

EEH – District Heating System Integration

Market Entry with European Energy Heating

- European Energy has entered the heat pump market by forming the company “European Energy Heating”
- Technology provider of full range of heat pumps to own sites as well as clients.
- Installed base approx. 140 MW heat capacity in DK & UK with first projects installed in UK.
- European Energy are currently developing and building out 2GW/yr of PV & Wind generation assets alongside Heat Pumps.



Our Product Strategy – Design and Application

Standardized Product Design

- Refrigerants:
 - Natural refrigerants (NH₃, CO₂, HC).
 - Low GWP refrigerant (H1234ze)
- Design
 - Full/partial Assembly or containerized
- CO₂: 300kW – 2000kW units
 - Low temperature application
 - Big delta T between flow and return
- HC/HFO: 500kW – 2000kW units
 - High temperature application
 - Variable / less controlled delta T
- NH₃: 1000kW – 4000kW units
 - Medium high temperature application
 - High efficiency requirement
- Combined Heating & Cooling Design

Product / Project Applications

- Air Source
 - Energy recovered from ambient air or waste heat
- Water Source
 - Ground Loop
 - Bore Hole / Aquifer
 - Mine water
 - Sewage Water
 - Lake / River / Reservoir
 - Ocean
 - Heat recovery / cooling
 - Energy Storage

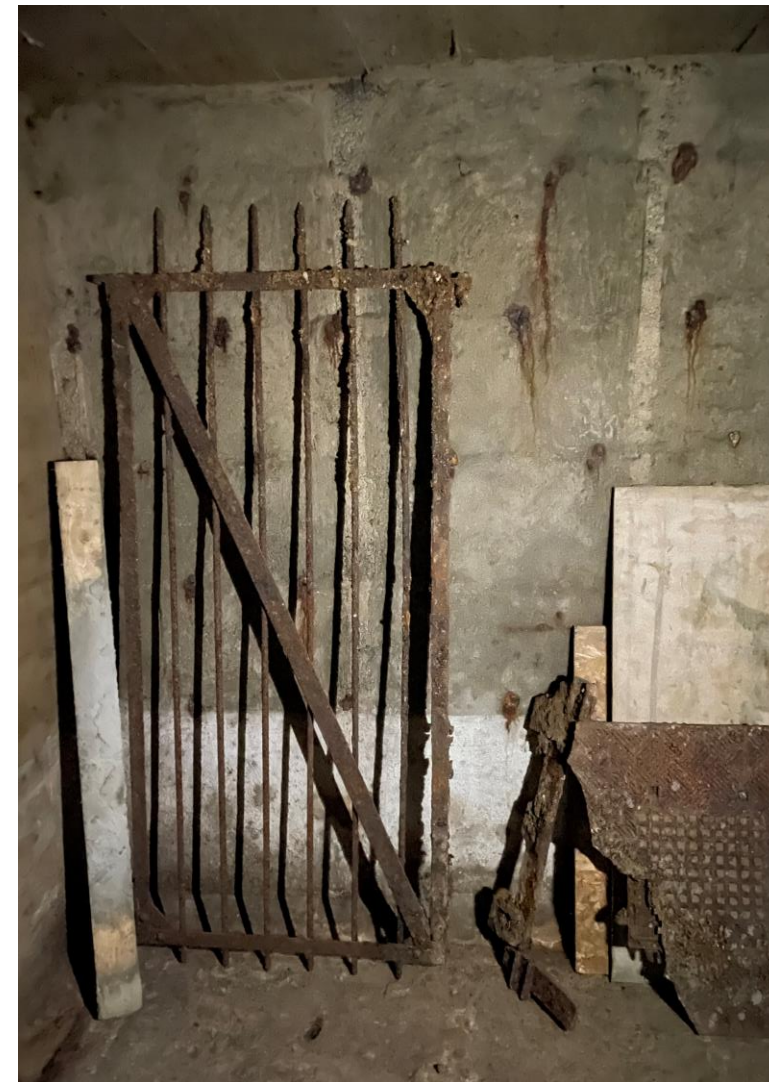


Standard Solution: London DH – Greenwich Council



- 300kW GSHP heating a block with 75 flats.
- 60C hot water / heating
- Utilizing boreholes into underground aquifer
- CO2 Refrigerant
- Moving from Gas boilers to Heat Pump
- First of many GSHP and ASHP heat pumps on the estate to reach Carbon Net Zero.
- COP 4.2

London DH – Greenwich Council (Cont'd)



1.2MW ASHP H1234ze – St. James, Leeds



BJØRNHOLTHAGEN

Heat pump for district school and city hall with heat source from geothermal wells



YEAR: 2021

MODEL: H1000-WW

APPLICATION: Water-to-water heat pump

CAPACITY (HEAT):

900 kW (-4,5°C evaporator, 30/55°C hot water)

HEAT SOURCE: Ground source boreholes

COP: 3,58

