

NEFCO Carbon Fund Project Profile: Jiangsu Keneng 30 MW Cement Waste Heat Recovery Project in eastern China

Project title: Jiangsu Keneng 30 MW Cement Waste Heat Recovery

Country: China

Project type: Energy Efficiency

Emission reductions: estimated 1.7 million tCO₂ equivalent by 2019 (640,436 2009-2012)

Project description: The project consists of utilization of a cement factory's waste heat for electricity generation. The project reduces greenhouse gas emissions by displacing fossil fuel-based electricity from the grid with zero-emission energy from recovered waste heat. The project has been developed as a Clean Development Mechanism (CDM) project under the Kyoto Protocol. It will generate Certified Emission Reductions (CERs) that will be purchased by the NEFCO Carbon Fund (NeCF) on behalf of its investors.



Project Activity

The project consists of the installation of eight waste heat recovery boilers with two electricity generators in a cement factory, with total installed capacity of 30 MW, in Liyang city in Jiangsu province. The project will reduce the factory's annual electricity purchases from the East China Power Grid by around 190 GWh, thus displacing fossil fuel-based grid electricity with emission-free energy from recovered waste heat. The project started operation in April 2009 as planned.

The project is developed by Liyang Keneng Waste Heat Recovery Co., Ltd. at the cement plant of Liyang Jinfeng Cement Co., Ltd.

Technology

The waste heat recovery system comprises four units of PH boilers, three units of AQC boilers, steam turbine power unit, steam turbine power units, boiler water treatment facilities, circulating cooling water system, power supply & distribution system and controls. The project utilizes modern KAWASAKI boilers (domestically produced).

Emission Reductions

By displacing fossil fuel-based electricity generation, the project reduces greenhouse gas emissions by around 170,000 tonnes of carbon dioxide equivalent (tCO₂e) per year, or by 1.7 million tonnes over its ten-year crediting period (2009-2019). The NeCF has agreed to buy the first approximately 576,000 tonnes as CERs which the NeCF investors may use for compliance under the Kyoto Protocol or the EU Emissions Trading Scheme. Such carbon financing helps to boost the economic viability of clean energy investments.

Project Benefits

Besides global climate benefits, the project offers also local sustainable development benefits by reducing air pollution, creating employment opportunities and promoting cleaner production in the cement industry. The project enjoys local support, confirmed by the findings of a stakeholder consultation process. The project's Environmental Impact Assessment (EIA), which has been prepared and reviewed in accordance with host country legislation, identified no significant negative environmental impacts.



Further Information

For additional information, please visit <http://www.nefco.org/cff> or email us at carbonfinance@nefco.fi.

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