

Development in Partnership

The World Bank in Thailand

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World Bank Supports Renewable Energy Development in Thailand

Five years ago, Siam Commercial Bank PCL. was approached by Mitr Phol Sugar Corp. -- a longtime client of the bank -- for a loan worth 1.5 billion baht. The money would enable Mitr Phol, Thailand's largest sugar producer, to build a 53 MW biomass power plant next to its Dan Chang Sugar Mill in Suphan Buri province, located some 180 kilometers north of Bangkok.



Bagasse – waste fiber left after juices have been extracted from sugar cane, which can be used as a fuel source for bio-energy production

On paper, the business plan sounded reasonable. As a sugar mill operator, Mitr Phol produces “bagasse” – or waste fiber left after juices have been extracted from sugar cane – every day. The company would use bagasse as fuel source to produce electricity, which would then be supplied to the sugar mill next door. Any surplus would be sold to power grid owned by EGAT PCL., formerly known as the Electricity Generating Authority of Thailand (EGAT).

However, Siam Commercial's initial reaction was not quite upbeat. And, to managers of other commercial banks, this was not a surprise. Despite the Thai Government's efforts to promote more use of renewable energy, the country's banking sector remains unfamiliar with the industry and its economic potential.

Substantial Investment Required

With huge investment costs required, renewable energy is naturally less competitive than oil and gas. As a result, government subsidies or financial incentives are considered necessary to

make renewable energy projects attractive to commercial banks.

“In the long term, most renewable energy, maybe with the exception of solar, is a cheaper source of fuel than oil and gas, but it requires a high up front investments”



Dan Chang Bio-Energy in Suphanburi Province, which produces electricity for Mitr Phol Sugar Mill and for sale to EGAT

“It took us quite a while to approve the loan for this project,” said Chuleeporn Witchatikom of Siam Commercial Bank. In doing so, Siam Commercial also heavily hedged itself against all possible risks: it required as collateral the land, the building and all of the equipments belonging to Dan Change Bio-Energy Ltd, the company Mitr Phol set up to oversee the project. The bank also required Mitr Phol to guarantee the loan against default. In addition, all benefits from risk insurance of equipment and assets would be given to Siam Commercial, not the borrower.

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“We also looked very carefully at the plan for raw material supplies,” Chuleeporn said. “Our relationship with the loan applicant is also a very important factor. In the case of Mitr Phol, we have established a very good relationship with them because they have been our client for a very long time. We had a certain amount of trust in each other, which also improved our confidence in the project.”

Siam Commercial’s position is not uncommon in Thailand. Other Thai financial institutions also acknowledged that they, too, have been cautious with financing renewable energy projects.

But the rush to invest in “clean” energy in the West is also stirring interests among bankers in Thailand. Many of them, however, have limited technical knowledge in this field, said Watson Chansajcha, Vice President of BankThai PCL’s corporate division overseeing the energy sector.

“We know there is some economic potential in renewable energy. We just need more information in order to gain more confidence in this sector,” he said.

Need to Reduce Reliance on Energy Imports and Greenhouse Gas Emissions

For decades, many developed countries have been trying to produce energy at home and relying less on oil imports, given volatile oil prices and concerns over energy security. In addition, global warming trends also create demands for “clean” energy that will ultimately reduce gas emissions into the ozone – the cause of greenhouse effects.

As a result, national energy policies of many countries are stipulating a percentage of renewable energy use versus total energy consumption, which governments hope will motivate further development of renewable energy. As Thailand imports half of the 70 million tons of oil-equivalent energy it consumes annually, the Thai Government has set 2010 as a year by which 8 percent of all energy used must be renewable.

Even though Thailand is endowed with abundant renewable energy resources, including biomass (agriculture and animal waste), high investment costs may have deterred Thai financial institutions from fully participating in the renewable energy sector, said Antonie de Wilde, the Coordinator of Asia Alternative Energy Program, a World Bank unit which manages multi-donor trust fund that promotes renewable energy.

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investments,” he said. “Renewable energy has low operating and maintenance cost compared with fossil fuels, which have a lower investment costs but a much higher operating cost.”

Recognizing the need to support the Thai Government’s efforts to promote alternative sources of energy, the World Bank, collaborating with the Office of National Economic and Social Development Board (NESDB), has been organizing a series of workshops and consultations on renewable energy and energy efficiency in Thailand.

In August last year, the Bank and the NESDB jointly organized a workshop on “**Future Scenarios toward Sustainable Energy Policies and Practice in Thailand**,” bringing together 70 energy specialists from government agencies, the private sector, and research institutes from Asia, Europe and North America.

World Bank Supports Experience-Sharing in Energy Sector

This type of effort is part of a broader dialogue the Bank has built into its **Country Development Partnership on Infrastructure** (CDP-Infra), a knowledge-sharing program aimed at supporting the development of Thailand’s infrastructure sector, said **Ian Porter**, Country Director of the World Bank in Thailand. “Not only will the CDP-Infra enable Thailand to access international experience and expertise, it also enables the World Bank to share Thailand’s policies in infrastructure in general, and in the energy sector in particular, with other countries in the region and beyond,” Porter said.

In March, the Bank invited representatives of the Thai banking sector to a workshop on **“Financing Sustainable Energy: Seizing Business Opportunities for Financial Institutions.”** This workshop was a joint effort by the World Bank, the Office of National Economic and Social Development Board (NESDB), the Thai Bankers’ Association (TBA), the Federation of Thai Industries (FTI), and the European Commission.

“The idea is to share experience and collectively identify key issues and specific actions in Thailand’s renewable energy development,” said Zhi Liu, Infrastructure Sector Coordinator at the World Bank office in Bangkok.

“The workshop is important for us to understand the barriers preventing more participation in the renewable energy industry by commercial banks. Together, we hope to come up with an action plan that will help reduce the barriers,” he said.

A field trip to the Dan Chang Bio-Energy plant in Suphan Buri followed the one-day workshop. There, bankers were briefed by Dan Chang Bio-Energy staff on the history and the operations of the plant. Donning a hard hat and protective safety glasses, they were taken on a tour of the power plant, where they learned all elements of the biomass energy generation first-hand.

“The trip was really useful because helped put what we discussed during the seminar into perspective,” said BankThai’s Watson.

“I think there are some financial institutions that, even though they may be strongly interested in financing renewable energy projects, they lack the understanding that will help them weigh between risks and profitability,” he added. “So by taking part in the seminar and then the field trip, they were able to learn both the theory and the practice at the same time. This can help them to improve their own assessments of the renewable energy sector.”



Dan Chang Bio-Energy technician explaining biomass power generation to visitors from Bangkok

“The idea is to share experience and collectively identify key issues and specific actions in Thailand’s renewable energy development,”

For more information about World Bank support to renewable energy development in Thailand, please contact Zhi Liu, Infrastructure Sector Coordinator, at zliu@worldbank.org

For more information about Asia Alternative Energy Program (ASTAE), please visit <http://www.worldbank.org/astae>

For more information about the World Bank’s Renewable Energy for Development program, please visit <http://www.worldbank.org/re>

April Events

Supporting Youth Voices: Inter-Regional Knowledge-Sharing Series on the World Development Report 2007

Many young people East Asia and the Pacific have become interested and actively engaged in the world development process, and some are continuously making efforts to have their voices heard when policies are considered that affect them. To support those efforts, the World Bank initiated an inter-regional knowledge-sharing seminar, aimed at bringing together youth leaders and policy-makers from the region to discuss development programs by youth.



Chalongkwan Tavarayuth, 21, youth representative from Thailand



Youth leader from Mongolia during the seminar by videoconference

The first of the two-part seminar, held on April 19, was attended by more than 100 youth and civil society representatives, as well as World Bank staff in the region and in Washington, DC. Youth representative from Thailand, **Chalongkwan Tavarayuth** (above), presented the Thai experience on “exercising citizenship” -- one of the five crucial youth transitions identified by the “*World Development Report 2007: Development and the Next Generation.*”

The second seminar is scheduled to take place in late June. During this seminar, policy makers from the region will be addressing youth representatives and answering questions on government policy and institutions in support of youth development.

For more information on this event, please visit the World Bank website at <http://www.worldbank.or.th>. You may also contact Khun Tinnakorn Sareenun at tsareenun@worldbank.org to register for this event.



Sixty members of the **World Bank Youth Club** returned to Samut Prakarn Province on April 22 to join villagers of Baan Khun Samut Jeen to plant 300 young trees along the village’s shoreline. This activity was designed to help the villagers address the coastal erosion issue that has been threatening their livelihoods. It is part of the Offshore Protection Program, supported by the Thailand Research Fund and the provincial administration of Samut Prakarn, and another effort by the Youth Club to help protect the environment, following a similar activity at the village last October.



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