

Blue Heat Recovery Operation

### Keep the heat within your company

- 90% less energy consumption
- **73%** less heating costs
- 65% less CO<sub>2</sub> emissions
- **Discharge of cold wastewater**



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## www.BlueHeat.be



#### **WORKING PRINCIPLE :**

**Blue@Hero** extracts low grade heat from a waste water stream. Waste water is used as a sustainable energy source. The waste water is processed through the usual water treatment into a fully dischargeable effluent. From this effluent the thermal energy is recovered using a combination of heat exchangers and a heat pump.



#### **CALCULATION EXAMPLE:**

- Your company purifies 200 m<sup>3</sup>/day via your waste water treatment plant .
- From your treatment you discharge 200 m<sup>3</sup>/day at an average year temperature of 23°C.
- The heat of the wastewater is recycled using heat exchangers and a heat pump in order to preheat 80 m<sup>3</sup>/day cold proceswater from 10°C to 38°C.
- On an annual basis (265 production days) you will save approximately **790.000 kWh/year** of energy.
- This results into a cost saving of ± €20.000 /year (= 73%).
- You save 4x more energy than your waste water treatment consumes

#### • PAY-BACK < 3 years.



Comparison energy sources compared to gas

To heat 1m<sup>3</sup> water with 8,6°C you need 10kWh of energy

Energiesour-	Quantity	Energy	CO2 emis-	Cost
Electricity	10 kWh el.	10 kWh	7,6 kg	€ 1,15
Heating oil	1 liter	10 kWh	2,6 kg	€ 0,50
Gas	1 m³	10 kWh	2,0 kg	€ 0,40
Blue <b>Hero</b>	0,93 kWh el.	10 kWh	0,7 kg	€ 0,11

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