

# 2011 CPC



**CPC Corporation, Taiwan**



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# CPC Corporation, Taiwan \* Annual Report

# 2011



Every drop of "oil from the bowels of the Earth" is precious mother's milk that nourishes human civilization. For the past 65 years CPC Corp. has committed itself to leadership in the utilization of this precious resource, striving under an attitude of corporate sustainability and keeping both economic development and environmental protection in mind and fulfilling its corporate social responsibility along its journey toward the vision of becoming "a comprehensive and competitive international energy conglomerate encompassing exploration, petroleum gas, petrochemicals, and high technology."

# Message from Chairperson and President

The world gradually emerged from under the shadows of financial crisis in 2010, economic performance in various countries turned upward, and global demand for resources was strong, causing international oil prices to rise. With the improvement in the international economy and the signing of the Economic Cooperation Framework Agreement (ECFA) between Taiwan and mainland China, our country's domestic economy realized substantial growth and overall the consumption of natural gas and petroleum products increased from 2009. With the help of petroleum & gas pricing mechanism marked-to-market again, and with the hardworking, team efforts of our entire work force, CPC Corp. recorded revenues of NT\$934.0 billion and before-tax profits of NT\$23.9 billion in 2010.

As a corporate citizen of Taiwan's society, CPC is committed to fulfilling its corporate social responsibilities. In recent years our company has participated in tree plantation and the provision of job opportunities for disadvantaged groups, and has joined in and sponsored all kinds of cultural performances and public-benefit activities, thereby playing an active role in the creation of social tranquility and harmony. Our company has also made significant achievements in the nurturing of elite sports competitors of Taiwan over the past decade, with the sponsorship of 162 sports persons. In manifesting the spirit of "Love of CPC, Love without Barriers," and with participation by the entire staff, in 2010 CPC helped 203 children attend school and feel the warmth of society through the World Vision program. CPC also set up 40 special gas stations that hire physically and mentally disabled persons to fill gasoline tanks and wash cars, thereby using concrete action to care for disadvantaged groups.

Industrial safety is a core value for CPC's sustainable development, and our company spares no effort in promoting a culture of industrial safety and takes "100% safety, zero accidents" as its ultimate goal. In 2010 a total of 31 CPC units won Taiwan's Occupational Safety and Health Management System certification ("TOSHMS"). In the area of environmental protection our company continuously implements a CO<sub>2</sub> reduction plan, completing its first five-year CO<sub>2</sub> emissions reduction plan in 2009 with an accumulated cut of 1.23 million metric tons of CO<sub>2</sub>, exceeding the planned target reduction of 1 million tons. The second five-year plan started in 2010, and in this first year our company achieved its target reduction of 350,000 tons. CPC also promotes a "Four Savings Plan" involving the saving of water, electricity, energy, and money; this plan includes the adoption of low-carbon fuel, the conservation of energy, and the enhancement of energy efficiency of its equipment.

Our company responds to changes in the business environment by constantly reviewing its organizational structure and operating procedures. To further enhance its presence in the international energy and petrochemical markets, our company set up Supply and Trading Division in March of 2010 for the purpose of expanding international trading in petroleum products and boosting the flexibility of petroleum products operations. In line with the legal requirement of Taiwan that industrial safety be placed in charge of a dedicated unit, the Department of Industrial Safety and Environmental Protection was reorganized in March of 2011 and split into two: the Department of Industrial Safety and Health, and the Department of Environmental Protection. This move strengthens functions in both areas. CPC also attach great importance to personnel training and the promotion of knowledge management, and strives to transform the know-how and experience of its personnel into corporate knowledge capital so that professional knowledge and experience can be passed on effectively and a management team with discipline, responsibility, and executive competency can be formed. With the advent of the age of globalization, in 2013 the CPC will phase-in the accounting standard of International Financial Reporting Standards (IFRS) to facilitate comparability with the financial reports of other international companies. This will not only reduce the cost in accounting process appropriately, but also lower the cost of converting and consolidating financial accounts and accounting system of CPC's overseas investments, thereby boosting operating & management efficiency.

In the area of exploration, CPC continuously carries out exploration and M&A activities in order to increase the amount of its oil & gas reserves. In 2010 our company acquired new exploration blocks in the United States, Indonesia, and Chad, and continued cooperation with mainland China to expand cross-straits joint efforts in the exploration of overseas blocks with a high recoverable potential of oil & gas. Within Taiwan CPC continued the rejuvenation of old oil fields and by the end of 2010 brought good news: drilling at Chuhuangkeng Well No. 145 discovered large amounts of natural gas, with new recoverable reserves estimated at 1 billion cubic meters; permission was received for resuming operations at the F Structure gas field offshore Kaohsiung, which is estimated to contains gas reserves of 5.979 billion cubic meters.

In the production of oil products, the successive completion of new refining and petrochemical facilities in the Asia-Pacific region and the Middle East is expected to result in excessive supplies in Asia-Pacific markets. In response to these market changes, CPC is accelerating the upgrading of its refining structure; in addition to boosting the production ratio of higher-value petroleum products, our company will initiate the overall supply of diesel fuel and auto gasoline with a sulfur content under 10ppmw by July of 2011 and January of 2012, respectively, so as to meet the ever-more-stringent demand on fuels quality. In addition, our company plans to go into joint ventures with mid- and downstream petrochemical producers for the development of high-value petrochemical products so as to establish intimate relations within the pan-CPC petrochemical clients sphere, enhance its competitiveness, and bring new business opportunities to the industry.

In its marketing of petroleum products CPC holds to the principles of "Attentive CPC Personnel, Heartfelt Service, and Contented Customers," and strives constantly to improve the quality of its petrol station services. In 2010, for the 10th year in a row, the CPC won a Platinum Award in the Reader's Digest consumer "trusted brand" voting in the petrol station category; it also won its 5th first-place ranking in the petrol station category in the "Top Service Awards" organized by Next Magazine, for the first time taking the "Total Vote King" throne. On Nov. 23, 2010 our company was honored with an "Outstanding Business Service Brand Award" in the 3rd such activity hosted by the Ministry of Economic Affairs, becoming the first government-owned enterprise to win this award. We also won, once again, first place in the petrol station category in the "Consumers' Ideal Brand" awards organized by Management Magazine, with a consumer brand awareness ratio of 80.8%. Over the decades CPC has always pursued quality improvement in its petroleum products and has constantly promoted high-quality services, and as a result its brand image has been deeply implanted in the minds of Taiwan's consumers.



In the supply of natural gas, the CPC-invested Nimic Ship Management Co. completed shipbuilding of four "Taittar" LNG tankers in October of 2010; Taittar No. 3 and No. 4 began operating that year, transporting LNG from Qatar to Taichung Harbor. After the four new tankers have all entered service, the Taichung LNG Receiving Terminal will be able to handle 3 million metric tons of LNG per year, fully supplying the domestic LNG market.

In line with the renewable energy policy, CPC plays an active role in carrying out new-energy R&D and investment, including cooperation with the Economics Ministry's promotion of carbon capture and sequestration research and collaboration with other domestic companies in biodiesel research and other projects. CPC also promotes Indonesia's joint-venture castor plantation project, plans to install a solar power demonstration station at the Kending Gas Station, and promotes the establishment of electric vehicle charging stations, among other projects.

CPC currently has investment in 13 joint-venture companies; in 2010 they earned a total income of approximately NT\$3.8 billion, for an average return on investment of about 30%. In the future our company will make optimum use of its existing core technical competency and work in combination with outside resources to expand its investment scope and international business development with the aim of operating in fields encompassing shipment, storage, transmission, specialty chemical products, conventional energy, and new energy.

In line with the government's policy of strengthening corporate governance, CPC observes related laws and actively implements a corporate governance regime while making full use of the professionalism of the board of directors and supervisors to achieve the major principles of "reinforcement of board of directors' functions," "making full use of supervisors' functions," "strengthening of the internal controls system and internal auditing," and "disclosure of material information" with the aim of effectively enhancing corporate competitiveness and risk control capability, thereby strengthening our company's operation & management.

Faced with today's harsh business environment, CPC will hold to the modern management principles of "speed, flexibility, and constant change" in guiding itself constantly toward internationalization, cost competitiveness, services refinement, and in-depth cultivation of brand value with the aim of establishing a company that is able to move with the pulse of society, is compatible with and friendly to the environment, and continuously expand, grow, and generate profit, becoming, within the next five to 10 years, a firm with annual revenues exceeding NT\$1.5 trillion and a large petroleum company that ranks within the world's top 200.

CPC's ability to continue developing after more than six decades of growth is due largely to the long-term support from our customers, as well as our business partners, at home and abroad. Our earnest hope is that, in our progress toward realizing the vision of becoming a conglomerate that encompasses petroleum products, petrochemicals, and high-tech energy, CPC will continue to enjoy such support. And for all of that, we hereby extend our utmost respects and thanks.

Chairperson

President

S. H. Chen

Mau-Den Lin



# Energy

A burningly sincere heart releases great dynamism.

- ⌘ Sustainable Development
- ⌘ Board & Corporate Officers
- ⌘ Organization Chart



# Sustainable Development

Established in Shanghai on June 1st, 1946, Chinese Petroleum Corp. (CPC) was funded and operated by the government under the direction of the Resources Committee (the forerunner of the State-Owned Enterprise Commission, Ministry of Economic Affairs). In 1949 CPC followed the government in relocating to Taiwan, setting up headquarters in Taipei under the direction of the Ministry of Economic Affairs. With service facilities covering the whole nation, its operations today include the import, exploration, development, refining, transport, marketing, and sale of petroleum and natural gas, as well as the production and supply of petrochemicals.

At its 550<sup>th</sup> meeting in February 2007 the Board of Directors approved a change in the name of this company from Chinese Petroleum Corporation to CPC Corporation, Taiwan, retaining its "Chinese Petroleum" name in Chinese, its logo, and its "CPC" name in English. The objectives of this change were to expand the firm's international business, reinforce the principle of keeping roots in Taiwan, and extending the precious reputation that our company has built up over the decades. CPC's total capital stands at NT\$130.1 billion, and its total revenues in 2010 amounted to NT\$934.0 billion.

During the more than 60 years since its establishment, CPC has been fully able to fulfill its mission of providing a stable supply of oil products and stimulating the development of petrochemical industries, enabling Taiwan's economy to achieve soaring growth and the island's people to enjoy prosperity, and for this accomplishment our company has won the approbation of all sectors of society. Faced with the impact of the general opening of Taiwan's market for petroleum products in recent years, CPC has moved to consolidate its operating advantages and deeply implant its competitive capabilities not only by engaging in organizational re-engineering and personnel downsizing but also by carrying out production-cost reductions and pursuing maximum benefit in its advancement toward corporatized operations. At the same time it has vigorously sought out opportunities to cooperate with major international oil companies in the development of upstream exploration, petrochemical development, and marketing channels with the aim of expanding its business scope and growing in the international market. CPC hopes, in this way, to become a safe, clean, and competitive international energy company that advances toward sustainable operation and continues to provide the people of Taiwan with high-efficiency, high-quality energy products.

As a government company, even as it pursues profit CPC does not neglect its corporate social responsibility. In addition to continuously enhancing the quality of petroleum products, bringing in and promoting the use of liquefied natural gas (LNG) as a source of clean energy, and striving for environmental protection over the years, our company has, without regard to cost, also provided the fuel needed by the military and the people of remote areas and offshore islands. At the same time it has continuously carried out social-care activities, promoting understanding of the petrochemical industry among the public, educating the people in the safe use of oil and gas, holding safety and health seminars, and guiding enterprises in strengthening the culture of safety. Our company also supports disadvantaged groups, participates in social-benefit activities, sponsors cultural activities, and provides incentives for elite personnel; in addition, it assists with construction around plants and oil exploration areas, works for ecological conservation, practices care for local cultures, promotes environmental education, and stimulates local advancement. These activities conform to the general 21st-century trend toward sustainable operation, and to the progress of corporate operations toward an emphasis on economic growth, environmental protection, and social benefit as well. Even as our company pursues commercial benefit, it also strives for social justice, the benefit of disadvantaged groups, safety and health, community development, and environmental protection.

To go along with global trends and follow the international movement toward environmental protection, CPC initiated the following sustainable development policies at the end of 2003 to promote the spirit of sustainable development in its energy industry operations:

- Conformity with government regulations and international agreements
- Clean production and environmental protection
- Efficient utilization of resources to conserve water and energy
- Emphasis on social responsibility and expansion of the scope of services
- Establishment of key environmental indicators and provision of information transparency
- Active commitment to research and development for the creation of new areas of operation

CPC joined the World Business Council for Sustainable Development (WBCSD) in 2006 and has set up a Committee for the Promotion of Sustainable Development. The Committee is divided into four subcommittees: Environment & Conservation, Social Consciousness, Policy and Research & Development, and Environmental Accounting & Information, all of which adopt appropriate strategies and formulate action plans to attain the ultimate goals of building a reputable corporate image and advancing toward sustainability. CPC also published "Sustainable Development Reports" in 2007 and 2009 to fulfill its corporate social responsibility in regard to the disclosure of information.

At a time when global petroleum resources are gradually being exhausted, CPC will faithfully perform its role as the main domestic supplier of clean energy and will strive to create a win-win-win situation for environmental protection, economic development, and social responsibility.





❖ From left

Deng-Hsiang Hwang · Ming-Huei Chen · Ray-Chung Chang · J. S. Yang · S. H. Chu · Maw-Wen Lin · L.W. Chen · Shane S. I. Lin · Ching-Yang Wu · J.Y. Chen





# Board & Corporate Officers

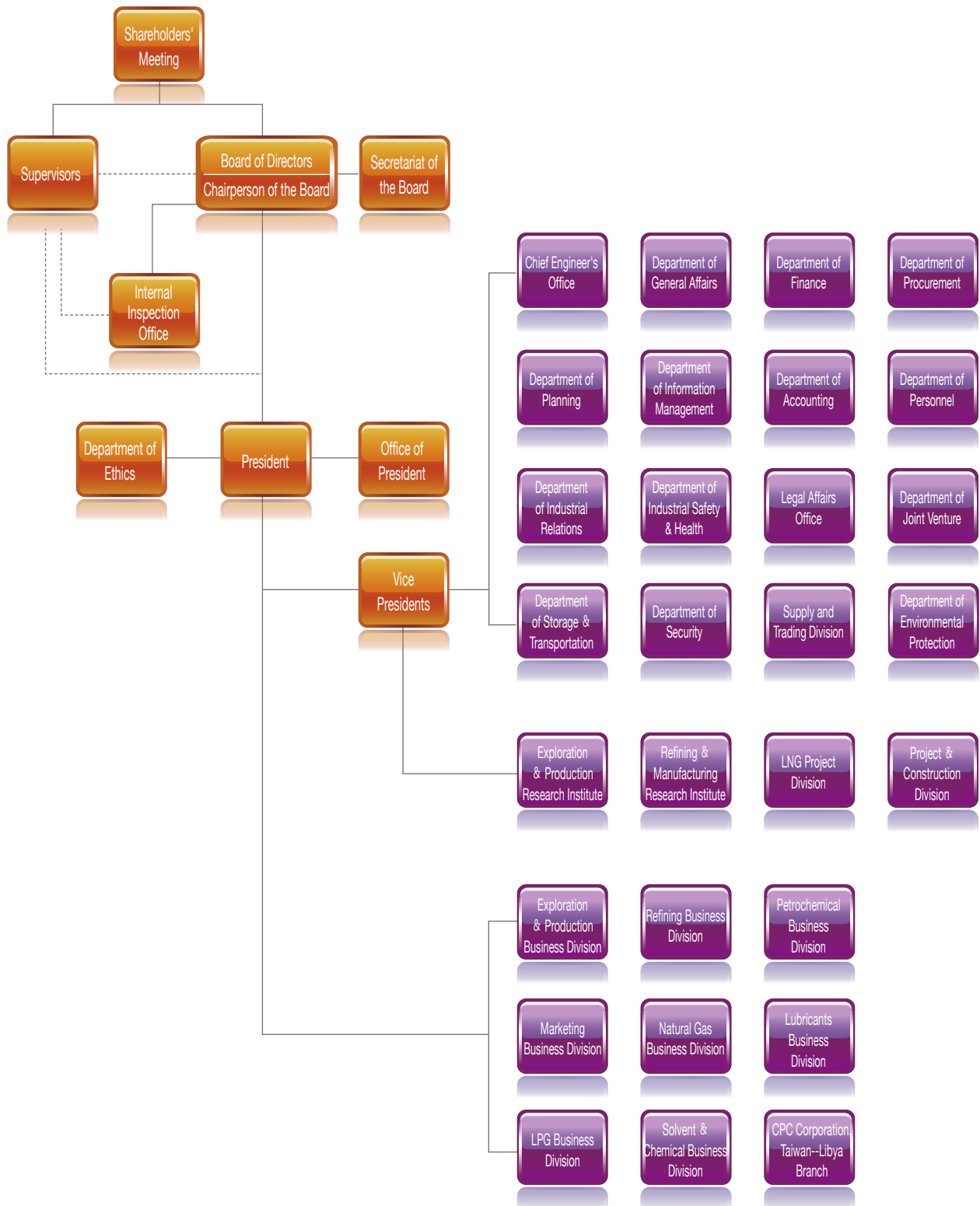
## Board of Directors

Chairperson of the Board	S. H. Chu
Standing Directors	S. H. Chu Maw-Wen Lin Chung-Huang Huang
Directors	Chia-Shen Chen Ssu-Li Chang Cheng-Liang Chen Tung-Yi Lee Neng-Chuan Chou Ping-Cheng Li Tiao-Tsan Lai Tu-Shui Wu J. W. Sun Kwung-Shing WU
Supervisors	Ter-Shing Chen Lien-Hwa Hsiang

## Corporate Officers

President	Maw-Wen Lin
Vice Presidents	J. S. Yang L.W. Chen Ray-Chung Chang Shane S. I. Lin Ming-Huei Chen
CEO, Exploration & Production Business Division	J. S. Yang (concurrently VP)
CEO, Refining Business Division	Ching-Yang Wu
CEO, Petrochemical Business Division	Deng-Hsiang Hwang
CEO, Marketing Business Division	L.W. Chen (concurrently VP)
CEO, Natural Gas Business Division	J.Y. Chen
CEO, Lubricants Business Division	Tien-Chieh Lee
CEO, LPG Business Division	C.H. Liu
CEO, Solvent & Chemical Business Division	Jimmy Chang
Director, Refining & Manufacturing Research Institute	H. C. Shen
Director, Exploration & Development Research Institute	Shin-Tai Hu
Director, LNG Project Division	J. E. Shiao
Director, Project & Construction Division	Hsu-Ching Wu

# Organization Chart





# Macro-vision

Great depth and breadth, a broad and diverse aspect.

- ⌘ Upstream Operations
- ⌘ Downstream Operations
- ⌘ Other Business



# Upstream Operations

## Exploration & Production

For many years CPC has engaged in cooperative exploration with governments, state-owned petroleum companies, and large international oil companies under the name of the Overseas Petroleum and Investment Corp. (OPIC), spreading its operations throughout the Americas, the Asia-Pacific region, and Africa.

With the fluctuations in international oil prices in recent years, CPC has worked strenuously toward the development of upstream exploration in order to secure its own oil sources and enhance its overall performance; and, in line with the government's policy of "deepening the energy supply safety mechanism and promoting international energy cooperation," has constantly engaged in international cooperation in exploration and development in the hope of discovering new reserves of oil and natural gas. In 2010, CPC engaged in cooperative exploration in 18 fields in seven countries together with international oil companies, including Block 16 and 17 in Ecuador; Sanga Sanga, Bulungan, Amborip VI, and Sanga Sanga coal bed methane (CBM) in Indonesia; Gulf of Paria East and Gulf of Paria West in Venezuela (negotiations are in progress in regard to confiscated prospects); Block AC/P21 and NT/P76 in Australia; Caviar, Manahuilla, Estrella, Garden City Field, and Hurricane Creek (Big Horn, Shorts Creek, Danube, Yellowstone) Blocks in the United States; the Murzuq 162 Block in Libya; and the BCO III/BCS 11/BLT I Blocks in Chad. CPC is preparing to sign an agreement with ConocoPhillips for participation in the Shalimar Block in the U.S., and due diligence has been performed for the Agadem Block in Niger and the matter has been submitted to the Board of Directors for approval.



Block 16 and 17 in Ecuador; Sanga Sanga in Indonesia; and Caviar, Manahuilla, and Hurricane Creek the United States are under production. CPC drilled two wells as operator in Libya; both evidenced no signs of hydrocarbon. The Benoy-1 well is currently being drilled in Chad. In Block 16 in Ecuador, operations included 156 producing wells along with the completion of 77 workover wells and 17 drilling wells; in Block 17 in Ecuador, operations included 27 producing wells and completion of 18 workover wells and 6 well drillings. Indonesian operations included 610 producing wells along with 48 development and 4 workover wells in the Sanga Sanga field. CPC was allocated a total of 4.46 million barrels of oil and 401 million cubic meters of natural gas from the wells in Ecuador, Indonesia, and the United States during this year.

On land in Taiwan, in 2010 CPC completed 693.88 kilometers of seismic testing and 60 square kilometers of geological surveys, and drilled 3 wells. There are currently 39 natural gas wells in the Tiezhenshan, Qingcaohu, Jinshui, Chuhuangkeng, and Guantian fields, producing a total of 428 million cubic meters of natural gas and 14,500 kiloliters of condensate.

In offshore operations, the Oil Field Development Investment Proposal for the F Structure offshore of Kaohsiung was postponed for two years due to the huge boost in investment cost resulting from the sharply rising international price of crude oil and the resulting increase in the cost of offshore development equipment during the year 2006-2008. A revised proposal was approved at the end of May 2010. Project management and preparatory work for related tender documents is being carried out, and the project is expected to go into operation in 2014. About 1,800 square kilometers of 3-D seismic surveys are planned for the F Structure and neighboring areas.

In the field of cross-straits cooperation, the Tainan Basin and Choshan Sub-basin Petroleum Contract is continuing to be carried out and negotiations are under way for the Nanri Island Basin petroleum Contract.

In its future strategic deployment, CPC will seek to create a more promising situation in overseas exploration and production by heightening the value of its existing overseas oil and gas field assets and establishing core areas with high rates of growth, participating actively in bidding for open blocks, seeking opportunities to take over fields from large oil companies, and pursuing opportunities for M&As in new oil and gas fields so as to add more to our company's reserves.

# | Cpc's Overseas Cooperative Exploration Fields |

## USA

**Manahuilla**  
OPIC Interest:18%  
Operator:Ventex

**Caviar**  
OPIC Interest:15%  
Operator:Yuma

**Garden City Field**  
OPIC Interest:15%  
Operator:Dynamic

**Hurricane Creek**  
OPIC Interest:10%  
Operator:El Paso

**Estrella**  
OPIC Interest:15%  
Operator:EnerVest

## Venezuela

**Gulf of Paria West**  
OPIC Interest:10%  
Operator:PPSA  
(Corocoro, OPIC Interest:6.5%)

**Gulf of Paria East**  
OPIC Interest:7.5%  
Operator:PPSA

## Ecuador

**Block 16**  
OPIC Interest:31%  
Operator:Repsol-YPF

**Block 17**  
OPIC Interest:30%  
Operator:PetroOriental

## Chad

**BCOIII/BCSII/BLTI**  
OPIC Interest:70%  
Operator:OPIC

## Indonesia

**Bulungan**  
OPIC Interest:20%  
Operator:Eni

**Saga Sanga**  
OPIC Interest:20%  
Operator:VICO

**Saga Sanga**  
OPIC Interest:16.67%  
Operator:VICO

**Amborip VI**  
OPIC Interest:24.5%  
Operator:COP

**Arafura Sea**  
OPIC Interest:24.5%  
Operator:COP

## Australia

**AC/P21**  
OPIC Interest:30%  
Operator:Eni

**NT/P76**  
OPIC Interest:40%  
Operator:SIPC

## Libya

**Murzuq162**  
OPIC Interest:100%  
Operator:CPC



# Downstream Operations

## Importation & Refining

As only an extremely small amount of crude oil is produced in Taiwan, almost all of the crude that is refined by CPC has to be imported. To assure the stability of crude oil supplies, our company not only purchases over half of its crude oil through long-term contracts but also makes efforts to diversify its sources. Imports of crude oil in 2010 totaled 158.45 million barrels; 67.33% of the total came from the Middle East and the rest from Southeast Asia, 0.82%; Africa, 26.68%; Australia, 2.87%; and Central Asia, 2.3%. In recent years, the volume of low-sulfur crude oil has been increasing steadily in line with the growing stringency of domestic environmental protection standards.

To receive the oil it imports, CPC has mooring buoys for large tankers offshore at the Shalung terminal in Taoyuan County and Talinpu terminal in Kaohsiung City, and has oil tanker docks at Kaohsiung, Taichung, and Shenao harbors. our company also possesses a considerable tanker fleet in order to secure oil transportation tonnage and stabilize shipping costs; the fleet consists of one 260,000-ton tanker, three 150,000-ton tankers, one 100,000-ton tanker, and two 40,000-ton tankers. In total, oil shipped by CPC's own fleet in 2009 amounted to 3.88 million tons.

CPC's three existing refineries, one each in Kaohsiung, Taoyuan, and Dalin, have a combined daily capacity of 720,000 barrels. The Kaohsiung Refinery, which has the longest history of the three, is a large integrated oil refining and petrochemical production facility featuring a complex production process and a complete range of equipment. It has a capacity of 220,000 barrels of crude oil per day. The Dalin Refinery, which split off from Kaohsiung to become independent in 1996, has four offshore mooring buoys as well as both large and small docks for the unloading and loading of crude oil and petroleum products. It has a topping capacity of 300,000 barrels per day. The Taoyuan Refinery was established in 1976, and following some de-bottlenecking renovations and the addition of a second distillation plant, currently has a daily capacity of 200,000 barrels of crude oil. For CPC, the total output of petroleum products in 2010 amounted to 9,065,002 kiloliters of gasoline, 6,557,739 kiloliters of diesel fuel, 6,835,448 kiloliters of fuel oil, and 475,642 metric tons of liquefied petroleum gas.

In response to increasingly stringent demands in regard to the environment and the quality of life by the people of Taiwan, and their continuously diversifying needs for petroleum products, CPC has moved to improve the quality of its petroleum products and enhance its production value in recent years by building a large number of refining and production facilities such as units for reforming, isomerization, TAME, gasoline, diesel fuel hydrodesulfurization, aviation fuel processing, N-paraffin processing, alkylation, and heavy oil conversion. These facilities are designed to supply Taiwan's people with better petroleum products as well as to enhance production efficiency.



CPC is responding to the Environmental Protection Administration's announcement of medium- and long-term domestic environmental protection standards for petroleum products—a reduction of the sulfur content of gasoline and diesel to under 10ppmw and of the aromatics content to under 35vol%, and a lowering of the olefins content of gasoline to under 18vol% by 2011—by working to achieve the goal of supplying of gasoline and diesel with a sulfur content below 10ppmw in 2011. To this end our company completed construction of a 30,000-barrels-per-day cracked gasoline hydrodesulfurization plant at the Taoyuan Refinery In 2008, a 20,000-barrels-per-day cracked gasoline hydrodesulfurization plant at the Dalin Refinery in 2009, and a 40,000-barrels-per-day diesel hydrodesulfurization plant, also at the Dalin Refinery, in 2010. our company also continued work on the relocation of the 18,000-barrels-per-day cracked gasoline quality-upgrading plant from the Kaohsiung Refinery to the Dalin Refinery.

In addition, our company plans to boost its heavy-oil conversion ratio by building an 80,000-barrel-per-day heavy-oil conversion plant at the Dalin Refinery (with construction beginning in 2006), and a 70,000-barrel-per-day heavy-oil desulfurization plant and related hydrogen/sulfur recovery unit at the Taoyuan Refinery (with construction being suspended for two years, however, because of cost inflation). This plant will be the only domestic supply for low-sulfur fuel oil and has been re-evaluated for rebuilding again at an adjusted cost of NT\$39.4 billion. Also, to improve the quality of its gasoline, CPC plans to build a 14,000 barrel-per-day alkylation plant, designed to process a mixed butylenes feedstock from the RFCC plant, at the Dalin Refinery.

To deal with the excessive production capacity for gasoline and diesel fuel following the liberalization of the domestic market, CPC has made efforts to readjust and improve its refining structure to conform to market needs and trends and to increase its ratio of heavy-oil conversion in order to optimize its oil production. our company is also working constantly to lower its refining costs. our company 's total exports of major petroleum products in 2010 amounted to approximately 4.435 million kiloliters, with shipments going to Vietnam, Singapore, New Zealand, Australia, and mainland China, CPC will continue developing export markets in order to achieve maximum benefit for our company.



## Petrochemical Production

The main bases for CPC's petrochemical production are the Kaohsiung Refinery and Linyuan Petrochemical Plant. The latter operates under the Petrochemical Business Division, which was established on Sept. 1, 2000, and utilizes a full set of facilities including naphtha cracking, butadiene and aromatics extraction, xylene separation, transalkylation, and isomerization units. Annual petrochemical capacity includes 1,080,000 tons of ethylene, 725,000 tons of propylene, 173,000 tons of butadiene, 492,000 tons of benzene, 560,000 tons of para-xylene, and 130,000 tons of ortho-xylene.

In response to the opening of the market to competition, CPC has set up a Petrochemical Business Division and is promoting the establishment of a petrochemical products logistics center with the aim of carrying out vertical integration with mid- and downstream petrochemical operators while using flexible competition strategies to develop trade in petroleum products and strengthen market competitiveness. To narrow the gap in the supply of petrochemical raw materials and enhance the quality of industrial safety and environmental protection, as well as to expand the scale of production through the renewal of production processes, CPC



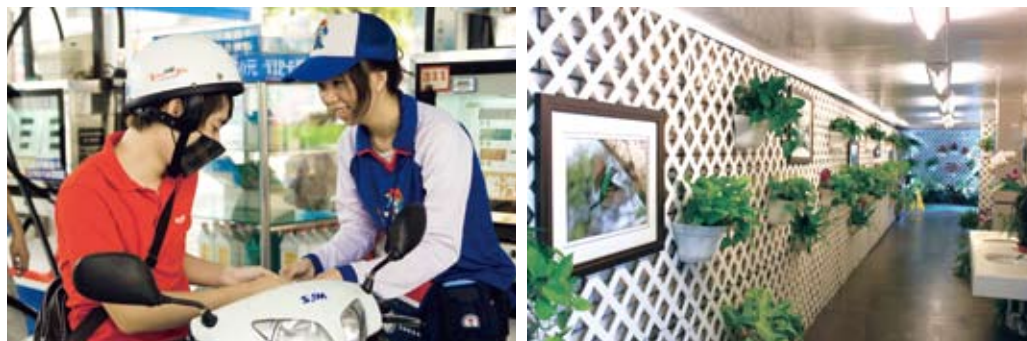
has initiated a "Third Naphtha Cracker Renovation and Expansion Project" at the Linyuan petrochemical complex. This project will cost an estimated NT\$37.9 billion and will give the naphtha cracker an annual capacity of 720,000 tons of ethylene, 430,000 tons of propylene, 100,000 tons of butadiene, and 220,000 tons of benzene. The project will also revamp the existing Fourth Aromatics Plant and auxiliary facilities. When the project is completed in 2013 it will generate an annual production value of NT\$60 billion, stimulate the willingness of other downstream companies to invest, and bring new prosperity to the petrochemical industry.

The Kuokuang Petrochemical Technology Co., established as a joint investment by CPC with the participation of petrochemical enterprises, began implementing related projects in 2006. The location of the Kuokuang Petrochemical Technology project has been switched to Changhua because of the difficulty of obtaining the agreement of landowners and local governments at the original site. The project is currently being promoted as a major national investment project, with full government support. This, too, will encourage the domestic petrochemical industry to keep its roots in Taiwan and stimulate the overall development of the economy.









## Marketing

CPC's Marketing Business Division is responsible for the domestic sale of oil products, mainly automotive gasoline, aviation fuel, diesel fuel, and fuel oil. Total sales of oil products in 2010 amounted to 21,271 KKL, up 5.4% from the year before, and total revenue from oil sales was approximately NT\$454.5 billion, an increase of 20.4% over the year before. Automotive gasoline accounted for the largest portion of total sales, with about 42.5%, followed by fuel oil with about 26.2%, diesel fuel with about 24.3%, and aviation fuel with 7.0%.

In terms of marketing channels, Taiwan's market for oil products is divided between CPC and the Formosa Petroleum Co., and competition between the two is increasingly intense. CPC has worked hard to express the advantage of its marketing network and assure its market share by consolidating its filling-station network; of the 2,633 filling stations operating in Taiwan at the end of 2010, 646 were operated by CPC directly, 16 were operated cooperatively by CPC with other parties, and 1,369 were privately operated franchise stations (for a total of 2,031 CPC stations). This network gave CPC control of more than 70% of the market. our company 's shares of the gasoline, aviation fuel, diesel fuel, and fuel oil markets were 73.9%, 64.7%, 85.0%, and 93.1%, respectively.

In the area of storage and transportation, in addition to its network of gasoline stations CPC also supplies fuel needs in different areas by operating aviation fueling stations at the Taoyuan, Taichung, Hualien, Taitung, Kaohsiung, Kinmen, and Magong airports and by maintaining 35 fishing-harbor filling stations around the island. At the end of 2010 CPC had 14 petroleum supply centers, at Keelung, Shimen, Hsinchu, Taichung, Taichung Harbor, Wangtian, Minxiong, Tainan, Fengde, Qiaotou, Suao, Hualien, Huxi, and Kinmen & Matsu (part of the oil supply center), to supply the oil products needed by filling stations in those different areas. A total of 20,889 KKL of oil was delivered from these centers in 2010. There are also three chemical analysis centers, in Keelung, Taichung, and Kaohsiung, along with seven laboratories, charged with the testing of oil products and the control of quality. Together, they tested 51,568 samples during the year.

In the operation of filling stations, CPC seeks to upgrade customer satisfaction and lead the market through "differentiation of services" and "the service advantage." The Marketing Business Division asks our company 's directly operated filling stations throughout Taiwan to provide high-quality services, create a clean-toilet culture, implement customer experience management, vigorously promote CPC VIP card, and carry out customer relationship management. To reduce operating costs and resolve the problem of insufficient filling-station manpower, our company took the lead in introducing self-service credit-card gas-tank filling. At the same time, all filling stations under CPC banner are asked to promote complex operations, offer diversified services, and strengthen cross-industry strategic alliances in order to generate non-core income.



## Natural Gas

Based on the advantages offered by natural gas--high efficiency, lack of pollution, safety, and convenience— CPC has moved in line with the policy goal of energy diversification and is following up on the completion of Taiwan's first liquefied natural gas (LNG) receiving terminal in 1990, at Yongan Township in Kaohsiung County, inaugurating a new era in the supply of clean energy in Taiwan. After that, along with the rapid growth of the domestic economy, the steady increase in energy demand, and the rise of environmental consciousness, CPC carried out an expansion project at the receiving terminal, completed in December 1996, boosting its annual handling capacity to 4.5 million metric tons. To satisfy the future demand for natural gas by independent power plants and by towns in northern Taiwan, CPC initiated a third-stage expansion project in July 1996; in addition to expansion work in the terminal area, our company established a Taiwan precedent by laying a 36-inch diameter, 238km long-distance undersea pipeline from Yongan to Tongxiao. Completion of the pipeline in December 2002 expanded CPC's handling capacity for LNG to 7.44 million tons per year.

To accommodate the Taiwan Power Co.'s natural-gas-fired Datan Power Station project, CPC used its years of experience in natural gas operations to achieve the signing of a natural gas supply agreement with Qatar, which offers the most competitive prices. By making flexible use of the advantages provided by its existing pipeline distribution system and other factors, CPC won the procurement bid for Datan's natural gas supply in July 2003. Under this agreement, CPC will supply 1.68 million tons of LNG to Datan annually for 25 years, consolidating our company's position as the sole medium- and long-term supplier of natural gas in the domestic market. On Sep. 13, 2005 CPC signed an LNG supply agreement with RasGas II of Qatar; the agreement runs for 25 years, from 2008 to 2032, and calls for the delivery of 3 million tons annually, mainly to supply the Datan Power Station and the growing domestic demand for gas.

To meet the first-stage goal of supplying gas for use by Taipower's Datan Power Station beginning in 2008, and the second-stage goal of completing storage tanks and related gasification and gas supply facilities by the end of 2009 in order to supply the demands of independent power plants, industrial customers, and city gas users in central and northern Taiwan, CPC is carrying out the construction of an LNG receiving terminal with a yearly capacity of 3 million tons in Taichung. This project, costing a projected NT\$31.5 billion, is being developed at west dock No. 13 in Taichung Harbor as well as inland; it includes three 160,000-kiloliter LNG 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 station to the Datan measuring station, along with related facilities. The pipeline began operating on July 13, 2009.







To make flexible use of its facilities to achieve stability of gas supply and demand in the market, CPC has constructed a transmission and distribution system in western Taiwan that includes 1,757 kilometers of trunk pipelines, 36 distribution stations, and 1,471 kilometers of regional loop transmission networks belonging to eight supply centers. our company 's planning of gas pipelines is oriented toward the construction of loop networks. It has already completed the laying of approximately 500 kilometers of trunk pipeline on land as well as approximately 238 kilometers of undersea pipeline from Yongan to Tongxiao, forming a comprehensive loop pipeline network for central and southern Taiwan. In addition, after the 36-inch undersea pipeline from Taichung Harbor through Tongxiao to Datan in Taoyuan County enters service it will form a loop transmission network together with on-land pipelines in central and northern Taiwan, completing a "figure 8" gas transmission network.

CPC has worked to assure a stable supply of gas by diversifying its sources and its own deployment. On Feb. 29, 2008 our company signed a key term agreement for the procurement of LNG with Woodside of Australia, and the two companies will further negotiate a purchase contract based on the agreement. Furthermore, CPC signed an LNG supply agreement on March 2, 2010. The agreement runs for 20 years; beginning in late 2013 or early 2014, it calls for the delivery of 1.2 million tons annually from Papua New Guinea.

In 2010 CPC sold a total of 14.06 billion cubic meters of natural gas, mainly for domestic power generation, co-generation, industrial, and household use. our company imported LNG mainly from Indonesia, Malaysia, and Qatar through long-term procurement contracts; the rest was procured through master agreements with the Republic of Trinidad and Tobago, Egypt, Nigeria, and other suppliers under the objective of stabilizing supplies and diversifying sources.



## Other Business



Taiwan's domestic market has long been open to free competition in the field of lubricants, and in recent years major international petroleum companies have rushed in to compete through M&As, integrated marketing channels, and cost reductions. As a result, competition has become ever more intense. Further, the rapid economic growth of the Asia-Pacific region has stimulated demand in the lubricants market, where China and Southeast Asia, particularly, have become favored bases for deployment for international petroleum companies.

CPC's Kuo-Kuang brand lubricating oil leads the domestic market with a share of more than 30%. our company's Lubricants Business Division espouses an operating strategy of "consolidating domestically, expanding overseas," adopting a twin-brand (Kuo-Kuang and Mirage) marketing strategy in the domestic market while vigorously promoting quality services, reinforcing marketing channels, expanding auto and motorcycle repair and garage channels, and using differentiated products and timely services to satisfy customers' needs. The main target strategies in overseas markets are to operate brands and distribution channels, carry out direct exports and multifaceted trade businesses, and promote the lubricating oil and base oil businesses; serve the successful business system of overseas Taiwanese enterprises in the Asia-Pacific region and deploy Kuo-Kuang brand marketing channels, having already successfully entered the markets of mainland China, Vietnam, Indonesia, the Philippines, and other Southeast Asian countries; and use a quality product image, reasonable pricing, and stable supply to establish a beachhead in Asia-Pacific markets for vehicle maintenance oils and industrial oils.



In the field of liquefied petroleum gas, after the government opened the free import of LPG in 1999, the Formosa Petrochemical Corp. entered the ranks of production and independent traders began importing supplies, ending CPC's monopoly and exposing the market to free competition.

As a government enterprise and the primary supplier, CPC is charged with the mission of enhancing operating performance while providing sufficient supplies of LPG to the domestic market. In the field of household gas, CPC's LPG Business Division makes full use of its quality advantage and fully utilizes its north-south transport and storage system as well as its comprehensive marketing network to consolidate the market. In the area of industrial gas, our company works to strengthen customer service so as to retain existing customers and develop new ones. Furthermore, the LPG Business Division is planning to develop and expand international trading so as to create more overseas sales channels in response to increasing market competition in Taiwan. It also strives to keep a full understanding of price movements in the international LPG market and to choose the best times to import and export so as to lower the cost of procurement and expand exports, thereby creating maximum profit, coordinating with the government's safety reserve policy, and heightening the rate of turnover in storage tanks. Our company assists operators in promoting the conversion of automobiles to the use of LPG and in installing more LPG filling stations so as to reduce CO<sub>2</sub> emissions and improve air quality in urban areas. CPC also strives to strengthen occupational safety and environmental protection and engages constantly in good-neighbor work so as to fulfill, under the precondition of safe operation, its mission of providing abundant supplies of LPG to the domestic market while creating a good operating performance.



In the field of solvents and chemicals, CPC holds 65%-75% of the market for self-produced solvents, 40%-50% of the market for toluene, 40%-50% of the market for xylene, and 40%-45% of the market for methanol. Of the total annual domestic production of 700,000 tons of asphalt, CPC accounts for 500,000 tons; of total sulfur production of 660,000 tons, CPC turns out 220,000 tons.

To reach its operating goals, CPC's Solvent and Chemical Business Division is actively promoting quality services and nurturing sales channels; expanding planned exports and developing markets in Vietnam, mainland China, and other areas; enhancing product quality and image; continuing the improvement of processes and the reduction of costs; and striving for the development of new products and new businesses. Furthermore, CPC's Solvent and Chemical Business Division is responsible for the marketing of bio-products developed by CPCBio, which has built on its experience in microbial fermentation technology and combined the use of modern biotechnology in expanding into biological materials, functional health foods, and green biotechnology, producing high-quality bio-products at reasonable prices.





# Perseverance

Multidimensional protection is our constant commitment.

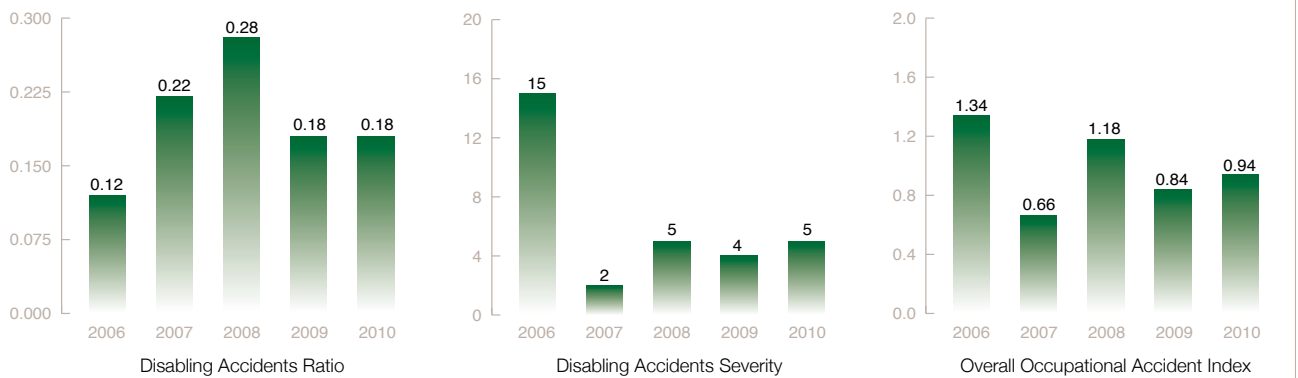
- ⌘ Industrial Safety & Health
- ⌘ Pollution Prevention & Environmental Protection
- ⌘ R&D and Information Management
- ⌘ Human Resources

# Industrial Safety & Health

Since both petroleum and natural gas are easily combustible, CPC has always placed extreme emphasis on industrial safety, health, and fire control in order to ensure the smooth execution of production operations as well as to assure the safety of the lives and property of employees and residents in communities around plants and wells. In addition to operating in accordance with domestic laws and regulations, CPC also establishes safety and fire rules, in reference to regulations in the advanced countries of Europe, America, and Japan, which conform to conditions in the Taiwan area and the characteristics of CPC's own business.

Industrial safety is the foundation of company development. To achieve the goal of "100% industrial safety and zero accidents," CPC holds to a policy of "safety discipline and thorough inspection, health promotion and responsible care, risk management in system operation, and continuous improvement and sustainable operation" in the constant upgrading of the safety culture. our company 's industrial safety performance is recognized not only at home but internationally as well, as manifested in its receiving a plaque from the World Safety Organization in 2005.

## CPC Occupational Accidents over the Past Five Years



The key points of CPC's industrial safety and health operations at the present time are as follows:

- Implementation of the Taiwan Occupational Safety and Health Management System (TOSHMS), and continuous improvement of the operating environment.
- Strengthening of the safety management of contractors and establishment of contractor autonomy so as to reduce contractors' occupational hazards.
- Scheduled review of industrial safety and health regulations, and continuous review and amendment of standard operating procedures.
- Strengthening of industrial safety management, holding of scheduled employee health examinations, analysis and follow-up of physical examination information, promotion of health improvement, and emphasis on the mental health of employees.
- Implementation of risk management and equipment integrity operations, establishment of equipment safety management processes, thorough implementation of the oil tank and pipeline inspection function, and establishment of a long-distance oil & gas pipeline monitoring and leak detection system.
- Strengthening of fire-fighting management, organization of a professional team, and guidance of the different units in carrying out fire-pump function testing. Five fire-safety technical manuals have been published.
- Implementation of graded on-site safety inspections and continuous improvement, through safety observation, on the systemic, management, and execution levels.
- Strengthening of industrial safety inspections including "management by walking around" by ranking officials, professional industrial safety inspections, and pre-startup inspections of new and renovated factories. All deficiencies that are discovered are followed up through the information system and improved.
- Planning and implementation of various kinds of safety-environment training and education, establishment and provision of online study courses and an industrial safety test-question databank, and compilation and publication of accident case studies.
- Reinforcement of the functions of the Safety Information Center, lending of materials for reading, and provision of an Internet data inquiry service system.



# Pollution Prevention & Environmental Protection



To fulfill its corporate social responsibility and uphold the spirit of sustainable development, CPC is engaged in a long-term effort to improve wastewater, air, noise, solid waste, and groundwater pollution issues. In recent years our company has also carried out carbon dioxide emission inventory and reduction work, and has adopted best available technology (BAT) and equipment for all new investment projects so as to lessen the pollution caused in production, transportation, and storage processes. CPC also works actively to enhance the quality of petroleum products and achieve the goal of protecting the general environment.

CPC thoroughly carries out an environmental policy of "pollution prevention, employee participation, and constant improvement," and has invested more than NT\$50 billion in environmental protection since 1989. Since 1995 our company has promoted the establishment of ISO 14001 environmental management systems in all units, and 20 units had passed certification by the end of 2009. A company-wide environmental accounting system was set up in 2004 to constantly enhance the performance of environmental improvement.

Although Taiwan is not a signatory of the agreement on greenhouse reduction signed in 1997 (the Kyoto Protocol), in line with future international environmental trends CPC strives to reduce greenhouse gas emissions throughout our company. It has set carbon dioxide reduction targets and timetables for existing plants and carries out emissions-reduction measures by using low-carbon fuel, conserving energy, improving equipment efficiency, and reducing waste. To cope with global climate change and fulfill its corporate social responsibility, CPC completed a company-wide inventory of greenhouse gases in 2005 and is carrying out an ongoing CO<sub>2</sub> reduction plan. The target for CO<sub>2</sub> emission reduction was 1 million tons by 2009, and the actual amount of reduction reached 1,220,000 tons. The goal of CO<sub>2</sub> emission reduction is 650,000 tons during the period of 2010 to 2015.

As part of its environmental education activities, CPC held a campaign, dubbed the "Eco-Day Walk," in the Kaoping River Mangrove Reserve to promote the principles of protecting the environment and treasuring native resources through ecological experience and learning, and to appeal to the public to care for the local ecology. In the future CPC will continue to show its concern for local development by adopting parks, mangrove forests, streams, and endangered species of plants and animals. our company will also help with cleaning up the environment on both land and sea so as to leave a clean living environment for future generations.



### Comparison of CPC Refinery Environmental Quality with National Standards

#### ❖ Effluents

Item	Year	Performance in 2010	National Standard
COD (ppm)		62*-100	100
Oil (ppm)		< 5	10
SS (ppm)		< 30	30

\*monthly average

#### ❖ Emissions

Item	Year	Performance in 2010	National Standard
SOx (ppm)	Gas fuel	< 20	100
	Liquid fuel	< 250	300
NOx (ppm)	Gas fuel	< 100	150
	Liquid fuel	< 200	250
TSP (mg/Nm <sup>3</sup> )	By emission rate	20-100	< 25-500

#### ❖ Noise

Item	Year	Performance in 2009	National Standard
Night limit (decibels)		< 55	55



### CPC Utilization of Resources, Production of Pollutants, and Production Value

Input (crude oil)	175.4	million bbl/yr
Fuel Oil	640,742	KL / Y
Fuel Gas	864,056	KS / Y
Natural Gas	673	million KS / Y
Purchased Water	24,208,120	T / Y
Purchased Electricity	1,478,087,431	KWH / Y
Recovered External Waste	404	T / Y

Employees: 14,871

Land: 2,876 hectares

Capital: NT\$130.1 billion

Income	NT\$ 934 billion/yr
Gasoline	9,058,000 kiloliters/yr
Diesel Fuel	6,644,000 kiloliters/yr
Fuel Oil	7,803,000 kiloliters/yr
Ethylene	1.09 million T/Y
CO <sub>2</sub>	10,166,199 T / Y
NO <sub>x</sub>	6,516 T / Y
SO <sub>x</sub>	6,271 T / Y
TSP	801 T / Y
Waste Gases	305,900 T / Y
COD	811 T / Y
Waste Water	16,033,023 T / Y
Garbage	55,105 T / Y
Paybacks	NT\$ 441.5 million /yr
Safety Incidents	2 /yr

0.567 CO<sub>2</sub> (Ton) / tons product

323 CO<sub>2</sub> (Ton) / million revenue

■ Equivalent energy consumption per unit for refineries:

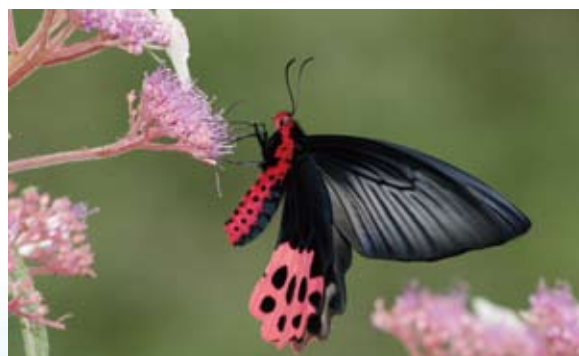
340 kkal/kl crude

■ Average equivalent energy consumption per unit for petrochemical plants:

7,945 kkal/MT ethylene

### CPC Greenhouse Gas Ecology Indexes

Index	2005	2006	2007	2008	2009	2010
1. Annual Income/(whole-year/FOE) (NT\$/ton)	180,598	183,196	219,708	380,162	229,338	253,101
2. Annual Income/(whole-year CO <sub>2</sub> emissions) (NT\$/ton)	56,819	62,648	72,920	83,585	54,083	68,309
3. Income/(whole-year COD) (NT\$/ton)	751,667,823	1,261,839,820	1,261,936,837	1,552,743,754	1,191,599,080	1,317,029,873
4. Income/(SOx+NOx+TSP) (NT\$/ton)	29,586,780	31,188,266	38,520,029	51,046,897	33,460,062	38,553,814
5. Income/(emissions+waste water+solid waste) (NT\$/ton)	42,819	46,363	52,023	69,869	47,057	53,828
6. Income/(purchased electricity) (NT\$/KWH)	849	882	958	724	465	757



Since January 2000 CPC has coordinated with the government's environmental protection policy by ending the supply of leaded gasoline and making all gasoline lead free. At the present time, all gasoline produced by CPC conforms to the environmental quality standards of the advanced countries. In June of 2004 CPC lowered the sulfur content of its diesel fuel from 375ppmw to 50ppmw, and introduced 50ppmw high-grade gasoline on Jan. 1, 2007. CPC introduced bio-diesel on July 27 and gasohol on Sep. 29, 2007, and has supplied B1 biofuel island-wide since September 15, 2008. In addition, all filling stations belonging to CPC have installed vacuum assist vapor recovery hoses, and storage tanks have also been equipped with vapor-recovery systems. These facilities help to improve air quality by recovering more than 3,200 kiloliters of gasoline vapor per year, thus reducing the release of volatile organic hydrocarbon into the atmosphere by that amount.

Through years of constant effort the quality of Taiwan's petroleum products has been upgraded until today it compares with that of Japan, the United States, and other advanced countries. However, CPC is not satisfied with these achievements. In the future our company will use the "new environmental standards for petroleum products" of the advanced countries as its benchmark in the ongoing pursuit of ever-better quality. With a love for home and environment in mind, CPC will continue to employ the newest pollution prevention technology, constantly enhance environmental protection performance, pursue sustainable development, and share in the health and prosperity of the people of Taiwan.

# R&D and Information Management

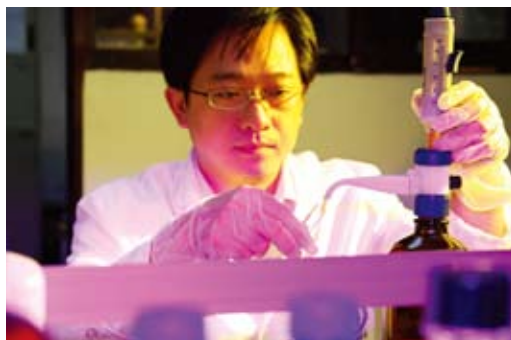
Research and development has always been the driving force behind CPC's technological innovation, business development, and sustainable growth. In general, the Planning Division is responsible for the overall planning and implementation of R&D work, while the Exploration and Production Research Institute in Miaoli and the Refining and Manufacturing Research Institute in Chiayi are responsible for research in their respective fields. In addition, other production and business divisions have technology units that carry out on-site improvements and resolve production bottlenecks. CPC has devoted strenuous efforts to R&D over the years, and as a result has effectively reduced operating costs and increased revenues.

Faced with the intense competition of Taiwan's completely open market for petroleum products, CPC will continue using R&D to break through technological bottlenecks in refining and exploration and will coordinate actively with our company's operational plans in carrying out forward-looking research, developing new products, and opening up new businesses with the aim of strengthening its overall competitiveness.

our company's R&D spending in 2010 was approximately NT\$1.24 billion, yielding the following major results:

## Exploration and Production

- Establishment of an exploration and production knowledge base for overseas development on the CPC intranet.
- Completion of a comprehensive evaluation of the Enerplus Kirby Oilsands Project in Canada, and submission of a bid to acquire a 20% working interest in the Project.
- Completion of a study of Belize's offshore concession based on the comprehensive analyses of geological, geophysical, and geochemical data. A recommendation was made for withdrawal from exploration there.
- Completion of a comprehensive evaluation of hydrocarbon potential for 17 concessions (2008) in the Eastern Llanos Basin of Colombia. The results reveal that the CPO-9 and CPO-10 Concessions have a relatively high potential for hydrocarbon accumulation.
- Completion of a petroleum system study of Wulipai graben in Miaoli, Taiwan; a study of the fracture reservoir in the Fanpokeng Structure in Hsinchu, Taiwan; and evaluation of shale gas potential in northwestern Taiwan.
- Completion of a hydrocarbon potential evaluation and migration simulation in offshore Belize, Murzug 162 in Libya, and offshore A1/A4 in Gambia.
- Completion of a ground penetrating radar survey, resistivity imaging profiling investigation, and 3D analysis of subsurface TPH data on several KOR sites.
- Screening of development scenarios for Hsinchu/Miaoli offshore marginal oil and gas fields.
- Evaluation of CCS potential in 15 sizable on-shore structures. Their CO<sub>2</sub> storage potential was conservatively estimated at 2.8 billion tons. Five CPC on-shore gas fields have been chosen as candidate sites for CO<sub>2</sub> storage pilot testing.
- Establishment of a technique for the assessment of surfactants and oxidants, and its application to oil-contaminated site remediation.
- Acquisition of an NT\$47.2 million subsidy from the Economic Ministry's Petroleum Fund, and use of the money to conduct petroleum technology development research projects.





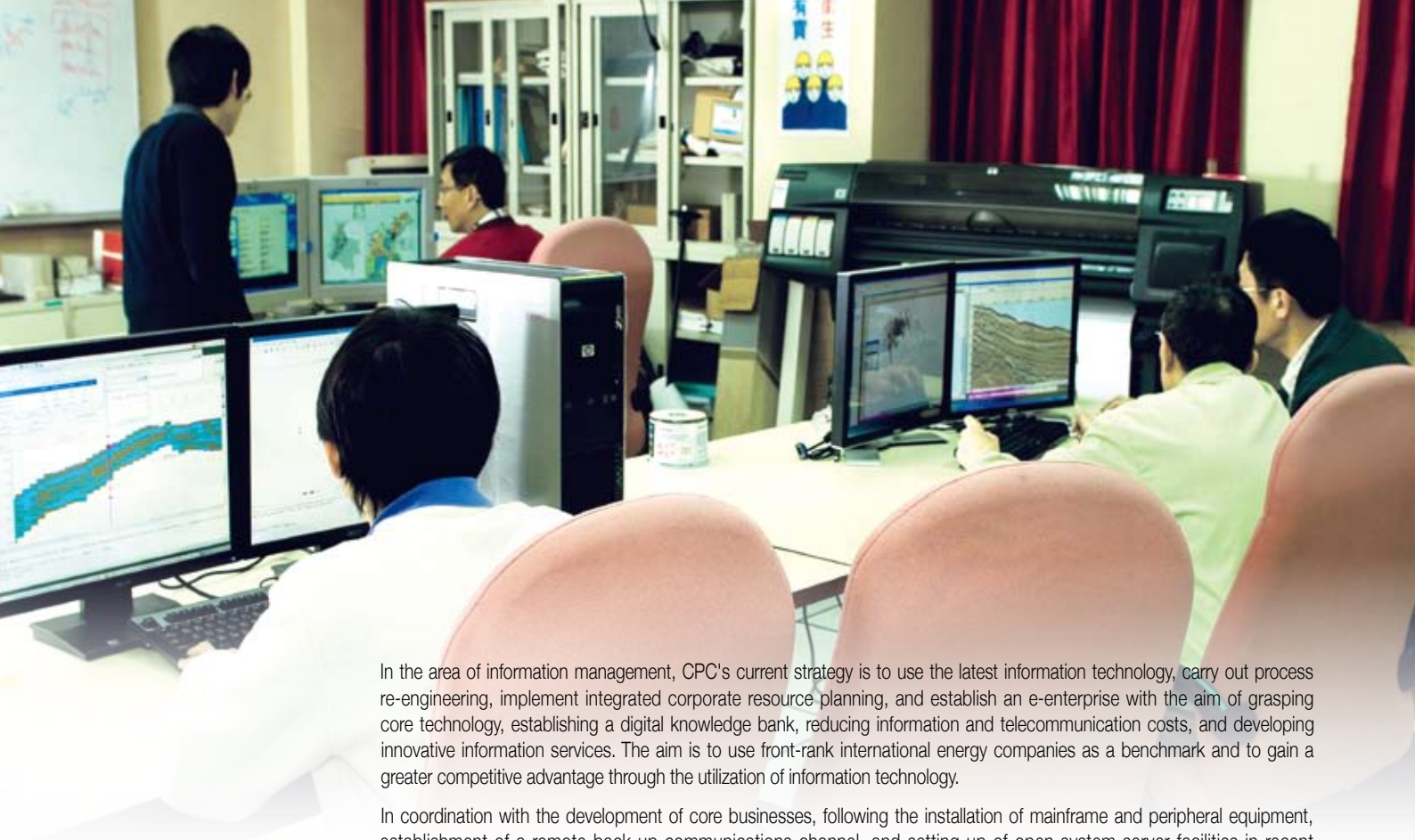


## Refining and Petrochemical Production

- Screened commercial catalytic cracking to increase plant gasoline yield \ hydrotreating catalysts to increase the diesel HDS and RDS plant cycle life and/or total life, and reforming catalysts and adsorbents recycling research.
- Developing a new commercialization process to updated an existed UOP aromatic extraction factory process, and it is the world's first BTX ED commercialization process successfully. And got the United States Patent US Pat.
- Applied Extraction of nitrogen removal process technology to solve the steel carbon benzene products unqualified problem instances, Got the United States Patent US Pat.
- Six new lubricating grease products are developed: 3 specialfor motorcycle API-SJ 4T SAE 10W/30 \ API-SJ SAE15W/40 \ API-SJ SAE10W/40 \ and No Twister Mill Oil NTM220 \ NTM460, Rubber softening oil (naphthenic type).
- Completed two lubricant products technology transfer--Cutting oil NC658, Rubber processing oil.
- Corportated with TJC companies for studying effectively PFAD ester (esterification) to produce biodiesel, providing corporate B100 production technical support needed.
- Established the soil and groundwater remediation technology in hydrocarbon- contaminated areas such as refinery, tank farm, gas station...etc.
- Established the hydrocarbon analysis and monitoring technology to trace the quality of air, water, soil and groundwater for refineries.
- Formulate and commercialize both Anti-Wrinkle Essence and GSH Bio-Cellulose Mask products for facial treatment.
- NAG production process development are signed with the Yung Shin pharmaceutical patents and intent for mass production process development.
- Study on Jatropha seed oil extraction efficiency and residue utilization of by-products.
- Conducted oil product and unknown analyses, to assure oil product quality and to identify the source of the problems.
- Established the new energy department to ahieve the aim of low-cost green diesel and biodiesel butanol production process technology to meet the full implementation of the 2016 B5 policies.
  1. Establishment of protein production scale-up platform.
  2. Broad production of high efficiency cellulase.
  3. Rice straw saccharification and alcohol fermentation techniques.

## Management and Energy Economics

- Completed a report on “Research on the relationship between oil product consumption & energy conservation and deduction of carbon dioxide emission” . Concerning:
  1. The impact of the MRT system on Taipei citizen's gasoline consumption and deduction of carbon dioxide emission(including consumer behavior analysis).
  2. The impact of the Taiwan High Speed Rail System on Taiwan's jet consumption and deduction of carbon dioxide emission.
  3. The impact of the “floating oil product price system” on Taiwan's gasoline consumption and deduction of carbon dioxide emission.
- Implemented the research on the planning strategy and management of CPC's land assets.
- Implemented the feasibility study of the expansion of LNG receiving terminal at Taichung Harbor and environmental impact assessment.



In the area of information management, CPC's current strategy is to use the latest information technology, carry out process re-engineering, implement integrated corporate resource planning, and establish an e-enterprise with the aim of grasping core technology, establishing a digital knowledge bank, reducing information and telecommunication costs, and developing innovative information services. The aim is to use front-rank international energy companies as a benchmark and to gain a greater competitive advantage through the utilization of information technology.

In coordination with the development of core businesses, following the installation of mainframe and peripheral equipment, establishment of a remote back-up communications channel, and setting up of open-system server facilities in recent years, CPC carried out an unannounced switch of the headquarters operating environment to the Kaohsiung Refining Unit's mainframe in 2006 in order to verify the feasibility and effectiveness of these new facilities. The two mainframes were formally integrated in April, 2007, capable of remotely backing up each other. This was the first such operation in Taiwan, and the results were exemplary. In 2010, a plan to upgrade the mainframe system software, along with a step-by-step virtualization and consolidation of major application servers, was initiated with an aim to establish a standard for data exchange and to provide a better application development environment.

Furthermore, to improve its network quality and dependability, CPC in 2006 began to install NG-SDH, the Next Generation Synchronous Digital Hierarchy system. Completed in early 2007, the system serves as the transmission back-up for the Neihu-Nanzih second-route backbone network and provides an effective MSTP, the Multi-service Transport Platform service. In 2010, new telecommunication development plans were carried out to improve the quality of video conference and to provide employees with integrated voice and media communication services. And with the existing network system and digital environment, and by combining mobile communication technologies and services, a foundational infrastructure will be built for mobile commerce.

At the same time, key mission information systems were developed and maintained, including the improvement of key information operating procedures, the closing of accounts on the first day of each month, the development and promotion of an integrated e-business system for oil products, and the strengthening of the POS system at filling stations and the diversified marketing network. A Refining and Petrochemical Information System was set up, production planning and oil accounting were integrated, an Exploration Information System was established, and the Exploration Management and Geographic Information System was integrated.

To meet the development of information, digitization, and globalization in the new century, CPC's overall information systems development will be founded on a complete ERP system, customer relationship management, enterprise intelligence, knowledge management, e-commerce, integration of corporate applications, management innovation, and information infrastructure. In the area of systems development, operating processes will be further integrated to reduce the time required to close monthly accounts and professional information technology will be used to enhance production performance. On the service side, customer relationship management will be enhanced through the provision of quality services, and virtual and physical service channels will be integrated to expand the industrial value chain. For employees, the newly implemented IT Service Management System will continue to provide real-time and transparent information service. In the utilization of business intelligence, knowledge management will be used to increase e-business capital and decision-making systems will be promoted to encourage application usage. In the field of information and communications, with the strengthening of the infrastructure environment, online services and mobile business will be further integrated. On the management side, CPC's information organization will be reinforced to enhance the performance of management. All process operations will be built on an open-system integrated IT resource operating platform and all of CPC's internal IT resources, processes, infrastructure framework will be synchronized in order to provide full support for competition in the market.

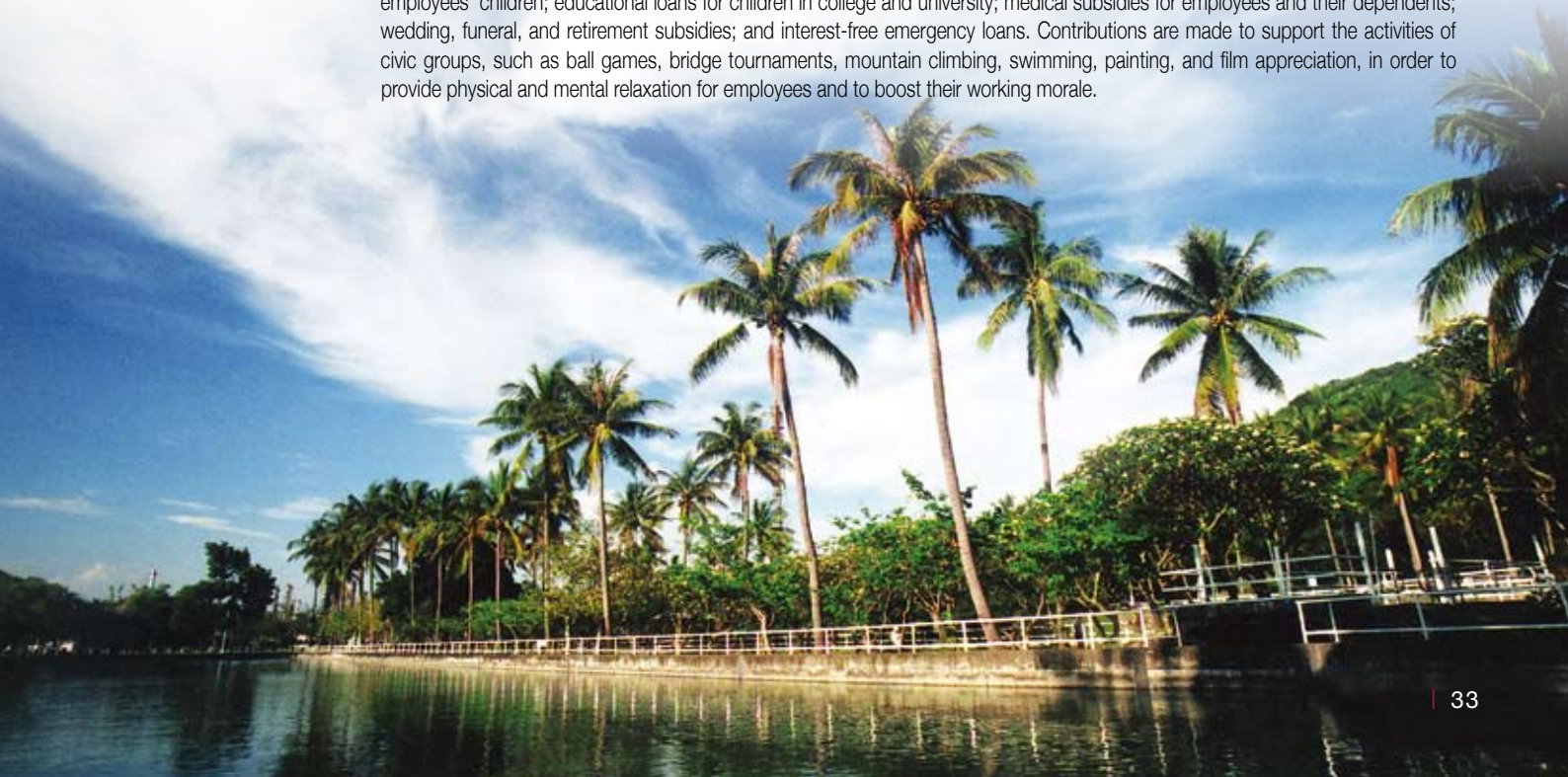
# Human Resources

CPC currently has a total of 14,871 employees. our company strives to develop the potential of its employees fully through long-term efforts at training and assistance, while at the same time strengthening incentive and welfare measures and pinpointing managerial talent with the aim of having its corporate development led by outstanding human resources.



In its use of manpower, our company has carried out continuous organizational and process re-engineering in recent years and has established personnel rotation rules in order to use its manpower effectively. It has also constantly recruited young professionals to inject new blood and bring about an overall upgrading of manpower competitiveness. To achieve its corporate growth targets, in addition to the consideration of necessary professional qualifications and character in the selection of executives, our company uses management and leadership development training to help the executives achieve their full potential. At the same time our company is strengthening on-the-job training at all levels, integrating existing training systems in the establishment of a Petroleum University, enhancing professional skills, and developing multi-skilled employees so as to facilitate manpower utilization. our company encourages its employees to participate in national skills qualification examinations and helps them to obtain needed industrial safety, environmental protection, and other certifications; and, in line with the need s of our company 's transformation, it strengthens second-skill training. In addition, employees are chosen on a regular basis to go abroad for advanced education, research, or internship, or to participate in seminars of various types in line with business needs.

In the area of work incentives and welfare, CPC awards bonuses of various kinds based on our company 's overall performance as well as on the contributions and job performance of individual employees. In addition, welfare committees organize all sorts of welfare and entertainment activities. All employees participate in national health insurance, civil service insurance, labor insurance, group life insurance, and accident insurance; in addition, consolation payments are made in cases of job-related injury, disability, or death. The different business units also run clinics, company restaurants, libraries, company stores, and other welfare facilities, along with swimming pools, ball fields, gymnasiums, and the like at their place of operation. In addition, there are scholarships for employees' children; educational loans for children in college and university; medical subsidies for employees and their dependents; wedding, funeral, and retirement subsidies; and interest-free emergency loans. Contributions are made to support the activities of civic groups, such as ball games, bridge tournaments, mountain climbing, swimming, painting, and film appreciation, in order to provide physical and mental relaxation for employees and to boost their working morale.

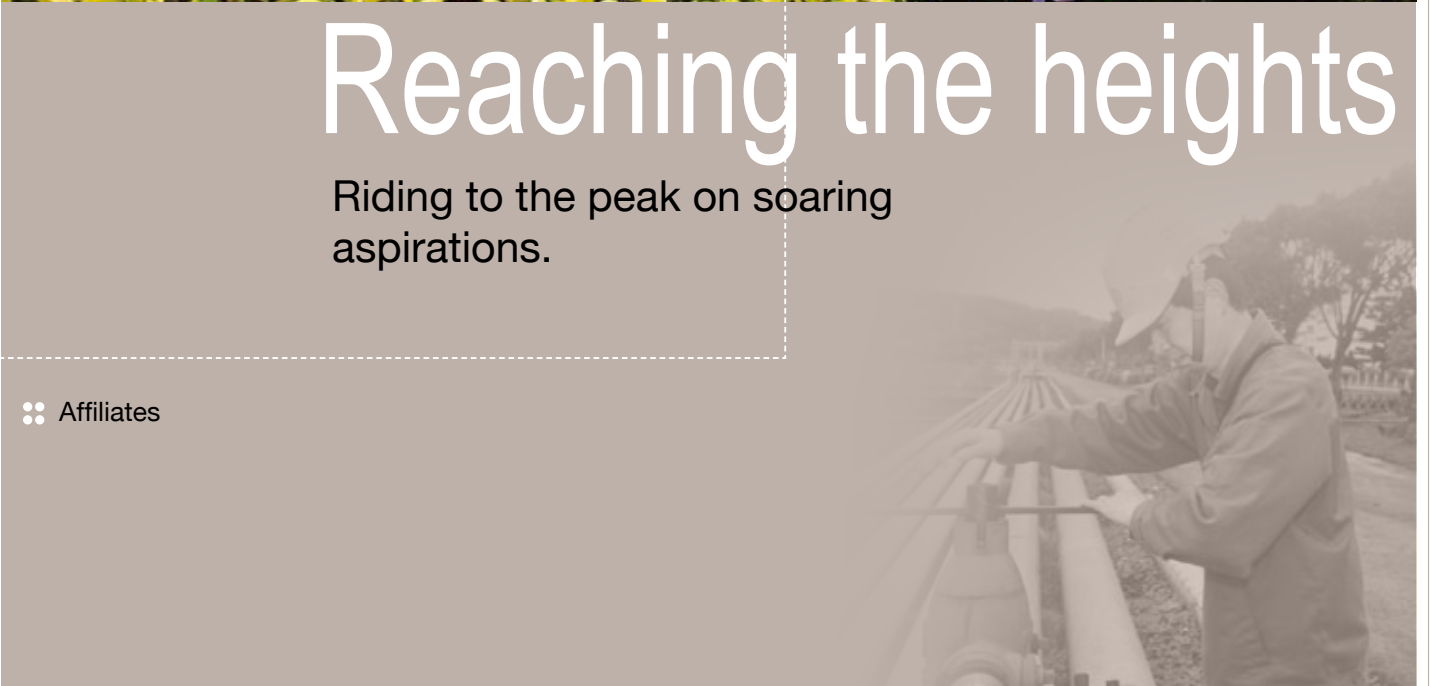




# Reaching the heights

Riding to the peak on soaring aspirations.

⌘ Affiliates



# Affiliates

CPC holds equity in numerous companies, both at home and overseas. The most representative of these are introduced below:

- KuoKuang Power Co. Ltd. (KKPC)

In line with the government policy of opening power plants to private operation in order to alleviate northern Taiwan's insufficiency of power supply, CPC and private investors have jointly established the KuoKuang Power Co. (with CPC holding 45% of the equity) and constructed a gas-fired power plant with an installed capacity of 480MW at Guishan Township in Taoyuan County. The plant began commercial operation on Nov. 3, 2003.

- China American Petrochemical Co. Ltd. (CAPCO)

Established in 1976, the China American Petrochemical Co. is the major supplier of purified terephthalic acid (PTA) to the polyester industry in Taiwan. The company is capitalized at NT\$6.88 billion, and its plants in Taichung and the Linyuan Petrochemical Complex in Kaohsiung have a combined annual capacity of 1.9 million tons. CPC owns 38.57% of the company's equity, including preferred stock.



- CPC-Shell Lubricant Co. Ltd. (CSLC)

CPC-Shell Lubricant Co., established in 1965, is located at CPC's Kaohsiung Refinery and produces mainly base oils, lubricants, and byproducts. CPC holds 49% of the company's equity.

- Dai Hai Petrol Corp. (DHP)

Established in 1994, the Dai Hai Petrol Corp. is headquartered in Haiphong, Vietnam and owns docks, receiving equipment, and liquefied petroleum gas (LPG) storage and distribution facilities with a capacity of 1,050 tons. It also operates two LPG filling stations, in Hanoi and Ha Tay. The company engages primarily in the storage, transport, and supply of LPG, asphalt, and other petroleum products in northern Vietnam. CPC owns 35% of its equity.

- Qatar Fuel Additives Company Limited (QAFAC)

The Qatar Fuel Additives Company Limited (QAFAC) was established in 1996 as a joint venture between CPC, Industries Qatar, LCY Middle East Corp. and International Octane Ltd. of Canada. QAFAC's plant is located in the Mesaieed Industrial Zone; it went on line on June 20, 2000, producing mainly methanol and methyl tert-butyl ether (MTBE). CPC holds 20% of the company's equity.

- Faraway Maritimes Shipping Co. (FMSC)

The Faraway Maritimes Shipping Co. was jointly established in 1997 by CPC and foreign partner Osprey; it built the LNG carrier Golar Mazo, which was delivered on Jan. 7, 2000 and went into service on the 15th of that month. The ship carries LNG purchased from Badak VI in Indonesia, completing 29 voyages in 2010. CPC owns 40% of the equity in the company.



● Chun Pin Enterprise Co., Ltd. (CPEC)

The Chun Pin Enterprise Co. was established by CPC (with 49% of the equity) and private investors to carry out construction of East Wharfs 4, 5, and 6, as well as E2-2-area storage tanks at the Port of Taipei, and to engage in the storage and transshipment of petroleum and petrochemical products. Formal operation started in May 2006.

● Kuokang Petrochemical Technology Co. (KPTC)

To facilitate the vertical upstream, midstream, and downstream integration of oil refining and petrochemical production, CPC and other domestic companies established the KPTC as a joint venture in 2006 as part of a Petrochemical Technology Zone Joint Investment Plan. The plan includes the construction of an oil refinery, olefin center, aromatic hydrocarbons center, mid- and downstream petrochemical derivatives plants, co-generation facilities, and industrial harbor. CPC's share of the investment is 43%.

● NiMiC Ship Holding Co., Ltd. (NSHC)

The NiMiC Ship Holding Company was jointly established by CPC, NYK, and Mitsui, and has four ship-owning companies under its umbrella. The four companies built four LNG tankers, which were delivered during 2009-2010, for the transport of LNG purchased from RasGas II in Qatar. CPC completed its share capital investment in the holding company on Oct. 31, 2008, giving it 45% of the company's equity.

● NiMiC Ship Management Co., Ltd. (NSMC)

The NiMiC Ship Management Company was jointly established by CPC and foreign partner NYK to handle the operation and management of four LNG tankers. CPC completed its share capital investment on Oct. 31, 2008, giving it 45% of the equity in the company.

● Ras Laffan Liquefied Natural Gas Company Limited II (RasGas II)

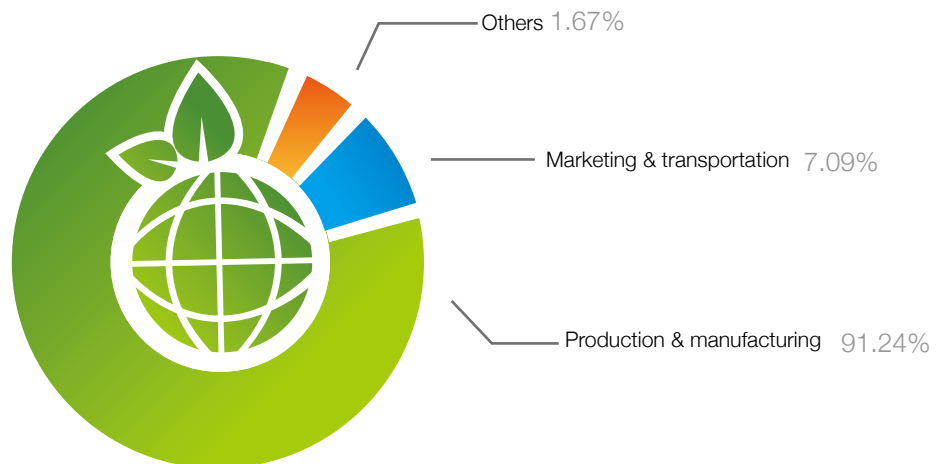
RasGas II was jointly established in 2001 by Qatar Petroleum and ExxonMobil RasGas Inc. The company's operations include natural gas production, liquefaction, and marketing. CPC completed an investment project on Sept. 18, giving it a 5% interest in RasGasII's Series B profit center.

# CPC Corporation, Taiwan \* Financial Statements

# 2011

Due to CPC revaluated its inventory after changing its valuation method from LIFO to the weighted-average method and it had a recovery from inventory loss amounting to NT\$28,392 million because of the rise in oil prices in 2009, CPC's income before income tax in 2010 has decreased 17.05% from the previous year to NT\$23,990 million.

The capital expenditure incurred in 2010 was NT\$29,231 million, a 21.59% increase from 2009. The breakdown of the expenditure was as follows:



The exchange rate between the NT dollar and the US dollar was 29.215:1 on December 31, 2010.

# Financial Statements

## STATEMENTS OF INCOME

FOR THE YEARS ENDED DECEMBER 31, 2010 AND 2009

(In Thousands of New Taiwan Dollars)

	2010	2009
Operating Revenues		
Sales	\$925,639,122	\$725,327,735
Other operating revenues	<u>8,556,139</u>	<u>9,672,740</u>
Total operating revenues	<u>934,195,261</u>	<u>735,000,475</u>
Operating Costs and Expenses		
Cost of goods sold	874,038,565	667,676,956
Exploration expenses	3,465,477	2,411,914
Rental expenses for leased properties	546,139	534,910
Oil and gas transmission and storage expenses	12,903,329	11,752,447
Other operating costs	<u>3,046,799</u>	<u>5,137,046</u>
Total operating costs and expenses	<u>894,000,309</u>	<u>687,513,273</u>
Gross Profit	<u>40,194,952</u>	<u>47,487,202</u>
Operating Expenses	<u>18,229,690</u>	<u>18,197,318</u>
Non-Operating Income and Gains	<u>9,936,185</u>	<u>5,790,967</u>
Non-Operating Expenses and Losses	<u>7,911,356</u>	<u>6,158,243</u>
Income Before Income Tax	<u>23,990,091</u>	<u>28,922,608</u>
Income Tax Expense (Benefit)	<u>8,008,555</u>	<u>(2,262,551)</u>
Cumulative Effect of Changes in Accounting Principles, Net of Income Tax Expense of \$2,150,530	<u>—</u>	<u>6,451,590</u>
Net Income	<u>\$15,981,536</u>	<u>\$37,636,749</u>



## BALANCE SHEETS

DECEMBER 31, 2010 AND 2009

(In Thousands of New Taiwan Dollars)

Assets	2010	2009
<b>Current Assets</b>		
Cash	\$1,323,174	\$1,397,644
Financial assets at fair value through profit or loss-current	–	2,183
Hedging derivative assets-current	4,752	–
Accounts receivable, net	52,926,782	48,481,537
Accounts receivable-related parties	1,795,734	1,158,014
Income tax refund receivable	3,552	3,488
Other receivables	2,207,911	2,366,472
Inventories	146,805,866	149,163,944
Prepaid expenses	3,335,414	2,974,161
Advances to suppliers	12,608,803	5,714,554
Deferred income tax assets-current	855,280	2,449,931
Pledged time deposits	49,241	166,241
Other current assets	<u>820,875</u>	<u>5,131,977</u>
<b>Total Current Assets</b>	<u>222,737,384</u>	<u>219,010,146</u>
<b>Special Funds and Long-Term Investments</b>	<u>18,581,031</u>	<u>16,689,538</u>
<b>Properties (Less Accumulated Depreciation and Accumulated Impairment Loss)</b>	<u>361,408,567</u>	<u>346,392,870</u>
<b>Oil and Gas Interests</b>	<u>11,431,875</u>	<u>14,014,459</u>
<b>Other Assets</b>	<u>44,125,380</u>	<u>50,565,006</u>
<b>Total Assets</b>	<u>\$658,284,237</u>	<u>\$646,672,019</u>

# Financial Statements

## BALANCE SHEETS

DECEMBER 31, 2010 AND 2009

(In Thousands of New Taiwan Dollars)

	2010	2009
Liabilities and Shareholders' Equity		
Current Liabilities		
Short-term loans	\$39,305,623	\$57,152,936
Short-term bills payable	55,667,771	55,817,751
Financial liabilities at fair value through profit or loss-current	3,133	-
Hedging derivative liabilities-current	-	11,934
Accounts payable	42,132,796	44,088,267
Accounts payable-related parties	716,684	617,114
Accrued expenses	20,674,220	19,769,679
Payable to contractors	4,955,333	4,695,036
Receipts in advance	9,595,692	8,319,718
Current portion of bonds payable	7,500,000	900,000
Current portion of long-term loans	8,440,000	3,640,000
Other current liabilities	7,638,441	7,618,291
<b>Total Current Liabilities</b>	<u>196,629,693</u>	<u>202,630,726</u>
Long -Term Debt	<u>104,460,000</u>	<u>100,400,000</u>
Reserve for Land Value Increment Tax	<u>71,419,811</u>	<u>71,463,196</u>
Other Liabilities	<u>17,778,427</u>	<u>18,968,250</u>
<b>Total Liabilities</b>	<u>390,287,931</u>	<u>393,462,172</u>
Shareholders' Equity		
Capital stock	130,100,000	130,100,000
Accumulated deficit	(3,914,035)	(19,895,571)
Other equity	141,810,341	143,005,418
<b>Total Shareholders' Equity</b>	<u>267,996,306</u>	<u>253,209,847</u>
<b>Total Liabilities and Shareholders' Equity</b>	<u>\$658,284,237</u>	<u>\$646,672,019</u>

## STATEMENTS OF CASH FLOWS

### FOR THE YEARS ENDED DECEMBER 31, 2010 AND 2009

(In Thousands of New Taiwan Dollars)

	<u>2010</u>	<u>2009</u>
<b>Cash Flows From Operating Activities</b>		
Net income	\$15,981,536	\$37,636,749
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation	13,845,037	13,195,750
Amortization	3,503,949	3,471,861
Allowance for doubtful accounts	20,327	81,149
Reversal of impairment gain on assets	—	(6,086)
Realized deferred gains	(36,023)	(89,719)
Unrealized exchange loss	218,775	7,839
Allowance (reversal of allowance) for loss on inventories	1,372,551	(28,392,379)
Gain on disposal of properties and other assets	(390,423)	(413,623)
Loss (gain) on valuation of financial assets, net	(11,370)	103,132
Investment income recognized by the equity method	(3,070,288)	(1,256,584)
Gain on oil and gas interests - Huffco	(1,019,999)	(805,339)
Earnings remitted by Huffco	1,667,325	698,309
Cash dividends from equity-method investees	523,568	372,458
Deferred income tax	8,008,143	(112,601)
Net changes in operating assets and liabilities	<u>(9,065,432)</u>	<u>(350,646)</u>
Net cash provided by operating activities	<u>31,547,676</u>	<u>24,140,270</u>

# Financial Statements

## Cash Flows From Investing Activities

Decrease in pledged time deposits	117,000	–
Increase in oil and gas interests	(1,240,086)	(546,862)
Proceeds from disposal of properties and other assets	676,284	877,336
Acquisition of long-term investments recognized by the equity method	(382,537)	(1,284,088)
Net decrease (increase) in other assets	(655,806)	168,678
Acquisition of properties	(28,970,986)	(22,434,602)
Proceeds from capital reduction in financial assets carried at cost	<u>210,695</u>	<u>–</u>
Net cash used in investing activities	<u>(30,245,436)</u>	<u>(23,219,538)</u>

## Cash Flows From Financing Activities

Net decrease in short-term loans	(17,993,023)	(31,489,052)
Increase in other liabilities	1,156,313	58,402
Repayment of long-term debts	(4,540,000)	(1,840,000)
Proceeds from long-term debts obtained	4,000,000	18,560,000
Issuance of bonds payable	<u>16,000,000</u>	<u>10,820,000</u>
Net cash used in financing activities	<u>(1,376,710)</u>	<u>(3,890,650)</u>

Net Decrease in Cash	(74,470)	(2,969,918)
Cash, Beginning of Year	<u>1,397,644</u>	<u>4,367,562</u>
Cash, End of Year	<u>\$1,323,174</u>	<u>\$1,397,644</u>

## Notes to Financial Statements

### 1. Organization and Operations

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

As of December 31, 2010 and 2009, CPC had 14,871 and 14,931 employees, respectively.

### 2. 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. CPC's significant accounting policies conform to the Guidelines Governing the Preparation of Financial Reports by Securities Issuers, Business Accounting Law, Guidelines Governing Business Accounting, and accounting principles generally accepted in the ROC.

CPC'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 CPC meets its budget as approved by the Legislative Yuan. CPC's financial statements are finalized on the basis of the result 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 CPC's books of account is based on the balance after adjustments made by the Ministry of Audit. The examinations of CPC's financial statements as of and for the year ended December 31, 2009 by these government agencies had already been completed.

Under these guidelines, law and principles, certain estimates and assumptions have been used for the allowance for doubtful accounts, allowance for loss on inventories, depreciation of properties, impairment of properties, impairment of idle assets, amortization of oil and gas interests, impairment of oil and gas interests, income tax, pension cost, loss on pending litigations, etc. Actual results may differ from these estimates.

#### ● Inventories

Inventories include raw materials, supplies and spare parts, finished goods, work in process, semifinished goods, merchandise, construction in progress, materials 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 item 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.

#### ● Construction in Progress

When construction contracts are accounted for by the percentage-of-completion method, the stage of completion of each contract is measured by the percentage of actual cumulative costs to the total estimated costs. Construction revenues and costs for the current year are the actual cumulative construction revenues and costs in excess of the cumulative construction revenues and costs recognized in prior years, respectively. Any estimated loss on a construction contract is recognized currently.

#### ● Long-term Stock Investments Recognized by the Equity Method

Investments in which CPC exercises significant influence over the investees' operating and financial policy decisions are accounted for by the equity method.

# Financial Statements

The acquisition cost is allocated to the assets acquired and liabilities assumed on the basis of their fair values at the date of acquisition, and the acquisition cost in excess of the fair value of the identifiable net assets acquired is recognized as goodwill. Goodwill is not being amortized. The fair value of the net identifiable assets acquired in excess of the acquisition cost is used to reduce the fair value of each of the noncurrent assets acquired (except for financial assets other than investments accounted for by the equity method, noncurrent assets held for sale, deferred income tax assets, prepaid pension or other postretirement benefit) in proportion to the respective fair values of the noncurrent assets, with any excess recognized as an extraordinary gain.

Profits from downstream transactions with an equity-method investee are eliminated in proportion to CPC's percentage of ownership in the investee; however, if CPC has control over the investee, all the profits are eliminated. Profits from upstream transactions with an equity-method investee, whether or not CPC has control over the investee, are eliminated in proportion to CPC's percentage of ownership in the investee.

When CPC subscribes for its investee's newly issued shares at a percentage different from its percentage of ownership in the investee, CPC records the change in its equity in the investee's net assets as an adjustment to investments, with a corresponding amount credited or charged to capital surplus. When the adjustment should be debited to capital surplus, but the capital surplus arising from long-term investments is insufficient, the shortage is debited to retained earnings.

When CPC's share in losses of an investee over which it has significant influence equals its investment in that investee plus any advances made to the investee, CPC discontinues applying the equity method. CPC continues to recognize its share in losses of the investee if (a) CPC commits to provide further financial support to the investee or (b) the losses of the investee are considered to be temporary and sufficient evidence shows imminent return to profitability.

When CPC's share in losses of an investee over which CPC has control exceeds its investment in the investee, unless the other shareholders of the investee have assumed legal or constructive obligations and have demonstrated the ability to make payments on behalf of the investee, CPC has to bear all of the losses in excess of the capital contributed by shareholders of the investee. If the investee subsequently reports profits, such profits are first attributed to CPC to the extent of the excess losses previously borne by CPC.

A long-term stock investment is assessed for impairment at the balance sheet date. If an investment is impaired, a loss is recognized.

For long-term equity investments on which CPC has significant influence but over which CPC has no control, the carrying amount (including goodwill) of each investment is compared with its recoverable amount for the purpose of impairment testing.

## ● Properties

Properties are stated at cost plus revaluation increment less accumulated depreciation and accumulated impairment losses. Major additions and improvements to properties are capitalized, while costs of repairs and maintenance are expensed currently.

An impairment loss is recognized and charged to current income if the carrying amount of an asset exceeds its recoverable amount. An impairment loss recognized in prior years is reversed if there is a subsequent recovery in the recoverable amount; however, an impairment loss is reversed only to the extent that the adjusted amount does not exceed the carrying amount of an asset that would have been determined for the asset (net of depreciation) had no impairment loss been recognized in prior years. If an asset has been revalued in accordance with relevant laws, its impairment loss is first used to reduce the unrealized revaluation increment under shareholders' equity, with the balance left charged to current income. A reversal of an impairment loss is recognized first in the statement of income to the extent of the loss recognized, with the balance left credited to the unrealized revaluation increment under shareholders' equity.

Interest expenses for construction in progress are capitalized. Interest capitalized each month is calculated using the following formula:

Interest capitalized = Accumulated payments × budgeted financing ratio of individual capital expenditure plans × actual interest rate of loans.

The total interest capitalized each month may not exceed the interest expense recognized in that month.

Depreciation is computed using the fixed-percentage-on-declining-balance method over the following estimated service lives prescribed by the Executive Yuan:

#### Machinery and equipment

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Main part of the distillation equipment	15 years
Main part of the reforming feedstock prefraction equipment	15 years
Main part of the reforming equipment	15 years
Main part of the fluidized catalytic cracking equipment	10-15 years
Main part of the alkylation equipment	8-25 years
Main part of the visbreaking equipment	15 years
Main part of the vacuum distillation and bitumen equipment	7-15 years
Main part of the defat equipment	3-15 years
Main part of the chemical refining equipment	4-10 years
Main part of the hydrodesulfurization equipment	5-15 years
Main part of the lube oil blending equipment	8-20 years
Main part of the light oil rectifying equipment	12 years
Main part of the cracking equipment	7-10 years
Main part of the boiler type heater and other heating equipment	10-25 years
Main part of the machine and equipment of oil transportation, storage	15-20 years
Main part of the oil storage tank	8-15 years
Main part of the submarine pipeline for natural gas	15 years
Main part of the main land-pipeline for natural gas	15 years
Main part of the LNG storage tank	20 years

#### Transportation equipment

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Motor vehicles	5-15 years
Oil tankers	14 years

#### Buildings

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Factory building	30-45 years
Office building	35-60 years

The related cost (including revaluation increment), accumulated depreciation, accumulated impairment losses and any unrealized revaluation increment of an item of properties are derecognized from the balance sheet upon its disposal. Any gain or loss on disposal of the asset is included in nonoperating gains or losses in the year of disposal.

# Financial Statements

## ● Mineral Resources

Mineral resources previously recorded referred to the estimated value of the mineral reserves in areas for which the Government of the ROC had gratuitously granted CPC in 1990 the right to extract minerals. The estimated market value of these mineral reserves less costs to extract the minerals and normal gross profit up to June 2009 was capitalized as mineral resources and credited to capital surplus arising from donations. The capitalized costs were amortized using the unit-of-production method.

Pursuant to the Mining Law, which took effect on December 31, 2003, CPC has to make a payment for ownership of a mine based on the type of the mine, mining area and the right to explore or extract mineral deposits. When mining begins, CPC also has to pay for the mining right at 2% to 50% of the value of the minerals extracted. Therefore, CPC wrote off the net book value of mineral resources and reduced capital surplus arising from donations by the same amount on December 31, 2003.

## ● 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.

## ● Oil and Gas Interests

For oil site acquisitions, CPC’s payments for this purchase or investments in foreign joint ventures involving interest in oil sites - including CPC’s share in the costs of drilling commercial wells, production, transport and storage equipment but excluding CPC’s share in the costs of drilling exploratory wells and other exploration expenses - are capitalized as oil and gas interests. CPC’s share in joint ventures’ net earnings (or net losses) is recognized as other operating revenues (or other operating costs). CPC 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 CPC’s share of the oil and gas extracted. The accompanying financial statements included the related sales and cost of goods sold attributable to CPC’s share of the oil and gas sold by the joint ventures.

CPC recognizes earnings from OPIC-Houston (“Huffco”) and translation adjustments based on the financial statements of Huffco for the same period as that of CPC.

## ● Pension Cost

Under a defined benefit pension plan, pension cost is recognized on the basis of actuarial calculations without considering the planned privatization. The transition obligation is amortized over 17 years and 18 years, depending on the classification of employees. Under government regulations, CPC may recognize additional pension cost to meet the additional pension obligation arising from the planned privatization, but the additional pension cost should not affect the budgeted dividends to be distributed to the government.

Under a defined contribution pension plan, CPC makes monthly contributions to employees’ individual pension accounts and records them as current expenses.



### 3. Long-Term Investments

December 31, 2010 and 2009

(In Thousands of New Taiwan Dollars)

	<u>2010</u>	<u>2009</u>
<b>Long -Term Investments</b>		
■ China American Petrochemical Co., Ltd. -CPC owned 37.5% equity	\$ 5,673,297	\$ 3,863,699
■ Kuo Kuang Power Company Ltd. -CPC owned 45% equity	1,897,619	1,813,411
■ Faraway Maritime Shipping Corp. -CPC owned 40% equity	1,609,022	1,574,644
■ NiMiC Ship Holding Co., Ltd. -CPC owned 45% equity	1,017,957	1,010,178
■ CPC Shell Lubricants Company Ltd. -CPC owned 49% equity	1,048,246	794,606
■ Chun Pin Enterprise Co., Ltd. -CPC owned 49% equity	323,929	299,290
■ Daihai Petrol Corporation. -CPC owned 35% equity	122,239	131,149
■ Kuokuang Petrochemical Technology Co., Ltd. -CPC owned 43% equity	38,568	103,134
■ NiMiC Ship Management Co., Ltd. -CPC owned 45% equity	7,913	(7,101)
	<u>11,738,790</u>	<u>9,583,010</u>
Credit balance on the carrying value of long-term investments reclassified to other liabilities	—	7,101
<b>Total Long-Term Investments</b>	<u>\$ 11,738,790</u>	<u>\$ 9,590,111</u>

# Financial Statements

## 4. Properties

December 31, 2010 and 2009

(In Thousands of New Taiwan Dollars)

	<u>2010</u>	<u>2009</u>
Land	\$230,563,783	\$230,404,111
Less: Accumulated impairment loss on land	7,252	7,252
Land improvements	14,432,881	14,200,872
Less: Accumulated depreciation on land improvements	10,637,592	10,329,867
Buildings	36,869,576	36,589,550
Less: Accumulated depreciation on buildings	22,962,244	22,210,622
Machinery and equipment	387,793,204	383,190,563
Less: Accumulated depreciation and accumulated impairment loss on machinery and equipment	343,549,925	334,454,171
Transportation equipment	26,001,339	28,546,476
Less: Accumulated depreciation and accumulated impairment loss on transportation equipment	23,766,530	26,008,215
Miscellaneous equipment	4,915,759	5,006,694
Less: Accumulated depreciation and accumulated impairment loss on miscellaneous equipment	4,306,724	4,353,187
Leasehold improvements	805	805
Less: Accumulated depreciation on leasehold improvements	685	648
Construction in progress	<u>66,062,172</u>	<u>45,817,761</u>
<b>Net Properties</b>	<u>\$361,408,567</u>	<u>\$346,392,870</u>

## 5. Long-Term Debt

December 31, 2010 and 2009

(In Thousands of New Taiwan Dollars)

	<u>2010</u>	<u>2009</u>
■ Improvement of Finance Structure	54,134,493	69,255,815
■ Construction of Gas-Station Plan	892,170	908,660
■ Construction of RFCC Unit in Talin Refinery	14,731,002	5,035,818
■ The RDS Project of Taoyuan Refinery	77,379	103,172
■ Construction of LNG Receiving Terminal Project North Taiwan	13,932,261	13,937,675
■ No.6 Naphtha Cracker Project of Petrochemical Business Division	11,073,173	5,386,009
■ Upgrading of Gas and Diesel Quality Project in Talin Refinery	3,714,645	2,247,421
■ No.5-6 CCR Project Expansile in Talin Refinery	648,598	679,519
■ No.12 Boiler Replace Project of Petrochemical Business Division	506,220	646,404
■ No.4 Boiler Project in Taoyuan Refinery	482,063	601,171
■ Upgrading of NO.2 FCC Project in KOR	536,724	344,267
■ The Alkylation Project of Talin Refinery	872,605	155,051
■ Others	<u>2,858,667</u>	<u>1,099,018</u>
<b>Total Long-Term Debt</b>	<u>\$104,460,000</u>	<u>\$100,400,000</u>

# Financial Statements

## 6. Pension Plans

The pension plan under the Labor Pension Act (LPA) is a defined contribution plan. Based on the LPA, the rate of CPC's monthly contributions to employees' individual pension accounts is at 6% of monthly salaries and wages.

CPC also has defined benefit plans under the Labor Standards Law (LSL). Benefits under the plans are based on employee's length of service and average basic pay in the last six months before retirement (for the length of service before the LSL was enacted) or three months before retirement (for the length of service after the LSL was enacted).

Personnel employed by CPC 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. The employees retirement fund (ERF) entails monthly contributions by CPC to a fund at amounts equal to a fixed percentage of salaries, which has been 15%. The ERF is administered by a monitoring committee and is deposited in the committee's name in the Bank of Taiwan.

On June 1, 1999, CPC stopped paying pensions out of the pension funds. Pensions paid by CPC were charged instead to accrued pension cost. Pension payments totaled \$17,255,654 thousand from June 1999 to December 2009 and \$817,454 thousand in 2010, resulting in a decrease of \$18,073,108 thousand in accrued pension cost.

Under government regulations, CPC may recognize additional pension cost to meet the additional pension obligation arising from the planned privatization, but the additional pension cost should not affect the budgeted dividends to be distributed to the government.

Certain pension information is summarized as follows:

	<u>2010</u>	<u>2009</u>
Appointees' retirement plan	\$ 1,678,456	\$ 2,624,940
Employees' retirement plan	<u>11,951,558</u>	<u>13,308,085</u>
Accrued pension cost	<u>\$ 13,630,014</u>	<u>\$ 15,933,025</u>

## A Five-year Financial Summary

(In Thousands of New Taiwan Dollars)

	<u>2010</u>	<u>2009</u>	<u>2008</u>	<u>2007</u>	<u>2006</u>
Sales and other operating revenues	934,195,261	735,000,475	957,630,646	882,026,498	776,900,838
Income before income tax	23,990,091	28,922,608	-138,681,109	14,344,844	-18,764,760
per dollar of sales and other operating revenues (NT\$)	0.03	0.04	-0.14	0.02	-0.02
Cash dividends	–	–	–	–	2,671,536
per dollar of capita l(NT\$)	–	–	–	–	0.02
Owner's equity	267,996,306	253,209,847	213,867,151	335,609,444	324,019,101
per dollar of capital (NT\$)	2.06	1.95	1.64	2.58	2.49
General taxes and import duties	55,437,560	38,801,757	50,668,842	49,193,245	44,965,454
Commodity tax	66,106,757	65,295,400	61,703,178	67,432,967	67,980,220
Total taxes	121,544,317	104,097,157	112,372,020	116,626,212	112,945,674
Working capital (current assets less current liabilities)	26,107,691	16,379,420	-29,877,272	69,711,200	53,413,995
Ratio of current assets to current liabilities	1.13	1.08	0.86	1.53	1.43
Long-term Liabilities	175,879,811	171,863,196	147,149,705	106,591,420	99,149,596
Properties, plant, and equipment-gross	766,639,519	743,756,832	729,952,388	715,758,299	703,120,487
Properties, plant, and equipment-net	361,408,567	346,392,870	339,115,223	333,092,049	328,086,283
Expenditures for plant and related assets	29,231,283	24,040,843	18,170,583	17,858,436	14,300,088
Exploration expenses (including all dry holes)	3,465,477	2,411,914	2,557,275	2,137,771	2,280,438
Total assets	658,284,237	646,672,019	590,868,764	596,948,959	570,992,622
Employed capital (owner's equity, long-term debt)	443,876,117	425,073,043	361,016,856	442,200,864	423,168,697
Employees on December 31	14,871	14,931	14,843	14,768	14,729
Sales and other operating revenues per employee	62,820	49,226	64,517	59,726	52,746

# Financial Statements

## A Five-year Operation Summary

	2010	2009	2008	2007	2006
Crude oil produced-total KL	575,648	564,059	857,151	904,291	919,378
daily average KL	1,577	1,545	2,348	2,478	2,519
Natural gas produced-total MCM	293,403	356,744	357,357	416,830	426,959
MCM per day	804	977	979	1,142	1,170
Wells drilled during the year	4	4	4	4	4
Crude oil processed-total KL	25,358,686	27,395,603	26,009,603	30,014,609	32,864,635
daily average KL	69,476	75,056	71,259	82,232	90,040
Natural gas sold-total MCM	14,056,431	11,139,358	11,449,599	10,727,103	9,839,917
MCM per day	38,511	30,519	31,369	29,389	26,959
Refined products sold-total KL	36,161,661	34,174,102	35,160,109	40,032,138	32,560,128
daily average KL	99,073	93,628	96,329	109,677	89,206
Petrochemicals sold-MT	4,636,198	4,160,566	3,893,507	4,769,252	4,406,659
daily average MT	12,702	11,399	10,667	13,066	12,073



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