environmental services association

Energy from Waste (EfW) Heat Network Directory

Recovering energy from waste that would otherwise be destined for landfill is an essential part of the United Kingdom's waste management system. This is primarily achieved through thermal treatment where residual waste – the material left over after recycling – is combusted in specialist Energy-from-Waste (EfW) plants to generate heat, which in turn raises steam in a boiler that drives a turbine to produce electrical energy.

As of early 2021, there were 55 operational energy-from-waste plants in the UK and, between them, these facilities have the capacity to process 14 million tonnes of residual waste each year, while contributing nearly three per cent of the UK's total net electricity generation in 2020, or 7,762 GWh.

However, there is significant unrealised potential to extract not just electrical energy, but also heat energy from the majority of these facilities. Making the most of this heat could be critical to delivering cost-effective heat decarbonisation in the UK's urban areas.

The opportunity for heat decarbonisation

Heating buildings is the single largest source of greenhouse gas emissions in our energy system. If we are to reach net zero, it is imperative that the UK makes significant progress to decarbonise the generation of steam for industrial processes and heat for residential and commercial buildings during the 2020s and the 2030s.

However, decarbonising heat is a complex task. It is likely to require a patchwork of heat electrification, the use of zero carbon gases, such as hydrogen, and a greater

role for large-scale heat networks. With respect to the latter, the department for Business, Energy and Industry Strategy (BEIS) anticipates that low carbon heat networks will have to meet the heating and hot water demands of 1.5m homes by 2030 and 27.5TWh in non-residential buildings - up from about 420,000 domestic consumers and a total of just under 18TWh for total UK domestic and non-domestic generation today[1].

The Committee on Climate Change also modelled that the UK's heat supply from heat networks will have to grow from 3% to 18% by 2050.

Decarbonising at this scale will require major policy intervention from Government, alongside ambitious action from industry, and must start now.

Recovering energy from waste in the UK

Energy from Waste (EfW) plants have a clear role to play helping the United Kingdom meet these requirements. Although the UK currently has a fleet of more than 55 EfW plants, less than a quarter of them export the heat they generate, which is in stark contrast to plants in continental Europe where the vast majority export heat and electricity.

Utilising heat from UK plants would not only support heat decarbonisation but would also improve the efficiency of these plants in accordance with recent Government commitments in the Resources and Waste Strategy for England – while also maximising their contribution to achieving a sectoral target of net-zero GHG emissions by 2040.

The opportunity for the Energy from Waste sector

From a heat network perspective, EfW plants can provide large volumes of heat on a consistent basis relatively nearby to significant heating demand. Heat from EfW operations is likely to be one of the most cost-effective sources of low carbon heat for UK towns and cities and, given the high temperature of the Energy from Waste process, these plants are particularly well suited to meet the needs of all building types, even those that have not yet been subject to a full energy-efficiency retrofit.

Furthermore, the current energy crisis highlights the ability of EfW heat networks to protect users against energy price volatility, since the energy generated is produced as a by-product of long-term waste management contracts and is not therefore subject to the global market forces affecting other fuel sources.

The purpose of this Energy from Waste heat network directory

Delivering greater heat network offtake from these facilities will require collaboration between many different parties. To facilitate this collaboration the ESA has, for the first time, published a directory of individual EfW plants and their heat offtake potential, which we hope will form a useful platform to start discussions between parties. All of the available details for each of our participating members' plants is recorded below in this document. The ESA is happy to facilitate further discussions and to support where we can.

1 BEIS (2018) Special feature – Experimental statistics on heat networks, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/712370/Energy_Trends_article_on_heat_networks_revised.pdf

EFW Heat Network Directory

FCC – Allington

The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	08/12/2020

Operator

Organisation	FCC
Facility	Allington, Kent
Address	FCC Environment Laverstoke Road 20/20 Business Park ME16 0LE
Contact Details	
Name	Tony Stanbridge
Telephone No.	01622 697218
Email Address	**Tony.Stanbridge@fccenvironment.co.uk**

Owner/Organisational Structure

Company Structure
Not applicable
Corporate structure of EfW operation
Kent Enviropower Limited
Individuals involved and responsibilities
Steve Brown – Operations Director

Waste Source

When was the Plant Commissioned (Date)?	2008	
Remaining Concession Period	13	Years
Is the Concession Renewable?	Depends on negotiations	Yes/No

Quantity of Heat Available

Annually	11477910	MWh_th
Daily	3145	MWh_th
Minimum Output		MWth
Maximum Output (Peak)	156	MWth
Heat Plant Annual Availability	84	%
Heat Availability Guaranteed	No	Yes/No
What would be the max efficiency the plant can achieve with max heat export?		%
Is thermal back-up plant available?	No	Yes/No
If “Yes” to above how much (Peak)?	Not applicable	MWth
What is the backup plant’s fuel source?	Fuel Oil	
If “No” to above, is space available onsite to build backup plant facility?	No	Yes/No
Are you already supplying heat to a heat off-take customer?	No	Yes/No
If “yes” confirm capacity	Not applicable	MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Steam	
Maximum Supply Temperature	435	°C
Minimum Supply Temperature		°C
Supply Pressure	68	BarG
Maximum Condensate Return Temperature		°C
Minimum Condensate Return Temperature		°C
Condensate System Operating Pressure	4	BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)		
Maximum Supply Temperature		°C
Minimum Supply Temperature		°C
Maximum Return Temperature		°C
Minimum Return Temperature		°C
System Operating Pressure		BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If “Yes” how much electricity will be lost annually?	Depends on the contract	MWe
Electricity Carbon Factor (Calculation as defined in SAP)		kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)		kgCO2/kWh

EFW Heat Network Directory

Viridor – Ardley ERF

The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	16/10/2020

Operator

Organisation	Viridor
Facility	Ardley ERF
Address	Middleton Stoney Road Ardley Bicester OX27 7AA
Contact Details	
Name	Paul Wynne
Telephone No.	07876 356 502
Email Address	**pwynne@viridor.co.uk**

Owner/Organisational Structure

Company Structure
Wholly owned
Corporate structure of EfW operation
Owner / local council
Individuals involved and responsibilities
Awaiting info...

Waste Source

When was the Plant Commissioned (Date)?	2014	
Remaining Concession Period		Years
Is the Concession Renewable?		Yes/No

Quantity of Heat Available

Annually	957	MWh_th
Daily	288	MWh_th
Minimum Output	0	MWth
Maximum Output (Peak)	12	MWth
Heat Plant Annual Availability	91	%
Heat Availability Guaranteed	TBC	Yes/No
What would be the max efficiency the plant can achieve with max heat export?	10.7	%
Is thermal back-up plant available?	No	Yes/No
If “Yes” to above how much (Peak)?	Not applicable	MWth
What is the backup plant’s fuel source?	Not applicable	
If “No” to above, is space available onsite to build backup plant facility?	Yes	Yes/No
Are you already supplying heat to a heat off-take customer?	No	Yes/No
If “yes” confirm capacity	Not applicable	MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Steam	
Maximum Supply Temperature	150	°C
Minimum Supply Temperature	130	°C
Supply Pressure	3.7	BarG
Maximum Condensate Return Temperature	60	°C
Minimum Condensate Return Temperature	40	°C
Condensate System Operating Pressure	-0.9329	BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)	Not applicable	
Maximum Supply Temperature	Not applicable	°C
Minimum Supply Temperature	Not applicable	°C
Maximum Return Temperature	Not applicable	°C
Minimum Return Temperature	Not applicable	°C
System Operating Pressure	Not applicable	BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If “Yes” how much electricity will be lost annually?	2.11	MWe
Electricity Carbon Factor (Calculation as defined in SAP)	0.519	kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)	0.096	kgCO2/kWh

EFW Heat Network Directory

Viridor – Avonmouth ERF

The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	16/10/2020

Operator

Organisation	Viridor
Facility	Avonmouth ERF
Address	Severn Road Chittening Somerset BS11 0YU
Contact Details	
Name	Paul Wynne
Telephone No.	07876 356 502
Email Address	**pwynne@viridor.co.uk**

Owner/Organisational Structure

Company Structure
Wholly owned
Corporate structure of EfW operation
Owner
Individuals involved and responsibilities
Awaiting info...

Waste Source

When was the Plant Commissioned (Date)?	2020	
Remaining Concession Period		Years
Is the Concession Renewable?		Yes/No

Quantity of Heat Available

Annually	155,446	MWh_th
Daily	468	MWh_th
Minimum Output	0	MWth
Maximum Output (Peak)	19.5	MWth
Heat Plant Annual Availability	91	%
Heat Availability Guaranteed	TBC	Yes/No
What would be the max efficiency the plant can achieve with max heat export?	17.7	%
Is thermal back-up plant available?	No	Yes/No
If “Yes” to above how much (Peak)?	Not applicable	MWth
What is the backup plant’s fuel source?	Not applicable	
If “No” to above, is space available onsite to build backup plant facility?	Yes	Yes/No
Are you already supplying heat to a heat off-take customer?	No	Yes/No
If “yes” confirm capacity	Not applicable	MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Steam	
Maximum Supply Temperature	138	°C
Minimum Supply Temperature	118	°C
Supply Pressure	3.7	BarG
Maximum Condensate Return Temperature	100	°C
Minimum Condensate Return Temperature	80	°C
Condensate System Operating Pressure	1.3	BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)	Not applicable	
Maximum Supply Temperature	Not applicable	°C
Minimum Supply Temperature	Not applicable	°C
Maximum Return Temperature	Not applicable	°C
Minimum Return Temperature	Not applicable	°C
System Operating Pressure	Not applicable	BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If “Yes” how much electricity will be lost annually?	3.0	MWe
Electricity Carbon Factor (Calculation as defined in SAP)	0.519	kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)	0.085	kgCO2/kWh

environmental services association

EFW Heat Network Directory

Veolia – Battlefield ERF

VEOLIA

The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	01/10/2020

Operator

Organisation	Veolia UK
Facility	Battlefield Energy Recovery Facility
Address	Vanguard Way Shrewsbury SY1 3TG
Contact Details	
Name	Rob Foster
Telephone No.	0203 567 4623
Email Address	**robert.foster@veolia.com**

Owner/Organisational Structure

Company Structure
Corporate structure of EfW operation
Operated by Veolia under contract with Shropshire Council
Individuals involved and responsibilities

Waste Source

When was the Plant Commissioned (Date)?	2015	
Remaining Concession Period	19	Years
Is the Concession Renewable?	Yes	Yes/No

Quantity of Heat Available

Annually	Not Applicable	MWh_th
Daily	Not Applicable	MWh_th
Minimum Output	0	MWth
Maximum Output (Peak)	15	MWth
Heat Plant Annual Availability	94.9	%
Heat Availability Guaranteed	No	Yes/No
What would be the max efficiency the plant can achieve with max heat export?		%
Is thermal back-up plant available?	No	Yes/No
If “Yes” to above how much (Peak)?	Not applicable	MWth
What is the backup plant’s fuel source?	Not applicable	
If “No” to above, is space available onsite to build backup plant facility?	TBC	Yes/No
Are you already supplying heat to a heat off-take customer?	No	Yes/No
If “yes” confirm capacity	Not applicable	MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Steam	
Maximum Supply Temperature		°C
Minimum Supply Temperature		°C
Supply Pressure		BarG
Maximum Condensate Return Temperature		°C
Minimum Condensate Return Temperature		°C
Condensate System Operating Pressure		BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)	Not applicable	
Maximum Supply Temperature		°C
Minimum Supply Temperature		°C
Maximum Return Temperature		°C
Minimum Return Temperature		°C
System Operating Pressure		BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If “Yes” how much electricity will be lost annually?	TBC depending on load.	MWe
Electricity Carbon Factor (Calculation as defined in SAP)	TBC	kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)	TBC	kgCO2/kWh

EFW Heat Network Directory

Viridor – Beddington ERF

The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	16/10/2020

Operator

Organisation	Viridor
Facility	Beddington ERF
Address	105 Beddington Line Beddington London CR0 4TD
Contact Details	
Name	Paul Wynne
Telephone No.	07876 356 502
Email Address	**pwynne@viridor.co.uk**

Owner/Organisational Structure

Company Structure
Wholly owned
Corporate structure of EfW operation
Owner / local council
Individuals involved and responsibilities
Awaiting info...

Waste Source

When was the Plant Commissioned (Date)?	2018	
Remaining Concession Period		Years
Is the Concession Renewable?		Yes/No

Quantity of Heat Available

Annually	119,574	MWh_th
Daily	360	MWh_th
Minimum Output	0	MWth
Maximum Output (Peak)	15	MWth
Heat Plant Annual Availability	91	%
Heat Availability Guaranteed	TBC	Yes/No
What would be the max efficiency the plant can achieve with max heat export?	15.8	%
Is thermal back-up plant available?	No	Yes/No
If “Yes” to above how much (Peak)?	Not applicable	MWth
What is the backup plant’s fuel source?	Not applicable	
If “No” to above, is space available onsite to build backup plant facility?	Unknown	Yes/No
Are you already supplying heat to a heat off-take customer?	No	Yes/No
If “yes” confirm capacity	Not applicable	MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Steam	
Maximum Supply Temperature	144	°C
Minimum Supply Temperature	124	°C
Supply Pressure	3.1	BarG
Maximum Condensate Return Temperature	60	°C
Minimum Condensate Return Temperature	40	°C
Condensate System Operating Pressure	-0.93	BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)	Not applicable	
Maximum Supply Temperature	Not applicable	°C
Minimum Supply Temperature	Not applicable	°C
Maximum Return Temperature	Not applicable	°C
Minimum Return Temperature	Not applicable	°C
System Operating Pressure	Not applicable	BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If “Yes” how much electricity will be lost annually?	2.5	MWe
Electricity Carbon Factor (Calculation as defined in SAP)	0.519	kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)	0.092	kgCO2/kWh

EFW Heat Network Directory

Viridor – Cardiff ERF

The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	16/10/2020

Operator

Organisation	Viridor
Facility	Cardiff ERF
Address	Trident Park Glass Avenue Cardiff Glamorgan CF24 5EN
Contact Details	
Name	Paul Wynne
Telephone No.	07876 356 502
Email Address	**pwynne@viridor.co.uk**

Owner/Organisational Structure

Company Structure
Wholly owned
Corporate structure of EfW operation
Owner / local council
Individuals involved and responsibilities
Awaiting info...

Waste Source

When was the Plant Commissioned (Date)?	2015	
Remaining Concession Period		Years
Is the Concession Renewable?		Yes/No

Quantity of Heat Available

Annually	119,574	MWh_th
Daily	360	MWh_th
Minimum Output	0	MWth
Maximum Output (Peak)	15	MWth
Heat Plant Annual Availability	91	%
Heat Availability Guaranteed	TBC	Yes/No
What would be the max efficiency the plant can achieve with max heat export?	12.4	%
Is thermal back-up plant available?	No	Yes/No
If “Yes” to above how much (Peak)?	Not applicable	MWth
What is the backup plant’s fuel source?	Not applicable	
If “No” to above, is space available onsite to build backup plant facility?	Yes	Yes/No
Are you already supplying heat to a heat off-take customer?	No	Yes/No
If “yes” confirm capacity	Not applicable	MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Steam	
Maximum Supply Temperature	116	°C
Minimum Supply Temperature	96	°C
Supply Pressure	0.91	BarG
Maximum Condensate Return Temperature	60	°C
Minimum Condensate Return Temperature	40	°C
Condensate System Operating Pressure	-0.93	BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)	Not applicable	
Maximum Supply Temperature	Not applicable	°C
Minimum Supply Temperature	Not applicable	°C
Maximum Return Temperature	Not applicable	°C
Minimum Return Temperature	Not applicable	°C
System Operating Pressure	Not applicable	BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If “Yes” how much electricity will be lost annually?	1.2	MWe
Electricity Carbon Factor (Calculation as defined in SAP)	0.519	kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)	0.046	kgCO2/kWh

EFW Heat Network Directory

Veolia – Chineham ERF

The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	01/10/2020

Operator

Organisation	Veolia UK
Facility	Integra North - Chineham ERF
Address	Whitmarsh Ln Chineham Basingstoke RG24 8LL
Contact Details	
Name	Andy MacQueen
Telephone No.	
Email Address	**andy.macqueen@veolia.com**

Owner/Organisational Structure

Company Structure
Corporate structure of EfW operation
Operated by Veolia under contract with Hampshire County Council, Southampton City Council and Portsmouth City Council
Individuals involved and responsibilities
Neil Brothers - Head of ERF Operations South

Waste Source

When was the Plant Commissioned (Date)?	2004	
Remaining Concession Period	10	Years
Is the Concession Renewable?		Yes/No

Quantity of Heat Available

Annually		MWh_th
Daily	48	MWh_th
Minimum Output		MWth
Maximum Output (Peak)	15	MWth
Heat Plant Annual Availability	92.2	%
Heat Availability Guaranteed	No	Yes/No
What would be the max efficiency the plant can achieve with max heat export?		%
Is thermal back-up plant available?	No	Yes/No
If “Yes” to above how much (Peak)?	Not Applicable	MWth
What is the backup plant’s fuel source?	Not Applicable	
If “No” to above, is space available onsite to build backup plant facility?	No	Yes/No
Are you already supplying heat to a heat off-take customer?	No	Yes/No
If “yes” confirm capacity	Not applicable	MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Steam	
Maximum Supply Temperature		°C
Minimum Supply Temperature		°C
Supply Pressure		BarG
Maximum Condensate Return Temperature		°C
Minimum Condensate Return Temperature		°C
Condensate System Operating Pressure		BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)	Not applicable	
Maximum Supply Temperature		°C
Minimum Supply Temperature		°C
Maximum Return Temperature		°C
Minimum Return Temperature		°C
System Operating Pressure		BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If “Yes” how much electricity will be lost annually?	TBC depending on load.	MWe
Electricity Carbon Factor (Calculation as defined in SAP)	TBC	kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)	TBC	kgCO2/kWh

environmental services association

EFW Heat Network Directory

SUEZ – Cornwall ERC

The operator will review this document every 2 years at a minimum to capture changing data over time.

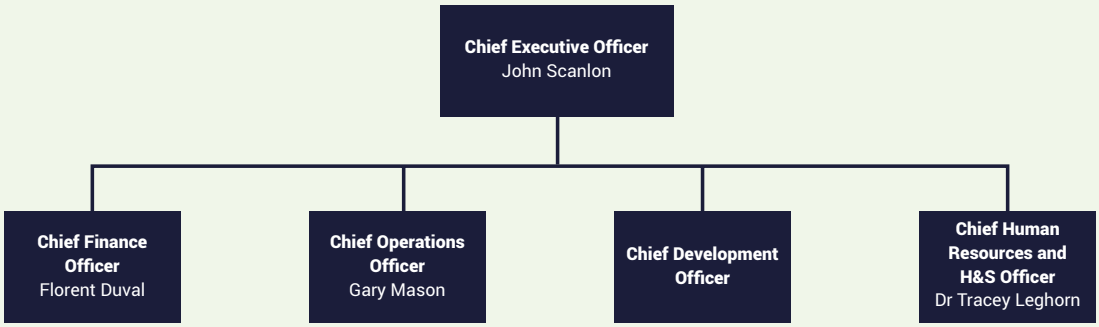
Date of completion of the Directory	15/01/2021

Operator

Organisation	SUEZ Recycling & Recovery UK
Facility	Cornwall Energy Recovery Centre
Address	St Dennis Saint Austell Cornwall PL26 8DY
Contact Details	
Name	Allan Chapman
Telephone No.	01726 878866
Email Address	**Allan.chapman@suez.com**

Owner/Organisational Structure

Company Structure



Corporate structure of EfW operation

SPV with O&M contract in place

Individuals involved and responsibilities

Gary Mayson, COO, SUEZ

Tim Otley, Regional Director Energy South, SUEZ

Tony Burge, Plant Manager, SUEZ

Waste Source

When was the Plant Commissioned (Date)?	2017	
Remaining Concession Period	22	Years
Is the Concession Renewable?	Yes	Yes/No

Quantity of Heat Available

Annually	41620	MWh_th
Daily	139.2	MWh_th
Minimum Output	0	MWth
Maximum Output (Peak)	5.8	MWth
Heat Plant Annual Availability	81.9	%
Heat Availability Guaranteed	No	Yes/No
What would be the max efficiency the plant can achieve with max heat export?	25	%
Is thermal back-up plant available?	No	Yes/No
If “Yes” to above how much (Peak)?	Not applicable	MWth
What is the backup plant’s fuel source?	Not applicable	

If "No" to above, is space available onsite to build backup plant facility?	No	Yes/No
Are you already supplying heat to a heat off-take customer?	No	Yes/No
If "yes" confirm capacity	Not applicable	MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Steam	
Maximum Supply Temperature	171	°C
Minimum Supply Temperature	171	°C
Supply Pressure	6.7	BarG
Maximum Condensate Return Temperature	110	°C
Minimum Condensate Return Temperature	46	°C
Condensate System Operating Pressure	3.8	BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)		
Maximum Supply Temperature	Not applicable	°C
Minimum Supply Temperature	Not applicable	°C
Maximum Return Temperature	Not applicable	°C
Minimum Return Temperature	Not applicable	°C
System Operating Pressure	Not applicable	BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If "Yes" how much electricity will be lost annually?	35162	MWe
Electricity Carbon Factor (Calculation as defined in SAP)	0.557 (SUEZ EfW average)	kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)	Not applicable	kgCO2/kWh

EFW Heat Network Directory

CSWDC – Coventry ERF

Recovering Energy from Waste

The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	16/10/2020

Operator

Organisation	CSWDC Coventry and Solihull Waste Disposal Company
Facility	Coventry EFW
Address	Coventry and Solihull Waste Disposal Company Bar Road Coventry CV3 4 AN
Contact Details	
Name	Elaine Price, Compliance and Performance Manager
Telephone No.	024 7650 7400
Email Address	**info@cswdc.co.uk**

Owner/Organisational Structure

Company Structure

The Coventry & Solihull Waste Disposal Company (CSWDC) is an independent waste management company and our main business is extracting energy (heat and electrical power) from municipal and commercial solid waste. Based to the south of the city, we have been operating in Coventry since 1975.

CSWDC also operates a Household Waste Recycling Centre on behalf of Coventry City Council, where residents in the city are able to bring their household waste for recycling and disposal. See organisational chart below.

Heat from burning waste produces steam in the boilers at 17.5 bar pressure and 208°C. The steam feeds two steam turbine generators, producing 12.9MW. and 4.8MW of electricity for internal power needs and export to the National Grid.

CSWDC provides heat to the **Coventry District Energy Company (CDEC) – Engie** who operate the scheme that provides heat via a 6.6km network of buried pipes to consumers in the city centre, delivering significant carbon savings. More than 44MW of energy-from-waste capacity. 77MW of total plant thermal capacity. Incorporates a 600,000-litre thermal storage vessel for additional resilience. Gives customers a carbon saving of approximately 89% compared with a conventional stand-alone gas-fired system. Could save up to 25,000 tonnes of carbon if the system's full capacity is utilised.

Please see Engie website for further details –
www.engie.co.uk/energy/district-energy/coventry

Engie Contacts:

Ian Weeks
Combustion engineer (CDEC)
ian.weeks@engie.com

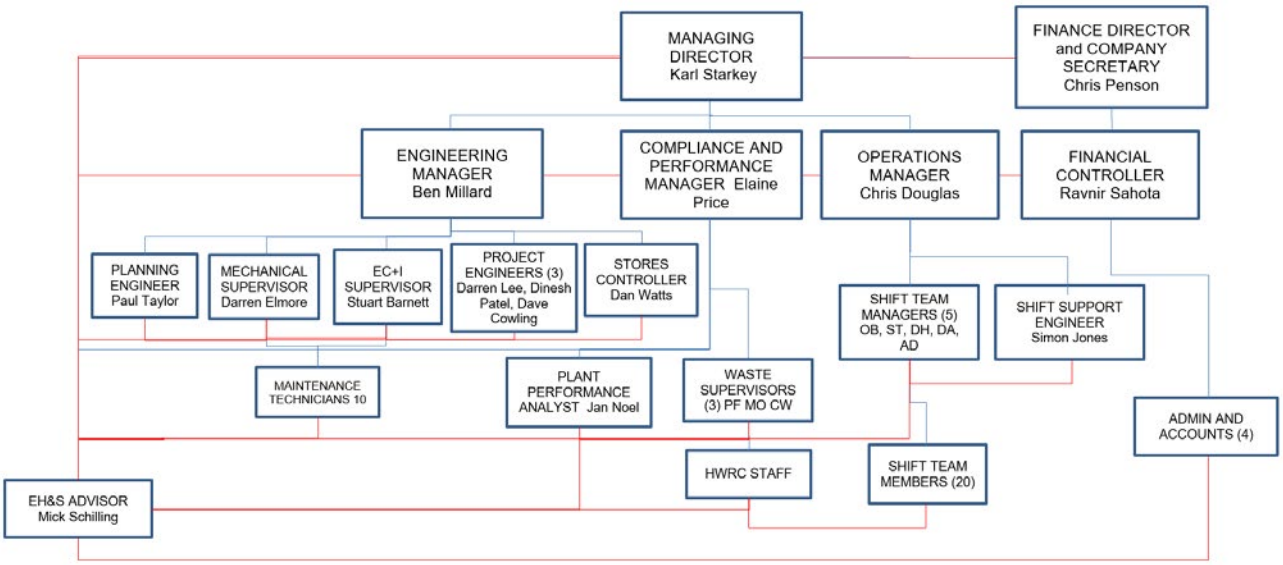
Clive Montgomery
Operations Manager – Birmingham & Coventry District Energy
clive.montgomery@engie.com

Corporate structure of EfW operation

We are an independent single site company.

CSWDC's Shareholders are Coventry City Council (**coventry.gov.uk**), Solihull Metropolitan Borough Council (**solihull.gov.uk**), Warwickshire County Council (**warwickshire.gov.uk**) and Leicestershire County Council (**leicestershire.gov.uk**).

Individuals involved and responsibilities



CSWDC contacts:

Karl Starkey
Managing Director
info@cswdc.co.uk

Chris Penson
Finance Director
info@cswdc.co.uk

Ben Millard
Engineering Manager
info@cswdc.co.uk

Chris Douglas
Operations Manager
info@cswdc.co.uk

Ranvir Sahota
Financial Controller
info@cswdc.co.uk

Waste Source

When was the Plant Commissioned (Date)?	Operating since 1975	
Remaining Concession Period	March 31st 2041	Years
Is the Concession Renewable?	Not existing plant	Yes/No

Quantity of Heat Available

Annually	12600 used in current network not full capacity of steam that is available	MWh_th
Daily	34.5 used in current network not full capacity of steam that is available	MWh_th
Minimum Output	0	MWth
Maximum Output (Peak)	12	MWth
Heat Plant Annual Availability	100	%
Heat Availability Guaranteed	Yes	Yes/No
What would be the max efficiency the plant can achieve with max heat export?	n/a	%
Is thermal back-up plant available?	Hired in boilers – Yes	Yes/No
If "Yes" to above how much (Peak)?	12	MWth
What is the backup plant's fuel source?	Natural Gas	
If "No" to above, is space available onsite to build backup plant facility?		Yes/No
Are you already supplying heat to a heat off-take customer?	Yes	Yes/No
If "yes" confirm capacity	As above currently what's used in current scheme – more steam is available	MWth

System Parameters – (data supplied from Engie)

Primary Circuit		
Medium (Select one.)	MTHW, Condensate, Steam	
Maximum Supply Temperature	120	°C
Minimum Supply Temperature	112	°C
Supply Pressure	5	BarG
Maximum Condensate Return Temperature	95	°C
Minimum Condensate Return Temperature	85	°C
Condensate System Operating Pressure	1.5	BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)	LTHW City DHN	
Maximum Supply Temperature	95	°C
Minimum Supply Temperature	90	°C
Maximum Return Temperature	70	°C
Minimum Return Temperature	55	°C
System Operating Pressure	3	BarG
Will the heat provided be sacrificial to electricity generation?	No	Yes/No
If “Yes” how much electricity will be lost annually?		MWe
Electricity Carbon Factor (Calculation as defined in SAP)	0.519	kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)	0.058	kgCO2/kWh

EFW Heat Network Directory

FCC – Dudley EfW

The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	10/12/2020

Operator

Organisation	MES Environmental Limited
Facility	Dudley EfW
Address	Lister Road Dudley DY2 8JW
Contact Details	
Name	Stefano Danieli
Telephone No.	01902 352864
Email Address	**mes@mesenvironmental.co.uk**

Owner/Organisational Structure

Company Structure
Limited Company
Corporate structure of EfW operation
Owner City of Dudley Metropolitan Borough Council via PFI with Dudley Waste Services Limited with an O&M Contract with MES Environmental Limited
Individuals involved and responsibilities

Waste Source

When was the Plant Commissioned (Date)?	14th February 1998	
Remaining Concession Period	2	Years
Is the Concession Renewable?	Yes	Yes/No

Quantity of Heat Available

Annually	0	MWh_th
Daily		MWh_th
Minimum Output		MWth
Maximum Output (Peak)		MWth
Heat Plant Annual Availability	0	%
Heat Availability Guaranteed	0	Yes/No
What would be the max efficiency the plant can achieve with max heat export?	0	%
Is thermal back-up plant available?	No	Yes/No
If “Yes” to above how much (Peak)?		MWth
What is the backup plant’s fuel source?		
If “No” to above, is space available onsite to build backup plant facility?	No	Yes/No
Are you already supplying heat to a heat off-take customer?	No	Yes/No
If “yes” confirm capacity		MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Steam	
Maximum Supply Temperature	355	°C
Minimum Supply Temperature	355	°C
Supply Pressure	44	BarG
Maximum Condensate Return Temperature	55	°C
Minimum Condensate Return Temperature	25	°C
Condensate System Operating Pressure	-1	BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)		
Maximum Supply Temperature		°C
Minimum Supply Temperature		°C
Maximum Return Temperature		°C
Minimum Return Temperature		°C
System Operating Pressure		BarG
Will the heat provided be sacrificial to electricity generation?		Yes/No
If “Yes” how much electricity will be lost annually?		MWe
Electricity Carbon Factor (Calculation as defined in SAP)		kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)		kgCO2/kWh

EFW Heat Network Directory

Viridor – Dunbar ERF

The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	16/10/2020

Operator

Organisation	Viridor
Facility	Dunbar ERF
Address	Oxwell Mains Dunbar East Lothian EH42 1SW
Contact Details	
Name	Paul Wynne
Telephone No.	07876 356 502
Email Address	**pwynne@viridor.co.uk**

Owner/Organisational Structure

Company Structure
Wholly owned
Corporate structure of EfW operation
Owner
Individuals involved and responsibilities
Awaiting info...

Waste Source

When was the Plant Commissioned (Date)?	2019	
Remaining Concession Period		Years
Is the Concession Renewable?		Yes/No

Quantity of Heat Available

Annually	135,517	MWh_th
Daily	408	MWh_th
Minimum Output	0	MWth
Maximum Output (Peak)	17	MWth
Heat Plant Annual Availability	91	%
Heat Availability Guaranteed	TBC	Yes/No
What would be the max efficiency the plant can achieve with max heat export?	16.4	%
Is thermal back-up plant available?	No	Yes/No
If “Yes” to above how much (Peak)?	Not applicable	MWth
What is the backup plant’s fuel source?	Not applicable	
If “No” to above, is space available onsite to build backup plant facility?	Unknown	Yes/No
Are you already supplying heat to a heat off-take customer?	No	Yes/No
If “yes” confirm capacity	Not applicable	MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Steam	
Maximum Supply Temperature	252	°C
Minimum Supply Temperature	88	°C
Supply Pressure	1.12	BarG
Maximum Condensate Return Temperature	40	°C
Minimum Condensate Return Temperature	20	°C
Condensate System Operating Pressure	-0.93	BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)	Not applicable	
Maximum Supply Temperature	Not applicable	°C
Minimum Supply Temperature	Not applicable	°C
Maximum Return Temperature	Not applicable	°C
Minimum Return Temperature	Not applicable	°C
System Operating Pressure	Not applicable	BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If “Yes” how much electricity will be lost annually?	2.58	MWe
Electricity Carbon Factor (Calculation as defined in SAP)	0.519	kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)	0.084	kgCO2/kWh

EFW Heat Network Directory

FCC – Eastcroft EfW

The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	08/12/2020

Operator

Organisation	FCC Environment Limited
Facility	Eastcroft EfW
Address	Incinerator Road Off Meadow Lane Nottingham Nottinghamshire NG2 3JH
Contact Details	
Name	Tony Cox
Telephone No.	0756 220 8315
Email Address	**Tony.cox@fccenvironment.co.uk**

Owner/Organisational Structure

Company Structure
Not applicable
Corporate structure of EfW operation
WasteNotts Reclamation Limited
Individuals involved and responsibilities
Steve Brown – Operations Director

Waste Source

When was the Plant Commissioned (Date)?	1972	
Remaining Concession Period	10	Years
Is the Concession Renewable?	Yes	Yes/No

Quantity of Heat Available

Annually	505,500	MWh_th
Daily	1500	MWh_th
Minimum Output	0	MWth
Maximum Output (Peak)	1600	MWth
Heat Plant Annual Availability	90	%
Heat Availability Guaranteed	No	Yes/No
What would be the max efficiency the plant can achieve with max heat export?	13.5	%
Is thermal back-up plant available?	Yes	Yes/No
If “Yes” to above how much (Peak)?		MWth
What is the backup plant’s fuel source?	Natural Gas	
If “No” to above, is space available onsite to build backup plant facility?		Yes/No
Are you already supplying heat to a heat off-take customer?	Yes	Yes/No
If “yes” confirm capacity	980 per day	MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Condensate	
Maximum Supply Temperature	150	°C
Minimum Supply Temperature	90	°C
Supply Pressure	9	BarG
Maximum Condensate Return Temperature	100	°C
Minimum Condensate Return Temperature	70	°C
Condensate System Operating Pressure	9	BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)		
Maximum Supply Temperature	78	°C
Minimum Supply Temperature	70	°C
Maximum Return Temperature	135	°C
Minimum Return Temperature	50	°C
System Operating Pressure	6	BarG
Will the heat provided be sacrificial to electricity generation?	No	Yes/No
If “Yes” how much electricity will be lost annually?		MWe
Electricity Carbon Factor (Calculation as defined in SAP)	Not applicable	kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)	Not applicable	kgCO2/kWh

environmental services association

EFW Heat Network Directory

Viridor – Exeter ERF

Viridor

The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	16/10/2020

Operator

Organisation	Viridor
Facility	Exeter ERF
Address	Grace Road South Exeter EX2 8QE
Contact Details	
Name	Paul Wynne
Telephone No.	07876 356 502
Email Address	**pwynne@viridor.co.uk**

Owner/Organisational Structure

Company Structure
Wholly owned
Corporate structure of EfW operation
Owner / local council
Individuals involved and responsibilities
Awaiting info...

Waste Source

When was the Plant Commissioned (Date)?	2014	
Remaining Concession Period		Years
Is the Concession Renewable?		Yes/No

Quantity of Heat Available

Annually	55,801	MWh_th
Daily	168	MWh_th
Minimum Output	0	MWth
Maximum Output (Peak)	7	MWth
Heat Plant Annual Availability	91	%
Heat Availability Guaranteed	TBC	Yes/No
What would be the max efficiency the plant can achieve with max heat export?	33.8	%
Is thermal back-up plant available?	No	Yes/No
If “Yes” to above how much (Peak)?	Not applicable	MWth
What is the backup plant’s fuel source?	Not applicable	
If “No” to above, is space available onsite to build backup plant facility?	Unknown	Yes/No
Are you already supplying heat to a heat off-take customer?	No	Yes/No
If “yes” confirm capacity	Not applicable	MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Steam	
Maximum Supply Temperature	147	°C
Minimum Supply Temperature	127	°C
Supply Pressure	3.7	BarG
Maximum Condensate Return Temperature	40	°C
Minimum Condensate Return Temperature	20	°C
Condensate System Operating Pressure	-0.90	BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)	Not applicable	
Maximum Supply Temperature	Not applicable	°C
Minimum Supply Temperature	Not applicable	°C
Maximum Return Temperature	Not applicable	°C
Minimum Return Temperature	Not applicable	°C
System Operating Pressure	Not applicable	BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If “Yes” how much electricity will be lost annually?	1.56	MWe
Electricity Carbon Factor (Calculation as defined in SAP)	0.519	kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)	0.120	kgCO2/kWh

environmental services association

EFW Heat Network Directory

Enfinium – Ferrybridge FM1

enfinium

The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	30/10/2020

Operator

Organisation	Enfinium
Facility	Ferrybridge FM1
Address	Kirkhaw Lane Knottingley West Yorkshire WF11 8DX
Contact Details	
Name	Matt Hardy
Telephone No.	01977 636708
Email Address	**matt.hardy@multifuelenergy.com**

Owner/Organisational Structure

Company Structure
Joint Venture
Corporate structure of EfW operation
Board, Management Team
Individuals involved and responsibilities
Matt Hardy, Commercial Manager

Waste Source

When was the Plant Commissioned (Date)?	July 2015	
Remaining Concession Period	Not applicable	Years
Is the Concession Renewable?	Not applicable	Yes/No

Quantity of Heat Available

Annually	320,000	MWh_th
Daily	960	MWh_th
Minimum Output	0	MWth
Maximum Output (Peak)	40	MWth
Heat Plant Annual Availability	94	%
Heat Availability Guaranteed	Yes (up to 20MWth)	Yes/No
What would be the max efficiency the plant can achieve with max heat export?	48	%
Is thermal back-up plant available?	No	Yes/No
If “Yes” to above how much (Peak)?		MWth
What is the backup plant’s fuel source?		
If “No” to above, is space available onsite to build backup plant facility?	Yes	Yes/No
Are you already supplying heat to a heat off-take customer?	No	Yes/No
If “yes” confirm capacity		MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Steam	
Maximum Supply Temperature	210	°C
Minimum Supply Temperature	100	°C
Supply Pressure	12	BarG
Maximum Condensate Return Temperature	Not specified	°C
Minimum Condensate Return Temperature	Not specified	°C
Condensate System Operating Pressure	Not specified	BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)		
Maximum Supply Temperature		°C
Minimum Supply Temperature		°C
Maximum Return Temperature		°C
Minimum Return Temperature		°C
System Operating Pressure		BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If “Yes” how much electricity will be lost annually?	60,000	MWe
Electricity Carbon Factor (Calculation as defined in SAP)		kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)		kgCO2/kWh

environmental services association

EFW Heat Network Directory

Enfinium – Ferrybridge FM2

enfinium

The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	30/10/2020

Operator

Organisation	Enfinium
Facility	Ferrybridge FM2
Address	Kirkhaw Lane Knottingley West Yorkshire WF11 8DX
Contact Details	
Name	Matt Hardy
Telephone No.	01977 636708
Email Address	**matt.hardy@multifuelenergy.com**

Owner/Organisational Structure

Company Structure
Joint Venture
Corporate structure of EfW operation
Board, Management Team
Individuals involved and responsibilities
Matt Hardy, Commercial Manager

Waste Source

When was the Plant Commissioned (Date)?	July 2015	
Remaining Concession Period	Not applicable	Years
Is the Concession Renewable?	Not applicable	Yes/No

Quantity of Heat Available

Annually	320,000	MWh_th
Daily	960	MWh_th
Minimum Output	0	MWth
Maximum Output (Peak)	40	MWth
Heat Plant Annual Availability	94	%
Heat Availability Guaranteed	Yes (up to 20MWth)	Yes/No
What would be the max efficiency the plant can achieve with max heat export?	48	%
Is thermal back-up plant available?	No	Yes/No
If “Yes” to above how much (Peak)?		MWth
What is the backup plant’s fuel source?		
If “No” to above, is space available onsite to build backup plant facility?	Yes	Yes/No
Are you already supplying heat to a heat off-take customer?	No	Yes/No
If “yes” confirm capacity		MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Steam	
Maximum Supply Temperature	210	°C
Minimum Supply Temperature	100	°C
Supply Pressure	12	BarG
Maximum Condensate Return Temperature	Not specified	°C
Minimum Condensate Return Temperature	Not specified	°C
Condensate System Operating Pressure	Not specified	BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)		
Maximum Supply Temperature		°C
Minimum Supply Temperature		°C
Maximum Return Temperature		°C
Minimum Return Temperature		°C
System Operating Pressure		BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If “Yes” how much electricity will be lost annually?	60,000	MWe
Electricity Carbon Factor (Calculation as defined in SAP)		kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)		kgCO2/kWh

environmental services association

EFW Heat Network Directory

Viridor – Glasgow ERF

Viridor

The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	16/10/2020

Operator

Organisation	Viridor
Facility	Glasgow RREC
Address	425 Polmadie Road Glasgow Scotland G42 0PJ
Contact Details	
Name	Paul Wynne
Telephone No.	07876 356 502
Email Address	**pwynne@viridor.co.uk**

Owner/Organisational Structure

Company Structure
Wholly owned
Corporate structure of EfW operation
Owner / local council
Individuals involved and responsibilities
Awaiting info...

Waste Source

When was the Plant Commissioned (Date)?	2019	
Remaining Concession Period		Years
Is the Concession Renewable?		Yes/No

Quantity of Heat Available

Annually	119,574	MWh_th
Daily	360	MWh_th
Minimum Output	0	MWth
Maximum Output (Peak)	15	MWth
Heat Plant Annual Availability	91	%
Heat Availability Guaranteed	TBC	Yes/No
What would be the max efficiency the plant can achieve with max heat export?	27.9	%
Is thermal back-up plant available?	No	Yes/No
If “Yes” to above how much (Peak)?	Not applicable	MWth
What is the backup plant’s fuel source?	Not applicable	
If “No” to above, is space available onsite to build backup plant facility?	Yes	Yes/No
Are you already supplying heat to a heat off-take customer?	No	Yes/No
If “yes” confirm capacity	Not applicable	MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Steam	
Maximum Supply Temperature	170	°C
Minimum Supply Temperature	150	°C
Supply Pressure	2	BarG
Maximum Condensate Return Temperature	60	°C
Minimum Condensate Return Temperature	40	°C
Condensate System Operating Pressure	-0.93	BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)	Not applicable	
Maximum Supply Temperature	Not applicable	°C
Minimum Supply Temperature	Not applicable	°C
Maximum Return Temperature	Not applicable	°C
Minimum Return Temperature	Not applicable	°C
System Operating Pressure	Not applicable	BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If “Yes” how much electricity will be lost annually?	2.51	MWe
Electricity Carbon Factor (Calculation as defined in SAP)	0.519	kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)	0.092	kgCO2/kWh

EFW Heat Network Directory

FCC – Greatmoor EfW

The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	08/12/2020

Operator

Organisation	FCC Environment (Greatmoor) Limited
Facility	Greatmoor EfW
Address	Greatmoor Road Woodham Aylesbury HP18 0AF
Contact Details	
Name	Paula Alvarez
Telephone No.	01296 323630
Email Address	**Paula.alvarez@fccenvironment.co.uk**

Owner/Organisational Structure

Company Structure
Not applicable
Corporate structure of EfW operation
FCC Buckinghamshire Limited
Individuals involved and responsibilities
Steve Brown – Operations Director

Waste Source

When was the Plant Commissioned (Date)?	January 2016	
Remaining Concession Period	25	Years
Is the Concession Renewable?	Yes/No	Yes/No

Quantity of Heat Available

Annually	891,768	MWh_th
Daily	2443.2	MWh_th
Minimum Output	10 (est)	MWth
Maximum Output (Peak)	101.8	MWth
Heat Plant Annual Availability	90	%
Heat Availability Guaranteed	No	Yes/No
What would be the max efficiency the plant can achieve with max heat export?	Unknown	%
Is thermal back-up plant available?	No	Yes/No
If “Yes” to above how much (Peak)?	Not applicable	MWth
What is the backup plant’s fuel source?	Not applicable	
If “No” to above, is space available onsite to build backup plant facility?	Not within current boundaries	Yes/No
Are you already supplying heat to a heat off-take customer?	No	Yes/No
If “yes” confirm capacity	Not applicable	MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Steam	
Maximum Supply Temperature	180	°C
Minimum Supply Temperature	155	°C
Supply Pressure	3.5-4.6	BarG
Maximum Condensate Return Temperature	80	°C
Minimum Condensate Return Temperature	50	°C
Condensate System Operating Pressure	-1	BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)		
Maximum Supply Temperature	Not applicable	°C
Minimum Supply Temperature	Not applicable	°C
Maximum Return Temperature	Not applicable	°C
Minimum Return Temperature	Not applicable	°C
System Operating Pressure	Not applicable	BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If “Yes” how much electricity will be lost annually?	3MW (est)	MWe
Electricity Carbon Factor (Calculation as defined in SAP)	No data available due to CO2 neutral	kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)	No data available due to CO2 neutral	kgCO2/kWh

EFW Heat Network Directory

FCC – Hanford EfW

The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	10/12/2020

Operator

Organisation	MES Environmental Limited
Facility	Hanford EfW
Address	Campbell Road Sideway Stoke on Trent ST4 4DX
Contact Details	
Name	Stefano Danieli
Telephone No.	01902 352864
Email Address	**mes@mesenvironmental.co.uk**

Owner/Organisational Structure

Company Structure
Limited Company
Corporate structure of EfW operation
Owner City of Stoke on Trent Council via PFI with Hanford Waste Services Limited with an O&M Contract with MES Environmental Limited
Individuals involved and responsibilities

Waste Source

When was the Plant Commissioned (Date)?	7th October 1997	
Remaining Concession Period	4	Years
Is the Concession Renewable?	Yes	Yes/No

Quantity of Heat Available

Annually	0	MWh_th
Daily		MWh_th
Minimum Output		MWth
Maximum Output (Peak)		MWth
Heat Plant Annual Availability	0	%
Heat Availability Guaranteed	0	Yes/No
What would be the max efficiency the plant can achieve with max heat export?	0	%
Is thermal back-up plant available?	No	Yes/No
If “Yes” to above how much (Peak)?		MWth
What is the backup plant’s fuel source?		
If “No” to above, is space available onsite to build backup plant facility?	Unlikely	Yes/No
Are you already supplying heat to a heat off-take customer?	No	Yes/No
If “yes” confirm capacity		MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Steam	
Maximum Supply Temperature	355	°C
Minimum Supply Temperature	355	°C
Supply Pressure	44	BarG
Maximum Condensate Return Temperature	55	°C
Minimum Condensate Return Temperature	25	°C
Condensate System Operating Pressure	-1	BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)		
Maximum Supply Temperature		°C
Minimum Supply Temperature		°C
Maximum Return Temperature		°C
Minimum Return Temperature		°C
System Operating Pressure		BarG
Will the heat provided be sacrificial to electricity generation?		Yes/No
If “Yes” how much electricity will be lost annually?		MWe
Electricity Carbon Factor (Calculation as defined in SAP)		kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)		kgCO2/kWh

EFW Heat Network Directory

SUEZ – Kirklees EfW

The operator will review this document every 2 years at a minimum to capture changing data over time.

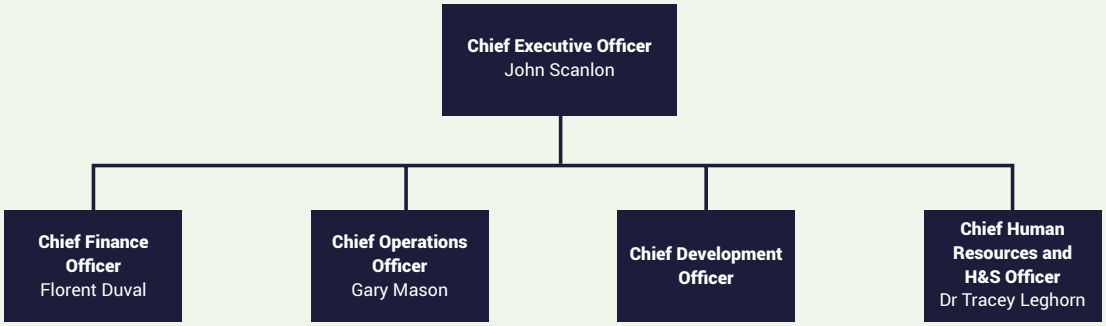
Date of completion of the Directory	15/01/2021

Operator

Organisation	SUEZ Recycling & Recovery UK
Facility	SUEZ Kirklees EFW
Address	Diamond St Huddersfield West Yorkshire HD1 6BZ
Contact Details	
Name	Paul Kilgour
Telephone No.	01484448721
Email Address	**Paul.kilgour@suez.com**

Owner/Organisational Structure

Company Structure



Corporate structure of EfW operation

SPV with O&M contract in place

Individuals involved and responsibilities

Gary Mayson, COO, SUEZ

Andrew Hughes, Regional Director Energy North, SUEZ

Mark Ryan, Plant Manager, SUEZ

Waste Source

When was the Plant Commissioned (Date)?	2000	
Remaining Concession Period	5	Years
Is the Concession Renewable?	Yes	Yes/No

Quantity of Heat Available

Annually	13383.3 (assuming 2t/hr of steam utilised at primary circuit conditions below)	MWh_th
Daily	36.67 (as above)	MWh_th
Minimum Output	0 (plant offline)	MWth
Maximum Output (Peak)	1.53 (4t/hr steam, subject to agreement)	MWth
Heat Plant Annual Availability	85	%
Heat Availability Guaranteed	No	Yes/No
What would be the max efficiency the plant can achieve with max heat export?	25	%
Is thermal back-up plant available?	No	Yes/No

If "Yes" to above how much (Peak)?	Not applicable	MWth
What is the backup plant's fuel source?	Oil Burners	
If "No" to above, is space available onsite to build backup plant facility?	No	Yes/No
Are you already supplying heat to a heat off-take customer?	No	Yes/No
If "yes" confirm capacity	Not applicable	MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Steam	
Maximum Supply Temperature	150	°C
Minimum Supply Temperature	145	°C
Supply Pressure	4	BarG
Maximum Condensate Return Temperature	TBC (depends on consumer load)	°C
Minimum Condensate Return Temperature	TBC (depends on consumer load)	°C
Condensate System Operating Pressure	TBC (depends on consumer load)	BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)		
Maximum Supply Temperature	Not applicable	°C
Minimum Supply Temperature	Not applicable	°C
Maximum Return Temperature	Not applicable	°C
Minimum Return Temperature	Not applicable	°C
System Operating Pressure	Not applicable	BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If "Yes" how much electricity will be lost annually?	TBC (depends on consumer load)	MWe
Electricity Carbon Factor (Calculation as defined in SAP)	0.557 (SUEZ EfW average)	kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)	Not applicable	kgCO2/kWh

environmental services association

EFW Heat Network Directory

Veolia – Leeds ERF

VEOLIA

The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	01/10/2020

Operator

Organisation	Veolia ES Leeds Ltd
Facility	Leeds Recycling and Energy Recovery Facility
Address	Newmarket Approach Leeds LS9 0RJ
Contact Details	
Name	Nazneem Grogan
Telephone No.	07810 852457
Email Address	**nazneem.grogan@veolia.com**

Owner/Organisational Structure

Company Structure
Corporate structure of EfW operation
Operated by Veolia under contract with Leeds City Council
Individuals involved and responsibilities
Scott Francis - Head of ERF Operations North

Waste Source

When was the Plant Commissioned (Date)?	Q1 2016	
Remaining Concession Period	20	Years
Is the Concession Renewable?	Yes	Yes/No

Quantity of Heat Available

Annually	163,810	MWh_th
Daily	480	MWh_th
Minimum Output	0.35	MWth
Maximum Output (Peak)	20	MWth
Heat Plant Annual Availability	93.5	%
Heat Availability Guaranteed	No	Yes/No
What would be the max efficiency the plant can achieve with max heat export?		%
Is thermal back-up plant available?	Yes	Yes/No
If “Yes” to above how much (Peak)?	Gas boilers and thermal storage operated by a third party	MWth
What is the backup plant’s fuel source?	Natural Gas	
If “No” to above, is space available onsite to build backup plant facility?	Not applicable	Yes/No
Are you already supplying heat to a heat off-take customer?	Yes	Yes/No
If “yes” confirm capacity	20	MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Medium pressure steam from ERF turbine	
Maximum Supply Temperature	148	°C
Minimum Supply Temperature	133	°C
Supply Pressure	3.5	BarG
Maximum Condensate Return Temperature	100	°C
Minimum Condensate Return Temperature	60	°C
Condensate System Operating Pressure	13	BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)		
Maximum Supply Temperature	100	°C
Minimum Supply Temperature	90	°C
Maximum Return Temperature	70	°C
Minimum Return Temperature	60	°C
System Operating Pressure	7	BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If “Yes” how much electricity will be lost annually?	0.19MWe lost per 1 MWth output	MWe
Electricity Carbon Factor (Calculation as defined in SAP)	0.25319*	kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)	0.18169*	kgCO2/kWh

*UK Government GHG conversion factors 2020 (BEIS & DEFRA)

EFW Heat Network Directory

FCC – Lincolnshire EfW

The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	08/12/2020

Operator

Organisation	FCC Environment (Lincolnshire) Limited
Facility	Lincolnshire EfW
Address	Paving Way Lincoln LN6 3QW
Contact Details	
Name	Juergen Schaper
Telephone No.	01522814301
Email Address	**Juergen.schaper@fccenvironment.co.uk**

Owner/Organisational Structure

Company Structure
Not applicable
Corporate structure of EfW operation
FCC Lincolnshire Limited
Individuals involved and responsibilities
Steve Brown – Operations Director

Waste Source

When was the Plant Commissioned (Date)?	2014	
Remaining Concession Period	19	Years
Is the Concession Renewable?	yes	Yes/No

Quantity of Heat Available

Annually	80000	MWh_th
Daily	219	MWh_th
Minimum Output	2.5 (est)	MWth
Maximum Output (Peak)	10	MWth
Heat Plant Annual Availability	92	%
Heat Availability Guaranteed	No	Yes/No
What would be the max efficiency the plant can achieve with max heat export?	Not applicable	%
Is thermal back-up plant available?	No	Yes/No
If “Yes” to above how much (Peak)?	Not applicable	MWth
What is the backup plant’s fuel source?	Not applicable	
If “No” to above, is space available onsite to build backup plant facility?	Yes	Yes/No
Are you already supplying heat to a heat off-take customer?	No	Yes/No
If “yes” confirm capacity	Not applicable	MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Steam	
Maximum Supply Temperature	180	°C
Minimum Supply Temperature	160	°C
Supply Pressure	3.2-4.9	BarG
Maximum Condensate Return Temperature	80 (100 if pumped)	°C
Minimum Condensate Return Temperature	50 (70 if pumped)	°C
Condensate System Operating Pressure	-1 (13 if pumped)	BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)		
Maximum Supply Temperature	Not applicable	°C
Minimum Supply Temperature	Not applicable	°C
Maximum Return Temperature	Not applicable	°C
Minimum Return Temperature	Not applicable	°C
System Operating Pressure	Not applicable	BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If “Yes” how much electricity will be lost annually?	c. 1.5MW	MWe
Electricity Carbon Factor (Calculation as defined in SAP)	No data available due to CO2 neutral	kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)	No data available due to CO2 neutral	kgCO2/kWh

environmental services association

EFW Heat Network Directory

Veolia – Marchwood ERF

VEOLIA

The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	01/10/2020

Operator

Organisation	Veolia UK
Facility	Marchwood ERF
Address	Oceanic Way Marchwood Southampton SO40 4BD
Contact Details	
Name	Richard Gledhill
Telephone No.	
Email Address	**richard.gledhill@veolia.com**

Owner/Organisational Structure

Company Structure
Corporate structure of EfW operation
Operated by Veolia under contract with Hampshire County Council, Southampton City Council and Portsmouth City Council
Individuals involved and responsibilities
Neil Brothers - Head of ERF Operations South

Waste Source

When was the Plant Commissioned (Date)?	2005	
Remaining Concession Period	10	Years
Is the Concession Renewable?		Yes/No

Quantity of Heat Available

Annually		MWh_th
Daily	72	MWh_th
Minimum Output		MWth
Maximum Output (Peak)	30	MWth
Heat Plant Annual Availability	97.6	%
Heat Availability Guaranteed	No	Yes/No
What would be the max efficiency the plant can achieve with max heat export?		%
Is thermal back-up plant available?	No	Yes/No
If “Yes” to above how much (Peak)?	Not Applicable	MWth
What is the backup plant’s fuel source?	Not Applicable	
If “No” to above, is space available onsite to build backup plant facility?	Yes	Yes/No
Are you already supplying heat to a heat off-take customer?	No	Yes/No
If “yes” confirm capacity	Not applicable	MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Steam	
Maximum Supply Temperature	140	°C
Minimum Supply Temperature	120	°C
Supply Pressure	4	BarG
Maximum Condensate Return Temperature	100	°C
Minimum Condensate Return Temperature	40	°C
Condensate System Operating Pressure	14	BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)		
Maximum Supply Temperature	Not applicable	°C
Minimum Supply Temperature	Not applicable	°C
Maximum Return Temperature	Not applicable	°C
Minimum Return Temperature	Not applicable	°C
System Operating Pressure	Not applicable	BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If “Yes” how much electricity will be lost annually?	TBC depending on load	MWe
Electricity Carbon Factor (Calculation as defined in SAP)	TBC depending on load	kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)	TBC depending on load	kgCO2/kWh

EFW Heat Network Directory

FCC – Millerhill

The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	08/12/2020

Operator

Organisation	FCC
Facility	Millerhill
Address	Edinburgh and Midlothian RERC Whitehill Road Edinburgh EH22 1SX
Contact Details	
Name	Mark Keast
Telephone No.	0131 370 9901
Email Address	**mark.keast@fccenvironment.co.uk**

Owner/Organisational Structure

Company Structure
Not applicable
Corporate structure of EfW operation
FCC Edinburgh and Midlothian Limited
Individuals involved and responsibilities
Steve Brown – Operations Director

Waste Source

When was the Plant Commissioned (Date)?	17 April 2019	
Remaining Concession Period	24	Years
Is the Concession Renewable?	No	Yes/No

Quantity of Heat Available

Annually	155,200	MWh_th
Daily	480	MWh_th
Minimum Output	< 1	MWth
Maximum Output (Peak)	20	MWth
Heat Plant Annual Availability	89	%
Heat Availability Guaranteed	No	Yes/No
What would be the max efficiency the plant can achieve with max heat export?	59	%
Is thermal back-up plant available?	No	Yes/No
If “Yes” to above how much (Peak)?	Not applicable	MWth
What is the backup plant’s fuel source?	Not applicable	
If “No” to above, is space available onsite to build backup plant facility?	No	Yes/No
Are you already supplying heat to a heat off-take customer?	No, but currently negotiating an agreement	Yes/No
If “yes” confirm capacity	Up to 20	MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Steam (Bleed 1 / 2)	
Maximum Supply Temperature	138 / 106	°C
Minimum Supply Temperature	Not applicable	°C
Supply Pressure	3.4 / 1.3	BarG
Maximum Condensate Return Temperature	Not applicable	°C
Minimum Condensate Return Temperature	71	°C
Condensate System Operating Pressure	Not as yet specified	BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)		
Maximum Supply Temperature	115	°C
Minimum Supply Temperature	Not applicable	°C
Maximum Return Temperature	Not applicable	°C
Minimum Return Temperature	40	°C
System Operating Pressure	Not as yet specified	BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If “Yes” how much electricity will be lost annually?	2.7	MWe
Electricity Carbon Factor (Calculation as defined in SAP)	No data available due to CO2 neutral	kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)	No data available due to CO2 neutral	kgCO2/kWh

environmental services association

EFW Heat Network Directory

Veolia – Newhaven ERF

VEOLIA

The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	01/10/2020

Operator

Organisation	Veolia UK
Facility	Newhaven Energy Recovery Facility. Veolia South Downs
Address	North Quay Rd Newhaven BN9 0AB
Contact Details	
Name	Paul Mcmullen
Telephone No.	
Email Address	**paul.mcmullen@veolia.com**

Owner/Organisational Structure

Company Structure
Corporate structure of EfW operation
Operated by Veolia under contract with East Sussex County Council and Brighton & Hove City Council
Individuals involved and responsibilities
Neil Brothers - Head of ERF Operations South

Waste Source

When was the Plant Commissioned (Date)?	2012	
Remaining Concession Period	< 13	Years
Is the Concession Renewable?		Yes/No

Quantity of Heat Available

Annually		MWh_th
Daily	360	MWh_th
Minimum Output	0	MWth
Maximum Output (Peak)	15	MWth
Heat Plant Annual Availability	92.3 (2019)	%
Heat Availability Guaranteed	No	Yes/No
What would be the max efficiency the plant can achieve with max heat export?		%
Is thermal back-up plant available?	No	Yes/No
If “Yes” to above how much (Peak)?	Not applicable	MWth
What is the backup plant’s fuel source?	Not applicable	
If “No” to above, is space available onsite to build backup plant facility?	No	Yes/No
Are you already supplying heat to a heat off-take customer?	No	Yes/No
If “yes” confirm capacity	Not applicable	MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Steam	
Maximum Supply Temperature	122	°C
Minimum Supply Temperature		°C
Supply Pressure	2.1	BarG
Maximum Condensate Return Temperature	100	°C
Minimum Condensate Return Temperature		°C
Condensate System Operating Pressure		BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)		
Maximum Supply Temperature		°C
Minimum Supply Temperature		°C
Maximum Return Temperature		°C
Minimum Return Temperature		°C
System Operating Pressure		BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If “Yes” how much electricity will be lost annually?	0.18Mwe lost per 1 MWth output	MWe
Electricity Carbon Factor (Calculation as defined in SAP)	TBC	kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)	TBC	kgCO2/kWh

EFW Heat Network Directory

Viridor – Peterborough ERF

The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	16/10/2020

Operator

Organisation	Viridor
Facility	Peterborough ERF
Address	Fengate Peterborough Cambridgeshire PE1 5UR
Contact Details	
Name	Paul Wynne
Telephone No.	07876 356 502
Email Address	**pwynne@viridor.co.uk**

Owner/Organisational Structure

Company Structure
Owned by Peterborough City Council
Corporate structure of EfW operation
Individuals involved and responsibilities
Awaiting info...

Waste Source

When was the Plant Commissioned (Date)?	2016	
Remaining Concession Period		Years
Is the Concession Renewable?		Yes/No

Quantity of Heat Available

Annually	39,858	MWh_th
Daily	120	MWh_th
Minimum Output	0	MWth
Maximum Output (Peak)	5.0	MWth
Heat Plant Annual Availability	91	%
Heat Availability Guaranteed	TBC	Yes/No
What would be the max efficiency the plant can achieve with max heat export?	17.1	%
Is thermal back-up plant available?	No	Yes/No
If “Yes” to above how much (Peak)?	Not applicable	MWth
What is the backup plant’s fuel source?	Not applicable	
If “No” to above, is space available onsite to build backup plant facility?	Yes	Yes/No
Are you already supplying heat to a heat off-take customer?	No	Yes/No
If “yes” confirm capacity	Not applicable	MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Steam	
Maximum Supply Temperature	357	°C
Minimum Supply Temperature	340	°C
Supply Pressure	0.21	BarG
Maximum Condensate Return Temperature	80	°C
Minimum Condensate Return Temperature	60	°C
Condensate System Operating Pressure	1.3	BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)	Not applicable	
Maximum Supply Temperature	Not applicable	°C
Minimum Supply Temperature	Not applicable	°C
Maximum Return Temperature	Not applicable	°C
Minimum Return Temperature	Not applicable	°C
System Operating Pressure	Not applicable	BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If “Yes” how much electricity will be lost annually?	1.62	MWe
Electricity Carbon Factor (Calculation as defined in SAP)	0.519	kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)	0.172	kgCO2/kWh

environmental services association

EFW Heat Network Directory

Veolia – Portsmouth ERF

VEOLIA

The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	01/10/2020

Operator

Organisation	Veolia UK
Facility	Integra South East – Portsmouth Energy Recovery Facility
Address	Quartremaine Rd Portsmouth PO3 5QH
Contact Details	
Name	Charles Winterburn
Telephone No.	
Email Address	**charles.winterburn@veolia.com**

Owner/Organisational Structure

Company Structure
Corporate structure of EfW operation
Operated by Veolia under contract with Hampshire County Council, Southampton City Council and Portsmouth City Council
Individuals involved and responsibilities
Neil Brothers - Head of ERF Operations South

Waste Source

When was the Plant Commissioned (Date)?	March 2005	
Remaining Concession Period	10	Years
Is the Concession Renewable?		Yes/No

Quantity of Heat Available

Annually		MWh_th
Daily	72	MWh_th
Minimum Output		MWth
Maximum Output (Peak)	30	MWth
Heat Plant Annual Availability	94.5	%
Heat Availability Guaranteed	No	Yes/No
What would be the max efficiency the plant can achieve with max heat export?		%
Is thermal back-up plant available?	No	Yes/No
If “Yes” to above how much (Peak)?	Not Applicable	MWth
What is the backup plant’s fuel source?	Not Applicable	
If “No” to above, is space available onsite to build backup plant facility?	Yes	Yes/No
Are you already supplying heat to a heat off-take customer?	No	Yes/No
If “yes” confirm capacity	Not applicable	MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Steam	
Maximum Supply Temperature	140	°C
Minimum Supply Temperature	120	°C
Supply Pressure	4	BarG
Maximum Condensate Return Temperature	100	°C
Minimum Condensate Return Temperature	40	°C
Condensate System Operating Pressure	14	BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)		
Maximum Supply Temperature	Not applicable	°C
Minimum Supply Temperature	Not applicable	°C
Maximum Return Temperature	Not applicable	°C
Minimum Return Temperature	Not applicable	°C
System Operating Pressure	Not applicable	BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If “Yes” how much electricity will be lost annually?	TBC depending on load	MWe
Electricity Carbon Factor (Calculation as defined in SAP)	TBC depending on load	kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)	TBC depending on load	kgCO2/kWh

EFW Heat Network Directory

Indaver – Rivenhall EfW

The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	14/06/2021

Operator

Organisation	Indaver
Facility	Rivenhall EfW
Address	Coggeshall Road Bradwell Essex CM77 8EP
Contact Details	
Name	Gareth Jones
Telephone No.	07824 513725
Email Address	**Gareth.jones@indaver.com**

Owner/Organisational Structure

Company Structure
Wholly owned
Corporate structure of EfW operation
Indaver Rivenhall Ltd is a wholly owned subsidiary of Indaver Holdings Ltd
Individuals involved and responsibilities
John Ahern – Business Development Director

Waste Source

When was the Plant Commissioned (Date)?	Expected 2025	
Remaining Concession Period	Not applicable	Years
Is the Concession Renewable?	Not applicable	Yes/No

Quantity of Heat Available

Annually	65,700	MWh_th
Daily	180	MWh_th
Minimum Output	0	MWth
Maximum Output (Peak)	7.5	MWth
Heat Plant Annual Availability	95	%
Heat Availability Guaranteed	No	Yes/No
What would be the max efficiency the plant can achieve with max heat export?	TBC	%
Is thermal back-up plant available?	Potentially	Yes/No
If “Yes” to above how much (Peak)?	TBC	MWth
What is the backup plant’s fuel source?	TBC – likely to be fuel oil	
If “No” to above, is space available onsite to build backup plant facility?	Space has been designated on site for thermal back-up plant to be installed	Yes/No
Are you already supplying heat to a heat off-take customer?	No	Yes/No
If “yes” confirm capacity	Not applicable	MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Steam	
Maximum Supply Temperature	210	°C
Minimum Supply Temperature	TBC	°C
Supply Pressure	7	BarG
Maximum Condensate Return Temperature	TBC	°C
Minimum Condensate Return Temperature	TBC	°C
Condensate System Operating Pressure	TBC	BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)		
Maximum Supply Temperature	TBC	°C
Minimum Supply Temperature	TBC	°C
Maximum Return Temperature	TBC	°C
Minimum Return Temperature	TBC	°C
System Operating Pressure	TBC	BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If “Yes” how much electricity will be lost annually?	Depends on consumer demand	MWe
Electricity Carbon Factor (Calculation as defined in SAP)	TBC	kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)	TBC	kgCO2/kWh

EFW Heat Network Directory

Cory – Riverside RRF

The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	16/11/2020

Operator

Organisation	Riverside Resource Recovery Limited (part of Cory Riverside Energy)
Facility	Riverside Resource Recovery Facility
Address	Norman Road Belvedere Kent DA17 6JY
Contact Details	
Name	Chris Girdham – Development Director
Telephone No.	0207 417 5200
Email Address	**chris.girdham@coryenergy.com**

Owner/Organisational Structure

Company Structure
Visual structure
Corporate structure of EfW operation
Contractual relationships (incl. decision making parties for heat offtake)/organisation
Individuals involved and responsibilities
Awaiting info

Waste Source

When was the Plant Commissioned (Date)?	2011	
Remaining Concession Period		Years
Is the Concession Renewable?		Yes/No

Quantity of Heat Available

Annually	115,000	MWh_th
Daily	680	MWh_th
Minimum Output	0	MWth
Maximum Output (Peak)	28.6	MWth
Heat Plant Annual Availability	98.5	%
Heat Availability Guaranteed	TBC	Yes/No
What would be the max efficiency the plant can achieve with max heat export?	Gross Power – 23% CHPQA QI – 61.9%	%
Is thermal back-up plant available?	No	Yes/No
If “Yes” to above how much (Peak)?	Not applicable	MWth
What is the backup plant’s fuel source?	Not applicable	
If “No” to above, is space available onsite to build backup plant facility?	Yes – future plant planned that would enable backup plant facility	Yes/No
Are you already supplying heat to a heat off-take customer?	No	Yes/No
If “yes” confirm capacity	Not applicable	MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Steam	
Maximum Supply Temperature	90	°C
Minimum Supply Temperature	60	°C
Supply Pressure	12	BarG
Maximum Condensate Return Temperature	60	°C
Minimum Condensate Return Temperature	40	°C
Condensate System Operating Pressure	5	BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)		
Maximum Supply Temperature	Not applicable	°C
Minimum Supply Temperature	Not applicable	°C
Maximum Return Temperature	Not applicable	°C
Minimum Return Temperature	Not applicable	°C
System Operating Pressure	Not applicable	BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If “Yes” how much electricity will be lost annually?	20,400 (on average heat export)	MWe
Electricity Carbon Factor (Calculation as defined in SAP)	Not applicable	kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)	Not applicable	kgCO2/kWh

EFW Heat Network Directory

Viridor – Runcorn I ERF

The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	16/10/2020

Operator

Organisation	Viridor
Facility	Runcorn I ERF
Address	Barlow Way Runcorn Cheshire WA7 4HG
Contact Details	
Name	Paul Wynne
Telephone No.	07876 356 502
Email Address	**pwynne@viridor.co.uk**

Owner/Organisational Structure

Company Structure
TPSCo
Corporate structure of EfW operation
Owner / local council
Individuals involved and responsibilities
Awaiting info...

Waste Source

When was the Plant Commissioned (Date)?	2014	
Remaining Concession Period		Years
Is the Concession Renewable?		Yes/No

Quantity of Heat Available

Annually	799,631	MWh_th
Daily	2,407	MWh_th
Minimum Output	0	MWth
Maximum Output (Peak)	100.3	MWth
Heat Plant Annual Availability	91	%
Heat Availability Guaranteed	TBC	Yes/No
What would be the max efficiency the plant can achieve with max heat export?	68.4	%
Is thermal back-up plant available?	No	Yes/No
If “Yes” to above how much (Peak)?	Not applicable	MWth
What is the backup plant’s fuel source?	Not applicable	
If “No” to above, is space available onsite to build backup plant facility?	Yes	Yes/No
Are you already supplying heat to a heat off-take customer?	No	Yes/No
If “yes” confirm capacity	51	MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Steam	
Maximum Supply Temperature	276	°C
Minimum Supply Temperature	266	°C
Supply Pressure	16.5	BarG
Maximum Condensate Return Temperature	35	°C
Minimum Condensate Return Temperature	35	°C
Condensate System Operating Pressure	-0.92	BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)	Not applicable	
Maximum Supply Temperature	Not applicable	°C
Minimum Supply Temperature	Not applicable	°C
Maximum Return Temperature	Not applicable	°C
Minimum Return Temperature	Not applicable	°C
System Operating Pressure	Not applicable	BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If “Yes” how much electricity will be lost annually?	27.9	MWe
Electricity Carbon Factor (Calculation as defined in SAP)	0.519	kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)	0.148	kgCO2/kWh

EFW Heat Network Directory

Viridor – Runcorn II ERF

The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	16/10/2020

Operator

Organisation	Viridor
Facility	Runcorn II ERF
Address	Barlow Way Runcorn Cheshire WA7 4HG
Contact Details	
Name	Paul Wynne
Telephone No.	07876 356 502
Email Address	**pwynne@viridor.co.uk**

Owner/Organisational Structure

Company Structure
Wholly owned
Corporate structure of EfW operation
Owner
Individuals involved and responsibilities
Awaiting info...

Waste Source

When was the Plant Commissioned (Date)?	2014	
Remaining Concession Period		Years
Is the Concession Renewable?		Yes/No

Quantity of Heat Available

Annually	439,613	MWh_th
Daily	1,323	MWh_th
Minimum Output	0	MWth
Maximum Output (Peak)	55.1	MWth
Heat Plant Annual Availability	91	%
Heat Availability Guaranteed	TBC	Yes/No
What would be the max efficiency the plant can achieve with max heat export?	37.6	%
Is thermal back-up plant available?	No	Yes/No
If "Yes" to above how much (Peak)?	Not applicable	MWth
What is the backup plant's fuel source?	Not applicable	
If "No" to above, is space available onsite to build backup plant facility?	Yes	Yes/No
Are you already supplying heat to a heat off-take customer?	No	Yes/No
If "yes" confirm capacity	Not applicable	MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Steam	
Maximum Supply Temperature	422	°C
Minimum Supply Temperature	415	°C
Supply Pressure	50.7	BarG
Maximum Condensate Return Temperature	35	°C
Minimum Condensate Return Temperature	35	°C
Condensate System Operating Pressure	-0.92	BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)	Not applicable	
Maximum Supply Temperature	Not applicable	°C
Minimum Supply Temperature	Not applicable	°C
Maximum Return Temperature	Not applicable	°C
Minimum Return Temperature	Not applicable	°C
System Operating Pressure	Not applicable	BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If “Yes” how much electricity will be lost annually?	22.1	MWe
Electricity Carbon Factor (Calculation as defined in SAP)	0.519	kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)	0.209	kgCO2/kWh

environmental services association

EFW Heat Network Directory

Veolia – SELCHP ERF

VEOLIA

The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	01/10/2020

Operator

Organisation	Veolia UK
Facility	SELCHP ERF
Address	Landmann Way London SE14 5RS
Contact Details	
Name	Thomas Folliard
Telephone No.	
Email Address	**thomas.folliard@veolia.com**

Owner/Organisational Structure

Company Structure
Corporate structure of EfW operation
SELCHP is operated by Veolia under contract with South East London Combined Heat and Power Ltd
Individuals involved and responsibilities
Neil Brothers - Head of ERF Operations South

Waste Source

When was the Plant Commissioned (Date)?	1994	
Remaining Concession Period		Years
Is the Concession Renewable?		Yes/No

Quantity of Heat Available

Annually	327,974	MWh_th
Daily	960	MWh_th
Minimum Output	1	MWth
Maximum Output (Peak)	40	MWth
Heat Plant Annual Availability	93.6%	%
Heat Availability Guaranteed	No	Yes/No
What would be the max efficiency the plant can achieve with max heat export?		%
Is thermal back-up plant available?	No	Yes/No
If “Yes” to above how much (Peak)?		MWth
What is the backup plant’s fuel source?		
If “No” to above, is space available onsite to build backup plant facility?		Yes/No
Are you already supplying heat to a heat off-take customer?	Yes	Yes/No
If “yes” confirm capacity	30	MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Steam	
Maximum Supply Temperature	215	°C
Minimum Supply Temperature	106	°C
Supply Pressure		BarG
Maximum Condensate Return Temperature	110	°C
Minimum Condensate Return Temperature	40	°C
Condensate System Operating Pressure	16	BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)		
Maximum Supply Temperature	110	°C
Minimum Supply Temperature	90	°C
Maximum Return Temperature	85	°C
Minimum Return Temperature	40	°C
System Operating Pressure	10	BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If “Yes” how much electricity will be lost annually?		MWe
Electricity Carbon Factor (Calculation as defined in SAP)		kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)	0.058	kgCO2/kWh

environmental services association

EFW Heat Network Directory

SUEZ – Severnside ERC

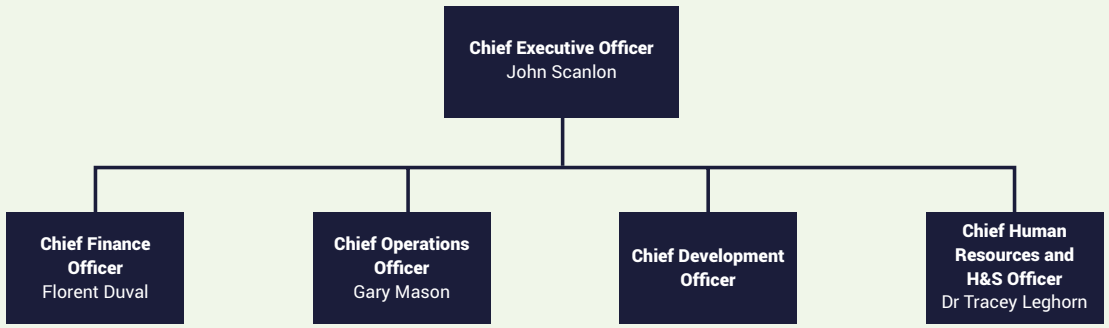
The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	15/01/2021

Operator

Organisation	SUEZ Recycling & Recovery UK
Facility	Severnside Energy Recovery Centre (SERC)
Address	Severn Road Hallen Bristol BS10 7SP
Contact Details	
Name	Krishna Patel
Telephone No.	01484448736
Email Address	**krishna.patel@suez.com**

Owner/Organisational Structure

Company Structure

Corporate structure of EfW operation
SPV with West London Waste Authority
Individuals involved and responsibilities
Stephen Fisher (Plant Manager)

Waste Source

When was the Plant Commissioned (Date)?	2016 (taken over on 14/12/2016)	
Remaining Concession Period	21	Years
Is the Concession Renewable?	Yes	Yes/No

Quantity of Heat Available

Annually	1,157,419.13 (from Waste NCV)	MWh_th
Daily	3,472.83 (from Waste NCV)	MWh_th
Minimum Output	0	MWth
Maximum Output (Peak)	Not applicable – plant runs based on a target steam production set-point	MWth
Heat Plant Annual Availability	91.34	%
Heat Availability Guaranteed	No – although the plant has historically performed to meet this level of availability	Yes/No

What would be the max efficiency the plant can achieve with max heat export?	3 district heating cases defined by the heat and mass balances Case 1: Bleed 3 export (LLP) Case 2: Bleed 2 export (LP) Case 3: Bleeds 1,2,3 export (MP, LP, LLP) 2019 efficiency; 27.02% Case 1 efficiency; 26.12% Case 2 efficiency; 25.21% Case 3 efficiency; 23.76%	%
Is thermal back-up plant available?	No – fuel oil burners are available for the start-up/shutdown of each process line	Yes/No
If "Yes" to above how much (Peak)?	Not applicable	MWth
What is the backup plant's fuel source?	Esso Ultra Low Sulphur Gas Oil	
If "No" to above, is space available onsite to build backup plant facility?	Not applicable	Yes/No
Are you already supplying heat to a heat off-take customer?	No	Yes/No
If "yes" confirm capacity	Not applicable	MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Steam	
Maximum Supply Temperature	171	°C
Minimum Supply Temperature	171	°C
Supply Pressure	6.7	BarG
Maximum Condensate Return Temperature	110	°C
Minimum Condensate Return Temperature	46	°C
Condensate System Operating Pressure	3.8	BarG
Secondary LTHW Circuit – if applicable		

(Secondary side of Plate Heat Exchanger)		
Maximum Supply Temperature	Not applicable	°C
Minimum Supply Temperature	Not applicable	°C
Maximum Return Temperature	Not applicable	°C
Minimum Return Temperature	Not applicable	°C
System Operating Pressure	Not applicable	BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If “Yes” how much electricity will be lost annually?	10,030.51	MWe
Electricity Carbon Factor (Calculation as defined in SAP)	0.557 (SUEZ EfW average)	kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)	Not applicable	kgCO2/kWh

EFW Heat Network Directory

Veolia – Sheffield ERF

The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	01/10/2020

Operator

Organisation	Veolia UK
Facility	Sheffield Energy Recovery Facility and District Energy Network
Address	Bernard Road Service Centre Bernard Rd Sheffield S4 7YX
Contact Details	
Name	Greg Caseley
Telephone No.	
Email Address	

Owner/Organisational Structure

Company Structure
Corporate structure of EfW operation
Sheffield ERF is operated by Veolia under contract with Sheffield City Council
Individuals involved and responsibilities
Scott Francis - Head of ERF Operations North

Waste Source

When was the Plant Commissioned (Date)?	2006	
Remaining Concession Period	18	Years
Is the Concession Renewable?	No	Yes/No

Quantity of Heat Available

Annually	54,224	MWh_th
Daily	150	MWh_th
Minimum Output	0	MWth
Maximum Output (Peak)	45	MWth
Heat Plant Annual Availability	92.7	%
Heat Availability Guaranteed	No	Yes/No
What would be the max efficiency the plant can achieve with max heat export?		%
Is thermal back-up plant available?	Yes	Yes/No
If “Yes” to above how much (Peak)?	127	MWth
What is the backup plant’s fuel source?	Natural Gas and Fuel Oil	
If “No” to above, is space available onsite to build backup plant facility?		Yes/No
Are you already supplying heat to a heat off-take customer?	Yes	Yes/No
If “yes” confirm capacity	45	MWth

System Parameters

Primary Circuit		
Medium (Select one.)	MPHW	
Maximum Supply Temperature	110	°C
Minimum Supply Temperature	80	°C
Supply Pressure	11	BarG
Maximum Condensate Return Temperature	Not applicable	°C
Minimum Condensate Return Temperature	Not applicable	°C
Condensate System Operating Pressure	Not applicable	BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)		
Maximum Supply Temperature		°C
Minimum Supply Temperature		°C
Maximum Return Temperature		°C
Minimum Return Temperature		°C
System Operating Pressure		BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If “Yes” how much electricity will be lost annually?	TBC depending on load	MWe
Electricity Carbon Factor (Calculation as defined in SAP)		kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)	0.089	kgCO2/kWh

environmental services association

EFW Heat Network Directory

Veolia – Staffordshire ERF

VEOLIA

The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	01/10/2020

Operator

Organisation	Veolia UK
Facility	W2R Staffordshire Energy Recovery facility
Address	Enterprise Drive Wolverhampton WV10 7DF
Contact Details	
Name	Scott Francis
Telephone No.	
Email Address	**Scott.Francis@veolia.com**

Owner/Organisational Structure

Company Structure
Corporate structure of EfW operation
Four Ashes ERF is operated by Veolia under contract with Staffordshire County Council
Individuals involved and responsibilities
Scott Francis - Head of ERF Operations North

Waste Source

When was the Plant Commissioned (Date)?	2013	
Remaining Concession Period		Years
Is the Concession Renewable?		Yes/No

Quantity of Heat Available

Annually		MWh_th
Daily		MWh_th
Minimum Output		MWth
Maximum Output (Peak)	32	MWth
Heat Plant Annual Availability	93.8	%
Heat Availability Guaranteed	No	Yes/No
What would be the max efficiency the plant can achieve with max heat export?		%
Is thermal back-up plant available?	No	Yes/No
If “Yes” to above how much (Peak)?	Not Applicable	MWth
What is the backup plant’s fuel source?	Not Applicable	
If “No” to above, is space available onsite to build backup plant facility?	Yes	Yes/No
Are you already supplying heat to a heat off-take customer?	No	Yes/No
If “yes” confirm capacity	Not applicable	MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Steam	
Maximum Supply Temperature	122	°C
Minimum Supply Temperature		°C
Supply Pressure	2.1	BarG
Maximum Condensate Return Temperature	100	°C
Minimum Condensate Return Temperature		°C
Condensate System Operating Pressure		BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)		
Maximum Supply Temperature		°C
Minimum Supply Temperature		°C
Maximum Return Temperature		°C
Minimum Return Temperature		°C
System Operating Pressure		BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If "Yes" how much electricity will be lost annually?	0.18Mwe lost per 1 MWth output	MWe
Electricity Carbon Factor (Calculation as defined in SAP)	TBC	kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)	TBC	kgCO2/kWh

environmental services association

EFW Heat Network Directory

SUEZ – Suffolk EfW

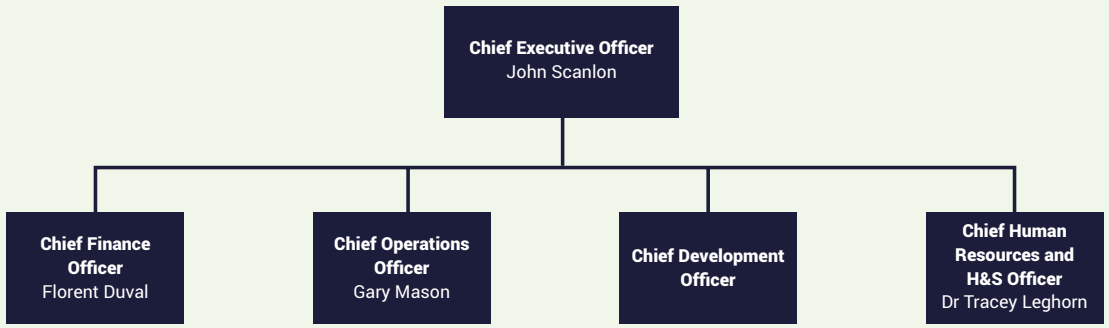
The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	15/01/2021

Operator

Organisation	SUEZ Recycling & Recovery UK
Facility	SUEZ Suffolk EfW
Address	Lodge Lane Great Blakenham Suffolk IP6 0JE
Contact Details	
Name	Robert Taylor
Telephone No.	01473 836838
Email Address	**robert.taylor@suez.com**

Owner/Organisational Structure

Company Structure

Corporate structure of EfW operation
SUEZ build and manage, wholly owned facility
Individuals involved and responsibilities
John Tatton, Plant Manager, SUEZ

Waste Source

When was the Plant Commissioned (Date)?	2014	
Remaining Concession Period	19	Years
Is the Concession Renewable?	Yes	Yes/No

Quantity of Heat Available

Annually	148,000 (primary scource)	MWh_th
Daily	444 (primary scource)	MWh_th
Minimum Output	0	MWth
Maximum Output (Peak)	18.5	MWth
Heat Plant Annual Availability	90	%
Heat Availability Guaranteed	No	Yes/No
What would be the max efficiency the plant can achieve with max heat export?		%
Is thermal back-up plant available?	No (not currently)	Yes/No
If “Yes” to above how much (Peak)?	Not applicable	MWth
What is the backup plant’s fuel source?	Not applicable	

If "No" to above, is space available onsite to build backup plant facility?	Yes	Yes/No
Are you already supplying heat to a heat off-take customer?	No	Yes/No
If "yes" confirm capacity	Not applicable	MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Steam	
Maximum Supply Temperature	170	°C
Minimum Supply Temperature	160	°C
Supply Pressure	5	BarG
Maximum Condensate Return Temperature	60	°C
Minimum Condensate Return Temperature	40	°C
Condensate System Operating Pressure	0	BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)	Doesn't currently exist so could be designed as required considering limitations of Primary Source	
Maximum Supply Temperature	150 (assumed)	°C
Minimum Supply Temperature	100 (assumed)	°C
Maximum Return Temperature	60 (assumed)	°C
Minimum Return Temperature	40 (assumed)	°C
System Operating Pressure	As required	BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If "Yes" how much electricity will be lost annually?	Primary source 'z factor' approx. 5 Secondary circuit and overall z factor would depend on design parameters	MWe
Electricity Carbon Factor (Calculation as defined in SAP)	0.557 (SUEZ EfW average)	kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)	Not applicable	kgCO2/kWh

environmental services association

EFW Heat Network Directory

SUEZ – Tees Valley Lines 1 & 2

The operator will review this document every 2 years at a minimum to capture changing data over time.

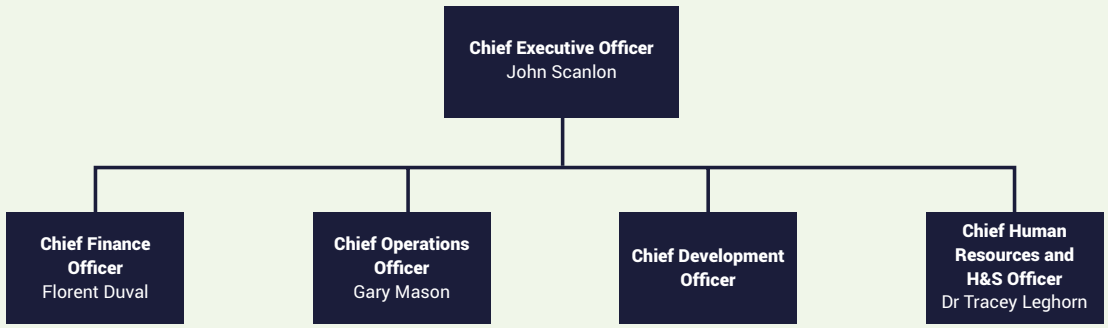
Date of completion of the Directory	15/01/2021

Operator

Organisation	SUEZ Recycling & Recovery UK
Facility	SUEZ Tees Valley Lines 1 & 2
Address	Haverton Hill Road Billingham Cleveland TS23 1PY
Contact Details	
Name	Taofeek Buhari
Telephone No.	01642202300
Email Address	**taofeek.buhari@suez.com**

Owner/Organisational Structure

Company Structure



Corporate structure of EfW operation

Wholly owned build and manage facility

Individuals involved and responsibilities

Darren Thomas (Plant Manager)

Waste Source

When was the Plant Commissioned (Date)?	1997	
Remaining Concession Period	4	Years
Is the Concession Renewable?	Yes	Yes/No

Quantity of Heat Available

Annually	558,880.85 (based on waste NCV)	MWh_th
Daily	1531.2	MWh_th
Minimum Output	0	MWth
Maximum Output (Peak)	63.8	MWth
Heat Plant Annual Availability	86.7%	%
Heat Availability Guaranteed	No	Yes/No
What would be the max efficiency the plant can achieve with max heat export?	~ 22%	%
Is thermal back-up plant available?	No	Yes/No
If “Yes” to above how much (Peak)?	Not applicable	MWth

What is the backup plant's fuel source?	Multiburn max (mixture of petroleum distillates)	
If "No" to above, is space available onsite to build backup plant facility?	No	Yes/No
Are you already supplying heat to a heat off-take customer?	No	Yes/No
If "yes" confirm capacity	Not applicable	MWth

System Parameters

Primary Circuit		
Medium (Select one.)	LTHW, Condensate, Steam	
Maximum Supply Temperature	90	°C
Minimum Supply Temperature	88	°C
Supply Pressure	1	BarG
Maximum Condensate Return Temperature	Not applicable	°C
Minimum Condensate Return Temperature	Not applicable	°C
Condensate System Operating Pressure	Not applicable	BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)		
Maximum Supply Temperature	Not applicable	°C
Minimum Supply Temperature	Not applicable	°C
Maximum Return Temperature	Not applicable	°C
Minimum Return Temperature	Not applicable	°C
System Operating Pressure	Not applicable	BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If "Yes" how much electricity will be lost annually?	TBC (depends on consumer load)	MWe
Electricity Carbon Factor (Calculation as defined in SAP)	0.557 (SUEZ EfW average)	kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)	Not applicable	kgCO2/kWh

EFW Heat Network Directory

SUEZ – Tees Valley Line 3

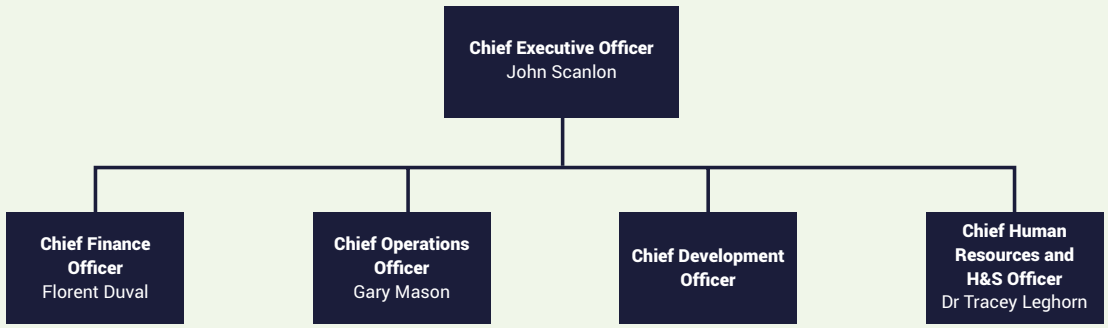
The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	15/01/2021

Operator

Organisation	SUEZ Recycling & Recovery UK
Facility	SUEZ Tees Valley Line 3
Address	Haverton Hill Road Billingham Cleveland TS23 1PY
Contact Details	
Name	Taofeek Buhari
Telephone No.	01642202300
Email Address	**taofeek.buhari@suez.com**

Owner/Organisational Structure

Company Structure

Corporate structure of EfW operation
SPV contract, O&M contract in place
Individuals involved and responsibilities
Darren Thomas (Plant Manager)

Waste Source

When was the Plant Commissioned (Date)?	2007	
Remaining Concession Period	11	Years
Is the Concession Renewable?	Yes	Yes/No

Quantity of Heat Available

Annually	340,916.42 (based on waste NCV)	MWh_th
Daily	934	MWh_th
Minimum Output	0	MWth
Maximum Output (Peak)	38.9	MWth
Heat Plant Annual Availability	86.7%	%
Heat Availability Guaranteed	No	Yes/No
What would be the max efficiency the plant can achieve with max heat export?	~ 25%	%
Is thermal back-up plant available?	No	Yes/No
If “Yes” to above how much (Peak)?	Not applicable	MWth

What is the backup plant's fuel source?	Esso Ultra low sulphur gas oil	
If "No" to above, is space available onsite to build backup plant facility?	No	Yes/No
Are you already supplying heat to a heat off-take customer?	No	Yes/No
If "yes" confirm capacity	Not applicable	MWth

System Parameters

Primary Circuit		
Medium (Select one.)	LTHW, Condensate, Steam	
Maximum Supply Temperature	85	°C
Minimum Supply Temperature	83	°C
Supply Pressure	1	BarG
Maximum Condensate Return Temperature	TBC with consumer	°C
Minimum Condensate Return Temperature	TBC with consumer	°C
Condensate System Operating Pressure	TBC with consumer	BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)		
Maximum Supply Temperature	Not applicable	°C
Minimum Supply Temperature	Not applicable	°C
Maximum Return Temperature	Not applicable	°C
Minimum Return Temperature	Not applicable	°C
System Operating Pressure	Not applicable	BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If "Yes" how much electricity will be lost annually?	TBC (depends on consumer load)	MWe
Electricity Carbon Factor (Calculation as defined in SAP)	0.557 (SUEZ EfW average)	kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)	Not applicable	kgCO2/kWh

environmental services association

EFW Heat Network Directory

SUEZ – Tees Valley Lines 4 & 5

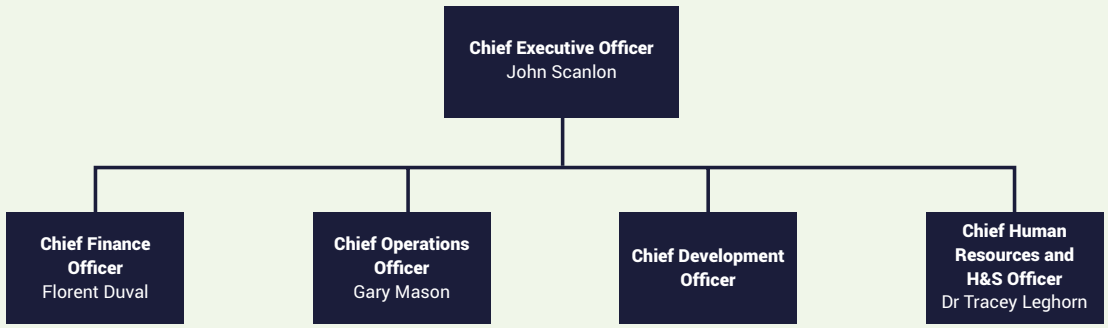
The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	15/01/2021

Operator

Organisation	SUEZ Recycling & Recovery UK
Facility	SUEZ Tees Valley Lines 4 & 5
Address	Haverton Hill Road Billingham Cleveland TS23 1PY
Contact Details	
Name	Sanjay Patel
Telephone No.	01642 373900
Email Address	**sanjay.patel@suez.com**

Owner/Organisational Structure

Company Structure

Corporate structure of EfW operation
SPV with South Tyne and Wear Waste Management Partnership
Individuals involved and responsibilities
Darren Thomas (Plant Manager)

Waste Source

When was the Plant Commissioned (Date)?	2013/14	
Remaining Concession Period	18	Years
Is the Concession Renewable?	Part	Yes/No

Quantity of Heat Available

Annually	47,801 (at nominal 5.75MWth)	MWh_th
Daily	138 (at nominal 5.75 MWth)	MWh_th
Minimum Output	0 (Nominal is 5.75MWth)	MWth
Maximum Output (Peak)	11.5	MWth
Heat Plant Annual Availability	94.9% (availability 2019)	%
Heat Availability Guaranteed	No	Yes/No
What would be the max efficiency the plant can achieve with max heat export?	~33%	%
Is thermal back-up plant available?	No	Yes/No
If “Yes” to above how much (Peak)?	Not applicable	MWth

What is the backup plant's fuel source?	Not applicable	
If "No" to above, is space available onsite to build backup plant facility?	Yes	Yes/No
Are you already supplying heat to a heat off-take customer?	No	Yes/No
If "yes" confirm capacity	Not applicable	MWth

System Parameters

Primary Circuit		
Medium (Select one.)	LTHW	
Maximum Supply Temperature	85	°C
Minimum Supply Temperature	85	°C
Supply Pressure	2	BarG
Maximum Condensate Return Temperature	85	°C
Minimum Condensate Return Temperature	55	°C
Condensate System Operating Pressure	1	BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)		
Maximum Supply Temperature	Not applicable	°C
Minimum Supply Temperature	Not applicable	°C
Maximum Return Temperature	Not applicable	°C
Minimum Return Temperature	Not applicable	°C
System Operating Pressure	Not applicable	BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If "Yes" how much electricity will be lost annually?	TBC – heat use dependent	MWe
Electricity Carbon Factor (Calculation as defined in SAP)	0.557 (SUEZ EfW average)	kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)	Not applicable	kgCO2/kWh

environmental services association

EFW Heat Network Directory

Veolia – Tyseley ERF

VEOLIA

The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	01/10/2020

Operator

Organisation	Veolia UK
Facility	Tyseley ERF
Address	James Rd Tyseley Birmingham B11 2BA
Contact Details	
Name	Mark Gilsenan
Telephone No.	
Email Address	**mark.gilsenan@veolia.com**

Owner/Organisational Structure

Company Structure
Corporate structure of EfW operation
Tyseley ERF is operated by Veolia under contract with Birmingham City Council
Individuals involved and responsibilities
Scott Francis - Head of ERF Operations North

Waste Source

When was the Plant Commissioned (Date)?	1995	
Remaining Concession Period	<4	Years
Is the Concession Renewable?	Yes	Yes/No

Quantity of Heat Available

Annually	60,774	MWh_th
Daily	184.8	MWh_th
Minimum Output	0	MWth
Maximum Output (Peak)	7.7	MWth
Heat Plant Annual Availability	90.1	%
Heat Availability Guaranteed	No	Yes/No
What would be the max efficiency the plant can achieve with max heat export?		%
Is thermal back-up plant available?	No	Yes/No
If “Yes” to above how much (Peak)?		MWth
What is the backup plant’s fuel source?		
If “No” to above, is space available onsite to build backup plant facility?	Yes	Yes/No
Are you already supplying heat to a heat off-take customer?	No	Yes/No
If “yes” confirm capacity		MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Steam	
Maximum Supply Temperature	150	°C
Minimum Supply Temperature		°C
Supply Pressure	3.5	BarG
Maximum Condensate Return Temperature	100	°C
Minimum Condensate Return Temperature	50	°C
Condensate System Operating Pressure		BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)	Not applicable	
Maximum Supply Temperature		°C
Minimum Supply Temperature		°C
Maximum Return Temperature		°C
Minimum Return Temperature		°C
System Operating Pressure		BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If “Yes” how much electricity will be lost annually?	0.2MWe per 1 MWth extracted	MWe
Electricity Carbon Factor (Calculation as defined in SAP)	TBC	kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)	TBC	kgCO2/kWh

environmental services association

EFW Heat Network Directory

SUEZ – Wilton 11 EfW

The operator will review this document every 2 years at a minimum to capture changing data over time.

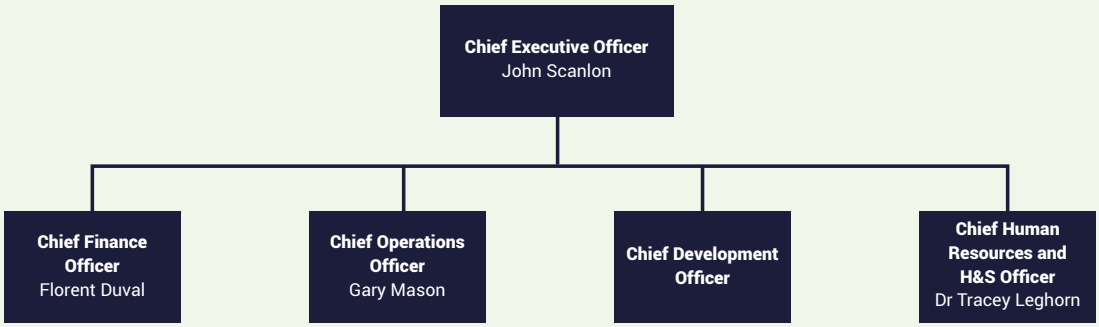
Date of completion of the Directory	15/01/2021

Operator

Organisation	SUEZ Recycling & Recovery UK
Facility	Wilton 11
Address	SUEZ Wilton 11 EfW Wilton International Redcar TS10 4RG
Contact Details	
Name	Lewis Eaton
Telephone No.	07730816803
Email Address	**Lewis.eaton@suez.com**

Owner/Organisational Structure

Company Structure



Corporate structure of EfW operation

SPV ownership, O&M contract in place with on-site customer with all heat offtake requested on demand under a pre-defined agreement

Individuals involved and responsibilities

Alex Biggins, Plant Manager, SUEZ

Waste Source

When was the Plant Commissioned (Date)?	2016	
Remaining Concession Period	23	Years
Is the Concession Renewable?	Yes	Yes/No

Quantity of Heat Available

Annually	720,000 (8,000 hours)	MWh_th
Daily	2,160	MWh_th
Minimum Output	0	MWth
Maximum Output (Peak)	90	MWth
Heat Plant Annual Availability	91.3	%
Heat Availability Guaranteed	Yes	Yes/No
What would be the max efficiency the plant can achieve with max heat export?		%
Is thermal back-up plant available?	No	Yes/No
If “Yes” to above how much (Peak)?	Not applicable	MWth
What is the backup plant’s fuel source?	Not applicable	
If “No” to above, is space available onsite to build backup plant facility?	No	Yes/No

Are you already supplying heat to a heat off-take customer?	Yes	Yes/No
If "yes" confirm capacity	Variable	MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Steam	
Maximum Supply Temperature	410 (HP), 285 (IP), 180 (LP)	°C
Minimum Supply Temperature	315 (HP), 285 (IP), 160 (LP)	°C
Supply Pressure	57 (HP), 17 (IP), 2.7 (LP)	BarG
Maximum Condensate Return Temperature	Not applicable	°C
Minimum Condensate Return Temperature	Not applicable	°C
Condensate System Operating Pressure	Not applicable	BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)		
Maximum Supply Temperature	Not applicable	°C
Minimum Supply Temperature	Not applicable	°C
Maximum Return Temperature	Not applicable	°C
Minimum Return Temperature	Not applicable	°C
System Operating Pressure	Not applicable	BarG
Will the heat provided be sacrificial to electricity generation?	Yes	Yes/No
If "Yes" how much electricity will be lost annually?	HP steam: 0.238 MWe/t (1t of steam = ~ 0.88 MWth) IP steam: 0.290 MWe/t (1t of steam = ~ 0.83 MWth) LP steam: 0.210 MWe/t (1t of steam = ~ 0.78 MWth)	MWe
Electricity Carbon Factor (Calculation as defined in SAP)	0.557 (SUEZ EfW average)	kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)	0.403	kgCO2/kWh

EFW Heat Network Directory

FCC – Wolverhampton EfW

The operator will review this document every 2 years at a minimum to capture changing data over time.

Date of completion of the Directory	10/12/2020

Operator

Organisation	MES Environmental Limited
Facility	Wolverhampton EfW
Address	Crown Street Wolverhampton WV1 1QB
Contact Details	
Name	Stefano Danieli
Telephone No.	01902 352864
Email Address	**mes@mesenvironmental.co.uk**

Owner/Organisational Structure

Company Structure
Limited Company
Corporate structure of EfW operation
Owner City of Wolverhampton Council via PFI with Wolverhampton Waste Services Limited with an O&M Contract with MES Environmental Limited
Individuals involved and responsibilities
Dawn Dilks – Waste Management for CWC

Waste Source

When was the Plant Commissioned (Date)?	11th February 1998	
Remaining Concession Period	2	Years
Is the Concession Renewable?	Yes	Yes/No

Quantity of Heat Available

Annually	0	MWh_th
Daily		MWh_th
Minimum Output		MWth
Maximum Output (Peak)		MWth
Heat Plant Annual Availability	0	%
Heat Availability Guaranteed	0	Yes/No
What would be the max efficiency the plant can achieve with max heat export?	0	%
Is thermal back-up plant available?		Yes/No
If “Yes” to above how much (Peak)?		MWth
What is the backup plant’s fuel source?		
If “No” to above, is space available onsite to build backup plant facility?	Unlikely	Yes/No
Are you already supplying heat to a heat off-take customer?	No	Yes/No
If “yes” confirm capacity		MWth

System Parameters

Primary Circuit		
Medium (Select one.)	Steam	
Maximum Supply Temperature	355	°C
Minimum Supply Temperature	355	°C
Supply Pressure	44	BarG
Maximum Condensate Return Temperature	55	°C
Minimum Condensate Return Temperature	25	°C
Condensate System Operating Pressure	-1	BarG
Secondary LTHW Circuit – if applicable		
(Secondary side of Plate Heat Exchanger)		
Maximum Supply Temperature		°C
Minimum Supply Temperature		°C
Maximum Return Temperature		°C
Minimum Return Temperature		°C
System Operating Pressure		BarG
Will the heat provided be sacrificial to electricity generation?		Yes/No
If “Yes” how much electricity will be lost annually?		MWe
Electricity Carbon Factor (Calculation as defined in SAP)		kgCO2/kWh
Heat Carbon Factor (Calculation as defined in SAP)		kgCO2/kWh