

Press Release



New Energy and Industrial Technology
Development Organization

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March 16, 2012

Joint Statement with the Ministry of Industry of Thailand on Project for Developing Optimal Energy Efficiency Plan

The New Energy and Industrial Technology Development Organization (NEDO) of Japan and the Ministry of Industry (MOI) of the Kingdom of Thailand agreed on March 8, 2012 to carry out a project to formulate an energy efficiency plan at Map Ta Phut Industrial Estate located in the eastern part of Thailand by analyzing the correlation between energy consumption and product manufacturing processes of multiple plants, and issued a joint statement to announce the agreement. The plan will be developed in order to optimize energy consumption at Map Ta Phut Industrial Estate, thereby improving overall energy efficiency.

The joint statement was issued by M.R. Pongsavas Svasti, Minister of MOI, and Mr. Kazuo Furukawa, Chairman of NEDO.

Specific project activities involve conducting surveys on energy supply equipment and energy consumption data at plants operating at Map Ta Phut Industrial Estate, including electricity and heat consumption, in order to identify optimal energy consumption measures, thereby improving overall energy efficiency.

NEDO's objective is, in cooperation with MOI, to contribute to the achievement of energy efficiency improvements at Thailand's industrial estates.

1. Joint Statement

The joint statement specifies an energy efficiency execution plan that will be developed at Map Ta Phut Industrial Estate in eastern Thailand using technologies for optimizing energy consumption in inter-plant product manufacturing processes, which have already been commercialized in Japan. In addition, MOI will make ongoing efforts to disseminate the project's technologies to other industrial estates.

2. Project Overview

With the aim of disseminating energy conservation measures to Thailand's industrial

estates where the demand for energy continues to increase, an optimal energy efficiency plan will be formulated at Map Ta Phut Industrial Estate, which has a high potential for energy saving as it has a large concentration of petrochemical plants.

NEDO will entrust its work related to the project to Chiyoda Corporation. In cooperation with the Industrial Estate Authority of Thailand, which manages Thai industrial estates under the MOI, Chiyoda Corporation will collect energy consumption data, such as electricity and heat consumption, as well as data on energy supply equipment from designated plants at Map Ta Phut Industrial Estate. Based on the collected data, an analysis will be conducted on the correlation between energy consumption and product manufacturing processes of multiple plants, and an energy efficiency plan will be developed in order to achieve significant energy efficiency effects at not only individual plants but also industrial estates as a whole. Plants operating at Map Ta Phut Industrial Estate will renovate their facilities in accordance with the plan within one year of the project's completion. After verifying the effectiveness of the project results, MOI will disseminate the project's technologies to other industrial estates with the aim of contributing to further energy efficiency improvements in Thailand.

It is expected that, based on the project, Japan's advanced energy efficiency technologies will be promoted in other emerging countries where effective inter-plant energy consumption measures have yet to be implemented, thereby providing high energy conservation benefits to such countries.

3. Contact Persons

Mr. Yamashita, Mr. Imada, International Affairs Department, NEDO

Tel: +81-44-520-5190

Overview of Joint Statement on the Project to Develop an Energy Efficiency Plan for an Industrial Estate in Thailand using Energy Consumption Analysis Technologies

March 16, 2012

New Energy and Industrial Technology Development Organization

M.R. Pongsavas Svasti, Minister of Industry of the Kingdom of Thailand, and Mr. Kazuo Furukawa, Chairman of the New Energy and Industrial Technology Development Organization (NEDO) of Japan, agreed today to carry out a project to formulate an energy efficiency plan at Map Ta Phut Industrial Estate in Thailand by analyzing the correlation between energy consumption and product manufacturing processes of multiple plants. The plan will be developed in order to optimize energy consumption at Map Ta Phut Industrial Estate, thereby improving overall energy efficiency.

- Technologies* to optimize energy consumption and product manufacturing, which will be used in the project, are designed to achieve a high degree of energy efficiency and have been demonstrated at industrial complexes in Japan. The project aims to achieve energy efficiency improvements at industrial estates in Thailand and support the strategy for eco-industrial town development, which is being promoted by the Thai government with consideration to the environment, economic growth and neighboring communities.

* One of these technologies is referred to as “pinch technology.”

- NEDO will entrust the surveys necessary for developing an energy efficiency plan to Chiyoda Corporation. The Ministry of Industry (MOI) will provide necessary support to the Industrial Estate Authority of Thailand.
- Moreover, following the project’s completion, MOI will provide maximum support to plants and companies operating at Map Ta Phut Industrial Estate in order to renovate their facilities in accordance with the energy efficiency plan developed through this project. MOI will also take responsibility for ongoing efforts to disseminate the project’s technologies to other industrial estates in Thailand, including the formulation of necessary institutions.

Map Ta Phut Industrial Estate

Founded: 1989

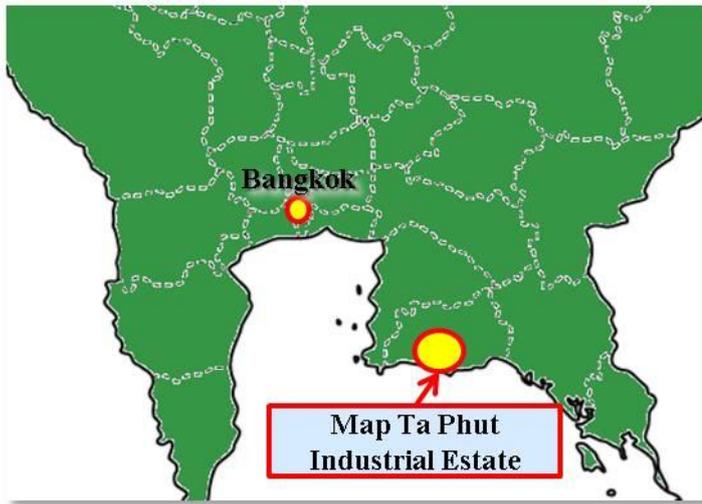
Total area: Approximately 3,200 hectares

Personnel: Approximately 15,000

Location: Muang, Rayong Province (approximately 200 km southeast of Bangkok)

Tenants: Approximately 60 plants in the petrochemical, oil refinery, chemical, heavy industry (iron, metal, etc.) industries.

Major companies: Companies under PTT Public Company Limited and The Siam Cement Public Company Ltd., etc.



Project

1. Project Overview

With the aim of disseminating further energy conservation measures to Thailand's industrial estates where the demand for energy continues to increase, an energy efficiency analysis using energy consumption analysis technologies will be conducted and a plan for optimizing inter-plant energy allocation will be formulated at Map Ta Phut Industrial Estate, which has a high potential for energy saving as it has a large concentration of heavy industry plants.

2. Significance

- In Thailand, which is enjoying economic growth, investment in heavy industries and development of industrial estates continue to expand. As the implementation of inter-plant energy utilization measures have not been fully examined at Thai industrial estates, there is great potential for energy and heat utilization at industrial estates.
- The project is of great significance because it will make landmark contributions to Thailand's energy saving policies by designating Map Ta Phut Industrial Estate as a model case for energy efficiency using Japan's advanced energy conservation technologies and energy management methods.

3. Project Activities

- ① Collect data from 15 designated plants and examine the collected data
- ② Conduct an analysis using energy consumption analysis technologies (pinch technology, etc.)
- ③ Develop a heat recovery /utilization plan for designated areas
- ④ Examine heat recovery equipment, and propose energy conservation measures utilizing Japan's system technologies
- ⑤ Identify best practices from the proposed energy conservation measures and estimate approximate costs
- ⑥ Propose an energy conservation road map for Thai industrial estates (The Thai side will select measures and implement the selected measures.)

4. Project Budget and Period

- Project budget: Approximately 120 million yen
- Project period: FY2011 - FY2013

5. Project Scheme

Thai side: MOI/Industrial Estate Authority of Thailand (IEAT)
Japanese side: NEDO/Chiyoda Corporation

6. Technology Dissemination

- Based on the achievements of energy consumption analysis technologies and the project results,

MOI will carry out energy conservation measures at 45 industrial estates in Thailand, which are being managed by IEAT.

- Cooperation with Thailand regarding energy conservation measures based on Japan's technologies and systems is in line with the Japanese government's system export policy.