



**Richard Bent**  
**Sheffield District Energy Network**

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**Veolia Energy Recovery Facility**  
**Bernard Road Sheffield S4 7YX**

Responsible for commercial aspects of District Energy, including all new connections and heat supply agreements.

# The Energy Recovery Facility (ERF)



230,000 ton/annum municipal waste  
21 MWe steam turbine

Two heat exchangers 45MW and 15MW serving the district energy scheme



# District Energy System



- 42 MW thermal capacity from ERF with turbine on load.
- 86 MW thermal capacity of backup boilers for any ERF shutdowns
- Largest district energy system in the UK commenced in the 80's:
  - 149 connections (meter points)
  - Over 100,000 MWh energy sold 2017
- 45 KM of insulated pipework distributing hot water
- System operating pressure 11 Bar
- Water delivered at 110C
- Returned to the ERF at approximately 80C



- 99.92% Availability in 2018
- Carbon Intensity 0.1120 Kg CO<sub>2</sub> / kWh heat supplied
- Veolia has developed a comprehensive hydraulic model of the Sheffield Network.
- The model contains details of all connected demands based on annual HH Data and is used to assess new connections, network capacity and performance.
- Each connection request is evaluated and priced separately.

# The Sheffield District Energy Network



**Energy Recovery Facility**



# Existing Customers include....



- 2 Universities
- 4 Swimming Pools
- 3 Theatres
- 3 Art Galleries
- 2 Cinemas
- 1 Radio Station
- 1 Greenhouse
- 5 Hotels
- 21 Private Developments
- LA Housing
- LA Corporate Buildings



# Current Developments

## On the Pipeline And Radar Include :-



Heart of the City 2

Stokes Tiles / Fitzwilliam St

West Bar

Castle Gate

SHU Master Plan

This Is Sheffield City Plan

Sheaf Tower

MidCity House

Brownell Street

Attercliffe Waterside

Sylvester Street

Any others within commercial connection distance of the DE network



Thank you for your time.....  
any questions ?

Please don't hesitate to contact me to discuss and support your projects :-  
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