2017

台灣中油股份有限公司

CPC Corporation, Taiwan

CONTENT

CPC CORPORATION AS PATHFINDER – POWERING THE FUTURE 3

SUSTAINABLE DEVELOPMENT 5

DIRECTORS, SUPERVISORS, AND KEY MANAGERS 7

- Board of Directors 9
- Corporate Officers 9
- Organizational System 10

UPSTREAM OPERATIONS 11

- Exploration and Production 12

DOWNSTREAM OPERATIONS 15

- Importing & Refining 15
- Production of Petrochemicals 21
- Marketing CPC Petroleum Products 23
- Natural Gas Supply 27
- Other Products 31

INDUSTRIAL SAFETY & HEALTH 33

POLLUTION PREVENTION AND ENVIRONMENTAL PROTECTION 37

RESEARCH & DEVELOPMENT AND KNOWLEDGE MANAGEMENT 43

- Research and Development 43
- Knowledge Management 47

HUMAN RESOURCES 49

CPC'S AFFILIATES AND SUBSIDIARIES 51

FINANCIAL STATEMENT 53

2017
台灣中油股份有限公司
CPC Corporation, Taiwan

Quality, Service, Contribution

CPC CORPORATION AS PATHFINDER – POWERING THE FUTURE

2016 marked the 70th anniversary of CPC Corporation, Taiwan's (CPC) founding. It was also a year of global political and economic turmoil: the global energy sector experienced unprecedented changes and oil prices began their rise from the trough, gradually climbing to US$50 a barrel. CPC's march toward diversified development continued, in line with the trend towards environmental protection and reducing greenhouse gas emissions; domestic eco-protection issues – notably the problem of air-pollution – continued to loom larger as matters of concern across the nation. But though faced with these rapid changes happening in its operating environment, CPC has carried on with the task of ensuring that Taiwan has a stable supply of petroleum products, natural gas and the basic raw materials for petrochemicals, while at the same time upgrading its operations management and expanding its scope of business. Helped by international oil prices slowly firming and conditions in the petrochemicals market taking a turn for the better, the conscientious efforts and diligence of everyone on the CPC team – especially those responsible for keeping operational facilities running and completing rebuilding and reengineering projects on time – produced a dazzling record of achievement in 2016: net profit was NT$29.367 billion, the best result for 27 years.

CPC delivered on a number of key initiatives during 2016. Chief among them were completion of its relocation project in Kaohsiung City; partial transfer of its exploration block rights and interests in Chad; and obtaining a fixed pollution source operating permit for its Mount Banping storage and transportation facility. At the same time, workplace safety was reinforced by expansion of the Industrial Safety and Health Department, integration of safe-working policy measures and the strengthening of contractor management protocols. Corporate social responsibility (CSR) too was in focus: there was the 'Care for the Earth, Keep Our World Clean' combined mountain-beach clean-up and tree-planting events under the slogan 'Planting Trees to Grow a Forest and Green the Home Garden' – all aimed at inspiring people to save energy and reduce carbon emissions as part of a green wave of love and protection for the environment. Going even further in response to government policy on energy saving and reducing carbon emissions and to help bring about a domestic green low-carbon environment, CPC has been retrofitting its gas stations with solar panel arrays and obtaining green-building certification for them. Lastly, and as a demonstration of its commitment to supporting both sports events and the development of sports and exercise activities, the company signed on as a sponsor of the 2017 Summer Universiade hosted by Taipei. In that capacity it will provide fuel for the games' shuttle buses and its flagship 'See Clean' brand of eco-friendly laundry detergent for use by the athletes' support services.

Looking to the future, CPC will continue to build on its foundation industrial safety policy, to strengthen its core businesses and to expand its areas of business development. That endeavor will necessitate focused effort on environmental protection, low carbon content and products with high added-value. In terms of oil and gas exploration and production, it means the company actively seeking opportunities for cooperation and M&A in foreign parts to raise the proportion of self-owned oil and gas reserves and hence the security of Taiwan's energy supply.

In terms of refining operations, there will be the implementation of measures to enhance workplace safety and to maintain normal levels of operational reliability. Along with that, to sharpen the refining business's competitive edge, will go boosting its hydro-

Chairman 陳金德

desulfurization capacity, lifting the overall quality of its domestic fuels, improving air quality in general and reducing haze in particular.

In the petrochemicals space, the planned storage and distribution center – officially titled Kaohsiung Harbor International Container Terminal Phase II Dalin Petrochemical Oil Storage and Transport Center Investment Plan – is taking shape and some of the company's industrial pipeline network has been re-routed away from the city center to make things safer for urban residents.

At the same time, in the light of government policy promoting the move to higher value-added industry and a circular economy, cross-domain refinery downstream operations are being pursued, operational efficiency is being improved, and plans have been formulated for joint-venture introduction of dedicated foreign technology, integration of regional energy resources, usage of refinery byproduct fuel gas as feedstock to produce styrene, and establishment of a hydrocarbon resin industry.

In the context of the government's '2025 Nuclear-free Home' policy for the energy sector, CPC is taking action to upgrade the capacity, stability and operational flexibility of Taiwan's overall natural gas supply and transmission system. Its plans include, as well as other investments, building a third liquefied natural gas (LNG) receiving terminal, the Phase II capacity expansion at the Taichung LNG plant and construction of a new onshore gas pipeline from there to the Tongxiao power station.

CPC is committed to ensuring that marketing its petroleum products is consistent with helping to build a clean and friendly environment and is linked to local community development. Its response to a diversifying market is to make full use of existing channel advantages and to develop a diversified business model that will create earnings outside of producing and refining oil. The current diversity of business lines is being thoroughly exploited and expansion into new business ventures – such as e/mobile commerce and EV battery exchange – is under way. Other business lines with development potential are being assessed, particularly in terms of their power to attract external customers to CPC gas stations and widen the scope of this channel's revenue generation.

The business of transporting and storing petroleum products is having to deal with popular pressure to move those facilities away from their urban locations. That challenge is compounded by increasingly stringent laws and regulations covering the operation of in-country oil and petrochemicals pipelines. In a response to relieve that pressure, CPC is planning construction of a storage and transport supply network with its key north, central, and southern area supply centers adjacent to ports. Elsewhere, other important items of business on which action has been taken include development and production in the Chad oil block, soil and groundwater remediation at the former Kaohsiung refinery and relocation of equipment from the Wuqing site. There has also been progress in the implementation of industrial safety measurement, improving energy management, trade network expansion and cultivating overseas talent.

In upholding its core business philosophy, CPC is committed to sharpening its competitiveness, growing its profit-earning capacity, driving both national economic growth and local community development and, in summary, providing the people of Taiwan with ever more diversified energy products and services of ever-heightened quality. Everyone in the company team takes it as his or her personal responsibility to burnish the CPC brand and cement its reputation as a model for state-owned enterprises. With firm resolve, they march as one along the road towards sustainable operations that embody the firm's entrepreneurial mindset and make real its vision of an environmentally-conscious, safety-wise and competitive international energy company.

President

SUSTAINABLE DEVELOPMENT

CPC'S FOCUS – TRENDING TOWARDS A TRIPLE WIN WITH ECONOMY, ENVIRONMENT, AND COMMUNITY

CPC was originally and formally established in Shanghai on June 1, 1946. It was in the beginning subordinate to the then Council of Resources (the predecessor of today's State-owned Enterprise Commission, Ministry of Economic Affairs) and after the ROC government's transfer to Taiwan in 1949 its headquarters was set up in Taipei and its allegiance transferred to the Ministry of Economic Affairs. Its scope of business, carried out in workplaces throughout Taiwan, primarily encompasses oil and natural gas: exploration and production, imports, refining, storage and transport, marketing and sales and the production of petrochemical raw materials.

At the 550th meeting of the Board of Directors in February 2007 the original English name Chinese Petroleum Corporation was officially changed to CPC Corporation, Taiwan, with the 'Chinese Petroleum' part preserved in vestigial form in the abbreviated prefix. The firm's trademark torch logo and English name represent the corporate philosophy of expanding its international business while strengthening its roots in Taiwan. CPC continues to work on its mission to fully supply all Taiwan's energy needs – for which its cumulative contributions over the years have earned it valuable goodwill – and on its commitment to build an international energy group. CPC's capital now stands at NT$130.1 billion and its turnover in 2016 totaled NT$764.62 billion.

DRIVING ECONOMIC GROWTH – BEING A GOOD CORPORATE CITIZEN

Through the years, CPC has ensured a stable supply to meet domestic oil and gas energy needs, driving petrochemical-related industrial development, playing a key role in Taiwan's soaring economic growth and the burgeoning livelihood and prosperity of its people, earning deep approbation from all sectors of society. Over the past two decades, following the full liberalization of the domestic oil market, CPC has consolidated its operational advantages as well as strengthened and deepened its competitive strengths. Beyond streamlining its human resources and systematically engaging on organizational reengineering, it also continues to explore ways to reduce production costs, and to pursue entrepreneurial operations. The corporation actively seeks opportunities for cooperation with major international oil companies, as well as expanding its upstream exploration and petrochemicals, and expanding its marketing channels, thereby expanding its scope of business and marching forward in the international market, becoming a competitive, holistic international energy group embracing exploration, oil and gas, petrochemicals, and advanced technology, continuing to provide citizens with energy services of the highest efficiency and highest quality.

While CPC is a profit-seeking state-owned enterprise, it is always and everywhere conscious that it is a member of the local community. As such, it strives to serve as a good corporate citizen and one that takes its corporate social responsibility obligations to heart. While over the years continually improving the quality of its petroleum products, it has at the same time – and as part of its environmental-protection efforts – introduced and promoted clean energy in the form of imported liquefied natural gas. Further, and in keeping with its belief in the role of delivering convenience and beneficial service to the public regardless of cost, CPC provides all of the fuel needed by both military forces and civilians in Taiwan's remote areas and offshore islands.

Over the years CPC has been conscientiously active in areas of social concern – promoting public understanding of the petroleum industry, educating consumers in the safe use of gasoline and natural gas, conducted seminars on energy-saving and reducing the carbon footprint, running industrial health and safety workshops and providing leadership to other businesses in the energy sector in the common pursuit of sustainable development. In terms of community involvement, CPC has supported disadvantaged groups, participated in social-welfare activities, funded arts and cultural initiatives and sponsored elite athletes. Its public service role also includes putting in place environmental protection measures around its plants, supporting economic and social development in the neighborhoods around its industrial plants and exploration sites, encouraging ecological conservation (in particular, sparing no effort in regard to the eco-protection of areas surrounding its own sites) fostering local culture and promoting environmental education. All of these activities are in keeping with the 21st-century trend toward corporate sustainability and demonstrate CPC's emphasis on balancing economic growth, environmental protection and social welfare.

CPC formulated the following elements of its sustainability policy in 2003 in alignment with global trends in environmental protection:

- Compliance with government regulations and international agreements
- Comprehensively clean production methods coupled with protection of the environment
- Conservation of water and energy resources through efficient utilization
- Emphasis on corporate social responsibility and expansion of services to the consuming public
- Establishment of key environmental protection indicators and the practice of fully transparent information disclosure
- Active commitment to R&D for the creation of new areas of business

CPC joined the World Business Council for Sustainable Development (WBCSD) in 2006 and since then has divided its sustainable operations efforts into four areas: policy and R&D; environmental and ecological conservation; caring for the community; and environmental accounting and information. The company has presented the relevant information by publishing a Sustainability Report in 2007, 2009 and 2011-2016 which has won a number of awards.

A cross-department Sustainable Operations Promotion Committee was formed in 2007 and started work the following year. Comprised of senior management personnel and chaired by CPC's current Chairman of the Board and with the President of the day as vice-chair, its membership includes foreign scholars and other experts invited to serve as advisers. The Committee promotes initiatives in the four task areas mentioned above, meeting three times a year and tracking the effectiveness of sustainable operations efforts. Details on what has been achieved can be found in the above-mentioned annual CPC Sustainability Report.

As global warming and climate change intensify, CPC – all the while deeply involved in its own industry's progress and in fulfilling its role as Taiwan's principal provider of clean energy – is committed to crafting a triple-win situation incorporating environmental protection, economic development and caring for the community to help in creating a better future.

- Ranked #443 in the *Fortune* Global 500
- *Management Magazine* No. 1 Consumers' Ideal Gas Station Brand for 12th Consecutive Year
- *Reader's Digest* Trusted Brand Platinum Award for 16th consecutive year
- Taiwan Corporate Sustainability Award for Creativity in Communication
- Taiwan Corporate Sustainability Award for Social Inclusion
- Taiwan Corporate Sustainability Awards: Top 50 Corporate Sustainability Reports – Energy Sector Gold Award
- 2017 ROC Enterprise Environmental Protection Awards: two Silver and two Bronze

DIRECTORS, SUPERVISORS, AND KEY MANAGERS

01	Tsang-Long Liao	CEO, Exploration & Production Business Division
02	Jen-Hung Huang	CEO, Marketing Business Division
03	Shun-Chin Lee	Vice President
04	Ann S. C. Bih	Vice President
05	Cheng-Hsie Liu	President
06	Chin-De Chen	Chairman
07	Jeng-Zen Fang	Vice President
08	Shun-Fa Huang	CEO, Petrochemical Business Division
09	Jane Liao	CEO, Natural Gas Business Division

BOARD OF DIRECTORS

Chairman	Chin-De Chen (Standing Director)
Directors	Cheng-Hsie Liu (Standing Director) Ming-Chang Hsu (Standing Director & Independent Director) Jing-Tang Yang (Independent Director) Shone Wei-Shyang Chen Engel Wu Kuei-Chou Huang Peggy L. Lin Jhy-Chern Liu Jui-Chang Chang Chih-Chang Chen Chih-Wei Sun Jui-An Yeh
Supervisors	Ching-Chien Wang Lin-Wu Kuo Hung-Kun Tsai

2017.06.26

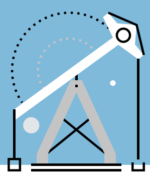
CORPORATE OFFICERS

President	Cheng-Hsie Liu
Vice Presidents	Ann S. C. Bih Jeng-Zen Fang Shun-Chin Lee
CEO, Exploration & Production Business Division	Tsang-Long Liao
CEO, Refining Business Division	Shun-Chin Lee
CEO, Petrochemical Business Division	Shun-Fa Huang
CEO, Marketing Business Division	Jen-Hung Huang
CEO, Natural Gas Business Division	Jane Liao
CEO, Lubricants Business Division	Ting-Pang Chi
CEO, LPG Business Division	Michael Chang
CEO, Solvent & Chemical Business Division	Angela Ko-Ju Lin
Director, Refining & Manufacturing Research Institute	Vincent Y.S. Ho
Director, Exploration & Development Research Institute	Jung-Nan Oung
Director, Green Technology Research Institute	Tung-Li Huang
Director, LNG Project Division	Rong-Yu Huang
Director, Project & Construction Division	Marc W. H. Lin
Director, Soil & Groundwater Remediation Division	Han-Zong Yang

2017.06.27

ORGANIZATIONAL SYSTEM

- Shareholders' Meeting
  - Supervisors
  - Chairperson of the Board
    - Secretariat of the Board
    - Internal Inspection Office
    - Board of Directors
      - President
        - Department of Ethics
        - Vice Presidents
          - Department of Internal Coordination and Communication
          - Chief Engineer's Office
          - Department of General Affairs
          - Department of Finance
          - Department of Procurement
          - Department of Planning
          - Department of Information Management
          - Department of Accounting
          - Department of Personnel
          - Department of Industrial Relations
          - Department of Industrial Safety & Health
          - Legal Affairs Office
          - Department of Joint Venture
          - Department of Storage & Transportation
          - Supply and Trading Division
          - Department of Environmental Protection
          - Department of Property Management



- Exploration & Production Business Division
- Refining Business Division
- Petrochemical Business Division
- Marketing Business Division
- Natural Gas Business Division
- Lubricants Business Division
- LPG Business Division
- Solvent & Chemical Business Division
- Refining & Manufacturing Research Institute
- Exploration & Production Research Institute
- Green technology Research Institute
- LNG Project Division
- Project & Construction Division
- Soil and Groundwater Remediation Division
- CPC Corporation, Taiwan-Libya Branch
- Qatar Office
- Dubai Office

UPSTREAM OPERATIONS

STRATEGIC EXPANSION –
EXPLORATION AND M&A PROGRESSING IN TANDEM

EXPLORATION AND PRODUCTION

Taiwan has only very limited indigenous energy resources and depends on imports for almost all its fossil fuels. CPC has therefore focused on more effective expansion of its upstream operations by developing its own reserves – ramping-up exploration and production at source abroad – to help stabilize Taiwan's supply of oil and natural gas and ease the impact on the public of price fluctuations. This has taken place in the context of the government's policy for strengthening Taiwan's energy security mechanisms and promoting international cooperation in energy-related matters.

In order to improve its overall strategic positioning and stay in alignment with the corporate philosophy of 'active expansion, focused development', CPC has adopted exploration strategies aimed at gradually increasing its ratio of self-owned and self-controlled energy reserves within the full sourcing range. Achieving this means, in summary: expanded development of overseas resources while exploiting indigenous resources to their maximum capacity; boosting exploration activity through both M&A and joint-ventures; and the training and retention of talent – an important renewable resource essential to success.

TAIWAN'S ONSHORE OIL & GAS: ONGOING DEVELOPMENT

In 2016 CPC completed 2D seismic surveys of the Pingtung Plain – 38 km in the central section as well as 44 km in its northern part. There was also a survey of the Fengshan mud diapirs (structures formed by extrusion) at 261 points by the precise-gravity method, as well as other geological surveys covering 73 sq. km. Production from 33 wells in southern and southwest Taiwan yielded 320 million cubic meters of natural gas and 8,446 kiloliters of condensate and three producing wells were repaired.

TAIWAN'S OFFSHORE DEVELOPMENT

CPC is cooperating with Husky Energy of Canada in the exploration of deep-water blocks in the Tainan Basin; this arrangement allows CPC to both acquire deep-water exploration technology and and mitigate its risk. Husky has completed the interpretation of 2D seismic pre-stack depth migration (PSDM) data and plans to conduct 3D seismic surveys in the second quarter of 2017.

EXPLORATION IN THE TAIWAN STRAIT AND EAST/SOUTH CHINA SEA

CPC has completed its assessment of both drilling potential and risk in the Taichao contract block and plans to drill in the most promising area. The contract between the parties involved has been extended until 31 December 2018. Additionally, and in line with government policy, CPC has joined forces with National Taiwan University and National Cheng Kung University to serve as joint contractors to the Bureau of Mines, MOEA for the assessment of potential oil and natural gas reserves in the East China Sea and South China Sea.

OVERSEAS EXPLORATION AND DEVELOPMENT

As of end-2016, CPC was engaged with international oil companies in joint exploration of 22 fields in 8 countries and was involved in the operation of 1,142 producing wells; the drilling of 6 wells and repair of a further 82 holes was completed during the year. In the same period, CPC obtained just over 4.907 million barrels of crude oil and 230 million cubic meters of natural gas as its share of the output of 13 producing fields in Ecuador, Indonesia, Niger and the USA. This output consisted of both conventional and 'tight' oil and gas and employed ultra-low pressure enhanced oil recovery (EOR) methods and similar technologies to obtain those large volumes of high-quality hydrocarbons.

SEEKING OPPORTUNITIES FOR COOPERATION OVERSEAS

The likely successive exhaustion of Taiwan's existing onshore oil and gas fields over the next 10 years constitutes a call for action to avoid a crisis. CPC is therefore continuing to put effort into both domestic and foreign exploration and production and also engaging with suitable merger and acquisition opportunities. One instance of foreign exploration, in Chad, serves as an example: one appraisal well drilled with CPC as the operator has brought in additional contingent reserves of 1.63 million barrels of oil and so the company is currently planning development of that field. As for Niger, 5 exploratory wells have been drilled with oil and gas discovered in 4 of them, bringing additional contingent reserves of 2.25 million barrels of oil. The total in that category now amounts to 3.88 million barrels. CPC continues to seek new fields with potential. An assessment of a number of tender cases carried out in 2016 indicates that solid results can be expected.

CONSISTENT AND LOGICAL AGGREGATION OF SELF-OWNED OIL AND GAS ASSETS

CPC's upstream operations, which were launched in 1959, comprise exploration and production in both onshore and offshore oil and gas fields in Taiwan, the Taiwan Strait and overseas. In the main successful, they have to date yielded oil and gas to the value of over NT$200 billion. Looking to the future, the CPC vision is that of becoming a high asset-value international oil and gas business: it is consistently engaged in upstream international cooperation and M&A activity centered on exploration and boosting its self-controlled oil and gas reserves; and also in seeking opportunities for investment in overseas assets during periods of low oil prices. The company will endeavor to acquire mid-size and small oil and gas fields, above all those with low risk, and to extend contract rights in currently-producing fields.

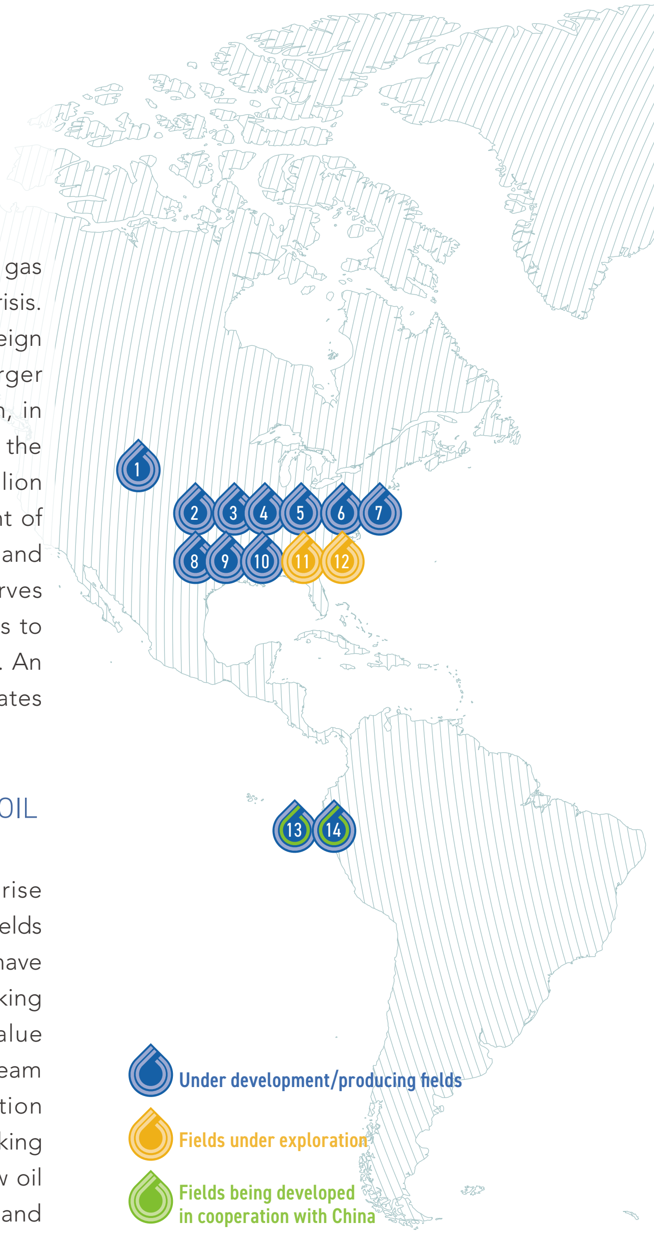
In parallel with this, there are initiatives to develop diversity in the scope of business and to be a player in green industry.

CPC'S EXPLORATION AND PRODUCTION PERFORMANCE OVER THE PAST THREE YEARS

Unit: In Millions of New Taiwan Dollars

Year	2014	2015	2016
Operating revenue	14,228	9,947	10,350
Operating costs	12,895	8,597	11,439
Earnings	1,333	1,350	(1,089)
Pre-tax profit	783	1,205	(6,749)
Operating revenue as a share of company's total revenue*	1.19%	1.18%	1.35%

* Total revenue: NT$1.19 trillion in 2014, NT$844 billion in 2015, NT$764 billion in 2016



US-Colorado

1 KC320 (20%)

Operator: Mendell

US

2 Big Horn (11.2%)

3 Shoats Creek (5%)

4 S.Bancroft (10%)

5 Danube (10%)

6 Yellowstone (10%)

7 NW Bearhead Creek (10%)

8 East Skinner Lake (10%)

Operator: Indigo Minerals

US-Louisiana

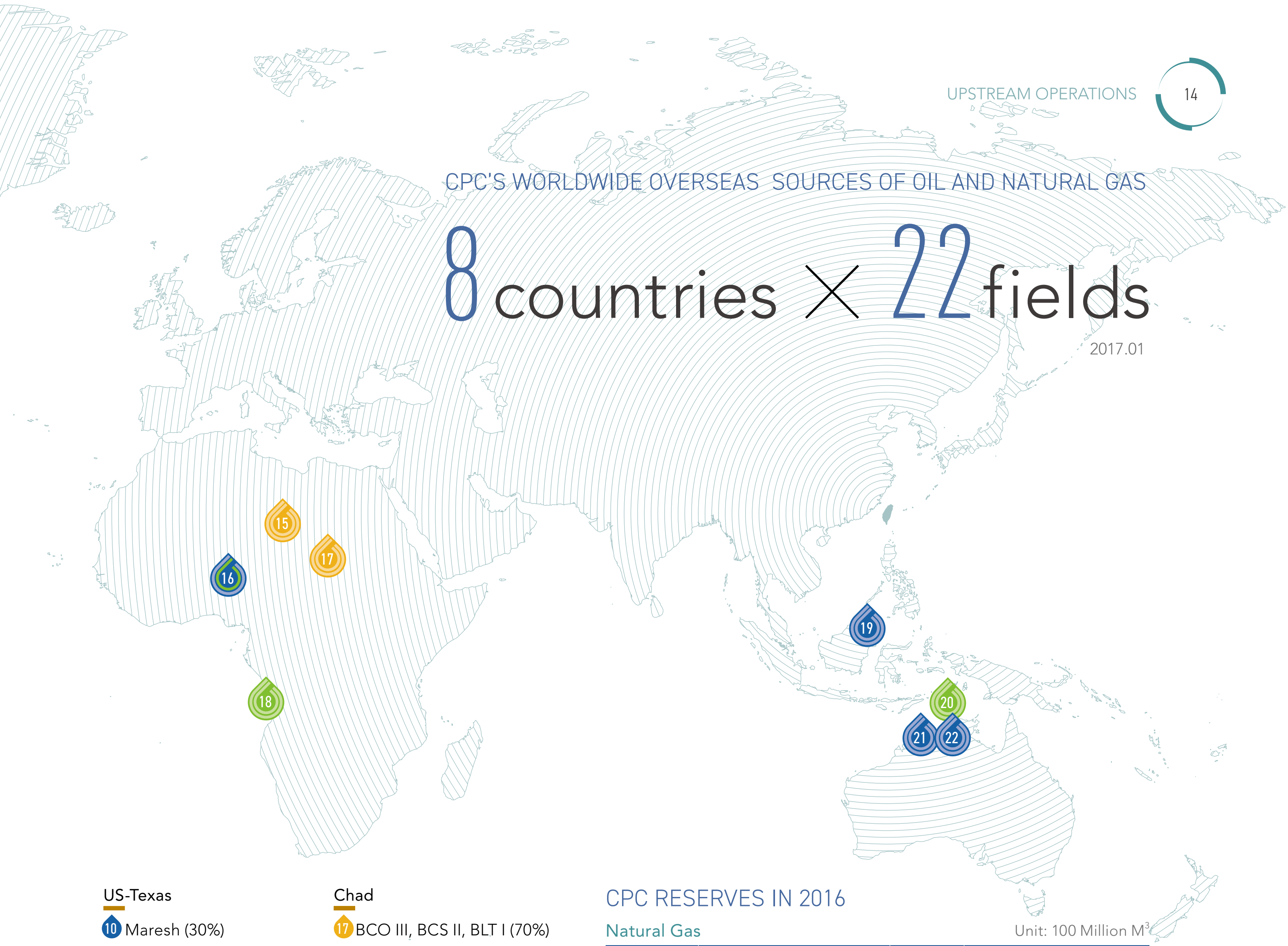
9 Austin Chalk (20%)

Operator: Yuma

CPC'S WORLDWIDE OVERSEAS SOURCES OF OIL AND NATURAL GAS

8 countries × 22 fields

2017.01



US-Texas

10 Maresh (30%)

Operator: TT Energy

11 Lazy M5 (25%)

12 San Jac (25%)

Operator: GeoPetra

Ecuador

13 Block-16 (31%)

Operator: Repsol

14 Block-17 (30%)

Operator: PetroOriental

Libya

15 Murzuq 162 (100%)

Operator: CPC

Niger

16 Agadem area

Exploration (ERA) 23.53%

Development (EEA) 20%

Operator: CNPCNP

Chad

17 BCO III, BCS II, BLT I (70%)

Operator: OPIC

Congo

18 Haute Mer A (20%)

Operator: CNOOC Congo SA

Indonesia

19 Sanga Sanga (16.67%)

Operator: VICO

Australia

20 AC/P21 (30%)

Operator: ENI

21 Prelude gas field (5%)

Operator: SHELL

22 Ichthys gas field (2.625%)

Operator: INPEX

CPC RESERVES IN 2016

Natural Gas

Unit: 100 Million M^3

Field	Reserves in 2016 without production deducted			Production in 2016	Reserves in 2016		
	Proved	Probable	Possible		Proved	Probable	Possible
Indonesia Sanga Sanga	6.50			2.24	4.26		
Australia Prelude	21.24	8.18		0.00	21.24	8.18	
Australia Ichthys	89.04	24.08		0.00	89.04	24.08	
Total	116.78	32.26	0	2.24	114.54	32.26	0

Crude oil and condensate

Unit: 1000 barrel

Field	Reserves in 2016 without production deducted			Production in 2016	Reserves in 2016		
	Proved	Probable	Possible		Proved	Probable	Possible
Indonesia Sanga Sanga	1,514			196	1,318		
Australia Prelude	4,150	1,904		0	4,150	1,904	
Australia Ichthys	8,820	2,179		0	8,820	2,179	
Ecuador Block 16	9,892			2,834	7,058		
Ecuador Block 17	3,444	1,442		637	2,807	1,442	
Niger Agadem	39,657	65,828		1,224	38,433	65,828	
Total	67,477	71,353	0	4,890	62,587	71,353	0

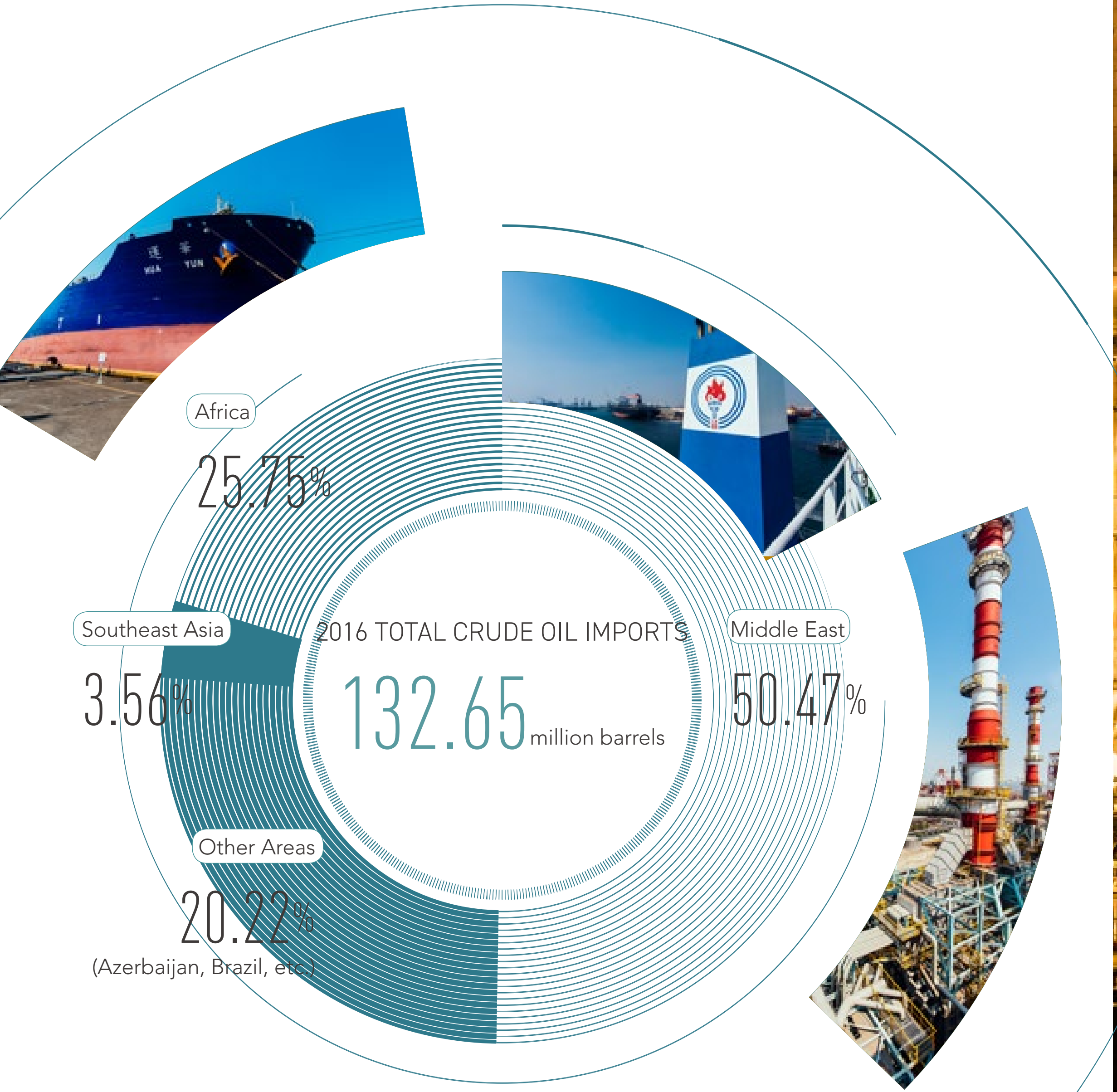
DOWNSTREAM OPERATIONS

STABILITY IN SUPPLY – INNOVATION AND QUALITY DIVERSIFICATION

IMPORTING & REFINING

CPC aims to ensure stability in supply by both purchasing crude oil under long-term contracts and by utilizing vendors dispersed around the world. In 2016 its crude oil imports amounted to 132.65 million barrels, among which imports from the Middle East accounted for 50.47%, Africa 25.75%, Southeast Asia 3.56% and the remaining 20.22% from other locations. In recent years, increasingly stringent domestic environmental standards have mandated that low-sulfur crude makes up a certain percentage of total imports.

To facilitate its vitally-important handling of oil imports, the company has set up large tanker offloading pontoons just offshore its refineries – at Shalun near Taoyuan in the north and Dalinpu near Kaohsiung in the south. In addition, purpose-built oil tanker wharves have been constructed at Kaohsiung, Taichung and Shen'ao ports.




ISO 9002
ISO 14001

SHOULDERING RESPONSIBILITY – MEETING THE DEMAND FOR REFINED PRODUCTS

CPC's refineries at Taoyuan and Dalin currently have a combined daily refining capacity of 500,000 barrels. In order to comply with a commitment made to the government to relocate the Kaohsiung complex – which had a daily refining capacity of 200,000 barrels, and an annual capacity of 50,000 tons for refining, chemicals, and storage – it was shut down at the end of 2015. In order to stabilize the supply of domestic energy, Its operations are being gradually transferred to the Dalin Refinery – which is undergoing capacity expansion to meet rising internal demand for refined products – so that stability of supply is not compromised. The job of filling the petrochemical raw material supply gap consequent to the Kaohsiung refinery closure has been transferred to a naptha cracker in CPC's Linyuan complex.

The Dalin Refinery was originally established as a part of the Kaohsiung plant but in 1996 was hived off as an independent operation. Its daily capacity is 300,000 barrels, with both incoming crude and outgoing refined products handled by four offshore mooring and unloading buoys and dedicated port facilities.

The Taoyuan Refinery started up in 1976. Following renovations and the addition of a second distillation plant, it now has a daily refining capacity of 200,000 barrels. In 2016 CPC's total output of refined petroleum products amounted to (in million kiloliters): gasoline 10.624; aviation fuel 1.851; diesel 5.819; fuel oil 3.664. In metric tons, liquefied petroleum gas (LPG) totaled 347,000.

REFINING TECHNOLOGY UPGRADED TO ENHANCE QUALITY AND QUANTITY

In response to Taiwan's ever more demanding environmental and quality of life standards, coupled with the government's increasingly strict enforcement of the environmental protection regulations enacted to improve air quality and reduce haze, CPC has in recent years moved to both improve the quality of its products and raise their production value. Refining and production facilities have undergone design and process upgrades to enable the supply of higher-grade products – such as desulfurized gasoline and diesel – to Taiwan's internal market. At the same time, those upgrades have raised the level of production efficiency across the whole range of refining processes.

Additionally, CPC facilities are in compliance with the Environmental Protection Administration's (EPA) 2011 directive setting parameters for the sulfur and aromatics content of gasoline and diesel fuel. The EPA measure required that diesel fuel's sulfur content be reduced to 10ppmw or less, its aromatic hydrocarbon content to 35vol% or less and that the olefin content in gasoline be 18vol% or less. The aforementioned facilities consist of a 30,000-barrel-per-day cracked gasoline hydro-desulfurization plant at the Taoyuan Refinery, completed in 2008; a 20,000-barrel-per-day cracked gasoline hydro-desulfurization plant at the Dalin Refinery, completed in 2009; and a similar 40,000-barrel-per-day plant for diesel at the Dalin Refinery, completed in 2010. The 18,000-barrel-per-day cracked gasoline quality improvement plant at the Kaohsiung Refinery was moved to the Dalin site in 2011.

In 2006 CPC began construction of an 80,000-barrel-per-day residue fluid catalytic cracking (RFCC) facility at the Dalin refinery to upgrade its refining infrastructure and heavy oil recovery rate. That plant began mass production in 2013. At the same location, construction of a 14,000-barrel-per-day alkylation plant – designed to boost gasoline quality and to take advantage of the plentiful supply of crude butane feedstock from the refinery's heavy fuel oil conversion facility – began in 2008 and was completed in 2013 with the onset of mass production. With the aim of eliminating acidic process fumes and reducing harmful emissions, CPC has built a plant that began producing a daily output of 250 tons of high-grade sulfur in mid-2014.

In March of this year, CPC put into effect and funded its plan for revamping the No. 3 residue hydro-desulfurization (RDS) plant at the Dalin Refinery. The aim is to boost its capacity for refining high-sulfur crude oil, reduce purchasing costs and reinforce the stability and quality of the feedstock for its residual oil conversion facility. The planned investment's overall scope is to update and restart the old residual oil hydrogenation and desulfurizing site within the Taoyuan refinery, and a 70,000-barrel-per-day desulfurization plant is being constructed as a part of that. But CPC's immediate goal is to get both buy-in from local residents and approval by the competent authorities.

Due to the aforementioned closure of the Kaohsiung Refinery, CPC is installing an additional processing plant at its Dalin site to ensure an uninterrupted supply of raw materials to Taiwan's petrochemical industry. Current plans call for the construction of an ambient-pressure petroleum distillation facility with a daily refining capacity of 150,000 barrels, a 50,000-barrel light crude distillation facility and hydro-desulfurization plants for both diesel (40,000 barrels) and kerosene (30,000 barrels) – all of which are scheduled for completion by November. 2017. After that, the Dalin complex's No. 9 plant – which has been in operation for 40 years and has a daily refining capacity of 100,000 barrels – will be shut down. Dalin's crude oil refining capacity will eventually be raised to 400,000 barrels daily, bringing CPC's overall capacity to 600,000.

CPC is involved in a joint venture to build and operate an 180,000-ton-per-year isononanol (INA) plant as well as a 144,000-ton-per-year methyl tert-butyl ether (MTBE) facility. Construction is scheduled to begin in September 2017 and production to start up in 2021. The project's rationale is to boost the value of the mixed C4 hydrocarbons produced by the heavy fuel oil conversion plant that turns out high-value petrochemical products.

DEVELOPING EXPORT MARKETS HELPS OPTIMIZE OPERATIONAL EFFICIENCY

External sales of key refined products in 2016 amounted to approximately 3.178 million kiloliters. They were sold mainly to Japan, South Korea, Malaysia, India, the Philippines, Vietnam, Singapore, the United Arab Emirates, Papua New Guinea, Australia and China and other destinations. CPC will continue developing these and other export markets in the future as a means of helping to optimize the company's overall manufacturing efficiency and return on investment.

PRODUCTION OF PETROCHEMICALS

CPC's principal petrochemicals production sites are its Linyuan Petrochemicals Complex run by the Petrochemicals Business Division as well as the Taoyuan and Dalin refineries operating under its Refining Business Division.

The heavy fuel oil conversion plants at Taoyuan and Dalin produce propylene; the naphtha cracker and butadiene extraction plants at the Linyuan site produce ethylene, propylene, and butadiene products, while its aromatics extraction facility produces benzene and xylene. CPC's current annual production capacity for petrochemical raw materials includes 1.07 million tons of ethylene, 1.194 million tons of propylene, 158,000 tons of butadiene, 274,000 tons of benzene, 321,000 tons of toluene and 507,000 tons of xylene.

2016 Total annual revenue from petrochemical products

NT$ 91.285 billion

A PIONEER IN PETROCHEMICALS – COMMITTED TO INNOVATION AND ENVIRONMENTAL PROTECTION

CPC's long-term investment in upstream petrochemicals manufacturing has both helped stimulate the industry's development and sustain Taiwan's economic miracle. In recent years, the company has put greater effort into updating equipment and expanding production capacity so as to eliminate any shortfall in the supply of raw materials to downstream users. Starting in 2005, a total of NT$40 billion was invested in upgrading the Linyuan site's Third Naphtha Cracker and production of qualified ethylene began in 2013. That renovated and expanded Third Naphtha Cracker now produces annually 720,000 tons of ethylene, 370,000 tons of propylene and 100,000 tons of butadiene. As well as supplying downstream manufacturers in the adjacent industrial park, the Linyuan plant provides petrochemical materials to companies in the Renda Industrial Park that were previously supplied by the Fifth Naphtha Cracker. The Linyuan plant generates about NT$60 billion in annual revenue and its evident success encourages downstream companies to invest and raise profitability in the industry to a new level. Looking ahead, CPC plans to employ new processes, low-energy consumption technologies and economies of scale to provide the downstream part of the petrochemical industry with adequate supplies of such raw materials as ethylene and propylene.

In the face of the challenges posed by global warming and depletion of natural resources, CPC lends practical support to the government's 'Circular Economy' policy by turning petrochemical by-products used as fuel or previously regarded as industrial waste into value-added products. Going further, the company aims to create a win-win situation between economic development and environmental protection by employing sustainable principles in overcoming the challenges of industrial transformation.

MARKETING CPC PETROLEUM PRODUCTS

CPC's domestic marketing is primarily focused on gasoline, aviation fuel, diesel and fuel oil. In 2016 sales of these products in Taiwan totalled 20,546,000 kiloliters and generating sales revenue of approximately NT$330.5 billion – the latter a significant decrease compared with 2015, due to lower prices at the pump. Automotive gasoline accounted for the largest share at approximately 52.7%, followed by diesel at about 23.3%, fuel oil at about 16.7% and aviation fuel at around 7.2%.

Taiwan's market for petroleum products is divided chiefly between CPC and the Formosa Plastics Group and competition between the two has grown increasingly intense. CPC has worked hard at leveraging the advantage of its marketing network, and protect its market share, by consolidating its filling-station network: of the 2,495 filling stations operating in Taiwan at the end of 2016, 612 were directly operated by CPC, six were jointly operated by CPC and other parties, and 1,352 were privately-owned CPC franchises. These 1,970 sites give CPC an overall market share of more than 70%, with sales broken down as gasoline 81.2%, aviation fuel 56.8%, diesel 81.5% and fuel oil 94.5%.

CPC FUELS TAIWAN'S TRANSPORTATION – AN INJECTION OF ECONOMIC DYNAMISM

CPC operates aviation fueling stations at all of Taiwan's airports – Songshan, Taoyuan, Taichung, Hualien, Taitung, Kaohsiung, Kinmen, Matsu and Magong. Around the coast, it has international marine bunkering stations at Keelung, Suao, Taichung, Kaohsiung, and Hualien harbors as well as 35 fishing-boat filling stations.

As of end-2016, CPC operated 14 petroleum product distribution centers, located at Keelung, Shimen, Hsinchu, Taichung, Taichung Harbor, Wangtian, Minxiong, Tainan, Fengde, Qiaotou, Suao, Hualien, Magong, Kinmen, and Matsu (part of the oil supply center). These facilities supplied filling stations in their surrounding areas with a total of 23,665,000 kiloliters of product over the course of the year. Three chemical analysis centers in Keelung, Taichung, and Kaohsiung, plus seven testing laboratories, are charged with testing products for quality control and altogether handled 31,733 samples during the year.

In 2016 CPC's output of petroleum products was

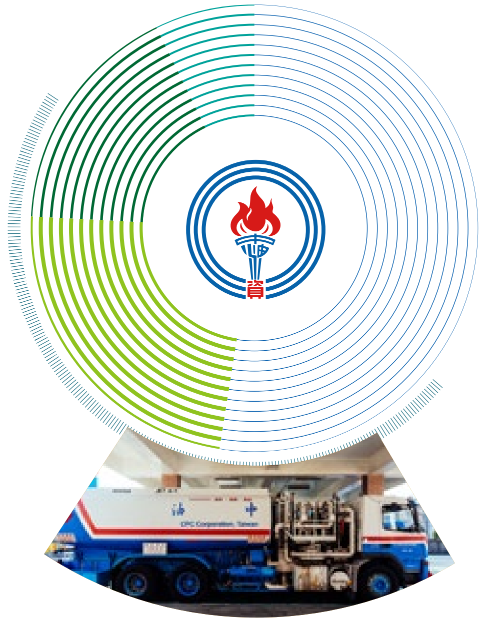
23.665 million kiloliters

Gasoline
52.7%

Diesel fuel
23.3%

Fuel oil
16.7%

Aviation fuel
7.2%



In 2016 total domestic sales of petroleum products was

20.546 million kiloliters

Total sales revenue

NT$ 330.5 billion

MULTI-SERVICE OPERATIONS A SUCCESS – AT DIVERSE LOCATIONS

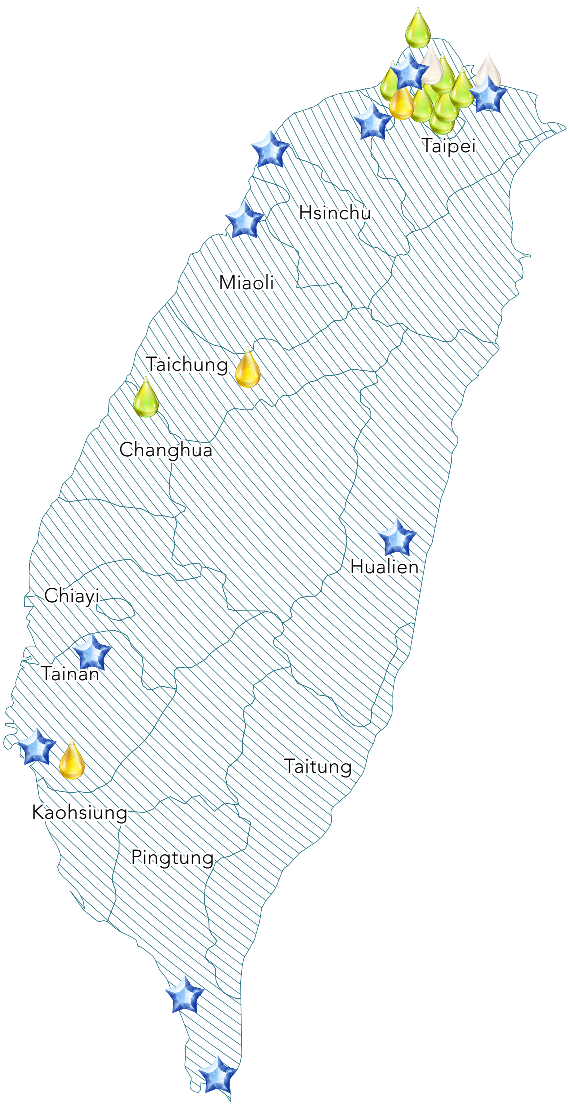
Maintaining market leadership requires maximizing customer satisfaction, so CPC has set as the keynote of its filling station operations a standard of service that differentiates them from their competitors. All CPC directly-operated filling stations throughout Taiwan provide all-round, high-level service – always keeping washroom facilities clean, employing a customer-experience management approach, actively promoting the VIP card system and applying proven customer relations management principles. Faced with the need to reduce operating costs and resolve manpower-shortage issues, CPC has taken the lead in introducing self-service fueling using credit cards and also requires all filling stations under its flag to increase revenue from non-core areas by providing a diversity of services and strengthening horizontal alliances.

The variety of services provided at CPC gas stations includes car washing, quick maintenance, convenience stores and the sale of quality automotive products. In 2016, sales of CPC-brand intake valve cleaning fluid for motorcycles, cars, and diesel trucks reached 980,000 bottles, while sales of See Clean, an environmentally-friendly laundry detergent, reached 950,000 units. Further, sales of CPC-branded mooncake gift boxes reached a record high of 134,000 units. The revenue generated by car washing and quick maintenance also reached a record high in 2016. Overall gross profit from multi-service gas stations exceeded NT$1.13 billion and the consistent growth seen in their use demonstrates that they are now a highly-valued retail channel in the eyes of the consumer.

In the area of customer service, the 0800-036-188 customer service hotline – and the more recently added "1912" CPC service line – have expanded the scope of CPC's services and enabled a quicker response to customers' problems across the spectrum.

GREEN-FRIENDLY ARCHITECTURE – SAFEGUARDING ENVIRONMENTAL SUSTAINABILITY

Within the global trend towards environmental protection there is now an emphasis on constructing buildings in a way that serves the cause. Variously termed 'ecology buildings' in Japan, 'eco-buildings' or 'sustainable buildings' in Europe and 'green buildings' in the USA and Taiwan, the aim is to build so as to protect ecological systems, encourage a mutually beneficial relationship between the structures and the environment, conserve energy and reduce both pollution and the overall environmental impact. These sustainable design and eco-protection principles match CPC's dedication to sustainability in its operations and accordingly a program to green its gas stations began in 2013. As of February 2017, 24 sites have received green building certification.



DISTRIBUTION OF CPC FILLING (GAS) STATIONS WITH 'GREEN BUILDING' CERTIFICATION:

Diamond Grade Level	Badu Gas Station (Keelung City) Guishan Station (Taoyuan City) Xinzhuangzi Station (Hsinchu County) Kending Station (Pingtung County) Fengang Station (Pingtung County) Matai Station (Hualien County) Houbi Station (Tainan City) Guangzhou Station (Tainan City) Ziqiang Road Station (Miaoli County)
Gold Grade Level	Guiren High Speed Rail Station (Tainan City) Heping Station (Taichung City) Wugu Industrial Park Station (New Taipei City)
Silver Grade Level	Bailing 4th Road Station (Taipei City) Badu Gas Station (Keelung City)
Certified Grade Level	Muzha Station (Taipei City) Luzhou Station (New Taipei City) Tingzhou Road Station (Taipei City) Xizhi Station (New Taipei City) Binjiang Dazhi Station (Taipei City) Xinsheng North Road Station (Taipei City) Changhua Zhongshan Road Station (Changhua County) Taishan Station (New Taipei City) Sanzhi Station (New Taipei City)

NATURAL GAS SUPPLY

CPC's promotion of natural gas as the fuel of the future, in keeping with Taiwan's policy aim of energy diversification, is based on its inherent advantages in terms of high thermal efficiency, low pollution profile and convenience for safe handling. A new era of clean energy for Taiwan was ushered in with the completion of the country's first LNG receiving terminal in Kaohsiung's Yongan District in 1990. To cope with growing demand, its capacity was later boosted to 4.5 million tons annually; and a second-phase expansion project was completed in December 1996.

A third-phase expansion project to satisfy demand for natural gas from independent power producers as well as urban end-users in northern Taiwan commenced in July 1996. In addition to terminal-area expansion, this involved laying a 36-inch diameter, 238 km-long undersea pipeline from the Yongan plant to Tongxiao. Its completion in December 2002 expanded CPC's then annual LNG handling capacity to 7.44 million tons.

CONSTRUCTION OF A 'FIGURE 8' NETWORK – BUILDING RELIABILITY INTO SUPPLY

Taiwan's second LNG terminal, sited close to Taichung Harbor and with an annual capacity of 3.0 million tons, became fully operational in 2009. It was designed to supply natural gas to Taiwan Power Company's (Taipower) Datan Power Station as well as industrial firms and household users in northern and central Taiwan. This project entailed building three 160,000-kiloliter LNG storage tanks, gasification and gas supply facilities and a 135-kilometer, 36-inch sea/land long-distance transportation pipeline from Taichung Harbor through the Tongxiao distribution center to the Datan power plant. The current Taichung LNG Terminal Phase II Investment Project calls for the construction of three additional 160,000-kiloliter above-ground storage tanks and a gasification facility at the terminal itself, a 26-inch, 21.8 km terrestrial gas pipeline between the terminal and the Wuxi Separation Station and a further switching station linked with the existing 26-inch pipeline at the Wuxi site. Once completed – which is expected to be before 2018 – the project will boost the annual capacity of the Taichung terminal to 5.0 million tons and ensure a stable, dependable supply of gas during the winter monsoon period as well as greater storage capacity in terms of the number of days' supply on hand.

Total domestic sales of natural gas in 2016

20 billion cubic meters

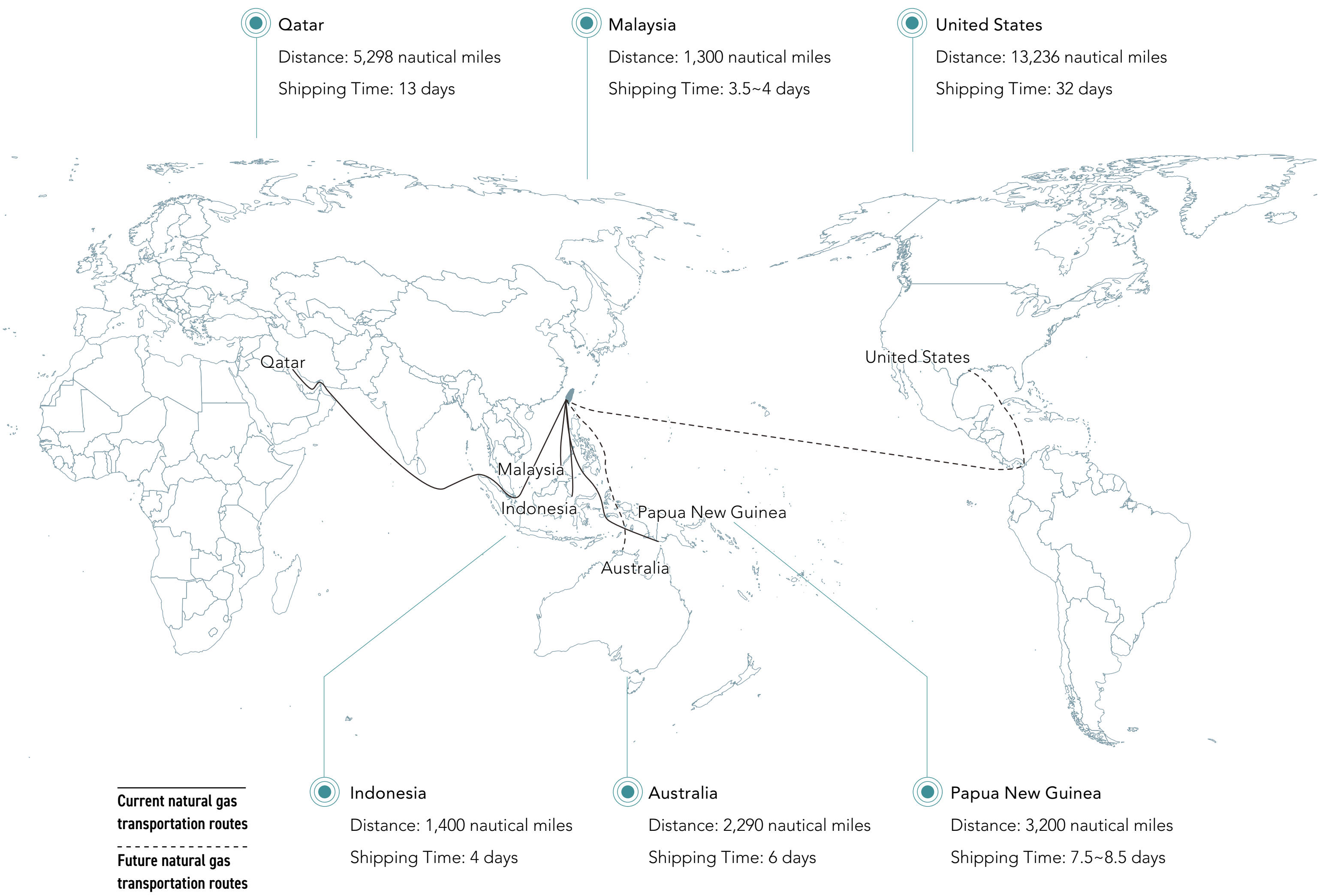
CPC has constructed a natural gas transmission and distribution system in western Taiwan comprised of approximately 1,734 kilometers of terrestrial trunk pipeline, extending from Pingtung in the south to Keelung in the north, which includes eight supply centers and 48 distribution stations. Current plans are centered on the goal of constructing interlocking ring-shaped networks to produce a figure-8 configuration; this will involve laying down a 238-kilometer undersea pipeline from Yongan to Tongxiao and a 500-kilometer terrestrial pipeline onwards from Yongan to Taoyuan, creating a circular network in central and southern Taiwan. In addition, after the 36-inch undersea gas pipeline from the Taichung LNG plant to Datan has come on stream, it will be linked with terrestrial pipelines in central and northern Taiwan to form another circular formation – thus completing the island-wide, integrated 'figure-8' natural gas transmission network.

In the context of Taiwan's new energy policy that calls for gradually phasing out nuclear power and building a low-carbon environment partly run on green energy, Taipower is planning the addition of 4 natural gas-fired generators to its Datan Power Plant. In a parallel development, CPC is now planning construction of a third LNG receiving terminal, located in the Guantang

Industrial Area in northern Taiwan, to supply both the expanded fuel uptake of the Datan plant and growing demand from residential, industrial, and other energy users in the region. Apart from the LNG plant itself, the project will involve construction of an industrial port with 10 piers, reclaiming 77 hectares of land and building facilities for the import of 3.0 million tons of LNG each year. The new works will include four 160,000-kiloliter LNG storage tanks as well as vaporization and distribution plants that will be connected to the existing natural gas distribution system. The total investment will amount to some NT$60.08 billion.

The third LNG receiving terminal project formally commenced in 2016, with full operation scheduled by 2023. Its capacity may later be expanded up to 6 million tons of LNG annually to meet higher demand. With its three LNG receiving terminals located in the north, center and south of the island, CPC stands to reap economies of scale that will lower both the costs and risks of importing natural gas in the future. The existing figure-8 undersea and terrestrial pipeline system will enable mutual support by its components in transporting natural gas around Taiwan and raise the level of operational safety and stability.

CPC'S LNG SOURCES: GLOBAL DISTRIBUTION



SYSTEMATIC DIVERSIFICATION OF NATURAL GAS SOURCES MAKES FOR A STABLE SUPPLY

CPC has put a great deal of effort into diversifying its natural gas sources to ensure that Taiwan has a stable supply. As a result, CPC's buys its LNG (including spot / short-term cargo) from sources around the globe – including the Middle East, Southeast Asia, Northeast Asia, Australia, Africa and Europe as well as other areas.

In addition to its existing long-term LNG purchase contracts with Indonesia, Malaysia, Papua New Guinea and Qatar, CPC has acquired yet more sources through medium/long-term contracts with, for example, Russia. Matching all of the foregoing with medium/short-term (spot) contracts with sources in varied locations meets the company's goal of stability and diversity of supply.

OTHER PRODUCTS

LPG – MASTERING THE MARKET DYNAMICS AND PERFECTING A DISTRIBUTION NETWORK

CPC's monopoly in the LPG market was broken when the government opened it up to competition in 1999. Formosa Petrochemical Corp. came in as a producer and independent traders began importing supplies. As both a state-owned enterprise and one of the market's main suppliers, CPC is charged with maximizing its operating performance while at the same time ensuring sufficiency of supply to the domestic market. With household gas, CPC's LPG Business Division has been able to consolidate its market share by making full use of its quality advantages and also fully utilizing its north-south transport and storage systems and comprehensive marketing network. In selling industrial gas, the company aims at lifting the quality of its customer service so as to both retain existing customers and win new ones. CPC has to balance compliance with the government's LPG safety reserve policy against optimizing the rate of turnover in its storage tanks, which is crucial to profitability; and at the same time it must endeavor to reinforce both occupational safety and environmental protection protocols. And along with those preoccupations the company must be a good corporate citizen and fulfill its CSR commitments.

SOLVENTS & CHEMICALS: COMBINING ECO-BIOTECHNOLOGY R&D WITH INNOVATIVE, INTEGRATED MARKETING AND SALES

CPC holds a dominant market share position in Taiwan's solvents and chemicals sector: 75%-85% in solvents, 25%-35% in toluene, 35%-45% in xylene, 55%-65% in methanol, around 60% in asphalt and around 47% in sulfur.

CPC's Solvents & Chemicals Business Division aims to achieve its operating objectives by providing innovative products and services. This involves taking a vigorous approach to efficient customer service, systematically expanding exports to promising markets such as Vietnam and China, enhancing product quality and image, continually improving processes and cutting costs. In addition, the division is intensively engaged in marketing the internationally- competitive biotech products developed by its R&D team using their patented technology and spanning such areas as raw materials, functional healthcare and beauty and green lifestyle. The aim is to use innovation and integration to launch a range of reasonably priced, high-quality products.

LUBRICANTS: DEEP PENETRATION IN THE HOME MARKET, EXPANSION IN ASIA-PACIFIC

CPC is the leader in the domestic lubricants market with its dual brands 'CPC' and 'Mirage', a position supported by strong, well-defined and diversified sales channels. These include more than 30 contracted distributors, the 600-plus CPC directly-operated gas stations and many well-known hypermarkets. CPC systematically integrates production, logistics, marketing, technical capacity and other resources to construct a uniquely competitive profile; and is committed to providing quality products, premium services and full technical support to meet the needs of its community and corporate customers.

CPC has established a precision automated blending system in Chiayi that took more than three years to construct – at a cost of NT$400 million – and which is unique in Taiwan. This plant has sharply lifted the level of efficiency and accuracy in lubricants production, which runs at an annual output of up to 90,000 kiloliters. After the installation of lubricating grease production machinery with an annual output of more than 3,300 tons as part of the renovation project, CPC's lubricant production equipment and technology is second to none, not only in Taiwan but also in the Asia-Pacific region. All production is carried out in strict accordance with CPC-researched formulas and rigorous and reliable inspection, backed by a strong sales team – evidencing CPC's dedication to creating a gold-standard brand.

In addition, CPC has set up a highly efficient logistics network, based on four warehouses for finished products in northern, central, and southern Taiwan, to work as a competitive advantage in sales. In future developments, CPC will invest in the two-phase establishment of storage facilities for base oils and additives at Taichung Port to strengthen its supply capacity and enable international trading in lubricant materials.

In addition to cultivating its domestic market, CPC is also actively expanding in the Asia-Pacific region. Distribution bases are currently operated in China, the Philippines, Indonesia, Vietnam, Myanmar, Cambodia, India and other locations. CPC's future focus with regard to expansion into overseas territories will be on developing diversified international trade in lubricant materials and on OEM manufacturing.

INDUSTRIAL SAFETY & HEALTH

CONTROLLING RISK–
COMPREHENSIVE IMPLEMENTATION OF SAFETY REGULATIONS

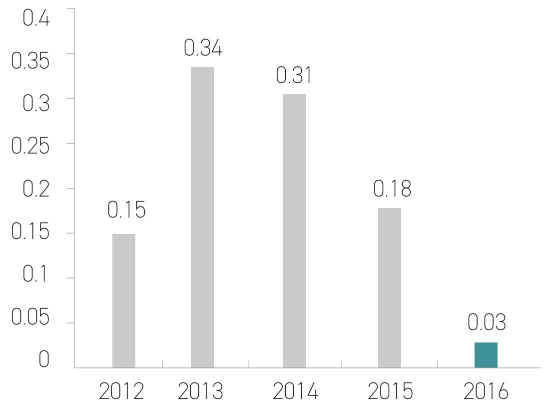
Petroleum products and natural gas are highly flammable substances. In handling them, CPC has consequently always placed heavy emphasis on industrial and health safety, as well as on fire prevention, in order to maintain continuity in its operations, protect its employees from harm and safeguard lives and property in communities surrounding the company's plants. Apart from compliance with Taiwan's relevant laws and regulations, CPC has also drafted – and strictly enforces – its own safety and accident-prevention protocols. These are modeled on those of the advanced countries of the EU, the USA and Japan and have been suitably adapted to reflect local conditions and operational characteristics.

SAFETY DISCIPLINES GET FIRST PRIORITY – SAFETY MANAGEMENT IS SUPREME

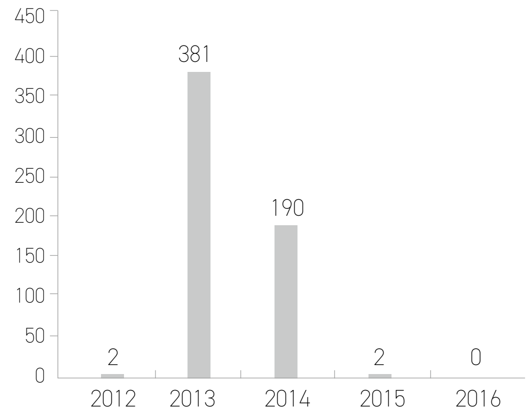
Industrial safety is the foundation of corporate development. To achieve its goal of '100% industrial safety, zero% accidents' CPC is constantly and actively strengthening its safety culture through implementation of a policy based on safety disciplines – thorough inspection, concern for employee well-being and responsible healthcare, risk management and systematized operations – in which employee buy-in and continuous improvement are the key elements. Accordingly, CPC's industrial safety performance has been recognized not only at home but also internationally, as is demonstrated by the medal awarded by the World Safety Organization in 2005; and it has often been a recipient of the annual Excellence in Organizational and Personnel Promotion of Occupational Safety and Health awards from Taiwan's Ministry of Labor.

CPC'S OCCUPATIONAL ACCIDENT STATISTICS FOR THE PAST FIVE YEARS

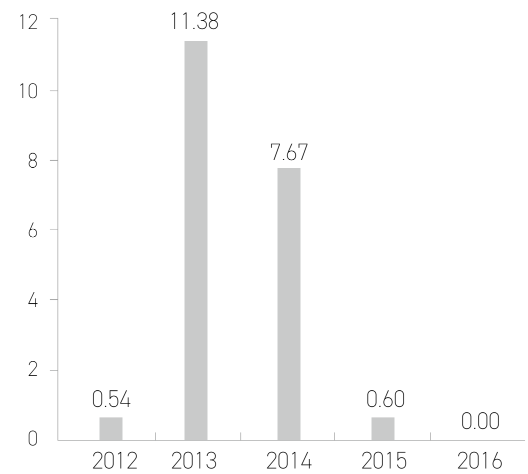
Frequency of Disabling Injury



Severity of Disabling Injury



Occupational Injury Frequency-Severity Index



KEY POINTS IN CPC'S INDUSTRIAL SAFETY & HEALTH POLICIES

In line with its emphasis on a culture of industrial safety and healthcare, CPC is putting particular effort into the following focal points. The company is working especially hard at raising awareness of these issues and team spirit among both employees and external vendors in the interest of creating a safe and comfortable working environment.

- Implementation of the Taiwan Occupational Safety and Health Management System (TOSHMS) together with a continuous process of improvement with respect to its operational environment.
- Reinforcement of industrial safety practice mandates for contractors and the establishment of contractor self-management in order to reduce occupational accidents among their employees on CPC sites.
- In conjunction with the implementation of occupational safety laws, conducting periodic reviews of industrial safety and health regulations as well as continuous review and revision of standard operating procedures.
- Strengthening industrial health management protocols, scheduling employee health checkups, analysis and tracking of those health checkup results, promotion of a healthy lifestyle and emphasizing the importance of employees' mental health.
- Implementation of risk management and process safety control techniques and the establishment of equipment safety management processes – periodic, regular thorough inspection of oil and gas tanks and pipelines and the installation of monitors and leak detection systems along their extended sections.
- Strengthening of fire prevention and response capabilities, along with the organization of local joint emergency response teams – ensuring that the manpower, facilities and emergency response and rescue gear used by all units are mutually supportive, so as to minimize losses due to fire and other disasters.
- Implementation of on-site safety inspections with graded results, continuous improvement through observing preparedness at system, equipment and implementation levels; and heightening general awareness of the importance of industrial safety disciplines.
- Empowering industrial safety inspections with the inclusion of 'management by walking around' by senior managers; and by carrying out professional-standard pre-operational industrial safety inspections of new and renovated workplaces, with any and all deficiencies discovered to be tracked through the information system until remedial improvements have been completed.
- Planning and execution of safety and environmental training and awareness programs, the development and provision of online study courses and the establishment of an industrial safety test-question database. Additionally there will be the compilation and publication of industrial accident case study-based teaching materials.
- Reinforcement of the functions of the Safety Information Center, arranging for study material to be available on loan and installation of a system for handling online requests for industrial safety data.
- Identification and classification of the various emergency situation types and development of appropriate and specific emergency response drills, supported by regular emergency simulation exercises and consequent strengthening of accident response and disaster prevention capabilities. In 2016 some 287 disaster response exercises were conducted – 6 of them without prior warning. Large-scale emergency response drills were conducted 4 times.


JET A-1
CPC

POLLUTION PREVENTION AND ENVIRONMENTAL PROTECTION

ENERGY SAVING AND WASTE REDUCTION – IMPLEMENTING ENVIRONMENTAL PROTECTION POLICY

CPC has long been cognizant of environmental issues and in its commitment to reducing waste-water problems, air pollution and soil/groundwater contamination it has upheld the spirit of corporate sustainable development. In doing so the company strictly follows environmental protection policies, is active in pollution prevention and exercises strong control over resource usage. Additionally, it utilizes low-pollution production processes and the latest pollution-control facilities; it adheres to EIA commitments, has established a comprehensive environmental protection monitoring system and conducts environmental education and training programs. In recent years the corporation has more systematically engaged in carbon dioxide inventory and reduction endeavors and in all new investment projects the best available control technology (BACT) and equipment for that purpose is installed, reducing pollution that may be caused by production and storage processes. On top of all that, CPC has further deepened its commitment to ecologically beneficial measures by improving the quality of its petroleum products and supporting the circular economy principle.

Since 1989, CPC Corporation has invested more than NT$50 billion in its environmental protection efforts, chiefly by implementing a policy based on strict compliance with laws and regulations, adopting international standards, pollution prevention, energy saving and waste reduction and ongoing improvement.

COMPARISON OF CPC REFINERY ENVIRONMENTAL QUALITY WITH NATIONAL STANDARDS

Effluents

Item / Year	2016 Quality	Current National Standard
Chemical Oxygen Demand (COD / ppm)	< 75	100
Oil (ppm)	< 5	10
Suspended Solids (SS / ppm)	< 20	30

*Monthly average

Emissions

Item / Year		2016 Quality	Current National Standard
Sulfur Oxides (SO_x / ppm)	Gas Fuel	< 50	100
	Liquid Fuel	< 250	300
Nitrogen Oxides (NO_x / ppm)	Gas Fuel	< 100	150
	Liquid Fuel	< 200	250
Total Suspended Particulate Matter (TSP / mg/Nm^3)	By Emission Rate	5-100	< 100

2016 ENVIRONMENTAL FOOTPRINT

Material Input

Water	33.431	million kiloliters (kl)
Crude Oil	21.635	million kl
Fuel Oil	258,000	kl
Fuel Gas	1.531921	billion kl
Natural Gas	650.482	million kl
Gasoline Additive (Methyl Tert-Butyl Ether / MTBE)	568,000	kl
Outsourced Electricity	1.777069	million MWh

Material Output

Gas Emissions	CO_2	7.74	million metric tons (mt)
	NO_x	3,173	mt
	SO_x	1,441	mt
	TSP	213	mt
	VOC	4,557	mt
	COD	360	mt
Wastewater		11.662	million cubic meters
Waste Material		57,786	mt

Refining Production / Petrochemical Production

Diesel Fuel	5.819	million kiloliters (kl)
Fuel Oil	3.664	million kl
Motor Vehicle Gasoline	10.624	million kl
Aviation Fuel	1.851	million kl
Liquefied Petroleum Gas	347,000	metric tons (mt)
Ethylene	1.140	million kl
Propylene	993,000	mt
Butadiene	164,000	kl

Other important aspects have been full engagement by employees, CSR and aiming for sustainable development. Since 1995, all of the company's business units have been required to compile of ISO 14001 environmental management system programs and 21 of them had received certification by the end of 2016. Following global practice, a cross-corporation environmental accounting system to track the effectiveness of environmentally-friendly measures was set up in 2004.

Taiwan's own Greenhouse Gas Reduction and Management Act was formally promulgated on July 1, 2015. The goal of the Act is reduction of greenhouse gas (GHG) emissions to no more than 50% of the 2005 level by 2050. Following the Paris COP 21 Agreement entering into force on November 4 2016, CPC has vigorously expanded its carbon reduction plan, committing the entire company to GHG emissions reduction and setting carbon dioxide emissions reduction targets and time-lines for existing plants. Going further, it will employ measures such as utilizing low-carbon fuels, energy conservation, raising the level of equipment efficiency and other measures consistent with the plan. In fact, since company-wide GHG emissions reduction has been in effect as described above, as of end-2016 there had been a saving of 2.834 million tons.

Moreover, in recent years the company has initiated energy-saving projects that use the latest technology to effect real improvement in its plants' energy efficiency. From 2005 through 2016 cumulative energy efficiencies of 720,000 kiloliters of oil equivalent (KLOE) were achieved, equating to a reduction of 2.26 million tons

of carbon. In line with the State-owned Enterprise Commission's business improvement program, since 2011 CPC has implemented a 'Four Savings Plan' focused on conservation of office energy, water, fuel and paper resources and promoting energy-saving and carbon reduction concepts. Results as of end-2016 were 27.57% in the saving of energy, 24.87% in water, 15.36% in fuel and 28.42% in paper.

DEPLOYING THE LATEST TECHNOLOGY – AND EDUCATION – TO MAXIMIZE PERFORMANCE IN ENVIRONMENTAL PROTECTION

Since the enactment of the Environmental Education Act in 2011, CPC has been energetically promoting ecology-related education and similar activities. Eco-experiences and teaching are used to popularize the concepts of environmental protection, cherishing local resources and of committing to leave a clean environment for the generations that will follow. The company takes the lead in calling on everybody to come together on local ecological issues and in showing concern for local development; and also in practical measures like park and forest adoption, supporting garbage clean-ups and marine pollution remediation.

In January 2000 CPC ceased the refining and supply of leaded gasoline, in line with the greener fuel standards of other advanced countries, as a contribution to improving Taiwan's air quality. In June 2004 the sulfur content of its diesel fuel was reduced from 375ppmw to 50ppmw and in July 2011 reduced further to 10ppmw; and on January 1, 2007 high-quality gasoline with a sulfur content of 50ppmw – reduced to 10ppmw in 2012 – was launched. With the same motive, CPC filling stations have been extensively fitted with oil and gas recovery guns and the company's distribution depot filling areas with similar equipment. The consequent gasoline recovery now amounts to more than 3,200 kiloliters per year, helping to improve air quality by avoiding emission of the same amount of volatile organic compounds (VOCs).

The quality of Taiwan-made petroleum products continues to steadily improve after the years of effort to that end, such that it has achieved comparability with that of Europe, Japan and the United States. However, CPC has in no way taken this as cause for resting on its laurels; it continues to embrace the new paradigm for ecologically-friendly petroleum products set by the standards of the world's most advanced countries in their pursuit of ever higher product quality. Similarly in the wider energy field, the company will promote energy resource integration, upgrade its natural gas storage and transport capacity to facilitate greater use of low-carbon energy and lend stronger support to the application of green energy-related technology R&D – creating a green corporate image for itself and a low-carbon home for Taiwan's people. CPC is a patriotic company and is passionate about both protecting its home country's environment and improving its own performance in that respect: in that cause it will deploy the latest in pollution-control technology, systematize its processes for high efficiency and greater added-value, invest in the circular economy and waste recycling – all in the pursuit of sustainable operations and the sharing of health and prosperity with the public.

SOIL AND GROUNDWATER REMEDIATION

As an integrated enterprise, CPC today combines dedicated manpower, technology, equipment and other resources to bring unified effectiveness and experience sharing to soil and groundwater remediation. This has helped resolve the company's internal problems with that issue and uplifted its related technical performance, in the process creating technical and service expertise that can be offered outside the company in future. A plan for execution was established, in communication with the environmental protection authorities, that included the timely provision of consultative support in pollution remediation technology and that duly observed the regulations on remediation of soil and groundwater pollution set forth by the Environmental Protection Administration (EPA). Relevant information and technical experience is collected from sources both at home and abroad and issue-specific countermeasures studied, in order to implement the most appropriate remediation measures.

The soil and groundwater remediation plan for the former Kaohsiung refinery complex area was approved on December 16, 2016. Local conditions are at the center of the scheme in terms of the principal techniques to be used, with biological rehabilitation, soil cleaning, thermal desorption and related treatment methods in mind. The Executive Yuan has now accelerated its circular economy policy program and in order to assist the Kaohsiung City government CPC is integrating its 'Kaohsiung Plant Pollution Remediation & Land Development and Utilization' program with the EPA's 'Kaohsiung Plant Contaminated Brownfield Development' scheme. The result will be not only more effective realization of the land resources and a reduction in CPC's remediation costs but also the potential for revenue generation – beneficial not only for CPC but creating also a triple-win situation for it along with government (central and local) and Taiwan's people (overall and local residents).

RESEARCH & DEVELOPMENT AND KNOWLEDGE MANAGEMENT

KEEPING PACE WITH THE TIMES – BUILDING A STRONG FOUNDATION FOR CORPORATE SUSTAINABILITY

RESEARCH AND DEVELOPMENT

ENHANCING IN-DEPTH RESEARCH – EXPANDING TECHNOLOGICAL CAPABILITY

CPC has always attached great importance to Research and Development (R&D) as being fundamental to corporate innovation and sustainable operations. The company currently has an Exploration & Development Research Institute (EDRI) in Miaoli, its Refining & Manufacturing Research Institute in Chiayi and a Green Technology Research Institute and Material Testing & Certification Center in Kaohsiung. These facilities are responsible for all research in their respective domains, with the headquarters-based Planning Department responsible for overall R&D operations management and control.

The EDRI is primarily focused on evaluating geological data and samples for their oil and gas production potential and on drilling technology research. The Refining & Manufacturing Research Institute leads in developing solutions for on-site production bottlenecks in manufacturing lubricants and other petrochemical products. The Green Technology Research Institute is concerned with technological development related to biofuels, renewable energy and green materials; and to aid the high-value petrochemical industry promotion policies of the Ministry of Economic Affairs, assists manufacturers with the methodology for conducting pilot production runs. The Material Testing & Certification Center's work is centered on proving the commercial potential mainly of materials derived from the hydrocarbons handled and processed by CPC in its various businesses.

In 2016, CPC Corporation's R&D expenditures totaled approximately NT$22.48 billion; R&D achievements included the following:

EXPLORATION

- Completed interpretation and single well production analysis of the Mouroumar-2 test well in Chad.
- Completed a core analysis report on the Mouroumar-1 well in Chad.
- Niger - Agadem block: completed assessment of the plan for the first phase of oilfield development; and also research and planning for stabilizing production.
- Completed a feasibility study of the Yilan County government's geothermal civil BOT project.
- Conducted monitoring of corrosion in domestic gas production wellheads by regular testing, reducing the level of operational risk and its related costs.
- Accepted externally-commissioned projects that generated NT$86 million in revenue through 2016.

REFINING AND PETROCHEMICALS

- Conducted petroleum-product identification at the Wugu fuel supply center excavation site to obtain key references for pollution remediation.
- Effected reduction in the total petroleum hydrocarbons (TPH) concentration in soil at Kaohsiung Xinguang Community and Kaohsiung refinery site 837 by the application of in-situ remediation technology.
- Developed two new industrial products: CPC ‘Superfleet’ E9 Synthetic Oil and CPC TDAE Rubber Processing Oil.
- Developed second-generation, high-efficiency small-package gasoline and diesel additives that significantly enhance the fuels’ clean performance.
- Established diesel particulate detection technology to help in diagnosis of customer complaints pertaining to changes in the quality of CPC fuels.
- Developed helmet deodorant, MOMONO anti-mosquito liquid, Hao Yang Jun A+ anti-bacterial and other biotech products. Hao Yang Jun A+ received the SNQ National Quality Mark in 2016.
- Developed environmentally-friendly plasticity hydrogenation technology, which was granted a merit award in 2016 by the EPA for improved R&D into toxic substances.
- Obtained two patents for polymer particle synthesis and electrolytic plating-related technology.
- Established and distributed technology for identifying unknown materials that will provide real-time assistance in the clarification and resolution of such problems.
- Evolved refractory material for furnace wall replacement and high-emissivity paint to enhance the heat transfer efficiency of furnace tubes.

GREEN ENERGY

- Completed installation of a total of 209 solar photovoltaic systems at 9 CPC gas stations and set up 499 roof-mounted solar photovoltaic panels at the Linyuan Petrochemical Complex.
- Developed LED energy-saving lighting products and deployed them as canopy lighting at CPC gas stations, in corporate identity signage (CIS) and in other lighting applications. This enabled a reduction in monthly gas station electricity bills of NT$10,000~$20,000 and in carbon-dioxide emissions of 2.4~4.9 tons.
- Developed green paint for use as coating for petroleum-product service center lanes, CPC building exteriors, floor delineations and marking parking lot lanes.
- Completed foundation development of lithium titanium oxide (LTO) energy storage materials and power storage modules. Exhibited two research-based products at the 2016 Taipei International Invention Show & Technomart – a wind/solar energy storage-powered street light and a fast-charge electric bicycle.
- At the Yongan LNG Receiving Terminal: built a test plant beside the chilled water discharge channel for the cultivation of large-size marine algae – as part of the development of an energy-saving, low-carbon and competitive aquaculture industry.
- Completed construction of production testing facilities for lithium battery anode amorphous carbon materials. Production as of end-2016 amounted to 410 kg.

MANAGEMENT AND ENERGY RESEARCH

- Completed "Oil and Gas Energy Outlook Compendium — 2016 Viewpoint."
- Completed building of a forecasting model for Taiwan's future primary energy ratio.
- Completed two research-topic studies: "A Study of Price Differences Between Singapore's Major Petrochemical Products and Dubai Crude Oil" and "A Study of the USA's Henry Hub Natural Gas Spot Prices."

The 'CPC 70 Energy Summit' was held on May 11, 2016 with a focus on future operational and developmental directions – including new energy technologies, diversification in natural gas usage and value-added gas station operations.

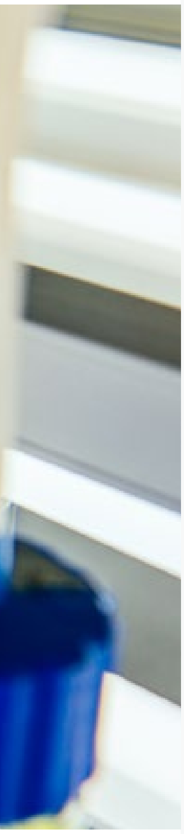
KNOWLEDGE MANAGEMENT

INTEGRATING ONLINE & OFFLINE CHANNELS FOR MOBILE COMMERCE

CPC's vision for information development includes free-flowing information over secured networks, precise real-time settlements, universal access to information and – most importantly – user-oriented, user-convenient services. Our goal is to feel the pulse of the market and embrace our customers' needs. To realize this vision while holding to our strategic business goals and meeting the challenge of competition, our information-development initiatives emphasize these elements: continuous integration of corporate information systems, provision of real-time data for management decision-making, expansion of our industry's value chain through the integration of physical and virtual channels, adoption of customer relations management, expansion of the scope of our high-quality services and promotion of knowledge management.

CPC completed the replacement of its mainframe computers, as well as web-based application upgrades, in 2015 in conjunction with the overall growth of our businesses and the development of our core services. As a result of the enhancement of computer system performance and reduction of operation time, all customer accounts can be settled on the first day of each month. This also provides the upgraded infrastructure required for reinforcement of our remote backup policy for disaster recovery; it also provides a guarantee of continuous operation and availability and the non-stop business transactions requisite to future expansion. The consistent use of cloud technology to implement staged virtualization of our servers has significantly improved business efficiency and enabled considerable cost-saving, as well as enabling both consolidation of hardware and software resources and the use of broadband networks to provide digital services.

CPC implements a diversified information service program in the interest of upgrading both network quality and reliability in service. Based on the existing transmission system and network-enabled environment, CPC's system combines mobile communications technology and services and paves the way for a mobile e-commerce operating environment. Furthermore, in response to the Executive Yuan's Internet Protocol Upgrade Promotion Program that mandates switching our existing fiber backbone network protocol to IPv6, CPC has already completed its upgrades in accordance with the prescribed timetable, thus meeting the needs of the next-generation network.



CPC has also continued with improving the information systems needed for performing key tasks, and is using information technology to improve data processing procedures. We are developing an integrated e-commerce system for selling petroleum products, electronic coupon issue and better filling station POS and multifaceted marketing networks. Further, we have established a petrochemical refining information system that integrates our production scheduling system with crude oil accounts; and we have established an exploration and production information system that integrates exploration and geographical data for management.

Developing CPC's information systems must factor in the 21^{st} century's accelerating convergence of computerization, digitization and globalization. That will require effort being focused chiefly on corporate resource planning systems, customer relations management, corporate intelligence, knowledge management and information and communications infrastructure. In that we will adhere to the government's policy promoting deployment of Government Configuration Base (GCB), Open Data, IPv6 network upgrading planning and the use of the no-cost Open Office suite of applications (such as ODF). With respect to systems, CPC looks to shortened settlement time and usage of information technology to boost production performance. As for services: we will rely on improved customer relations management (CRM) applications to help deliver high-level satisfaction to external customers; and use our information management system to supply real-time, transparent service management options to internal customers. With corporate intelligence, we are applying knowledge management principles to consolidate our corporate intellectual capital and popularizing a decision-making system that encourages widespread reference to information applications. With information and communications infrastructure, we are integrating our network services, enhancing mobile and e-commerce workability, strengthening Critical Infrastructure Information Protection (CIIP) and continuing to implement online and network security measures. In the field of management, we are reinforcing the organization of information in order to boost management performance, implementing integration of IT resources on an open platform and generally continuing to upgrade the company's IT know-how, processes and paradigms in order to boost overall performance.

HUMAN RESOURCES

PASSING THE TORCH – CONTINUITY OF LEADERSHIP IN CORPORATE DEVELOPMENT

CPC aims to fully develop the potential of its current (end-April 2017) 15,202 employees through long-term training and career guidance, while at the same time making both incentives and benefits more attractive. Managerial talent is selectively assessed with the aim of ensuring continuity in corporate development and leadership by talented people of outstanding ability.

ENHANCING PROFESSIONAL KNOWLEDGE – OPTIMIZING HUMAN CAPITAL CAPABILITIES

In terms of human resource utilization, CPC has in recent years engaged in organizational and process re-engineering and also formulated employee rotation policies in order to use its manpower more effectively. It has also recruited young professionals to inject new blood into the corporate body and provide a smooth transfer of technical and operational know-how and competitive skills in the face of a wave of retirements.

Beyond using professional qualifications and personal traits in the selection of executive personnel, CPC also uses management and leadership development training to help candidates achieve their full potential and to accomplish its corporate growth targets. At the same time, the company is strengthening on-the-job training at all levels and has integrated existing training systems in the establishment of the CPC Corporate University. This institution offers beginner-, intermediate- and advanced-level courses in exploration, refining, marketing and engineering – the four key areas comprising CPC's core competencies. By systematically enhancing employees' professional skills and helping them develop a broader range of talents, the CPC Corporate University also helps to optimize manpower utilization. CPC also encourages its employees to participate in national skill-qualification examinations and helps them obtain professionally-required certification in industrial safety, environmental protection and other disciplines. In line with its corporate transformation needs, the company is also strengthening secondary-skill training. Beyond this, employees are sent abroad for higher education, research and internships as well as to participate in seminars on a range of topics relevant to the needs of the business.

As the number of people leaving or retiring from CPC in recent years has grown, new employees have needed comprehensive guidance and training to ensure a smooth transfer of responsibilities. On-the-job training is now combined with formal training courses; senior employees are designated as mentors to help their new colleagues adapt to their new workplace and responsibilities. These new employees are typically rotated each year to allow them to gain experience in a wide range of jobs and develop their talent at every level. Seniority promotion requirements have been shortened for outstanding managers, lowering the age distribution in management echelons and motivating those with ambition. For training, each department reviews its professional-skill shortfalls at the beginning of each year and formulates a corresponding training plan in which outstanding performers are recruited as instructors, to pass on their operational experience. Some departments also make arrangements for on-site or international learning experiences, lasting

from several weeks to a year for younger employees, depending on department needs. Online learning is also provided to eliminate time and location limitations. Training courses are digitized and uploaded to CPC's e-Academy and knowledge archives, allowing the knowledge and expertise of former employees accumulated over many decades to be preserved digitally and passed on. With digital learning, new employees can gain professional knowledge and workplace information without ever having to step into a classroom.

A human resources training center has also been established in Chiayi. This facility not only serves as an incubator for internal CPC talent, but is also dedicated to building a talent pool for the government's New Southbound Policy by providing people from domestic enterprises with initial training and on-the-job training in the energy and petrochemical fields.

A QUALITY WORKPLACE – LIFTING MORALE

In terms of employee incentives and benefits, it is CPC policy to award bonuses based on overall corporate performance as well as the scale of contribution and performance on the job by the individual employee. All employees are entered in the national health insurance, civil service insurance, labor insurance, group life insurance and accident insurance programs. Consolation payments are made in cases of job-related injuries, disability or death and employee welfare committees organize a variety of welfare, hobby and entertainment activities.

A number of CPC's business divisions also operate clinics, company restaurants, libraries, company stores and other welfare facilities, along with sports facilities such as swimming pools, ball parks and gyms at or near the workplace. There are scholarships for employees' children; educational loans for children attending college and university; medical subsidies for employees and their dependents; wedding, funeral, and retirement subsidies; and interest-free emergency loans. The company also chips in to support the activities of interest groups dedicated to baseball, bridge, mountain climbing, swimming, painting, film appreciation, and other pursuits, in order to provide physical and mental relaxation for employees and boost their morale at work – and hopefully, of course, their performance as well.

CPC AFFILIATES AND SUBSIDIARIES

SEIZING NICHE OPPORTUNITIES – DRAWING A BLUEPRINT FOR THE FUTURE

CPC's strategy for joint-venture projects can be summarized as actively expanding into the upstream and downstream petrochemical sectors – particularly the high-value petrochemical industry – while exploring opportunities in renewable energy sources and overseas joint venture projects on the basis of its core competencies. In this the company seeks to combine external patented technologies with its own skills and feedstock sources to develop high value-added products that will achieve optimal returns on investment. As of end-2016, CPC had invested a total of NT$19.6 billion in its 18 affiliates and subsidiaries, which in turn created consolidated investment income of NT$1.143 billion that year.

CPC's 18 affiliates and subsidiaries can be divided into four main categories—petroleum products, petrochemicals, natural gas and transportation. Of the 18, 11 are based in Taiwan and 7 are foreign. The principal enterprises are introduced below:

CHINA AMERICAN PETROCHEMICAL CO. LTD. (CAPCO)

Established in 1976, CAPCO is the major supplier of purified terephthalic acid (PTA) to the polyester textile industry in Taiwan. Its plant is located in the West Terminal of Taichung Harbor in central Taiwan. CPC holds 38.57% of the company's equity, including preferred stock.

DAI HAI PETROLEUM CORP. (DHP)

Established in 1994, Dai Hai Petroleum Corp. is headquartered in the port of Haiphong, Vietnam. The company is primarily engaged in the storage, transport and distribution of LPG and other petroleum products in northern Vietnam by means of its own receiving, storage and supply facilities, as well as a filling station in Ha Tay Province. CPC holds 35% of the equity.

QATAR FUEL ADDITIVES COMPANY LIMITED (QAFAC)

Qatar Fuel Additives Company Limited (QAFAC) was established in 1996. Located in Qatar's Mesaieed Industrial Zone, it produces chiefly methanol and methyl tert-butyl ether (MTBE). CPC holds 20% of the company's equity.

FARAWAY MARITIME SHIPPING CO. (FMSC)

Faraway Maritime Shipping Co. was jointly established in 1997 by CPC and its foreign partner Golar to build and operate the Matsu-class LNG carrier vessel *Golar Mazo* for transporting LNG from the Badak VI gas field offshore Indonesia to Taiwan. CPC holds 40% of the company's equity.

CHUN PIN ENTERPRISE CO., LTD. (CPEC)

Chun Pin Enterprise Co. was established in 1998 to set up and operate a storage and transportation center as part of the Phase II development of Taipei Harbor. It is engaged in the storage and transshipment of petroleum and petrochemical products. CPC holds 49% of the equity.

KUOKUANG POWER CO., LTD. (KKPC)

KuoKuang Power Co. was established in 2000 under the government's policy of opening up power generation to private operators to alleviate the power-supply shortfall in northern Taiwan. The project conxsisted of the construction and operation of a gas-fired power plant with an installed capacity of 480 MW in the Guishan District of Taoyuan City. CPC holds 45% of the company's equity.

NIMIC SHIP HOLDING CO., LTD. (NSHC)

Established in 2006 by CPC's Japanese partners, NYK and Mitsui. NSHC has four ship-owning companies under its umbrella. It has built four LNG vessels shipping LNG to CPC from Qatar's RasGas II plant. CPC holds 45% of the company's equity.

NIMIC SHIP MANAGEMENT CO., LTD. (NSMC)

Established in 2006, NSMC is responsible for the operation and management of the four LNG vessels built by NSHC. CPC holds 45% of the company's equity.

GLOBAL ENERGY MARITIME CO. (GEMCO)

Established in 2011, GEMCO plans to build three VLCC vessels with a volume of 300,000 tons and one LR1 vessel with a volume of 80,000 tons for transporting crude oil. CPC holds 48% of the company's equity.

ICHTHYS LNG PTY LTD (ILPL)

ILPL was established in 2011 to supply natural gas from the Ichthys gas-condensate field offshore Western Australia to its plant in Darwin for production of LNG, LPG and condensate. CPC holds 2.625% of the company's equity and will be a foundation customer.

TAIWAN-JAPAN OXO CHEMICAL INDUSTRIES INC. (TJOC)

Established in 2015, TJOC's mission is to produce high value-added petrochemical derivatives such as isononyl alcohol (INA), butene trimer (BT) and MTBE. CPC holds 47% of the company's equity.

MAXIHUB COMPANY LIMITED (MAXIHUB)

Established in 2014, MAXIHUB plans to build a wharf, tank farm and lubricant blending factory in Dong Nai Province, Vietnam. The company was established to manufacture and process lubricating oil, and also to provide storage and warehouse services. CPC took a 40% equity position in the company in 2016.

FINANCIAL STATEMENT

The Exploration and Exploitation division's loss before tax in 2016 was mainly caused by the impairment loss recognized on the following sites: Prelude, Sanga Sanga, and Block 16 and 17 in Ecuador. That the 2016 profit before tax in refining and marketing activities turned from loss to profit was mainly driven by the recovering of international oil price in 2016, along with the refinery operation's significant improvement on production capacity and efficiency, resulting in higher profit margin and profit before tax.

The capital expenditure incurred in 2016 was NT$20,003 million, a 18.78% increase from 2015. The breakdown of the expenditure was as follows:

Production & manufacturing 60.98%
Marketing & transportation 14.12%
Others 24.90%

The exchange rate between the NT dollar and the US dollar was 32.239:1 on December 31, 2016.

STATEMENTS OF INCOME
FOR THE YEARS ENDED DECEMBER 31, 2016 AND 2015
(IN THOUSANDS OF NEW TAIWAN DOLLARS)

	2016	2015
Operating Revenues		
Sales	$753,300,166	$833,355,802
Other operating revenues	11,329,827	10,259,620
Total operating revenues	764,629,993	843,615,422
Operating Costs and Expenses		
Cost of goods sold	677,810,502	800,825,984
Exploration expenses	2,267,889	2,947,919
Oil and gas transmission and storage expenses	11,813,286	11,146,672
Other operating costs	13,009,038	4,987,185
Total operating costs	704,900,715	819,907,760
Gross Profit (Loss)	59,729,278	23,707,662
Operating Expenses	20,313,187	19,148,440
Non-Operating Income and Gains	4,145,599	5,434,091
Non-Operating Expenses and Losses	8,142,151	11,395,636
INCOME (LOSS) BEFORE INCOME TAX	35,419,539	(1,402,323)
Income Tax Expense (Benefit)	6,052,335	0
NET INCOME (LOSS) FOR THE YEAR	$29,367,204	$(1,402,323)

BALANCE SHEETS
DECEMBER 31, 2016 AND 2015
(IN THOUSANDS OF NEW TAIWAN DOLLARS)

Assets	2016	2015
Current Assets		
Cash and cash equivalents	$2,664,345	$2,268,359
Financial assets at fair value through profit or loss-current	81	0
Derivative financial assets for hedging - current	7,641	56,654
Trade receivable, net	40,219,094	37,835,667
Trade receivables from related parties	315,224	178,746
Other receivables	7,625,636	6,187,984
Inventories	91,025,262	97,038,574
Prepayments	18,807,693	16,540,374
Other current assets	813,526	882,655
Total Current Assets	161,478,502	160,989,013
Noncurrent Assets		
Available-for-sale financial assets - noncurrent	649,023	674,890
Financial assets measured at cost - noncurrent	5,017,530	4,845,239
Investments accounted for using equity method	13,623,171	11,913,784
Property, plant and equipment	428,531,354	428,472,574
Investment properties	19,478,992	19,453,827
Other intangible assets	151,817	136,710
Deferred tax assets	26,684,413	32,718,512
Oil and gas interest	72,024,076	73,501,765
Refundable deposits	200,146	205,614
Other long-term receivables	9,962,738	6,551,063
Long-term prepayments	2,094,220	2,369,188
Other noncurrent assets	569,837	133,711
Total Noncurrent Assets	578,987,317	580,976,877
Total Assets	$ 740,465,819	$ 741,965,890

BALANCE SHEETS
DECEMBER 31, 2016 AND 2015
(IN THOUSANDS OF NEW TAIWAN DOLLARS)

Liabilities and Equity	2016	2015
Current Liabilities		
Short-term borrowings	$26,668,394	$60,020,467
Short-term bills payable	98,709,540	95,743,646
Derivative financial liabilities for hedging - current	1,855	0
Trade payables	40,442,484	25,958,273
Payable to constructors	4,401,430	3,010,099
Other payables	23,677,427	17,392,973
Receipts in advance	16,365,971	8,268,331
Current portion of long-term borrowings and bonds payable	29,990,000	30,300,000
Other current liabilities	8,448,542	7,703,430
Total Current Liabilities	248,705,643	248,397,219
Noncurrent Liabilities		
Bonds payable	122,350,000	137,600,000
Long-term borrowings	25,580,000	40,320,000
Provisions - noncurrent	26,724,739	28,022,585
Deferred tax liabilities	84,974,406	85,099,088
Post-employment benefits payable	4,041,232	4,024,347
Guarantee deposits received	1,307,528	1,051,185
Other noncurrent liabilities	5,316,123	5,294,391
Total Noncurrent Liabilities	270,294,028	301,411,596
Total Liabilities	518,999,671	549,808,815
Equity		
Share capital		
Common shares	130,100,000	130,100,000
Retained earnings		
Special reserve	127,712,480	127,824,598
Unappropriated earnings (accumulated deficits)	(35,926,683)	(65,252,130)
Total retained earnings	91,785,797	62,572,468
Other equity	(419,649)	(515,393)
Total Equity	221,466,148	192,157,075
Total Liabilities and Equity	$740,465,819	$741,965,890

CPC CORPORATION, TAIWAN

STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, 2016 AND 2015
(IN THOUSANDS OF NEW TAIWAN DOLLARS)

	2016	2015
CASH FLOWS FROM OPERATING ACTIVITIES		
Income (loss) before income tax	$35,419,539	$(1,402,323)
Adjustments for:		
Depreciation expenses	19,759,245	22,040,195
Amortization expenses	2,009,202	2,474,731
Impairment loss recognized (reversal of impairment loss) on trade receivables	56,857	(106,600)
Net loss (gain) on fair value changes of financial assets at fair value through profit or loss	126,254	(525,742)
Interest expenses	3,510,135	5,078,403
Interest income	(324,476)	(189,753)
Dividend income	(451,706)	(1,610,756)
Share of (profit) loss of associates and joint ventures	(697,068)	52,804
Loss (gain) on disposal of property, plant and equipment	80,501	14,420
Net loss (gain) on unrealized foreign currency exchange	111,510	52,736
Write-down (reversal of write-down) of inventories	(3,075,519)	(9,688,377)
Reversal of provision for impairment loss recognized on non-financial assets	5,891,361	-
Others	(389,022)	799,226
Changes in operating assets and liabilities		
Trade receivables	(2,514,520)	27,938,321
Other receivables	(1,374,257)	(493,743)
Inventories	9,088,831	74,191,395
Prepayments	1,816,167	62,968
Other current assets	71,603	2,455,986
Trade payables	14,309,972	(10,386,479)
Receipt in advance	8,097,639	(1,787,521)
Provision - non-current	(1,465,428)	(668,146)
Other current liabilities	3,091,594	(6,112,346)
Post-employment benefits payable	(168,507)	3,108,113
Cash generated from operations	92,979,907	105,297,512
Interest received	210,972	189,753
Interest paid	(3,488,066)	(3,627,010)
Income tax paid	(2,474)	(721)
Net cash generated from operating activities	89,700,339	101,859,534

CASH FLOWS FROM INVESTING ACTIVITIES		
Purchase of financial assets measured at cost	(172,291)	-
Refund of financial assets measured at cost received	-	165,758
Purchase of investments accounted for using equity method	(1,482,500)	(1,053,000)
Increase in prepayments for investments	(341,872)	
Payments for property, plant and equipment	(19,264,385)	(17,688,538)
Proceeds of the disposal of property, plant and equipment	32,197	247,166
Payments for intangible assets	(147,413)	(86,455)
Increase in refundable deposits	(89,121)	(52,245)
Decrease in refundable deposits	94,589	48,181
Increase in oil and gas interests	(5,787,812)	(8,435,436)
Dividends received from associates and others	1,075,075	2,318,656
Other long-term receivables	(3,298,170)	(2,733,892)
Decrease (increase) in other non-current assets	382,325	(533,386)
Net cash used in investing activities	(28,999,378)	(27,803,191)
CASH FLOWS FROM FINANCING ACTIVITIES		
Proceeds of short-term borrowings	82,813,472	110,870,871
Repayments of short-term borrowings	(115,352,921)	(86,410,405)
Proceeds of short-term bills payable	214,328,705	321,001,586
Repayments of short-term bills payable	(211,362,812)	(403,656,561)
Proceeds of issue of bonds payable	-	13,300,000
Repayments of bonds payable	(10,600,000)	(9,300,000)
Repayments of long-term borrowings	(19,700,000)	(20,600,000)
Proceeds of guarantee deposits received	1,589,857	645,130
Refund of guarantee deposits received	(1,333,514)	(1,329,127)
Increase (decrease) in other non-current liabilities	124,862	130,499
Decrease in bank overdraft	(812,624)	1,218,846
Net cash generated from financing activities	(60,304,975)	(74,129,161)
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	395,986	(72,818)
CASH AND CASH EQUIVALENTS AT THE BEGINNING OF THE YEAR	2,268,359	2,341,177
CASH AND CASH EQUIVALENTS AT THE END OF THE YEAR	$2,664,345	$2,268,359

CPC CORPORATION, TAIWAN

NOTES TO FINANCIAL STATEMENTS
FOR THE YEARS ENDED DECEMBER 31, 2016 AND 2015
(IN THOUSANDS OF NEW TAIWAN DOLLARS, UNLESS STATED OTHERWISE)

1. GENERAL INFORMATION

CPC Corporation, Taiwan (the "Corporation" or CPC) was established on June 1, 1946 and engages mainly in oil and gas exploration, refining, procurement, transport, storage and marketing.

The functional currency of the Corporation is the New Taiwan dollar.

2. APPROVAL OF FINANCIAL STATEMENTS

The financial statements were approved by the Corporation's board of directors on April 14, 2017.

3. APPLICATION OF NEW, AMENDED AND REVISED STANDARDS AND INTERPRETATIONS

a. Amendments to the Regulations Governing the Preparation of Financial Reports by Securities Issuers and the International Financial Reporting Standards (IFRS), International Accounting Standards (IAS), Interpretations of IFRS (IFRIC), and Interpretations of IAS (SIC) endorsed by the FSC for application starting from 2017

Rule No. 1050050021 and Rule No. 1050026834 issued by the FSC stipulated that starting January 1, 2017, the Corporation should apply the amendments to the Regulations Governing the Preparation of Financial Reports by Securities Issuers and the IFRS, IAS, IFRIC and SIC (collectively, the "IFRSs") issued by the IASB and endorsed by the FSC for application starting from 2017.

New, Amended or Revised Standards and Interpretations (the "New IFRSs")	Effective Date Announced by IASB (Note 1)
Annual Improvements to IFRSs 2010-2012 Cycle	July 1, 2014 (Note 2)
Annual Improvements to IFRSs 2011-2013 Cycle	July 1, 2014
Annual Improvements to IFRSs 2012-2014 Cycle	January 1, 2016 (Note 3)
Amendments to IFRS 10, IFRS 12 and IAS 28 "Investment Entities: Applying the Consolidation Exception"	January 1, 2016
Amendment to IFRS 11 "Accounting for Acquisitions of Interests in Joint Operations"	January 1, 2016
Amendment to IAS 1 "Disclosure Initiative"	January 1, 2016
Amendments to IAS 16 and IAS 38 "Clarification of Acceptable Methods of Depreciation and Amortization"	January 1, 2016
Amendments to IAS 16 and IAS 41 "Agriculture: Bearer Plants"	January 1, 2016
Amendment to IAS 19 "Defined Benefit Plans: Employee Contributions"	July 1, 2014
Amendment to IAS 36 "Recoverable Amount Disclosures for Non-financial Assets"	January 1, 2014

New, Amended or Revised Standards and Interpretations (the "New IFRSs")	Effective Date Announced by IASB (Note 1)
Amendment to IAS 39 "Novation of Derivatives and Continuation of Hedge Accounting"	January 1, 2014
IFRIC 21 "Levies"	January 1, 2014

Note 1: Unless stated otherwise, the above New or amended IFRSs are effective for annual periods beginning on or after their respective effective dates.

Note 2: The amendment to IFRS 2 applies to share-based payment transactions with grant date on or after July 1, 2014; the amendment to IFRS 3 applies to business combinations with acquisition date on or after July 1, 2014; the amendment to IFRS 13 is effective immediately; the remaining amendments are effective for annual periods beginning on or after July 1, 2014.

Note 3: The amendment to IFRS 5 is applied prospectively to changes in a method of disposal that occur in annual periods beginning on or after January 1, 2016; the remaining amendments are effective for annual periods beginning on or after January 1, 2016.

The initial application in 2017 of the above IFRSs and related amendments to the Regulations Governing the Preparation of Financial Reports by Securities Issuers would not have any material impact on the Corporation's accounting policies, except for the following:

1) Amendment to IAS 36 "Recoverable Amount Disclosures for Non-financial Assets"

The amendment clarifies that the recoverable amount of an asset or a cash-generating unit is disclosed only when an impairment loss on the asset has been recognized or reversed during the period. Furthermore, if the recoverable amount of an item of property, plant and equipment for which impairment loss has been recognized or reversed is fair value less costs of disposal, the Corporation is required to disclose the fair value hierarchy. If the fair value measurements are categorized within Level 2 or Level 3, the valuation technique and key assumptions used to measure the fair value are disclosed. The discount rate used is disclosed if such fair value less costs of disposal is measured by using present value technique. The amendment will be applied retrospectively.

2) Amendments to IAS 16 and IAS 38 "Clarification of Acceptable Methods of Depreciation and Amortization"

The entity should use appropriate depreciation and amortization method to reflect the pattern in which the future economic benefits of the property, plant and equipment and intangible asset are expected to be consumed by the entity.

The amended IAS 16 "Property, Plant and Equipment" stipulates that a depreciation method that is based on revenue that is generated by an activity that includes the use of an asset is not appropriate. The amended standard does not provide any exception from this requirement.

The amended IAS 38 "Intangible Assets" clarifies there is a rebuttable presumption that an amortization method that is based on revenue that is generated by an activity that includes the use of an intangible asset is not appropriate. This presumption can be overcome only in the following limited circumstances:

a) In which the intangible asset is expressed as a measure of revenue (for example, the contract that specifies the entity's use of the intangible asset will expire upon achievement of a revenue threshold); or

b) When it can be demonstrated that revenue and the consumption of the economic benefits of the intangible asset are highly correlated.

3) Amendments to the Regulations Governing the Preparation of Financial Reports by Securities Issuers

The amendments include additions of several accounting items and requirements for disclosures of impairment of non-financial assets as a consequence of the IFRSs endorsed by the FSC for application starting from 2017. In addition, as a result of the post implementation review of IFRSs in Taiwan, the amendments also include emphasis on certain recognition and measurement considerations and add requirements for disclosures of related party transactions and goodwill.

The amendments stipulate that other companies or institutions of which the chairman of the board of directors or president serves as the chairman of the board of directors or the president, or is the spouse or second immediate family of the chairman of the board of directors or president of the Corporation are deemed to have a substantive related party relationship, unless it can be demonstrated that no control or significant influence exists. Furthermore, the amendments require the disclosure of the names of the related parties and the relationship with whom the Corporation has significant transaction. If the transaction or balance with a specific related party is 10% or more of the Corporation's respective total transaction or balance, such transaction should be separately disclosed by the name of each related party.

The amendments also require additional disclosure if there is a significant difference between the actual operation after business combination and the expected benefit on acquisition date.

The disclosures of related party transactions and impairment of goodwill will be enhanced when the above amendments are retrospectively applied in 2017.

Except for the above impacts, as of the date the financial statements were authorized for issue, the Corporation continues assessing other possible impacts that application of the aforementioned amendments and the related amendments to the Regulations Governing the Preparation of Financial Reports by Securities Issuers will have on the Corporation's financial position and financial performance, and will disclose these other impacts when the assessment is completed.

b. New IFRSs in issue but not yet endorsed by the FSC

The Corporation has not applied the following IFRSs issued by the IASB but not yet endorsed by the FSC.

The FSC announced that amendments to IFRS 9 and IFRS 15 will take effect starting January 1, 2018. As of the date the financial statements were authorized for issue, the FSC has not announced the effective dates of other new IFRSs.

New IFRSs	Effective Date Announced by IASB (Note 1)
Annual Improvements to IFRSs 2014-2016 Cycle	Note 2
Amendment to IFRS 2 "Classification and Measurement of Share-based Payment Transactions"	January 1, 2018
IFRS 9 "Financial Instruments"	January 1, 2018
Amendments to IFRS 9 and IFRS 7 "Mandatory Effective Date of IFRS 9 and Transition Disclosures"	January 1, 2018
Amendments to IFRS 10 and IAS 28 "Sale or Contribution of Assets between an Investor and its Associate or Joint Venture"	To be determined by IASB
IFRS 15 "Revenue from Contracts with Customers"	January 1, 2018
Amendments to IFRS 15 "Clarifications to IFRS 15 Revenue from Contracts with Customers"	January 1, 2018
IFRS 16 "Leases"	January 1, 2019
Amendment to IAS 7 "Disclosure Initiative"	January 1, 2017

New IFRSs	Effective Date Announced by IASB (Note 1)
Amendments to IAS 12 "Recognition of Deferred Tax Assets for Unrealized Losses"	January 1, 2017
Amendments to IAS 40 "Transfers of investment property"	January 1, 2018
IFRIC 22 "Foreign Currency Transactions and Advance Consideration"	January 1, 2018

(Concluded)

Note 1: Unless stated otherwise, the above New IFRSs are effective for annual periods beginning on or after their respective effective dates.

Note 2: The amendment to IFRS 12 is retrospectively applied for annual periods beginning on or after January 1, 2017; the amendment to IAS 28 is retrospectively applied for annual periods beginning on or after January 1, 2018.

The initial application of the above New IFRSs, whenever applied, would not have any material impact on the Corporation's accounting policies, except for the following:

1) IFRS 9 "Financial Instruments"

Recognition and measurement of financial assets

With regards to financial assets, all recognized financial assets that are within the scope of IAS 39 "Financial Instruments: Recognition and Measurement" are subsequently measured at amortized cost or fair value. Under IFRS 9, the requirement for the classification of financial assets is stated below.

For the Corporation's debt instruments that have contractual cash flows that are solely payments of principal and interest on the principal amount outstanding, their classification and measurement are as follows:

a) For debt instruments, if they are held within a business model whose objective is to collect the contractual cash flows, the financial assets are measured at amortized cost and are assessed for impairment continuously with impairment loss recognized in profit or loss, if any. Interest revenue is recognized in profit or loss by using the effective interest method;

b) For debt instruments, if they are held within a business model whose objective is achieved by both the collecting of contractual cash flows and the selling of financial assets, the financial assets are measured at fair value through other comprehensive income (FVTOCI) and are assessed for impairment. Interest revenue is recognized in profit or loss by using the effective interest method, and other gain or loss shall be recognized in other comprehensive income, except for impairment gains or losses and foreign exchange gains and losses. When the debt instruments are derecognized or reclassified, the cumulative gain or loss previously recognized in other comprehensive income is reclassified from equity to profit or loss.

Except for the above, all other financial assets are measured at fair value through profit or loss. However, the Corporation may make an irrevocable election to present subsequent changes in the fair value of an equity investment (that is not held for trading) in other comprehensive income, with only dividend income generally recognized in profit or loss. No subsequent impairment assessment is required, and the cumulative gain or loss previously recognized in other comprehensive income cannot be reclassified from equity to profit or loss.

Impairment of financial assets

IFRS 9 requires impairment loss on financial assets to be recognized by using the "Expected Credit Losses Model". The credit loss allowance is required for financial assets measured at amortized cost, financial assets mandatorily measured at FVTOCI, lease receivables, contract assets arising from IFRS 15 "Revenue from Contracts with Customers", certain written loan commitments and financial guarantee contracts. A loss allowance for the 12-month expected credit losses is required for a financial asset if its credit risk has not increased significantly since initial recognition. A loss allowance for full lifetime expected credit losses is required for a financial asset if its credit risk has increased significantly since initial recognition and is not low. However, a loss allowance for full lifetime expected credit losses is required for trade receivables that do not constitute a financing transaction.

For purchased or originated credit-impaired financial assets, the Corporation takes into account the expected credit losses on initial recognition in calculating the credit-adjusted effective interest rate. Subsequently, any changes in expected losses are recognized as a loss allowance with a corresponding gain or loss recognized in profit or loss.

Hedge accounting

The main changes in hedge accounting amended the application requirements for hedge accounting to better reflect the entity's risk management activities. Compared with IAS 39, the main changes include: (1) enhancing types of transactions eligible for hedge accounting, specifically broadening the risks eligible for hedge accounting of non-financial items; (2) changing the way hedging derivative instruments are accounted for to reduce profit or loss volatility; and (3) replacing retrospective effectiveness assessment with the principle of economic relationship between the hedging instrument and the hedged item.

Transition

Financial instruments that have been derecognized prior to the effective date of IFRS 9 cannot be reversed to apply IFRS 9 when it becomes effective. Under IFRS 9, the requirements for classification, measurement and impairment of financial assets are applied retrospectively with the difference between the previous carrying amount and the carrying amount at the date of initial application recognized in the current period and restatement of prior periods is not required. The requirements for general hedge accounting shall be applied prospectively and the accounting for hedging options shall be applied retrospectively.

2) IFRS 16 "Leases"

IFRS 16 sets out the accounting standards for leases that will supersede IAS 17 and a number of related interpretations.

IUnder IFRS 16, if the Corporation is a lessee, it shall recognize right-of-use assets and lease liabilities for all leases on the balance sheets except for low-value and short-term leases. The Corporation may elect to apply the accounting method similar to the accounting for operating lease under IAS 17 to the low-value and short-term leases. On the statements of comprehensive income, the Corporation should present the depreciation expense charged on the right-of-use asset separately from interest expense accrued on the lease liability; interest is computed by using effective interest method. On the statements of cash flows, cash payments for the principal portion of the lease liability are classified within financing activities; cash payments for interest portion are classified within operating activities.

IThe application of IFRS 16 is not expected to have a material impact on the accounting of the Corporation as lessor.

IWhen IFRS 16 becomes effective, the Corporation may elect to apply this Standard either retrospectively to each prior reporting period presented or retrospectively with the cumulative effect of the initial application of this Standard recognized at the date of initial application.

Except for the above impact, as of the date the financial statements were authorized for issue, the Corporation is continuously assessing the possible impact that the application of other standards and interpretations will have on the Corporation's financial position and financial performance, and will disclose the relevant impact when the assessment is completed.

4. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

CPC is operated and managed by the Government of the Republic of China (ROC). CPC's accounts are maintained generally in accordance with the accounting laws and regulations governing state-owned enterprises. The Corporation's significant accounting policies conform to the Guidelines Governing the Preparation of Financial Reports by Securities Issuers, and the following International Financial Reporting Standards, International Accounting Standards (IASs), Interpretations of International Financial Reporting Standards (IFRIC), and Interpretations of IAS (SIC) (collectively, "IFRSs") endorsed by the Financial Supervisory Commission (FSC).

The Corporation's annual financial statements are required to be examined by the Executive Yuan and the Ministry of Audit of the Control Yuan. The examinations are primarily aimed at determining the extent to which the Corporation meets its budget as approved by the Legislative Yuan. The Corporation's financial statements are finalized on the basis of the results of these examinations. The Ministry of Audit's adjustments should be reflected in the financial statements audited by independent certified public accountants. The opening balance of the following year of the Corporation's books of accounts is based on the balance after the adjustments made by the Ministry of Audit. The examination of the Corporation's financial statements as of and for the year ended December 31, 2015 had already been completed.

The examinations of the Corporation's financial statements as of and for the year ended December 31, 2016 by these government agencies were not yet completed as of the auditor's report date. The financial statements were compiled in conformity with Guidelines Governing the Preparation of Financial Reports by Securities Issuers, International Financial Reporting Standards and related regulations.

On May 14, 2009, the Financial Supervisory Commission (FSC) announced the "Framework for the Adoption of IFRSs by the Companies in the ROC". Under this framework, starting from 2013, companies listed on the Taiwan Stock Exchange or traded on the Taiwan GreTai Securities Market or Emerging Stock Market should prepare their financial statements in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers and the IFRS, IAS, IFRIC and SIC (the "IFRSs") endorsed by the FSC. On the other hand, public traded companies that are not listed on the Taiwan Stock Exchange or the Taiwan GreTai Securities Market, credit cooperatives, and credit card companies should adopt IFRSs in 2015.

Under the original IFRS adoption timetable announced by the FSC, CPC should adopt IFRSs in 2015. However, the Directorate-General of Budget of the Executive Yuan, Accounting, and Statistics (DGBAS) soon became concerned that the differences in the timing of the application of IFRSs and budgeting basis by the numerous state-owned companies could result in inconsistencies in these companies' presentation of financial position and financial performance in the Consolidated Table of State-Owned Subordinate Unit Businesses. Thus in 2010, DGBAS announced the "IFRSs Adoption Plan for State-Owned Entities," stipulating that all state-owned entities should adopt IFRSs in 2013.

For readers' convenience, the accompanying financial statements have been translated into English from the original Chinese version prepared and used in the ROC. If inconsistencies arise between the English version and the Chinese version or if differences arise in the interpretations between the two versions, the Chinese version of the financial statements shall prevail.

Statement of Compliance

The financial statements have been prepared in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers and IFRSs as endorsed and issued into effect by the FSC.

Basis of Preparation

The financial statements have been prepared on the historical cost basis, except for financial instruments that are measured at fair value.

The fair value measurements are grouped into Levels 1 to 3 based on the degree to which the fair value measurement inputs are observable and the significance of the inputs to the fair value measurement in its entirety, which are described as follows:

a. Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities;

b. Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices); and

c. Level 3 inputs are unobservable inputs for the asset or liability.

Classification of Current and Non-current Assets and Liabilities

Current assets include:

a. Assets held primarily for the purpose of trading;

b. Assets expected to be realized within twelve months after the reporting period; and

c. Cash and cash equivalents, unless the asset is restricted from being exchanged or used to settle a liability for at least 12 months after the reporting period.

Current liabilities include:

a. Liabilities held primarily for the purpose of trading;

b. Liabilities due to be settled within 12 months after the reporting period; and

c. Liabilities which the Corporation does not have an unconditional right to defer settlement for at least 12 months after the reporting period.

Assets and liabilities that are not classified as current are classified as non-current.

Foreign Currencies

In preparing the financial statements, transactions in currencies other than the Corporation's functional currency (foreign currencies) are recognized at the rates of exchange prevailing at the dates of the transactions.

At the end of each reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at that date. Exchange differences on monetary items arising from settlement or translation are recognized in profit or loss in the period in which they arise.

Non-monetary items measured at fair value that are denominated in foreign currencies are retranslated at the rates prevailing at the date when the fair value is determined. Exchange differences arising on the retranslation of non-monetary items are included in profit or loss for the period except for exchange differences arising from the retranslation of non-monetary items in respect of which gains and losses are recognized directly in other comprehensive income, in which case, the exchange differences are also recognized directly in other comprehensive income.

Non-monetary items that are measured at historical cost in a foreign currency are not retranslated.

For the purposes of presenting financial statements, the assets and liabilities of the Corporation's foreign operations (including associates and joint ventures operating in other countries, or using currencies different from the currency of the Corporation) are translated into New Taiwan dollars, using exchange rates prevailing at the end of each reporting period. Income and expense items are translated at the average exchange rates for the period. Exchange differences arising from these translations are recognized in other comprehensive income.

Inventories

Inventories include raw materials, finished goods, work in process, semi-finished goods, merchandise, construction in progress, merchandise in transit - crude oil, and merchandise in transit - fuel oil. Inventories are stated at the lower of cost or net realizable value. Inventory write-downs are made by item, except where it may be appropriate to group similar or related items. Net realizable value is the estimated selling price of inventories less all estimated costs of completion and costs necessary to make the sale. Inventories are recorded at weighted-average cost on the balance sheet date.

Investment in Associates

An associate is an entity over which the Corporation has significant influence and that is neither a subsidiary nor an interest in a joint venture.

The Corporation uses the equity method to account for its investments in associates.

Under the equity method, investments in an associate are initially recognized at cost and adjusted thereafter to recognize the Corporation's share of the profit or loss and other comprehensive income of the associate. The Corporation also recognizes the changes in the Corporation's share of equity of associates.

If the cost of acquisition exceeds the Corporation's share of the net fair value of the identifiable assets and liabilities of an associate recognized at the date of acquisition, this excess is recognized as goodwill, which is included in the carrying amount of the investment and is not amortized. If the Corporation's share of the net fair value of the identifiable assets and liabilities exceeds the cost of acquisition, after reassessment, this excess is recognized immediately in profit or loss.

The entire carrying amount of the investment (including goodwill) is tested for impairment as a single asset by comparing its recoverable amount with its carrying amount. Any impairment loss recognized is deducted from the carrying amount of the investment. Any reversal of that impairment loss is recognized to the extent that the recoverable amount of the investment subsequently increases.

When the Corporation transacts with its associate, profits and losses resulting from the transactions with the associate are recognized in the Corporation's financial statements only to the extent of interests in the associate that are not related to the Corporation.

Property, Plant and Equipment

Property, plant and equipment are stated at cost, less subsequent accumulated depreciation and subsequent accumulated impairment loss.

Properties in the course of construction for production, supply or administrative purposes are carried at cost, less any recognized impairment loss. Cost includes professional fees and borrowing costs eligible for capitalization. Such properties are depreciated and classified to the appropriate categories of property, plant and equipment when completed and ready for intended use.

Depreciation of the equipment in oil and gas production mine is computed using the unit-of-output method. Depreciation of the Telecommunication equipment is computed using the straight-line method. Depreciation of the remaining property, plant and equipment is computed using the fixed-percentage-on- declining-balance method. Each significant part is depreciated separately. The estimated useful lives, residual values and depreciation method are reviewed at the end of each reporting period, with the effect of any changes in estimates accounted for prospectively.

On derecognition of an item of property, plant and equipment, the difference between the sales proceeds and the carrying amount of the asset is recognized in profit or loss.

Investment Properties

Investment properties are properties held to earn rentals and/or for capital appreciation (including property under construction for such purposes). Investment properties also include land held for a currently undetermined future use.

Investment properties are measured initially at cost, including transaction costs. Subsequent to initial recognition, investment properties are measured at cost less accumulated depreciation and accumulated impairment loss. Depreciation is recognized using the fixed-percentage-on-declining-balance method.

On derecognition of an investment property, the difference between the net disposal proceeds and the carrying amount of the asset is included in profit or loss.

Intangible Assets

Intangible assets with finite useful lives that are acquired separately are initially measured at cost and subsequently measured at cost less accumulated amortization and accumulated impairment loss. Amortization is recognized on a straight-line basis over the asset's estimated useful life. The estimated useful life, residual value, and amortization method are reviewed at the end of each reporting period, with the effect of any changes in estimate accounted for on a prospective basis. The residual value of an intangible asset with a finite useful life should be assumed to be zero unless the Corporation expects to dispose of the intangible asset before the end of its economic life.

Oil and Gas Interests and Exploration Expenses

All geological and geophysical exploration costs are charged to current income.

The costs of drilling exploratory wells ("exploration well expenses") in sites that have not yet proven to contain reserves of commercial quantities ("unproven sites") are initially charged to current income. Exploration well expenses are subsequently capitalized as part of "oil and gas interests" accounts when (i) sites are proven to contain mineral reserves of commercial quantities and (ii) the construction of the wellhead equipment or offshore production platforms and flow lines is complete. The exploration expenses incurred in the current year are reclassified from "exploration expenses" to assets. Costs already charged to income in prior years are recognized as assets and as "nonoperating income."

The costs of drilling commercial wells, which are constructed after the sites are proven to contain mineral reserves of commercial quantities, are capitalized as assets. However, if the commercial wells turn out to be dry, such costs are charged to current income.

For oil site acquisitions, the Corporation's payments for this purchase or investments in foreign joint ventures involving interest in oil sites - including the Corporation's share in the costs of drilling commercial wells, production, transport and storage equipment but excluding the Corporation's share in the costs of drilling exploratory wells and other exploration expenses - are capitalized as oil and gas interests. The Corporation's share in joint ventures' net earnings (or net losses) is recognized as other operating revenues (or other operating costs). The Corporation recognizes earnings remitted by joint ventures as a reduction of oil and gas interests. These costs are amortized at the ratio of the actual quantity of minerals extracted from the wells for the year to the estimated mineral reserve. The amortized costs and operating expenses paid to joint ventures are regarded as the cost of the Corporation's share of the oil and gas extracted. The accompanying financial statements included the related sales and cost of goods sold attributable to the Corporation's share of the oil and gas sold by the joint ventures.

For domestic sites and sites of product-sharing contracts, the Corporation amortizes the amount recognized in oil and gas interests by the ratio of actual quantity produced in the period over total estimated production quantity of the site. The Corporation accounts for minerals produced at amortized cost plus the site operation expenses paid, and recognizes crude oil inventory and natural gas inventory by the output value method. The Corporation recognizes sales and cost of goods sold on the sale of inventory.

For sites of Provision of Services Contract, the Corporation amortized the amount recognized in oil and gas interests in the same method of that of domestic sites and sites of product-sharing contract. The Corporation accounts for the amortized amount and the site operation expenses paid as other operating costs. On the other hand the Corporation recognized other operating income by multiplying produced quantity to a revenue rate contracted with local oil site governments.

The Corporation recognizes earnings from Sanga Sanga and translation adjustments based on the financial statements of Sanga Sanga for the same reporting period as that of the Corporation.

Profit and loss generated from the derecognition of oil and gas interest is measured as the difference between the net disposal proceeds and the carrying amount of the asset and recognized in statement of consolidated income in the period of derecognition.

Impairment of Tangible and Intangible Assets

At the end of each reporting period, the Corporation reviews the carrying amounts of its tangible and intangible assets, to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss. When it is not possible to estimate the recoverable amount of an individual asset, the Corporation estimates the recoverable amount of the cash-generating unit to which the asset belongs.

Recoverable amount is the higher of fair value less costs to sell and value in use. If the recoverable amount of an asset or cash-generating unit is estimated to be less than its carrying amount, the carrying amount of the asset or cash-generating unit is reduced to its recoverable amount. An impairment loss is recognized in profit or loss.

When an impairment loss is subsequently reversed, the carrying amount of the asset or cash-generating unit is increased to the revised estimate of its recoverable amount, but only to the extent of the carrying amount that would have been determined had no impairment loss been recognized for the asset or cash-generating unit in prior years. A reversal of an impairment loss is recognized in profit or loss.

Financial Instruments

Financial assets and financial liabilities are recognized when the Corporation becomes a party to the contractual provisions of the financial instruments.

Financial assets and financial liabilities are initially measured at fair value. Transaction costs that are directly attributable to the acquisition or issue of financial assets and financial liabilities (other than financial assets and financial liabilities at fair value through profit or loss) are added to or deducted from the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities at fair value through profit or loss are recognized immediately in profit or loss.

a. Financial assets

All regular way purchases or sales of financial assets are recognized and derecognized on a trade date basis.

1) Measurement category

Financial assets are classified into the following categories: Financial assets at fair value through profit or loss, available-for-sale financial assets, and loans and receivables.

a) Financial assets at fair value through profit or loss

Financial assets are classified as at fair value through profit or loss when the financial asset either is held for trading or is designated as at fair value through profit or loss.

Financial assets at fair value through profit or loss are stated at fair value, with any gains or losses arising on remeasurement recognized in profit or loss. The net gain or loss recognized in profit or loss does not incorporate any dividend or interest earned on the financial asset. Fair value is determined in the manner described in Note 31.

b) Available-for-sale financial assets

Available-for-sale financial assets are non-derivatives that are either designated as available-for-sale or are not classified as loans and receivables, held-to-maturity investments or financial assets at fair value through profit or loss.

Available-for-sale financial assets are measured at fair value. Changes in the carrying amount of available-for-sale monetary financial assets relating to changes in foreign currency exchange rates, interest income calculated using the effective interest method and dividends on available-for-sale equity investments are recognized in profit or loss. Other changes in the carrying amount of available-for-sale financial assets are recognized in other comprehensive income and will be reclassified to profit or loss when the investment is disposed of or is determined to be impaired.

Dividends on available-for-sale equity instruments are recognized in profit or loss when the Corporation's right to receive the dividends is established.

Available-for-sale equity investments that do not have a quoted market prices in an active market and whose fair value cannot be reliably measured and derivatives that are linked to and must be settled by delivery of such unquoted equity investments are measured at cost less any identified impairment loss at the end of each reporting period and are presented in a separate line item as financial assets carried at cost. If, in a subsequent period, the fair value of the financial assets can be reliably measured, the financial assets are remeasured at fair value. The difference between carrying amount and fair value is recognized in or other comprehensive income on financial assets. Any impairment losses are recognized in profit and loss.

c) Loans and receivables

Loans and receivables (including trade receivables, cash and cash equivalents, debt investments with no active market, and other receivables are measured at amortized cost using the effective interest method, less any impairment, except for short-term receivables, which are measured at their original invoice amounts with no stated interest rate if the effect of discounting is immaterial.

Cash equivalents include time deposits with original maturities of within three months from the date of acquisition and are highly liquid, readily convertible to a known amount of cash and be subject to an insignificant risk of changes in value. These cash equivalents are held for the purpose of meeting short-term cash commitments.

2) Impairment of financial assets

Financial assets, other than those at fair value through profit or loss, are assessed for indicators of impairment at the end of each reporting period. Financial assets are considered to be impaired when there is objective evidence that, as a result of one or more events that occurred after the initial recognition of the financial asset, the estimated future cash flows of the investment have been affected.

Financial assets carried at amortized cost, such as trade receivables, are assessed for impairment collectively even if they had been assessed as not impaired individually. Objective evidence of impairment for a portfolio of receivables could include the Corporation's past experience of collecting payments and impairment as well as observable changes in national or local economic conditions that correlate with default on receivables.

For financial assets carried at amortized cost, the amount of the impairment loss recognized is the difference between the asset's carrying amount and the present value of estimated future cash flows, discounted at the financial asset's original effective interest rate.

For financial assets measured at amortized cost, if, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognized, the previously recognized impairment loss is reversed through profit or loss to the extent that the carrying amount of the investment at the date the impairment is reversed does not exceed what the amortized cost would have been had the impairment not been recognized.

For available-for-sale equity investments, a significant or prolonged decline in the fair value of the security below its cost is considered to be objective evidence of impairment.

When an available-for-sale financial asset is considered to be impaired, cumulative gains or losses previously recognized in other comprehensive income are reclassified to profit or loss in the period.

In respect of available-for-sale equity securities, impairment loss previously recognized in profit or loss are not reversed through profit or loss. Any increase in fair value subsequent to an impairment loss is recognized in other comprehensive income. In respect of available-for-sale debt securities, the impairment loss is subsequently reversed through profit or loss if an increase in the fair value of the investment can be objectively related to an event occurring after the recognition of the impairment loss.

For financial assets that are carried at cost, the amount of the impairment loss is measured as the difference between the asset's carrying amount and the present value of the estimated future cash flows discounted at the current market rate of return for a similar financial asset. Such impairment loss will not be reversed in subsequent periods.

The carrying amount of the financial asset is reduced by the impairment loss directly for all financial assets with the exception of trade receivables (please specify) where the carrying amount is reduced through the use of an allowance account. When a trade receivable is considered uncollectible, it is written off against the allowance account. Subsequent recoveries of amounts previously written off are credited against the allowance account. Changes in the carrying amount of the allowance account are recognized in profit or loss except for uncollectible trade receivables that are written off against the allowance account.

3) Derecognition of financial assets

The Corporation derecognizes a financial asset only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another party.

On derecognition of a financial assets in its entirety, the difference between the asset's carrying amount and the sum of the consideration received and receivable and the cumulative gain or loss that had been recognized in other comprehensive income is recognized in profit or loss.

b. Financial liabilities

1) Subsequent measurement

Except in the following situations, all the financial liabilities are measured at amortized cost using the effective interest method:

Financial liabilities are classified as at fair value through profit or loss when the financial liability is either held for trading or designated as at fair value through profit or loss.

Financial liabilities held for trading are stated at fair value, with any gains or losses on remeasurement recognized in profit or loss. The net gain or loss recognized in profit or loss does not incorporate any interest or dividend generated from the financial liability. Fair value is determined in the manner described in Note 31.

2) Derecognition of financial liabilities

The difference between the carrying amount of the financial liability derecognized and the consideration paid, including any non-cash assets transferred or liabilities assumed, is recognized in profit or loss.

c. Derivative financial instruments

The Corporation enters into a variety of derivative financial instruments to manage its exposure to price changes and foreign exchange rate risks, including foreign exchange forward contracts and petroleum swap contracts.

Derivatives are initially recognized at fair value at the date the derivative contracts are entered into and are subsequently remeasured to their fair value at the end of each reporting period. The resulting gain or loss is recognized in profit or loss immediately. When the fair value of a derivative financial instrument is positive, the derivative is recognized as a financial asset; when the fair value of derivative financial instruments in negative, the derivative is recognized as a financial liability.

Hedge Accounting

a. Fair value hedges

Changes in the fair value of derivatives that are designated and quality as fair value hedges are recognized in profit or loss immediately, together with any changes in the fair value of the hedged asset or liability that are attributable to the hedge-related risk. The change in the fair value of the hedging instrument and the change in the hedged item attributable to the hedged risk are recognized in profit or loss in the line item relating to the hedged item.

Hedge accounting is discontinued prospectively when the Corporation revokes the designated hedging relationship, or when the hedging instrument expires or is sold, terminated, or exercised, or when it no longer meets the criteria for hedge accounting.

b. Cash flow hedges

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognized in other comprehensive income. The gain or loss relating to the ineffective portion is recognized immediately in profit or loss.

The associated gains or losses recognized in other comprehensive income are reclassified from equity to profit or loss as a reclassification adjustment in the line item relating to the hedged item in the same period when the hedged item affects profit or loss. If a hedge of a forecast transaction subsequently results in the recognition of a non-financial asset or a liability, the associated gains and losses recognized in other comprehensive income are removed from equity and are included in the initial cost of the nonfinancial asset or liability.

Hedge accounting is discontinued prospectively when the Corporation revokes the designated hedging relationship, or when the hedging instrument expires or is sold, terminated, or exercised, or when it no longer meets the criteria for hedge accounting. The cumulative gain or loss on the hedging instrument that has been previously recognized in other comprehensive income from the period when the hedge was effective remains separately in equity until the forecast transaction occurs. When a forecast transaction is no longer expected to occur, the gain or loss accumulated in equity is recognized immediately in profit or loss.

Provisions

Provisions, including those arising from the contractual obligation specified in a service concession arrangement to maintain or restore the infrastructure before it is handed over to the grantor, are measured at the best estimate of the discounted cash flows of the consideration required to settle the present obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation.

Revenue Recognition

Revenue is measured at the fair value of the consideration received or receivable. Revenue is reduced for estimated customer returns, rebates and similar allowances. Allowance for sales returns and liability for returns are recognized at the time of sale based on the seller's reliable estimate of future returns and based on past experience and other relevant factors.

a. Sale of goods

Revenue from the sale of goods is recognized when all the following conditions are satisfied:

1) The Corporation has transferred to the buyer the significant risks and rewards of ownership of the goods;
2) The Corporation retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold;
3) The amount of revenue can be measured reliably;
4) It is probable that the economic benefits associated with the transaction will flow to the Corporation; and
5) The costs incurred or to be incurred in respect of the transaction can be measured reliably.

Under the Corporation's customer loyalty program, sales of goods that result in reward credits for customers are accounted for as multiple-element revenue transactions, and the fair value of the consideration received or receivable is allocated both to the goods supplied and the reward credits granted. The portion of the consideration allocated to the reward credits should be measured at fair value and recognized as income when the customer receives the award.

b. Dividend and interest income

Dividend income from investments is recognized when the shareholder's right to receive payment has been established and if it is probable that the economic benefits will flow to the Corporation and the income can be measured reliably.

Interest income from a financial asset is recognized when it is probable that the economic benefits will flow to the Corporation and the amount of income can be measured reliably. Interest income is accrued on a time basis, by reference to the principal outstanding and the effective interest rate applicable.

Leasing

Leases are classified as finance leases whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

a. The Corporation as lessor

Rental income from operating leases is recognized on a straight-line basis over the term of the lease. Contingent rents arising under operating leases are recognized as income in the period in which they are received.

b. The Corporation as lessee

Operating lease payments are recognized as an expense on a straight-line basis over the lease term. Contingent rents arising under operating leases are recognized as an expense in the period in which they are incurred.

Borrowing Costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets are added to the cost of these assets until such time as the assets are substantially ready for their intended use or sale.

Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalization.

Other than stated above, all other borrowing costs are recognized in profit or loss in the period in which they are incurred.

Employee Benefits

a. Short-term employee benefits

Liabilities recognized in respect of short-term employee benefits are measured at the undiscounted amount of the benefits expected to be paid in exchange for the related service.

b. Retirement benefits

Payments to defined contribution retirement benefit plans are recognized as an expense when employees have rendered service entitling them to the contributions.

Defined benefit costs (including service cost, net interest and remeasurement) under the defined benefit retirement benefit plans are determined using the projected unit credit method. Service cost (including current service cost) and net interest on the net defined benefit liability (asset) are recognized as employee benefits expense in the period they occur. Remeasurement, comprising actuarial gains and losses and the return on plan assets (excluding interest), is recognized in other comprehensive income in the period in which they occur. Remeasurement recognized in other comprehensive income is reflected immediately in unappropriated earnings and will not be reclassified to profit or loss.

Net defined benefit liability (asset) represents the actual deficit (surplus) in the Corporation's defined benefit plan. Any surplus resulting from this calculation is limited to the present value of any refunds from the plans or reductions in future contributions to the plans.

c. Other long-term employee benefits

Other long-term employee benefits are accounted for in the same way as the accounting required for defined benefit plan except that remeasurement is recognized in profit or loss.

Taxation

Income tax expense is the sum of the tax currently payable and deferred tax.

a. Current tax

According to the Income Tax Law, an additional tax at 10% of unappropriated earnings is provided for as income tax in the year the shareholders approve to retain the earnings.

Adjustments of prior years' tax liabilities are added to or deducted from the current year's tax provision.

b. Deferred tax

Deferred tax is recognized on temporary differences between the carrying amounts of assets and liabilities and the corresponding tax bases used in the computation of taxable profit.

Deferred tax liabilities are generally recognized for all taxable temporary differences. Deferred tax assets are generally recognized for all deductible temporary differences, unused loss carry forward and unused tax credits for purchases of machinery, research and development expenditures, and personnel training expenditures to the extent that it is probable that taxable profits will be available against which those deductible temporary differences can be utilized.

Deferred tax liabilities are recognized for taxable temporary differences associated with investments in associates, except where the Corporation can control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deductible temporary differences associated with such investments and interests are only recognized to the extent that it is probable that there will be sufficient taxable profits against which to utilize the temporary differences and they are expected to reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered. A previously unrecognized deferred tax asset is also reviewed at the end of each reporting period and recognized to the extent that it has become probable that future taxable profit will allow the deferred tax asset to be recovered.

Deferred tax liabilities and assets are measured at the tax rates that are expected to apply in the period in which the liability is settled or the asset realized, based on tax rates and laws that have been enacted or substantively enacted by the end of the reporting period. The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Corporation expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

c. Current and deferred taxes for the year

Current and deferred taxes are recognized in profit or loss, expect when they relate to items that are recognized in other comprehensive income or directly in equity, in which case, the current and deferred taxes are also recognized in other comprehensive income or directly in equity, respectively.

3. INVESTMENTS ACCOUNTED FOR USING THE EQUITY METHOD DECEMBER 31, 2016 AND 2015 (IN THOUSANDS OF NEW TAIWAN DOLLARS)

	2016	2015
Investments in associates		
Unlisted companies		
China American Petrochemical Co., Ltd. -CPC owned38.64% equity	$ 1,746,268	$ 1,739,242
Kuo Kuang Power Company Ltd. -CPC owned 45% equity	2,756,397	2,755,336
Faraway Maritime Shipping Corp. -CPC owned 40% equity	2,000,159	2,115,021
NiMiC Ship Holding Co., Ltd. -CPC owned 45% equity	2,515,223	2,097,051
Taiwan Advanced Material Corporation -CPC owned 49% equity	541,729	652,510
Chun Pin Enterprise Co., Ltd. -CPC owned 49% equity	379,615	356,290
Global Energy Maritime Co., Ltd. -CPC owned 48% equity	2,438,851	1,791,307
CPC Shell Lubricants Company Ltd. -CPC owned 49% equity	69,394	79,965
Daihai Petrol Corporation. -CPC owned 35% equity	125,375	125,423
NiMiC Ship Management Co., Ltd. -CPC owned 45% equity	48,280	41,434
Kuokuang Petrochemical Technology Co., Ltd. -CPC owned 43% equity	20,073	19,953
Taiwan-Japan Oxo Chemical Industries Inc. -CPC owned 47% equity	393,118	140,252
Maxihub Company Limited -CPC owned 40% equity	588,689	-
	$ 13,623,171	$ 11,913,784

4. PROPERTY, PLANT AND EQUIPMENT
DECEMBER 31, 2016 AND 2015
(IN THOUSANDS OF NEW TAIWAN DOLLARS)

	2016	2015
Land and Land Improvements	$302,607,289	$307,788,236
Less: Accumulated depreciation and impairment on land and Land Improvements	15,391,377	20,038,533
Buildings	45,155,820	45,210,627
Less: Accumulated depreciation and impairment on buildings	28,683,381	27,824,467
Machinery and equipment	502,047,767	502,123,517
Less: Accumulated depreciation and impairment on machinery and equipment	416,050,574	406,305,692
Transportation equipment	22,250,095	21,879,018
Less: Accumulated depreciation and impairment on transportation equipment	18,255,066	17,595,703
Miscellaneous equipment	5,129,036	5,160,394
Less: Accumulated depreciation and impairment on miscellaneous equipment	4,441,207	4,404,985
Leasehold improvements	0	0
Less: Accumulated depreciation and impairment on leasehold improvements	0	0
Construction in progress	34,162,952	22,480,162
Net Properties	$ 428,531,354	$ 428,472,574

5. RETIREMENT BENEFIT PLANS

a. Defined contribution plans

The Corporation adopted a pension plan under the Labor Pension Act (the "LPA"), which is a state-managed defined contribution plan. Under the LPA, an entity makes monthly contributions to employees' individual pension accounts at 6% of monthly salaries and wages.

b. Defined benefit plans

The defined benefit plan adopted by the Corporation in accordance with the Labor Standards Law is operated by the government. Benefits under the plans are based on employee's length of service and average monthly salaries of the last three months before retirement (for the length of service before the LSL was enacted) or six months before retirement (for the length of service after the LSL was enacted).

Personnel employed by the Corporation are referred to as either appointees or employees. The appointees' retirement fund (ARF), established under the guidelines of the Ministry of Economic Affairs, requires monthly contributions of amounts equal to 15% of monthly salaries and is administered by a pension plan committee. The ARF is deposited in the committee's name in a bank.

Based on an actuarial report, since the contribution surplus in plan assets exceeded the defined benefit obligation, the Corporation need not continue to contribute to the plan assets starting from July 2012. The employees' retirement fund (ERF) entails monthly contributions by the Corporation to a fund at amounts equal to a fixed percentage of 15% of salaries and wages. The ERF is administered by a monitoring committee and is deposited in the committee's name in the Bank of Taiwan. Based on an actuarial report, the Corporation should contribute to the ERF amounts equal to a fixed percentage of 2% of taxable payroll starting from July 2013. Before the end of each year, the Corporation assesses the balance in the pension fund. If the amount of the balance in the pension fund is inadequate to pay retirement benefits for employees who conform to retirement requirements in the next year, the Corporation is required to fund the difference in one appropriation that should be made before the end of March of the next year. The pension fund is managed by the Bureau of Labor Funds, Ministry of Labor ("the Bureau"); the Corporation has no right to influence the investment policy and strategy.

The Corporation awarded specific retired employees consolation benefits in accordance with corporate policies.

The Corporation adopted an insurance system called the Government Employee and School Staff Insurance ("GESSI"), which is a state-managed insurance plan. Under GESSI, an entity makes monthly contributions based on the employee's monthly insurance salary.

The amounts included in the balance sheets in respect of the Corporation's defined benefit plans were as follows:

	December 31	
	2016	2015
Present value of funded defined benefit obligation	$43,114,597	$46,131,196
Fair value of plan assets	(39,073,365)	(42,106,849)
Net defined benefit liability	$4,041,232	$4,024,347

A FIVE-YEAR FINANCIAL SUMMARY
(IN THOUSANDS OF NEW TAIWAN DOLLARS)

	2016	2015	2014	2013	2012
Sales and other operating revenues	764,629,993	843,615,422	1,191,814,302	1,187,700,968	1,147,206,980
Profit (loss) before income tax	35,419,539	(1,402,323)	(33,754,588)	3,811,765	(33,728,179)
per dollar of sales and other operating revenues (NT$)	0.046	(0.002)	(0.03)	0.00	(0.03)
Cash dividends	–	–	–	–	–
per dollar of capita l (NT$)	–	–	–	–	–
Owner's equity	221,466,148	192,157,075	193,597,425	227,104,799	222,073,545
per dollar of capital (NT$)	1.70	1.48	1.49	1.75	1.71
General taxes and import duties	44,636,962	43,258,175	57,752,016	56,728,945	57,077,960
Commodity tax	74,581,051	72,054,757	70,639,775	69,049,020	67,953,164
Total taxes	119,218,013	115,312,932	128,391,791	125,777,965	125,031,124
Working capital (current assets less current liabilities)	(87,227,141)	(87,408,206)	(67,175,456)	(28,798,456)	(36,962,614)
Ratio of current assets to current liabilities	0.65	0.65	0.79	0.92	0.89
Long-term Liabilities	147,930,000	177,920,000	194,920,000	194,820,000	176,460,000
Properties, plant, and equipment-gross	911,352,959	904,641,954	895,488,908	887,182,381	870,603,464
Properties, plant, and equipment-net	428,531,354	428,472,574	433,250,831	444,802,139	441,107,753
Exploration expenses (including all dry holes)	2,267,889	2,947,919	5,479,270	5,246,458	2,890,621
Total assets	740,465,819	741,965,890	833,704,503	878,932,667	862,086,049
Employed capital (Equity, long-term debt)	454,370,554	455,176,163	473,568,328	500,938,416	482,572,590
Employees on December 31	14,708	14,693	14,787	14,819	14,977
Sales and other operating revenues per employee	51,987	57,416	80,599	80,147	76,598

A FIVE-YEAR OPERATION SUMMARY

	2016	2015	2014	2013	2012
Crude oil produced-total KL	182,265	169,797	189,138	84,437	17,699
daily average KL	499	465	518	231	48
Natural gas produced-total MCM	325,700	377,952	393,019	387,487	454,696
MCM per day	892	1,035	1,077	1,062	1,246
Wells drilled during the year	2	1	3	2	2
Crude oil processed-total KL	21,635,119	20,525,008	22,380,439	22,648,022	26,741,560
daily average KL	59,274	56,233	61,316	62,049	73,265
Natural gas sold-total MCM	20,042,777	18,950,917	17,621,331	16,565,221	16,009,345
MCM per day	54,912	51,920	48,278	45,384	43,861
Refined products sold-total KL	36,112,964	33,448,897	33,380,385	33,151,248	33,594,429
daily average KL	98,940	91,641	91,453	90,825	92,040
Petrochemicals sold-MT	4,253,360	4,351,223	4,566,296	3,867,979	4,309,056
daily average MT	11,653	11,921	12,510	10,597	11,806

台灣中油股份有限公司
CPC Corporation, Taiwan

NO.2, TSO-NAN RD., NAN-TZU DIST., KAOHSIUNG, TAIWAN 81126 R.O.C
TEL: 886-2-8789-8989 (Taipei office)
FAX: 886-2-8789-9000 (Taipei office)
http://www.cpc.com.tw