







GREEN SOCIETY

Driving Green Society Development

Every tangible project by
Bangchak-past and current-and
its investment in future
alternative-energy businesses
have arisen from its commitment
to achieving Bangchak's mission.

Today, driven by the Sufficiency Economy philosophy, we pursue leadership in establishing drivers of Green Society. Sufficiency Economy strives for sustained balance between business, society, and the environment for us Thais. To this end, we consume resources most effectively with a focus on green production while joining forces to restore nature, much like putting together contented people in a Bangchak-induced Green Society. We are confident that the achievement of a successful Green Society hinges not only on producers' contribution, but also on the contribution of a network of people from all quarters.







Message from President

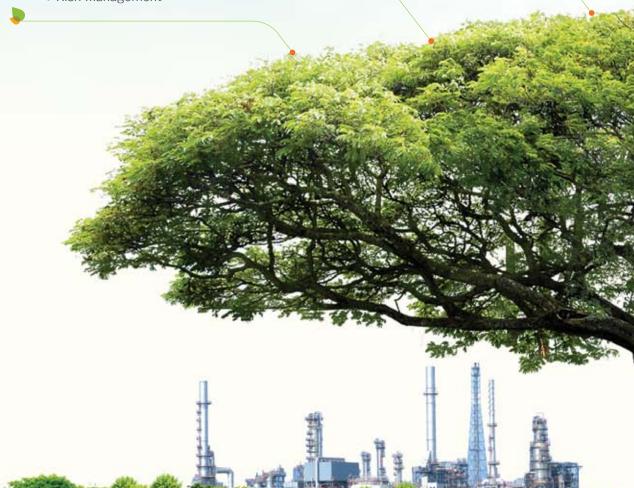


Bangchak's House Open

- Organizational Structure
- Vision and Strategies for Conducting Sustainable Business
- Corporate Governance
- Risk Management



27 Economic Performance









Message from the President

In 2010, Bangkok did not have to deal with the Great Floods as in the did the year before, this however, does not mean that there were no environmental problems, with various provinces across the country confronted with a variety of catastrophes - floods, landslides, drought etc. Recognizing that climate change is an indicator of environmental problems, the Bangchak Petroleum Public Company Limited has continued its environmental operations and activities especially in terms of reducing greenhouse gas emissions by increasing the efficiency of the its refinery units to reduce energy consumption. It completed the solar power plant project despite having to deal a number of obstacles that caused the project to delay, but when completed the project will help it reduce its greenhouse emission by 50%. Furthermore, the Company expanded the scope of our environmental activities to include the public by organizing the "Floods, Earthquakes: Taking Thailand beyond Natural Catastrophes" seminar, raising awareness in schools across the country through the Thailand Go Green initiative, as well as supporting environmental projects in the communities surrounding the refinery.

In mid-2012, there was an incident that brought great grief to the Bangchak family. The incident caused great panic and concern to residents in and around the communities surrounding the refinery, whereby the management and employees took it upon themselves to reach out to these communities in person to visit the residents, assess the damage and offer immediate assistance to any damage that may have been caused by the incident. It also took the opportunity to improve its refinery unit and have it safely back in operation, by procuring safety experts from abroad to improve the safety system to exceed the safety standards of other refineries. These sincere and prompt efforts have reward the Company with the compassion, understanding, and opportunity it has been given by the communities, who have reaffirm their determination to fight together with the Company.

Lastly, on behalf of the management and employees of Bangchak, we are determined to carry on the Bangchak culture to sustainably develop business in harmony with society and the environment.







Adherence to The United-Nations Global Compact



10 univers	al principles	Implementation	
Human rights	Business should support and respect the protection of internationally proclaimed human rights; and Make sure that they are not complicit in human rights abuses.	 Define equitable respect for human rights in the corporate governance policy Establish channels for whistle-blowing and complaints about violations of laws or ethics, together with protectivemechanisms for whistle-blowers 	
Labor	3. Business should uphold the freedom of association and the effective recognition of the right to collective bargaining; 4. The elimination of all forms of forced and compulsory labour; 5. The effective abolition of child labour; and 6. The elimination of discrimination in respect of employment and occupation.	 Support and establish a Bangchak Labor Union to 1. Seek and safeguard benefits concerning hiring conditions 2. Promote cordial relations between the employer and employees, as well as among employees themselves, to ensure peaceful and properco existence Hire no involuntary labor, forced labor or child labor Support competency development at the professional level; put the right man on the right job; treat employees fairly; establish decent and safe welfare and workplace environment; and provide compensation comparable to business peers 	
The environment	7. Business should support a precautionary approach to environmental challenges; 8. Undertake initiatives to promote greater environmental responsibility; and 9. Encourage the development and diffusion of environmentally friendly technologies.	 Define "Greenergy Excellence" as the Company's vision (that is, striving for an environmentally friendly energy business for sustainable development) Define "Greenergy Excellence" as the Company's business culture Provide accurate data, strive for understanding and listen to potential problems and impacts so that they may be promptly resolved, a basis for co-existence between plants and communities Support public service activities through paying due regard for suitability and sustainable benefits Be a leader in alternative-energy development, focusing on businesses that cut carbon dioxide emission 	
Anti-corruption	10.Businesses should work against corruption in all its forms, including extortion and bribery.	 Define a business code of conduct for anti-corruption of all forms and guidelines against improper gift reception and giving, and for performing with honesty and integrity in compliance with legislation and regulations in its corporate governance policy. Establish channels for whistle-blowing and complaints about violations of laws or ethics. Through a letter to each operator, numbering 1,080 in 2011, and through its service station management manual, BCP informed stakeholders (particularly service station operators) to take part in notifying Bangchak about suspicious acts and filing complaints. Staged the 2012 CG Day activity entitled "CG Go ASEAN" to stress corporate governance guidelines among employees, brace them for its move toward the ASEAN Economic Community, and constantly campaign against corruption within the organization. 	





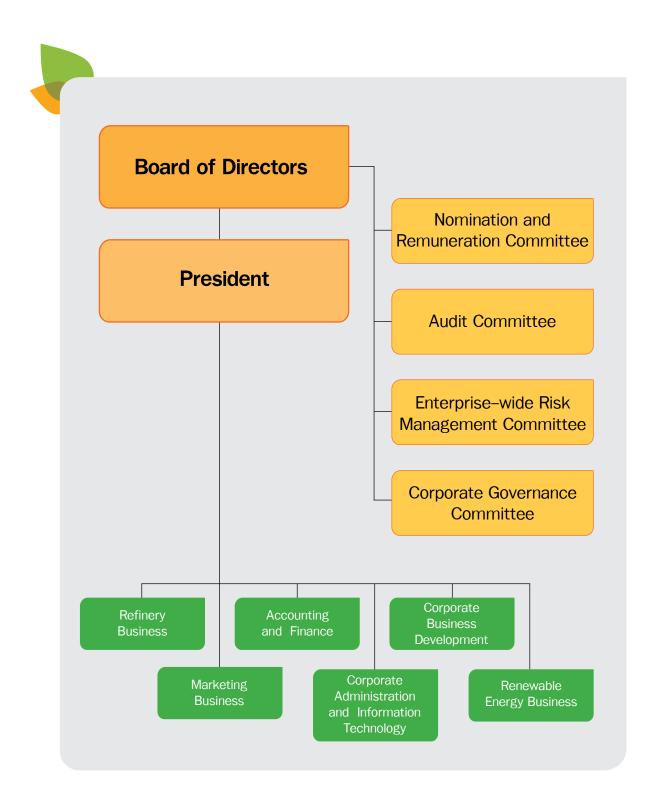
Organizational Structure

The Bangchak Petroleum Public Company Limited

- · Leading Thai petroleum company importing crude oil from the indigenous sources, operating an oil refinery and marketing the finished products
- Pursuant to a resolution passed by the Gen. Prem Tinsulanonda-led Cabinet since June 19,
- Incorporated as a limited company under the Civil and Commercial Code on November 8, 1984
- · Changed status to a Public Company Limited under the Public Company Limited Act on April 23, 1993, and listed on the Stock Exchange of Thailand (SET) on August 2, 1994
- The Company's registered capital as of December 31, 2012 is amounting to Baht 1,531 million, of which Baht 1,377 million was paid up.
- The address of the head office is 555/1 Energy Complex, 10th Floor, Building A, Vibhavadi Rangsit Road, Chatuchak, Bangkok



Business Structure



Investment Structure



Development

/%

2 Sunny Bangchak

4 Ethanol Plant

















Marketing Business



- 1 Standard Service 483 Stations
- 2 Community Service 584 Stations 5 Lubricant
- 3 Aviation Sector
- 4 Industrial Sector 7 Inthanin Coffee
- 6 Lubricant O Cro
 - 8 Green Series
- 6 Bai-chak / Lemongreen Mart



Refinery Business



Equity Chart of Bangchak Petroleum Plc and Other Companies



The Bangchak Petroleum Plc

• Registered Capital 1,531,643,461 Baht • Paid-up Capital 1,376,923,157 Baht



Ministry of Finance 9.98%



PTT Plc 27.22%



Bangchak Biofuel Co., Ltd.

Public 62.80%

Bangchak Green Net Co., Ltd.



Subsidiary









- + Bangchak Solar Energy (Prachinburi) Co., Ltd. 100%
- + Bangchak Solar Energy (Chaiyaphum1) Co., Ltd. 100%
- + Bangchak Solar Energy (Buriram) Co., Ltd. 100%
- + Bangchak Solar Energy (Buriram1) Co., Ltd. 100%
- + Bangchak Solar Energy (Nakhonratchasima) Co., Ltd. 100%



Ubon Bio Ethanol Co., Ltd.

- + Bangchak Solar Ubon Agricultural 100%
- + Bangchak Solar Ubon Bio Ethanol 100%
- + Bangchak Solar NP Bio Energy 99.95%

Company



21.28%



Subsidiary



100%

Fuel Pipeline Transportation Co., Ltd.



Associate Company



5.07%

ASEAN Potash Mining Public Company



Associate Company



13.17%

Vision and Strategies for Conducting Sustainable Business



Vision: Greenergy Excellence

Creating an energy business that is environmentally friendly for sustainable development



Value Statement

Beyond Expectation Continuing Development Pursuing Sustainability



Employee Culture:

To be respectable, knowledgeable, and helpful to others



Shareholders / business partners / customers / creditors

Conduct business to steadily grow its returns in a fair manner

Society / Community / Environment

Promote a business culture that is responsible to the environment and society

Employees

Grow employees into professionals



Business Culture:

Develop sustainable business, in harmony with environment and society

Since the start of its energy business in 1985, the Company has always been committed to the corporate culture of "sustainable business development in harmony with the environment and society." It will continue to do so with an aim to strike a balance between business values and those of the environment and society through the consistent application of a self-sufficient economy, good governance and social responsibility to its operations and goal achievement.

Besides managing its business to generate steady and continuous value through good governance principles and strict risk management for its business, the Company has applied the concept of sustainable management as an essential element of its strategic planning. To illustrate, it has included a social and environmental indicator among its performance indicators in addition to other indicators, namely financial, customer, process and personnel. This would enable the Company to properly cascade social and environmental goals down to the operation levels (departments and sections). This way, action plans are interconnected or at least do not contradict the social and environmental indicator. At the operating level, besides the above-mentioned cascading of goals, all employees who observed the employee culture of "Be virtuous, be knowledgeable and contributive to society" also contribute to the driving of various action plans, which will be directly and indirectly beneficial and lead to true success.

Core strategies for sustainable business operation

Grow the business and diversify risks to businesses with secure income

The Company has defined business growth goals to grow sustainable value for its business by restructuring its revenue from 70% (refining business), 30% (marketing business) today, which is highly volatile by nature of the refining business-whether world market prices or refining margins that are subject to global and regional economic conditions-which could in turn result in the Company's performance being also volatile. The Company has now restructured its revenue to 50% (refining business), 20% (marketing business), and 30% (clean-energy business) in 2015. This new element, featuring a constant stream of revenue with low volatility caused by external factors, includes solar-energy power generation, biodiesel production from palm oil (including palm planting) and wind-energy power generation. This move grows business value while diversifying risks associated with its future revenue.

Carbon Neutral Company

The Company recognizes that the oil refining business is extremely energy-intensive, with emission of carbon dioxide in refining processes of crude oil into products. Therefore it has set a goal of zero net carbon dioxide emission to minimize environmental impacts from its own refining business. Specifically, by 2015, the Company is to trim its carbon dioxide emission by some 50% from the business-as-usual baseline as a result of its development of clean energy businesses, including 118-megawatt solar-cell power generation, biodiesel from oil palm, ethanol from cassava, diesel from algae, and efficient improvement of energy consumption and consumption of clean fuels in refining processes.

Socially and Environmentally Friendly Business Models (In-process)

Aware that business operations that lack social and environmental activities are unsustainable, the Company is determined to do business in such a way that not only can it sustain continuous growth, but also simultaneously generate positive impacts on society and the environment. Such a model that the Company has been operating successfully is the cooperation of retail stations and agricultural cooperatives. The Company buys agricultural products from cooperatives in different communities and uses them for retail stations' sales promotion to create jobs and revenue in support of the economic and social development of the communities. In the future, the Company, in cooperation with the Ministry of Agriculture and Cooperatives, the Ministry of Energy and the Bank for Agriculture and Agricultural Cooperatives, will initiate a conversion of abandoned orange farms to palm plantations for orange farmers in Rangsit. The palm produce will be their new source of income and promote the use of alternative energy, which has been the Company initiative for more than a decade as in gasohol and biodiesel promotion. In all, this business model benefits the environment and provides higher income to support social development in agricultural communities.

Open, Transparent and Verifiable

The Company adheres to an open, transparent and verifiable policy in its operations. Operational data are transparently disclosed under good corporate governance and SET rules. Applying proactive environmental management, it discloses the actual data on quality of air and effluents around the refinery by posting such information at the entrance to the refinery and in surrounding communities.

Such balanced business management goals backed by determined and ethical staff-committed to the employee culture and values-will enable the Company to add value to business as well as society and the environment and become an organization of sustainable growth.

Strategy 1

Grow the business and diversify risks to businesses with secure income (economic aspect)

Plan and goal	Progress made and performance in 2011	2012 goal	
1.1 Develop the solar-power plant business by 118 MW	1.1 Generated and sold 38 MW since 2012, launched the projects at Chaiyaphum and Bang Pahan 1.1 Generate and sell 32 MW by total 70 MW (with 38 MW comin Bang Pa-in, 16 MW from Chaiyand 16 MW from Bang Pa-han		
1.2 Develop the ethanol business with a capacity of 400,000 liters / day	1.2 Completed construction and started commissioning of Ubon Bio-Ethanol Co., Ltd. (UBE)	· ·	
1.3 Develop the biodiesel business with a capacity of 300,000 liters/day	1.3 Started up of full the capacity and completed investigation of biodiesel capacity debottlenecking to meet rising biodiesel demand 360,000 liters per day.	1.3 Investigate biodiesel capacity increasing to meet rising biodiesel demand	

Strategy 2

Become a carbon-neutral company (environmental aspect)

Plan and goal	Progress made and performance in 2011	2012 goal	
2.1 Use clean natural gas instead of fuel oil	2.1 Replaced 65% of fuel oil consumption with natural gas. Displaced 65% of fuel oil consumption with natural gas, which was lower than the goal. This was because the volume of additional natural gas needs LPG as a joint fuel; also, fuel oil-fired boilers are needed for the purpose in a bid to preserve security of power/steam. Note that the use of boilers has been minimized.	2.1 Replace all fuel oil consumption with natural gas	
2.2 Consumed clean natural gas rather than LPG as a raw material for the hydrogen unit	2.2 Displaced 83% of LPG consumption with natural gas	2.2 Seek to displace all LPG consumption	
2.3 Generate electricity and stream from co-gen with high efficiency	2.3 Generate 60% and 57% of electricity and stream from co-gen capacity	2.3 Continually investigate investment in a production efficiency improvement project	
2.4 Improve the refinery's energy efficiency	2.4 Six efficiency improvement projects saved 1.4% in energy consumption	2.4 Continually investigate investment in a production efficiency improvement project	
2.5 Develop clean-energy businesses (as in (1))	2.5 Details as in (1)	2.5 Details as in (1)	

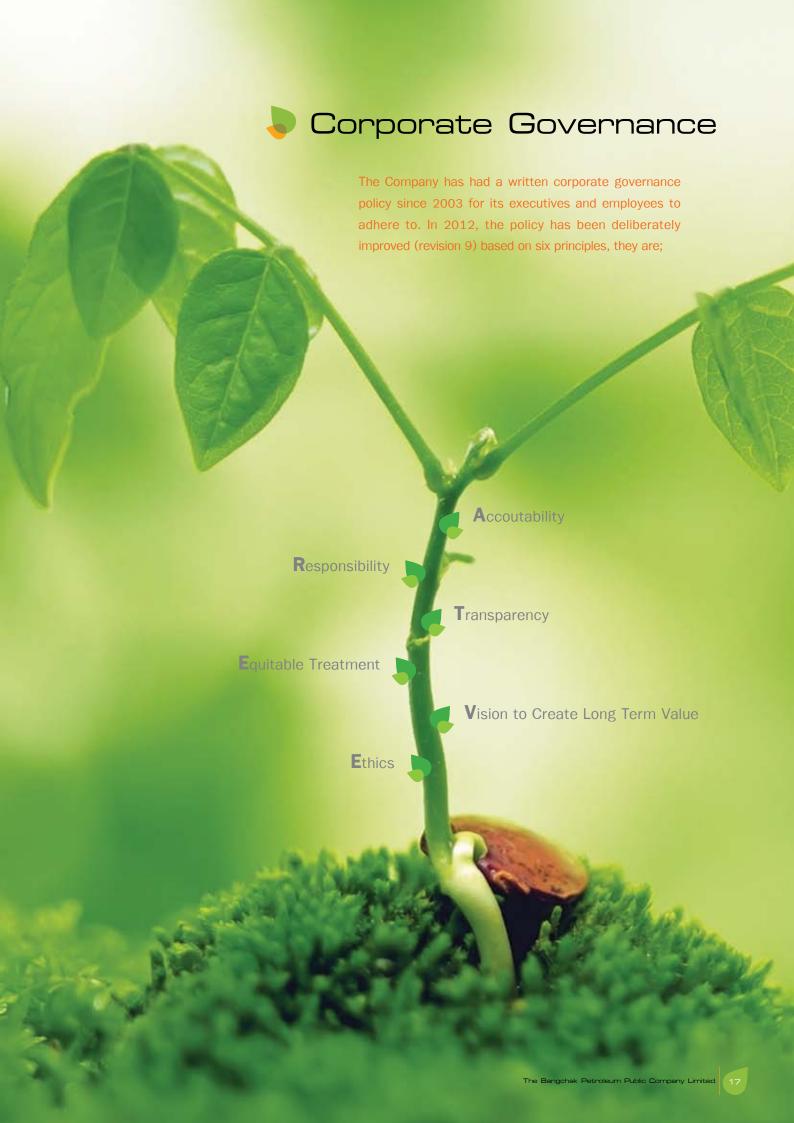
Develop business formats for in-processes (social & environmental aspects)

Plan and goal	Progress made and performance in 2011	2012 goal	
3.1 Develop business formats leading to national benefits to society and the environment	3.1.1 Developed an additional 16 service stations with agricultural cooperatives, taking the total to 584. This added jobs and income to communities under the cooperatives while developing society from the bottom up to the macro-level. Agricultural goods found their way as sales promotional items to Bangchak service stations, including brown rice made into khao klong taen with black sesames and Doi Kham dried baked mangoes and sweetened velvet tamarind.	3.1.1 Develop an additional 19 service stations with agricultural cooperatives	
	3.1.2 Operated the Thailand Go Green project for the sixth straight year under the "Combating Catastrophes with Alternative-energy Innovations" theme to cultivate awareness and knowledge of solar energy among students nationwide. The year saw more than 677 participating schools.	3.1.2 Maintain the Thailand Go Green project to truly educate students on the benefits and necessity of alternative energy forms while focusing on public communication for disaster preparedness	
	3.1.3 Evolved a business of converting a deserted orange grove into a 1,200-rai oil palm grove within the center for the study and development development of palm growing in Rangsit, Nakhon Nayok province	3.1.3 Demonstrated oil palm cultivation and encouraged farmers in the deserted Rangsit orange grove to engage in such activity, while getting ready to erect a crude palm oil extraction plant in the area	
3.2 Develop business formats leading to social and environmental benefits at the community level	3.2 Developed a format for participation by community residents and schools in screening beneficial, sustainable community projects for the Company's consideration	3.2 A total of 16 projects were approved by the Company for implementation.	

Strategy 4

Be open, transparent and auditable (social aspect)

Plan and goal	Progress made and performance in 2011	2012 goal	
4.1 Disclose business information transparently to allow public scrutiny	4.1 After the Company had linked its air and effluent quality tests for display in front of the refinery, at the Piyarom shopping center and at three refinery communities, the year saw further link-ups with the Department of Industrial Works. This fostered confidence and allowed participation by the public and government agencies agencies in transparent scrutiny	·	



Structure of Corporate Governance

Audit Committee

Internal Control Office

Board of Directors

Corporate Governance Committee

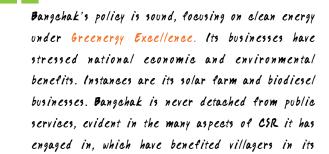


- Proposing the good practice of corporate governance to the Board of Directors
- monitoring and supervising the management to conduct business in compliance with good corporate governance
- reviewing the policy regularly



Pornpimol Sriborikij

Shareholder



vicinity. An outstanding company, in my view!

The main responsibility of Corporate Governance Committee is to oversee the Company's business practice in order to ensure it complies with the Corporate Governance Principles. It currently comprises four Board members as appointed by the Board of Directors, while the chairman of committee is an independent director.

In 2012, the committee held a total of five meetings to monitor performance under the plan for developing good corporate governance practices. Below are the essences of the meetings:

- Rights of Shareholders
- Equitable Treatment of Shareholders
- Role of Stakeholders
- Disclosure and Transparency
- · Responsibilities of the Board
- Corporate Governance Policy
- Participation in Corporate Governance Distribution to Public

Moreover, the Company prepared and communicated a corporate governance policy for subsidiaries, also staged 2012 CG Day activities under the "CG Go ASEAN" theme to stress CG guidelines in preparation for AEC and continuously oppose corruption within the organization. The Company also asked all employees (100%) to respond to and take a test on the policy through the knowledge management system, staged the "CG Day 2012: Bangchak Joins All Anti-corruption Moves.







Somchai Utsawinjaiphetch

Shareholder

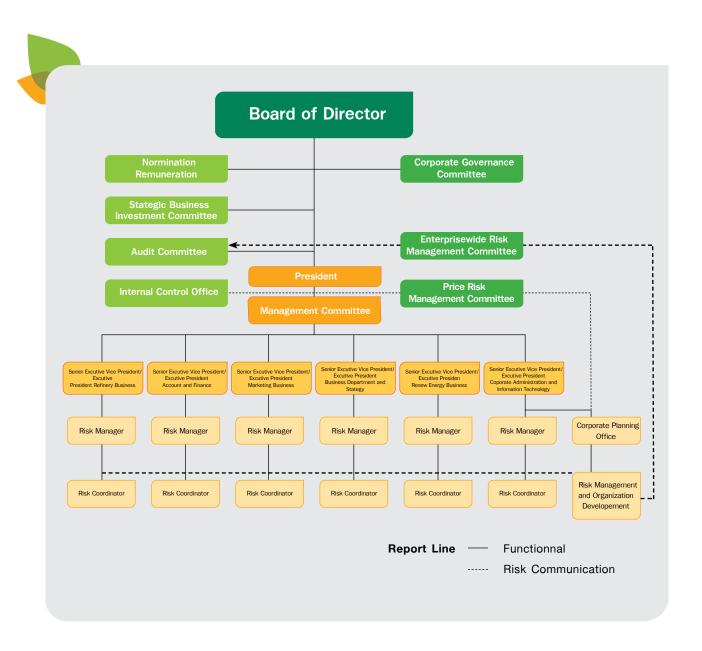


Having visited the solar farm project and heard Pr. Anusorn Sangnimnuan's talk, I can sense Bangchak's promising future in the refinery, marketing, and alternative-energy businesses. I can foresee Bangchak making healthy profits through the next 3-4 years.



Risk Management

The Company implements its risk management system under the internationally accepted COSO Enterprise Risk Management (COSO ERM) and ISO 31000 standards to ensure goal achievement and preparedness for changing circumstances. It defines a risk management policy that requires compliance by all employees and all units by managing risks to acceptable levels. Its Enterprisewide Risk Management Committee (ERMC) manages the Company's risk management for high efficiency. Structure and reporting on systematic monitoring and assessment under the Enterprisewide Risk Management Process as shown:

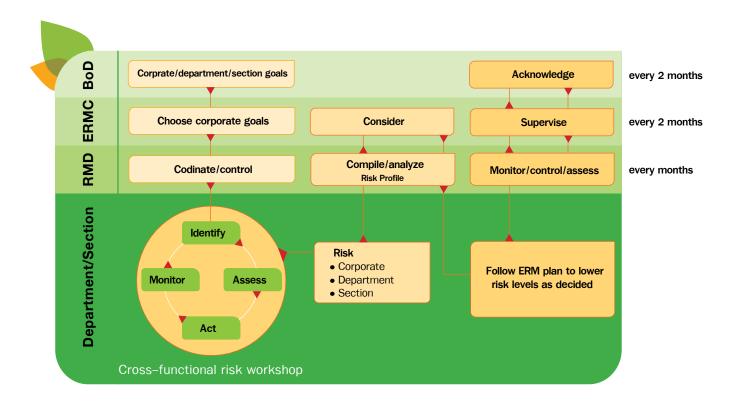


Note

Functionnal - Vice President Position or is assigned to

Risk Communication - assigned by Senior Excutive Vice President/Excutive Vice President

Enterprisewide Risk Management Process (ERM)



In 2012, the Company's practices achieve a risk management plan. Key risk factors - including economics, social and environment which affecting its corporate objectives are grouped below.

1. Economic Risks

Risks inevitably facing the Company's overall performance arise from the volatile oil price and the baht, currency exchange rates, uncertainty of output volumes as well as global and domestic energy demand, the public sector's policy, and investment choices for new businesses. To tackle such risks, the Company organizes executive seminars to define business strategies compatible with changing circumstances, conducts analyses of risk factors facing new-venture projects at each project stage, conducts risk management for prices and finance, and develops plans to accommodate change and uncertainties. Senior executives also monitor the Company's performance weekly and monthly to ensure goal achievement.

2. Social Risk

Consumers' behavioral change

Faced with today's consumers' behavioral change and their tendency to choose green products more and more, the Company is committed to clean energy-whether it is 91-octane, 95-octane, E20, E85 gasohol or Diesel Power D-while campaigning for consumers' awareness of carbon dioxide reduction when they refuel with the Company's products. The Company raised its investment in solar-cell power generation, ethanol plants, and biodiesel plants based on crude palm oil and palm growing. The Company was the first to support public policy on alternative-energy production and actively push the policy of subsidizing the prices of alternative fuels.

Corporate image and participation with communities and society

The Company strictly values compliance with the law and relevant regulations, evident in its leaders that set role models for transparency and social responsibility, as well as the awards presented to the Company all along. Apparently, legislative and regulation changes or the Company's own strategies for new-venture investments could require certain projects to undergo the approval process for environmental impact assessment (EIA) reports and secure community acceptance. Limitation and delays resulting from this process could pose risks affecting the Company's operation and costs.

Safety for communities and society

To bolster the confidence of the refinery's neighbors, BCP defined a crisis management plan and an emergency plan and conducted regular drills to ensure the preparedness of personnel and resources for various incidents as defined by the Business Continuity Management (BCM) ISO 22301 standard.

Risk management and business continuity concerning the incident at Bangchak Refinery

Following the fire incident at Crude Distillation Unit 3 on July 4, 2012, the consequent property damage and loss of business opportunity decreased overall operational capacity and confidence of the investors and the surrounding communities. However, the preventative measures, readiness, response and recovery, which is rehearsed and reviewed regularly, simulating various situations, allowing for immediate response to control the situation, without injury or loss of life. The Company's responsibility towards the community allowed the company to promptly provide information and assistance to all stakeholders, and control the impact of the incident.

Communities around the refinery

The Company executives and employees together surveyed the impacts and communicated with more than 700 households in 15 communities around the refinery at once after the incident, and assessed the damage for immediate repair work. Recognizing potential impacts on the physical and emotional health and mind of community members, the Company commissioned teams of doctors from Bamrungrad Hospital to provide health inspection to them from day one. Communication and alerting systems for all corners of the communities have also been beefed up.

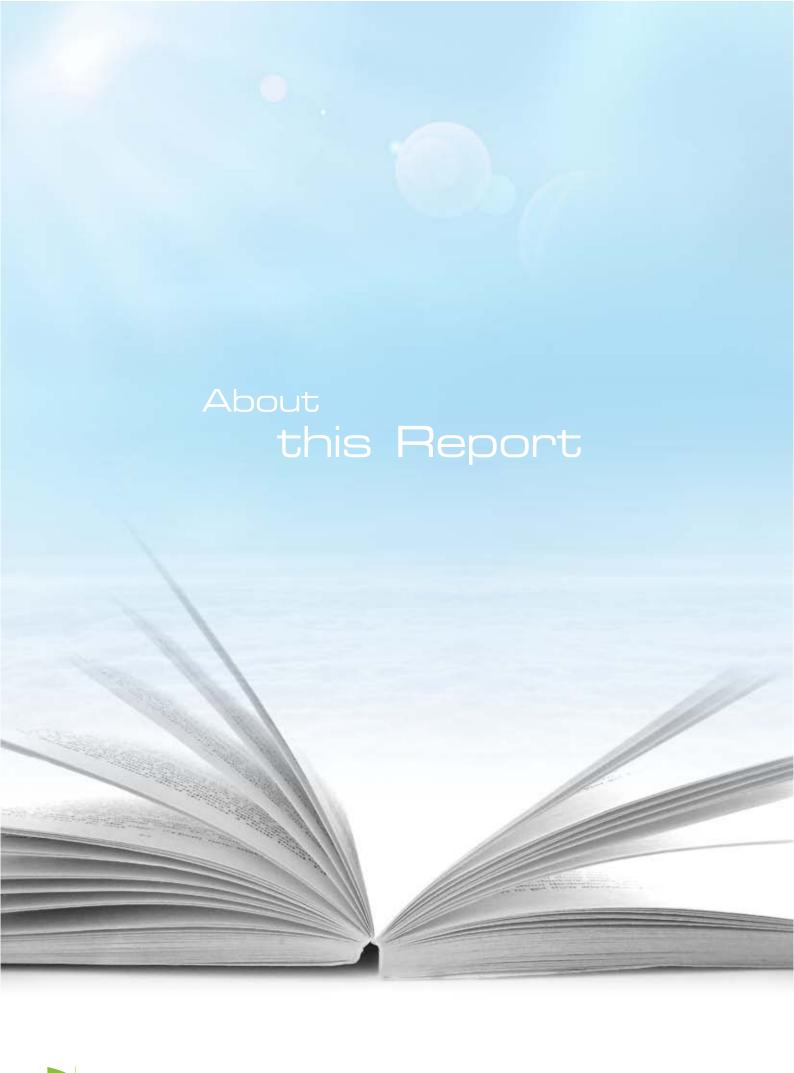
Government / investors / social sector

Under strict safety standards, the Company accelerated equipment repair for the Distillation. Unit 3 to resume operation as soon as possible. The Company hired world-class experts like Foster Wheeler, DuPont, and Toyo-Thai Corporation to supervise repair work, audit operating and safety systems, and provide engineering consultation to ensure confidence by all beyond international standards. The Company added safety equipment as well as operating and warning systems to ensure adequacy, suitability, and coverage of all refinery areas.

3. Environmental Risk

Since more and more severe environmental problems are arising today, evident in the frequency and severity of natural catastrophes and global warming, the Company is committed to developing alternative-energy businesses to stem the emission of greenhouse gases in line with its carbon-neutral company strategy.

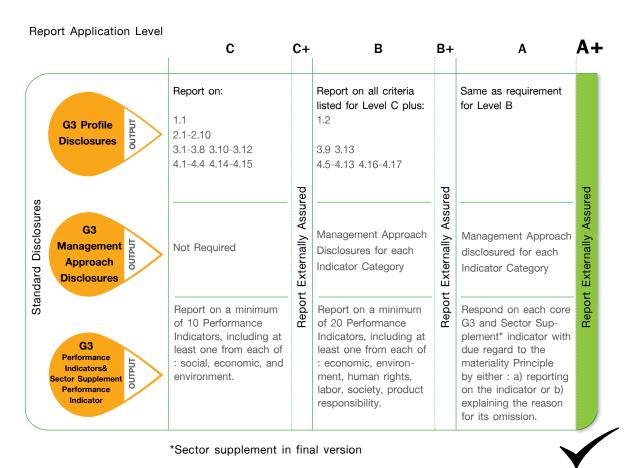
The Company strictly values environmental matters by conforming to legislation. Waste management is in place, and resource consumption efficiency has been constantly and suitably improved for energy, water, steam, and so on, in all parts of the refinery, oil depots, and offices strictly, as called for by the TIS/OHSAS 18001 occupational health and safety management system and the ISO 14001 environmental management system to control costs and bolster confidence among communities and society around the refinery. Communities can openly and transparently verify data at the Environmental Quality Data Center, located at Piyarom Sports Club and in communities around the refinery. In addition, the Company together with PTT Group have assessed risks for navigation routes between oil depots to prevent accidents. Vessels have undergone improvement to double-hull ones, and management plans are in place to accommodate oil spills and lower the likelihood of oil spills during marine transport.



This Sustainability Report illustrates Bangchak Petroleum Plc's (BCP) performance related to social, economic and environmental development. We first prepared this Sustainability report for distribution in 2005, so this is our eighth issue, containing performance from January 1 to December 31, 2012, under an approach suggested by Global Reporting Initiatives Global Reporting Initiatioves (GRI G3) Application Level A. indices with applied United Nations Global Compact principles. In essence, it illustrates the Company's continuous development in executing its business with social and environmental responsibility on a path toward being Thailand's CSR role model. The report consists of an identification of key issues, namely vision, strategies, good corporate governance, key company risks, together with economic, environmental and social performance.

This year marked the continuation of BCP's progress from the A level (GRI Check) achieved last year to provide a limited assurance on the selected subject matter by a third party (PricewaterhouseCoopers ABAS Ltd.) so as to give the report full coverage and credibility according to the GRI G3 data presentation approach. The focus was on gathering, compilation, and reporting of core indicators of the refinery business, namely environmental performance (carbon dioxide emission; consumption of energy and water; waste), social performance (injury rates), and economic performance (employee compensation).

Information display of the GRI: G3 indicator report



Scope: This report presents the performance data of 2012 of BCP, covering the activities of all business groups but excluding its subsidiaries and affiliates. An exception is the environmental indicators and environmental cost accounts, which reflect performance for the office areas and the refinery on Sukhumvit 64 Road. The calculation basis for energy and greenhouse gases has undergone change for more up-to-date and explicit outcomes.

Key issues: This report focuses on key issues that could sustainably affect business, namely:

Environment

: Neutral carbon dioxide emission

Recognizing that the petroleum business is energy-intensive and emits carbon dioxide, a major cause of global warming, BCP has defined a goal for neutral carbon dioxide emission. Refining units have undergone improvement for greater efficiency, and clean energy has been employed to reduce carbon dioxide emission.

Society

: Safety of communities and society

Neighbors' confidence in safety around the refinery is BCP's top priority, particularly since more and more residents now prefer condominiums. Despite its compliance with assorted international standards and its quick mitigation of impacts on communities in a responsible manner, accidents did occur that alarmed BCP's neighbors. BCP continued to make improvements in tackling this risk by devising crisis management plans and emergency plans, regularly undergoing drills under the Business Continuity Management (BCM) ISO 22301 standard, and hiring the world's best experts to recommend production process and safety standards that are superior to the international standards adopted by other refineries.

: Employee care

To BCP, employees rank high on its priority list, and therefore it has promoted a better quality of life for them and their families by improving their welfare schemes. It organizes health promotion activities throughout the year; sets up an exercise room and gives employees access to Piyarom Sports Club at members' rates; and organizes executives' meetings with employees for moral support during their various work hours and at the New Year at all office buildings. These have provided employees with excellent morale.

For any questions or recommendations, please e-mail: chongprode@bangchak.co.th

Economic

Performance





In 2012, the average Dubai crude price was up by USD 2.57/BBL, rising from USD 106.56 / BBL to USD 109.13/BBL. Concerns over the Euro debt crisis, especially in Greece and Spain, depressed the price in the first half-year, while in the latter half, it was buoyed by many positive factors, including lower supply from oil production shutdowns in the US Gulf of Mexico, caused by Hurricane Isaac, in September, longer-than-expected maintenance shutdowns of oil fields in the North Sea, and the improving commodity prices as a result of the US government's QE 3 and QE4 measures to stimulate economic growth and employment.

Revenue

Revenue from sale of goods and services of Bangchak this year amounted to Baht 162,623 million, made up of Baht 160,366 million from fuel sale, Baht 1,879 million from lube oil sale, and Baht 378 million from solar power generation. This revenue represented a rise of Baht 5,694 million from that of 2012, mainly due to the higher world oil price (averaging USD 2.57 / BBL higher than last year's level) and the revenue derived from the solar power business after the flood recovery. The marketing business had a margin (excluding that of lube oil) of Baht 0.61/liter (about USD 3.1/BBL) against Baht 0.55/liter (about USD 2.86/BBL) last year. The sales volume through the marketing business was 77.89 thousand barrels per day, a rise of 6.02 thousand barrels per day (8.38%) over last year. Other income amounted to Baht 658 million, of which Baht 73 million was from business-disruption insurance claims and flood prevention expenses of the solar farm business phase 1 in Q2, Baht 310 million from preliminary compensation for the accident at the Third Refining Unit on July 4 this year. In all, the Company posted a net profit of Baht 4.2 billion, a drop of Baht 1.422 billion (25.5%) from last year, since the average refinery utilization was 73.71 thousand barrels per day, while that last year was 85.69 thousand barrels per day as a result of the maintenance shutdown in Q2, and the accident to the Crude Distillation Unit 3 in Q3. The unit resumed operation in October this year.

Expenditure

In 2012, the Company reduced its operating expenses by Baht 64 million, most of which was for advertisement and public relations. Expenses for society, schools, and communities, including donation in kind and in cash, rose by Baht 31 million. Income tax and local tax expenses surged Baht 102 million, although the corporate income tax rate was trimmed from 30% to 23%. The cost of capital rose by Baht 162 million, thanks to the issuance of debentures to finance new businesses in line with Bangchak's strategy. In short, the Company's ability to pay dividends was higher than the announced dividend policy with an increment of Baht 119.73 million over last year.

Unit: million Baht

Business income ^{1/}	2009	2010	2011	2012
Sales and service revenue	107,678.23	134,638.17	156,928.44	162,622.83
Other revenue	229.07	705.18	1,629.06	658.33
Profit before the cost of	11,193.39	4,460.90	6,997.82	5,816.48
capital and income tax				
Total revenue	113,538.05	135,370.98	157,798.64	164,419.90
Net profit	7,474.89	2,633.87	5,642.58	4,199.89

Unit: million Baht

Expenses incurred to distribute income to stakeholders				
	2009	2010	2011	2012
Operating expenses	375.76	435.65	724.11	659.23
Interest paid to financial institutions	553.81	841.81	748.17	910.48
Taxes paid to government and local authorities	3,209.50	1,036.79	652.83	755.33
Expenses for social / community development	22.16	28.16	32.05	40.17
Social/school donation	18.18	15.06	31.34	54.32
Dividends	1,729.34	1,520.71	1,739.06	1,858.79
Employee's salary and welfare ^{2/}	977.44	1,049.32	1,176.82	1,310.04

Remark

^{1/} Financial Statement for BCP only.

 $^{{\}hbox{$2$/$ Clasification of employee remuneration and employee welfare expenses aligned with the financial statement.}}$





Environmental Management

The Company's key tool for environmental management to continually strive for environmental development is ISO 14001 for its refining units, Bangchak Oil Distribution Center, and Bang Pa-in Oil Distribution Center. For 15 consecutive years, the Company has successfully maintained this system, thanks mainly to the drive of the health, safety, environmental and energy management team (the Company's top environmental management team) chaired by the Senior Executive Vice President, Refinery Business, and to the awareness of employees and contractors (working on behalf of the Company) who have provided excellent cooperation in conforming to the health, safety, environmental, and energy policy. This year, the Company began earnest implementation of its document management system and its ISO management system, thus improving document control and tracking of actions under various environmental protective measures in the hope of raising online application efficiency.

This year, the Company won the fourth tier (Green Culture) of the Green Industry certification from the Ministry of Industry, which illustrated its workforce's collective green operations in every aspect so that their practices have become part of the corporate culture in keeping with the Bangchak culture of "Creative Leader for Clean Energy".

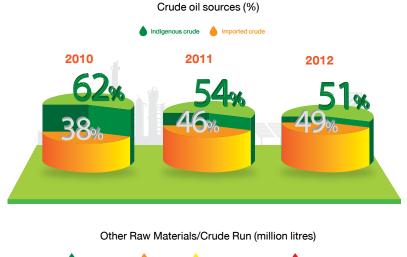
All employees have been continually trained to be environmentally knowledgeable through training of lead auditors and supervisors of pollution prevention systems in the knowledge of legislation, industrial waste management, and air pollution.

Green Production and Carbon Footprint

Raw Materials

The Company refines imported and indigenous crude oil with modern and environmentally friendly technology. This year, indigenous crude amounted to nearly 2.3 million litres, or 51% of the total crude run, and 2.2 million litres of oil was importes. This lessened the currency outflow and the emissions of greenhouse gases due to crude oil transport. In addition, the Company fed 3% of off-specifications refined oil and slop oil back into its refining processes, thus lowering oil losses and consuming resources more effectively.

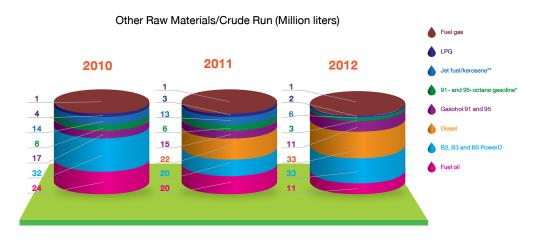
This year, the Company introduced B100 biodiesel ester and ethanol as extra raw materials in addition to crude oil for the 82 and 88 million liters of refined outputs, as more biodiesel ester in diesel was required by the Department of Energy Business. In addition, there was greater demand for diesel and gasohol.





Products

The Company's products include fuel gas, LPG, 91-octane gasoline, gasohol 91 and 95, jet fuel, B2, B3 and B5 PowerD and fuel oil. This year, BCP replaced catalysts in its quality product improvement unit, which converts fuel oil into diesel and gasoline. As a result, the fuel-oil output ratio fell, whereas those of diesel and gasoline rose.



 $^{^{\}star}\,$ In 2008-2011, no gasoline 95 was refined for domestic sale

^{**} In 2007-2011, no kerosene was refined.

Energy

In its processes, the Company consumes primary sources of two types: direct energy (FG, LPG, NG, and FO) and indirect energy (electricity supplied by the Metropolitan Electricity Authority, along with electricity and steam supplied by Bangchak Utility Plant (BUP). All energy is classified as non-renewable.

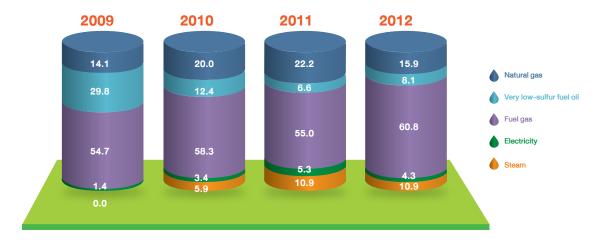
This year, the Company consumed a total of 11,114 Tera Joules, a rise from last year, because of

- 1. A total of 392 Tera Joules of additional energy was consumed, with the EURO IV gasoline processing unit in operation since November 2011 to ensure EURO IV quality conformance.
- 2. During BUP's maintenance turnaround from certain periods from February to May, direct energy was consumed for power and steam generation for the refinery's own use for lack of such energy received from BUP, whose electricity generation was more efficient.
- 3. During low-output periods, more energy was required to heat oil and recycle it to maintain the minimum output, as was the heating of oil from the cold feed.

By energy type, it was found that The difference ratio of primary energy consumption grew by 1.0% from last year, of which energy from FG and NG dropped by 0.5% and that from FO grew by 1.5%, whereas the ratio of delivered electricity dropped by 1% because the Company was consuming primary energy for power and steam generation for its own use during BUP's maintenance turnaround.

Source of Energy	2011	2012
	(Tera Joules)	(Tera Joules)
FUEL (Primary)		
- FG + LPG	5,860.13	6,752.96
- NG	2,372.25	1,763.77
- FO	704.08	905.06
Electricity Purchasing (Secondary)		
- MEA	98.72	101.45
- BUP	462.08	376.49
- Stream Purchasing from BUP	1,161.85	1,214.64
Total	10,659.11	11,114.37

Profile of energy consumption (%)



Note: Energy consumption in this sustainability report differs from last year's report in that the total electrical energy purchased from MEA and BUP now excludes energy losses due to the processing efficiency of purchased electricity.

This year, the Energy Management Committee continued to manage its refinery efficiency improvement project. Compared with the base year (2010) before the project launch, the Company managed to trim about 146,136 million Btu, equivalent to a reduction of 8,656 tons of carbon dioxide equivalent (TOCE) in greenhouse gas emission. Meanwhile, natural gas instead of LPG started being fed into the hydrogen unit, thus lowering the emission by 28,457 TOCE. When combined with the existing project, which had been constantly managed, the Company successfully trimmed greenhouse gas emission by 133,133 TOCE.

Refinery efficiency improvement project	Reduction in energy (Million Btu)	Reduction in greenhouse gas emission (TOCE)
Fuel Consumption Reduction Project 1. Reducing excess oxygen from combustion in the hydrogen plant 2. Increasing the inlet temperature of the naphtha splitter column in the hydrocracking unit 3. Improvement the efficiency of the heat exchanger in the topping unit 4. Lower reflux ratio at gasoline stabilizer of Distillation Unit 3	111,085 311 13,459 4,566	7,666
Steam Consumption Reduction Project 1. Lower reflux ratio at amine regenerator of Third Refining Unit 2. Improve insulator of 40-bar steam conduit	3,350 13,365	990
Replacement of Low-carbon Input into Hydrogen Unit Project 1. Use natural gas as feed for hydrogen unit	-	28,457
Replacement of Low-carbon Fuel Project 1. Use clean-burning natural gas instead of fuel oil 2. Generate electricity and steam from co-generator plant	- -	96,020
Total	146,136	133,133

Carbon Footprint

Recognizing the criticality of climate and environmental change, the Company constantly undertook a project to cut greenhouse gas emission, as seen under the Refinery Efficiency Improvement Project lower consumption of fuels and steam, Replacement of Low-carbon Feed into Hydrogen Unit Project, and Replacement of Low-carbon Fuel Project. Contributing to these efforts was the maintenance turnaround of the Third Refining Unit. This year the Company released 1,036,978 tons CO₂e of greenhouse gases. In this report, greenhouse gas data were calculated on the basis of PTT Group Carbon Footprint Guide, the greenhouse gas was downed by 70,081 tons (about 6%) from last year, broken down as follows:

- 1. Direct emission from processes: 723,269 TOCE
- 2. Indirect emission from the purchase of electricity and steam from PTT and that of electricity from MEA: 141,721 TOCE
- 3. Indirect emission from the transport of raw materials and other activities: 171,988 TOCE.

Note: Emission in 2011 rose from 626,010 TOCE to 1,107,059 TOCE because of additional reports of indirect greenhouse gas emission from the transport of raw materials and other activities and a change in the calculation method for the hydrogen unit from the feeding rate of liquid to gaseous precursor materials.

Water

The Company uses water supplied by MWA for the refinery and sources fire water from the Chao Phraya River. Water consumption in 2012 amounted to 2,146,890 cubic metres, a slight drop that of the previous year due to lower refining activities, lower use for maintenance purposes as well as implementation of the following water-saving measures in offices and refining processes:

- 1. Installed sensors on toilet sinks to lower water losses.
- 2. Use of treated water for plant watering on the compound, thereby saving 4,800 cubic metres
- 3. Use of stripped water from the Sour-Water Stripping Unit as Boiler Feed Water (BFW) of Distillation Unit 2 and 3, reducing consumption by 57,120 cubic metres of BFW per year.
- Treated slightly contaminated condensate water for reuse in the boiler feed water system
 of the Fourth Refining Unit, thus lowering the requirement for new water by 633,600 cubic
 meters a year.
- Used high-quality condensate water in place of regular water for boilers at the Second Refining Unit and the Plant Energy Unit, thus lowering the requirement for water by 166,320 cubic meters a year.
- 6. Treated water initially with a reverse osmosis system before feeding the water into the demineralization system, thus lowering the requirement for water from system improvement by 38,000 cubic meters a year.

In addition, the Company took the following measures:

- 1. Installed an additional reverse osmosis system to treat water before feeding it into the demineralization system to cover the demand for demineralized water by early 2013 so as to lower the need for piped water by no less than 38,000 cubic meters a year.
- 2. Installed a water filtering system and a reverse osmosis system to treat desulfurized water derived from the sour water stripping unit at the Distillation Unit 4. The resulting water was then used for piped water in the cooling water system. Completion is planned for early 2013 to lower the requirement for water by no less than 85,000 cubic meters a year.

Air Pollution

As for environmental monitoring, the Company regularly measures stack-air quality to ensure that the total suspended particulate masses (TSPs), nitrogen oxides (NOx) and sulfur dioxide (SO2) are superior to those announced by the Ministry of Industry and as required in environment impact assessment (EIA) reporting.

Because of its close proximity to communities and recognizing the importance of environmental quality, the Company uses clean fuels in its refining process and closely monitor emissions. Continuous Emission Monitoring (CEM) equipment was installed at the refinery's emission stacks to monitor environment quality and pollutants in the exhausts at all times. Furthermore, the Company has set up two air quality monitoring stations near its neighborhood. The first checkpoint was at Somthawil School, the second checkpoint was set up at the Secretariat Department military housing units. All readings go to the monitors in the Process Control Room and air-quality analytical results are displayed together with those from the CEMs on automatic environment quality signboards installed at the entrance to the refinery and communities in its vicinity as well as in public areas, such as Piyarom Sports Club, for the public to monitor them at all times as well as for the comfort of the surrounding communities.

Serious about ozone-depleting Volatile Organic Compounds (VOCs), the company has established VOC accounting. Its measurement of VOC emissions started in 2010. This year, the Company measured leaked volatile organic compounds (VOCs) from 90% of its machines, except for only the Distillation Unit 3, which started up in late 2012. Measurement showed only about 0.086% coming from significant leaks. The Company repaired these leaks within 15 days as required by law, thus making VOC measurements from its equipment superior to the standard.

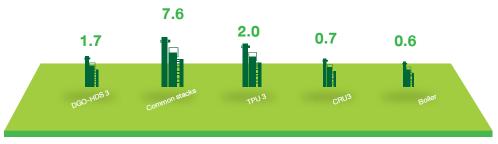
Air quality from stack emissions*

* Note: Measured by ALS Laboratory Group (Thailand) Co., Ltd.

Total Suspended Particulate

EIA Standard 192 Concentration, mg/cu.m.

Standard 60 concentration, mg/cu.m.

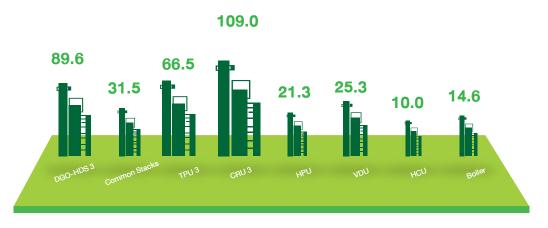


Concentration, mg/cu.m.

The standard was in line with the announcement of the Ministry of Natural Resources and Environment on "Standard for Air Pollution from Petroleum Refineries, B.E. 2544 (2011)" and EIA standards, which were more stringent than that of the Ministry of Industry.

Oxides of Nitrogen

EIA Standard 160 Concentration, ppm

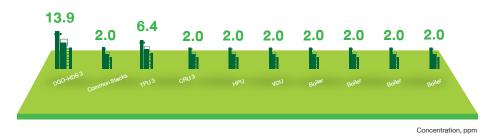


Concentration, ppm

The standard was in line with the announcement of the Ministry of Natural Resources and Environment on "Standard for Air Pollution from Petroleum Refineries, B.E. 2544 (2011)" and EIA standards, which were more stringent than that of the Ministry of Industry.

Standard 60 Concentration, ppm

EIA Standard 48 Concentration, ppm



The standard was in line with the announcement of the Ministry of Natural Resources and Environment on "Standard for Air Pollution from Petroleum Refineries, B.E. 2544 (2011)" and EIA standards, which were more stringent than that of the Ministry of Industry.

Hydrogen Sulfide

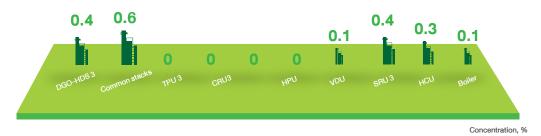
Standard 60 Concentration, ppm



The standard was in line with the announcement of the Ministry of Natural Resources and Environment on "Standard for Air Pollution from Petroleum Refineries, B.E. 2544 (2011)" and EIA standards, which were more stringent than that of the Ministry of Industry.

Opacity

EIA Standard 10 (%)



The standard was in line with the announcement of the Ministry of Natural Resources and Environment on "Standard for Air Pollution from Petroleum Refineries, B.E. 2544 (2011)" and EIA standards, which were more stringent than that of the Ministry of Industry.

Water Pollution

The Company houses high-efficiency wastewater treatment systems using closely-monitored online measurement devices. Effluent is tested daily by its Environmental Quality Analysis Laboratory, certified by the Department of Industrial Works, Ministry of Industry, and is ISO / IEC 17025-certified. Process water is treated physically, chemically and biologically until the quality exceeds the required standards before discharge through the Bang Aw Canal to the Chao Phraya River. In 2012, the Company discharged a total of 522,733 cubic metres of effluent. The Company is committed to the reduction of water consumption and effluent to save water and make the most efficient use of water. This year, BCP began constructing and installing an effluent water quality improvement unit with modern technology and Baht 214 million in investment to obtain quality water on a par with piped water for use in production processes. The goal was to lower the volume of wastewater and used water by 20%, and the plan was to begin partial implementation in 2013 and complete the construction in 2014. In addition, this year saw the Company attempt to lower environmental impacts arising from very dirty tank-cleaning water. Pre-treatment was first applied with activated carbon before discharging the water into the wastewater treatment system.

Parameter	Unit	Standard	2012
pH	-	5.5-9.0	7.7
Oil and Fats	ppm	5.0 Max	0.8
Suspended Solids	ppm	50 Max	14
Soluble Solids	ppm	5,000 Max	1,232
B.O.D.	ppm	20 Max	6
C.O.D.	ppm	120 Max	45
Sulfides	ppm	1.0 Max	0.4
Mercury	ppm	0.005 Max	0.000

Waste and Scrap / Disposal

The Company disposed of process waste at the Bangchak and the Bang Pa-in Oil Distribution Centers by strictly following legislative guidelines and applying the 3Rs (reduce, reuse, and recycle). The final disposal was handled by the transporter and domestic disposal agents authorized by the Department of Industrial Works (DIW). This year the Company exported from its plants a total of 2,431 tons of waste, consisting of 1,739 tons of hazardous waste (71%) and 692 tons of non-hazardous waste (29%). Waste that underwent treatment and disposal through proper technical means was broken down as follows: 984 tons as replacement raw materials and furnace fuel, 164 tons as safe landfill, 1,077 tons sorted and reused, and 206 tons incinerated. Waste sorting was carried out for sale so that DIW-authorized treating agents could realize full monetary worth, which accounted for 44% of the total waste exported from the plants. This volume was higher than the previous year because this year the volume of waste (iron scrap, electrical wires, and aluminum) soared, following repair work in the wake of the incident of July 4, 2012.

Industrial Waste by Category (Percentage)



Treatment Method	Total Waste Volume	Hazardous Waste	Non-hazardous Waste
Substitute raw materials and use as fuel in furnaces	984	953	31
Safe burial	164	-	164
Sorting and reuse	1,077	607	470
Others (including incineration)	206	179	27

		Ur	nit : Percentage
Industrial waste disposal			
waste disposal	2010	2011	2012
Landfill	3	7	7
Incineration	72	65	49
Common wastewater treatment	-	-	-
Segregated for recycling or reuse	25	28	44

Note: Definition of waste by regulation of Ministry of Industry Thailand

There is no any significant incident involving oil spill in 2012. All situations that occurred in areas of refinery had been immediately under managed, controlled and recovered in line with SHEE laws and environmental regulations which have never been affected to water resources and environment at all.

Unit: Tons

Transport

As a rule, crude oil transport is done by sea, since crude sources lie offshore and the cost is lower than by truck or train. Products of Bangchak Refinery in Bangkok were transported to the Bang Pa-in Oil Distribution Center by pipeline to cut energy consumption for transport and lessen traffic congestion before distribution to the Central Region, the North, and the Northeast by tank trucks. For Western Region and Southern destinations, products were transported by marine vessels to the Samut Sakhon and Surat Thani Oil Distribution Centers. The Company's trucks run on the less-polluting biodiesel instead of normal diesel, and 16,000-litre trucks were replaced with 20,000-litre and 32,000-40,000 litre ones to lower the numbers of trips and lower fuel consumption and carbon dioxide emission. This year saw products transported with 20,000-liters trucks accounting for 2% higher in volume than last year. Furthermore, all Bangchak oil trucks are GPS-monitored to control their speeds and reduce risks of accidents harming the environment. Every driver must undergo defensive driving training, and all trucks must be in working order. Emergency teams are required to be on alert, ready to move in to terminate or control the incidents potentially involving oil leaks. Besides, the Company invested in installing a transportation management system, which not only raised transport efficiency, but enabled it to control transport quality and safety of every Bangchak truck simultaneously nationwide.

Compliance

Compliance represents good governance and a health, safety, environment and energy (SHEE) policy element to which all employees and contractors working on behalf of the Company must pay attention and strictly adhere in their operations. Besides having a unit responsible for the follow-up, summary and compliance of new and draft laws on SHEE, there are at least two SHEE compliance audits every year conducted by internal and external auditors. The Company also has a legal office responsible for educating and generating awareness of rules and regulations to ensure compliance. The Company has never been fined or punished as a result of non-conformance to environmental laws or acts in violation of laws or regulations during transport.



Environmental Cost Accounting

Recognizing the value of environmental cost accounting in environmental management, resource consumption, and more efficient financial management, the Company has constantly engaged itself in environmental cost accounting-in keeping with its philosophy of "Creating an energy business that is environmentally friendly for sustainable development" -beginning with :

2005: Initiated the practice for the production line

2008: Entered data into an electronics system to enable reporting to the management and give units needing the data constant access

2009: Expanded the reporting scope to the Bang Pa-in Oil Distribution Center.

Ever since 2009, the Company's environmental cost accounts have been established for external agencies and investors through the Management Discussion & Analysis (MD&A) report and the IR Newsletter every quarter of the year. In addition, such knowledge has been passed on to students and other interested agencies.

For this year, such accounts saw a drop of Baht 4,563.44 million from last year. To explain this drop, this year the Company underwent a major maintenance turnaround of all refining units in the second quarter, and then there was a fire incident on July 4, which lowered the Company's capacity to 73.7 thousand barrels per day, a drop of 12 thousand barrels per day from last year. Therefore, the cost of raw materials inherent in the products fell by Baht 4,745.98 million from the same period despite the rise in the average Dubai crude price from USD 106.56 per BBL last year to USD 109.13 per BBL.

As for the cost of non-product raw materials, meaning process waste, this cost rose this year, primarily because of the rising cost (by 23%) and volume (by 42%) of slop oil that incurred rerun costs. This actually resulted from the two above-mentioned incidents.

The overall expenses of pollution control apparatus rose by Baht 46.96 million with the apparatus repair incurred at the same time as the refining unit maintenance. Under the Company's accounting standard, these expenses are to be recorded as assets, evident in the depreciation of the apparatus. Meanwhile, the apparatus maintenance costs dropped by some 38% because the Company was able to cut its effluent and treatment fees by over 12%, thanks to the biodiesel process modification that allowed reuse of waste.

Environmentally speaking, besides expenses, the Company generated income from selling unused materials for raw materials for other industries, like glycerine obtained from the biodiesel unit, amounting to Baht 0.15 million more than last year, together with iron and aluminum scrap, which generated Baht 1.73 million more than last year.

Unit: Million Baht

	2011	2012	
Material Costs of Product Outputs			
Crude Oil	103,213.90	96,406.01	
Ethanol	1,904.61	2,391.83	
Biodiesel (B100)	2,216.62	3,106.96	
Used Vegetable Oil	43.82	23.38	
Chemicals	81.92	47.98	
Process Water	31.83	34.63	
Energy	3,286.93	4,022.86	
Material Costs of Non-Product Outputs			
Slop Oil	121.99	258.70	
Bottom-Tank Sludge / Fuel Oil	0.17	1.86	
Effluent	9.88	8.35	
Excess Chemicals in Water from stabilizer Pool	0.36	0.17	
Poor-Quality Sulfur	0.09	0.12	
Waste and Emission Control Costs			
Environmental Equipment Maintenance	24.59	15.04	
Depreciation of Pollution Control Equipment	113.97	171.37	
Effluent Treatment	6.87	6.22	
Waste Disposal	8.98	8.74	
Environmental Fees and Taxes	N.A.	N.A.	
Fines	0.00	0.00	
Environmental Management Costs			
Monitoring	6.72	5.77	
Depreciation of Waste Storage Area	0.16	0.23	
Management Operation Cost	0.44	0.17	
Environmental Equipment Maintenance Cost	0.00	0.01	
Benefit from by-product and waste recycling			
Liquid Sulfur	(18.46)	(15.39)	
Glycerin	(0.49)	(0.64)	
Steel-Aluminum Scrap	(6.25)	(7.98)	
Paper	0.00	0.00	



For sustainable development to happen, businesses cannot merely consider business returns, but must take into account environmental impacts as well. This is why the Company has introduced eco-efficiency, an indicator that blends economic with environmental performance outcomes, with the adjusted EBITDA as an element of economic performance against the emission of carbon dioxide equivalent for the Company's environmental impact. In other words, eco-efficiency rises with either improved economic performance or improved environmental impacts. This year, IRPC continuously carried out its project to lower greenhouse gas emission from several projects: refinery efficiency improvement, lowering of fuel and steam consumption, feeding of low-carbon raw materials to the hydrogen unit and low-carbon fuels to the furnace, and the maintenance turnaround of the Third Refining Unit. As a result, 1,036,978 tons of carbon dioxide equivalent (TOCE). Yet, due to the declining adjusted EBITDA this year, the Company's eco-efficiency registered a drop from last year.

2011 2012 Eco-efficiency 6,321 5,609

Note: Due to a scope change in BCP's report on greenhouse gas emission and in the computation of greenhouse gas emission from the hydrogen unit, the value reported here for 2011 differs from what appeared in last year's report.

Biodiversity

While the Company continues its oil refining business, it exercises profound environmental stewardship to avoid making adverse impacts on biodiversity by monitoring, auditing, and ensuring acceptable environmental qualities both inside the refinery and in communities around the refinery by means of advanced online systems. While the refinery's surroundings in Phra Khanong District of Bangkok are residential/urban nowadays, the Company continues to exercise its support and stewardship for the environment in both areas to keep them sound. To this end, it staged integrated activities like planting trees to add green areas around the housing areas of government officials attached to the Office of the Permanent Secretary, Ministry of Defence, to the east, next to its entrance fence, and garbage collection activities in the lower Chao Phraya River, to the west, next to its quay.

The Company faces no risk of extinction of local plants and animals. In fact, thanks to Bangchak's stewardship of the surroundings and nature, more than 70 species of local and migratory birds have made the refinery their habitat. The Company has continually invited the interested public to join its Ornithologist Club activities.

Because we're one family:
Good care of our homes
and surroundings enables
us to look after local and
migratory birds all year
round



Pannee Tangcharoenbamrungsuk Network Administration Division employee Chair, Bangchak Ornithologist Club

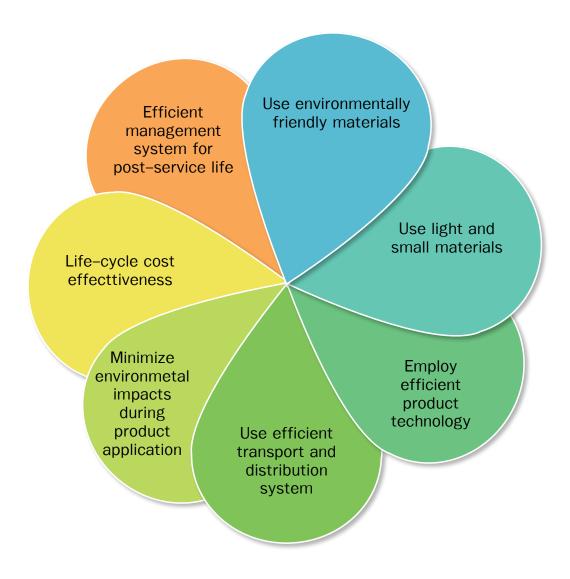
It is common for Bangchak Refinery to host numerous birds on its compound. Based on the records of Bangchak Ornithologist Club, over the years the refinery hosted no less than 70 species of local and migratory birds. Although it is now perceived as an urban refinery, we've found birds common to major urban public parks or suburban areas, including coppersmith barbets, red-beasted parakeets, blossom-headed parakeets, black-collared starlings, vinous-breasted starlingors those that migrated from the North Pole. These birds make the refinery area their resting and energy-gathering places before heading back home-like common kingfishers, black capped kingfishers, black-naped orioles, asian emerald cuckoos, asian paradise-flycatchers, and brown shrikes. Sometimes we found birds not expected of urban areas, like brown hawk-owls and grey night, jars. This extreme rarity signified our environmental management and stewardship. Bangchak has supported elementary bird-watching activities so as to become a natural learning place for local youths and families to study the ecology and birds' lives every year and has encouraged employees to volunteer for bird-watching activities organized by the Bird Conservation Society of Thailand or other conservation groups.





Green Procurement

Besides exercising environmental care inside the Company, the Company also supports its business partners to do so. The Company values the use of environmentally friendly products through its procurement of products, goods and services, known collectively as Green Procurement. This means that, besides the desired suitability of quality, prices, delivery and services, the Company examine the degree of environmentally friendly production (manufacturing). To elaborate, the life cycles of desired products and services must be compatible with the diagram below as well as socially responsible; business partners must run their businesses by the law, rules, government regulations and abide by labor and safety laws; in treating their employees, business partners must abide by a code of practice and respect for human rights, while avoiding child labor and alien labor.



Properties of lifelong environmentally friendly products and services

This year the Company procured the following green products:

Vehicles

The Company prefers vehicles with Green Label certification while focusing on reduction of air pollution as well as noise pollution, and promoting recycling of auxiliary parts, which is a way to reduce environmental impacts arising from application and post-application disposal of vehicles, and to promote sustainable resource consumption.

In addition, the Company prefers cars running on E85, currently the cheapest fuel for motorists, since it commands the lowest price per gallon as well as the following characteristics:

- Concern about the environment through its reduction of hydrocarbons, carbon monoxide, and carbon dioxide (which is at the root of the greenhouse effect), together with black smoke, aromatics, and benzene in emissions.
- 2. Reduction of oil imports, since ethanol in E85 can be produced domestically from agricultural produce, thus leading to greater energy independence. Octane boosters no longer need to be imported, saving Thailand more than Baht 3 billion a year.
- **3.** Engine efficiency improvement, thanks to its octane rating of 105.
- 4. Clean burning and cooler burning than gasoline, since E85 burns more completely and with a lower combustion temperature than other fuels.
- **5.** Reduced maintenance costs, meaning longer engine lives due to cleaner and more complete combustion.

Photocopying paper

The Company bought paper with the likes of the Green Label, produced from at least 30% eco-fiber. The colors used in such paper's manufacturing process must be free of heavy metals like lead, mercury, cadmium and chromium (+6), must be certified ones or must conform to the Food and Drugs Administration of Thailand or a responsible agency in producing countries or the Green Label projects in other countries.

Facial tissues and napkins

These products featured 100% eco-fiber, which cut the use of trees in manufacturing processes. Water used in paper manufacturing processes must be free of heavy metals like lead, mercury, cadmium and chromium (+6), must be certified ones or must conform to the Food and Drugs Administration of Thailand or a responsible agency in producing countries or the Green Label projects in other countries. The products must not have bleaching agents containing elemental chlorine and halogens as a composition of the tissue-bleaching process.emental chlorine)







Name cards

Cream-colored the Company name cards, made from Green Card Paper featuring 100% eco-fiber, were not laminated.



Wood furniture

The Company furniture conformed to the universally-accepted EU Formaldehyde Emission Standard. E1-standard wood is toxic-free, containing as little as 0.005% chemicals for users' safety.

Correction fluids

In the interest of users' safety, the Company prefers Green Label products because correction fluids are the only stationery requiring the Food and Drug Administration (FDA)'s blessing, since a solvent in such fluids consists of gasoline and trichloroethane, which can harm the respiratory system and cause cancer. This is why correction fluids require FDA's approval and a relevant Thai Industrial Standards Institute standard.



Fluorescent bulbs/tubes

Certified by TIS (Thai Industrial Standards) or bearing an international standard, these bulbs/tubes must be efficient with at least 10,000 hours of service life. They were not to contain more than 10 milligrams of mercury in each. Their containers must be made from recycled or corrugated paper of 100% eco-fiber. No foaming materials, laminates or raw materials containing plastics may form part of the containers. Measures must be established for the return of salvaged products and reused properly under technical principles.



Cleaning agents

These agents were to be natural extracts and biodegradable, without petrochemical solutions. They must not catch fire, be non-volatile and be deodorizing, and must save water in the cleaning process.

Smart board

Smart boards are a wood substitute containing no carcinogenic asbestos, but rather cellulose, to prevent physical impacts on users. Classified as Eco Use products with little or no impact resulting from application, smart boards are extended-life, ergonomic products requiring less energy. They are reusable, refillable, and degradable.



Cement

The Company prefers cement with Carbon Label certification, which has the blessings of the Thailand Greenhouse Gas Management Organization (Public Organization) (TGO) and the Thailand Environment Institute (TEI). A certified cement producer has followed greenhouse gas reduction measures in its cement production processes through reduction of electricity, energy, and process waste by 10% or more.



Sanitary ware

The Company prefers sanitary ware with Carbon Label certification, including toilet bowls and wash basins. In its production processes, raw material preparation, and transport, it is possible to cut greenhouse gas emission. Each Carbon Label shows the ability to cut such emission per unit product through life cycle assessment (LCA), ranging from raw-material preparation, production, application, and post-application management. Serving as an assessment tool for greenhouse gas emission to obtain a given product or service, LCA is shown in CO₂ equivalent.



Building paint

The Company prefers paint certified with a Green Label or a Carbon Label. For a Green Label, the paint must be free of heavy metals, formaldehyde, and environment-impacting compounds. Carcinogenic formaldehyde could irritate the eye, skin, and respiratory tissues. To win a Carbon Label, the paint needs certification by TGO in conjunction with TEI for low greenhouse gas emission in the production processes per unit of goods or services.

As for future Green Procurement, the Company will extend this list to promote Green Procurement markets for products and services to encourage producers and manufacturers to pay greater attention to green products.

Development of Green Products and Services

Thanks to Greenergy Excellence-which means striving for an environmentally friendly ("green") energy business for the benefit of sustainable development together with the Company's sustainable business, conducted hand in hand with the environment and society-the Company is constantly committed to alternative-energy leadership-whether in development of products and services, development of the image of service stations and their supplementary businesses, development of communication technology, or choice of community products as sales promotional giveaways, a unique feature of the Company.

Comprehensive development of EURO IV fuel quality

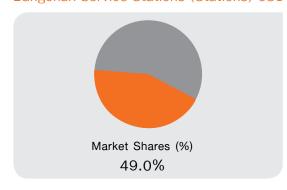
The Company successfully started selling its EURO IV gasoline, gasohol, and diesel ahead of the government's deadline of January 1, 2012, with its first diesel on sale in 2008 and the rest in December 2011 in a bid to ease air pollution.

Top market shares for E20 and E85

The Company promotes sales through marketing programs catering to consumers' needs and constantly expanded its stations offering E20 and E85 gasohol to cover all regions of the country to accommodate more new vehicles running on alternative energy, thus maintaining its top market shares for both since 2010. In 2012, it topped the E85 market share as well as gasohol sales growth among oil companies.

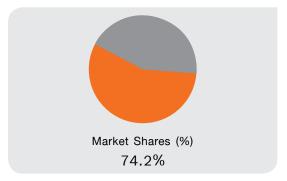


Bangchak Service Stations (Stations) 581



GASOHOL ES

Bangchak Service Stations (Stations) 51



Note: Market shares for January-November 2012

Source: Department of Energy Business

Achievement of international standards for lubricants

The Company focuses on upgrading the quality of its lubricant products and seeking international standard certification. In 2012, its GE PLATINUM gasoline-engine lubricant won API SN standard certification, today's ultimate standard issued by The American Petroleum Institute, USA. Saving fuels, raising soot removal efficiency, lowering exhaust volumes, and preserving the surroundings, this product has also won standard certification for gasoline-engine lubricants: dexos1 of General Motors, presented by the Center for Quality Assurance, USA.





Green lubricant design

In 2012, the Company modified its lubricant container design, opting for functional design and attractive looks while paying due attention to the environment. The gallon container design now has 5% less HDPE, while the corrugated paper carton is now printed with water-based ink, a green fluid uncontaminated with chemicals, thus biodegradable and readily recyclable. A greater proportion of recycled paper is now seen in the Company's corrugated paper cartons.



First Bangchak Green Station (Vibhavadi Rangsit Road branch)

The Company launched a sizeable flagship service station on Vibhavadi Rangsit Road, Bangkok, with several highlights: sales of solely alternative-energy fuels, reliance on solar cells installed for its own power consumption (including stores), use of strictly energy-saving and environmentally friendly power appliances (like LED bulbs), and role as a basic learning source for alternative energy. The year also saw this very station win two awards, namely Pleasant Service Station under the Clean Bangkok Project and the sole winner of the Department of Health, Ministry of Public Health, award for clean toilets, marked by cleanliness, complete amenities, availability, clean smell, handicap-friendliness, and elderly-friendliness.





Continued improvement of service station image

Thanks to the Company's quality improvement of its service station surroundings, today it has rebranded 181 standard service stations and 226 community service stations, for a total of 407 branches. In addition, it plans to revamp the image of service stations and supplementary businesses at these stations.

In 2012, the Company joined Big C Supercenter in improving Mini Big C convenience stores at service stations to meet the needs of more patrons of service stations, with seven such stores in current operation.

Consumers' No.2 brand

A third-party survey of the attitudes of 1,000 fuel patrons nationwide showed that Bangchak remained a Top 2 brand of choice among them for the fourth year running. This was attributed to its continual efforts to improve service station quality-whether it is image, fuel quality, services, forecourt, supplementary businesses, or ambience.

Development of mobile applications for iPhone and accommodation of Android system

The Company recently began developing a mobile application for customers with iPhones who want to download applications to ease their search for nearby Bangchak service stations. In 2012, it remained committed to developing applications for iPhone and accommodating those using the Android system as well. It also added the ability to search for service station types selling assorted fuels, like E20 and E85, to further promote consumption of alternative energy. In addition, it added a search system for supplementary businesses like Baichak, Inthanin, and Green Series Car Care and added an alert system for oil price movement, and a system displaying promotional information, Bangchak ads, and information on benefits and privileges, as well as cumulative points of Bangchak card members.



Fostering relations with customers through Bangchak Gasohol Club and Diesel Club cards

The Company's marketing program is a loyalty one (known as the Bangchak Gasohol Club), which this year saw some 550,000 cardholders, who are entitled to a Baht 0.20 per liter of gasohol and to the privileges under the Same Price Project. This means they can pay the same price one day after a price rise goes into effect. The year saw the Company further upgrade this privilege through the Value Points Project, under which members collect points not only from gasohol refueling but also from purchases of goods and services of supplementary businesses at service stations, namely Baichak, Inthanin, and Green Series Car Care. Cumulative points are good for discounts for both refueling and supplementary business purchases.

To further promote alternative-energy consumption and accommodate mushrooming models of new cars under the government's promotion this year, the Company launched a Double Point campaign for buyers of E20 gasohol by giving them a discount of Baht 0.40 per liter (as opposed to Baht 0.20 per liter) from June 5 to November 30, 2012.

To foster customers' continued loyalty to alternative energy and positive relations with cardholders, the Company organized activities for them, including visits to Royal Chitralada Projects, paying homage to Buddha images at Bang Nam Phueng, learning to make EM potions to help the Chao Phraya River stay clean, learning bouquet techniques, learning coffee-making, learning make-up techniques, watching movies, and arranging golf lessons with a professional (Pro Waen).

In addition, the Bangchak Gasohol Club card project raised consumers' awareness of environmental stewardship and enabled them to play a part in it by informing them on gasohol sales slips about the volume of carbon dioxide reduction achieved each time they refuel with an alternative-energy fuel. In early 2012, the Company launched the Diesel Club card for those patrons of its green, EURO IV diesel. Cardholders would enjoy Same Price and Value Points privileges in the same way as Bangchak Gasohol Club cardholders. Today the new card boasts 100,000 members.





Bangchak Chueam Yong Thai with community service stations

The Company issued Bangchak Chueam Yong Thai (Linking with Thais) cards for customers of cooperative service stations (the so-called community service stations) to promote sales and customer relationship activities suiting individual local areas. Besides boosting sales, thus strengthening these service stations, this move nurtures the community economy. Today, under an expanding headcount, more than 110,000 have joined the membership.

Bangchak and the use of community products as giveaway items

A distinct quality of the Company in choosing its sales promotional items at service stations lies in its promotion of community products of different provinces, a form of job creation and decentralization of income to strengthen community economies and lead to self-reliance. In 2012, two community products were featured. Luk Yee Kuan (sweetened velvet tamarind) was made by housewives in the three southernmost provinces. Agricultural produce under the Royal Project of Doi Kham Food Products Co., Ltd., under the operation of the Bureau of the Crown Property, was also featured.

Customer satisfaction survey outcomes for 2012

This year, the Company (through a company called Idea 360 degrees) launched a customer satisfaction survey among 984 patrons of its service stations from May 24 to July 22, 2012. Customers scored the Company 5.56 out of a possible 7, or 79.4%.

Bangchak ... my preferred service station



Ms. Wannisa Uea-areeworakul, STGMM Co., Ltd. Costomer

When I think of service stations selling gasohol, Bangchak is always the first to come to mind. Of course, other brands have a variety to offer, but Bangchak focuses on gasohol, thus underlining its image for those preferring gasohol. Besides, Bangchak stations boast Bangchak Gasohol Club eards. Each time I fill my tank, I get points, which attract Bangchak users. Simply put, you pay the regular price for gasohol but your points can be redeemed-good as eash! It's easier on the wallet if you're a regular patron of Bangchak gasohol.



As a Thai company, BCP has won my trust, for we could do business while growing together. Its focus is on alternative energy, with a keen sense on the environment. Today, environmental matters are vital. The earth and the environment need sincerity toward each other. We can't just let problems slip by, but must act sincerely, frequently, and spend time on them. I feel that Bangchak is ready and already pays attention to it.

Bangkok has grown by leaps and bounds in residential areas. What used to be a suburban area, like the Bangehak refinery, has now become an urban neighborhood. BCP should therefore focus on how to live alongside communities, for instance, by regularly engaging in activities with them and taking their safety to heart or engaging them in emergency drills together. I love the idea of using community goods as sales promotional giveaways, as do most other Bangehak patrons. The Company should inform people more through various magazines so as to reach more customers.



Mr. Pattanachai Thanasiri Service station operator, Baw Nam Man Co., Ltd., Pathum Thani

Communication

Customers can inquire about and search for product information by reading product and service labels, and accessing marketing information at the Bangchak customer service center, manned by officers that have passed standard training on communication with customers while taking into account human rights. Customers get fair treatment in their search, apart from accurate, useful and not misleading information; the Company officers also listen to recommendations while remaining prepared to cater to customers' needs and keeping their data confidential. Finally, communication is done through the Company website and online social networks, including Facebook. Other operations in marketing and advertising did not violate the laws, also no complaints on privacy right of customers.



Safety, health and environment

Recognizing the criticality of safety, health and environmental standards, the Company has installed vapor recovery systems at the Bangchak oil depot on Sukhumvit 64 Road and the Bang Pa-in oil depot in addition to all service stations in Bangkok and its perimeter in an effort to bolster confidence among depot and service station users. Emergency drills regularly take place. Bangchak service stations house wastewater treatment systems before releasing effluent to the outside, looks after the cleanliness of toilets, lawns, trees, drainage and garbage sorting and disposal. As a result, the Company has never faced any compliance issue and has never been subjected to significant fines or liability for damages arising from unsafe products.





Labor Practices and Human Rights

Employment

The Company has 1,027 employees, all of whom are Thai nationals (as of December 2012) with an average age of 35 and average years with the Company of 11.1 There is a diversity of age, gender, educational background and work specifications, as well as the equality of gender, race, religion and culture.

As the Company's energy business operates 24 hours, the number of male employees exceeds that of female ones.

Employees by Gender (person/percentage)

- Male
- **Female**



2011

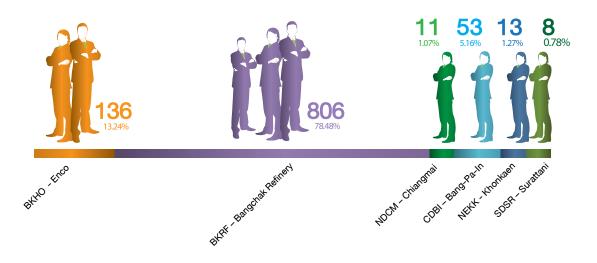


2012

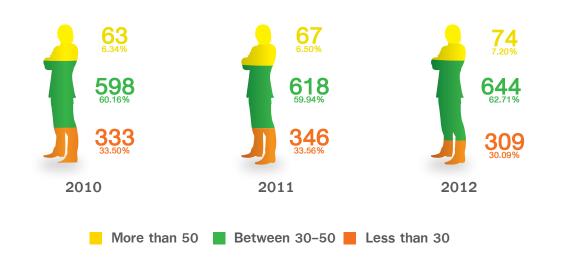
Employees by Level (person/percentage)

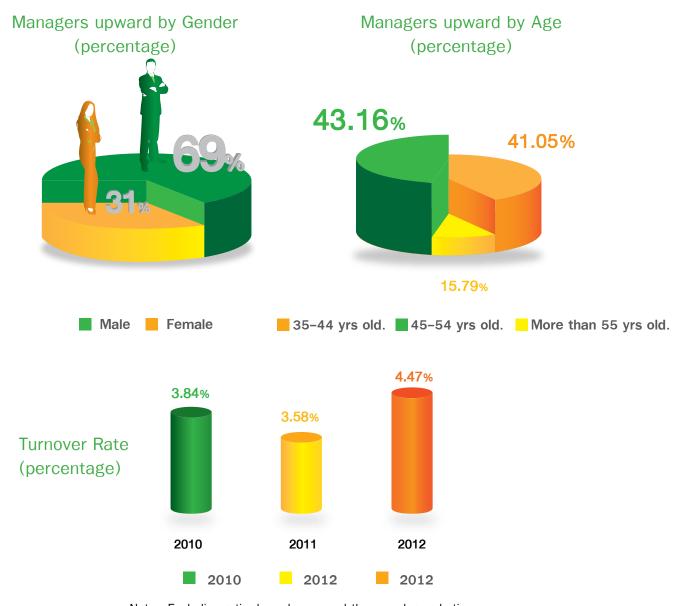


Employees by Area (person/percentage)



Employees by Age (person/percentage)



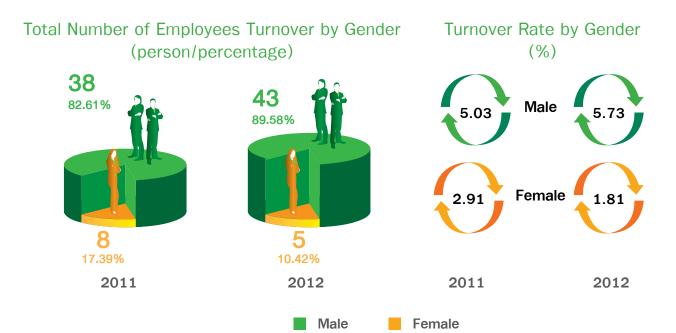


Note: Excluding retired employees and those under probation

Total Number of Employees Turnover by Age (Person/Percentage)



Remark: Including retired employee.



Total Number of Employees Turnover by Area (person/percentage)



Human Rights

The Company respects human rights and abides by labor laws. Its employees and contract employees must be at least 20 years old. It has no policy of hiring child labor or practicing forced labor or gender discrimination. As for contract employees, it requires that contractors treat their workers as required by labor laws, social security, compensation laws and others related to labor protection. Otherwise, contractors will be regarded as violating their contracts, for which the Company can revoke their contracts without prior notice.

Weekly training is given by the Safety Section to contractors and safety officers before the start of work on matters related to the Company's safety, environment and energy, goals, policies and regulations to minimize operation risks due to incompatible procedures. Emphasis is given on the respect of human rights to minimize risks resulting from a lack of understanding that could lead to unfair treatment, visitors' or stakeholders' safety concerns.

Compensation Management

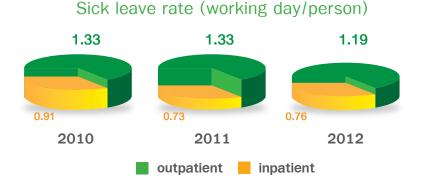
The Company's compensation management is administered with fairness, suitability to the employees' responsibilities and competence. The Company has also adjusted its compensation to compete with peer companies and attract competent people to work with it and stimulate current employees to improve their performances. The Company's performance appraisal system has clear criteria according to KPIs so that both superiors and subordinates may share understanding, leading to both job and employee improvement.

In line with the changing social, economic and business circumstances, the Company has provided more extensive welfare for employees and their families than that required by the law. This year, the Company improved its welfare schemes to suit current economic circumstances and be comparable to peer companies, including raising the ceiling for medical care expenses for employees and families, shift pay, lodging and pay for provincial work, among others, to boost employee morale and strengthen employee engagement.

Besides the normal welfare, during the spread of epidemics such as the 2009 flu, the Company provided vaccination to all employees. It also provided hand-gel in buildings, distributed masks and campaigned for the prevention. Those diagnosed with potential 2009 flu infection could be excused from work with pay.

It also focused on employees' physical wellbeing through activities like anti-obesity and waistline reduction for shapely wellbeing, promotion of food quality from Bangchak Kitchen, and expansion of annual check-ups to suitably cover each age group. As a result, employees have become healthier and stronger, with fewer sick days and no record of occupational diseases.

Upon the retirement, the Company provides employee several forms of welfare such as pension, regulatory compensation and provident fund.



Employee Engagement

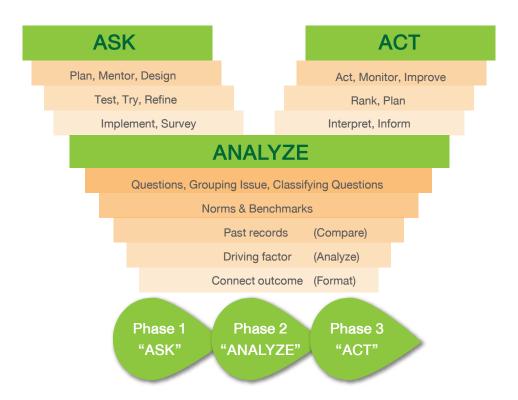
To make its workplace a peaceful one filled with contented people that forge great collaboration, the Company has consistently promoted rapport among employees as well as between employees and the Company. Its assorted activities have one common goal: to cultivate virtues and keen awareness of fellow employees, the organization and society at large.

This year, the Company elevated employee relations to employee engagement under three phases:

Phase 1, "ASK" Make plans so as to decide the factors affecting employee engagement; design survey questions test, try, and refine these questions until a questionnaire that reflects such engagement emerges and conduct the survey across the organization.

Phase 2 "ANALYZE" Summarize and analyze survey outcomes against past records, and benchmark them with leading organizations in Thailand and peer companies (those in the petroleum business worldwide) to develop organizational improvement and development plans.

Phase 3 "ACT" Improve and develop the organization; monitor development outcomes and inform employees.

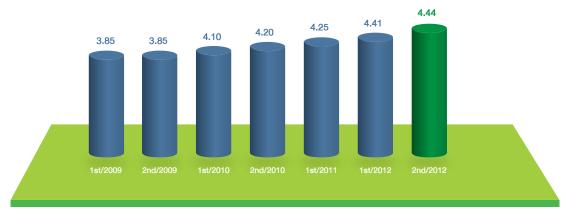


Such approach shows that four key factors promote employee engagement :

- 1. Basic Need
- 2. Management Support
- 3. Teamwork
- 4. Learn & Grow

The Company annually conducted employee engagement surveys to learn employees' perspectives for career growth, the Company's prospects of security and sustainability of growth, key factors favoring workplace atmosphere and surroundings (both strong points and shortcomings) and benchmarking with other companies around the world). Based on its findings, all units are asked to come up with plans for their own relations improvement to foster rapport, relations and attitudes among them.

Employee Engagement Scores



Note: Average scores, the full score is 5.

Based on employee engagement survey outcomes, the Company has developed the following activities:

Executive Development on Human Resource Management

All executives-from section heads to the President-are to be developed to manage people so that they may appreciate different needs among people and nurture surroundings that favor employee engagement. This year, the Company encouraged its senior executives to undergo external training to promote their leadership potential and forge networks with external organizations through the likes of a higher certificate on public administration and public laws, Director Certificate Program, and Senior Executive Program.

Employee Welfare Improvement

To ease employees' healthcare burdens, the Company raised medical care and dental care allowances to include employees' family members. Such improvement was carried out by raising the ceiling for medical care expenses for employees and families, extension of healthcare entitlement for parents to medical care as private hospitals' outpatients, adjustment in travel expenses for employees, and an increase in shift pay.

In addition, the Company retained these core employee relations activities:

Employees' birthdays: BCP asked employees with birthdays in the same months to jointly perform religious ceremonies, dine, and engage in public services by visiting communities around the refinery.

Songkran water-pouring: This allowed employees to pass on fine Thai traditions by staging a water-pouring ceremony where the Board Chairman and the President wished employees well on the traditional Thai New Year.

Bangchak family day: This allowed executives, employees, and their families to meet and engage in activities for good fun and cordial relations among all.

BCP founding day: On the founding day this year, the management and employees together engaged in alms-giving to 59 monks.

Thank You Party: At this party, BCP thanked all employees for their hard work and dedication through the year.

Bangchak Petroleum Plc Labor Union

All the Company employees are treated fairly and enjoy equal rights under Company regulations, whether they belong to the labor union or not. Set up under the law with 20% of the workforce as its members, Bangchak Petroleum Plc Labor Union cooperates with the Company in looking after employees' well-being through regular consultations with top management while getting feedback from employees about their needs to develop the Company's labor aspects. The president quarterly communicates business performance and variation of the Company to all employees by "PS meet employees".

The Company also instituted an Employee Committee, consisting of 13 employee representatives appointed by the labor union and coming from employee elections. The committee is engaged in consultations with representatives from top management on matters of welfare and benefits to ensure their suitability. To date, the consultation sessions went well, with all concerns or queries properly addressed, thus resulting in high employee satisfaction.





Employee Satisfaction (Percentage)



Employees' Clubs

The Company encourages the establishment of employees' clubs to enable those with similar interests to form clubs focusing on their interests to support employees' learning to responsibly engage in work processes together through different club activities for physical exercise, recreation and public services, including various sports clubs, Ornithologist (bird study) Club, Bangchak Thai Marine Conservation Club, Bangchak Loves Community Club, Photography Club, Music Club, and Volunteer & Social Development Club. Employees can freely initiate activities for their own benefit in line with the Company culture.

Lunch Project for Needy Children

This project arose from employees' conscience and culture of "contributive to society". In view of food shortages and malnutrition among society's children (particularly those in the refinery neighborhood) employees each donate a small sum of money deducted from their salaries. Regularly and constantly since 1988 others have donated money on special occasions to support the lunch project for schools that still need it. Currently 16 schools and one foundation are part of this project.



Mutual care and concern endear Bangchak to us



Pairat Kaewsila

Machinery Section
Maintenance Service Division
Head of the Employee Committee and
Manager of the Bangchak Youth Soccer Club

I've been working here for over two decades, of which the last decade was also spent as a member of the employee committee. All along, I've been touched by the concern expressed by executives for employees and their families, who are expected to live their lives amid good surroundings with physical and mental preparedness. Bangchak cultivates in employees habits like money-saving, sufficiency, and social service in ways we can, while taking care of our communities and the environment. Concern about fellow employees and executives has somehow increased our engagement, love, and sense of belonging to Bangchak. One impression and success indicator about employee engagement is evident in everyone's unity and collaboration in hard times, whether you're talking about flood prevention or about overcoming problems and repairing the refinery fast, efficiently, and safely. I'm most touched by the image of executives visiting our sites and earnestly engaging in genuine dialogues everyday. As Bangchak's 29th anniversary draws near, our performance has improved by leaps and bounds, and our growth has been somewhat steady. In short, I'm confident that we'll be working in this home with reasonable security.

Employee Development

The Company is continuously focusing on employee's development in order to promote potentiality, competitiveness at the international level and valuable society members. Its culture is based on the concept of "being virtuous, knowledgeable and contributive to the society", leading to a company of excellence. In addition, the Company regards it as everyone's responsibility to develop and promote knowledge sharing among its personnel.

Competency management, the principle used by the Company to develop its personnel, begins with individual competency assessment to identify competency gaps. This year, the Company's assessment improved to the from 180-degree to the 360-degree variety-consisting of joint assessment among staff, their superiors, and third-party superiors-for clearer and more efficient assessment together with individual development plans to fill each person's gap.

Besides individual development, BCP has instituted team development through cross-functional cascade projects designed to capitalize on the talents of employees of each professional line and have them work together on projects to grow the market and new projects, leading to competition and corporate innovations. Other instances included group activities on quality control (the Quality Control Circle (QCC) technique), KAIZEN group activities, and activities associated with the Community of Practices (CoPs) which enable knowledge-sharing among those of the same professions or those with similar interests-this is part of knowledge management leading to lifelong learning.

The Company amended its system for seeking approval, data compilation, reporting, and result monitoring for training for easier retrieval and a shortened process.

This year, the Company continually designed and improved training curricula to cater to corporate goals and directions (short-term and long-term) and develop its personnel's knowledge, skills, and experience so that they might command specialized, technical, and management knowledge, and the knowledge needed to accommodate emerging businesses. Below are the highlights of BCP's curricula improvement this year:

- 1. Orientation and BCP Way: This training informed newcomers about corporate expectations and provided them with an overview of the Company's businesses so that they might master and adjust to the culture, vision, mission, values, policies, and business processes to maintain efficiency as well as love, engagement, and happiness at work.
- 2. BCP Business Supply Chain Economics: This training concerned the principles of the oil and alternative-energy businesses related to the Company in economics and costs, ranging from supply procurement, production, sales, delivery, to the related business environment, product knowledge, planning, procurement, and production processes.
- 3. BCP Technical Development Program: This training prepared newcomers and those with little experience in operation, engineering, maintenance, and technical aspects to learn and review current apparatus and hone their skills so that they might become self-reliant and cope with present and future assignments.





Trip Kiratibutra

Analyst, Corporate Strategy Division

Corporate Administration and Information

Technology

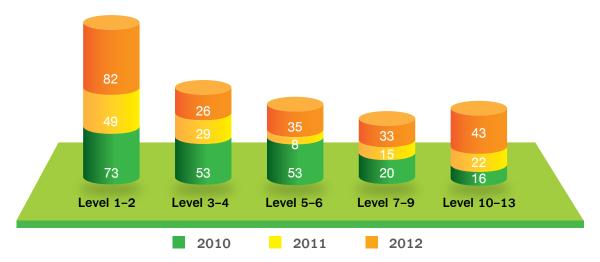
Bangchak's strength lies in its people. After all, Bangchak puts its heart in molding its people, who are members of a big, growing family. True, we're not gigantic, but we do have our identity: Bangchak people are always concerned about one another. A true friend can always be found here. Employees receive decent welfare and constantly see their executives' role models in thinking, managing, and dedicating themselves, which in turn influence my style. Bangchak puts its heart in taking care of employees to take the company to great things together. When it celebrated its 28th anniversary, I recounted Bangchak's push through increasingly challenging policies and goals. Despite hindrances along the way, never has Bangchak given up. I am as old as the company (28 years old) and am convinced that the Bangchak Centenary is bound to happen-although I'm unlikely to be there to celebrate with the company! Well, better for the younger generation to absorb the Bangchak Way and celebrate for me.

As for specialized curricula, besides what the Company organized in response to the needs of various units (like finance, marketing, law, safety, and environment), it encouraged employees to get outside training to share views, knowledge, and experience with external agencies.

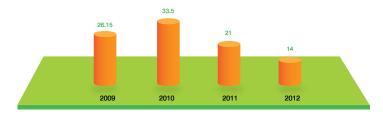
In addition, the Company organized training on the respect for human rights, as done every year, including changes in plans and policies for investment in provident funds, labor laws, and laws dealing with investment and labor in AEC member countries. It also supported seminars and study tours so that employees might share knowledge and experience with those from other organizations and then apply them for the Company's benefit. The average number of training hours per person this year was 71.

The Company's critical courses dealt with English (spoken and written) to accommodate Thailand's approach to AEC. Others included the Executive Development Program, Senior Executive Program, Advanced Senior Executive Program, improvement of business processes, innovation for organizational sustainability, safety officer (management level), hazard identification through HAZOPS, defensive driving, BCP Culture CSR, corporate governance, risk management, and organizational management for excellence.

Training hours per Person by Level (hours)



Training Expenses (million baht)



The Company's employee development policy is to undertake projects using cross-functional teams and formation of CoPs without relying on direct training. This form of personnel development calls for more development hours and lower training expenses.

Skill Development and Lifelong Learning

The Company emphasized on knowledge management, so that it has set an objective of being a learning organization, defining the direction by searching for and setting the structure and scope, managing, collecting and transferring knowledge, as well as promoting knowledge sharing among employees and to external organizations. This year, BCP participated in knowledge-sharing activities among PTT Group in knowledge management (KM) activities and CoPs on operational excellence, engineering, human resources, and finance, accounting, and taxes, among others. The ultimate aim was to apply the knowledge gained and evolve it into best practices to create innovations useful for BCP's businesses and business improvement.

Improvement and development of the KM Web format for modernity, simplicity of use, and familiarity enabled greater search from various archives. BCP founded Blog Awards to encourage employees to share stories and knowledge through their own weblogs, a useful channel for knowledge and experience-sharing.

Moreover, the Company has set up the BCP Trainer Project, under which the development of an employee is undertaken by another employee. The coaching project allows employee specializing in given fields to transfer tacit to explicit knowledge. This way, the knowledge remains in the Company and employees can fill in for others. It is also an opportunity for employees to regularly exercise and review their own knowledge and experience. Some knowledge that has been transferred including environment, safety, information and technology, accounting and corporate social responsibility.

Career Development

Career development is a process which derives from a plan for manpower, capability and competence in line with the Company's strategies, directions and objectives. The process consists of the following:

Career Path

The Company looks after and defines career-path criteria for all employees, grouping them into management and specialists. All employees have opportunities to progress in the lines and professions of their choice

• Talent Management

Under the Talent Management Project, the Company selects, from the leadership & personality assessment, groups of employees with high capability, qualifications and behavior conducive to business success. Special development plans are individually developed for them to increase their competitiveness and employee engagement with the Company in order that they may become a valued force in the efficient and sustainable operation of the Company's business. The Company annually reviews the name of employees of this group, also the development and preservation plans for them.

Succession Plan

To ensure smooth business transition, the Company has set up and continuously updated its succession plans for key positions. Management and Personnel jointly define key work specifications in the middle and senior executive groups which are the core groups in propelling the Company toward success, using Leadership & Personality Trait Modeling for Successor, the individual development plans are subsequently defined. The Human Resource Development Division will be the unit which responsible for following the progress and successor readiness.

It takes proper cultivation for every stage of growth to be filled with attention and

responsibility



Pajaree Phunturak

Planning and Administration Section Manager. Industrial and Lubricant Marketing Department Throughout Bangchak's 28-year legacy, I've seen it all ... transformation for the better, a wider range of high-value products, to a full-fledged alternative-energy leader. True, companies these days constantly keep looking for opportunities and niches for competitiveness, but Bangchak has clung to the Sufficiency Economy and always has the roots of Thai society at the back of its mind. What makes us outstanding and unique are the development of community service stations to grow farmers' income together with the concern and stewardship for refinery communities and society at large. Despite this year's fire incident, everyone showed their job dedication and visited the communities to apologize and explain matters so as to show our responsibility, which in time won the communities' hearts. These things are attributable to the way Bangchak cultivated its employee culture that cares, looks after, and values everyone. Even in personal crises like chronic illnesses or flooded homes, Bangchak refuses to stay put, but rather, rushes to assistance and takes care of employees in the best way it can. Employees are simply Bangchak's VIPs. This innate strength assures me that Bangchak Centenary is achievable.

Safety, Health, Environment and Energy (SHEE)

Operation on Safety, Health, Environment and Energy

The Company places importance to safety, health, environmental, and energy management to ensure that its operations comply with the universal management system, safety and health. Additionally, the operations do not affect the environment, society and communities. The Company promotes the cost-effective use of energy and realizes the important of employees as well as those of its contractors, and other stakeholders. Formulating a SHEE policy and appointing some task forces, the Company requires that SHEE competency is a core competency and promotes recognition of safe behavior to turn it into a company culture and form proper behavior of related people according to the behavior-based safety health environment and energy principle. Those task forces are:

Safety, Health, Environment, and Energy Policy

The Company is committed to raising its management excellence by the approach of the Thailand Quality Awards, which values social responsibility; protection of health, safety and the environment, and business conduct and employees. In addition, the Company values resource conservation, which encompasses all activities, products and services-all with key business roles; loss prevention, and compliance with the law and public regulations. Viewing these regulations as opportunities for improvement over and beyond what need to be complied with, the Company devises the SHEE policy, and all executives and rank-and-file employees-including all contractors working on behalf of the Company-are held directly responsible for the following:

- Complying with SHEE laws as well as company regulations as a minimum
- Working safely without undue impacts on themselves, related parties, community or the environment
- Preventing losses and illnesses potentially arising from accidents and minimizing impacts potentially leading to pollution, leaks and oil losses
- Making the best use of resources (energy, water and chemicals) and continually raising the
 efficiency of company resource consumption, suiting the size of the business
- Supporting reasonable procurement of products and services while taking into account safety, environmental conservation and energy-saving
- Researching, developing and sourcing products and services that are safe, save energy and socially responsible to the environment and communities; developing modern and continual SHEE management systems.

In addition to setting the Safety, Health, Environment and Energy Policy (SHEE), the Company's SHEE structure, consisting of executives and all business units, covering all aspects from policy planning, equipment design, production processes, working styles, and employee awareness in ensure safety, and assure that the actions of the Company do not affect the environment or community. It also promotes SHEE awareness, so that operations are carried out effectively and efficiently, incuding emergency and crises management such as firefighting, flash flood control, earthquake.

Safety, Health, Environment and Energy Management Team (SHEEM)

Comprises high-level management from all business lines, having the responsibility to define management system policies and guidelines, and regularly reviews the management processes while supplying resources for continual process development as well as setting up task forces for efficient and effective safety, health, environmental and energy management.

Safety Health and Environment Committee, (SHEC)

Having 50% of its membership from employee representatives from the first year of law enforcement on safety committees, it is responsible for compliance with the laws and works with operational-level safety subcommittees for greater work safety.

Safe Operation Team (SOT)

Reviews operation procedures and past performances screened by the JSA & QCA, HAZOP and EQT teams to comply with safety standards while reviewing incident reports and define protection approaches. Apart from the relevant managers, SOT members consist of managers of the operations, technical, and engineering lines of the refinery.

Safety, Health, Environment and Energy Promotion Team (SHEE_P)

Through open participation for everyone, promotes awareness of safety, occupational health, environment and energy in each employee's performance.

JSA & QCA Team

Reviews work processes for safety and detailed quality control.

HAZOP Team

Through the HAZOP technique, revises designs and modifications to refinery pipelines, instruments and equipment to meet the Company's technical principles and engineering standards for safe applications.

Engineering and Quality Team

This year, the Company improved and controlled design quality to international standards involving the following improvements to work processes:

1. Engineering and Maintenance

- Increase instrument reliability by using Safety Integrity Level (SIL).
- Enhance inspection efficiency through Risk-Based Inspection (RBI).
- Implement Reliability-Centered Maintenance (RCM).
- Revise tank repair standards to exceed those required internationally.
- Develop capability and reliability of the refinery firefighting system.
- Enhance security system by using access control and CCTV.
- Installed additional flammable gas detectors on the refinery compound beyond the required standards to enhance preventive maintenance capability.
- Upgraded the capacity of spot firefighting systems by adding the flow rate per point for greater extinguishing capability.
- Secured mobile firefighting apparatus beyond the required standard for installation on the refinery compound.

2. System Working Improvement

- Restructured management by appointing a safety, health, and environment group to promote safety, health, and environmental tasks for greater efficiency and sustainable development.
- · Adopted a management system under the criterion of the Thailand Quality Awards
- Prepared implementation of the ISO 50001 energy management standard
- Improved process energy consumption for greater efficiency and promoted consumption of clean energy (that is, natural gas) as well as energy consumption in office buildings, including switching to energy-saving bulbs and the design of environmentally friendly buildings

- Developed DMS (Document Management System) and e-ISO (online standard management system) to encompass a document filing system and requirements for safety, health and environmental management standards so as to raise work efficiency and reduce consumption of resources (for instance, paper)
- Check up on employees based on an analysis of risk factors from inside and outside their workplaces and inspect the conditions of work areas to define appropriate preventive and remedial measures.
- Commissioned world-class experts to audit and recommend equipment repair or replacement at the Distillation Unit 3
- Commissioned experts from DuPont, a leading safety company, to recommend upgrading of safety procedures to a higher standard.
- Improvement of Process Safety.

3. Raising of awareness of society, safety, occupational health, environment and energy

- Setting up task forces for efficient and effective energy management such as Refinery Efficiency Enhance Taskforce (REET), Energy Management Taskforce, Following up Taskforce of the Energy Management, ISO50001 Developing Management Taskforce; to develop the energy management to be universal standards.
- Organize basic firefighting training for employees in general and advanced firefighting training for employees in the operation line of refinery, Bangchak Depot and Bang Pa-In Depot.
- Organize safety training, for example, safety analyzing and reviewing technique, safety in confined space and first aid.
- Staged safety training courses for contractors working in the refinery, which included promotion
 of awareness and proper work behavior of contractors during the major maintenance turnaround
- Staged training to develop employees into assorted experts
- Use toolbox meetings as another communication channel for shift operations.
- Learning System by Knowledge Management in the Intranet of the Company
- Promotion of safety, occupational health, environment and energy activities;
- BB-SHEE (Behavior-based SHEE), designed to campaign for employees and contractors to adopt proper SHEE behavior and continuously observe it:
 - BBS (Behavior-based Safety) activities
 - 5 NOs for Safety activities
 - Campaign on the use of protective equipment in the refinery's inner zone
 - Bangchak activities on anti-obesity and striving for good health.
 - QCC Energy Day activities for awareness building and promotion of energy-saving and a related contest
 - SHEE Excellence Day
- Communicated SHEE knowledge through the SHEE Channel and smart PR boards

- 5S Activity
 - The Big Cleaning Day
- We Care We Share Activity
 - The Company distributes news and information on safety to all employees through e-mails and internal bulletin boards.
 - A SHEE talk is conducted before daily operation meetings.
 - Lesson Learnt activities, designed to share knowledge and protection with other units
- Staged Safe Community activities.
- Knowledge and experience sharing at the 25th National Safety Week Exhibition.





Goals and Indicators

This year, to make employees aware and become more active in safeguarding their own safety as well as their colleagues', the Company set (besides accident statistics) the following defensive safety indicators:

1. Serious accidents (Case) causing a lost time injury or Company's property damages worth more than Baht 1,000,000.

Serious accidents









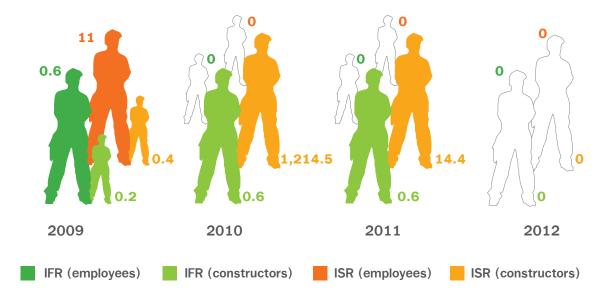
2010

2011*

2012**

- * The ignition of plant equipment at Hydrocracking Unit
- * * The ignition of the Kerosene Stripper

2. Injury Frequency Rate (IFR) and Injury Severity Rate (ISR) for employees and contractors started in 2008 to record the numbers of those who suffered lost-time injuries and the numbers of lost working days (excluding first aid) compared with total work hours in a year (start counting accordingly to the calender and start counting from first day of lost working day). This is another way to raise awareness and cooperation among them to prevent occupational injuries.



- For 2009, One employee's lost-time injury and one contractor's lost-time injury Remarks: IFR and ISR are based on 1,000,000 work-hours
- For 2009-2011, the work hours of employees and contractors were based on (number of employees for the year x 40 x 52) and (number of contractors for the year x 48 x 52).
- For 2012, the work hours of employees and contractors were based on the recorded hours
 of normal work and overtime work under the systems of the Company and its contractors,
 excluding holidays and leave.

3. Number of Suggestions on Safety Improvement from Employees (Card)









In 2012, more safety development suggestions were submitted through a suggestion card system covering work area safety improvement and risky or unsafe behavior. Moreover, there were 69 suggestions submitted through the Safety, Health and Environment Committee on workplace environment, and 25 suggestions from QCC (Quality Control Circle). In 2012, the Company completed the implementation of all suggestions made by employees.

4. Emergency Drills

The Company emphasizes the preparedness and effective response to emergencies and therefore defines guidelines and procedures to terminate incidents, mitigate impacts, and coordinate with external parties under the Emergency Plan and Crisis Management Plan. The Refinery Operation Units and Bangkok Oil Distribution Center continues their interim and annual emergency drills.



Environmental and Safety Training Center

Other than employee training, the Company has established an environmental and safety training center at Bang Pa-In Oil Distribution Center in Ayutthaya province to continually provide integrated safety training-basic and advanced firefighting, fire extinguishing techniques, emergency incident commands, and annual fire escape drills-to employees and the public. Last year, 5,853 delegates learned and practiced in 39 safety training organized by the Company.





Withoon Phuengprasert
Senior Editor, Komchadluek Newspaper



At the mention of the name Bangehak, my mind conjures up Thai engineers who are as good as multinational companies' engineers. But what makes me very proud is the image of Bangehak and communities. It's engaged in so many public services as opposed to pure profit—making. To begin with, Bangehak joined communities in launching community service stations. It's also a leader in alternative energy that strives to bolster energy security through nature's own energy and agricultural produce. Bangehak's activities strengthen children's knowledge foundations of nature and energy saving, so that children may one day become adults with an understanding of energy production and consumption to accommodate future change—this development is crucial to society as a whole. In short, Bangehak is a corporation with a clear role in this aspect.

I'm impressed with Bangchak's executives that took the company out of the economic crisis in 1997, turning a crisis into an opportunity-a grave burden into the development of one of Thailand's most sophisticated refineries today.





Speaking of Bangchak, what come to my mind are alternative energy, business transparency, and environmental friendliness-all these qualities are already impressive. I just want Bangchak to keep it up, like the lasting quality of salt, and never give in to obstacles. You have my moral support!





Yuthana Priwan Reporter, Bangkok Post



Stakeholder Management

The Company has defined its missions in three dimensions to grow sustainable value for stakeholders; they are conducting business to steadily grow its returns in a fair manner, promoting a business culture that is responsible to the environment and society, and growing employees into professionals. All dimensions have been participated in the various communication processes in order to realize stakeholder's expectations and respond correctly.

NO.	Stakeholders	Example of Stakeholders	Participation in The Communication Process	Expectation	Response	
1.	Share holders	Major ShareholdersMinor Shareholders	Reporting: Annual Report, Sustainability Report, Annual shareholder meeting (AGM), CG policy Meeting: Company visit, Analyst meeting, Opportunity day, Roadshow Activity: Site visit, Money Expo, Set in the city Communication Channel: Website, Facebook, IR Newsletter	 Financial Stability Return on investment Transparency Management Continuous Growth 	Stock Dividend Margin form Stock price	
2.	Employees	Permanent Employees	Reporting: Annual Report, Sustainability Report Meeting: PS meet employee, Employee committee Activity: Seminar, Sport Club, Executive visit employee, Employee orientation, Employee birthday, Employee engagement activities Communication Channel: Employee committee, Intranet, MS Outlook, KM Blog, Electronic-notice Board, 64 Next Station Radio, E-news, E-letter, E-learning, Web board, website, Facebook, B-Voice	 Potential Development Welfare improvement 	 Develop welfare BCP Engagemen Employee development project Employee engagement activities 	
3.	Community and Society	Community Communities Family School Condo Remote Community / Society	Activity: Thai Traditional Events, Company visit, Community Relations Activities, Community Dialogue, Buying of used vegetable oil, Thailand Go Green project, Seminar on environment, Handbook for Disaster Response Communication Channel: Community radio, San Rob Rua Journal, Krob Krua Bai Mai Journal, Community visit, SMS, Call Center, Bangchak Information Center in shopping mall near the refinery, Online Air quality report on LED signboard in the community, Website, Facebook	 Air and noise pollution concerns Safety Plan for Emergency Situations 	 Developcommunicate to the community. Online Air quality report on LED signboard in communities Lecture on Chemical awareness. Basic Fire Fighting and Evacuation training to communities 	

NO.	Stakeholders	Example of Stakeholders	Participation in The Communication Process	Expectation	Response
4.	Suppliers / Contractors	 Contractors Transportation fuels; ships, cars, vessels Joint Product Development Joint investment in new business 	Meeting: Seminar, Customer forum, Annual plan meeting with contractors and monthly KPIs meeting Activity: Customer survey, Customer Relation Management, Service station employee training Communication Channel: Call center, Announcement, E-mail, Website	 Punctual product delivery / comply with contracts Quality Product Customer Service Quickly Cleanness and attractiveness of service stations Financial Stability 	 The Development of the transportation quality. Special Reward for the excellent transportation service men Staged safety training courses for contractors Return on investment
5.	Press Conference	TelevisionsRadiosNewspapers	Meeting: CEO Meeting Activity: Press Tour, Company visit Communication Channel: Press Release, Journal and Magazine, Exhibition, E-news, Website	 Efficient communications Accurate and transparent information 	Cooperate and Accurately inform the presses
6.	Customers and Society	 Service Station Dealers Co-op Service Station Consumers 	Reporting: Annual report, Sustainability report, Entrepreneur manual, Customer relation management Meeting: Dealer forum Communication Channel: Green news letter, Product brochure, Call center, Announcement, E-mail, Website, Suggestion box, Facebook, Mobile application Product: GSH Club Card, Diesel club card, Member card activities	 Quality Product Customer Service Quickly Cleanness and attractiveness of service stations Comfortable with ordering all sorts of products Efficient communications Staged some traceourses for service stations and supportive businesses Lunching new promotions Staged some traceourses for service station dealers Verifying the equipments in service stations 	
7.	Compettors	Other Oil Traders	Activity: Events, Networking Activities, Website	Free competition and fair and fair with transparency under fair trade an competition	
8.	Lenders	Financial Institute	Reporting: Annual report, Sustainability report Meeting: Analyst meeting, forum Activity: Road show, Exhibition Communication Channel: Website	Comply with conditions and agreements of Loan contract Strictly comply with conditions of Loan contract such as interests payment, principal payment	
9.	Government	District OfficeDepartmentMinistry	Reporting: Annual report, Sustainability report, Environmental Monitoring Report Activity: Company visit Regulation: Comply with Laws, Regulations, Corporate governance, Site / Area visit Communication Channel: Provide accurate and timely information to related sectors, Website	and regulations Responsible in social and environment environment and regulations related to busines accurately, transparently Environment qual control is more	

Community Participation and Social Development

Toward green, sustainable society

Thanks to the "Creative Leader for Clean Energy" culture, the Company's work has been filled with responsibility as well as respect for communities, society, stakeholder groups, and Thailand's quality of life. This has been our practice for the past 28 years of business existence.

To play a more intensive role in community participation and social development, the Company has elevated its efforts focusing on participation by inducing the capability of target groups and encouraging initiatives and actions on their own to form a learning process at work and developing the ability to solve problems by themselves, thus leading to self-reliance. This is why the Company has driven participation by target groups in all communities and society (immediate and remote) through the extension of projects presented in its Project Citizen last year and environmental projects, which form the Company's corporate culture that seeks to expand its network and new, more diverse projects.

While the Company has survived the incident at the Distillation Unit 3, which affected its business and its neighbors alike, thanks to the readiness of equipment, prudent management, and personnel's dedication, the Company promptly responded to the incident, both internally and externally. These included visits to all residences to express its profound apology and the offer of prompt repair to those that sustained damage, thus easing their concerns and gaining their confidence in our responsibility and timely management. As a result of this incident, the Company has also added measures and secured the best available international experts to audit and improved its work and safety processes beyond international standards adopted by other refineries. In addition, the Company clearly informed its stakeholders-particularly its refinery's neighbors-of news and information about various measures,.



Communities and society around the refinery

In defining its strategies here, the Company reviewed its own strengths, the ISO 26000 standard, and community needs. This year it elevated its work to focus on community participation for sustainable, self-reliant society by allowing communities to initiate and benefit from their proposed projects. Simply put, the Company is now a project mentor rather than a player, an operating partner rather than a giver or taker.

The origins of Bangchak's community relations and social responsibility activities have given rise to assorted projects

Origin	Policy/approach	New project in 2012
Corporate strength /	Leadership in alternative-energy development	Buying of used vegetable oil from market
culture	and CSR role model	and communities around the refinery
		• Two environmental seminars (Floods, Earth
	Forging understanding of and confidence in	quakes : Taking Thailand beyond Natura
	refinery safety systems	Disasters & Development of Thailand's EIA
		toward ASEAN)
		• Education on safety systems at the refiner
		and the quay, and inspection of equipmen
		readiness, proper handling of incidents, and
		employee capability to foster confidence in
		the Company's safety in emergencies
		Education on chemical knowledge and chemical
		safety

All along, I've developed fond feelings for Bangchak because of its genuine recognition of communities. In times of community trouble, Bangchak consistently came to the rescue of people of all ages. Its assorted activities range from education, sports, knowledge about the health of the elderly, to the cataract surgery project-all these we've really appreciated. BCP's genuinely lovable and down-to-earth employees constantly visit communities, impressing us all.

To state the quality of Bangehak in another way, I'd call Bangehak a GIVER, who values others with genuine, lasting concern, CONSISTENT for its better and better projects, and a RELATIVE, who acts like a brother with care and love for each other, day in, day out.



Sanit Petchplook

Secretary, community committee at the back of Wat Boonrod Temple

Origin	Policy/approach	New project in 2012
ISO 26000 standard (community participation and development)	 Participation with communities Education and culture Employment and skill development Development of and access to technology Income generation and quality of life Health Social investment 	 "Bangchak Promotes, School Creates" Thai Puppet Local Wisdom at Phun Sin School Khon Performing Arts Teaching at Rung Rueng Upatham School Thai Classical Music and Northern Folk Music Conservation at Rung Rueng Upatham School Robots and Electronics for Education, Phra Khanong Phitthayalai School Smart Classroom for Autistic Students at Rung Rueng Upatham School Volunteer for Sustainable Community Development Cataract Surgery Environmental Awareness and Management Promotion
Community needs	 Assessment of community relations outcomes Overall assessment Focus on community participation 	 Efficient development of two-way communication with communities through community paging systems, SMSs, and PR bulletins for communities, together with periodical communication: Participation with communities and schools Various public services

The strength of the Company's culture, resulting all staff participation in CSR programs with no less than six times a year/person. The projects are divided into 2 levels covering all aspects of the good quality of life.

Community relations projects in 2012

Annast	Refinery communities			
Aspect	Expectation	Continuing project		
Education	Youths learn and develop appropriately with their age groups, with their awar ness cultivated to become smart and conscientious	 My School (Pee Bangchak Son Nong), Year 10 Open up the World of Knowledge with Bangchak Project Citizen, Year 3 Bangchak Youth Scholarship, Year 8 Bangchak GIFTED, Year 2 Teacher Upgrading, Year 3 		
Safety	 Confidence in refinery's safety Safety immunity for handling emergencies or catastrophes 	 Trained schools / communities / nearby condominiums on emergency drills and firefighting Donated firefighting apparatus Training on chemical safety and procedures under catastrophes 		
Sports	 Strong and healthy youths who stay away from drugs Ability to generate income and good educational opportunities through sports 	 Bangchak Youth Futsal Tournament, Year 9 Bangchak Youth Sports Camp, Year 3 Bangchak Youth Football Club 		
Quality of life	Promotion of quality of life	 School Waen Kaeo, Year 3, and Community Waen Kaeo, Year 7 One Family, Year 19 Screening for Cataract Surgery 		
Environment	Awareness of environmental woes and cost-effective application of resources	 Sapling Planting, Phu Long Reforestation, Year 7, and Thot Pha Pa, Raksa Ton Nam, by One Family members Public Park in the compound of the housing area of the Secretariat Department, Office of the Permanent Secretary of Defense, in Bangchak 		
Relations and cultural preservation	Promotion of cordial relations between refinery and its neighbors	 Mobile Communities, Year 4 Filling up with Knowledge with Bangchak Refinery Ban Dontri Thai Music Teacher Khrop Khrua Bai Mai Bulletin and Rop Rua Bangchak Newsletter Taking Kids to Movies National Children's Day 		
Economic	Generation of income and opportunities for community residents to leverage their competencies to benefit themselves and their families	 Use of communities' cooking and sweets Hiring of locals with adequate competencies 		

Satisfaction in community relations activities (%)







Education

Bangchak Promotes, School Creates: For truly participatory operation, the Company allowed schools to initiate their own activities to promote learners' development in various activities, while the Company served as an activity mentor and promoted sustainably beneficial operation in both art & culture and modern technologies. Instances were the Thai Puppet Local Wisdom Project, Phun Sin Sang San Siraphon Project at Phun Sin School, Robots and Electronics for Education at Phra Khanong Phitthayalai School, and a project to develop learning centers under the Economic Sufficiency philosophy at Wat Nam Phueng Nok School.

Bangchak Youth Scholarship Project: The Company has been committed to supporting and giving new academic opportunities to Thai youths, especially those with good grades and good behavior but coming from poor families. It has provided scholarships for seven consecutive years now to students from the primary level to university level selected from the 20 schools under the Company's Lunch program and from the communities around the refinery (at the discretion of the community committees and school directors). A total of 563 scholarships valued at over 2 million baht have been awarded.

Bangchak GIFTED Project: Bangchak values the laying of a strong academic foundation for schoolchildren in grade 5 with outstanding scholastic records through the captioned project. Selected students are given a special tuition in Mathematics, Science, Social study and the English language every day after school.











Sunee Summa
Director, The Bangchak (Nak Puen Uppathum) School

Mention the word Bangchak, and I'd suddenly think about the surroundings. I'm impressed with Bangchak Refinery as an environmental role model for communities by cultivating awareness and environmental stewardship in them. After all, a good environment implies a good quality of life. For one thing, Bangchak's environmental stewardship has enabled us to watch birds on the refinery's compound, which is not just a knowledge center, but a role model for this community and Thai society. Having worked with Bangchak for roughly a decade, I've witnessed development in its continual activities conducted with communities-which underscore its dedication and earnest intention, starting from the initiation, assessment, to development of activities. Working with Bangchak, it's clear that it has genuine friendship to offer along with the spirit of a mentor. Besides direct knowledge, Bangchak constantly supports, helps, and learns with us. Its people's smiles are always there when we work together. In other words, this Thai service station brand has been Thais' true friend all along.



Safety



Bangchak's Concern about Safety in Schools, Communities, and Condominiums: The Company encourages its neighbors to learn about and be prepared for assorted emergencies, emergencies, including fires, chemical spills, and natural catastrophes. It supplies fire extinguishers and repairs existing apparatus. This was an ongoing project to educate students and enable them to survive emergencies.

Sports



The Ninth Bangchak Youth Futsal Tournament Project

The Company organized the annual Bangchak Youth Futsal Tournament, in its Ninth year, to give youths a platform for developing sporting skills; promote physical strength, discipline and sportsmanship; deter youths from using drugs and allow a sharing of experiences when they compete with other schools. It also organized a team cheering competition to allow youths to creatively express themselves. This event was participated in by 29 schools from various districts of Bangkok Metropolis.

Bangchak Youth Sports Camp

The Company, together with the Royal Thai Navy Department of Welfare, organized the Bangchak Youth Sports Camp to teach sports to encourage youths around the refinery to spend their school breaks wisely; promote physical, mental, and emotional health and deter them from drugs and broaden their non-classroom experience. The project also enhances sporting and togetherness spirit among community children.

Quality of Life







Waen Kaeo for students in schools located around Bangchak refinery: The Company in conjunction with the Electricity Generating Authority of Thailand and the Waen Kaeo Project dispatched a complimentary optometrist unit to serve 600 students in schools located around the refinery to solve eyesight problems and raise the learning capability of youths.

Cataract surgery for community patients :

The Company's policy is to develop and promote decent quality of life for its neighbors, an extension of the Waen Kaeo Project. Together with Ban Phaeo Hospital, it therefore dispatched a complimentary unit to screen cataract patients for surgery. A total of 18 patients underwent such surgery.

One Family, Year 19: The Company promoted family and inter-family activities with a focus on physical and mental wellbeing through its promotion of knowledge and understanding of good physical and mental health care. It also promoted hands-on learning activities with guidance by experts in various fields and by employees that were skillful in the likes of Bangchak Yoga, Wonders of Messaging, Spiritual and Physical Forces Bring Happiness and Success, Project to Promote Volunteering by knitting balaclavas for victims of the cold in the North and the Northeast, and Do It Yourself, which included decoupage cardboard box-making and making of cloth key rings.

Environment





Sapling Planting, Phu Long Reforestation and Thot Pha Pa, Raksa Ton Nam (Monk Robe Offering, Keeping Water Source) Projects: Convinced of the inter-relationship among all lives and the environment, the Company recognizes the need to take care of the environment (forests in particular), which makes living things' existence sustainable. It values activities and work procedures that conserve nature and the environment by cooperating with the Phu Long Reforestation Project of Sukhato Temple and Mahawan Temple, Chaiyaphum, in conserving the Lam Pathao watershed (Phu Long), storing and reforesting the area. In this seventh year, six schools from the refinery's surrounding communities and two local schools joined the program and produced 6,000 saplings each year (covering roughly 21 rai) to teach children the importance of conserving forests and engage them in the forest conservation effort. In addition, students joined the Company staff in taking the saplings to Phu Long Forest and offering robes to monks to raise funds to monitor the Phu Long Forest area and Mahawan Forest Temple in Chaiyaphum, where two revered monks (Kham Khian Suwanno and Paisarn Wisalo) are the abbots.

Promotion of Environmental Awareness and Management in Schools: This collaboration between schools and the Company under the Bangchak Promotes, Schools Create Project saw schools conceive activities to develop and improve the surroundings of schools and communities, with students managing projects, including a project to restore clear water for Bang Na Canal by Wat Bang Na Nok School, a project on garbage sorting by Wat Bang Nam Phueng Nok School and Bangchak School, a project on EM potion-making, a project on junior botanists by Bangchak School, and a project to cut energy consumption by Rung Rueng Upatham School and Wat Bang Na Nai (Ruen Sayamanon) School.

Public Park: In conjunction with the Ministry of Defence, the Company planted trees and landscaped some 2 rai of land into a public health park to serve as a green patch for the people of Phra Khanong around the housing area of the Secretariat Department, Office of the Permanent Secretary, in Bangchak. Trees were planted by employees, residents, and military officers on World Environment Day.

Relations and Cultural Conservation









Community house calls: Recognizing the value of Thainess, the Company staged activities to conserve Thai culture by asking employees to pay the refinery's neighbors a visit on significant occasions like the New Year, Songkran (the traditional Thai New Year), and Mother's Day.

Mobile Communities Project: This project is in its forth consecutive year. The Company this year took 80 elderly people living around the refinery to pay homage to Buddhist relics in Suphan Buri on Songkran Day (Traditional Thai New Year's Day) and visit the century-old Sam Chuk Market. Khrop Khrua Bai Mai Bulletin and Rop Rua Bangchak

Newsletter: The Company produces Khrop Khrua Bai Mai bulletins and Rop Rua Bangchak newsletters to pass along assorted information. This year, the bulletin focused upon the environment and disasters to alert people and educate them on the changing nature as a result of global warming in an effort to encourage people to mitigate impacts. The bimonthly periodical has 4,800 subscribers, and information appearing in the bulletin is posted on Facebook.

Taking Kids to Movies: In supporting non-academic learning for those around its refinery, the Company organized a "Taking Kids to Movies" activity for 300 children and parents from eight neighboring communities at a special screening of "Madacusca3 and Ecco", a film that depicts a part of the Thai history to cultivate patriotic and unity spirit in the children.

National Children's Day: Out of its love, care, and recognition of children's significance as our nation's future, the Company staged the National Children's Day event to give children entertainment, knowledge, and arcade games fitting age groups, along with many gifts and a lot of food and drinks under the "Kids protect the world" theme, with more than 5,000 participating neighbors.

Economic

The Company continued to provide income to the communities around its refinery by ordering food, sweets and drinks for its assorted activities and hired local people to deliver Khrop Khrua Bai Mai bulletins to the refinery's neighboring residents. In addition, the Company gave special hiring considerations to those interested, qualified community members at both the Company and Bangchak service stations.



Remote Communities and Society

Aspect	Remote communities			
Азресс	Target	Continuing project		
Education and environment	Restoration of well-behaved youths to society; awareness of environmental stewardship; knowledge of alternative energy and catastrophes; promotion of sufficiency, integrity, and volunteering for public services	 Thailand Go Green 2012 Contest Project under the "Combating Catastrophes with Alternative-energy Innovations" Good Intellects to Society Project (a short film called "Love Project from the Heart of a Good Guy") BCP Talent Internship Program BCP Open House: Sunny Bangchak 		
Socioeconomic	Mutually beneficial businesses to form networks linking community organizations as business networks, thus strengthening communities and developing human potential for self-reliance under Economic Sufficiency philosophy	 584 cooperative service stations nationwide Promotion of local community products 		
Environment and society	Thais' recognition of environmental stewardship and knowledge as a form of immunity in times of catastrophes, particularly floods, which have ravaged Thailand most often	 A project to buy used vegetable oil for biodiesel production "Thais' Handbook for Disaster Response, Read beforwater Revisits" 		



Speaking to Bangehak, I feel we're of the same tongue. What the company has been doing are already good, but I'd say it should do better because of its great potential—and it should tag along other companies! My advice is to start with a clear concept, not just activities.

Dr. Qwanruedee Chotichanathawewong

President, Thailand Environment Institute



Education





Thailand Go Green 2012 Contest: Combating Catastrophes with Alternative-energy

Innovations: This continuing project was designed to identify the best of youths in alternative energy to win a trophy bestowed by HRH Princess Maha Chakri Sirindhorn and scholarships amounting to Baht 2 million together with a study tour to Japan. To achieve this, the Company called for students to master knowledge of local natural catastrophes and how to survive them through innovations on alternative energy. A moderator provided knowledge on how to combat catastrophes for students to spread such knowledge in schools and communities through suitable modes of learning, including internet-based photos of catastrophes, a song entitled "Learning to Combat Catastrophes", and campaigns and exhibitions publicizing innovations on alternative energy among network schools and communities around schools. This was an extension of knowledge and a promotion for Thailand to go green through the past six years. This year's contest saw nearly 700 schools apply, and students managed to spread such knowledge to some 2,200,000 others in neighboring communities and schools.





Good Intellects to Society (a short film called "Love Project ... from the Heart of a Good Guy"): To improve society's quality of life while encouraging youths to become aware of environmental stewardship and how to lead lives with sufficiency, honesty, integrity, and with a volunteering spirit, the Company produced a short film to cultivate five key elements of knowledge, namely the environment, effective consumption of energy, social responsibility, good governance, and Economic Sufficiency philosophy. These will forge immunity for people and their respective organizations, thus leading to sustainability. The film was shown at Inthanin Coffee outlets, run by the Company and located in public and private universities nationwide, Bangchak service stations, department stores, hospitals, and offices.

Economic



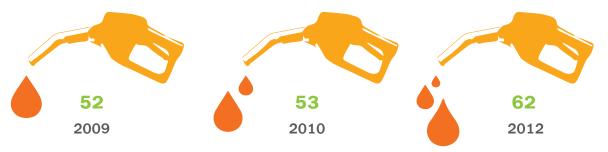


Community Service Station / รูปเกษตรกร

สินค้าชุมชน (น้ำสตรอเบอร์รี่, ลูกหยีกวน)

Cooperative service stations: These stations originated from the idea of fuel barter with rice, a sharing and barter of necessities for life, by the Si Prachan Agricultural Cooperative of Amphoe Si Prachan, Suphan Buri province. The Company first donated the rice to student lunch programs at schools located around the refinery, whereas cooperatives sold bartered fuels to their members. This trust between communities and the Company has since developed the barter trade into modern trade formatted by service stations belonging to cooperatives and community service stations. Today, 578 community service stations are owned by community members, with others serving as station members. Such is a unique business with a concept and culture of mutual support, which encourage Thais to form business networks. Besides generating income from fuel sales, community members derive year-end bonuses for their families, thus not only benefiting economically but also forging community strength and self-reliance. This year saw a total sales turnover by such service stations of over 62 million liters a month, or about 28% of the Company's nationwide sales turnover.

Fuel sales through cooperative service stations (Million liters/month)



Promotion of local community products: The Company's unique choice of sales promotional items continually focuses on promoting provincial community items. This promotion of local jobs indeed enables communities to rely on themselves and command self-sufficiency. This year two such products were highlighted, namely sweetened velvet tamarind from more than 2,000 households in the three southernmost provinces (Yala, Pattani and Narathiwat) and Doi Kham strawberry juice from Chiang Mai province under the operation of the Bureau of the Crown Property, totaling 614,412 cartons, which supported some 100 farmers' households in the Upper Northeast, namely Sakhon Nakhon, Nakhon Phanom, Mukdahan, Amnat Charoen and Kalasin.

Environment





Environmental technical seminar: The Company values education and helpful data to brace the public for catastrophes, particularly the tendencies of those catastrophes in certain parts of the world and Thailand, to ensure their understanding of global climate change, global warming, and impacts of catastrophes, particularly floods. It organized a seminar entitled "Floods, Earthquakes: Taking Thailand beyond Natural Disasters". Its free publication entitled "Thais' Handbook for Disaster Response, Read before Water Revisits" (300,000 volumes, in both Thai and English) was distributed to the interested public and posted on Facebook as well as the Company's website for free downloading.

Besides, BCP organized a seminar entitled "Development of Thailand's EIAs toward ASEAN" to provide an approach for operators required to prepare good EIA reports. At the seminar, technical views were shared to further develop formats of EIA reports commissioned by the private sector and the deliberation process of the public sector. That way, project development could be simplified and shortened to give projects a competitive edge once AEC comes into force, so that projects may prove both good and green.



A project to buy used vegetable oil for biodiesel production: Continually, BCP has proactively run this project, under which volunteering employees have ventured into Bangkok markets to buy used vegetable oil, alternating between Saturdays and Sundays for the sixth year. They urged vendors and the public to join hands in this environmental stewardship move and look after their own health by selling the oil to BCP for biodiesel production.



Awards of 2012

The year 2012 saw continual recognition of the Bangchak Petroleum Plc, by the public as well as various entities, as a company with transparent corporate governance and management with efficiency, social responsibility, and environmental awareness.







- SET Awards of Honor, presented at the SET Awards 2012 event, organized by the Stock Exchange of Thailand (SET) and Finance and **Banking Magazine:**
 - Top Corporate Governance Report Award, in its seventh straight year. This award honors listed companies with outstanding reports on compliance with corporate governance
 - Best Corporate Social Responsibilities Award, in its sixth straight year. This award honors listed companies with outstanding social responsibility practices.

In addition, the Company won an Outstanding Corporate Social Responsibility Award and Outstanding Investor Relations Award.

- Recognition Awards 2012 "THE BEST OF ASIA", organized by Corporate Governance Asia Magazine:
 - Asian Corporate Director Recognition Award 2012, this award honors Dr. Anusorn Sangnimnuan with his contributions in growing the business, social responsibility, environmental protection and also efforts in raising the standards of corporate governance practice in the country.
 - Corporate Governance Asia Recognition Award 2012, this award is given in recognition to the Company's continuing commitment to the development of Corporate Governance in the
- Outstanding Entrepreneur Award honors Dr. Anusorn Sangnimnuan with his contributions in growing the business, corporate governance, and social & environmental responsibility., presented at "ASIA PACIFIC ENTREPRENEURSHIP AWARDS 2012 THAILAND", organized by Enterprise Asia, a leading NGO for entrepreneurship development in Asia.
- Gold Award, presented at The Asset Asian Awards 2012, organized by The Asset Magazine. This award honors based on the magazine's consideration of management, corporate governance, financial, social and environmental responsibility, and investor relations aspects.

- Best Investor Relations Award honors companies
 with outstanding investor relation, given by votes
 from the readers of magazine, investors, analyst
 etc, presented at 2nd Asian Excellence Recognition
 Awards 2012 event, organized by Corporate
 Governance Asia Magazine.
- IP Champion 2012, in recognition of successful creative entrepreneurs that effectively applied intellectual properties in commercial senses and were commercially outstanding, sponsored by the Department of Intellectual Property, Ministry of Commerce.
- ICT Excellence Awards (under the category of Thai software application) in recognition of entities with excellence in IT and communication management for the e-Legal System, presented at the Thailand ICT Excellence Awards 2011, sponsored by the Thailand Management Association and the National Electronics and Computer Technology Center.
- The assessment outcome of a survey on corporate governance reports of listed companies of 2012, given by Thai Institute of Directors (IOD), showed that the Company commanded 'excellent' ratings in over all categories.
- An excellent score for its quality under the Annual General Meeting (AGM) for 2012 project, given by the Thai Investors Association.
- First prize in the category of clean and pleasant service stations under the Clean and Pleasant Bangkok Project 2012, and clean toilets in compliance with the standard of Department of Health, Ministry of Public Health, in recognition of Bangchak's Vibhavadi Rangsit service station (Thailand's first green station), sponsored by Bangkok Metropolitan Administration. The prizes promoted and upgraded the environmental standards of buildings and public places.
- ISO/IEC 27001:2005 standard certification, under the category of information security management, presented by Bureau Veritas (Thailand) Co., Ltd.
- The Certificate of Green Industry Level 4 (Green Culture), given by Ministry of Industry, which certified that the Company has a systematic environmental management, including the monitoring and continuing development.





IP Champion 2012



ISO / IEC 27001 : 2005





GRI, API/IPIECA, UNGC Principles Content Index

This index refers to :

- s Index refers to:
 2012 Sustainability Reporting Guidelines of the Global Reporting Initiative (GRI), Version 3.0
 American Petroleum Institute/International Petroleum Industry Environmental Conservation Association (API/IPIECA) Oil and Gas Industry Guidance on Voluntary Sustainability Reporting, 2nd edition, 2010
 The United Nations Global Compact

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				ND /No incidente of
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		SE1 SE3 SE4 SE5		tions involving rights
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Society	Community SO1 Corruption SO2 SO3 SO4 Public Policy SO5 SO6 Anti-Competitive SO7 Compliance SO8	SE1 SE3 SE4 SE5 SE6 SE7 SE11 SE12 SE14	10 10 1-10	tions involving rights 82-94 17-23 90, NR (As the BCP of Conduct remain si political neutrality) 80-81 NR (No significant fin
	Community S01 Corruption S02 S03 S04 Public Policy S05 S06 Anti-Competitive S07 Compliance S08 Customer Health and Safety PR1 PR2 Product and Service Labeling PR3 PR4 PR5	SE1 SE3 SE4 SE5 SE6 SE7 SE11 SE12 SE14	10 10 1-10 10 7-9	tions involving rights 82-94 17-23 90, NR (As the BCP of Conduct remain st political neutrality) 80-81 NR (No significant fir 51-52, 56-57 52,55,95-96
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Remark: Black: THE DATA IS CORRESPONDED WITH GRI G3 GUIDELINE.
BLUE: THE DATA IS PARTIALLY CORRESPONDED WITH GRI G3 GUIDELINE.
NR: NOT RELEVANT (EN19, HR2, HR9, SO6, SO8, PR9)



Independent Assurance Report on Sustainability Report 2012

To Board of Directors of The Bangchak Petroleum Public Company Limited

The Bangchak Petroleum Public Company Limited ('BCP') engaged PricewaterhouseCoopers ABAS Limited ('PwC') to perform a limited assurance engagement on the selected subject matter ('the Subject Matter') presented in the sustainability report for the year ended 31 December 2012 ('the Sustainability Report') in accordance with the reporting criteria ('the Criteria').

Subject Matter

The selected Subject Matter was chosen by BCP comprises:

- a) Economic dimension performance indicator
 - Employee compensation (Million Baht) (Page 29)
- b) Environmental dimension performance indicators
 - Direct energy and indirect energy consumption (TJ) (Page 34)
 - Greenhouse gases emission (scope 1 & 2) (TOCE) (Page 36)
 - Total weight of waste by type and disposal method (tons) (Page 40)
 - Water consumption (cubic meters) (Page 36)
- c) Social dimension performance indicators
 - Injury Frequency Rate (IFR), Injury Severity Rate (ISR) (Page 77)

Criteria

The Subject Matter above has been assessed according to the following Criteria:

- The WBCSD/WRI Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, and
- The 'Sustainability Reporting Guidelines version 3' by the Global Reporting Initiative.

Inherent limitations

Inherent limitations exist in all assurance engagements due to the selective testing of the information being examined. Therefore fraud, errors or non-compliance may occur and not be detected. Additionally, non-financial data may be subject to more inherent limitations than financial data, given both its nature and the methods used for determining, calculating and estimating such data.

Responsibility and Methodology

BCP:

The management of BCP is responsible for preparing the Sustainability Report, determining the adequacy of the Criteria to meet the reporting need of BCP. Management's responsibility also includes designing, implementing and maintaining of a system of internal control relevant to the preparation and fair presentation of the Subject Matter that is free from material misstatement, whether due to fraud or error.

PwC:

Our responsibility is to provide a conclusion on the subject matter based on evidence-gathering procedures in accordance with the International Standard on Assurance Engagements (ISAE) 3000 "Assurance Engagements other than Audits or Reviews of Historical Financial Information".

The procedures selected depend on auditor judgment, including an assessment of the risks of material misstatement of the Subject Matter,

whether due to fraud or error. In making these risk assessments, we consider internal control relevant to BCP's preparation and fair presentation of the Subject Matter in the Sustainability Report in order to design assurance procedures that are appropriate in the circumstances, but not for the purpose of expressing a conclusion on the effectiveness of BCP's internal controls.

We read other information included within the Sustainability Report and consider whether it is consistent with the knowledge obtained through our procedures. We consider the implications for our report if we become aware of any apparent material inconsistencies with the Subject Matter. Our responsibilities do not extend to any other information reported by BCP.

Assurance work performed

The assurance procedures included the following work:

- visiting the refinery plant
- completing analytical procedures
- reviewing the appropriateness of management review and reporting processes
- performing substantive testing of selected data to source information, and
- reviewing the process for consolidating data at a corporate level.

As a limited assurance engagement generally comprises of making enquiries, primarily of management, and applying analytical procedures and the work is substantially less detailed than that undertaken for a reasonable assurance engagement, the level of assurance is lower than would be obtained in a reasonable assurance engagement.

We believe that the information we have obtained is sufficient and appropriate to provide a basis for our conclusion.

Use of our report

This report has been prepared in accordance with our engagement terms, solely for the Board of Directors of BCP as a body, for the purpose of reporting on the Subject Matter within the Sustainability Report. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Board of Directors of BCP for our work or for this report, or for any other purpose other than that for which this report was prepared.

Our report is intended solely for the Board of Directors of BCP for the purpose described above, and must not be distributed or used by any other party.

Conclusion

Based on the work described above, nothing has come to our attention that causes us to believe that the Subject Matter for the year ended 31 December 2012 included in the Sustainability Report has not been prepared, in all material respects, in accordance with the Criteria.

For PricewaterhouseCoopers ABAS Limited

By Svasvadi Anumanrajdhon Partner

Bangkok, Thailand 4 March 2013





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