



## Thailand: New support for community-based biogas

### “Distributed Green Generation for Community Enterprises” programme published

Update as of February 20, 2014

The Royal Thai Government has strengthened its support for renewable power generation from biogas from energy crops.

On February 4, 2013, a support programme named “Distributed Green Generation for Community Enterprises” was passed by the National Energy Policy Council (NEPC), an advisory board to the Thai Government. The programme is expected to push the development of biogas power systems using energy crops as feedstock, and also fits into the Government’s strategy to enhance the development of distributed and community-based renewable energy systems.

On July 16, 2013, the NEPC also officially raised the overall target for biogas under the Alternative Energy Development Plan (AEDP 2012-2021) from 600 to 3,600 MW installed capacity by 2021. Currently, biogas plants of about 260MW capacity feed into the grid.

Under the scheme, biogas plants of a combined capacity of 3,000MW running on energy crops shall be built within the next 8-10 years. In addition, 1,200 tons of Compressed Biogas (CBG) shall be produced daily.

The new policies are designed to serve three purposes:

1. Electricity generation to secure domestic power supply
2. Production of CBG and substitution of LPG and CNG
3. Secure the income of rural communities by supporting farmers to plant and sell energy crops, i.e. Napier Grass that will be used as feedstock in the plants.

The first phase will, however, mainly focus on generating electricity from biogas.

### New Feed-in Tariff for biogas plants

One part of the programme is the implementation of a new Feed-in Tariff (FiT) for biogas projects that make use of energy crops as feedstock. It is expected that Napier Grass (“*Pennisetum purpureum*” or locally called Giant King Grass) will be most commonly used, but the tariff will most likely not be reduced to this particular energy crop.

The new FiT of will be granted to systems smaller than 1 MW in size and is expected to trigger great interest by investors. The exact amount and design is currently under discussion, but it is expected that the FiT will at least be 4.5 Baht (10 €Cent\*) per kWh granted for 20 years.

Until now, biogas systems benefit from the renewable energy adder scheme in Thailand which provides a premium payment of 0.3 - 0.5 Baht per kWh (0.7 – 1.1 € Cent) on top of the reimbursement for the electricity fed to the grid. The adder tops up the base price of 2.89 THB/kWh (6.4 Cent) plus a fuel tariff of currently 0.59 THB/kWh (1.3Cent).

### Support for community-based projects

In addition to the attractive FiT, DEDE aims to encourage local farmers to form community-based enterprises or cooperatives to cultivate energy crops as feedstock for these biogas power plants. With the aim of supporting local value creation and by means of raising farmers’ income, a minimum of app. 300 Baht (6.6 €) per ton of fresh feedstock will be supported by the ministry.

\*Current exchange rate app. 1:45 based on  
[http://ec.europa.eu/budget/contracts\\_grants/info\\_contracts/infoeuro/infoeuro\\_en.cfm](http://ec.europa.eu/budget/contracts_grants/info_contracts/infoeuro/infoeuro_en.cfm)

## 13 pilot projects for biogas from Napier Grass

In order to reach the new target, the Department of Alternative Energy Development and Efficiency (DEDE) also launched a support programme for 13 pilot projects.

The projects shall serve to demonstrate the use of Napier Grass as feedstock for biogas plants with a capacity of up to 1MW.

With a budget of 260 Million THB, 20% of the investment cost (but not more than 20 million Baht or 442,000 € per project) of each project will be covered.

Furthermore, a FiT of 4.5 Baht (10 €Cent\*) per kWh is already granted to these pilot projects for the duration of 20 years.

The selected projects chosen by the Ministry of Energy with support of Chiang Mai University were announced in November.



Napier Grass / Source: DEDE

## Actors involved

The National Energy Policy Council comprises the Prime Minister, Deputy Prime Ministers and Ministers from nine Ministries and other relevant authorities. It is appointed to enact and submit the National Energy Policy and the National Energy Management and Development Plan to the council of Ministers and to lay down rules and conditions in terms of energy pricing, as well as to evaluate the results of the implementation. The council is also assigned to support and monitor the operations of all committees active in the field of energy.

The development of the new programme was a major effort and actively involved the Ministry of Energy, Ministry of Social Development and Human Security, Ministry of Agriculture and Cooperatives, Ministry of

Education, Ministry of Science and Technology, Ministry of Industry and Ministry of Interior.

## Next PDP activities

Biomass and Biogas are very much in the focus of the Project Development Programme in South-East Asia which forms part of the „renewables – Made in Germany“ initiative by the German Federal Ministry of Economic Affairs and Energy (BMWi).

GIZ will support DEDE in organizing seminars as well as a study-trip to Germany on energy crops to biogas. Aim of the cooperation is to facilitate business cooperation between Thai and German companies, but also to share German experiences and the discussion on using energy crops for power production to increase the sustainability of the projects.

In addition, the Thai government is particularly interested in an exchange of experiences in regard to operation and maintenance, safety standards, and feedstock preparation.

## Contact at GIZ

Supalerk Kanasook

Position: Project Manager

Phone: +6681-750-1980

supalerk.kanasook@giz.de

<http://thai-german-cooperation.info/renewables-sea.html>

[www.giz.de/projektentwicklungsprogramm](http://www.giz.de/projektentwicklungsprogramm)