



Biomass replaces fossil fuel generated electricity

Biomass, Heilongjiang, China

This carbon offset project is a biomass power-only plant located in the Heilongjiang Province, China. Local biomass feedstocks, (maize straw and rice straw), and other forestry residues, are collected and transported by local farmers. The residue is processed to generate electricity with the help of a 30 MW power generator. The project is designed to supply 190,440 MWh per year to the Northeast China Power Grid.

Without the project, the biomass residues would be burnt in an uncontrolled manner or would be dumped or left to decay, which would result in higher methane emissions. The power generated in the biomass plant replaces the same amount of electricity generated by fossil fuel power plants and thereby avoids about 172,090 tonnes CO₂ per year. The local community is also positively impacted by the improvement of the economy and living conditions.

How biomass projects help contribute to climate change

Biomass refers to organic residues such as tree branches, leaves, sawdust, wood chips or coconut shells. Those are of a biogenic, non-fossil nature that can be used to generate renewable energy. One way to generate renewable energy, among others, is to fire kilns using biomass. This process prevents harmful smoke and large quantities of CO₂ to be released.

As an additional greenhouse gas reduction measure, biomass climate projects mostly prevent biomass from rotting in the open air, so that no methane (CH₄) is released.



Contribution to the UN Sustainable Development Goals (SDGs)

SDG 7 · Affordable and Clean Energy

Biomass residues are used for the generation of electricity for the Northeast China Power Grid, replacing fossil fuel generated energy. The project is designed to generate 190,440 MWh per year.

SDG 8 · Decent Work and Economic Growth

The project will benefit the local region by creating new jobs and investment opportunities, stimulating economic development. Also, training in operations, equipment maintenance, and data management is provided by the project.

SDG 13 · Climate Action

The project avoids approximately 172,090 tonnes CO₂ annually.

SDG 15 · Life on Land

The project utilizes biomass residues to reduce methane emissions from biomass dumping and decay mainly under aerobic conditions.



Project standard

Clean Development Mechanism (CDM)

Technology

Biomass

Region

Heilongjiang, China

Estimated annual emission reductions

172,097 t CO₂e



Validated by

Bureau Veritas Certification Holding SAS

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Shenzhen CTI International Certification Co., Ltd (CTI)

Further information

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