

ENGINEERING CLEAN ENERGY, SUSTAINING GREEN WORLD





## About the Report

This Corporate Social Responsibility (CSR) Report is a compilation of operations regarding Corporate Social Responsibility by Thai Oil Public Company Limited and its affiliates. The report covers three aspects of Corporate Social Responsibility: the environment, society, and building networks.

In addition to presenting the results of projects for social responsibility, this report also conveys the intentions of Thailo's people, who are striving and determined to demonstrate social responsibility based on a foundation of operations that are fair to all relevant stakeholders, which will lead to sustainable development of society.

## Contents

### **02 About Thail**

### **05 Thail's Social Responsibility**

- Corporate Governance Policy
- Quality, Occupational Health, Safety, Environment, and Social Responsibility Policy
- CSR Strategy

### **09 On the Path of Thail's Social Responsibility**

"Engineering Clean Energy, Sustaining Green World"

### **13 Environmental Management**

- Water Quality and Resources
- Air Quality
- Waste

### **16 Thail's heartfelt care for neighbors and concern for all**

- Community Relations activities by the Thail Group

### **23 Cooperation to turn dreams into a sustainable reality**

- Cooperation with network for sustainable development

# 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

## Corporate Information

**Abbreviation** TOP

**Registration Number** 0107547000711

**Type of 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 products, lube base oil, ethanol, 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** 872 (As at December 31, 2009)

### Locations

#### **Bangkok office**

123 Sun Towers Building B, 16th Floor, Vibhavadi Rangsit Road,  
Chomphon, Chatuchak, Bangkok 10900, Thailand

Tel. : 0 - 2299 - 0000, 0 - 2617 - 8300

Fax. : 0 - 2299 - 0024

#### **The Company plans to move to new office:**

555/1 Energy Complex, Building A, 11<sup>th</sup> Floor, Vibhavadi Rangsit Road, Chatuchak, Chatuchak, Bangkok 10900

#### **Refinery**

42/1 Moo 1, Sukhumvit Road Km 124, Tungsukla, Sriracha, Choburi 20230, Thailand

Tel. : 0 - 3840 - 8500, 0 - 3835 - 9000

Fax. : 0 - 3835 - 1554, 0 - 3835 - 1444

**Website** <http://www.thaioil.co.th>

### CSR & Brand Management Section

Tel. : 0 - 2299 - 7230 - 1





## Thaioil's Social Responsibility: A part of corporate ethics

Corporate Social Responsibility (CSR) is a part of our corporate ethics. Thai Oil Public Company Limited has emphasized the importance of CSR for almost half a century of operations, recognizing that for our organization to achieve sustainable growth, we must employ our vision and capabilities together with moral and ethical considerations in our operations, according to the principles of good corporate governance, which includes responsibilities toward communities and society as a whole.

The Company has therefore set a policy of social responsibility as a framework for various activities to be carried out by the Board of Directors, Management and Employees, with confidence, faith, and understanding in the principles of Good Corporate Governance. The Company's principles of Good Corporate Governance are put into practice to manage every level of the business, as a matter of habit and part of the organizational culture. This implies a strict sense of justice, with equal treatment of stakeholders. We work for the benefit of the Company to the best of our ability, with verifiable honesty and transparency, providing suggestions for improving the Company's policy of Corporate Governance, in order to make it more consistent with and appropriate for business operational standards and the changing needs of society, as well as international standards.

### Corporate Governance Policy

1. All Board of Directors, Management and Employees are required to comply with guidelines contained in the Good Corporate Governance Manual fully and in good faith after familiarizing themselves with the governance principles contained therein.
2. All Board of Directors, Management and Employees are required to apply these Corporate Governance principles to the management of business at all levels until they are woven into the routine business processes as part of the culture of the organization.
3. All Board of Directors, Management and Employees are required to adhere to ethical standards, treat all stakeholders equally, and discharge their duties in the interest of the Company to the best of their abilities and with honesty and integrity.
4. All Board of Directors, Management and Employees are entitled to recommend modifications to the Corporate Governance policy for greater consistency with business practices, due to changing social needs, and in alignment with international standards.
5. Compliance with the Corporate Governance policy is a key performance indicator in assessing the performance of the Board of Directors and Management in directing and managing the Company's affairs, and in evaluating the performance of employees.

In addition to setting the governance policy to provide guidelines for our work, social responsibility is another ambition of the Company. This implies operating our business together with care and concern for the rights of our stakeholders both within and outside our organization, including shareholders, employees, customers, and trading partners, as well as communities, society, and the environment. The Company emphasizes and feels concern for the safety of society, the environment, and the quality of life of the people. We also stress and feel responsible for the conservation of energy and natural resources. We promote efficient energy usage and consider impacts and damages to society, the environment, and the quality of life of the people, especially in the communities surrounding the refinery.

### Quality, Occupational Health, Safety, Environment and Social Responsibility Policy

1. Provide quality products to meet customer requirements and satisfaction by implementing Quality, Occupational Health, Safety, Environment and Social Responsibility Policy and strictly complying to laws, government regulations, standards and the Company's requirements.
2. Manage risks systematically to prevent and control activities that might impact to Quality, Occupational Health, Safety, Environment and Society.
3. Control and reduce impacts resulting from the operation to effluent water, air, noise, solid and hazardous waste by complying with the international standards.
4. Promote the development and continual improvement of policy to be in line with the development of technology, updated laws and regulations, energy consumption, environmental and social circumstances.
5. Promote and establish awareness to employees and related parties regarding to the importance of maintaining the Quality, Occupational Health, Safety, Environment and Social Responsibility and communicate internally and externally for understanding of way to carry out an activity.



## CSR Strategy

# WORKPLACE

**Staff Participation:** To foster the participation of employees and place CSR on a firm footing among employees by clarifying the links between the business goals and looking after society, which is already our strong point, and stimulating participation in volunteer projects.



# ENVIRONMENT

**Clean Energy Leader:** To be a leader in and promote changes toward “clean energy” through new, innovative projects that improve society and energy development, selection, and conservation to international-level standards.



# COMMUNITY

**Strength Focused:** To strengthen communities by building on existing strengths as accumulated social capital, emphasizing both extending programs to create value added and developing programs based on the key capabilities of the Company.



# MARKETPLACE

**Integrated CSR to the Thaioil Way:** To be able to create sustainability for our business by means of our Integrated CSR to the Thaioil Way. This is a systematic integration to generate overall value and use this to create distinctiveness and a competitive advantage.



The background is a solid teal color with a pattern of concentric white circles representing ripples in water. Two green leaves are visible: one in the upper right and one in the lower left, both partially submerged and creating ripples.

**OPERATIONAL  
EXCELLENCE**  
BUSINESS PERFORMANCE

P O S I T I V E

**CG**  
ETHICAL PRACTICES

**CSR**  
SOCIAL RESPONSIBILITY

## On the Path of Thailoil's Social Responsibility

**From the beginnings to our promise : “Engineering Clean Energy, Sustaining Green World”** It is of great importance to Thai Oil Public Company Limited that in parallel with our business operations, we maintain a balance between business objectives and dividends to society and the environment, which will lead to growth together with sustainability, the ultimate aim of our business activities.

Our confidence in that philosophy leads us to pay attention to the society of Thailoil's people, including our nearby society of employees, customers, trading partners, and communities around the refinery, and our extended society of families of employees, related governmental and private agencies, and communities outside the area of the refinery. We started from our immediate concerns that a company whose core business is oil refining cannot conduct this business without the cooperation of the communities around the refinery, together with the volunteer spirit of our staff at every level of the Company. We therefore began our program of Social Responsibility in the Thailoil Way, at the start of our business activities.

Social Responsibility in the Thailoil Way has working principles based on a foundation of empathy towards all our stakeholders, whether they are inside or outside our Company. The Company therefore emphasizes and feels concern for the safety of society, the environment, and the quality of life of the people. We are also very pleased and eager to conduct a business that has higher standards than merely following practices as required by law. We select the best technology for our production processes so as not to impact the environment, or if necessary, to impact the environment as little as possible, even though this requires greater investment. For example, we have invested in a water treatment project that uses the most efficient technology. We treat communities as important stakeholders, because we and the communities have been partners who have helped each other and depended on each other throughout for almost half a century.

For those reasons, our Corporate Social Responsibilities have been expressed through numerous projects and activities, to show our devotion to all stakeholders. There are even projects that provide no profit in business terms. For example, we conducted a survey of natural biodiversity at Khao Phu Bai, where our refinery is located, in order to study natural biodiversity as well as various impacts, so as to preserve the natural state. Such projects mean more than just giving to the communities around the refinery, because we clearly recognize the importance of participation, which will lead us to better appreciate and cherish. This is the origin of our community relations work, which emphasizes the management of our relations by thinking together, working together, making changes together, and reaping the rewards together. This leads us to sustainable management of community resources, as exemplified by the Thairoil Group Health and Learning Center for Communities.



### POSITIVE

**P** = Professionalism  
**O** = Ownership and Commitment  
**S** = Social Responsibility  
**I** = Integrity

**T** = Teamwork and Collaboration  
**I** = Initiative  
**V** = Vision Focus  
**E** = Excellence Striving

In the future, the Company will continue its resolution to work toward excellence together with a continuing consciousness of social responsibility toward all stakeholders, by means of management with Good Corporate Governance. Thus we are striving toward “Engineering Clean Energy, Sustaining Green World” for sustainable growth of our business together with society.

**E**ngineering **C**lean **E**nergy

Sustaining Green World





## Environmental Management

The Thailoil Group clearly recognizes its responsibilities when operating a business that depends on the environment and natural resources. We therefore emphasize the efficient use of resources and good environmental management that prevents or reduces the impacts that occur. We take into account measures that help promote environmental quality by always employing the best technology and management to control and solve environmental problems at the source, or to prevent the problem from arising in the first place. We do this by means of the Clean Development Mechanism (CDM) and carbon credits, which encourage the Company to participate in programs for energy conservation and alternative energy, improved efficiency of energy usage, and converting fuel usage to alternative energy. We have implemented procedures for energy conservation and minimization of waste in every stage of our production processes, both for the Company's employees and external agencies. This will satisfy legal requirements and the Company's aims.

The Company has various measures that help promote environmental quality, as follows

### Water Quality and Resources

- Wastewater treatment
  - A water treatment system that is efficient and does not allow the release of impurities outside the factory beyond standard limits. The Thailoil Refinery was improved, and then its wastewater treatment system was made more efficient, with projects to continually improve the wastewater treatment system in several stages. All this was done in order to treat a larger amount of wastewater, along with the expansion of the refinery, as well as meeting standards of wastewater treatment. This prevents the release of impurities into the outside environment. At present, the wastewater treatment system is considered up-to-date, with the capability to treat wastewater from production processes in amounts of up to 400 cubic meters per hour. In addition, there are backup treatment systems at every stage, i.e. physical, chemical, and biological treatment processes. In particular the biological treatment process uses a Denitrification Nitrification Biotreating (DNB) system, which is an efficient system for removing organic impurities. Then about 40% of the wastewater that has been treated by the refinery's wastewater treatment systems is used to water plants within the refinery, which is another way to support our policy of conserving resources.
  - The Company has reduced the load on the wastewater treatment system and has reused water by installing a Sour Water Stripper unit. This unit removes volatile impurities from the wastewater from production processes by heating it with steam. Thus the wastewater treated by this unit will be cleaner with lower levels of volatile impurities, hence reducing the load on Thailoil's wastewater treatment system. The project also uses wastewater that was initially treated by the Sour Water Stripper to remove hydrogen sulfide and ammonia gases for the purpose of washing salt from crude oil in the brine distillation unit, instead of using raw water. This also reduces the amount of raw water usage in the refinery.

- Energy Conservation

- Water minimization: Thailoil's refinery has always had a policy of reducing wastewater to a minimum. We implement source control by choosing to use production process technology that uses low amounts of water or steam. This starts at the design stage with the reduction of the use of water and steam in the production processes to the bare necessities.
- Waste reuse and recycling by installing a brine distillation unit that produces fresh water. In addition to relieving the Thailoil's demand for water supplies, the brine distillation unit also helps promote our policies of energy conservation and preservation of the environment around the refinery. The process of producing fresh water from brine uses steam that is left over from our production, without requiring another fuel source. This recycling makes economic use of the existing energy sources and does not pollute the environment.

## Air quality

- The selection of clean technology for low NOx combustion to reduce pollution. We use this system to control emissions of Nitrogen Oxide gas. This is a special system that mixes fuel with air in the combustion zone so as to reduce the temperature in comparison with ordinary fuel combustion systems, which helps to reduce the temperature of the flame.
- Furthermore, the low NOx combustion system reduces the oxygen concentration in the combustion zone. This in turn effectively reduces the generation of Nitrogen Oxides. In particular, the energy generation unit of Thailoil and Thailoil Power will install low NOx burners to reduce NOx emissions into the atmosphere.
- Installation of DIPA Treatment Unit to eliminate hydrogen sulfide gas that is admixed in the fuel from various production units. This treatment sprays a solution of DIPA (di-iso-propanol-amine) down into the column in the counter current to the gas injected at the bottom. The DIPA solution absorbs the Hydrogen Sulfide gas, so the gas that emerges from this unit has very little remaining admixture of Hydrogen Sulfide. Thailoil is then also able to reuse this clean fuel gas, without causing pollution to the environment. This unit changes the waste gas that would be released into the atmosphere to the form of a solution, which then does not affect the communities or the environment.
- Installation of a 140-meter stack, which helps to disperse and reduce the concentration of gases from fuel combustion in the production processes.
- In addition, we have implemented a process to change waste gas into a by-product by installing a Sulfur Recovery Unit (SRU) to extract sulfur from Hydrogen Sulfide and Sulfur Dioxide gases that would otherwise be released into the atmosphere. This unit burns Hydrogen Sulfide gas at a high temperature by using a catalyst. Then some of the Hydrogen Sulfide is converted to Sulfur Dioxide. The Sulfur Dioxide that is generated in turn reacts with the remaining Hydrogen Sulfide to finally produce sulfur. Clearly this process converts waste gases that would be released into the atmosphere back into a by-product, which can be considered one method of recycling.

## Waste

With concern for the efficient use of resources, Thai Oil Public Company Limited and the affiliates have established methods for controlling and managing waste from the refinery, including leftover materials, refuse, and dregs, according to the 2005 standards of the Ministry of Industry regarding the elimination of garbage or leftover materials.

We have collected such garbage and have always sent it to the hazardous waste management company that is authorized by the Department of Industrial Works.

In addition, the Company has undertaken various measures to conserve energy for more efficient use of resources, as follows:

We choose to use materials that can be reused for greater benefits. For example,

- We desire to use catalysts with a long lifetime of 3-5 years, which reduces the amount of waste that is generated every year, and we also select catalysts that can be regenerated for further use.
- We separate hazardous substances from general wastes. The Thailoil refinery employs separation of different types of refinery waste, and separates general waste from the office, first aid room, and cafeteria into wet waste, dry waste, hazardous waste and bio-hazardous waste. This permits the appropriate treatment of each type of waste, with further management to make the most use of each type.
- Reducing the amount of dregs and reusing waste, for some types of waste. As an example, oil that does not meet quality standards (Slop) is separated from decanters in the wastewater treatment system. This is then subject to further refining in order to obtain a finished fuel. This reduces the amount of waste that needs to be eliminated, and as a by-product provides further finished fuel products. In addition, oil dregs from Thailoil are conveyed to a facility for better separation into dregs, water, and oil. The oil is returned for further refining, the water is sent to the wastewater treatment system, and the remaining dregs are eliminated by appropriate methods.
- Selecting elimination methods that provide the greatest benefits and the mildest impacts on the environment. This includes the use of oil dregs and catalysts, which have heating value, as alternative fuels for cement ovens, instead of burying them.

After all of this effort, the Company has not stopped with caring for the environment only around the refinery in the Laem Chabang - Ao Udom area. We also have projects concerned with looking after the environment throughout Thailand. For example, we make products that are environmentally friendly. An example is Thailoil's leadership regarding 95 Octane gasoline of Euro IV standards, with up to 10 times less Sulfur. We were the first company in Thailand to produce and distribute such gasoline. Similarly, the Company is a leader in producing diesel fuel of Euro IV standards, starting in 2008. The project to produce a low-pollution rubber extender oil, namely, Treated Distillate Aromatics Extract (TDAE), limits the amount of polycyclic aromatics (PCA), a type of pollutant, to less than 3%, in accordance with TDAE standards in the European Union, which are accepted by leading rubber-producing companies. Then in 2009, the Company introduced a project to emphasize energy conservation by using the heat of steam released by electricity generating gas turbines to produce water, which is one of the many projects to help reduce global warming.

In the future, the Company will continue to focus on business operations in parallel with social and environmental responsibility by means of projects that emphasize energy conservation and the sustainable use of natural resources. For example, we are conducting a feasibility study for the Company's Zero Discharge project for returning wastewater back to a process to remove impurities, and then reusing that water. This process is called "Reverse Osmosis." There is also a feasibility study for a garbage-powered electricity generating station, in cooperation with the Municipality of Laem Chabang. This would use community garbage as fuel for generating electricity as an alternative to burial in landfills.

## Community Relations activities by the Thailoil Group

If we define Corporate Social Responsibility or CSR as conducting business operations together with concern and care for preserving society and the environment under ethical principles, good governance, and implementation of the philosophy of an integrated sufficiency economy, which will lead to business operations that are successful and sustainable, then the communities around the refinery are important stakeholders. They are intimately and directly related to the business, and the Thailoil Group has never overlooked them. On the surface, it may appear that the communities and the oil refinery should not be able to co-exist. However, anyone who comes into the area around the refinery, and especially anyone with the opportunity to come and view the scenery around the Ao Udom (Udom Bay), will see something different: the oil refinery and the communities living together in harmony, merely with a fence between them. This is a source of pride for the Thailoil Group and always provides a clear answer to questions about our community relations.

Thailoil Refinery and the affiliates are located in the Ao Udom area of Laem Chabang District, and are surrounded by a total of 9 communities as follows:

1. Ban Ao Udom Community
2. Ban Tung Community
3. Ao Udom Market Community
4. Wat Manorom Community
5. Khao Phu Area (Market Community)
6. Komin Shrine Area (Market Community)
7. Ban Laem Chabang Community
8. Ban Chak Yai Jin Community
9. Ban Khao Nam Sap Community

The Thailoil Group has continually conducted community relations work for as long as we have conducted business operations, holding to the principle of participation by all stakeholders. This is how we can correctly respond to the needs of the communities by means of efficient communication channels between communities and the refinery, which foster understanding, confidence, and trust that lead to the development and promotion of community sustainability. Our community relations work has 6 aspects as follows:



1. Projects for health, fitness, and a good quality of life
2. Projects for education and learning
3. Projects for environment
4. Projects for religion, traditional customs, and culture
5. Projects for community potential development
6. Projects to build relationships and participation

## 1. Projects for Health, Fitness, and a Good Quality of Life

Good health is an important and fundamental part of life. Therefore, caring for the health of residents in communities around the refinery is one of the projects of top priority, which the Company considers to be very important. The Company aims to encourage people in communities to be aware of how to care for their health, and to promote preventive

health. We have cooperated with various public health agencies, such as Ao Udom Hospital, in a long-standing project to organize mobile public health and dental care units, which provide services to local community members at every level. This project has continually been extended, from initially providing basic public health care to treating or curing diseases, developing dental care units, promoting good health by providing preventive knowledge and offering fitness assessment tests, aerobic activities for health, etc.

At the same time, the Company has organized the Thaioil Group Mobile Exhibition, in order to maintain communication between the communities and the refinery.



Because the mobile public health units have continually attracted a great deal of interest, and a large number of communities want to receive these services, some community members have been unable to access them. However, some public health needs cannot wait for the arrival of such a unit. Therefore, we have built on the existing mobile public health units to establish the Thaioil Group Health and Learning Center for Communities. This addresses the long-term needs

of the communities. It will be a center for public health care for community members, emphasizing dental care, as well as a center of cooperation and various kinds of learning that will take place in the future.

## 2. Projects for Education and Learning

Educational and Learning programs are another type of activity that is continually supported by the Thaioil Group, including providing educational scholarships and Thaioil Educational Funds provided through various funds each year. At present these scholarships have been expanded for school and university students at public schools within the Municipality of Laem Chabang, including 22 communities. The previous number of 126 scholarships has now been expanded to 162 scholarships. This expands educational opportunities for young people who perform well in their studies but have insufficient financial support.

In addition, we have conducted numerous educational and learning programs, including the following:

- **The Chemical Engineering Practice School (ChEPS)** is one of the intellectual capital programs that Thaiphoil has supported since the start of the school in 1997. Thaiphoil is the only refinery company in Thailand that offers training opportunities for students in a refinery.

The ChEPS program is a master's degree curriculum that arose from the cooperation between two science and technology institutions: King Mongkut's University of Technology Thonburi in Thailand and the Massachusetts Institute of Technology in the USA. The program aims to reduce the gap between theory and practice, and the industrial sector has greater participation in the teaching and training process.

In addition to Thaiphoil's financial support of the ChEPS program, which is a donation with no strings attached, Thaiphoil also provides the facilities for field training, in order to nurture a new breed of engineers in Thailand with true and deep understanding. The program emphasizes the promotion of skills for working in the actual environment of an operational facility, as well as giving ChEPS students a role in the management of their studies, defining their curriculum, practical lectures in the classroom, and consultation on various projects.

- **The Scientific Culture Youth Camp Program** is organized by Thaiphoil in cooperation with the National Science Museum Organization (NSMO). The Scientific Culture Youth Camp activities aim to offer the opportunity for youths to make use of their free time to add to their scientific experience by means of activities for fostering the learning

process, searching for information, systematic decision making based on accurate information, and promoting life experience skills for youths, which are crucial for the development of rational thinking, which in turn will lead to improved scientific knowledge and understanding. Furthermore, the program can stimulate personality development and confidence, as preparation of both the body and mind to work together for creativity and sustainable community development.

- **The Thaiphoil Youth Ambassador Program.** University students and youths are an important force in communities, and the Thaiphoil Group gets them involved in this program to represent the Group in disseminating information and news regarding environmental management and safety, as well as Thaiphoil projects for communities and society. The aim is for every household in communities to be aware of, understand, and serve as a good model for community youths, along with opening an opportunity for youths to jointly think about and create various activities to benefit their communities and society as a whole. It can be said that the youths who participate in this program act as Youth Ambassadors of the Thaiphoil Group.

In addition to the various programs we have discussed, the Company has organized many other activities to promote learning, such as Children's Day exhibitions to provide knowledge, tours for visitors from educational institutions to see our refinery, and the outdoor exhibitions in which our refinery serves as a source of learning for communities, etc.

### 3. Projects for the Environment

Environmental Management has been an important concern for the Thaioil Group throughout its 49 years of business operations, and we have followed proper practices in accordance with legal requirements to spur development and select the best technology in order to avoid impacts on the environment, even though this requires greater investment. In terms of community relations, we stress communication to foster a proper understanding among communities around the refinery. Indeed, such communication has not been limited only to communities around the refinery, because we also communicate about community relations activities to inform the organization's employees, so as to build up participation and a volunteer spirit for social responsibility.



In addition to communicating internally, the Company also continually conducts in-depth communication with leading thinkers in the communities for their participation and understanding via communications media, the Company's activities, and joint meetings, such as the meetings of the Thaioil Group's Environment and Communities Relations Board. Communication about activities that could impact from the operations of the refinery includes a

systematic follow-up on results. For example, we have established a 24-hour "hotline" unit to accept suggestions. We also have clear procedures for responding to complaints. This board was established in cooperation with other companies in the area: Independent Power (Thailand) Co.,Ltd., Thai Tokai Carbon Product Co., Ltd., Thai Lube Base PCL. and Thai Paraxylene Co., Ltd. It serves as a coordination center and as an organization to

establish measures, guidelines, and operational plans to prevent and solve environmental problems facing communities and relevant government agencies, emphasizing active operational measures.

In addition, the Thaioil Group has cooperated with Kasetsart University's Sriracha Campus,

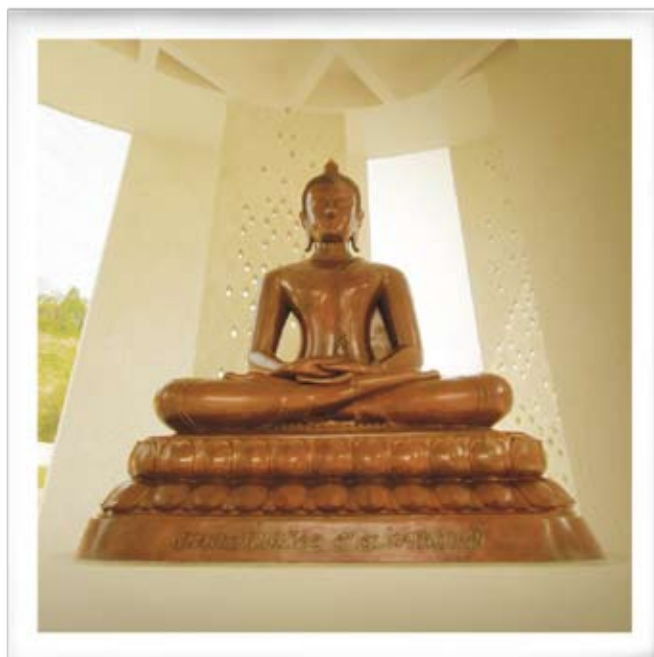
the Municipality of Laem Chabang, and a committee of communities around the refinery to convert used vegetable oil from shops and kitchens in the communities to biodiesel, in order to reduce pollution in the water and air, as well as health problems among the population due to the consumption of reused cooking oil. This project serves as a resource for students or other interested people to learn about alternative energy. The Thaioil Group provides the funding for Kasetsart University to perform research and build the Biodiesel production unit.

#### 4. Projects for Religion, Traditional Customs, and Culture

The Thai Oil Public Company Limited always places importance on participation in activities with communities. This includes activities to carry on various cultural traditions, such as the Thai New Year, Elderly Day, or religious activities such as activities for important Buddhist festivals. When the Company joins such activities together with communities, it does not merely give donations, but rather participates in joint planning with the community committee. This makes the activities more varied, and they result from truly working together.

#### 5. Projects for Development Community Potential

Local community leaders are another important group of stakeholders, who are both leading thinkers and coordinators who can generate good knowledge and understanding between the refinery and communities. Projects for developing community potential are another way to show the Thailoil Group's commitment to grow together with all stakeholders, who in this context are communities surrounding the refinery. The development of community potential emphasizes the development of the knowledge and skills of community leaders. Then these leaders can use the knowledge and skills to create other benefits for their communities. Such development of potential is continually carried out through the project on **"Development of Potential among Community Committee Members"**. This emphasizes providing different types of knowledge and skills, such as leadership skills, public speaking skills, teamwork, etc.



#### 6. Projects to Build Relationships and Participation

Projects to build relationships and participation are another source of pride for the Thailoil Group's community relations team, because these serve as the starting point for many other activities that arise from the needs of the communities. This shows the results of true cooperation between the communities and the refinery. The activities of projects to build relationships and participation include the project, **"We Think, We Act Together"**.

This is a meeting every 3 months between the community committee and the refinery, and serves as an important forum for reaching understanding, exchanging opinions and methods, and developing new ideas for activities, such as the program of knowledge and morality to nurture youth leaders and the community biodiesel project to reduce pollution from

used vegetable oil. These are among the various activities that arose out of these meetings.

Beside the project "We Think, We Act Together", we also has long arranged for regular community visits to the refinery, surveys to assess the level of satisfaction in various activities, and the project "Open House, Connected Hearts: Thai Youths at the Refinery". We know that nothing shows good intentions and answers questions from the community as well as bringing them in to experience the working atmosphere and to visit the refinery to see the actual operating environment. Regularly organizing these activities has made the communities trust and feel confident that the refinery's activities really do include responsibility for the quality of life in the surrounding communities.



The activities described above represent only a tiny sliver of our work based on a policy of business operations for sustainable growth with concern for society through a variety of activities and projects. They confirm the good relationship between the communities and the refinery, which results from working to build understanding with the communities near the refinery and relevant government agencies regarding the benefits from the Company's business operations for the communities and the nation. It is also due to effective and appropriate communications, which give the communities confidence in our safety standards and the use of technology in our production processes that is environment-friendly and community-friendly. These lead to acceptance and trust in the Company as a stakeholder together with the communities. They also demonstrate that our operations are transparent and ethical and are always conducted with social responsibility.





## Cooperation to Turn Dreams into a Sustainable Reality

### Cooperation with the Network for Sustainable Development

The Thail Group's resolute determination and intention to strive to conduct business operations with a consciousness for social responsibility have led to an important coordination of efforts between the Thail Group and the **Energy for Environment Foundation - E for E** an independent, non-profit agency. The Foundation has the main objective of demonstrating and disseminating technology for energy conservation and renewable energy that has a low impact on the environment. It also promotes the use of renewable energy, and especially leftover agricultural materials, to produce electricity. Another aim is to disseminate new knowledge, ideas, and methods. The Foundation also carries out other activities that promote the efficient use of energy. The Foundation's ideas are consistent with the Company's intentions to be a leader in clean technology. At the same time, we cannot deny the global issue that is the number one priority for mankind to join together and solve. This issue is global warming, which resulted from unbalanced development that produced a large amount of greenhouse gases. The idea of the carbon offset or carrying out activities to offset the release of Carbon Dioxide gas, is another option for the Thail Group to demonstrate its seriousness and sincerity in solving environmental problems together with the world community.

The Company has participated in the **Green Energy Mechanism (GEM)**, a project that arose from three-sided cooperation between the governmental sector, the Energy for Environment Foundation, and Thai Oil Public Company Limited as a representative of the private sector and consumers who want to give something back to society by carrying out this project to develop renewable energy to sustainably solve environmental problems. This fits with the concept of Corporate Social Responsibility. In 2009, two such projects were completed:

1. **Project to improve the efficiency of miang steaming stoves**, Mueang Pan District, Lampang Province
2. **Huay Pu Ling hydro-powered electricity generation project**, Chom Thong District, Chiang Mai Province

### Project to Improve the Efficiency of Miang Steaming Stoves, Mueang Pan District, Lampang Province

The Company has carried out a project to improve the efficiency of Miang steaming stoves, together with the Energy Policy and Planning Office of the Ministry of Energy, Chiang Mai University, and the Energy for Environment Foundation. This project developed energy-conserving Miang steaming stoves, because since the time of their ancestors, residents of Ban Pa Miang have had the occupation of steaming and selling Miang leaves, which are produced both for consumption at home and for sale as a local consumer commodity in northern Thailand. Previously, steaming Miang each time would take about 90 minutes for 25 kilograms of Miang leaves, and would consume 20-25 kilograms of firewood. However, the new energy-efficient Miang steaming stoves can steam the same amount of

Miang leaves in only 60 minutes, and consume only 7-10 kilograms of firewood. Thus they use up to 60% less energy, and can reduce the destruction of natural resources due to cutting trees for firewood in the amount of over 4,800 trees per year, reducing emissions of CO<sub>2</sub>, a greenhouse gas, by 15,900 ton per year for phase 1 project.

At present, 83 energy-efficient Miang steaming stoves have been installed in 83 homes, and the Company has a plan to expand the project to a new village in the near future.



### Huay Pu Ling Hydro-Powered Electricity Generation Project, Chom Thong District, Chiang Mai Province

The Huay Pu Ling hydro-powered electricity generation project has installed a 22-kilowatt electricity-generating water turbine, which is sufficient electrical power for 120 homes in 3 villages as well as a National Park Checkpoint and a community school, church, and temple.

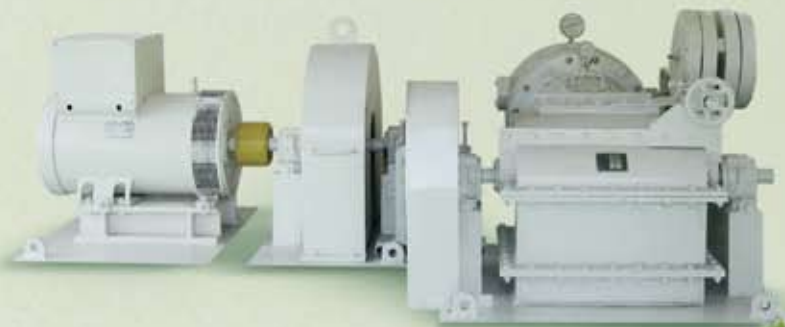






This will serve to improve the quality of life in the communities and improve the educational opportunities of local children and youths. In addition to installing the machinery and various types of equipment, the project also transferred knowledge to the community so they will know how to manage the project by themselves, so this represents truly building sustainability of the community.

In the first stage, the Huay Pu Ling hydro-powered electricity generation project was only able to send electricity to one village with 33 homes, because of insufficient funding. Thail oil has therefore come in to fill the gap by supporting new electricity distribution lines so that the electricity generating station can provide the greatest benefits and fulfill the potential of its water power and production capacity.





### Turning Dreams into a Sustainable Reality

The Company is determined to expand the scope of its work with the Energy for Environment Foundation to include many more projects. Some will be extensions of past projects to build on their successes, such as the project to improve the efficiency of Miang steaming stoves, phase 2, because many additional villagers, including residents of nearby villages, have expressed interest in participating in the project. Another project will be the Huay Pu Ling hydro-powered electricity generation project, phase 2, to extend power cables to another 2 villages and an additional 66 homes, to provide them with a better quality of life. This extension is expected to be completed in January, 2010. In addition, we will conduct additional projects to address the problems and needs of local villagers. For example, there will be a project to develop village-level hydro-powered electricity generators,





projects to produce biogas from animal farms, and projects to generate electricity from Biomass for health stations in isolated localities, etc.

All of this reflects the Company's strong concern that the Company's activities and the Foundation should help to solve problems, address the needs, and improve the quality of life of community residents, together with developing and promoting a consciousness of energy conservation among the communities, toward our ultimate goal of growth together with a sustainable quality of life for our society.





positive

Excellence Striving

Vision Focus

Initiative

Teamwork and Collaboration

Integrity

Social Responsibility

Ownership and Commitment

Professionalism



Thailand  
**EURO IV**







**CSR & Brand Management Section**

Telephone 0-2299-7230-1 Fax 0-2299-0024

**Bangkok Office**

123 Sun Towers Building B, 16<sup>th</sup> Floor, Vibhavadi Rangsit Road, Chomphon, Chatuchak, Bangkok 10900 Telephone 0-2299-0000, 0-2617-8300 Fax 0-2299-0024

Remark: New office 555/1 Energy Complex Building A, 11<sup>th</sup> Floor, Chatuchak, Chatuchak, Bangkok 10900

**Sriracha Office and Refinery Plant**

42/1 Moo 1, Sukhumvit Road Km. 124, Tungsukla, Sriracha, Choburi 20230 Telephone 0-3840-8500, 0-3835-9000 Fax 0-3835-1554, 0-3835-1444

[www.thaioil.co.th](http://www.thaioil.co.th)