INNOVATIVE PRODUCTION OF GREEN HEAT FOR BOLECHOWO AND MUROWANA GOŚLINA

Delivery of green heat to Veolia customers: Solaris and the "Zielone Wzgórze" Housing Cooperative

| Challenge

Waste heat recovery from the Aquanet wastewater treatment plant in Szlachęcin:

- supply of heat from a renewable energy source
- reduction of heat production from coal
- use of local resources – wastewater as a source of cheap heat

| Solutions

Veolia has designed a heat recovery system from the waste-water treatment process, supported by a high-performance cogeneration installation. The heat is obtained from two sources simultaneously:

- heatpumps, with a lower heat source in wastewater, powered by high-efficiency cogeneration
- cogeneration system on the premises of a wastewater treatment plant – surplus energy transferred to the national power system

| Benefits

- Green heat – heat production from local RES resources
- Energy efficiency – use of waste heat
- Improvement of air quality – reduction of pollution emissions to the atmosphere by **74 %**
- Decarbonisation – the first significant step to decarbonise heat supply
  - reduction of CO_2 emissions: **2 thousand tons** per year
  - saving of coal resources: **3.4 thousand tons** per year

Poznan, Szlachęcin, Poland

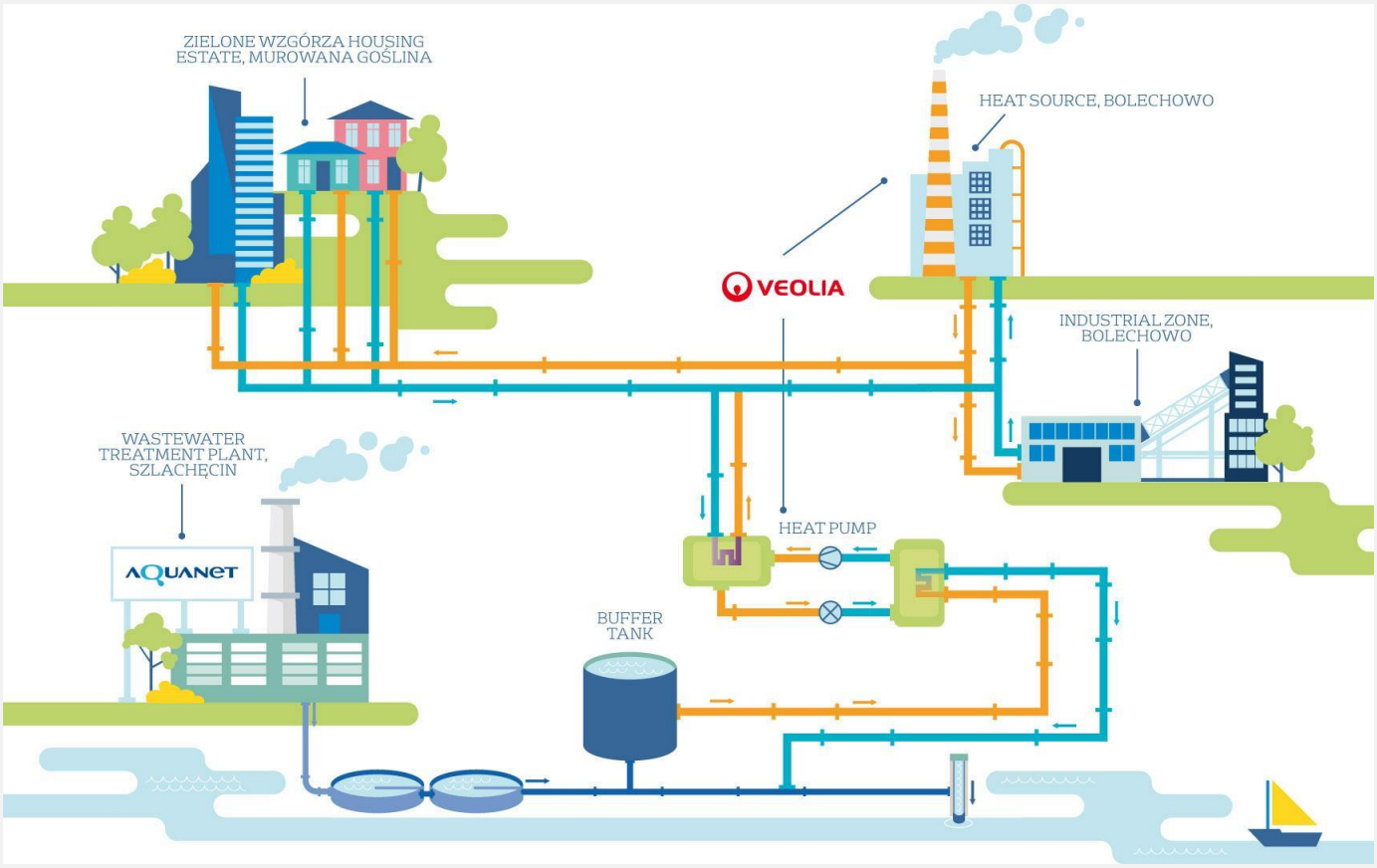
3 400 tons/year
saving of coal resources

2 000 tons/year
reduction of CO_2 emissions

62 % of renewable energy produced in the system

| Diagram

Production of heat from wastewater as a source of renewable energy



THE PLANET

By recovering heat from wastewater through a heat pump, we increase the amount of heat energy obtained by more than 2.5 times in relation to the electricity consumed. Therefore, we obtain an additional source of RES in the heating system, based on local resources.

HUMANS

The cooperation between Veolia and Aquanet is an example of synergy between water operator and district heating operator, for the benefit of the environment and local community, including customers - industrial customers in Bolechowo and municipal customers in Murowana Goślina.