

ANNOTATION

to the project "Construction of heating systems in the settlements of Navoi region".

Justification:

Resolution of the President of the Republic of Uzbekistan dated December 02, 2019 No.RP-4542 "On additional measures to improve heating supply and financial recovery of heating supply enterprises".

Project Objective:

Improvement of living conditions of residents of Navoi region, introduction of advanced technologies and equipment in the heating supply system, reducing the production cost of heating energy, improving energy and economic efficiency of generation and supply of heating energy to consumers. Also:

Improving the quality and ensuring uninterrupted supply of heating to consumers;

Create new heating supply systems by introducing new energy and resource saving technologies and equipment in the heating supply system;

Increasing the efficiency and rational use of the fuel and energy resources;

Further social and economic development of the territory, improvement of living standards in the region

Improvement of the heating supply system by increasing provision of the population with quality communal services, and enhancing the reliability of the heat supply systems; improve sanitary-epidemiological situation in the region.

Project description:

Due to the lack of heating boilers and heating networks in Navoi region, a new heating system, boiler house and heating network should be built in the district.

Navoi region has a total area of 165599 m² of 217 apartment buildings and 2976 apartments.

Installation of 19900 n/m pipes of heating networks, 70981 radiators, 18 boilers in 217 existing blocks of flats in the oblast.

Construction of new heating networks, pipelines 19900 p/m of polyurethane foam as a heating insulation layer.

Replacement and reconstruction of some parts of the water supply networks, construction of new water supply networks for individual heating systems (IHS). It is planned to serve 18 local boiler houses and 217 apartment buildings in Navoi oblast.

The project envisages the construction of 19.9 km of heating supply networks, 18 Gcal/h, in Navoi Oblast settlements.

Kyzyltepa district has a total area of 24065m² of 42 apartment buildings and 361 apartments.

Installation of 8000 n/m of heating network pipes, 13789 radiators, 2 pcs of indoor boilers AMK-1500 and AMK-1000 in 42 existing apartment buildings in the district.

The project envisages the construction of 8 km of heating networks, 8.8 Gcal/h, in settlements of Kiziltepa district.

Khatirchi district has a total area of 21249 m² of 21 apartment buildings and 349 apartments.

Installation of 2,200 l/m of heating pipes, 1,755 radiators, 4 indoor boilers AMK-800 and AMK-200 in 21 existing apartment buildings in the district.

The project envisages the construction of 2.2 km of heating networks, 1.5 Gcal/h, in the settlements of Khatirchensky District.

Karmaninsky district has a total area of 95372m² with 117 apartment buildings and 1788 apartments.

Installation of 1,300 l/m of heating network pipes, 3,281 radiators, 5 AMK-2000 indoor type boilers in 117 existing apartment buildings in the raion.

The project envisages the construction of 1.3 km of heating networks, 3.1 Gcal/h, in the settlements of Karmeni district.

Navbahor district has a total area of 4019 m² of 7 apartment buildings and 104 apartments.

Installation of 2,000 n/m of heating pipes, 3,696 radiators, 1 pc of indoor type boilers AMK-450 in 7 existing apartment buildings in the district.

The project envisages the construction of 2 km of heating networks, 1.5 Gcal/h, in the settlements of Navbahor district.

Nuroti district has a total area of 9092 m² of 12 apartment buildings and 148 apartments.

Installation of 5,900 l/m of heating pipes, 2,056 radiators, 4 pieces of indoor boilers AMK-200 in 12 existing apartment buildings in the district.

The project provides for the construction of 5.9 km of heating networks, 2.6 Gcal/h, in the settlements of Nurotenki district.

The **Tomdinsky district** has a total area of 4 apartment buildings and apartments.

Installation of 500 p/m of heating network pipes, radiators and indoor boilers in 4 existing apartment buildings in the district.

The project provides for the construction of 0.5 km of heating networks, 0.5 Gcal/h, in the Tomdinsky district settlements.

Training of personnel during the construction and commissioning of heating systems.

Implementation of the project will contribute to:

Transition from centralized and local heating systems to Navoi region and independent connection of heating systems to heating systems will reduce the cost of make-up water and coolant as a result of the elimination of drainage from heating systems and without heating tap water.

Heating sources, service life of household heating equipment and excess heat energy reduce consumption.

Switching of centralized and local heating systems in Navoi region to the closed water separation of hot water supply and independent connection of buildings heating systems to the heating networks provide decrease of make-up water consumption and coolant circulation due to elimination of drainage from heating systems and heating of tap water in heating exchangers without softening, increase of service life of equipment of heating sources, municipal and house heating pipelines, decrease of excessive consumption of heating energy.

The project is socially oriented and is aimed at increasing ecological safety of the environment.

Project Location:

Navoi province borders Karakalpakstan in the west, Kazakhstan in the north, Djizak in the east, and Kashkadarya and Bukhara provinces in the south. It is located 400-500 meters above sea level. Existing land is used by water from the Zarafshan-Amu Darya River. The region's climate is dry and hot, sharply continental. In March the temperature reaches 20 ° C and rises to 35 °-45 ° C in June, snow falls in August, December and January, and the temperature ranges from 25 ° C to -30 ° C, a regional, industrial, cultural and economic center, located in the ancient sediment of the Zarafshan River. Navoi region has developed railways and roads.

In the southeast, the railroad crosses the Bukhara-Tashkent railroad. The climate of the area is sharply continental, the steppe is small, high summer temperatures fall. Snowfall is rare and snow cover remains for a short time. Snow load is 50 kg / m². Seismicity of the oblast is 6 ~ 9 points, ground ice depth is 0.6 m, average wind speed is 25 ~ 30 m/s. Wind load is 55 kg/m². The area of the region is 110.8 thousand sq. km. Population is 818.9 thousand people.

Zeravshan river is one of the main waterways of the region. On geomorphological structure soils are represented by loams and rocks. Solonchaks are classified as type I-II. Groundwater rises from a depth of 0.8-1.0 to 35 m from west to east. Groundwater is provided by the Zarafshan river, as well as by infiltration of precipitation and irrigation of irrigated lands. In the high relief zone, groundwater is highly mineralized and more aggressive than concrete and metal.

Project Cost: The estimated cost of the project is 21.6 million US dollars.

Kiziltepen district project cost is 10.2 million US dollars.

In Karmanen region the cost of the project makes up 4,2 million US dollars.

Navbahor district, the cost of the project amounts to 1.8 mln US dollars.

Nuroten district, the cost of the project amounts to US\$3 million US dollars.

In Tomdinsky district the cost of the project is US\$ 0.6 million US dollars.

In Khatirchi district the project cost is \$1.8 million US dollars.

Proposed Financing Plan:

Financing of the project is envisaged by HMI.

Project Implementation Period:

2021- 2025 г.

Project efficiency and payback period:

According to the results of the project, the coverage of the population with the heating system will be 100%.

Saving of energy resources up to 15 % a year.

Available documents:

Pre-feasibility study

Executor (initiator) of the project:

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