is repayable on semi-annual basis, in 14 instalments commencing from April 2014.
Subsidiaries			
Baht	170	THBFIX 3 M plus a margin	Principal is repayable on quarterly basis, in 12 instalments, commencing from March 2012.
Baht	140	THBFIX 3 M plus a margin	Principal is repayable on quarterly basis, in 12 instalments, commencing from September 2012.
Baht	760	BIBOR 3 M plus a margin	Principal is repayable on quarterly basis, in 14 instalments, commencing from September 2012.
Baht	700	BIBOR 3 M plus a margin	Principal is repayable on quarterly basis, in 16 instalments, commencing from September 2014.
Baht	6,320	FDR 6 M-average of 4 banks plus a margin	Principal is repayable on semi-annual basis, in 11 instalments commencing from September 2013.
Baht	3,240	FDR 6 M-average of 4 banks plus a margin	Principal is repayable on semi-annual basis, in 17 instalments commencing from September 2013.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Currency	Facilities (in million)	Interest Rates (%) p.a.	Repayment Terms
Subsidiaries (continue)			
Baht	7,000	FDR 6 M plus a margin	Principal is repayable on semi-annual basis, in 20 instalments commencing from March 2017.
EURO	30	EURIBOR 3 M plus a margin	Principal is repayable on annually basis, in 3 instalments commencing from 2017.
Jointly-controlled entities			
USD	50	LIBOR plus a margin	Principal is repayable on quarterly basis, in February and August 2015.
EURO	13	Fixed rate	Principal is repayable at the end of contract, in July 2015.
Ringgit	105	Cost of fund plus a margin	Principal is repayable on semi-annual basis, commencing from July 2016.
USD	32	EURIBOR plus a margin	Principal is repayable on quarterly basis, in April and July, commencing from 2016.

21 Trade accounts payable

	Note	Consolidated financial statements		Separate financial statements	
		2014	2013	2014	2013
		<i>(in million Baht)</i>			
Related parties	7	18,213	39,501	17,759	38,640
Other parties		4,723	6,154	852	995
Total		22,936	45,655	18,611	39,635

The currency denomination of trade accounts payable as at 31 December was as follows:

	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
	<i>(in million Baht)</i>			
Thai Baht (THB)	18,668	40,894	17,614	39,247
United States Dollars (USD)	1,849	1,774	997	388
Euro (EUR)	1,976	2,471	-	-
Singapore Dollars (SGD)	5	10	-	-
Japanese Yen (JPY)	14	12	-	-
Ringgit (MYR)	409	390	-	-
Brazilian real (BRL)	10	90	-	-
Others	5	14	-	-
Total	22,936	45,655	18,611	39,635

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

22 Other payables

	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
	(Restated)			
	(in million Baht)			
Accrued operating expenses	2,950	3,213	934	1,208
Accrued interest expenses	721	806	683	700
Other payables	3,246	2,692	2,800	2,524
Deposits and advances received	164	107	20	8
Retention payables	294	322	275	87
Current portion of finance lease liabilities	254	234	124	151
Withholding tax payable	296	211	253	174
Accrued other tax expenses	567	169	504	131
Others	461	465	28	24
Total	8,953	8,219	5,621	5,007

23 Employee benefit obligations

	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
	(in million Baht)			
Statement of financial position				
Statement of financial position				
obligations for:				
Present value of unfunded obligation	3,251	2,628	1,503	1,054
Present value of funded obligation	956	830	-	-
Other long-term employee benefits	529	514	315	299
Total	4,736	3,972	1,818	1,353
Fair value of plan assets	(739)	(704)	-	-
Net	3,997	3,268	1,818	1,353

Movement in the present value of the defined benefit obligations:

	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
	(Restated)			
	(in million Baht)			
Defined benefit obligations at 1 January	3,972	3,650	1,353	1,157
Transfer of businesses	-	-	-	92
Benefits paid by the plan	(171)	(140)	(52)	(40)
Current service costs and interest	364	362	159	144
Actuarial losses (gains) recognised in profit or loss	27	(8)	14	-
Actuarial losses (gains) recognised in other comprehensive income	772	(84)	344	-
Currency translation differences	(225)	162	-	-
Others	(3)	30	-	-
Defined benefit obligations at 31 December	4,736	3,972	1,818	1,353

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

The assets for funded plan were as follows:

	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
	<i>(in million Baht)</i>			
Equity securities	277	242	-	-
Government and corporate bonds	451	356	-	-
Others	11	106	-	-
Total	739	704	-	-

Movement in the fair value of the plan assets:

	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
	<i>(in million Baht)</i>			
Fair value of the plan asset as at 1 January	704	576	-	-
Contributions paid into the plan	50	78	-	-
Benefits paid by the plan	(31)	(26)	-	-
Expected return on plan assets	30	22	-	-
Actuarial losses recognised in other comprehensive income	15	51	-	-
Currency translation differences	(23)	11	-	-
Others	(6)	(8)	-	-
Fair value of the plan assets as at 31 December	739	704	-	-

	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
	<i>(Restated)</i>			
	<i>(in million Baht)</i>			
Statement of income:				
Recognised in profit or loss:				
Long-term employee benefit obligations	275	321	120	108
Other long-term employee benefit obligations	62	61	39	36
Actuarial losses (gains)	27	(8)	14	-
Total	364	374	173	144

Statement of comprehensive income:

Recognised in other comprehensive income:

Actuarial losses (gains) recognised during the year	757	(135)	344	-
Cumulative actuarial losses recognised	1,190	433	368	24

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Notes to the financial statements

Expense recognised in profit or loss (note 29)

	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
	(Restated)			
	(in million Baht)			
Current service costs	211	223	96	87
Interest on obligation	153	139	63	57
Expected return on plan assets	(30)	(22)	-	-
Actuarial losses (gains)	27	(8)	14	-
Others	3	42	-	-
Total	364	374	173	144

The expense is recognised in the following line items in the statement of income:

	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
	(Restated)			
	(in million Baht)			
Cost of sales	133	125	74	67
Administrative expenses	204	257	85	77
Actuarial losses (gains)	27	(8)	14	-
Total	364	374	173	144

Actuarial gains and (losses) recognised in other comprehensive income:

	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
	(Restated)			
	(in million Baht)			
Included in retained earnings:				
At 1 January	433	568	24	24
Recognised during the year	757	(135)	344	-
At 31 December	1,190	433	368	24

Principle actuarial assumptions at the reporting date (expressed as weighted averages):

	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
	(in %)			
Discount rate as at 31 December	1.75-4.2	3-4.8	4.2	4.8
Future salary increases	2-7	2-7	7	6
Resignation rate	0-15	0-15	0-3	0-3
Retirement age	55- 65 Years	55- 65 Years	60 Years	60 Years

Assumptions regarding future mortality are based on published statistics and mortality tables.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

24 Share capital

	Par value per share (Baht)	2014		2013	
		Number	Amount (million shares / million Baht)	Number	Amount
Authorised					
At 1 January					
ordinary shares	10	4,508.8	45,088.5	4,512.9	45,129.3
Reduction of shares	10	-	-	(4.1)	(40.8)
At 31 December					
ordinary shares	10	4,508.8	45,088.5	4,508.8	45,088.5
Issued and paid-up					
At 1 January					
ordinary shares	10	4,508.8	45,088.5	4,508.8	45,088.5
At 31 December					
ordinary shares	10	4,508.8	45,088.5	4,508.8	45,088.5

At the Annual General Meeting of shareholders of the Company held on 4 April 2013, the shareholders approved the reduction of the Company's registered capital from Baht 45,129,302,690 to Baht 45,088,491,170 by decreasing the number of 4,081,152 registered shares at par value of Baht 10 per share. The Company registered the reduction of the Company's registered capital with the Ministry of Commerce on 17 April 2013.

25 Additional paid-in capital and reserves

Share premium

Section 51 of the Public Companies Act B.E. 2535 requires companies to set aside share subscription monies received in excess of the par value of the shares issued to a reserve account ("share premium"). Share premium is not available for dividend distribution.

Surplus on business combination

Surplus on business combination was mainly the result of the increase in the net value of assets of PTT Aromatics and Refining Public Company Limited and PTT Phenol Company Limited which were re-measured and recognised at fair value at the amalgamation date of PTT Chemical Public Company Limited and PTT Aromatics and Refining Public Company Limited.

Legal reserve

Section 116 of the Public Companies Act B.E. 2535 requires that a company shall allocate not less than 5% of its annual net profit, less any accumulated losses brought forward, to a reserve account ("legal reserve"), until this account reaches an amount not less than 10% of the registered authorised capital. The legal reserve is not available for dividend distribution.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Other components of equity

Currency translation differences

The currency translation differences account within equity comprises all foreign currency differences arising from the translation of the financial statements of foreign operations, as well as from the translation of liabilities that hedge the Company's net investment in a foreign operation.

Cash flow hedges

The cash flow hedges account within equity comprises the cumulative net change in the fair value of cash flow hedges related to hedged transactions that have not yet occurred for effective portion.

26 Segment information

The Group has significant business segments which offer different products and services, and are managed separately. For each of the business segments, the chief operating decision maker (CODM) reviews internal management reports on at least a quarterly basis. The operations in each of the Group's reportable segments have 7 reportable segments as described below.

Segment 1	Refinery and shared facilities
Segment 2	Aromatics
Segment 3	Olefins and Derivatives
Segment 4	EO-Based Performance
Segment 5	Green Chemicals
Segment 6	High Volume Specialties
Segment 7	Services and Others

Other operations in 2014 and 2013, none of these segments meets the quantitative thresholds for determining additional reportable segments.

Performance information of each reportable segment is measured based on segment profit before interest expense, tax, depreciation and amortisation which as included in the internal management reports that are reviewed by the Group's CODM. Management believes that using profit before interest expense, tax, depreciation and amortisation to measure performance is the most relevant in evaluating the results of certain segments relative to other entities that operate within these industries.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Information about reporting segments for the year ended 31 December 2014

	Refinery & shared facilities	Aromatics	Olefins & Derivatives	EO-Based Performance	Green Chemicals	High Volume Specialties	Services & Others	Elimination	Total
External revenues	262,406	102,373	120,945	16,902	33,086	35,785	2,513	-	574,010
Inter-segment revenues	18,214	62,385	18,571	2	1,257	50	4,546	(105,025)	-
Total segment revenues	280,620	164,758	139,516	16,904	34,343	35,835	7,059	(105,025)	574,010
Cost of sales and services	(282,660)	(165,368)	(103,355)	(13,640)	(29,740)	(32,426)	(5,464)	105,018	(527,635)
Selling and administrative expenses	(770)	(1,525)	(4,069)	(495)	(3,865)	(4,111)	(1,292)	634	(15,493)
Profit (loss) before interest expense, tax, depreciation and amortisation	(230)	(2,074)	32,456	2,883	983	(545)	1,329	(54)	34,748
Interest income	75	76	216	44	50	44	1,199	(692)	1,012
Finance costs	(613)	(673)	(1,575)	(5)	(934)	(391)	(2,014)	718	(5,487)
Depreciation and amortisation	(3,222)	(3,174)	(5,853)	(972)	(1,444)	(2,349)	(424)	114	(17,324)
Dividend income	-	-	-	-	-	-	4,284	(4,284)	-
Share of profit (loss) of equity- accounted associates	-	-	(242)	-	(1)	-	778	(1)	534
Others	471	35	(58)	25	14	141	(20)	1	609
Profit (loss) before tax	(3,519)	(5,810)	24,944	1,975	(1,332)	(3,100)	5,132	(4,198)	14,092
Net profit (loss) for reportable segment	(3,350)	(5,734)	24,813	1,831	(1,124)	(1,477)	4,275	(4,198)	15,036

(in million Baht)

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Information about reporting segments for the year ended 31 December 2013 (Restated)

	Refinery & shared facilities	Aromatics	Olefins & Derivatives	EO-Based Performance	Green Chemicals	High Volume Specialties	Services & Others	Elimination	Total
External revenues	244,673	116,548	107,128	17,141	29,004	35,890	2,497	-	552,881
Inter-segment revenues	16,628	71,161	21,912	2	1,421	1	4,551	(115,676)	-
Total segment revenues	261,301	187,709	129,040	17,143	30,425	35,891	7,048	(115,676)	552,881
Cost of sales and services	(253,832)	(173,585)	(96,274)	(12,948)	(26,092)	(33,402)	(4,582)	115,252	485,463
Selling and administrative expenses	(1,662)	(1,302)	(3,817)	(470)	(2,739)	(2,075)	(2,041)	1,540	(12,566)
Profit (loss) before interest expense, tax, depreciation and amortisation	7,667	12,870	29,506	3,819	2,082	561	2,863	(1,141)	58,227
Interest income	257	343	434	53	42	64	1,016	(650)	1,559
Finance costs	(844)	(966)	(1,778)	(31)	(222)	(447)	(2,428)	632	(6,084)
Depreciation and amortisation	(3,240)	(3,327)	(5,425)	(759)	(1,220)	(2,426)	(400)	127	(16,670)
Dividend income	-	-	-	-	-	-	23,470	(23,470)	-
Share of profit (loss) of equity- accounted associates	-	-	93	-	(595)	-	430	(5)	(77)
Others	807	3	(957)	26	(2)	(39)	(2,110)	-	(2,272)
Profit (loss) before tax	4,647	8,923	21,873	3,108	85	(2,287)	22,841	(24,507)	34,683
Net profit (loss) for reportable segment	4,265	7,991	21,173	3,094	391	(1,321)	22,035	(24,488)	33,140

(in million Baht)

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	Refinery & shared facilities	Aromatics	Olefins & Derivatives	EO-Based Performance	Green Chemicals	High Volume Specialties	Services & Others	Elimination	Total
<i>(in million Baht)</i>									
At 31 December 2014									
Segment assets	83,622	80,214	135,959	16,648	30,110	39,241	73,458	(54,500)	404,752
Investment in associates	-	-	-	-	-	-	13,093	-	13,093
Change in non-current assets	(1,003)	(882)	(67)	790	(98)	532	1,359	354	985
At 31 December 2013 (Restated)									
Segment assets	105,904	91,803	131,974	16,303	31,159	40,871	80,607	(65,911)	432,710
Investment in associates	-	-	-	-	-	-	12,549	-	12,549
Change in non-current assets	(1,498)	(2,303)	3,239	461	4,140	2,979	(44,608)	34,689	(2,901)

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Geographical segments

In presenting information on the basis of geographical segments, segment sales and service revenues are based on the geographical location of customers. Segment non-current assets (exclude derivatives and deferred tax) are based on the geographical location of the assets.

Geographical information

	Revenues	
	2014	2013
	<i>(in million Baht)</i>	
Thailand	347,867	329,302
The People's Republic of China	61,880	93,486
Singapore	47,608	35,565
Malaysia	19,082	16,947
United States of America	9,699	8,566
Other countries	87,874	69,015
Total	574,010	552,881

	Non-current assets	
	2014	2013
	<i>(in million Baht)</i>	
	<i>(Restated)</i>	
Thailand	248,797	245,329
United States of America	10,219	9,900
France	7,436	10,535
Malaysia	3,653	3,386
Other countries	2,343	2,313
Total	272,448	271,463

Major customers

The Group's sales and service revenues mainly comprise of revenue from one customer of Refinery and shared facilities, Aromatics and Olefins and derivatives segment represents Baht 191,891 million (2013: Baht 192,740 million) and revenue from another customer of Olefins and derivatives segment represents Baht 80,236 million (2013: Baht 67,820 million).

27 Selling expenses

	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
	<i>(in million Baht)</i>			
Distribution	1,953	2,133	548	539
Promotional	115	152	4	11
Marketing	82	96	24	12
Personnel	493	463	-	-
Total	2,643	2,844	576	562

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Notes to the financial statements

28 Administrative expenses

	Consolidated financial statements		Separate financial statements	
	2014	2013 (Restated)	2014	2013 (Restated)
	<i>(in million Baht)</i>			
Personnel expense	4,560	3,977	2,780	2,594
Oil spill incident expense	-	1,059	-	1,059
Professional fee and consultancy fee	1,194	1,049	881	814
Secondment fee	79	122	193	294
Actuarial losses	27	-	14	-
Depreciation and amortisation	1,305	1,461	801	773
Loss on disposal of fixed assets	258	202	63	30
Donation	859	100	857	96
Others	3,640	3,212	1,903	1,954
Total	11,922	11,182	7,492	7,614

29 Employee benefit expenses

	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
	<i>(in million Baht)</i>			
Management				
Salaries, bonus, wages and other welfares	413	349	218	203
Contribution to provident funds	12	13	10	10
Long-term employee benefits	4	5	4	4
Other long-term employee benefits	3	6	-	-
Reversal of short-term employee benefits for the year 2012	-	(52)	-	(52)
	432	321	232	165
Other employees				
Salaries, bonus, wages and other welfares	11,864	10,947	5,718	5,264
Contribution to provident funds	484	437	327	283
Long-term employee benefits	271	316	116	104
Other long-term employee benefits	59	55	39	36
	12,678	11,755	6,200	5,687
Total	13,110	12,076	6,432	5,852

Defined benefit plans

Details of the defined benefit plans are given in note 23.

Defined contribution plans

The defined contribution plans comprise provident funds established by the Group for its employees. Membership to the funds is on a voluntary basis. Contributions are made monthly by the employees at the minimum rate as required by law not exceeding 15% of their basic salaries and the Group contributes at the minimum rate as required by law not exceeding 15% of the employees' basic salaries. The provident funds are registered with the Ministry of Finance as juristic entities and are managed by a licensed Fund Manager.

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

30 Expenses by nature

The statements of income include an analysis of expenses by function. Expenses by nature disclosed in accordance with the requirements of various TFRS were as follows:

	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
	(Restated)			
	(in million Baht)			
<i>Included in cost of sales of goods:</i>				
Changes in inventories of finished goods and work in progress	4,003	(3,889)	4,052	(5,903)
Raw materials used	562,098	564,393	492,035	471,097
Personnel expense	8,057	7,636	3,652	3,258
Depreciation of property, plant and equipment	14,321	13,352	10,484	8,724
Amortisation of intangible assets	480	464	243	209
<i>Included in selling and administrative expenses:</i>				
Personnel expense	5,053	4,440	2,780	2,594
Depreciation of property, plant and equipment	776	840	448	449
Amortisation of intangible assets	529	621	353	324
Minimum lease payments recognised as an operating lease expense	352	369	313	306

31 Finance costs

		Consolidated financial statements		Separate financial statements	
	Note	2014	2013	2014	2013
		(in million Baht)			
<i>Interest expense :</i>					
Subsidiaries	7	-	-	63	100
Debentures		2,981	3,750	2,981	3,750
Bank loans and overdrafts		2,099	2,005	1,392	1,481
Loans from other parties		-	10	-	-
Total interest expense		5,080	5,765	4,436	5,331
Other finance costs		518	342	370	243
<i>Less: Capitalised as cost of assets under construction</i>	15	(111)	(23)	-	-
Net		5,487	6,084	4,806	5,574

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32 Income tax expense

		Consolidated financial statements		Separate financial statements	
	Note	2014	2013 (Restated)	2014	2013
		(in million Baht)			
Current tax expense					
Current year		413	2,321	-	1,920
Under provided in prior years		283	84	311	75
		<u>696</u>	<u>2,405</u>	<u>311</u>	<u>1,995</u>
Deferred tax expense					
Movements in temporary differences	19	<u>(137)</u>	<u>(429)</u>	<u>(180)</u>	<u>(3)</u>
Total		559	1,976	131	1,992

Reconciliation of effective tax rate

		Consolidated financial statements			
		2014		2013 (Restated)	
		Rate (%)	(in million Baht)	Rate (%)	(in million Baht)
Profit before income tax expense			14,092		34,683
Income tax using the Thai corporation tax rate	20.0		2,818	20.0	6,937
Effect of different tax rates in foreign jurisdictions			4		(2)
Income not subject to tax			(3,144)		(5,459)
Expenses not deductible for tax purposes			598		416
Under provided in prior years			283		84
Total		<u>4.0</u>	<u>559</u>	<u>5.7</u>	<u>1,976</u>

		Separate financial statements			
		2014		2013	
		Rate (%)	(in million Baht)	Rate (%)	(in million Baht)
Profit before income tax expense			17,496		46,630
Income tax using the Thai corporation tax rate	20.0		3,499	20.0	9,326
Income not subject to tax			(4,174)		(7,766)
Expenses not deductible for tax purposes			495		358
Under provided in prior years			311		74
Total		<u>0.8</u>	<u>131</u>	<u>4.3</u>	<u>1,992</u>

Income tax reduction

Royal Decree No. 530 B.E. 2554 dated 21 December 2011 grants a reduction in the corporate income tax rate for the three accounting periods 2012, 2013 and 2014; from 30% to 23% for the accounting period 2012 which begins on or after 1 January 2012 and to 20% for the following two accounting periods (2013 and 2014) which begin on or after 1 January 2013 and 2014, respectively.

In 2014, there is Royal Decree No. 577 B.E. 2557 dated 10 November 2014 extends the reduction to 20% for the accounting period which begins on or after 1 January 2015 until 31 December 2015.

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It is understood that the Government will proceed to amend the law in order to maintain the corporate income tax rate at not higher than 20% for the accounting period 2015 which begins on or after 1 January 2015 and onwards in order to give full effect to the Cabinet resolution dated 11 October 2011 to increase Thailand's tax competitiveness.

33 Promotional privileges

By virtue of the provisions of the Industrial Investment Promotion Act of B.E. 2520, the Company has been granted privileges by the Board of Investment relating to production of upstream, intermediate and downstream petrochemical, utilities and production support facilities, jetty for transportation and storage of liquid product and transportation by marine vessels, production of petroleum product, research and development of polymer products and chemical formula, lab testing services and refinery. The privileges granted include:

- (a) exemption from payment of import duty on machinery approved by the Board;
- (b) exemption from payment of income tax not over 100 percent of investment excluded land and working capital of certain operations for a period of eight years from the date on which the income is first derived from such operations
- (c) a 50% reduction in the normal income tax rate on the net profit derived from certain operations for a period of five years, commencing from the expiry date in (b) above.

As promoted companies, the Company must comply with certain terms and conditions prescribed in the promotional certificates.

Summary of revenues from promoted and non-promoted businesses:

	Separate financial statements					
	2014			2013		
	Promoted businesses	Non- promoted businesses	Total <i>(in million Baht)</i>	Promoted businesses	Non- promoted businesses	Total
Export sales	801	73,782	74,583	5,224	82,125	87,349
Local sales	119,925	308,656	428,581	149,272	235,035	384,307
Service income	18	323	341	46	294	340
Total revenue	120,744	382,761	503,505	154,542	317,454	471,996

Certain subsidiaries in the Group have been granted promotional privileges as same as the Company.

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Notes to the financial statements

34 Basic earnings per share

The calculation of basic earnings per share for the year ended 31 December 2014 and 2013 were based on the profit for the years attributable to ordinary shareholders of the Company and the weighted average number of ordinary shares outstanding during the years as follows:

	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
	<i>(in million Baht / million shares)</i>			
Profit attributable to ordinary shareholders of the Company (basic)	<u>15,036.03</u>	<u>33,139.70</u>	<u>17,365.04</u>	<u>44,637.63</u>
Weighted average number of ordinary shares outstanding (basic)	<u>4,508.85</u>	<u>4,508.85</u>	<u>4,508.85</u>	<u>4,508.85</u>
Earnings per share (basic) (in Baht)	<u>3.33</u>	<u>7.35</u>	<u>3.85</u>	<u>9.90</u>

35 Dividends

At the Annual General Meeting of the shareholders of the Company held on 8 April 2014, the shareholders approved the appropriation of annual dividend from 2013 performance at Baht 3.40 per share, amounting to Baht 15,330 million. The Company had paid interim dividend of the first half year of 2013 at Baht 1.62 per share, amounting to Baht 7,304 million on 16 August 2013. The remaining dividend was paid for the second half year of 2013 at Baht 1.78 per share, amounting to Baht 8,026 million. The dividend amounting to Baht 8,023 million was paid to the rightful shareholders in April 2014.

At the Board of Directors' Meeting held on 15 August 2014, the Board approved the appropriation of interim dividends from the earnings from 1 January 2014 to 30 June 2014 at Baht 1.37 per share, amounting to Baht 6,191 million. The dividend amounting to Baht 6,175 million was paid to the rightful shareholders in September 2014.

At the Annual General Meeting of the shareholders of the Company held on 4 April 2013, the shareholders approved the appropriation of annual dividend from 2012 performance at Baht 3.40 per share, amounting to Baht 15,329 million. The Company had paid interim dividend of the first half year of 2012 at Baht 0.95 per share, amounting to Baht 4,282 million on 17 September 2012. The remaining dividend was paid for the second half year of 2012 at Baht 2.45 per share, amounting to Baht 11,047 million. The dividend amounting to Baht 11,044 million was paid to the rightful shareholders in April 2013.

At the Board of Directors' Meeting held on 16 August 2013, the Board approved the appropriation of interim dividends from the earnings from 1 January 2013 to 30 June 2013 at Baht 1.62 per share, amounting to Baht 7,304 million. The dividend amounting to Baht 7,302 million was paid to the rightful shareholders in September 2013.

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Notes to the financial statements

36 Financial instruments

Financial risk management policies

The Group/Company is exposed to normal business risks from changes in market interest rates and currency exchange rates and from non-performance of contractual obligations by counterparties. The Group/Company does not hold or issue derivative financial instruments for speculative or trading purposes.

Risk management is integral to the whole business of the Group/Company. The management continually monitors the Group's/Company's risk management process to ensure that an appropriate balance between risk and control is achieved.

Capital management

The Board of Directors' policy is to maintain a strong capital base so as to maintain investor, creditor, partners and other stakeholders. In addition, the Board monitors the return on capital and the level of dividends to ensure business sustainability.

Interest rate risk

Interest rate risk is the risk that future movements in market interest rates will affect the results of the Group's / Company's operations and its cash flows because the Group's/Company's finances loans which have both floating and fixed interest rates for their operations. The Group/Company has managed this risk to ensure the appropriateness to the business operation.

The effective interest rates of loans receivable as at 31 December and the periods in which the loans receivable mature or re-price was as follows:

	Effective interest Rate (% per annum)	Within 1 year	Separate financial statements		Total
			After 1 year but within 5 years (in million Baht)	After 5 years	
2014					
Current					
Loans to related parties	Average cost of funds/ greater of the U.S. Prime Rate plus margin	3,644	-	-	3,644
Non-current					
Loans to related parties	Average cost of funds/ greater of the U.S. Prime Rate plus margin	-	2,659	435	3,094
Total		3,644	2,659	435	6,738

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	Effective interest Rate (% per annum)	Within 1 year	Separate financial statements		Total
			After 1 year but within 5 years (in million Baht)	After 5 years	
2013					
Current					
Loans to related parties	Average cost of funds	879	-	-	879
Non-current					
Loans to related parties	Average cost of funds/ greater of the U.S. Prime Rate plus margin	-	4,007	846	4,853
Total		879	4,007	846	5,732

The effective interest rates of interest-bearing liabilities at 31 December 2014 and 2013 and the periods in which those liabilities mature or re-price were disclosed in note 20.

Foreign currency risk

The Group/Company is exposed to foreign currency risk relating to purchases and sales, including borrowings which are denominated in foreign currencies. The Group/Company primarily utilises forward exchange contracts to hedge such financial assets and liabilities denominated in foreign currencies. The forward exchange contracts entered into at the reporting date also relate to anticipated purchases and sales, denominated in foreign currencies, for the subsequent period.

At 31 December, the Group and the Company were exposed to foreign currency risk in respect of financial assets and liabilities denominated in the following currencies:

	Note	Consolidated financial statements		Separate financial statements	
		2014	2013 (Restated)	2014	2013
		(in million Baht)			
USD					
Cash and cash equivalents	8	6,406	5,306	5,085	3,692
Trade accounts receivable	9	10,535	14,475	6,359	10,333
Other receivables		2,108	614	2,036	268
Long-term loans to related parties	7	-	-	4,239	2,647
Long-term loans to other parties		676	673	-	-
Other investments	14	7,844	2,117	7,766	1,761
Interest-bearing liabilities	20	(50,838)	(49,273)	(47,201)	(45,670)
Trade accounts payable	21	(1,849)	(1,774)	(997)	(388)
Payable to contractors		(741)	(874)	(610)	(686)
Other payables		(1,443)	(1,608)	(917)	(869)
Gross statement of financial position exposure		(27,302)	(30,344)	(24,240)	(28,912)
Currency forwards		(7,902)	(950)	(8,839)	(3,747)

The Company performs foreign currency risk management on assets and liabilities held in USD. Any net USD liabilities held are naturally hedged by USD portion of net profit to minimize the impact from fluctuation in foreign currency to the Company's performance.

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In addition to forward exchange contracts, the Group uses derivatives financial instruments, principally currency swaps and interest rate swap, to manage exposure to fluctuations in interest rates and in exchange rates. As at 31 December 2014, the Group entered into foreign currency and interest rate swap contracts, totalling Baht 2,813 million (2013: Baht 3,786 million) to repay certain interest bearing liabilities in foreign currencies.

		Consolidated financial statements		Separate financial statements	
	Note	2014	2013	2014	2013
		(in million Baht)			
EUR					
Cash and cash equivalents	8	574	550	-	-
Trade accounts receivable	9	2,201	2,775	-	-
Other receivables		165	121	94	38
Long-term loans to related parties	7	-	-	403	454
Long-term loans to other parties		178	100	-	-
Other investments	14	283	319	-	-
Interest-bearing liabilities	20	(3,520)	(3,414)	-	-
Trade accounts payable	21	(1,976)	(2,471)	-	-
Payable to contractors		(17)	(83)	(17)	(83)
Other payables		(751)	(684)	(100)	(22)
Gross statement of financial position exposure		(2,863)	(2,787)	380	387
Currency forwards		(83)	79	2	-
SGD					
Cash and cash equivalents	8	41	54	-	-
Other receivables		-	17	-	1
Trade accounts payable	21	(5)	(10)	-	-
Payable to contractors		-	(3)	-	(3)
Other payables		(5)	(4)	(1)	(2)
Gross statement of financial position exposure		31	54	(1)	(4)
Currency forwards		-	-	-	-
JPY					
Cash and cash equivalents	8	52	74	-	-
Trade accounts receivable	9	32	104	-	-
Other receivables		20	5	16	5
Interest-bearing liabilities	20	(39)	-	-	-
Trade accounts payable	21	(14)	(12)	-	-
Payable to contractors		1	(130)	1	(130)
Other payables		(19)	(144)	(17)	(144)
Gross statement of financial position exposure		33	(103)	-	(269)
Currency forwards		(9)	-	-	-

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		Consolidated financial statements		Separate financial statements	
	Note	2014	2013	2014	2013
		<i>(in million Baht)</i>			
MYR					
Cash and cash equivalents	8	362	380	-	-
Trade accounts receivable	9	73	209	-	-
Other receivables		38	85	-	-
Interest-bearing liabilities	20	(2,322)	(1,379)	-	-
Trade accounts payable	21	(409)	(390)	-	-
Other payables		(622)	(717)	(1)	-
Gross statement of financial position exposure		(2,880)	(1,812)	(1)	-
Currency forwards		1	-	-	-
Others					
Cash and cash equivalents	8	63	156	-	2
Trade accounts receivable	9	146	76	-	-
Other receivables		174	2	158	2
Other investments	14	7,711	3,226	7,711	3,205
Interest-bearing liabilities	20	(38)	(31)	-	-
Trade accounts payable	21	(15)	(104)	-	-
Payable to contractors		(2)	(32)	-	-
Other payables		(6)	(69)	(2)	(70)
Gross statement of financial position exposure		8,033	3,224	7,867	3,139
Currency forwards		(8,000)	(3,274)	(8,000)	(3,274)

Credit risk

Credit risk is risk of failure from a customer or a counterparty to settle its obligations to the Group as and when they fall due.

Management has a policy in place and the exposure to credit risk is monitored on an ongoing basis. Credit evaluations are performed on all customers requiring credit over a certain amount. At the reporting date, there were no significant concentrations of credit risk. The maximum exposure to credit risk is represented by the carrying amount of each financial asset in the statement of financial position. However, the majority of the customers are on the long-term contracted commitment and parts of them are the Company's shareholders which the company has consistently collected from them. For the customers who do not have the long-term contracted commitments, the Group monitors the risk on an ongoing basis and would do the business only with the credible customers by limiting the credit lines and requesting the guarantee on some cases. For the export, the credit of counterparty will be considered and will demand a payment on a case to case basis and also has commercial credit insurance. Management does not anticipate material losses from its debt collection.

Liquidity risk

The Group/Company monitors its liquidity risk and maintains a level of cash and cash equivalents deemed adequate by management to finance the Group's/Company's operations and to mitigate the effects of fluctuations in cash flows.

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Determination of Fair values

A number of the Group's/Company's accounting policies and disclosures require the valuation of fair value, for both financial and non-financial assets and liabilities. The fair value is the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction. Fair values have been determined for measurement and/or disclosure purposes based on the following methods. When applicable, further information about the assumptions made in determining fair values is disclosed in the notes specific to that asset or liability.

The fair value of trade and other short-term receivables is taken to approximate the carrying value.

The fair value of investments in equity securities, which are held for held-to-maturity, is determined by reference to their quoted bid price at the reporting date. The fair value of held-to-maturity investments is determined for disclosure purposes only.

The fair value of interest rate swaps is based on broker quotes at the reporting date. Those quotes are tested for reasonableness by discounting estimated future cash flows based on the terms and maturity of each contract, and using market interest rates for a similar instrument at the measurement date.

The fair value of forward exchange contracts is based on their listed market price of forward rate for the residual maturity of the contract comparing with exchange rate at the valuation date.

The fair value of non-derivative financial liabilities, which is determined for disclosure purposes, is calculated based on the present value of future principal and interest cash flows, discounted at the market rate of interest at the reporting date.

A fair value of debentures, together with the carrying values as at 31 December was as follows:

	Consolidated financial statements		Separate financial statements	
	Fair value	Carrying value	Fair value	Carrying value
	<i>(in million Baht)</i>			
2014				
Current				
Debentures	14,756	14,431	14,756	14,431
Non-current				
Debentures	50,915	48,696	50,915	48,696
Total	65,671	63,127	65,671	63,127
2013				
Current				
Debentures	15,132	15,065	15,132	15,065
Non-current				
Debentures	51,671	52,878	51,671	52,878
Total	66,803	67,943	66,803	67,943

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

37 Commitments with non-related parties

	Consolidated financial statements		Separate financial statements	
	2014	2013	2014	2013
	(in million Baht)			
Capital commitments				
<i>Contracted but not provided for</i>				
Land	16	16	16	16
Plant, machinery and equipment	5,385	13,568	1,482	4,526
Buildings	59	89	39	89
Others	13	235	-	117
Total	5,473	13,908	1,537	4,748
Non-cancellable operating lease commitments				
Within one year	207	169	34	22
After one year but within five years	301	162	151	74
After five years	386	223	75	40
Total	894	554	260	136
Other commitments				
Unused letters of credits	139	358	-	53
Bank guarantees	5,528	2,978	1,931	843
Forward contracts	19,077	11,325	16,841	7,021
Swap contracts	2,813	3,786	2,786	2,813
Guarantees for credit facilities and bank guarantees	4,243	333	4,244	333
Other agreements	4,278	3,303	1,272	1,626
Total	36,078	22,083	27,074	12,689

38 Contingent liabilities and assets

From oil spill incident on 27 July 2013, the Company recognised expenses resulted from this incident in the period that expenses incurred.

During 2014, insurance company paid compensation to the Company for a number of preliminary damage claim and the Company has recognised the payments as other income. The management and insurance company are in the process of negotiation for the remaining compensation. Furthermore, a number of people filed a lawsuit against the Company as described in note 39.

39 Litigation

a) Purchase and sales of raw materials agreement legal case

On 3 December 2009, a company filed for arbitration against PTT Plc. ("PTT") and the Company as a producer to perform according to purchase and sales of raw materials agreement, of which the said company has been committed by PTT, or to compensate for damages of approximately Baht 13,805 million. On 8 March 2010, the dispute was thrown out of the case-list by the arbitration ruling that the Company was not a party to the contract.

Subsequently, on 27 August 2010, the said company filed a civil suit against PTT and the Company as a producer to perform according to purchase and sales of raw materials agreement, of which the said company has been committed by PTT, or to compensate for damages of approximately Baht 9,380

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

million. In this regards, the Company filed objections against the indictment with the civil court on the basis that the Company was not a party to the contract. On 18 March 2013, the Civil Court called to hear the decision of the arbitration between such Company and PTT. Since the arbitration process has not yet finalised, the Civil Court therefore considered to postpone the hearing decision of arbitration to 21 May 2013.

Subsequently, on 21 May 2013, the Civil Court considered that the arbitration process between such company and PTT has not yet finalised; therefore, they has temporary thrown out of the case-list until the final decision has been reached under arbitration process. Then, either party or both parties can resubmit the case to the Civil Court for further trail. The Company believes that the outcome of the consideration will not result in any liability to the Company, and therefore, has not provided against any loss that may result from this matter in the financial statements.

b) Oil spill incident legal case

During the 3rd quarter of 2014, the number of people in Rayong filed several lawsuits with the Civil Court and Rayong Provincial Court against the Company to claim the extra compensation from oil spill incident and to perform the rehabilitation of the sea and natural environmental recovery. Currently, some cases have been dismissed and the remaining cases are in the mediation process by the Courts. The Company believes that the outcome of the consideration will not result in material damage and material financial impact to the Company. Therefore, the Company has not provided against any loss that may result from this matter in the financial statements.

40 Events after the reporting period

At the Board of Directors' meeting held on 16 February 2015, the Board approved to submit for approval at the Annual General Meeting of the Shareholders, a full year 2014 dividend payment at the rate of Baht 2.37 per share, of which Baht 1.37 per share was paid as an interim dividend in September 2014 as discussed in note 35. Thus, the remaining dividend will be at the rate of Baht 1.00 per share to the shareholders entitled to receive dividends. This dividend is subject to the approval of the Shareholders at the Annual General Meeting to be held on 1 April 2015.

41 Thai Financial Reporting Standards (TFRS) not yet adopted

The Group/Company has not adopted the new and revised TFRS that have been issued but are not yet effective. Those new and revised TFRS which change in significant and are applicable to the Group's/Company's operations, become effective for annual financial periods beginning on or after 1 January in the year indicated, are as follows;

TFRS	Topic	Year effective
TAS 1 (revised 2014)	Presentation of Financial Statements	2015
TAS 19 (revised 2014)	Employee Benefits	2015
TAS 27 (revised 2014)	Separate Financial Statements	2015
TAS 28 (revised 2014)	Investment in Associates and Joint Ventures	2015
TFRS 10	Consolidated Financial Statements	2015
TFRS 11	Joint Arrangements	2015
TFRS 12	Disclosure of Interests in Other Entities	2015
TFRS 13	Fair Value Measurement	2015

The Group/Company has made a preliminary assessment of the potential initial impact on the consolidated and separate financial statements of those new and revised TFRS assessed to have the greatest potential impact on the financial statements in the period of initial application. These new and revised TFRS are as follows:

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

(a) TFRS 10 – Consolidated Financial Statements

TFRS 10 introduces additional control criteria. As a result, the major shareholder needs to change its control conclusion from previously having no control over the Group/Company and not requiring to consolidate to having control over the Group/Company and requiring to consolidate. In addition, the Group/Company is required to adjust fair value derived from the previous business combination under common control from acquisition method to similar to pooling of interests method. The estimated impact from the retrospective adjustment will be as follows;

	Consolidated financial statements	Separate financial statements
	<i>(in million Baht)</i>	
<i>Statement of income for the year ended 31 December 2014</i>		
Increase in profit for the year	335	416
<i>Statement of comprehensive income for the year ended 31 December 2014</i>		
Increase in other comprehensive income for the year	335	416
<i>Statement of financial position as at 31 December 2014</i>		
Decrease in total assets	16,285	15,030
Decrease in total liabilities	1,452	1,353
Decrease in total equity	14,833	13,678

(b) TFRS11 – Joint Arrangements

TFRS 11 has changed principle of joint arrangement's determination. The Group need to reclassify joint arrangements into joint ventures in which the parties have rights to the net assets. As a result, the Group is required to adjust from proportionate consolidation to equity method. Consequently, these companies are reclassified as joint ventures, Thai Ethoxylate Co., Ltd., Emery Oleochemicals (M) Sdn. Bhd., Emery Specialty Chemicals Sdn. Bhd. and NatureWorks LLC.

This adjustment has no impact to the Group's profit and loss and earning per share for the year ended 31 December 2014, The estimated impact from the retrospective adjustments will be as follows:

	Consolidated financial statements
	<i>(in million Baht)</i>
<i>Statement of financial position as at 31 December 2014</i>	
Decrease in total assets	8,538
Decrease in total liabilities	8,431
Decrease in non-controlling interests	276
Decrease in total equity	107

AUDIT FEE AND NON-AUDIT FEE

Audit Fee

PTTGC and its subsidiaries paid the audit fee to:

- KPMG Phoomchai Audit Limited, which is the auditor of PTTGC amounting to 7,088,750 THB. Of this amount PTTGC paid 3,504,000 THB and its subsidiaries paid 3,584,750 THB.
- The auditor company that the auditor worked for, including persons or entities that are related to the auditors and the audit company amounting to 31,500 Singapore Dollars, 465,500 Euro and 66,500 USD.

Non-Audit Fee

PTTGC and its subsidiaries paid the non-audit fee for tax compliance and tax consulting services, consulting in project management for information system implementation and other audits by agreed-upon procedures to:

- KPMG Phoomchai Audit Limited, which is the auditor of PTTGC for incomplete services in the fiscal year of 2014 that will be paid for a total of 1,335,000 THB.
- The audit company that the auditor worked for, including persons or entities that are related to the auditors and the audit company for the fiscal year of 2014 amounting to 19,577,020 THB, 9,401 Euro and 15,925 USD; plus for incomplete services in the fiscal year of 2014 that will be paid for a total of 725,000 THB, 26,570 Euro and 5,250 Singapore Dollars.



COMPANY INFORMATION

Name	PTT Global Chemical Public Company Limited
Initial	PTTGC
Website	www.pttgcgroup.com
Registered Number	0107554000267
Number and Value of Issued Shares As at 31 December 2014, the Company's registered share capital was Baht 45,088,491,170 made up of 4,508,849,117 common shares at a par value of Baht 10 per share. Paid-up capital was Baht 45,088,491,170	
Establishment	19 October 2011
First Day Trade on the SET	21 October 2011
Business Structure and Value Chain - Group Performance Center - Refinery & Shared Facilities - Group Performance Center - Aromatics - Group Performance Center - Olefins - Polymers Business Unit - EO – Based Performance Business Unit - Green Chemical Business Unit - High-Volume Specialties (HVS) Business Unit - Services & Others	
Number of Employees	3,664 as of December 31 st , 2014
Contact Investor Relation: Tel: 66 (0) 2265-8712, 8327, 66 (0) 2140-8714 Email: ir@pttgcgroup.com Corporate Governance & Secretarial: Tel: 66 (0) 2265-8635, 66 (0) 2140-8759 Email: cg@pttgcgroup.com	
Head Office Address 555/1 Energy Complex, Building A, 14-18 th Floor Vibhavadi Rangsit Road, Chatuchak, Chatuchak, Bangkok 10900 Tel: 66 (0) 2265-8400 Fax: 66 (0) 2265-8500	

Branch 1 : Rayong Office

59 Ratniyom Road, Noen-Phra Sub-District, Mueang Rayong District, Rayong Province 21150

Tel: 66 (0) 3899-4000

Fax: 66 (0) 3899-4111

Branch 2 : Olefins I-1

14 I-1 Road, Map Ta Phut Industrial Estate, Map Ta Phut Sub-District, Mueang Rayong District, Rayong Province 21150

Tel: 66 (0) 3899-4000

Fax: 66 (0) 3899-4111

Branch 3 : Olefins I-4

9 I-4 Road, Map Ta Phut Industrial Estate, Map Ta Phut Sub-District, Mueang Rayong District, Rayong Province 21150

Tel: 66 (0) 3899-4000

Fax: 66 (0) 3899-4111

Branch 4 : Aromatics I

4, I-2 Road, Map Ta Phut Industrial Estate, Map Ta Phut Sub-District, Mueang Rayong District, Rayong Province 21150

Tel: 66 (0) 3897-1000

Fax: 66 (0) 3899-4111

Branch 5 : Aromatics II

98/9 Rayong Highway Road 3191, RIL Industrial Estate, Map Ta Phut Sub-District, Mueang Rayong District, Rayong Province 21150

Tel: 66 (0) 3897-1000

Fax: 66 (0) 3899-4111

Branch 6 : Refinery

8, I-8 Road, Map Ta Phut Industrial Estate, Map Ta Phut Sub-District, Mueang Rayong District, Rayong Province 21150

Tel: 66 (0) 3897-1000

Fax: 66 (0) 3899-4111

Branch 7 : Jetty and Buffer Tank Farm

19 Rong-Pui Road, Map Ta Phut Industrial Estate, Map Ta Phut Sub-District, Mueang Rayong District, Rayong Province 21150

Tel: 66 (0) 3899-4000

Fax: 66 (0) 3899-4111

Branch 8 : Aromatics Tank Farm

11, I-4 Road, Map Ta Phut Industrial Estate, Map Ta Phut Sub-District, Mueang Rayong District, Rayong Province 21150

Tel: 66 (0) 3897-1000

Fax: 66 (0) 3899-4111

Branch 9 : Laboratory Service Center

24/9 Pakorn Songkrorat Road, Map Ta Phut Sub-District, Mueang Rayong District, Rayong Province 21150

Tel: 66 (0) 3899-4000

Fax: 66 (0) 3899-4111

Branch 10 : Applications & Quality Assurance Center (AQA)

123, Suntowers Building B, 40th Floor, Chaei Puang Alley, Vibhavadi Rangsit Road, Chompol, Chatuchak District, Bangkok 10900

Tel: 66 (0) 2265-8400

FAX: 66 (0) 2265 8389

Branch 11 : Olefins III Plant:

8, Padaeng Road, Map Ta Phut Sub-District, Mueang Rayong District, Rayong Province 21150

Tel: 66 (0) 3899-4000

Fax: 66 (0) 3897-6205

Branch 12 : Polyethylene Plant

8, I-10 Road, Map Ta Phut Industrial Estate, Map Ta Phut Sub-District, Mueang Rayong District, Rayong Province 21150

Tel: 66 (0) 3899-4000

Fax: 66 (0) 3897-6977

References**Securities Registrar**

Thailand Securities Depository Company Limited

62 The Stock Exchange of Thailand Building,
Rachadapisek Road, Klongtoey, Klongtoey,
Bangkok 10110

Tel: 66 (0) 2229-2888 Call center: 66 (0) 2229-2888

Fax: 66 (0) 2654-5427

Website: www.tsd.co.th

Registrar and Debenture Holders Representative

Thai Military Bank Public Company Limited

3000 Phaholyothin Road, Chompol, Chatuchak, Bangkok 10900

Tel: 66 (0) 2299-1536,1321

Fax: 66 (0) 2242-3270

Website: www.tmbbank.com

Registrar Services

Siam Commercial Bank Public Company Limited

Registrar Services 1, Markets Operations Division Building 2,
3rd Floor, 1060 New Phetchburi Road, Mukkasan, Ratchathewi,
Bangkok 10400

Tel: 66 (0) 2256-2323 Ext. (2325,2326,2327,2328,2329

Fax: 66 (0) 2256-2406

Corporate Trust

7th Floor. Zone A, 9 Ratchdapisek Road, Chatuchak,
Chatuchak, Bangkok 10900

Tel: 66 (0) 2544-2923

Fax: 66 (0) 2544-7475

Website: www.scb.co.th

US\$ Bond Registrar

Citibank, N.A

39th Floor, Citibank Tower, Citibank Plaza, 3 Garden Road,
Central, Hong Kong

Tel: +852-2868 7961

Fax: +852 2323 0279

Auditor

1. Mr. Vairoj Jindamaneepitak CPA No. 3565 or

2. Mr. Winid Silamongkol CPA No. 3378 or

3. Mr. Niran Lilamethawat CPA No. 2316 or

4. Mr. Charoen Phosamritlert CPA No. 4068

KPMG Phoomchai Audit Limited

50-51st Floor, Empire Tower, 195 South Sathorn Road,
Bangkok 10120

Tel: 66 (0) 2677-2000

Fax: 66 (0) 2677-2222

Website: www.kpmg.co.th

Legal Advisor

Baker & McKenzie Limited

5,22-25th Floor, Abdulrahim Place,

990 Rama IV Road, Silom, Bangrak, Bangkok 10500

Tel: 66 (0) 2636-2000

Fax: 66 (0) 2636-2111

Website: www.bakermckenzie.com

Siam Premier International Law Office Limited

26th Floor, The Offices at Central World,

999/9 Rama I Road, Pathumwan, Pathumwan,
Bangkok 10330

Tel: 66 (0) 2646-1888

Fax: 66 (0) 2646-1919

Website: www.siamlaw.co.th

TECHNICAL TERMS & ABBREVIATIONS

Technical Terms & Abbreviations	
Aromatics	A group of unsaturated cyclic hydrocarbons containing one or more benzene rings of six carbon atoms. They are highly reactive and chemically versatile. The group name is derived from the strong and not unpleasant odor characteristic of most chemicals in this family.
Bis Phenol A (BPA)	BPA is an intermediate product produced from acetone and phenol used to produce polycarbonate and epoxy resins.
Butadiene	Butadiene is an intermediate in 4 carbon atoms family, used in the making of synthetic rubber. It is also used extensively in the production of plastics.
Butene -1	Butene-1 is an organic chemical base, derived from cracking of petroleum or C4 distillate, and used mainly to produce butadiene and butanol.
Carotenoid	Carotenoid is used as a colorant in food for human consumption and as constituents in vitamins and dietary supplements.
EO Base Performance Product	EO Based is Ethylene Oxide derivatives such as Ethylene Oxide, Ethylene Glycol, Ethanolamine and Ethoxylate.
Ethanolamine (EA)	EA include Monoethanolamine, Diethanolamine and Triethanolamine. Ethanolamine are used as sweeteners, detergent and specialty cleaner formulations, flexible urethane foam catalysts, and pharmaceuticals.
Ethoxylate	Ethoxylate is produced from Ethylene Oxide and is often processed to be used as a foaming control agent in soap and detergent.
Ethylene	Ethylene is an essential organic chemical base derived from the thermal cracking of Ethane and Naphtha or from dehydration of Ethanol. It is used to produce many organic chemical intermediates, such as Polyethylene, Ethylene Oxide, Ethylene Glycol, Vinyl Chloride, Styrene, Acetaldehyde and Ethanol.
Ethylene Glycol (EG)	EG is produced from Ethylene (ethene), via the intermediate Ethylene Oxide. Ethylene Oxide reacts with water to produce Ethylene Glycol. On purpose product is Monoethylene Glycol and major byproducts are the Ethylene Glycol Oligomers Diethylene Glycol and Triethylene Glycol.
Ethylene Oxide (EO)	EO is a highly reactive chemical intermediate used in the production of Ethylene Glycol and other Oxide derivatives such as Glycol Ethers, Polyethylene Glycol, Polyether Polyols, Diethylene and Triethylene Glycols and Ethanolamine.

Technical Terms & Abbreviations

High Density Polyethylene (HDPE)	Produced from Ethylene, HDPE is an inexpensive, flexible, durable and Chemical-resistant. One of the major uses of HDPE is in blow-molding applications, such as bottles for milk and non-carbonated drinks, fuel tanks for automobiles and containers of household and industrial chemicals. HDPE is also used for films and pipes
Hydrocracking	Hydrocracking is an oil refinery process that makes use of hydrogen. The process may be used for producing gasoline, jet fuels and high-quality lubricating oils. It may also convert distillation residues into lighter oils.
Linear Low Density Polyethylene (LLDPE)	LLDPE is a type of Polyethylene and has basic properties similar to LDPE. LDPE and LLDPE are to a certain extent substitutable for each other. The most significant end use for LLDPE is shrink film.
Low Density Polyethylene (LDPE)	LDPE is a type of Polyethylene used for thin films, tubes, mechanical parts, toys and electric wire insulation.
Methyl Ester	Methyl Ester are oleochemicals derived from vegetable feedstock, such as palm-kernel oils. Methyl Ester may be used in the esterification reaction for biodiesel resources.
Methyl amines	Methyl amines derivatives have beneficial uses in many industries, including water treatment, gas and oil treatment, animal nutrient, agricultural chemicals and personal care products.
Mixed C4s	Mixed C4s are the colorless gases produced from naphtha crackers. It may be used in as a raw material for the production of Butadiene and Butane-1.
Mixed Xylenes	Mixed Xylenes are the mixture containing xylenes such as Orthoxylene, Metaxylene and Paraxylene and are used in the production of solvents and high value downstream product.
Mono Ethylene Glycol (MEG)	MEG is an organic chemical compound derived from the oxidation of Ethylene. It is produced by the reaction of Ethylene Oxide and water. MEG is mainly used for Polyester and anti-freeze production.
Naphtha	Naphtha is a general term used for low boiling hydrocarbon fractions that are a product of crude oil or condensate splitter.
Olefins	Olefins are straight or branched-chain hydrocarbon with at least one unsaturated carbon-carbon bond. Produced by cracking feedstock from raw materials such as natural gas and light naphtha. The main Olefins are Ethylene and Propylene and also include Butadiene, and C4 derivatives.

Technical Terms & Abbreviations

Oleochemicals	Oleochemicals are bio-based and environmentally friendly chemicals derived from plants and animal fats, which have similar functions as petrochemicals derived from petroleum.
O-Xylene or Orthoxylene (OX)	An Aromatic compound used in the manufacture of plasticizers and unsaturated polyesters.
Polyethylene Terephthalate (PET)	PET is made by the combination of Ethylene Glycol and Terephthalic acid. Typical end uses for PET are packaging and fibers.
PolyVinyl Chloride (PVC)	PVC is a versatile thermoplastic polymer produced from VCM. It is extensively used in the construction sector for a variety of applications including pipes, siding and window/door profiles, wire and cable insulation, rigid film/sheet and flooring.
Polymers	When certain individual molecules (Monomers) come together and link up in a chain-like fashion, they form a Polymer. The chemical reaction that forms a Polymer is called polymerization.
Polyurethane (PU)	PU is a Polymer composed of a chain of organic units joined by urethane links.
Propylene	Propylene is a flammable gas which is largely derived either as a co-product of the refinery FCC process used to make gasoline or as a co-product of the steam cracking process used to make Ethylene. Propylene has virtually no independent end use, but is an important input for a significant number of industrial products, and is the main feedstock used to make Polypropylene and Acrylonitrile.
P-xylene or Paraxylene (PX)	PX is an Aromatic Hydrocarbon in the form of a colorless, flammable liquid that is recovered from mixed Xylenes streams by adsorption and by Isomerization of Aromatics. It is an upstream raw material for PTA and DMT, which are used for production of downstream Polyester fiber and Polyethylene Terephthalate.
Pyrolysis Gasoline	Pyrolysis Gasoline is a naphtha-range product with a high aromatics content used in the production of Benzene, Toluene and Mixed Xylenes and as a motor vehicle gas blending stock.
Toluene	Toluene is an Aromatic Hydrocarbon used as an octane enhancer in gasoline, as a chemical intermediate in the production of Benzene, Paraxylene, toluene diisocyanate and as a solvent in paints.
Toluene diisocyanate (TDI)	TDI is an intermediary chemical used in the production of polyurethane.



PTT Global Chemical Public Company Limited

555/1 Energy Complex Building A, 14th-18th Floor,
Vibhavadi Rangsit Road, Chatuchak, Chatuchak,
Bangkok 10900 Thailand

Tel : 66 (0) 2265-8400 Fax : 66 (0) 2265-8500

www.pttggroup.com

