Baltic Sea Region Testing Ground Facility Project Profile: Alchevsk Coke Plant Waste Heat Recovery Project, Ukraine

Project title: Alchevsk Coke Plant Waste Heat Recovery

Country: Ukraine

Project type: Energy Efficiency

Emission reductions: estimated 1,104,000 tCO_2 equivalent by 2012

Project description: The project consists of captive cogeneration with waste heat recovery at Alchevsk Coke Plant (OJSC Alchevskkoks) to displace the use of natural gas and (30 GWh per annum of) grid electricity. The project entails installation of a waste heat recovery system, a highly efficient boiler firing coke oven gas (COG) and blast furnace gas (BFG) and a 9 MW turbine generator connected to the boiler, generating up to 54 GWh per annum of net electricity. The project reduces greenhouse gas emissions by displacing fossil fuel-based heat and power generation. The project has been developed as a Joint Implementation (JI) project under the Kyoto Protocol. It will generate Emission Reduction Units (ERUs) that will be purchased by the Baltic Sea Region Testing Ground Facility (TGF) on behalf of its investors.

Project Activity

The Alchevsk Coke Plant Waste Heat Recovery project is located in Alchevsk city, Luhansk region of eastern Ukraine.

Prior to the implementation of the Joint Implementation (JI) project activity, a traditional method of coke wet quenching (CWQ) was used. With this method, which is prevailing practice in Ukraine today, heat generated from the quenching process cannot be recovered and natural gas would have been used to generate the required heat. The JI project introduces a modern coke dry quenching (CDQ) method which enables the recovery of waste heat and its utilization to generate heat and electricity, thus displacing fossil fuel-based energy and avoiding associated carbon dioxide emissions.

The project was developed by the Japanese Sumitomo Corporation which also has extensive experience in the deployment of the project technology. The transaction was arranged by CF Partners.

Technology

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Emission Reductions

By displacing fossil fuel-based heat and electricity generation, the project reduces greenhouse gas emissions by an average of 220,000 tonnes of carbon dioxide equivalent (tCO_2e) per year, or by 1,104,000 tonnes over its five-year crediting period (2008-2012). The TGF has agreed to buy the ERUs which the TGF investors may use for compliance under the Kyoto Protocol or the EU Emissions Trading Scheme.

Project Benefits

Besides providing global climate benefits, the project also offers local environmental and health benefits by reducing emissions of local air pollutants such as nitrous oxides and particulates associated with CWQ, boilers and grid-

connected power plants. Furthermore, the project promotes Ukraine's energy security and contributes to more efficient production.

Further Information

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

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