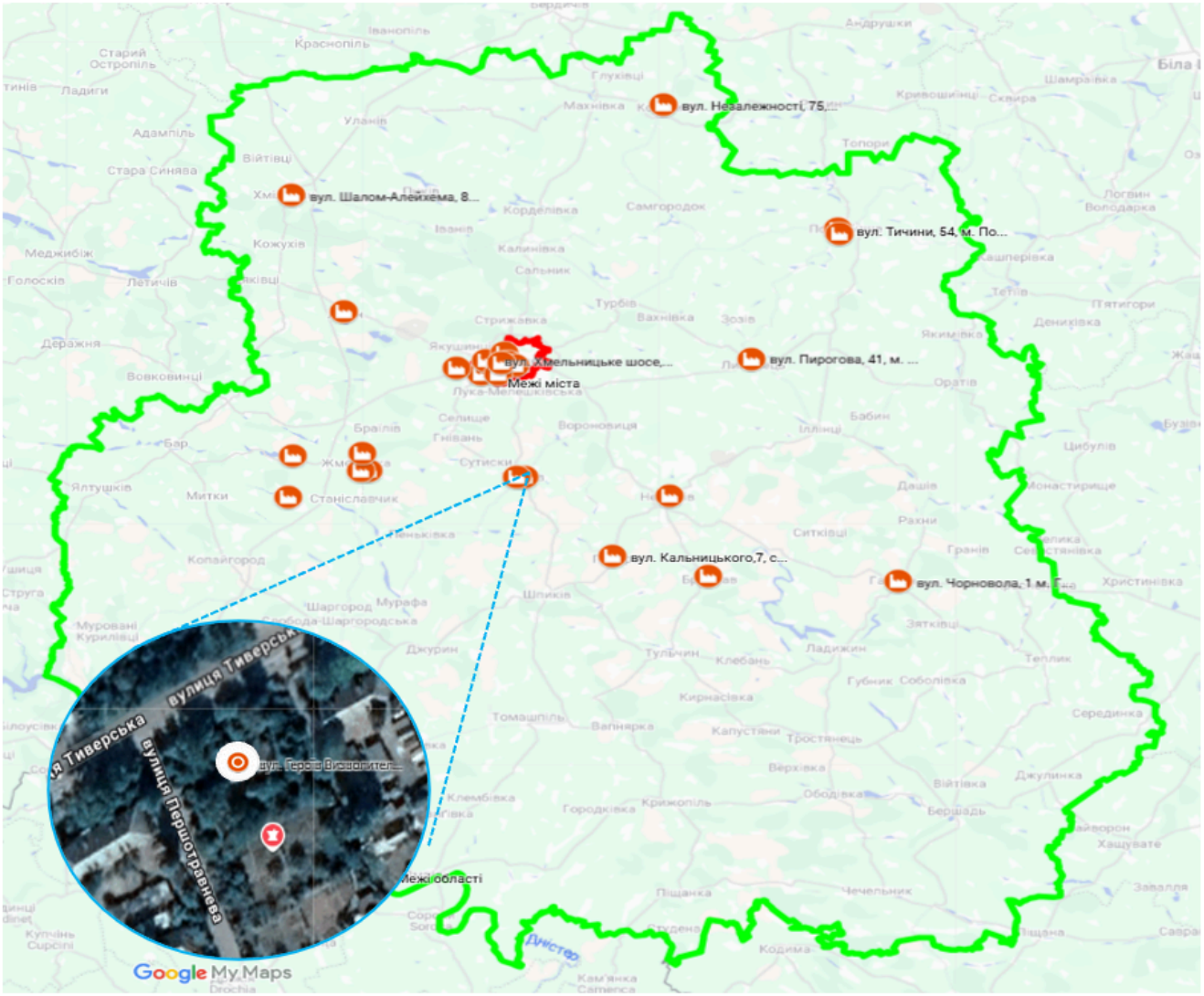
3.15 Component No. 15. Boiler house area Heroes of the Liberators, 4 Tyvriv

BASELINE

Location

The boiler house is located in the city of Tyvriv



Basic equipment

Equipment name	Type	Q-ty, pcs.	Capacity
Gas boiler	KBCA-3	2	3.0 Gcal/h
Solid fuel boiler	ARS 1000 LM	1	0.86 Gcal/h
Circulation pump	K80/65	2	50 m³/h
Circulation pump	K 100/90	1	100 m³/h
Pump	TOP-S65/13	1	17 m³/h
Pump	MEDANA CY1-L/206	3	28 m³/h

Source: Communal Enterprise "Vinnytsiaoblteploenergo".

Figure. Heroes of the Liberators, 4

Existing condition

- **Boilers** – satisfactory condition. The average coefficient of efficicnecy of gas boilers is 82%, solid fuel boilers is 78%. Fuel type natural gas and fuel wood;
- **Pumping equipment** – satisfactory
- **Chemical water treatment** – replacement required. Filters have been installed that are both outdated and physically worn out.
- **Heat networks -** unsatisfactory condition. 100% replacement required
- **Building** – satisfactory condition

Heating Network

Source: Communal Enterprise "Vinnytsiaoblteploenergo".

Note: The total length of the heat network is **2080 m.**

Connected heat load

The total conected thermal load of the boiler house is **0,928 Gcal/h.**

Heating
0,928 Gcal/h

RATIONALE

Reduction of operating costs and CO_2 emissions through decreased fuel consumption by bringing heat losses during transmission down to standard levels

Improving the reliability and quality of heat supply to consumers, reducing heat energy losses during transportation by replacing 100% of heat networks.

INVESTMENT COMPONENT DETAILS

No.	Component	Clarification
1	Reconstruction of heat networks – 1, 601 m	Improving the reliability and quality of heat supply to consumers, reducing heat energy losses during transportation

COST

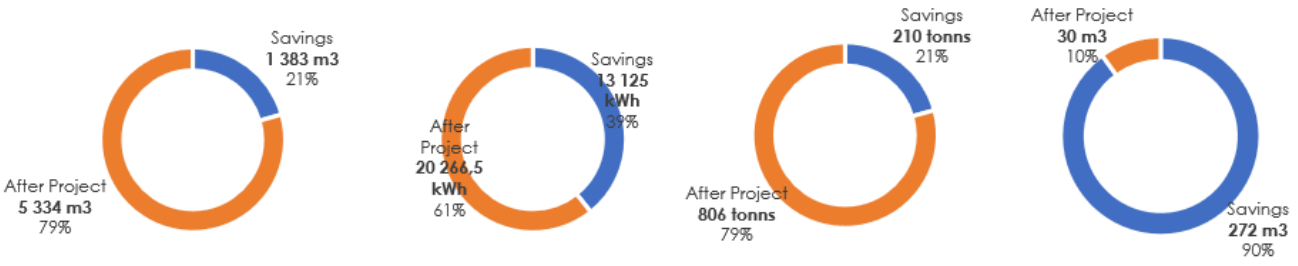
The estimated cost of implementing this component is **EUR 390.0 ths.**

Source: Consultant's calculations.

SAVING

The implementation of the component will result in reduced consumption of fuel, electrical energy and water by decreasing heat energy losses.

Natural gas, m³	Electricity, kW-h	Biofuel, tonns	Water, m³



Source: Consultant's calculations.