

TGF Project Profile : Reconstruction of Heat Supply Stations in Strezhevoy, Tomsk Oblast, Russia

The Project Activity

This supply side energy efficiency project is a Joint Implementation 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 Natargas, Fortum, Kymppivoima, Kerevan Energia, Gasum, Outukumpu, Vapo and Vattenfall Europe (Berlin) and Vattenfall Europe (Generation)). The project proponent is OOO Strezhevoy Teploenerosnabzhenie (STES), the statutory supplier of heat and hot water in the town of Strezhevoi, located in the far north of Tomsk Oblast in western Siberia.

The Project Design Document has been prepared by Norsk Energi and Econ Pöyry.

The project proposes to reduce greenhouse gas emissions by reducing energy losses in the distribution system of the heat supply stations. Project also improves the efficiency of heat generation and increases the reliability and quality of heat and hot water supply for consumers in a harsh climatic environment (mean annual temperature of -5,5C, absolute minimum of -52C and a 252 day heating season).

Technology

The heat supply system rehabilitation will entail the renovation of heat sub-central stations. This will include replacement of components to ensure effective energy transfer, regulation and monitoring. The measures include improved energy efficiency of energy transfer and pumps, with energy efficient plate heat exchangers from Alfa Laval of Sweden and pumps from Grundfoss (Denmark), automatic heat and domestic heat flow regulation into distribution system with regulation valves from VEXVE (Finland) and Danfoss (Denmark).



New Electronic Speed Controllers for Heating Sub-Centrals

Nature of Emission Reductions

The proposed project activity aims to reduce the emissions of greenhouse gases by undertaking the aforementioned series of measures in order to cut the excess supply of heat and hot water to end users, thereby reducing energy consumption.

The investment project is expected to result in an emission reduction of 89,600 tCO₂e over the Kyoto commitment period. The emission reductions will be purchased by the TGF for the account of its investors.

For a full explanation of the methodology used (Approved small scale methodology AMS II.A version 9) please refer to the Project Design Document.

The project is under third party determination by the accredited independent entity Det Norske Veritas (DNV).



New Heating Sub-Centrals

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For General Information on the TGF, visit
<http://www.nefco.org>

Other Benefits

The Project will result in considerable benefits for the region and globally, as well as

- Increased operational reliability of heat supply and reduced costs to the residents of Strezhevoy
- Reduction of SO₂, NO_x, Volatile Organic Compounds and particulate emissions from combustion, with attendant health impacts
- Improved tariff stability on payment of housing-communal services;
- Ensuring hot water supply during summer with minimal possible disruption;
- Providing comfortable temperature in buildings connected to heating network (20C);

Introduction of best available technology and know-how to Strezhevoy will result in the first international climate change project in the region.

Contribution of Carbon Finance

The project represents a capital investment of €2,2 million. The project is financed through a mixture of own equity, loan financing and carbon finance contribution from the TGF.

For Further Information

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