



Biomass cogeneration , São Paolo state , Brazil

Overview: Biomass cogeneration plant replacing fuel-oil fired boilers

The project is a cogeneration (combined heat and power) plant comprising a new biomass-fired boiler and 8MW turbine, at a cellulose and paper company in São Paulo State. The new plant replaces fuel-oil fired boilers and reduces the host company's electricity consumption from the grid. The new boiler burns wood biomass residues.



Credit: Kyle Spradley

The project reduces greenhouse gas emissions by substituting the fuel oil that would otherwise be burnt to produce high-pressure steam, and by displacing electricity that would otherwise be generated locally from thermal power stations using fossil fuels. It also consumes biomass residues which would otherwise be dumped or left to decay.

Emissions reductions and sustainable development

The biomass cogeneration plant has reduced emissions equivalent to over 64,500 tonnes of CO₂ per year, over the relevant period. These greenhouse gas emission reductions were calculated on the UNFCCC Approved Methodology ACM 0006/version 06 (consolidated baseline methodology for grid-connected electricity generation from biomass residues).

Sustainable development benefits of the project include improved working conditions through reduced employee handling of fuel oil, increased employment opportunities in the locality including a beneficial impact on regional engineering and civil construction sectors, and reduced dependence on fossil fuels.

Project carbon credits

This project was independently assessed to have achieved total emissions savings equivalent to approximately 388,452 tonnes of CO₂, during the operating period 2002 to 2007 and carbon credits were verified to the Voluntary Carbon Standard in March 2008 by SGS. (Certificate available upon request).