



Brazil: Bagasse cogeneration project

Short description

The primary objective of the project is to increase efficiency in a bagasse cogeneration facility and to use the surplus steam for electricity production. Over a period of 7 years, the project will generate emission reductions amounting to 91,976 t CO₂e.

- **Project type:** Renewable energies
- **Type of certificate:** CER
- **Quality standard:** This project is a registered CDM activity and was validated by TUEV Sued.

Project background

The project activity consists of increasing the efficiency in a bagasse (a renewable fuel source, residue from sugarcane processing) cogeneration facility at a Brazilian sugar mill. The investments in more efficient boilers allow for the production of surplus steam which is exclusively used for electricity production.

With the implementation of this project, the mill has been able to sell electricity to the national grid, avoiding that fossil-fuelled thermal plants dispatch the same amount of energy to that grid. Hence, CO₂ emissions are avoided by displacing energy generation based on fossil fuels.

Sustainable development

Bagasse cogeneration is a sustainable source of energy that brings not only advantages for mitigating global warming, but also creates a sustainable competitive advantage for the agricultural production in the sugarcane industry in Brazil. Using the available natural resources in a more efficient way, the project activity helps to enhance the consumption of renewable energy. Besides that, it is used to demonstrate the viability of electricity generation as a side business source of revenue for the sugar industry.

Bagasse cogeneration also plays an important role on the country's economic development. The Brazilian heavy industry has developed the technology to supply the sugarcane industry with equipments to provide expansion for the cogeneration. This increase in production creates jobs and a reliable source of income, thereby promoting sustainable development. The sale of the CERs generated by the project will boost the attractiveness of bagasse cogeneration projects, helping to increase the production of this energy and decrease dependency on fossil fuel.

Sustainable development will be further achieved by activities which correspond to the company's social and environmental responsibilities. The company offers its employees and their relatives a program called Plano de Benefícios Assistenciais, assisting them with medical care, educational support, transport, leisure activities and other services they may need. Besides, the project donates sugar and money to many social work entities.

On national level, bagasse cogeneration supports the country's economic development: Brazil's sugarcane-based industry provides for approximately 1 million jobs and represents one of the major agribusiness products within the trade balance of the country. Furthermore, biomass based power project activities contribute to support the competitive model of the Brazilian electric sector, recently implemented.

