



THAI OIL PUBLIC COMPANY LIMITED
CSR REPORT 2010

Engineering
Clean Energy,
Sustaining
Green World



Vision

“A leading fully integrated
refining and petrochemical company
in Asia Pacific”

Mission

- >> To be in top quartile on performance
and return on investment
- >> To create a high-performance organization
that promotes teamwork, innovation
and trust for sustainability
- >> To emphasis good Corporate Governance
and commit to Corporate Social Responsibility

Content

02

Policies of
Corporate Social Responsibility

06

Refining Experience
for More Environmentally
Friendly Business Operations

16

Doing Business with
Corporate Social Responsibility

30

Moving forward to Thailoil's 50th Anniversary:
Engineering Clean Energy,
Sustaining Green World

1

Policies of Corporate Social Responsibility

As a leading energy-production company in Asia, we are striving to develop the sustainable growth of our business together with a determination to care for the environment and the safety of communities, and to help society **by using our company's strengths, experience, and expertise accumulated after nearly 50 years as an energy business.** We at Thailoil put these abilities to use in our work for Corporate Social Responsibility (CSR), to benefit society both at the community level and the national level. We aim to implement CSR policies in multiple dimensions, including communities surrounding the refinery, and at the national level, in localities without access to public utilities. In such localities, we emphasize how to make use of natural energy sources, not letting them go to waste, in accordance with the principles of a sufficiency economy that draws maximum benefits from local resources. This includes encouraging the efficient use of energy, with the goal that communities in isolated locations that are socially underprivileged will gain the ability to manage their own resources to raise their level of access to society or improve their quality of life.

Engineering
Clean Energy,
Sustaining
Green World



Implementation Strategies for Corporate Social Responsibility

Thaioil's activities for corporate social responsibility begin inside our organization, and extend out to nearby communities and to society at the national level, with 5 key implementation strategies as follows:

1



To make use of Thaioil's extensive strengths, experience, and expertise as an energy business to implement CSR projects to benefit society according to the promise, "Engineering Clean Energy, Sustaining Green World"

2



To carry out CSR projects together with the institutions or agencies that have society's leading thinkers, such as hospitals, universities, and non-governmental organizations (NGOs) such as including the Energy for Environment Foundation (E for E) and the United Nations Development Programme (UNDP).

3



To mitigate problems of global warming due to unbalanced development through the Clean Development Mechanism (CDM).

4



To emphasize CSR activities or projects that work more closely with communities.

5



To build social consciousness among our employees, and to stimulate participation in our volunteer programs, as well as integrating CSR activities into their work.





Engineering
Clean Energy,
Sustaining
Green World



2

Refining Experience for More Environmentally Friendly Business Operations

Throughout the duration of our refining business activities, with Thailand's greatest sales of petroleum, from our establishment in 1961 to the present as we move forward to the 50th anniversary of Thailoil Public Co., Ltd., Thailoil still strives to operate our business with the vision to be a leading fully integrated, continuous, and comprehensive refining and petrochemical business in the Asia-Pacific region, together with a recognition and sense of responsibility to society and the environment along the path to growth.

All businesses in the Thailoil Group place importance on energy management and the production process, choosing to use advanced innovations and production technology to create maximum efficiency and environmental friendliness. They stress attention to every step of production, from the procurement of raw materials, the management of resources and energy in the production process, controls and management to reduce emissions of greenhouse gases and air pollution, water management, and industrial waste management, to the development of environmentally friendly innovations and products.

During the past year (2010), the Thailoil Group strove to do business by creating a balance between environmental management, social development, and business development. We were determined to develop the potential of and benefits from every type of capital available to the organization, such as capital in terms of knowledge and experience regarding oil refining, human capital, innovation and technology capital, networking capital, etc. This all forms a good foundation that reflects the success of environmentally friendly business practices, a path that the Thailoil Group has followed strictly, continually, and completely. These are not merely practices to comply with rules or regulations set by law, but rather are how we perform our duty as true **"The Leader in Producing Clean Energy."**

The
Leader in
Producing
Clean Energy



Recognition and Concern for Global Environmental Problems and Worldwide Climate Change



At present, many of the world's nations, including Thailand, are facing problems of severe and continuous climate change. The world community has been trying to find a way to join together to reduce emissions of greenhouse gases, an important factor stimulating rapid global warming, which in turn has resulted in worldwide climate change.

The Thaioil Group clearly recognizes the important role of industries in reducing emissions of greenhouse gases that result from production processes. Therefore, we have prepared plans and measures to prevent, control, and correct problems of the environment and climate change, attacking the roots of the problems. We have initiated and developed various projects according to the guidelines of the Clean Development Mechanism - CDM and carbon credits, with a determination to follow the principles of a system for the sustainable management of natural resources for the greatest comprehensive benefits. This begins with the determination of every production unit, from start to finish at our refinery and petrochemical plant, to produce environmentally friendly products. This provides care for the environment at the local, national, and global levels. We have initiated and developed various innovations so that production processes will be optimally efficient and environmentally friendly, as follows:

Management of resources with regard to the source of raw materials

With our confidence that **“the best care is prevention,”** the Thailoil Group emphasizes the prevention of pollution from oil refining operations by choosing types of natural resources with low toxicity. An example is the choice to use the type of crude oil called “sweet crude” with low-sulfur crude oil residue, in order to reduce the amount of sulfur dioxide emitted upon its combustion. Most crude oils and crude oil residues contain some level of mercury and salt. Thus we need to use preventive technology starting at the source. The company is therefore installing a **Mercury Absorption Unit** to capture and absorb mercury in crude oil and crude oil residue before they enter the refining process. We are also installing a **Desalter** that reuses water from various production units of the company by increasing the water pressure, using the water to clean salt from the crude oil and crude oil residue before they are refined, in order to help the refining system to work at its full potential and top efficiency.

With regard to other raw materials used in the production process, such as catalysts, the company has implemented management according to our strict policy of avoiding problems of pollution in the environment. Thus we stress choices to use materials that do not affect the atmosphere and reduce the use of resources to a minimum or choose to use them only in the necessary amounts.

Protecting and monitoring air quality

Business operations of the Thailoil Group during 2010, and all previous years, stressed the design and implementation of production units for oil refining processes and units to assist production using appropriate high-efficiency technology, in order to protect and monitor air quality and maintain a level of safety better than that required by legal standards. We placed importance on the significant reduction of fuel usage and losses in the production processes, as follows:

>> We have worked to eliminate sulfur dioxide gas from the start of the production process, by choosing to use bunker oil that contains only 2% sulfur, as well as accelerating modifications to use an increased proportion of fuel gas with less than 1% sulfur. The company has also improved combustion heads to be more efficient and to allow the use of either bunker oil or fuel gas. This technique will help to control the amount of sulfur dioxide gas released during the production process to some degree.

>> Another effort to eliminate emissions of sulfur dioxide gas during the production process is the design and installation of 4 Sulfur Recovery Units (SRUs). These can eliminate sulfur dioxide gas and hydrogen sulfide gas (rotten egg gas), which can be emitted during combustion. Those gases are converted into sulfur, which can be further processed to be a marketable product of liquid sulfur. This helps to greatly reduce the amount sulfur dioxide gas released into the atmosphere, by up to 98%, and also provides another business opportunity.





>> **We have installed a Shell Claus Off Gas Treating (SCOT) Unit**, in which the remaining amount (about 2%) of sulfur dioxide gas undergoes combustion. After this, if the sulfur dioxide gas is not completely combusted, the remaining tail-gas will be fed back into the sulfur recovery unit in order to hasten the complete elimination of sulfur dioxide gas. There are also a hydrogen sulfide analyzer and Continuous Emission Monitoring system (CEMs) to continually monitor the air quality.

>> **We implemented an ADIP Treating Unit system**, which eliminates hydrogen sulfide gas that was mixed in with the fuel gas, by spraying a solution of ADIP (di-isopropanolamine) down into the distillation column, in the reverse direction from the gas rising from below. The solution of ADIP helps to absorb the hydrogen sulfide gas. Then we obtain clean fuel gas for further use, and can even convert waste gas into secondary products without polluting the environment.

>> **We have built a Vapour Recovery Unit (VRU) to convert oil vapor back to oil.** This serves to prevent oil vapors from evaporating into the atmosphere while the product is being fed out, and to convert them back into usable fuel. This helps to control air pollution and reduce losses of oil.

>> **We have implemented a system to manage Volatile Organic Compounds (VOCs)** in our oil refining processes by monitoring over 100,000 joints in the machinery and equipment of each production unit throughout the refinery. We control and prevent leaks to the atmosphere, and have plans for maintenance, inspections, and continuous modifications to various types of machinery and equipment. If we identify a spot where we suspect there is a leak, it is

necessary to immediately change that joint or that equipment. In addition, we also use a flare combustion system to help manage VOCs.

>> **We have monitored the operation of a Low NOx Combustion system**, in order to control the generation of nitrogen oxides from the start of our combustion processes. We also monitored a Low NOx Burner system, which uses both a spray of water for heat reduction (Wet Low NOx Burner) and a process to atomize the fuel into very small droplets that are mixed with air before combustion in order to reduce fuel waste (Dry Low NOx Burner). This helps reduce the temperature of the combustion chamber. The Thailoil Group has also further developed our latest innovation of fogging system. While the combustion air is induced to the combustion chamber, the system will spray water mist (fogging). The principle is similar to water spray fan. Thus the temperature in the combustion chamber is reduced, and at present we use this innovation in the Thailoil Group's electricity production system.

Energy usage in production processes

In the year 2010, the Thailoil Group continued to implement the Clean Development Mechanism, with the goal to reduce and control the emission of greenhouse gases from start to finish in our production processes. At the same time, we are inventing and developing new innovations and technology for oil refining based on energy conservation, as follows:

>> **We are improving and developing the combustion efficiency of Crude Distillation Unit 1 (CDU-1) and High Vacuum Unit 1 (HVU-1)**, to improve the capabilities of the refining units and give them a higher combustion efficiency and even better performance.



>> **We are changing our fuel from bunker oil to natural gas**, in order to manage the efficiency of our energy use for the greatest benefits and for a minimal impact on the environment and ecosystems.

Water usage

The Thailoil Group places importance on water minimization, which is, using water resources for the greatest benefits, and reducing the amount of wastewater generated by our oil refinery. We apply the concept of source control, which is reflected in our operations during the past year as follows:

>> **Viewing water as a valuable resource, and reusing it for the greatest benefits**

In processes related to oil refining, it is necessary to use water in many ways. Before crude oil enters the refining process, water is used to wash salt out of the crude oil and hot steam is used to warm it. This is one way to help reduce the amount of fuel usage. In Thailoil's oil refinery, we make use of hot steam at various levels. After it heats the oil, the leftover steam can be reused in other production units. Furthermore, wastewater that has already been treated at each unit can be circulated for reuse as a raw material for further production. This provides maximal benefits from our use of water resources.

>> **Enhanced elimination of volatile contaminants in wastewater from the production process**

Wastewater generated by the production process may contain hydrogen sulfide gas. It is important to send the wastewater to the Sour Water Stripper Unit, which eliminates the volatile contaminants by using steam to heat the wastewater. This reduces the contaminants and relieves some of the load of the water treatment system, as well as reducing the chance of generating water pollution.

>> **Separation of different types of wastewater before treatment**

The separation of different types of wastewater according to their level of contamination is an appropriate technique for more efficient treatment. We can separate wastewater from the oil refinery into 4 types : wastewater from the production process, wastewater contaminated with oil, wastewater that could be accidentally contaminated with oil, and rain water. We choose the appropriate channel in which to bring the wastewater into the treatment system.

>> **Installing and developing a wastewater treatment system of the highest standards**

Based on the principle of preventing water pollution from its source, the Thailoil Group placed importance on the installation of a wastewater treatment system that meets safety standards, is highly efficient, and is able to handle a maximum volume of 400 cubic meters per hour of wastewater from the production process. The system should also have a reserve treatment unit for every stage, including physical, chemical, and biological treatment. Every process is operationally linked, starting with **the physical process**. This can be performed by first separating any oil from the wastewater. A machine sweeps oil floating on top into a slop tank to be refined again. After the wastewater has passed the physical treatment process, it contains less oil, and the wastewater enters **the chemical process**. This involves adding chemicals to precipitate out contaminants, which are then eliminated. The remaining water then enters **the biological process**, which uses a Denitrification Nitrification Biotreater (DNB). This system can efficiently eliminate organic contaminants. This is the first time in Thailand, and only the third time worldwide, that such a system has been implemented. This is another demonstration of the Thailoil Group's dedication to invest in environmental preservation.



>> Continuous monitoring of wastewater quality

Even though wastewater released from the Thailoil refinery has already passed the treatment process, it is still necessary to monitor the wastewater quality before it is released into the sea. Such monitoring includes weekly collection of water samples for standard measurement and analysis. It also includes continuous monitoring of Chemical Oxygen Demand (COD) with a COD online analyzer, which can update the results every 15 minutes.

Conversion of waste to useful forms and waste management

According to the principle of reaping the full benefits of valuable natural resources, the Thailoil Group has guidelines for management and control to minimize solid waste from the production process, as follows:

>> Keeping an inventory of solid waste and monitoring it from the start

Part of the operational procedure of each production unit is an inventory of solid waste, separating the types of waste, according to the standards of the Thailoil Group, into 9 categories, such as metal not contaminated with oil, waste contaminated with oil, catalysts that require special management, etc. The inventories from the various production units are submitted to the hygiene unit, which selects the procedure to treat and eliminate the waste in an appropriate and correct manner. They also consider ways in which the solid waste can be put to use again, in order to help reduce the impact on the environment from the source.

>> Integrating the principles of “7 Rs” into operational procedures

In the year 2010, the Thailoil Group still emphasized the management of solid waste that was generated by production processes, stressing control and operations according to the principles of “7 Rs,” namely:

✿ R1 : Reduce.

Reducing the amount of trash, refuse, or solid waste from the source, by making full use of valuable natural resources and throwing away as little as possible. This includes controlling and looking after the production process, as well as maintaining various types of equipment for good efficiency and regular use. This is also one way to help preserve and extend the lifetime of catalysts and absorbent materials.

✿ R2 : Refuse.

Avoiding the generation of trash, refuse, or solid waste that is toxic to the environment from the start of the production process. For example, choosing to use crude oil of an appropriate grade, in order to extend the usable lifetime of catalysis.

✿ R3 : Reuse.

Reusing trash, refuse, or solid waste, as well as materials that are no longer needed, as many times as possible. For example, oil that is recovered from the wastewater treatment process can be refined again (reprocessing).

✿ R4 : Recycle.

Encouraging the separation of trash, refuse, and solid waste of different types that can be converted into forms that can be put into use again. One example is the extraction of valuable metals (metal recovery), including gold, platinum, nickel, etc., from used catalysts.

✿ R5 : Refill.

Choosing to use products for which the container can be refilled, in order to reduce the amount of trash.

✿ R6 : Return.

Choosing to use products for which the packaging can be returned to the manufacturer for reuse, or the remaining product that can no longer be used can be returned for regeneration into a usable form.

✿ R7 : Repair.

Repairing tools, materials, or equipment so that it can be reused as much as possible, in order to reduce the amount of trash that must be disposed of or destroyed.

>> Oil-containing trash and catalysts that require special care

During operations in 2010, the Thailoil Group continued to undertake management of waste leftover from the production process, adhering to the principle of choosing elimination methods that provide the greatest benefits and the least impact on the environment. One example is that the company performed the separation of **oil-containing trash**, which is sent to a cement factory for use as alternative fuel. Furthermore, for **catalysts** used in Thailoil's production processes, we stress the selection of catalysts with a lifetime of 3-5 years, and send some of the used catalysts to be regenerated for further use, in order to reduce the amount of waste that is generated each year. Usually there are a total of 3 types: catalysts that contain valuable metals, that contain non-valuable metals, and that contain no metals. Each type is managed in a different way:

- Catalysts that contain valuable metals are put through a chemical process to reclaim the valuable metals from the used catalysts.
- Catalysts that contain non-valuable metals are not simply thrown away. Instead, they are returned to the manufacturer for regeneration.
- Catalysts that contain no metals are eliminated in the same manner as oil-containing trash. They are sent to a cement factory to be used as an alternative fuel.

Environmentally friendly products and services

With our confidence that the industrial sector should play a major role in the solution of environmental problems, the Thailoil Group, as an organization in the energy business sector, therefore places great emphasis on the inputs into the production processes. We choose to use clean technology at every stage and are determined to control and monitor any effects that occur during the production process. This makes us confident that the products are obtained from an environmentally friendly production process, i.e., having a minimal impact on the environment. For the entire history of our business operations, the Thailoil Group has strictly adhered to legal requirements and policy guidelines, together with cultivating a sense of responsibility toward the environment and toward society. This is reflected in our successful development of products on the market, as follows:

>> Development of refined fuel that meets EURO IV standards

In 2007, Thailoil initiated a project to produce processed fuel that meets EURO IV standards. Thailoil has been able to produce diesel fuel according to EURO IV standards, which





has been on the market since February, 2008. We have also developed improvements in order to produce gasoline with 95% and 91% octane that meets EURO IV standards, which can reduce the amount of sulfur in the gasoline by up to 10 times. We have Thailand's first refinery with the capability to address the government's energy policies regarding the production of fuel to EURO IV standards, before the policies come into effect in 2012. Thus Thailoil is Thailand's leading company in this regard.

In addition, Thailoil has a project to build a unit to reduce sulfur in Catalytic Cracking Gasoline (CCG), in order to reduce the amount of sulfur in gasohol according the EURO IV standards that are to come into force in 2012. Thailoil has chosen to use Prime G+ technology from another company, Axens, and the contracting company will be Technip. The investment in the project is valued at 1.6 billion Thai baht. At present the project is in the phase of engineering design and procurement of equipment. The project is expected to be finished during the 4th quarter of 2011. Then Thailoil will have the capability to produce and sell every type of diesel fuel and gasoline, meeting EURO IV standards.

>> Production of low-pollution aromatic extracts

A member of the Thailoil Group, Thai Lube Base Public Co., Ltd., has carried out a project to construct a unit to produce a treated distillate aromatic extract (TDAE) product with less than 3% of Poly Cyclic Aromatics (PCAs). This product would be a raw material for the production of automobile tires of high standards. These would meet the European Union quality standards for low-pollution aromatic extracts, which are accepted and certified by leading tire manufacturers. They can reduce the spread of carcinogenic contaminants due to tire wear. The standards came into force in European Union countries in the year 2010.

In the future, Thailoil will continue to strive to conduct our business together with responsibility toward society and the environment. We do this by means of projects that stress energy conservation and the sustainable use of natural resources, such as a feasibility study for the ZERO Discharge project, in which wastewater is not discharged but rather is subjected to further filtration, called Reverse Osmosis, to remove contaminants and prepare it for reuse.



Biodiversity

Throughout the year 2010, the Thailoil Group strictly and completely adhered to all relevant laws, along with a sense of responsibility to the environment and society. Thus we continued to monitor impacts on the environment and public health in areas surrounding the refinery. For example, we installed air and water quality monitoring systems, which were continuously controlled, as well as studying impacts on the environment and public health by listening to the opinions of stakeholders, academics, and local governmental organizations. This is reflected in various projects, such as

>> Biodiversity survey at Khao Phu Bai, a hilly region near our refinery, with the objective of studying diversity in the ecosystem and the natural history of the surrounding area, as a source of data for our research to provide benefits for monitoring changes that may occur in the long term.

>> Green Area Zone or an area for planting trees comprising over 30% of the property of the refinery. This is analogous to a natural boundary between communities and the factory.

Throughout our pathway to growth, as we step forward to our 50th year, the Thailoil Group still adheres to systematic management guidelines for the sustainable use of natural resources. These ensure the greatest comprehensive benefits. We emphasize the need for prevention, control, and solution of environmental problems at the source, not limited only to looking after the region surrounding our refinery, but rather emphasizing care for the environment as a whole, both at the local and national levels. To do this, we have continually developed clean energy innovations and technologies, in order to yield products that are truly friendly to the environment and communities.

3

Doing Business with Corporate Social Responsibility

“Communities and the environment must be healthy for business to last.”

This has been the philosophy of Thailoil's business operations, from the day they were first established until now as we step forward into our 50th year. This philosophy will be maintained steadfast and carried on into the future, as reflected in every production unit of the Thailoil Group. Today we are ready to use our strengths, experience, and expertise regarding energy, as accumulated through thick and thin for over half a century, to drive our business to grow with a consciousness of balance together with the environment and society.

Turning back the clock to the year 1961, the **“Thai Oil Refinery Company Limited (TORC)”** was created with a registered capital of only 20 million baht, under the conditions set by the government at that time of an initial production capacity of 35,000 barrels per day. At present, Thailoil has a registered capital over 1,000 times greater and the nation's highest refining capacity of 275,000 barrels per day, which is one-third of the refining capacity of the whole nation. We have a complex refinery that is one of the most modern in the entire Asia Pacific region.

The Thailoil Group of today is an organization with duties that are not limited to refining. Rather, it serves as a model organization for energy conversion with value added. If the world community needs any type of energy, we are able to add value to and improve the quality of that type of energy, for benefits with the greatest value in terms of business, society, and the environment. This is an important foundation of development toward true sustainability.

Communities
and the
environment
must be healthy
for business
to last.



The starting point of quality energy production is attention to those nearby, concerns for those far away

With awareness of being one part of society, the Thailoil Group emphasizes conducting business with attention to stakeholders within the organization as a first priority. From there, we expand our attention to the communities surrounding our refinery, and other communities at both local and national levels, as follows:



Employees are a valued treasure of the organization. Therefore, the Thailoil Group pays attention to the development of human capital, so they are both skilled employees and good people, with complete physical and mental health, and continually learn how to develop their own potentials. At the same time, we aim to encourage a volunteer spirit with a process of participation that includes thinking together, planning together, working together, correcting together, and receiving the benefits together. Along with this, we nurture a good attitude of conducting business for society by highlighting the connection between business goals, care for the environment, and social development.

Communities surrounding the refinery are our close friends who become more important every day. The Thailoil Group clearly recognizes the value of the friendship and relationship that we have fostered for over half a century. Thus we are prepared to support and encourage each community surrounding the refinery to have a good quality of life, with warmth and safety, so that their residents can learn how to develop themselves to build strong communities that will grow together with us.

Communities throughout the nation, both at the local level and at the level of society in remote areas. Although they are far from Thailoil's location, our concern goes out to them. The Thailoil Group has a policy of combined cooperation with various agencies of the government, the educational sector, non-governmental organizations, and the civil society sector, both at the local and national levels, in order to jointly create projects that are useful to community development, using the capital of each community to generate sustainable energy.

Management of Occupational Health and Safety of Stakeholders

The Thailoil Group clearly recognizes that to conduct business with true responsibility for the environment and society, it is most essential to pay attention to, care for, and take responsibility for all stakeholders in society, starting with those within the organization, that is, our employees. We have guidelines for the management of the occupational health and safety of our employees, based on international standards, according to the TIS 18001 and OSHAS-18001 occupational health and safety management system. These raise the level of quality of the workplace, and serve as a mechanism of quality assurance of a good life for our employees and all related parties. These lead to the highest quality, efficiency, and safety, as follows:

Competency development in terms of safety for our employees. The Thailoil Group has set out a plan for competency development in terms of safety for personnel at all levels of the organization. This includes an Individual Development Plan (IDP), a Training Module, Knowledge Management (KM), and Process Improvement for Operational Excellence (PIOE), etc., in order to instill confidence that personnel of the Thailoil Group are competent in occupational health and safety management to international standards.

Integrated planning of safety management together with companies in the group, such as Thai Paraxylene Co., Ltd., Thai Lube Base Public Co., Ltd., and Independent Power (Thailand) Co., Ltd. Personnel with knowledge and expertise are rotated in order to provide mutual support for safety. There is a joint tool and equipment center for fire prevention and suppression. There is also a central group of personnel to support maintenance of equipment, training, emergency planning and coordination, and expansion and support of the capabilities of the central fire extinguishing team. We also pursue knowledge development regarding safety at every company in the Thailoil Group for common standards and improved capabilities.

Potential Incident Reports (PIRs) are used to provide information for efficient and effective measures to actively prevent accidents. In the year 2010, Thailoil still assigned its employees and contractors to prepare PIRs of various events that occurred, even if they did not cause any injuries or property damage, if there was a potential to cause injury. This represents another example of active management regarding occupational health and safety that the Thailoil Group conducts seriously and continuously every year.

Furthermore, the Thailoil Group has added numerous measures to prevent repeat occurrences of accidents. One of these is to monitor and enforce strict adherence to Enhanced Safety Management (ESM) in order to reduce and prevent the occurrence of accidents. Our policy is that safety is a duty and responsibility of every employee, according to their level of authority. There are also activities to promote and encourage safety, such as safety meetings before starting an operation (toolbox talk meetings), inviting managers and contractors to jointly perform safety inspections, organizing friends-help-friends projects to introduce safety measures, and so forth.

After continuously conducting these safety programs, as a result Thailoil has been honored by the Zero Accident Awards of the Ministry of Labour with a Gold Award for an enterprise with no work-stopping accidents continuously for 10,000,000 man-hours. Ours is the first refinery in Thailand to receive this award.





Driving sustainable CSR

Employees

For all the time that Thaipol has been driving its activities for society, those activities have followed our strategic planning regarding corporate social responsibility (CSR strategy). At the heart of Thaipol's strategy regarding activities for society lies an emphasis on encouraging **employees** to understand and perceive the convergence between business goals and care for society and the environment

Communicating CSR concepts, from policy to participation in actions

With the vision of aiming toward being a leading energy organization, the Thaipol Group moves forward to develop our business for sustainable growth together with care and attention for the environment and society, stressing the most advanced safety standards and placing appropriate importance on stakeholders in various sectors.

The Board of Directors and the top management of the organization have emphasized policies to conduct business together with responsibility to society, adopting a holistic view that integrates the organization's strengths, experience, and expertise in the energy business as accumulated over nearly 50 years. These can be built upon as capital for helping society at both the local and national levels.

The Thaipol Group has therefore offered opportunities for all employees to participate in our activities to benefit communities and society, regardless of the employees' varied professional skills and expertise, including

technical service staff, engineers, and experts in various fields, such as marketing, finance, accounting, public relations, etc. We stress the concept of working for communities the Thaipol way, without requiring large amounts of money or letting the budget drive the work. The most important point is to brainstorm and exchange ideas based on a foundation of capital in terms of the experience and expertise that the organization has accumulated, as well as capital in terms of the knowledge and capacity buried deep inside each employee. We also have to use our **hearts** or the **volunteer spirit** as the driving force for society to move forward toward sustainability.

Stimulating a “motivation to do good” with organizational values

Employees are a very valuable resource of the organization. In order for the organization to develop its human resources **to be both good at their jobs and good people**, to prepare for strong business growth in the future and to be strong at giving back to society, it is very necessary to develop capabilities in terms of professional knowledge, skills, and expertise and also to encourage an attitude and motivation to do good. They should be willing to give, and should know how to give back to society.

These organizational values are reflected in the keyword **“POSITIVE”** as an important mechanism that the Thail Group uses to encourage the special qualities of Thail people. This includes Professionalism, Ownership and commitment, Social responsibility, Initiative, Teamwork and collaboration, Integrity, Vision focus and Excellence striving.

Opening “creative outlets” for the “volunteer spirit”

In the past year, 2010, the Thail Group has conducted operations in accordance with its principal strategic plan for corporate social responsibility, stressing participation by employees in providing benefits to communities and to society. As one example, over 30 volunteers who were employees of the Thail Group went to Ban Pa Miang in Chae Son Subdistrict, Mueang Pan District, Lampang Province, in order to participate in installing high-efficiency, energy-conserving miang steaming stoves for the community. This is a good example of opening creative outlets for employees who are prepared to use their volunteer spirit to learn and gain the opportunity to appreciate our organizational values. They feel “POSITIVE” from directly participating by themselves.

During the past year, Thail still placed a very high value on demonstrating every aspect of corporate social responsibility. We have continuously maintained in our various projects for society, most especially those for steadily and continuously developing the quality of life in communities and the environment. This includes both the area surrounding our refinery and localities that are isolated from basic public utilities. At the same time, we are developing various systems of management standards for greater efficiency, in order to demonstrate the priority that we assign to all types of stakeholders. These operations can be classified as follows:





Engineering
Clean Energy,
Sustaining
Green World



“For the nearly 50 years that Thaiphoil and the communities surrounding the refinery have lived together as friends, adjacent to one another, Thaiphoil has wished for this center to be like a second home for local residents. They come to visit and look after it, and can always provide suggestions as if it were their own home. We feel assured that their children and grandchildren will be nurtured here in surroundings that encourage the development of their health, spirit, and intellect.”

Surong Bulakul
Chief Executive Officer
Thai Oil Public Company Limited

At the Community Level

After creating bonds and joint participation with **employees of the Thaiphoil Group**, then **communities** are another group of stakeholders that the Thaiphoil Group emphasizes no less. This is reflected in our strategic plan to drive work for corporate social responsibility, with determination to expand on the communities' strengths as capital for improving and developing their quality of life according to the guidelines for a sufficiency economy, based on a foundation of growth together with the Thaiphoil Group in a balanced and sustainable manner.

Therefore, each year the Thaiphoil Group has further developed our projects to benefit society in various ways, so as to expand their impact in breadth and depth, emphasizing how to use the social strengths and capital of each community as a mechanism to promote their sustainable development, as follows:

Communities surrounding the refinery Public health projects and development of the quality of life in communities

Ever since Thaiphoil joined as a member of the community of Thung Sukhla Subdistrict, Siracha District, Chonburi Province, our organization has remained firm in its intentions to place a high importance on **good health** in communities surrounding the refinery. This is because we are confident that good health is important capital for people's lives. When the people in a community have good physical and mental health, that community will certainly be strong and capable

of learning and building resistance to external pressures.

Throughout our operations so far, Thaiphoil has emphasized a working strategy regarding health, health education, and a good quality of life. We have encouraged members of each community surrounding the refinery to learn how to care for health through **prevention** rather than treatment after the fact. We also explained the lessons learned from our mobile health unit project, which traveled continually and regularly to provide health services to various communities surrounding our refinery. We found that most members of the communities still



had health problems, especially regarding dental and oral health, which is a wellspring of good physical and mental health.

The Thailoil Group has therefore built upon earlier work, based on the needs of the communities. This is consistent with our organizational goal to expand opportunities for communities to receive more universal public health services, leading to the establishment of **the Thailoil Group Health and Learning Center for Communities**. This center has opened to provide basic health services to communities, emphasizing dental care, especially among schoolchildren, to campaign for starting to care for health by prevention since childhood. It also promotes proactive health care and a process for community health care.

In addition, the Thailoil Group Health and Learning Center for Communities serves as a center for exchange of information among the communities, which is an important basis for building a knowledge-based society that is truly self-reliant. This began to take shape in the year 2010 and involved participation by the Committee of Communities surrounding the refinery, Ao Udom Hospital, the Laem Chabang Municipality, and the Thailoil Group.

Throughout the year 2010, the center has presented a health activities calendar and has provided opportunities to learn through a variety of activities, such as aerobics for health, tests of physical capabilities and selecting for risk factors, hula hoops for health, an activity to search for traces of the past from old photographs of the Ban Ao Udom community, giving alms of rice, dried foods, etc., and organizing exhibitions of health care knowledge. Members of each community can take turns to arrange forums for the exchange of knowledge, which will also foster good relationships among the surrounding communities.

Programs for education and the promotion of learning

In the year 2010, the Thailoil Group still continued to support education and learning, establishing the Thailoil Education Fund and granting annual awards to students from within the Laem Chabang Municipality. A total of 22 awards were given to encourage the expansion of educational opportunities to children and young people who study well but lack financial resources, so as to improve their quality of life by means of better education.

In addition, the Thailoil Group also organized various programs to build upon work in previous years, with the goal of encouraging education and supporting learning, such as the Program of Knowledge and Morality to Nurture Youth Leaders, the Scientific Culture Youth Camp Program, and setting up a Living Library within the Thailoil Group Health and Education Center for Communities, which should stimulate children to love reading and enjoy the world of books, filled with the energy of endless imagination.

Programs for the environment

At the heart of Thailoil's business operations is a recognition that they cannot be limited only to developing the greatest innovations and technology. Throughout our history, Thailoil has striven toward sustainable security by planting knowledge and nurturing environmental consciousness and the conservation of natural resources among children and youths, and throughout the communities surrounding the refinery, in order to foster love and concern for their hometowns, with various programs that have been carried out continuously, as follows:



Engineering
Clean Energy,
Sustaining
Green World



>> Campaign for Environmental Conservation in Honor of Her Majesty the Queen

The Thaioil Group has organized a “Campaign for Environmental Conservation in Honor of Her Majesty the Queen” every year in honor of her Majesty the Queen’s birthday, which is also Mother’s Day. This activity is conducted with the strong cooperation and participation of communities and schools surrounding our refinery as well as local agencies that volunteered for this. Our aim is to do good by helping to care for and conserve the environment of the communities, so it is clean, beautiful, orderly, and safe, in order to provide good hygiene and a good environment for the communities.

>> Project for Community Biodiesel Production to Reduce Pollution from Used Vegetable Oil

Building on the initiative of the Thaioil Group together with Kasetsart University’s Sriracha Campus, Laem Chabang Municipality, and the Committee of Communities surrounding the refinery, we created the “Project for Community Biodiesel Production to Reduce Pollution from Used Vegetable Oil.” The project is in the developmental stage, and is planned to campaign for each community to pool the used vegetable oil from all families in order to convert it to biodiesel, which will help reduce problems of water and air pollution, as well as campaigning for people to understand the health problems caused by consuming reused oil.

This project therefore serves as an example of the integration of capital in terms of knowledge and experience together with performing our duty as good members of society. That is, the Thaioil Group is prepared in terms of space at our refinery and modern and efficient analysis laboratories, while Kasetsart University is prepared in terms of basic knowledge, personnel,

and biodiesel production innovation. At the same time, the communities have the capability to obtain and collect used vegetable oil from families. When all parties simply provide opportunities to one another, a zone of ideas and knowledge about alternative energy in communities can come into fruition.

>> Green Communications Project

The Thaioil Group, led by Independent Power (Thailand) Company Limited, Thai Tokai Carbon Product Co., Ltd., Thai Lube Base Public Co., Ltd., and Thai Paraxylene Co., Ltd., has set up a joint “Coordination Center” and an “Environment and Community Relations Committee.” These enable us to work together proactively to set standards and operational plans to closely monitor, correct, and prevent impacts that may occur due to refining operations. For example, we have established a 24-hour “hotline” unit to accept suggestions, and a process to respond fairly to various complaints.

Programs for religion, customs, and culture

The Thaioil Group has always placed importance on community activities for important Buddhist festivals and various cultural traditions. The forms of cooperation between the companies and the communities are not only in terms of donations of money or goods. At their heart our community relations are activities that involve participation at the stages of joint ideas, discussions, planning, and action between the companies and the Committee of Communities. This makes the activities more varied, and they address the wishes of the community members.

Projects for developing community potential

>> Project to develop the potential of the Committee of Communities



The Thailoil Group clearly recognizes the importance of “**local leaders,**” who provide leadership in terms of ideas and coordination between the refinery and communities. We therefore continuously maintain our project to develop the potential of the Committee of Communities, emphasizing development in terms of providing various types of knowledge and skills to the group of local leaders, including leadership skills, public speaking skills, teamwork, etc., so that they can modify these skills to benefit their personal development and community development.

>> Zero Waste Management Educational Tour

As a leading organization for alternative energy, the Thailoil Group emphasizes encouragement of energy self-reliance by stimulating communities to learn about, understand, and gain familiarity with the natural resources and raw materials within their localities so as to make use of their full value and potential.

At the end of the year 2010, the Thailoil Group organized a study tour to invite employees of the Thailoil Group, representatives of 7 communities surrounding the refinery, school principals, and the staff members from the Energy for Environment Foundation **to exchange knowledge and study about Zero Waste Management** at the Academic Service Center, Kasetsart University, Krabi Province, to visit Ban Koh Klang, a model village with a sufficiency economy, and to study a palm oil extraction factory and guidelines for production waste management to reap maximal benefits. These served as examples for applications in their own households and communities.

Projects to build relationships and participation

Another concrete measure that reflects the bonds between the community and the Thailoil Group is the framework of

community relationships and participation. “**We think, we work, together**” is a forum of joint meetings between the Thailoil Group, communities, and governmental agencies (Laem Chabang Municipality, Kasetsart University, and Ao Udom Hospital). “**Open House, Connected Hearts: Thai Youths at the Refinery**” opens an opportunity for youths to come visit the refinery and to experience and learn more about its operations. The “**Thailoil Youth Ambassador**” program develops students and youths from the community to be representatives of the organization and to explain news and information correctly. This aims to create understanding and a good relationship with the community.

Community medicine and preventive medicine

Healthy communities are a key goal and an important role of the Thailoil Group Health and Learning Center for Communities. The Center strives to actively promote good health among the communities, emphasizing preventive care to avoid diseases more than corrective care after the fact. The communities participate in diagnosing problems and finding the causes and ways to prevent them, together with Ao Udom Hospital and the Laem Chabang Municipality, according to the guidelines for community medicine, through various programs. These include making community health map, activities to measure capabilities and screening for diseases for which the people are at risk, and health promotion activities.

The Thailoil Group also awarded grants to support cooperative programs to provide proactive health provision services for communities surrounding the Thailoil Group, in order for community health promotion in terms of dental health and other community health programs to be carried out continuously and efficiently.



Engineering
Clean Energy,
Sustaining
Green World



Thaioil Journal for Communities

The Thaioil Group has prepared bimonthly journals entitled **“Our Communities”** in order to communicate information and knowledge concerning new developments in various activities of the companies and communities, as well as providing opportunities for communities to participate in distributing various types of knowledge or opinions via Our Communities journal. Our aim is for these journals to serve as another channel of communication between the Thaioil Group and communities.

Communities at the National Level

The Green Energy Mechanism

With a clear recognition that alternative energy is an important way to address environmental problems, the Thaioil Group, as a leading energy organization, is prepared to participate by using our capital in terms of our long-accumulated experience to drive the **“Green Energy”**. This aims to make use of renewable energy available to communities in order to produce clean energy for use in the communities. This promotes the strength of communities so they learn self-reliance in terms of energy together with environmental conservation.

One of the Thaioil Group's strategies for driving activities related to corporate social responsibility stresses the development of renewable energy projects and encouraging the efficient use of energy in remote communities. We have therefore cooperated with the Energy for Environment Foundation to develop projects under the **Green Energy Mechanism**. We initiated and further advanced various projects, as follows:

>> Community Hydro-Powered Plant project at Huay Poo Ling, Chom Thong District, Chiang Mai Province

The Huay Poo Ling Hydro-Powered Plant at Chom Thong District, Chiang Mai Province arose from a cooperation between many agencies. The Thaioil Group helped support the project and played a role in pushing it to completion. The project has been completed by extending the electricity cables and supplying electricity to two additional villages containing 66 households. Previously the Huay Poo Ling hydro-powered electricity generation project was only able to power one village with 47 households.

In the next phase, the Thaioil Group will extend the cables even further to the Ban Khun Ya School, the educational center of the community. This has had access only to solar power, so it has received power only for short times, which is insufficient for teaching activities, and only in some seasons. Furthermore, the Thaioil Group, together with its employees, will participate in constructing a new building to replace the old one, which fell into disrepair. We are also installing equipment for teaching and long-distance learning by satellite, in order to expand learning opportunities for children. We will carry out this activity by taking our volunteer employees to help build the school during early 2011.

It could be said that our follow-up project in 2010 regarding the Huay Poo Ling community hydro-powered electricity generator was an effort to drive the Green Energy Mechanism that has produced concrete results that are continuous and comprehensive. It has led to an improved quality of life for these communities, providing equal opportunities for information access, building occupations, and helping to improve educational opportunities for local children by allowing

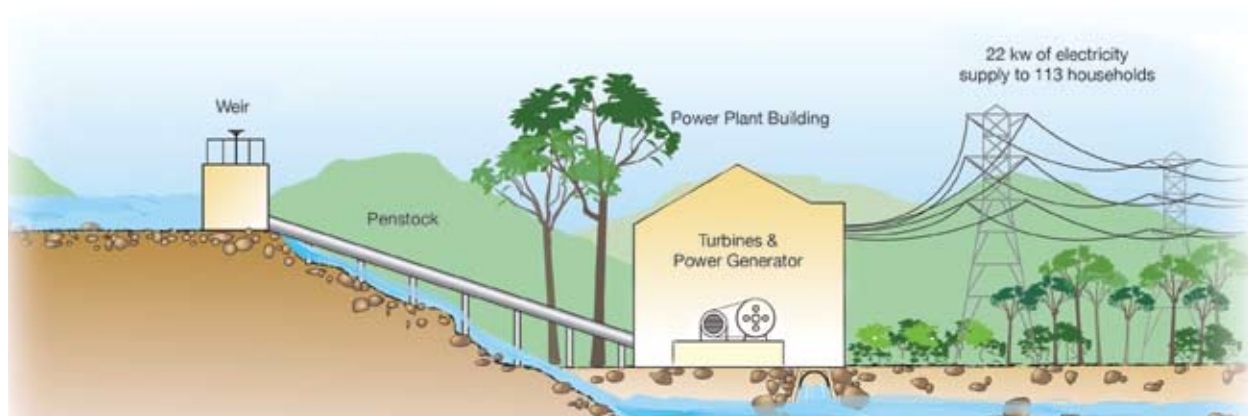


them to study by long-distance television via satellite. Furthermore, this hydro-powered electricity generator is a good example of the development of a small-scale, community-level hydro-powered electricity generator that could be developed mainly from capital available at the community, using the potential of community water sources to provide the greatest benefits.

>> Project to improve the efficiency of stove modification of tea leaves steaming in Mueang Pan District, Lampang Province

The Thaioil Group has carried out a project to improve the efficiency of miang (tea leaves) steaming stoves, together with the Energy Policy and Planning Office, Chiang Mai University, and the Energy for Environment Foundation. The process of improvement and development has provided energy-efficient miang steaming stoves.

Ban Pa Miang is a community that is over 200 years old, located in Mueang Pan District, Lampang Province. Its location is in high mountains over 70 kilometers from the city of Lampang. There are 132 households whose main occupation is to make miang, both for consumption in their households and to sell as a local product. Steaming miang leaves in the traditional manner requires about 90 minutes for 25 kilograms, consuming about 20-25 kilograms of firewood and also producing large amounts of smoke from burning firewood, which impacts the health of the residents. The new, energy-efficient miang steaming stoves can steam the same amount of miang leaves within 60 minutes, consuming only 7-10 kilograms of firewood, reducing the use of energy by 60% and reducing tree-cutting and deforestation by over 4,800 tons per year. At present, over 120 households in the community of Ban Pa Miang village use the energy-efficient stoves.



Hydro-Powered Plant project at Huay Poo Ling, Chom Thong District, Chiang Mai Province



>> Pico-Hydro-Powered Plant project at Champa Thong Temple and Champa Thong Waterfall, Baan Tam Subdistrict, Mueang Phayao District, Phayao Province

The Thail Group, the Energy for Environment Foundation, the Department of Alternative Energy Development and Efficiency, and Champa Thong Temple all cooperated to develop a model Pico-Hydro-Powered Plant at Champa Thong Temple. The project is based on the potential of the Champa Thong Waterfall, which is in front of the temple. This, together with water power from the stream flowing behind the temple, are used as renewable capital for producing electricity for the convenience of people coming to practice Buddhist principles or coming to participate in forest preservation activities by the Department of National Parks, Wildlife, and Plant Conservation. It serves as a good example of a development path that can be followed together with environmental conservation. Then in November, 2010, the Thail Group also participated in an offering of robes and other needs to monks, which celebrated the cooperative effort to build the Pico-Hydro-Powered Plant. This provided an opportunity for our employees to participate in making merit and supporting the practice of Buddhism, together with giving back to society.

This is another project in the Green Energy Mechanism, which the Thail Group has conducted in cooperation with the Energy for Environment Foundation and the Department of Alternative Energy Development and Efficiency. The aim was to build a 3 kW Pico-Hydro-Powered Plant at Ban Pian Village, Doi Saket District, Chiang Mai Province. Work over the past year has received good cooperation from community residents, starting with construction of the building and extending to installation of the turbine generator, installation of the control and electricity distribution systems, and the ground-breaking event.

>> Pico-Hydro-Powered Plant project at the 35th Ranger Regiment, Khlong Lan District, Kamphaeng Phet Province

The pico-hydro electricity generation project at the 35th Ranger Regiment is a project that the Thail Group has developed and conducted in cooperation with the Energy for Environment Foundation and the Department of Alternative Energy Development and Efficiency. We installed a turbine generator that produces 3 kW of electricity along with electricity cables to the Headquarters of the 35th Ranger Regiment in April, 2010. This project has helped support their mission to suppress the illegal drug trade. Originally there was only an electricity generation system from solar cells, which did not provide sufficient electricity for the communications equipment used in their mission. Thus we have been able to support border security and provide moral support to these soldiers performing their duty.



Projects to promote learning at the national level

The Thailoil Group is confident that good education is an important foundation for national development. Therefore, we have continually worked to encourage education for youths at every level, as in previous years, as follows:

>> **The Somdetch Chaofa Maha Chakri Fund under the Royal Patronage of HRH Princess Maha Chakri Sirindhorn** provides support to individuals regardless of their level or field of study, either within Thailand or abroad. The recipient is expected to be able to use the knowledge and experience that they gain to repay the kindness of HRH Princess Maha Chakri Sirindhorn by doing work to benefit the nation. The Thailoil Group has allocated money to contribute to the Fund every year since 1991.

>> **The Thai Oil Public Company Limited Fund under the Ananda Mahidol Foundation**, which was established with Royal Permission in 2005.

>> **Cooperative projects in education together with various institutions**, such as the master's-level Chemical Engineering Practice School (ChEPS), together with King Mongkut's University of Technology Thonburi, in order to produce quality chemical engineers for the needs of the industrial sector. This project has been conducted continuously since 1997.

>> **The Thai Oil Public Company Limited Education Fund in memory of Prof. Dr. Pramote Chaiyavech** (together with the Engineering Foundation of Thailand) aims to produce quality chemical engineering personnel by providing continuous educational fellowships from the bachelor's level.

>> **A program to award educational fellowships to students in communities**, which have been given out regularly every year. We have now expanded this program from 126 to 162 awards, in order to include government schools in all 22 communities of the Laem Chabang Municipality. At the same time we have carried forward **the Program of Knowledge and Morality to Nurture Youth Leaders**, with a goal of extending educational opportunities to the bachelor's degree level for youths from the 7 communities surrounding the refinery who study well but are financially disadvantaged. This will give them the opportunity to continue their studies at the Sriracha Campus of Kasetsart University in the hope that this group of youths will serve as an important force for the development of their communities in the future.

4

Moving forward to Thaioil's 50th Anniversary : Engineering Clean Energy, Sustaining Green World

Following our dreams ... working together to build **strong communities for the sustainable growth of society**

Throughout our nearly 50 years of business operations, Thaioil's responsibilities to society and the environment have been recognized clearly and fully in the hearts of all Thaioil employees. This is because we always recognize that Thaioil grows together with communities. Therefore we must assign great importance to caring for and paying attention to the environment from the start of our production. As a result, today's Thaioil Group has progressed to be a leading energy organization for Thailand, producing fuels that are clean, high-quality, and friendly to the environment and society.

The Thaioil Group is confident that true social responsibility must start from our own business. For this reason, our business policies thus stress the importance of and attention to all details of the production process, from the raw materials and all the way to the finished products. This way, the consumers and society can be confident that every drop of our oil and every product of the Thaioil Group is produced using the most advanced, clean technology following international standards. This implies safety for those associated with the production process, consumers, and the environment.

The Thaioil Group's firm intention that we want to grow together with society in a sustainable manner has lead to a wide variety of creative projects for society, each specifically designed to address the problems in each area. We evaluate the forms of capital and resources in each locality and help generate strengths in terms of energy. Then communities learn and become more self-reliant. The Thaioil Group has guidelines for strengthening the communities surrounding the refinery and more distant communities as reflected in the various projects conducted as we approach the 50th Anniversary of the Thaioil group, as follows:

Think
and create
good
environment
for Thai
society



Communities Surrounding the Refinery

Project to build the Thail 50th Anniversary Emergency Building at the Ao Udom Hospital, Sriracha.

The Thail 50th Anniversary Emergency Building at the Ao Udom Hospital is a five-story building costing 50 million baht. In addition to the Emergency Room, there are facilities for surgery, childbirth, and dental services, for increased efficiency of services to the public. This reflects Thail's determined intention to create a truly good health situation for the communities.

Project for an Alternative Energy Research and Development Center, together with the Sriracha Campus of Kasetsart University.

Project to collect data on health in communities in order to develop a health map, together with Ao Udom Hospital, Laem Chabang Municipality, and the Faculty of Nursing at Burapha University. This will be extended to include all communities surrounding the refinery, after a pilot survey of 2 communities at the end of 2010. The data obtained will be used to develop a health map for communities or as a

health database for all community residents. This will enable us to more clearly analyze the health problems facing the communities and prioritize the personal health problems, hygiene problems, and environment of the community, in order to prevent those specific problems in an efficient and sustainable manner, which is at the heart of community medicine.

Project for a pleasant environment for communities, by building community parks for relaxation and planting trees along the roads in the communities, increasing the green space and good environment of the communities.

Communities at the National Level

Continuing the Green Energy Mechanism carried out together with the Energy for Environment Foundation, including

- >> **Small Hydro-Powered Plant projects**
- >> **Biomass-Powered Plant projects for public health centers in remote areas**
- >> **Projects to generate biogas from animal farms**



The “Umphang Energy Towns in Honor of HM the King” at Umphang District, Tak Province, in cooperation with the Ministry of Energy and the Energy for Environment Foundation.

The Thaioil Group has cooperated with the Ministry of Energy and the Energy for Environment Foundation to conduct **the Project to Create Sufficiency Energy Towns in Honor of HM the King** at Umphang District, Tak Province. This aims to develop alternative energy projects in which the community makes use of the potential of local resources, which is consistent with the philosophy of a sufficiency economy. A goal is to make use of the community's local energy resources for the greatest benefits, based on sufficiency and a recognition of value in the community, while relying as little as possible on energy from outside the community. This project was dedicated to His Majesty the King on the occasion of his 84th birthday.

The Project to Create Sufficiency Energy Towns in Honor of HM the King includes the following subprojects:

>> Hydro-Powered Plant Project at Ban Thi Jo Si Community, Mae Chan Subdistrict, Umphang District, Tak Province, with a production capacity of 200 kW, which is sufficient to power communities in Mae Chan Subdistrict with up to 545 households.

>> Biomass- Powered Plant Electricity Generation Projects, with a total of 5 projects to build gasification systems to produce up to 20-30 kW of electricity. At least 250 households will use electricity from these projects.

>> Biogas Production Projects, with 4 projects to make fixed dome biogas production systems to produce 40 m³/day of biogas. At least 100 households will use such gas for cooking under this project.

>> Project to improve and train on the use of solar cell electricity generation systems from the Solar Home Project.

Projects to develop renewable community energy at Mae Hong Son Province, together with the United Nations Development Programme and the Energy for Environment Foundation.

Development of commercial renewable energy projects in order to build energy sustainability for the nation and for local communities by developing electricity generators powered by biomass from leftover rubber-tree wood in Betong District, Yala Province. These will use leftover materials that are available locally to produce renewable energy, in accordance with the operational policy of the Thaioil Group's projects for society.



Engineering
Clean Energy,
Sustaining
Green World



Cooperation with other agencies, such as educational institutions and non-governmental organizations (NGOs), expansion of development projects for renewable community energy, and support for the efficient use of energy.

According to our resolute mission statement to fulfill our duties as a good member of communities and of society, the Thairoil Group continues its determination to continually create and develop projects for society, both at the community and national levels. These are based on capital in terms of knowledge, expertise, and experience regarding energy as accumulated for over half a century, combined with organizational management guidelines

with a vision that is not limited merely to seeking more profit, but rather involves a transfer of leading ideas from the business sector to society. This is **“sustainable giving”** which is analogous to taking **“clean energy”** from the Thairoil group for use in building and developing clean energy to drive Thai communities and society. Today’s Thairoil Group is therefore prepared to use all aspects of the organization’s potential to participate in the development of strong Thai communities and society that can learn and become self-reliant in terms of energy according to the guidelines of a sufficiency economy. This will provide **“energy”** for us to step together into the future.

**“We have produced energy for half a century,
and will use our knowledge and abilities to provide
benefits and happiness to society”**

Corporate Information

Thai Oil Public Company Limited

Symbol	TOP
Registration Number	0107547000711
Business	Operates a highly complex refinery utilizing modern and efficient processing technologies to produce petroleum products primarily for domestic distribution. Further diversifies investment into related business which includes petrochemical, lube base oil, ethanol, solvent, power generation, as well as marine and pipeline transportation of petroleum and petrochemical products.
Registered Capital	20,400,278,730 Baht Comprising 2,040,027,873 fully paid-up common shares of 10 baht per share
Number of Employees	877 (as of December 31, 2010)
Address	
Bangkok Office	555/1 Energy Complex Building A, 11th Floor, Vibhavadi Rangsit Road, Chatuchak, Chatuchak, Bangkok 10900, Thailand Telephone : +66(0)-2797-2999, +66(0)-2797-2900, +66(0)-2299-0000 Fax : +66(0)-2797-2970
Sriracha Office and Refinery Plant	42/1 Moo 1, Sukhumvit Road Km. 124, Tungsukla, Sriracha, Chonburi 20230, Thailand Telephone : +66(0)-3840-8500, +66(0)-3835-9000 Fax : +66(0)-3835-1554, +66(0)-3835-1444
Website	http://www.thaioilgroup.com
CSR and Brand Management Section	Telephone : +66(0)-2797-2999, -66(0)-2299-0000 ext. 7231-2, 7235 E-mail : chantawan@thaioilgroup.com : pareena@thaioilgroup.com



**Bangkok Office**

555/1 Energy Complex Building A, 11th Floor,
Vibhavadi Rangsit Road, Chatuchak, Chatuchak,
Bangkok 10900, Thailand
Tel: +66(0)-2797-2999, +66(0)-2797-2900, +66(0)-2299-0000
Fax: +66(0)-2797-2970

Sriracha Office and Refinery Plant

42/1 Moo 1, Sukhumvit Road Km. 124, Tungsukla,
Sriracha, Chonburi 20230, Thailand
Tel: +66(0)-3840-8500, +66(0)-3835-9000
Fax: +66(0)-3835-1554, +66(0)-3835-1444
www.thaioilgroup.com