



Bachu biomass to energy, China

The project replaces fossil fuel use by utilizing local surplus biomass from cotton growing to generate sustainable electricity for China's western rural areas.

Location



The project is located in China's westernmost province of Xinjiang (Uyghur Autonomous Region) near the border with Tajikistan and Kyrgyzstan. Its old capital, Kashgar, surrounded by dust, sand and mountains is situated along the historic Northern Silk Road. The region's rich culture has a strong tradition of trade and transfer between East and West.

Project



Cotton growing traditionally forms the region's main economic pillar. With the economic development, modern industries evolve and demand for electricity rises. In this situation, the Bachu project has been implemented to fuel the province's economy with clean energy and at the same time benefit regional farmers.

Cotton stalks is collected, providing highly needed additional income for thousands of small scale farmers and their families. In addition, residues from agroforestry are collected. Before the implementation of the project activity, this valuable biomass was considered as waste and burned in an unregulated manner. Now, it is collected and transformed into carbon neutral energy for the wider region. Ash is given back to the farmers as fertilizer free of charge.



Thanks to the project activity, the regional electricity grid has been strengthened, avoiding the regular power failures experienced during the planting season.

Technically, the project has a capacity of 12 MWh and consists of a state-of-the-art straw-fired boiler. Furthermore, the project transfers an advanced biomass technology to a developing region.

Project achievements



Socio-economic impact:

- The project generated 130 jobs for locals. Half of these jobs were given to minorities and one quarter of the staff are women.
- Farmers receive additional income for supplying the biomass that before was considered waste.
- Local farmers are supplied with a free, green fertilizer in the form of straw ash.
- The project activity lead to significant reductions of open-field biomass burning that caused accidents, air pollution and respiratory diseases.
- The regional electricity grid has been strengthened and is now reliable even in times of high demand.

Environmental impact:

- Better air quality due to less open fires from burning the biomass on the fields.
- Ash from the process has a high kalium content and can be used as fertilizer for the surrounding farmland.

Checklist Project 300917



✓ Additionality and permanence:	according to the rules of the Gold Standard
✓ 3 rd party verified:	by China Environmental United Certification
✓ Transparency:	provided by Markit Environmental Registry
✓ Annual CO ₂ reduction:	62,000 tCO ₂ e
✓ Social and environmental benefits:	as documented in our database
✓ Marketing material:	high resolution pictures available