

CHINA

Curbing greenhouse gas emissions in the city of Yichun



Heilongjiang Province in Northeast China is taking up renewable energies by building a biomass cogeneration power plant (heat and power) and hopes to develop wood residues.

CONTEXT

Although China has significant biomass resources (crop and forest residues, animal manure), power generation from this renewable energy source is still underdeveloped in the country. The Government has set out to address this by implementing policies to support this sector and promote the construction of power plants, especially plants which produce both power and heat, in order to achieve optimum yields.

Yichun District is located in Heilongjiang Province, a cold climate region in the far northeast of China. Over 80% of its territory is covered with forests whose residues are not currently developed.

DESCRIPTION

The project provides for the following activities:

- The construction of a cogeneration plant in the town of Shuangfeng using forest and crop residues, with an annual power generation capacity of 180 GWh and annual heat capacity of 410,300 gigajoules. Annual biomass consumption will stand at 190,000 tons;
- The installation of a 29.5 km-long power line;
- The implementation of a biomass collection system within a 60 km radius around the power plant for its supply;
- The renovation of the primary heat distribution network in Shuangfeng (including the management and control equipment), which will provide the heating supply for an area covering 650,000 m² (the existing area of 499,000 m² and 151,000 m² of future housing).

IMPACTS

The project's main impact will be the dismantling of the coal boiler systems and their replacement with a centralized heating network connected to the biomass power plant. The reduction in coal consumption for heating is estimated at some 57,500 tons a year.

Consequently, the reduction in greenhouse gas emissions brought about by the project will stand at some 300,000 tons of CO₂ a year. The project will also develop natural resources which are currently underused: the residues from forest maintenance and crop residues. They are currently left on-site or burnt in the open air, which generates air pollutant emissions.

Finally, the implementation of the forest residue collection activity will be a source of new local employment and will provide workers with significant additional income, estimated at about 10% of their annual salary.

11/12/2013

Project start date



Yichun
Location



Energy , Climate
sector(s)



Loan
financing tool(s)



35 000 000 EUR
Financing amount

Heilongjiang local authorities
Beneficiaries

