



**Newhurst Energy Recovery Facility  
Local Liaison Committee (LLC) Meeting  
Monday, 12<sup>th</sup> October 2020**

**Agenda** for the video conference meeting:

1. Welcome and Introductions
2. Apologies for absence
3. Introduction of Independent Facilitator
4. Minutes of the last meeting
5. Matters arising (not covered elsewhere on the agenda)
6. Terms of Reference
7. Newhurst Construction Update
8. Update from EHO/EA/LCC as appropriate
9. Questions raised since last meeting (answers provided)
10. AOB and next meeting Agenda items.
11. Date and time of next meeting.

## NEWHURST ERF LOCAL LIAISON COMMITTEE (LLC) MEETING NOTES

MEETING HELD 12<sup>TH</sup> OCTOBER 2020, 1830-2000HRS (VIA ZOOM)

### In attendance:

Cllr Christine Radford (CR)	LCC County Councillor, Shepshed
Cllr Max Hunt (MH)	LCC County Councillor, Loughborough North West
Cllr Jane Lennie (JL)	Shepshed Town Council
Cllr Peter Grainger (PG)	Shepshed Town Council
Cllr Maureen Havers (MH)	Charley Parish Council
Cllr John Savage (JS)	Charnwood Borough Council (CBC) Shepshed East
Julia Howard (JH)	Local Resident
Peter Wood (PW)	Local Resident
Peter Cunnington (PC)	Local Resident
Daniel Galpin (DG)	LCC Planning Officer
Mark Revill (MR)	Environment Agency (EA)
Ann Green (AG)	CBC Environmental Protection
David Spencer (DS)	Covanta
Craig Burdis (CB)	Covanta
John Orchard (JO)	Biffa
Mary Tappenden (MT)	Biffa
Dr David Best (DB)	Independent Facilitator

**Apologies for absence:** Pat Bailey, Helen Powers (EA), Alan Twells (CBC)

**Disclaimer:** Membership of the LLC does not imply either support for, or objection to, the Newhurst Energy Recovery Facility (ERF) development. Rather it is an opportunity to facilitate the flow of information between the developer and local communities.

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### 1. **Welcome and Introductions**

- 1.1 MT introduced everyone present at the meeting. It was agreed that MT would chair the meeting on this occasion with Dr David Best taking over as Independent Facilitator at the next meeting.
- 1.2 A copy of the slides that were used during the meeting will be available on the Newhurst ERF website after the meeting has concluded. The link for the website is:

<https://info.covanta.com/newhurst#communityengagement>

### 2. **Introduction of Independent Facilitator**

- 2.1 Dr David Best introduced himself. His background includes being a consulting partner with Deloitte for 14 years. During that time, he trained in Gestalt therapy and facilitation. His experience includes being a facilitator for many years with Anglo American and also for the Gas Industry Engineering body around topics like carbon monoxide (CO) poisoning from central heating devices. This was a difficult forum including both the industry side and those whose lives had been affected by CO leakage. He has also facilitated at Queen Mary University in their strategy development and with a number of other organisations.

- 2.2 DB said his approach to this type of role is to make sure everyone is heard, but also what they mean to say comes across to others in the audience. He added that he will approach the role in an even-handed and independent way. His objective is to make sure that all points of view are heard and there is confidence that people can speak freely and safely even if what they have to say is quite difficult.
- 2.3 DB said that if anyone wishes to send him a note after the meeting then please do so. His email is: [david@drdavidbest.net](mailto:david@drdavidbest.net). He also sent the email address via “chat” during the meeting.

### **3. Minutes of the Last Meeting**

- 3.1 MH asked where the slides from the last meeting could be found. DS/MT confirmed these are now on the website.
- 3.2 JH asked if the minutes are on the website. MT confirmed they would be once they have been approved as a true record .
- 3.3 The minutes of the meeting held on 27<sup>th</sup> July 2020 were accepted as a true record of the proceedings (they are now on the web site).

### **4. Matters arising (not covered elsewhere on the agenda)**

- 4.1 There were no matters arising, not covered elsewhere on the agenda.

### **5. Terms of Reference (ToR) for the Committee**

- 5.1 The draft ToR had been circulated before the meeting. MT ran through the new draft document, which was prepared after researching other ToRs on other developments. The new draft document attempts to cover all of the issues that are of interest to members.
- 5.2 Mark Revill (MR) expressed some reservation about the EA being a member of the committee rather than an invited professional advisor. MR did not think the EA needed to be present for the meeting to be quorate. It was agreed that the EA will send a representative when one is available, or when requested to attend on a specific issue. It was further agreed that the EA’s role would be more significant once the plant is in commissioning and operation.
- 5.3 MT added that a lot of questions have been raised by members of the Committee around issues such as R1, emissions and carbon capture. They are quite complex questions to answer and are more wider ranging questions about energy from waste generally. Biffa/Covanta can produce answers or position papers on these issues, but the EA position would also help members of the committee.
- 5.4 MH commented that as long as MR can be contacted and is responsive, then this is fine but if he needs to attend then the Committee would like him to be there.
- 5.5 DB referred to the issue of professional advisors. He said that compiling the agenda early would provide the opportunity and the time to invite any professional advisors to address any of the issues that will be discussed.
- 5.6 The remainder of this part of the meeting considered the criteria and the mechanism for appointing members as set out in the ToR under review. There were wide ranging views which are set out below.

**5.7 It was generally agreed that individuals who are “active in the community” should be a primary requirement for members.**

- MH suggested that there may be individuals within residents' associations or large employers who would be interested in joining the LLC.
- PW commented that whilst “active in the community” is a good criterion, it then depends on what you meant by active in the local community.
- JH suggested making the selection “skills-based” with a list of essential and desirable skills. A desirable skill would be, for example, someone who understands waste management and air quality. Someone who can converse knowledgeably. She also agreed that being active in the community was an essential skill.
- MH suggested diversity should be considered and observed that the committee at present is not very diverse.
- JL expressed the view that if nominations are only open to people with experience in waste management or environmental impact then we will get no-one.

**5.8 The “mechanism for finding volunteers” was discussed. It was generally agreed that new members should be identified through local press adverts, and through an article in the project's community newsletters** DS said generally new volunteers are sought by putting adverts in the local press. Once a list of prospective members is received, that list, with the credentials of the individuals is considered and the members vote. This is a diplomatic and transparent way of electing new members. He further suggested including a piece in the next community newsletter with a call for someone to come forward who wants to join the LLC.

- JT said the free magazine “Your Local” would be a good start and suggested an article for the magazine.
- JH put forward two Nanpantan residents who are interested in joining, Richard Price and Anthony Goodwin. The only other nomination so far is from Bill Bebbington from Shepshed.
- CR asked that everyone has access to and looks at the details of prospective candidates.
- PW thought that a deadline for nominations should be set such that a decision can be made at the next meeting.
- JL suggested advertising locally in Shepshed and the parts of Loughborough that are affected.
- JH added that there must be a lot of people in Loughborough who are interested, particularly as the development is now impacting on Loughborough rather than just Shepshed as was the case when the project was a landfill.
- CR commented that, in appointing someone, we have to recognise we have a site with planning permission and a permit, and we have to work with what we have got. The only issue is – how will it affect the local residents when it is up and running and that includes MH's area (north west Loughborough) and Shepshed. Nanpantan will not be affected as much.
- DB commented that we need to reach people who have an interest in the area by virtue of the fact that they live, and are active in, the area rather than anyone who has specific domain knowledge about the development. We will have access to professional advisors to give that information. We need wider representation through Parish Council's, free magazines, noticeboards and social media.
- DG suggested that a list of local community groups and businesses that are relevant to the community is drawn up. From that list it could be refined and then we could work from that. He also felt that a boundary should be set for where we draw members from.



- CR asked what area the newsletter going to cover? She suggested it should cover the whole of Shepshed, the whole of MH's area and also Hathern and Nanpantan.
- JH referred to the last minutes where it was stated that the newsletter would go out to a 3-mile radius. It will catch Woodhouse Eaves, Charley etc. DS said we were discussing this, but 3 miles was an arbitrary figure. He suggested we may consider mirroring the consultation zone for the ERF application. JH said it needs to go back to the 3-mile zone as she has already told people locally that the newsletter will be delivered in that zone. PW suggested this would cover all of the necessary area.
- Biffa/Covanta agreed to consider the extent of this area.

**5.9 It was generally agreed that “Representation” needs to cover both the Shepshed and Loughborough sides of the M1.**

- JH commented that there is a large part of Loughborough that isn't covered and referenced that the emissions from the plant will travel over Loughborough.
- JL added that this is not the only issue. Shepshed gets the motorway, congestion, and traffic fumes.
- JT said that the prevailing wind direction is across Garendon and the new houses for 90% of the time.

**5.10 It was generally agreed that all resident “terms of office” (including current representatives) should be 3 years.**

- JH suggested the term of office for resident members should be 3 years – including the incumbent members. When information goes out inviting people to apply to join, it should be for all the spaces on the committee i.e., 6.
- JH suggested the same should apply to the local Borough and County members on the Committee.
- CR commented there is no say as to who the elected members are. It is decided by the Council. She and Max were put on the committee because they are the local County Councillors, and it is the same with the Borough and the Town Councils.
- JH said she understands the process but there are more residents that need to be represented through elected members than there are at the moment. She added that the message she is getting at the moment from the local residents in her area is that it is desperately unfair.
- CR commented that she and MH fought against the project and did not get any support from anyone in Loughborough. She lives less than a mile away from the facility as does JT.

**5.11 Summary and Actions:**

- Biffa/Covanta to amend ToR in line with the discussion. Amended version to be circulated to members before next meeting.
- Biffa/Covanta to prepare and circulate the first community newsletter, including items on LLC and membership.

**6. Newhurst Construction Update**

6.1 CB presented a construction update. The slides accompanying the presentation are on the web site. The presentation included details of the site Covid Action Plan.

6.2 MH asked if the site has a first aider and if anyone is living on site. CB said the medic is a health professional. No one is living on site.

- 6.3 PG asked how many local residents have been recruited. CB did not have the numbers but commented the workforce is currently transient due to the nature of phased construction works. The operational side of the employment will be more local with 40-45 high quality jobs for the next 20-25 years.
- 6.4 PW asked about site visits and expressed some disappointment that it is not currently possible. CB said the current Covid rules mean only essential (construction related) visits are allowed but he will keep this under review this going forward.
- 6.5 PC added that it is important that the members of the Committee are familiar with what is going on at the site so that they can feed back to others who may be interested. PC agreed and commented the sooner site visits can be arranged the better.
- 6.6 DS said Covanta has a short film that explains how an EFW works. This is now on the Newhurst website (<https://info.covanta.com/newhurst#constructionprogress>). HZI has a side profile of an EFW plant that can also be used.
- 6.7 PW asked if a site manager has been appointed. The link between the Manager and the local community is very valuable. CB said that when the plant manager is appointed, they will be taking over his role at the LLC meetings. They will be appointed about 12 months from the start of the plant's commissioning phase.

## **7. Questions raised since last meeting (answers provided)**

- 7.1 A document addressing all of the questions raised during and since the last meeting has been produced and is on the website.
- 7.2 JH asked for the results of the Biffa background air quality monitoring to be made available. MT will make the results available to the committee.
- 7.3 JH asked, how, when the site is operating will Biffa/Covanta avoid allowing any hazardous waste to be brought on to site. This was answered in the meeting. Biffa/Covanta has also produced a list of FAQ's and these are now available on the project web site. This question is considered under FAQ 18,20 and 22.

## **8. AOB and next meeting Agenda Items**

- 8.1 DS asked for any agenda items for the next meeting to be notified in advance. It was agreed that a short presentation would be given by Biffa/Covanta on R1.

## **9. Date and time of next meeting**

- 9.1 **Monday 11<sup>th</sup> January 2020 at 1500hrs.** Format to be advised closer to the date.



# Newhurst ERF Local Liaison Committee Project Update October 2020

# Newhurst Energy Recovery Facility

	Newhurst
Location	Leicestershire, England
Capacity (gross)	350 ktpy; ~42 MW
Financial Close	February 11, 2020
Engineer, Procure, Construct (EPC)	Hitachi Zosen INOVA (HZI)
Operator	Covanta
Scheduled Completion Date	Q2 2023

Main Welfare and Offices established on site

Design (40% complete) and Procurement (16% complete) progressing on time

On site concrete batching plant now operational

First Tower Crane installed on site

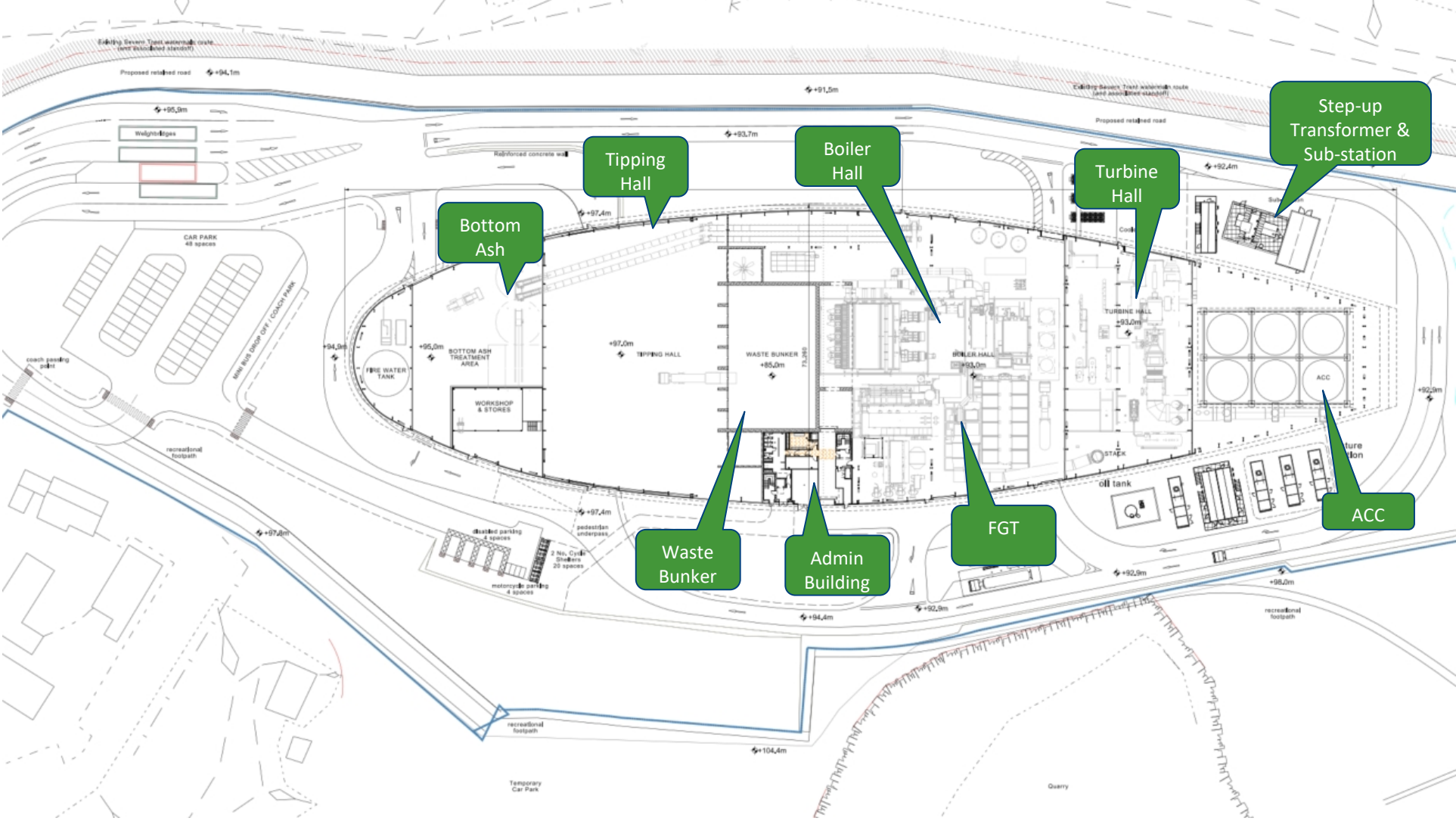
Construction of Waste Bunker completed

Installed 132kV cable ducts for grid connection during ongoing highway works



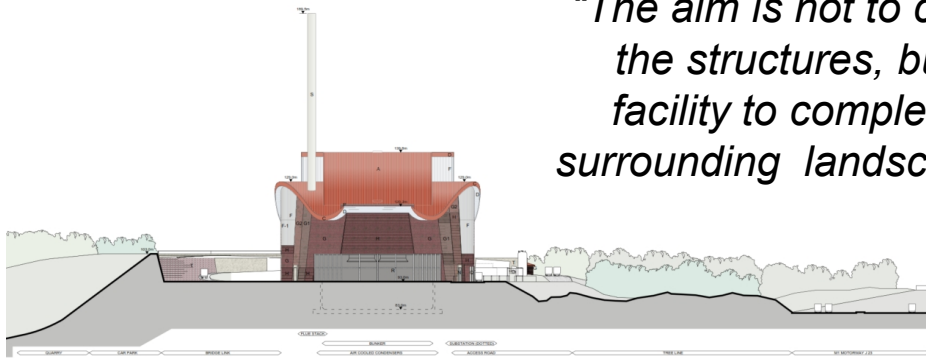


# General Arrangement

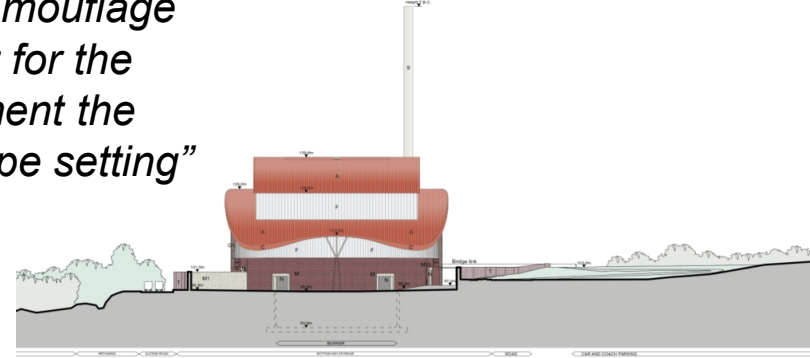


# Elevations

*“The aim is not to camouflage the structures, but for the facility to complement the surrounding landscape setting”*

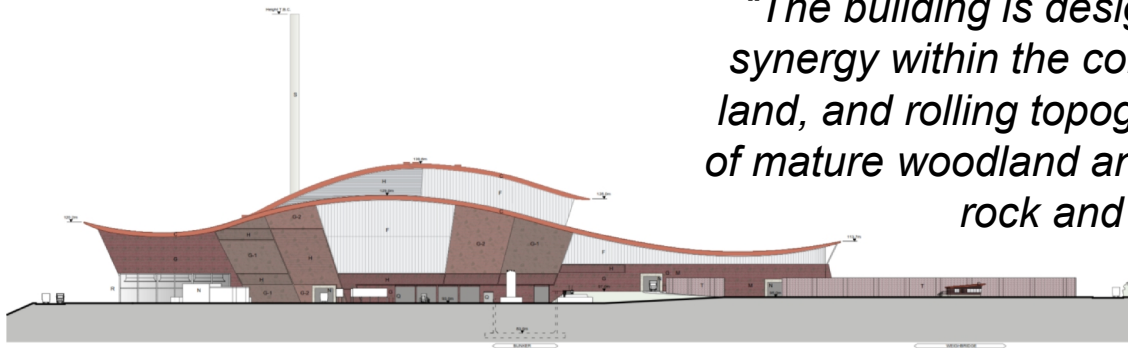


SOUTH ELEVATION

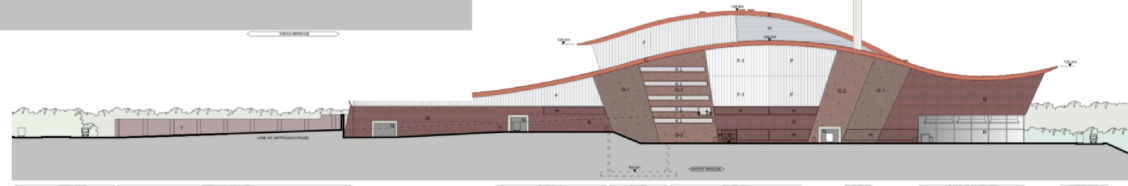


NORTH ELEVATION

*“The building is designed to develop a synergy within the context of undulating land, and rolling topography with its belts of mature woodland and exposed areas of rock and earth”*

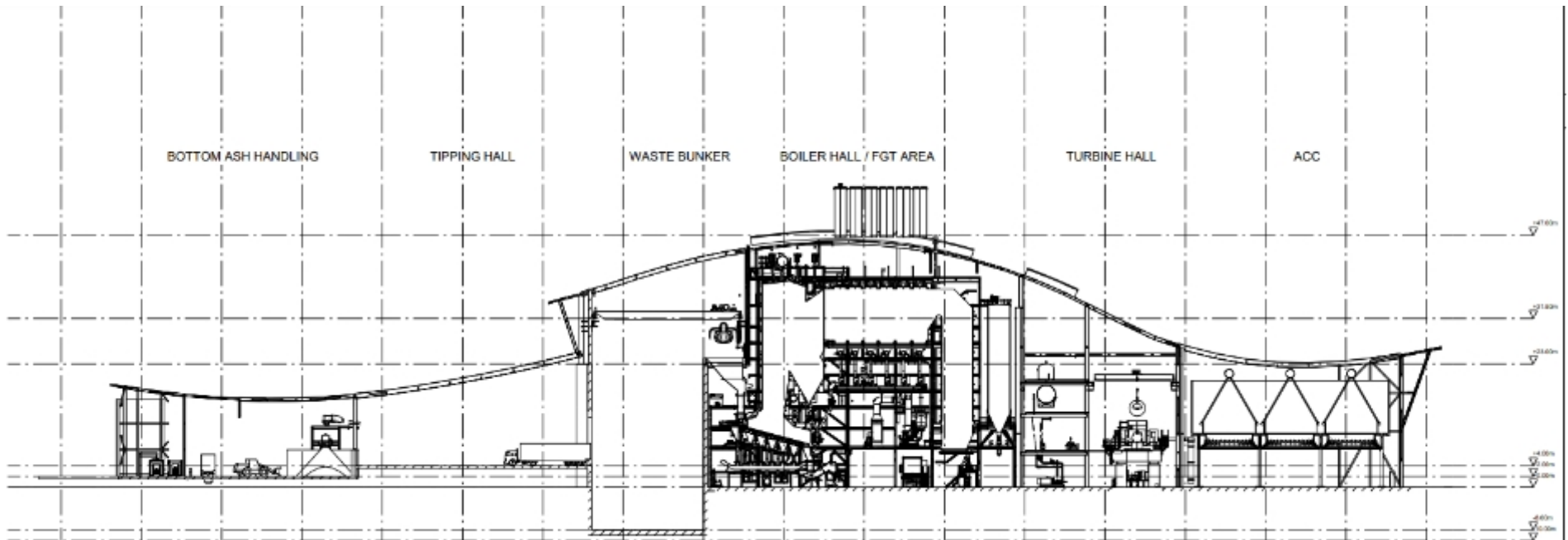


EAST ELEVATION



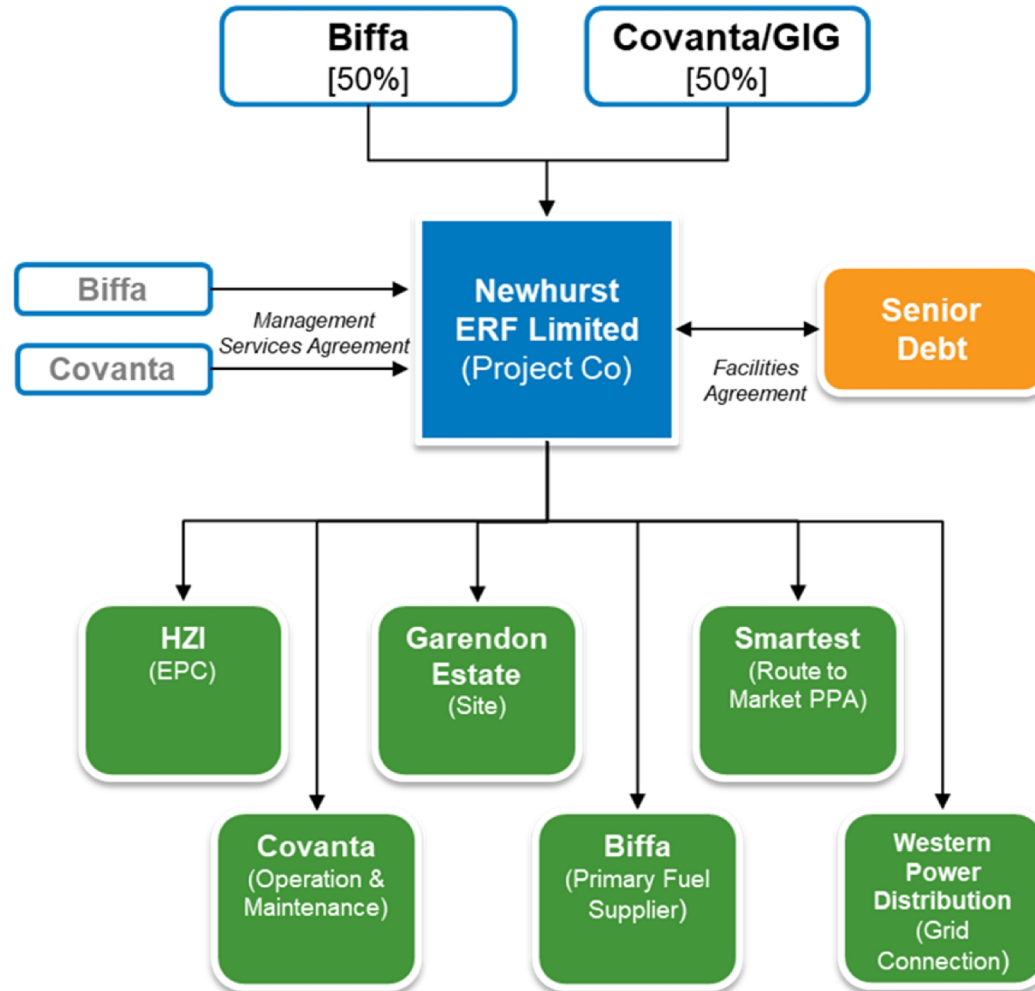
WEST ELEVATION

# Section



- The overall technical solution and key process technologies are robust and commercially proven
- Moving grate combustion technology

# ProjectCo – Newhurst ERF Limited





# Project Timeline

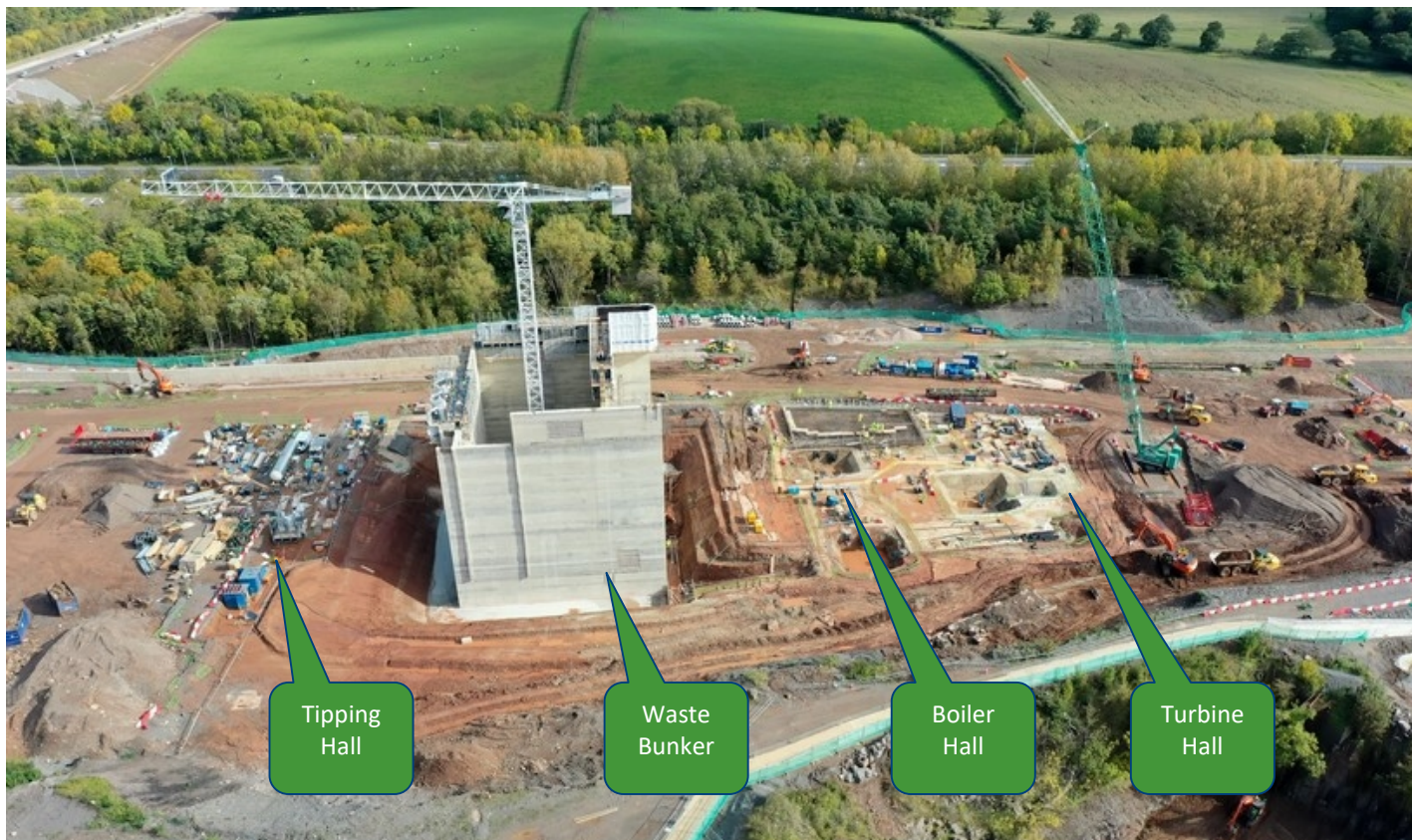


July 2020





October 2020



# October 2020





# October 2020





# Progress Photos





# Waste Bunker Slip-form

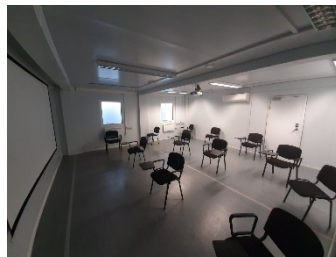
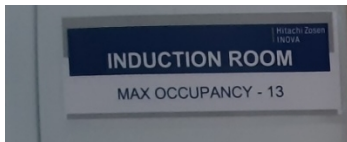
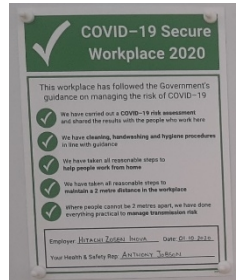


## COVID-19 Management & Action Plan

- All arrangements are in line with current UK Government guidance and Site Operating Procedures published by the Construction Leadership Council
- UK Government position since the start of the pandemic has been that where suitable measures can be implemented, construction sites in England should remain operational.
- The Plan for the Newhurst project includes:
  - All persons arriving at site are subject to temperature screening.
  - Workforce start, finish and break times are staggered to avoid large groups.
  - New Site Welfare and Offices have been designed to be large enough to enable social distancing.
  - Additional handwashing facilities and sanitiser.
  - Expanded the site cleaning team to ensure areas are cleaned and disinfected frequently.
  - Masks are being worn when moving around offices.
  - Site support staff working from home where possible.
  - Full-time Medic on site with Covid-testing capability, should it be required.



# COVID-19 Site Measures



## 3 Month Lookahead

- Continue reinforced concrete works to Boiler Hall and Flue Gas Treatment Hall
- Build foundations for Stack
- Commence reinforced concrete works to Turbine Hall
- Building steelwork to arrive on site, starting with the Waste Bunker
- Continue Site Infrastructure works, including earthworks, drainage and roads
- Factory inspections to begin to check on manufacturing progress

**Questions to Covanta/Biffa from LAQPG**

<b>No.</b>	<b>Question:</b>	<b>Response:</b>
1.	<p>Discussions held with the University regarding their use of electricity or heat from the plan are purely “speculative”.</p> <p>The statement is made that Incineration is now regarded by HM Government as a high carbon process.</p>	<p>There have been past discussions with Loughborough University regarding supply of heat and or electricity. We would agree that the discussions have been “speculative”, and we would very much like to see them progress further. That said, the plant still easily achieves R1 status without supplying the University.</p> <p>Covanta has provided their R1 Calculation, and this is included with this response. This shows that the plant should easily achieve R1 status and will be classified as a “Recovery” operation.</p> <p>It would be helpful if LAQPG could provide the references that suggest energy from waste is a high carbon process so that we can understand the context and respond accordingly.</p>
2.	Who will buy energy from Newhurst?	We have a 15-year power purchase agreement with Smartest Energy on the electricity being supplied to the grid.
3.	If commercial customers are not forthcoming, what is the impact on investors?	Investment has been made on the basis of the contract for power export.
4.	If insufficient energy is actually sold, what happens to the R1 status, if this achieved?	We have a contract to supply electricity and the R1 calculation is based on only this, so the question is not relevant
5.	Questions raised about the absence of a condition on the planning permission requiring the restoration of the site in the event that the ERF become redundant.	<p>This is a permanent consent for an industrial facility. There is no intention to remove the plant – it will continue to operate and be updated and changed, as necessary.</p> <p>This issue was also addressed at the LLC meeting on 11.01.21</p>

6.	Who will be responsible for monitoring and reporting the vehicle movements?	The site operator i.e. Covanta is responsible for keeping records. There is a condition on the planning permission that requires records to be kept and to be produced on request by the Local Planning Authority.
7.	What happens if the daily number of movements is exceeded? Will excess vehicles be turned around?	Everything arriving at the plant will be under contract, so we have the ability to control deliveries to the site to ensure the permitted numbers are not exceeded. Nothing will arrive speculatively (if it did, it would not be allowed beyond the weighbridge).
8.	In the event that HGV's cannot be "tipped" due to, for example, a breakdown of the plant or the waste storage being full, can an assurance be given that vehicles will not queue outside the boundary?	If there is a planned shutdown, no vehicles would come to site. Customers would be notified in advance. If there were an unplanned shutdown, the waste bunker would still have capacity to accept waste giving sufficient time to inform customers that the site is shut. There is no possibility that vehicles would end up queuing outside of the site.
9.	Will the plant be subject to continuous monitoring, to ensure it does not exceed the permitted emission levels by use of bypasses during transient phases, meaning that the plant emits without filtering?	The Permit sets out those parameters which must be monitored continuously, and this is how the Plant will be operated. A bypass around the flue gas treatment system will not be installed (and is not permitted by the EA).
10	Under what circumstances will the plant shut down automatically and can automatic shutdown be overridden, if so by whom?	The plant will shut down automatically if there is a significant disruption to the process. This might be a variety of reasons, e.g. failure of equipment, loss of electricity supply, which results in one or more parameters reaching a threshold at which the Plant control system will initiate an automatic safe shutdown. This will be tested and proven during commissioning of the Plant. Any changes to the control and safety systems will only be permitted via a formal review and approval procedure and could only be undertaken by specialist personnel.
11.	Under what circumstances can the plant be shut down by the EA?	The EA cannot come to site and physically shut down the plant. Any EA-enforced shut-down would be due to a persistent and/or serious breach of the permit.

<b>12.</b>	How are start-ups controlled to ensure there is no spike in pollutant emissions above safe levels?	Start-ups are largely controlled automatically with occasional operator check points according to an approved start-up procedure. The flue gas treatment system is preheated and pre-coated with reagents prior to start-up. Auxiliary burners are used during start-up to slowly warm up the plant prior to the required temperature before waste is incinerated, as required under the permit.
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**Questions to Covanta/Biffa on R1 and Carbon Capture**

1.	We understand it is intended Newhurst will obtain an R1 status. If so, what would be your target. Can this be explained so an understanding can be achieved as to the importance or not of achieving this target. (it is understood R1 status is granted to the most energy efficient producing incinerators from 2008, having at least a .65 energy coefficient	The currently calculated R1 value for the plant is >0.8 and the calculation is appended to these responses.
2.	Would Biffa please send the link when finalised of its calculation for its R1 status.	A copy of the current calculation is appended to these answers. Please note that the calculation has been carried out by Covanta as the plant operator. The process is ongoing, and Covanta will be required to continue to demonstrate the R1 status of the plant throughout its operational life. Ongoing validation submissions will be required.
3.	Does your calculation of R1 include heat offtake?	<p>The current R1 calculation includes only electricity production. The efficiency of the Plant for electricity-only production is expected to be one of the highest in the world.</p> <p>The plant has been designed so that any future heat export can be achieved efficiently by using steam which has already been used to produce electricity. This can only improve the R1 figure.</p>
4.	Planning Condition 29 to locate the heat offtake pipe route has not yet been complied with.	The condition requires we provide a route to the boundary of the site for approval by the LPA before commencing operations. The work to provide this detail is ongoing and the condition will be complied with. The plant will be CHP ready upon commencement of operations.
5.	Can it be confirmed whether the option is being taken to install continuous emissions monitors.	Continuous Emission Monitors will be installed and have always been included in the design for the Plant. This is the normal approach at EfW Plants in the UK. Continuous monitors will be installed for those parameters stated as "Continuous measurement" in Tables S3.1 and S3.1(a) of the Permit.

6.	Can you confirm whether pre-operational condition P07 has been fulfilled? If so, may we have the link to the air dispersion modelling which forms part of the Air Emissions Risk Assessment you undertook in 2018.	P07 is now discharged. Further comment on this is provided by the EA in their response.
7.	Can you confirm it is Biffa's responsibility to ensure that the waste is correctly monitored and it is they who would be penalised for allowing hazardous waste to enter the stacking bays?	The permit lists the types of waste that can be accepted at the plant. The plant is only permitted to accept non-hazardous wastes. It is the responsibility of the producer to correctly describe the waste they are producing but ultimately, everyone from the producer, through those who transport the waste and the operator of the plant has responsibility for ensuring only compliant waste is accepted at the site.
8.	What actual control and monitoring procedures would be in place that can be checked by the EA or other statutory body to ensure this takes place – in particular has the Waste Management Scheme be written and what does it say about the acceptance of unsuitable material.	Covanta will have operating procedures (e.g. spot checks on tipping floor and visual inspection by crane driver) prior to incineration.
9.	Can the TATA CCUS industrial scale Carbon Capture and Utilisation project be monitored. Could this be included in the construction with the aid of a grant?	The issues around carbon capture were answered following the meeting in July 2020 and are also included in the FAQ section on the web site.

**Questions for the Environment Agency**

<p><b>1.</b></p>	<p>In relation to Q2, I notice in the Permit at 3.5.5, regarding daily emissions, there appears to be an option for continuous monitoring of emissions, is this correct and if so do you know if continuous emission monitors are to be installed. If they are not installed how do emissions get monitored and is live data to be made available.</p>	<p>The continuous emissions monitoring referred to in permit condition 3.5.5 is actually required by condition 3.5.1 which references schedule 3 to the permit. These are mandatory requirements of the Industrial Emissions Directive (IED). The continuous monitoring serves to show that the combustion process is well controlled and that pollutants potentially most impactful on local air quality are sufficiently controlled and within the prescribed limits of the IED. Periodical monitoring is also required by the IED for other pollutants for which there may be no approved continuous monitoring method. Whether the operator would be willing to provide a link to live emissions data is one for them, but there is no legal basis to require it.</p>
<p><b>2.</b></p>	<p>Regarding Q4, do you have the PO7 ( pre operational condition on the review of the air dispersion modelling) fulfilled yet and if so please may we have the link to the final air dispersion assessment carried out forming part of the Air Emissions Risk Assessment, which you forwarded to me; I note that this must be done after determination of the option of whether one or two incineration lines are to be implemented, and at least 2 years before commissioning. If this is still outstanding, are you aware of its data collection yet? And Is this the additional work you were referring to in your response to my previous question in 4, where you said more work is needed. - in particular would you able to comment on whether there are any discrete sensors now included on the university site, and if so, why not. (4.1)</p>	<p>This was some of the additional work to be undertaken. The operator has fulfilled the pre-operational condition PO7. I include their submission and my report. Regarding discrete sensors, there is no requirement for such.</p>
<p><b>3.</b></p>	<p>In Q5 you refer to the waste acceptance procedures, I assume PO12. I also note the planning Permission has had this condition removed, their condition 36. Are these one and the same, do you have it yet and who monitors the performance. We are told by Biffa that it is the producer of the waste who is responsible if</p>	<p>Pre-op condition PO12 does refer to the waste acceptance procedures required to be in place before commissioning and acceptance of waste. We have not received any submissions to this yet. The waste acceptance procedures form part of the environment management system for the site and come under the auspices of the Environment Agency in determining compliance</p>



	hazardous waste is accepted, but can you explain who exactly this body is, councils, Biffa, or Covanta? (It is stated in PO12 that the waste procedure should state the systems by which wastes unsuitable for incineration at the site will be controlled)	with the permit. Any additional conditions the local authority may apply as part of the planning permission is not a matter for the Agency. The reference to the responsibility of the producer to accurately describe their waste is separate to the permit requirements on the operator to receive and handle waste in a way that does not pose a significant risk to the environment. The producer is obliged by law to correctly characterise and describe the wastes they produce. The Agency has a wider role in checking that this is happening and taking appropriate enforcement action where necessary.
4.	When all the pre-operational measures ( PO ) are completed can the public view the documents ( also the Improvement Programme Requirements )	Yes. Submissions against a permit condition are normally available on the public register (subject to some exclusion provisions in the regulations).
5.	We find it hard to understand whether what is emitted from the stack is what impacts ground toxins. We note that in the Air emissions Risk Assessment 2018 undertaken by Biffa at tables 6-1 and 6-2 PM2.5 particulates have been excluded from predicted maximum ground levels for short term impact but are included for long term impact. Please can you explain the significance of this and why that is.	This was part of the permit variation determination but I expect that PM2.5 was not included in the short term assessment simply because there is no short term air quality objective to assess it against, only an annual mean.
6.	The impact of terrain modelling is included in the Air Emissions Risk Assessment, but we cannot see where the relevance of this is included in the findings! Has it changed anything?	Terrain modelling is integral to the air dispersion model. Typically, consultants may turn off that element to show what the modelled impact is with and without just as is the case in the sensitivity analysis in the report. As you can see there is little impact in this situation.
7.	IC2 requires a written proposal be provided for the tests to be carried out to determine the size distribution of the particular matter in the exhaust gas emissions to air from emission points identifying the fractions within the PM10 and PM2.5 ranges prior to any tests. Has the proposal been given the written approval yet and if so, may we have the link?	This is a standard improvement condition and is not due until after commencement of normal operation.

<b>8.</b>	Additionally, at p 19 in the decision document to the permit it states that there is currently no emission limit prescribed nor any continuous emissions monitor for particulate matter specifically in the PM10 or PM 2.5 fraction. Please can you explain why this is. And why this is not taking place until 6 months of the completion of commissioning. Similarly, the importance of 1C3 for chromium.	Legally it is total particulate matter that is required to be monitored and this has an emission limit value set by the IED. Both PM10 and PM2.5 fractions are part of that total. There is presently no specific legal requirement to set an emission limit for the smaller fractions. The air impact assessment modelled both these sub-categories as if the total particulate emitted at the specified IED limits were comprised of wholly PM10 or PM2.5 for their respective air quality objectives. It demonstrated that they were insignificant. That this improvement condition requires submission after the commencement of normal operation is in itself quite normal as the data gathered should be representative of the plant in the state it is expected to spend most of its working life. The improvement conditions relating to emissions, such as IC3, can be viewed as confirmatory checks for the modelling conclusions.
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## APPENDIX B

### Note on Energy from Waste Permitting, R1 and Combined Heat and Power (CHP)

- B.1** Environmental permits are needed for a wide range of activities that might pollute the air, water or land.
- B.2** Schedule 1 of the Environmental Permitting regulations provides a listing of all of the activities that require a permit. When applying this schedule to an installation such as the proposed plant at Newhurst, an installation which generates electricity but which also burns waste, the Environment Agency faces a slight issue. They must decide whether the installation is primarily an energy production facility (a Schedule 1, Section 1.1, Part A1(a) activity) or a waste management facility (Schedule 1, Section 5.1, Part A1 (c)).
- B.3** The Environment Agency consider that the overriding reason for the existence of an installation such as that proposed for Newhurst is the management of waste and that therefore the installation falls under Schedule 1, Section 5.1, Part A1 (c).
- B.4** The fact that Newhurst is considered a waste management installation then raises the question as to whether waste being delivered to the site is being **disposed of** or **recovered** for a useful purpose.
- B.5** Annex II of the Waste Framework Directive contains another list of activities which are this time split up into activities considered to be “Disposal Operations” (D\*) and “Recovery Operations” (R\*). Unfortunately, this list contains two entries which could plausibly be considered to describe EfW operations:
- D10 Incineration on land
  - R1 Use principally as a fuel or other means to generate energy

However, the Annex continues to describe R1 activities as to include incineration facilities dedicated to the processing of municipal solid waste only where their energy efficiency (Energy efficiency =  $(E_p - (E_f + E_i)) / (0,97 \times (E_w + E_f))$ ) is equal to or above:

- 0,60 for installations in operation and permitted in accordance with applicable Community legislation before 1 January 2009,
- 0,65 for installations permitted after 31 December 2008

**B.6** Newhurst is expected to meet the R1 energy efficiency requirement and will therefore be classified as a waste recovery operation. This is demonstrated in the following spreadsheet extract. The installation is expected to achieve an energy efficiency rating above 0.8 even without CHP and this is significantly in excess of the R1 threshold of 0.65.

**Table B.1: Calculation of R1 Energy Efficiency Rating**

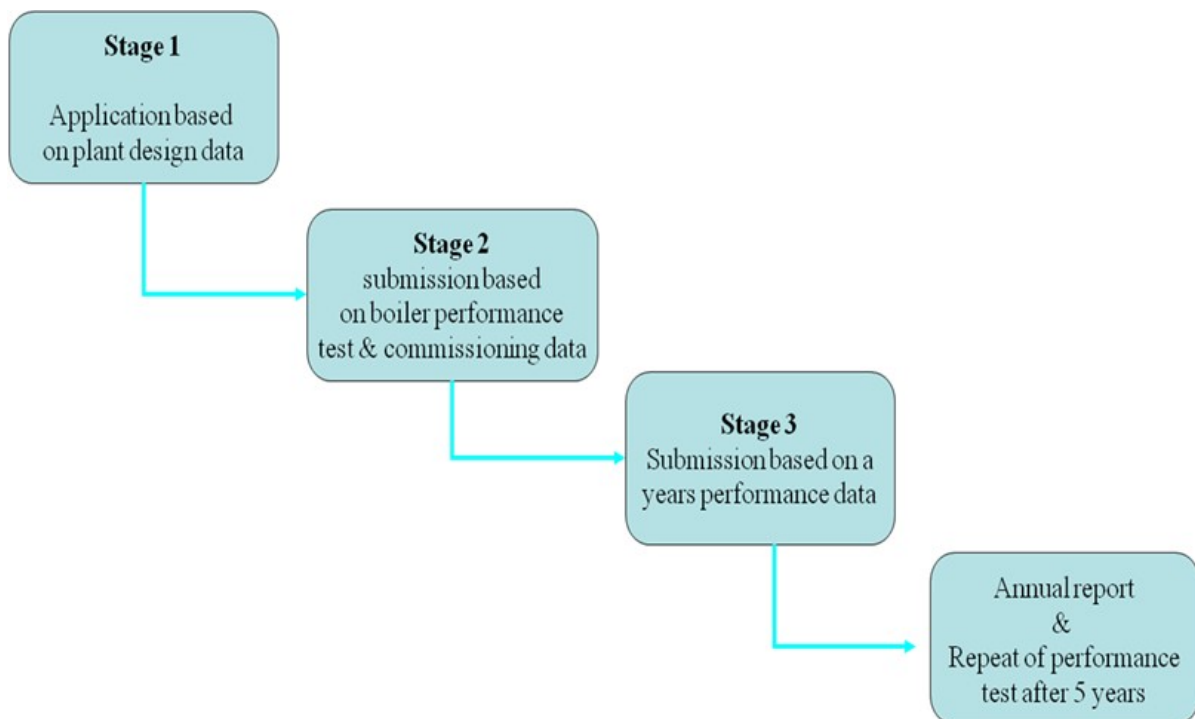
Site Name	Nehurst EfW	Energy of Waste Input (Ew) / (MWh/yr)	834000
Electricity efficiency factor (Fe)	2.6	Energy from Other Fuels (Ef)	1496
Heat efficiency factor (Fh)	1.1	Other Energy Imported (Ei)	1300
Waste Input / (te/yr)	300000	Exported Heat (Uh)	0
Lower Net Calorific Value / (MJ/kg)	10	Generated Electricity (Ue)	258000
Energy of Waste Input / (GJ/yr)	3000000	Energy Produced (Ue x Fe)+ (Uh x Fh)	670800

Energy Efficiency =	$\frac{(\text{Energy Produced} - \text{Energy from Fuels} - \text{Other Energy Imported})}{0.97 \times (\text{Energy of Waste Input} + \text{Energy from Fuels})}$
Energy Efficiency =	<b>0.82</b>
	<b>R1 Use principally as a fuel or other means to generate energy</b>

**B.7** All of the above requirements and details are quite new. In fact, the requirements have only just been transposed into the UK legislature and guidance from the Environment Agency regarding how to apply for R1 status still remains in draft.

However, the Environment Agency have confirmed that applying for R1 status will be a separate process to applying for a permit. This is an important confirmation as some of the wording the Newhurst permit could otherwise be (and has been) misinterpreted to suggest that the EA have somehow rejected the idea of it being a recovery operation. This is not the case.

As this extract from the Environment Agency's draft guidance shows, R1 status can be gained at the plant design stage and / or commissioning stage as well as when the plant is in operation.



**B.8** R1 status will not be permanent but instead will be subject to annual review and retesting every 5 years. The guidance also confirms that the plant does

not have to be “dedicated” to municipal waste incineration but must be of the same broad design as such dedicated plant and the term “municipal waste” is clarified as “waste from households, as well as other waste which, because of its nature or composition, is similar to waste from household” this is important as some people had suggested that the R1 formula would only apply to “dedicated” council / PFI type facilities.

**B.9** Despite the fact that Newhurst is anticipated to meet and exceed the R1 energy efficiency formula even in an electricity only configuration, the use of heat generated at the installation remains an attractive proposition for the following reasons:

- Although a heat distribution main is very expensive (£1000 / m) significant opportunities arise from prospects for the sale of heat energy.
- Once equipped with CHP, there is the possibility of claiming extra subsidies on the electricity produced, in the form of Renewables Obligation Certificates (ROCS).
- If a reasonable opportunity to utilise waste heat arises, the EA will require Biffa to act.

**B.10** The exact scale of the ROCs subsidies available is a complicated subject but a 25MWe EfW CHP Scheme where the biomass content of the fuel has been established or deemed at 50%, will receive ROCs on 50% of the electricity produced. In order to qualify for ROCs, EfW CHP Schemes over 25MWe must demonstrate at least:

- 35% overall efficiency (using the thermodynamic definition of efficiency, not the EU R1 version), and
- 10% Primary Energy Savings (PES) when compared with the alternative for the separate generation of electricity and heat.

**B.11** Given a significantly sized scheme, these requirements should be achievable. However, Newhurst, like most such schemes, finds itself in a chicken and egg

situation where significant heat users are likely only to be found following the construction of the installation.

**B.12** The Environmental Permit for Newhurst recognises this situation. The permit requires at Condition 1.2 that Biffa provides and maintains steam and/or hot water pass-outs such that opportunities for the further use of waste heat may be capitalised upon should they become practicable. Additionally, it will require Biffa to review the practicability of Combined Heat and Power (CHP) implementation at least every 2 years. The results must be reported to the Agency within 2 months of each review. As part of the application Biffa were required to produce a report regarding potential heat use (Heat Plan). The report found that in addition to exporting around 20MW of electricity to the National grid around 70 Mega Watts of heat could be captured and piped in a heat main to various end users. An initial desk-top assessment revealed a number of potential heat users within a 5km radius of the proposed Newhurst ERF. If practical opportunities to utilise waste heat are identified as a result of a review of the heat plan, a failure to use reasonable endeavours to implement such a scheme may be regarded as a breach of the requirement to “take appropriate measures to ensure that energy is recovered and used efficiently in the activities” as required by condition 1.2.1 of the permit.

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