

## RENEWABLE ENERGY

# NED sends first solar payload

1,100-rai plant takes just 18 months to start work

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*The Nation*

**I**n hailing the launch of Thailand's largest solar farm in Lop Buri last year, Kasikornbank CEO Banthoon Lamsam said: "There is nothing more powerful than an idea whose time has come."

Last week, it arrived with a bang as the solar company, National Energy Development (NED), made its first transmission of electricity to the Electricity Generating Authority of Thailand (Egat).

The Bt8-billion utility firm, formed by CLP, Egco and Mitsubishi, aims to switch Thailand's dependence on fossil fuels to more sustainable sources.

NED CEO Woramol Khamkanist calls it "the fastest execution and delivery of an energy project of this scale".

In all, from inception to delivery, NED took just 18 months to become operational.

Despite the floods, the solar facility was not disrupted, being located 85 metres above sea level and protected by embankments.

Another mega solar plant by Bangchak Petroleum in Ayutthaya was not so fortunate.

"We spent several months scouting for the best location before settling on the Lop Buri site."

The farm is built on a 1,100-rai estate. It is the largest of its kind in the world.



NED STAFF pose with solar panels in Lop Buri.

Kasikornbank is one of four banks, including Bangkok Bank, Siam Commercial Bank and Manila-based Asian Development Bank, that provided a combined Bt5.4-billion long-term loan to NED to build and run the farm, which will produce 73 megawatts of electricity when fully operational.

NED has signed long-term contracts to sell 55 megawatts to Egat and 5 megawatts to the Provincial Electricity Authority at a fixed rate.

The bank loans are for 10-12 years. ADB was so impressed by the Thai venture it urged NED to expand its efforts as the bank has set aside a US\$1-billion (Bt30 billion) fund to invest in clean energy.

■ **More on Page 4**





NED CEO Woramol, far right, and his team celebrate at the command centre.



NED'S SOLAR farm in Lop Buri is now producing power to the Electricity Generating Authority of Thailand.

## CLEAN POWER

# NED solar farm starts operations

Giant facility is set to produce 73MW by next June

Special Correspondent  
The Nation

**N**atural Energy Development Company Limited (NED) last week said its 73-megawatt solar farm in Lop Buri has successfully commenced commercial operation.

Currently the world's largest thin-film silicon solar project in operation, the NED plant is the first solar

project to have achieved Commercial Operation Date (COD) under the Small Power Producer scheme to supply electricity to Electricity Generating Authority of Thailand (Egat).

The first electron generated by the solar plant was supplied to EGAT on December 22, said NED CEO Woramol Khamkanist.

The power was delivered through a 15-kilometre transmission line to the Provincial Electricity Authority of Thailand's 115-kV substation.

The project is expected to produce about 105 Gigawatt-hours of clean energy a year for the Thai public.

Construction of the plant started in July last year on high ground,

about 85-metres above sea level.

The selection of the site was crucial to ensuring it would be protected from floods such as the recent disaster.

A consortium comprising Sharp Corporation, ItalThai Development and Ital Thai Engineering was contracted to provide supply and construction services.

During the 18-month construction period, more than 1,400 people were employed with more than 4 million man-hours spent to quickly start the utility station.

Because of high safety standards, there were no reported injuries.

About 1,778 kilometres of underground cable were connected and approximately 520,000 thin-film solar panels were installed.

The project is expected to generate more than 1 million tonnes of carbon credit over its project life of

25 years. NED has successfully registered its Clean Development Mechanism (CDM) with the United Nations' Framework Convention on Climate Change (UNFCCC), the international platform to reduce the effects of climate change globally.

Underlying its significance, the project was chosen as one of the "celebration projects" to mark the auspicious occasion of His Majesty the King's 84th birthday this month.

An expansion of the project is underway.

When completed in June next year, the Lop Buri plant will generate 84MW.

To raise awareness about natural energy sources and promote the use of sustainable energy, NED has also taken the initiative of constructing a 760-square-metre renewable energy museum.

The facility will be open for pub-

lic access free of charge in mid-2012.

NED is jointly owned by CLP Holdings, Electricity Generating Public Company and Mitsubishi Corporation with a total investment of equity of more than Bt2 billion.

More than Bt5 billion of the project's debt has been funded by Asia Development Bank, Bangkok Bank, Siam Commercial Bank and Kasikornbank under a non-recourse project financing facility.

The financing package has been recognised by *Project Finance* and *Alpha* magazines as its top global project this year.

CLP Holdings, a company listed on the Hong Kong Stock Exchange, is the holding company for the CLP Group, which is one of the largest investor-owned power businesses in the Asia Pacific region.

Through CLP Power Hong Kong, it operates a vertically integrated

electricity supply business in Hong Kong, and provides a reliable supply of electricity and excellent customer services to 5.7 million people in Kowloon and the New Territories.

Outside Hong Kong, CLP Holdings also invests in energy businesses in mainland China, Australia, India and Southeast Asia.

It is a leading international private sector power company in Asia with a diversified portfolio of power generation from gas, coal, renewables and nuclear.

CLP is listed in the Global Dow - a 150-stock index of the world's leading blue-chips, the Dow Jones Sustainability Asia Pacific Index (DJSI Asia Pacific), the Dow Jones Sustainability Asia Pacific 40 Index (DJSI Asia Pacific 40) and Hang Seng Corporate Sustainability Index Series.