

Soma District Heating (DH) Project aims at improving the energy efficiency of the existing Soma Thermal Plant and avoiding coal consumption at the household level through installing a heat utilization system which will provide continuous heat and hot water to the residential, commercial and institutional buildings in the Soma District. Industrial facilities will not be distributed any form of energy and they are not included within the project boundaries. In the first phase project, subscribers are only accepted from buildings which previously have a central heat distribution infrastructure. Subscription fee (about \$900) will be charged to the clients for one time, however municipality will offer the option to pay for the activation fee in monthly installments. With the heat sales tariff of only 0.0275 \$/kWth<sup>1</sup> the system will prove beneficial in a very short term. In the baseline situation residential heating is achieved by using coal fired heat only boilers in buildings or stoves in individual apartments. As a result of project activities a total of 58,071 tCOR<sub>2</sub>Re GHG emission reductions are estimated to be realized.

The first phase of the project will start in Zone 1 where public buildings such as hospitals, schools and multi-storey buildings are concentrated. The project capacity is planned to be 8,100 HE which corresponds to 70 MWt and 153.2 GWhR<sub>th</sub>. Users will be integrated to the system gradually within 3 years; from 2506 households to 2825 as detailed in the Table below. POF<sup>2</sup> Implementation of the project with current conditions will not effect the further stages of the DHS project. The project will either choose to register the other phases as separate projects or will apply for a design change as per the Gold Standard Terms and Conditions.

Number of households / Investment Year	Year 1	Year 2	Year 3
Residential households	436	2,668	2,539
Public buildings (household equivalent <sup>3</sup> P <sup>3</sup> P)	2070	101	286
<b>Total</b>	<b>2,506</b>	<b>2,769</b>	<b>2,825</b>

**Table 1. Number of households and buildings according to years which will access to the Soma District Heating system**

The project consists of three components<sup>4</sup>P as also shown in the Figure below:

- The power plant where heat is produced;
- Outgoing and incoming pipeline network which transmits heat to the buildings;
- Buildings that utilize the heat.

<sup>1</sup> <http://www.soma.bel.tr/V2/bolge-isisitma-sistemi/ucret-tarifeleri.aspx>

<sup>2</sup> TÜBİTAK MAM Feasibility Analysis (FSR), April 2010, Table 4.7

<sup>3</sup> The number of public buildings which will be connected to the DHS are referred as “household equivalent” as per the FSR, (page 42).

<sup>4</sup> Project Introduction File (PIF), page 4.