

TGF Project Profile : Integrated Energy Efficiency and Fuel Switch Project in Priozersk, Leningrad Oblast, Russia

The Project Activity

The biomass and natural gas fuel switch project is a Joint Implementation (JI) project developed between the Russian Federation and the investor countries and companies of the Baltic Sea Region Testing Ground Facility (Iceland, Norway, Sweden, Denmark, Finland and Germany, DONG Naturgas, Fortum, Kymppivoima, Keravan Energia, Gasum, Outukumpu, Vapo and Vattenfall Europe (Berlin) and Vattenfall Europe (Generation)) and the Danish Environmental Protection Agency (DEPA) for the account of the Kingdom of Denmark. The project proponent is OJSC Teploservice, a company part owned by the Municipal District of Priozersk Rayon. The author of the Project Design Document is the Danish company Force Technology and its subsidiary FORCE Technology Rusland (St. Petersburg), which has been working in conjunction with DEPA.

The project proposes fuel switch from mazut (heavy fuel oil) to biomass and natural gas, as well as energy efficiency improvement measures in boiler-houses in the town of Priozersk. The project will reduce GHG emissions by reducing the carbon intensity of the fuels consumed in the city.

Technology

The technologies and equipment for the biomass-fired boiler-houses will be based on modern Russian and Scandinavian technologies. It is planned that the boiler-house fired with wood waste and bark will be equipped with boilers supplied by the Finnish company Vapor. The efficiency of such boilers ranges between 80-85 % and their service life exceeds 15 years. The gas boilers will be in compliance with the Russian boiler regulations (specified by "GosGorTekhNadzor") where the gas boilers efficiency cannot be lower than 91 %.



Old Boiler House, Priozersk to be replaced with modern combustion technology

Nature of Emission Reductions

The proposed project activity aims to reduce the emissions of greenhouse gases by installing modern gas- and biomass-fired boiler-houses to use less carbon-intensive natural gas and carbon-neutral biomass.

The investment project is expected to result in emission reductions of 183,000 tCO₂e over the Kyoto commitment period (2008-2012). The emission reductions will be purchased jointly by the TGF for the account of its investors and DEPA for the account of Denmark.

For a full explanation of the methodology used (CDM approved methodologies ACM0009 and ACM00036) please refer to the Project Design Document.

Other Benefits

The Project will result in considerable benefits for the city of Priozersk and globally, as well as:

- Improved quality and reliability of heating services, and more stable prices for residents of the oblast
- Technology transfer and capital investment into the key municipal environmental

infrastructure sector, regarding modern fuel combustion technology

- Improved local air pollution indicators from reduced use and transport of fossil fuels (often from distant locations)

For general information on the TGF, visit <http://www.nefco.org/tgf>



Potential Sources of Solid Biomass

Contribution of Carbon Finance

The project represents a capital investment of €6.4 million, including the network rehabilitation. The projects are financed through a mixture of own equity, loan financing and carbon finance contribution from the TGF and DEPA.

The financing of the project foresaw a contribution from the JI mechanism, and discussions with DEPA commenced in 2006.

For Further Information

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