

Newhurst ERF Local Liaison Committee Project Update April 2022

Newhurst Energy Recovery Facility

Newhurst

Location	Shepshed, Leicestershire
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

Design (98% complete) and Procurement & Manufacturing (98% complete) progressing on time

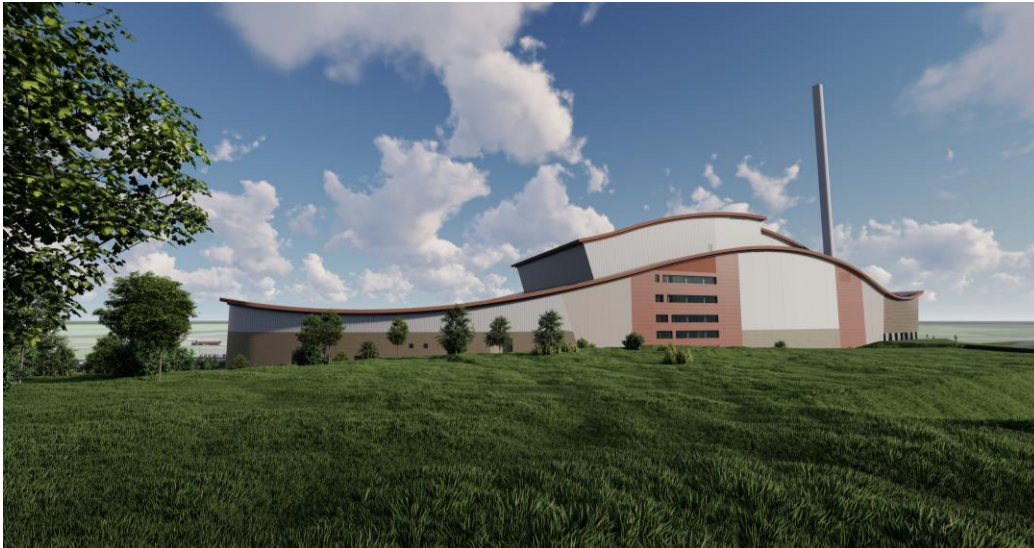
All main components now delivered to site

Construction (71% complete) progressing on time

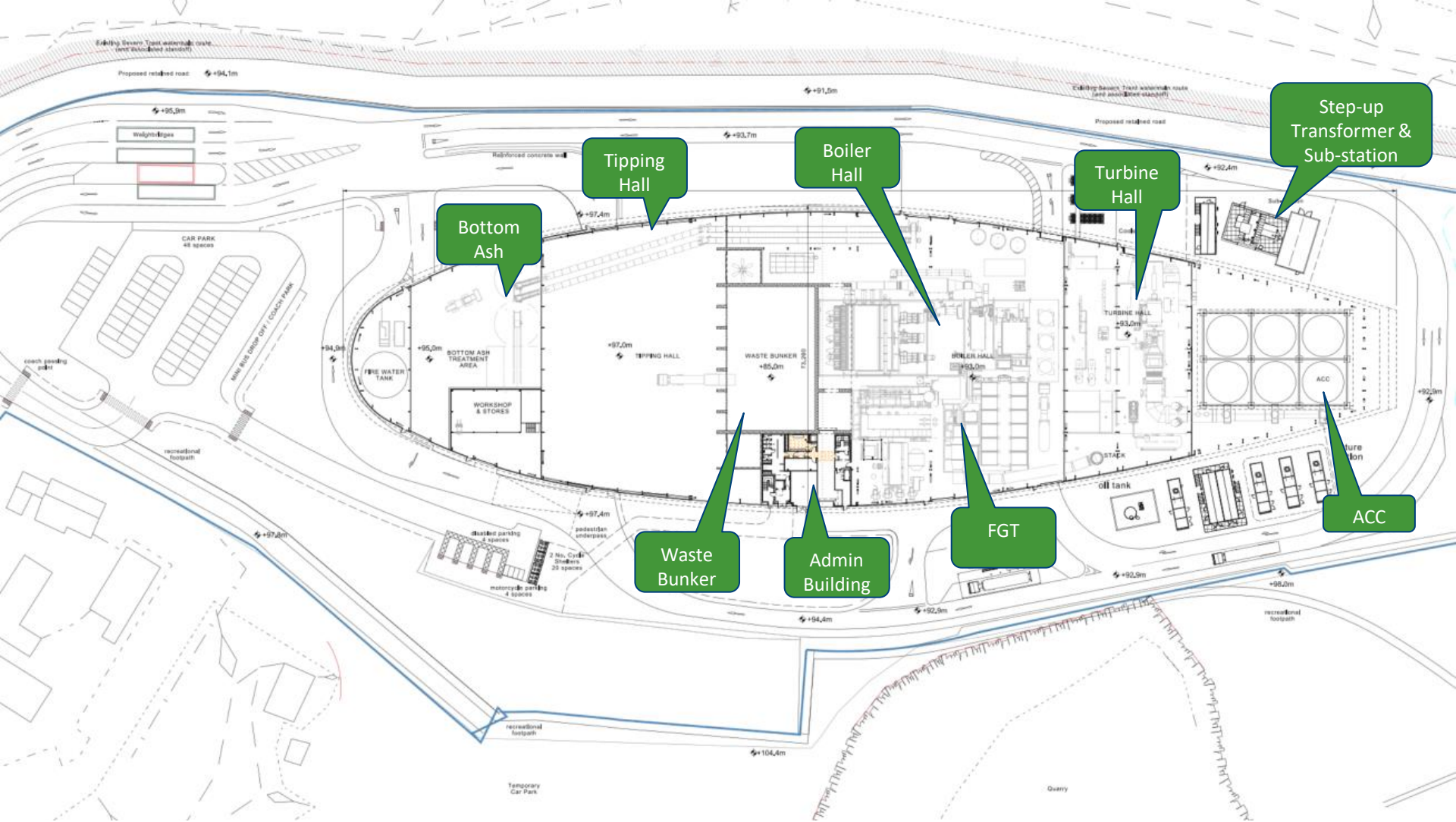
Boiler Pressure Test successfully achieved in February 2022

Building steelwork and cladding of building envelope continues

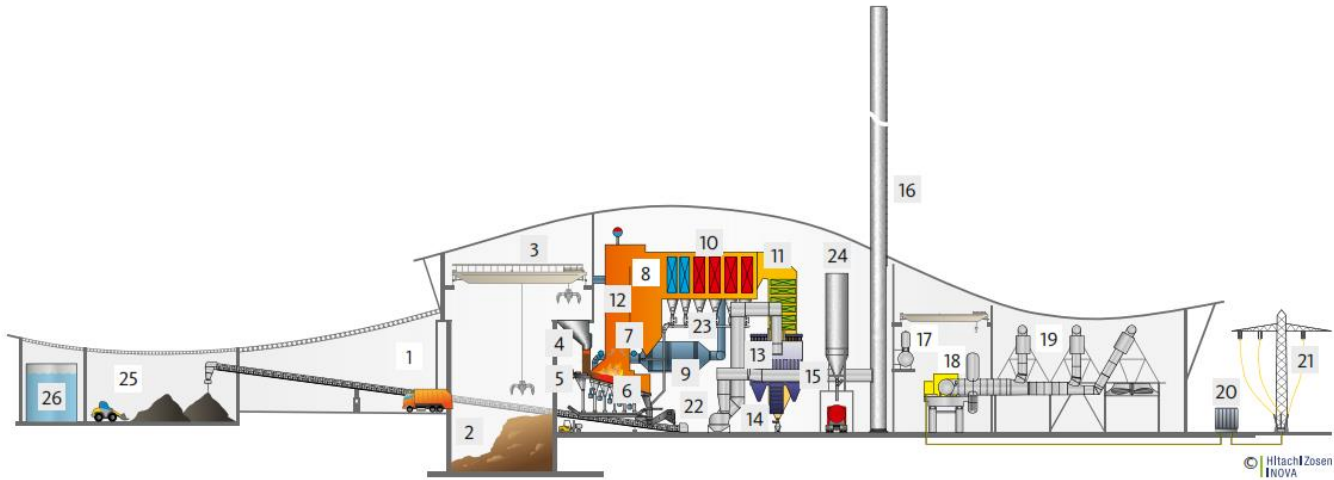
Around 600 operatives currently working on site



General Arrangement



How does it work?



Waste Delivery and Storage

- 1 Delivery hall
- 2 Waste bunker
- 3 Waste crane

Combustion and Boiler

- 4 Feed hopper
- 5 Ram feeder
- 6 HZI Grate
- 7 Secondary air
- 8 Four-pass boiler
- 9 Primary air
- 10 Superheater
- 11 Economiser

Flue Gas Treatment

- 12 SNCR DyNOR®
- 13 Fabric filter
- 14 Induced draught fan
- 15 Flue gas duct
- 16 Stack

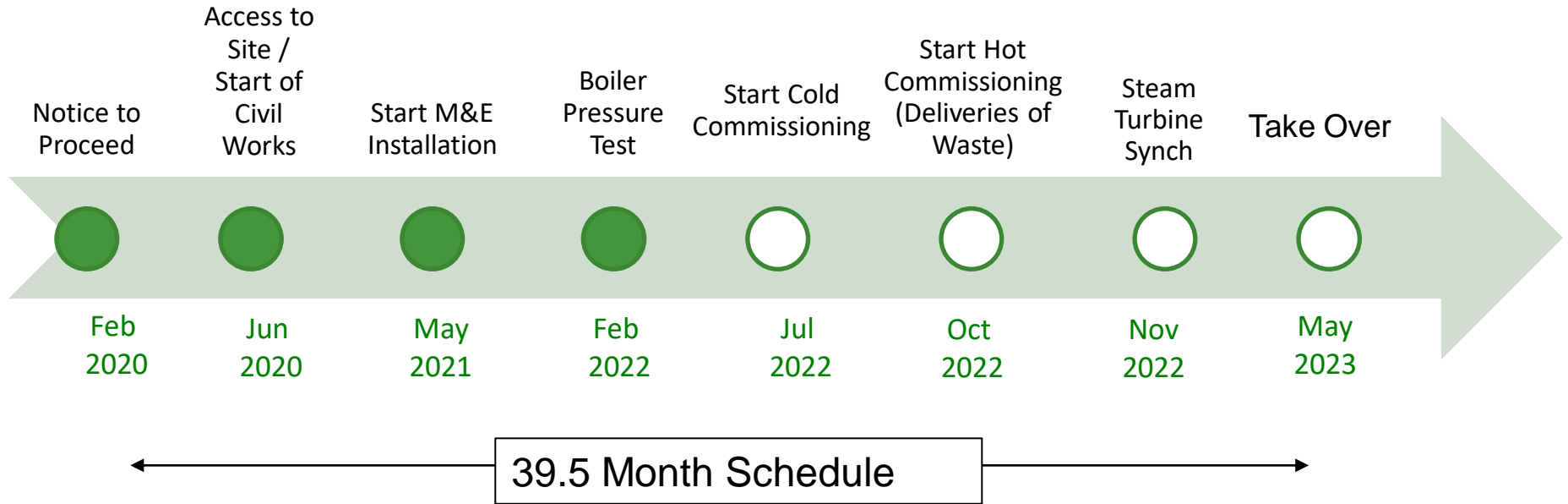
Energy Recovery

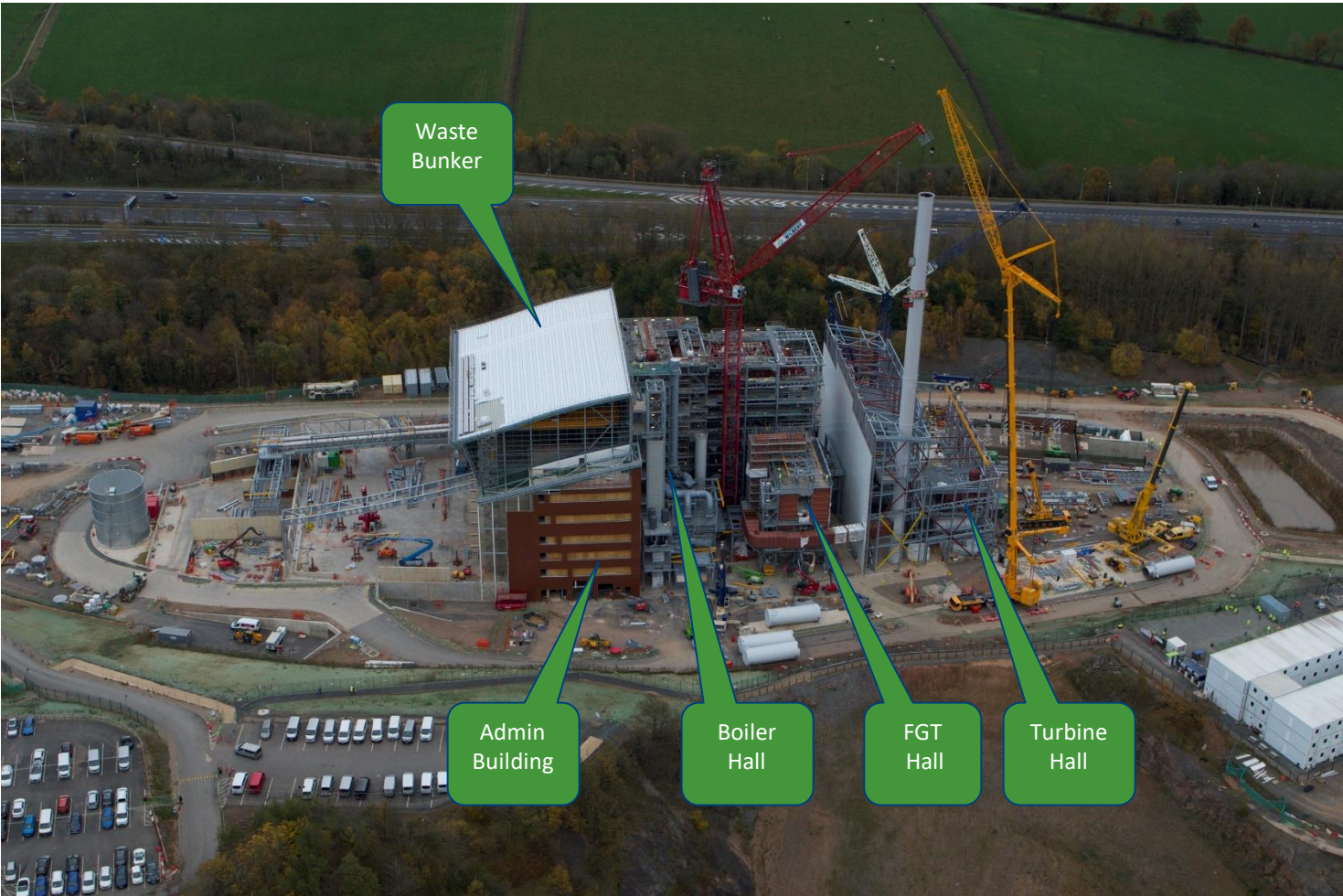
- 17 Feed water tank
- 18 Steam turbine
- 19 Air cooled condenser
- 20 Transformer
- 21 Electrical power distribution

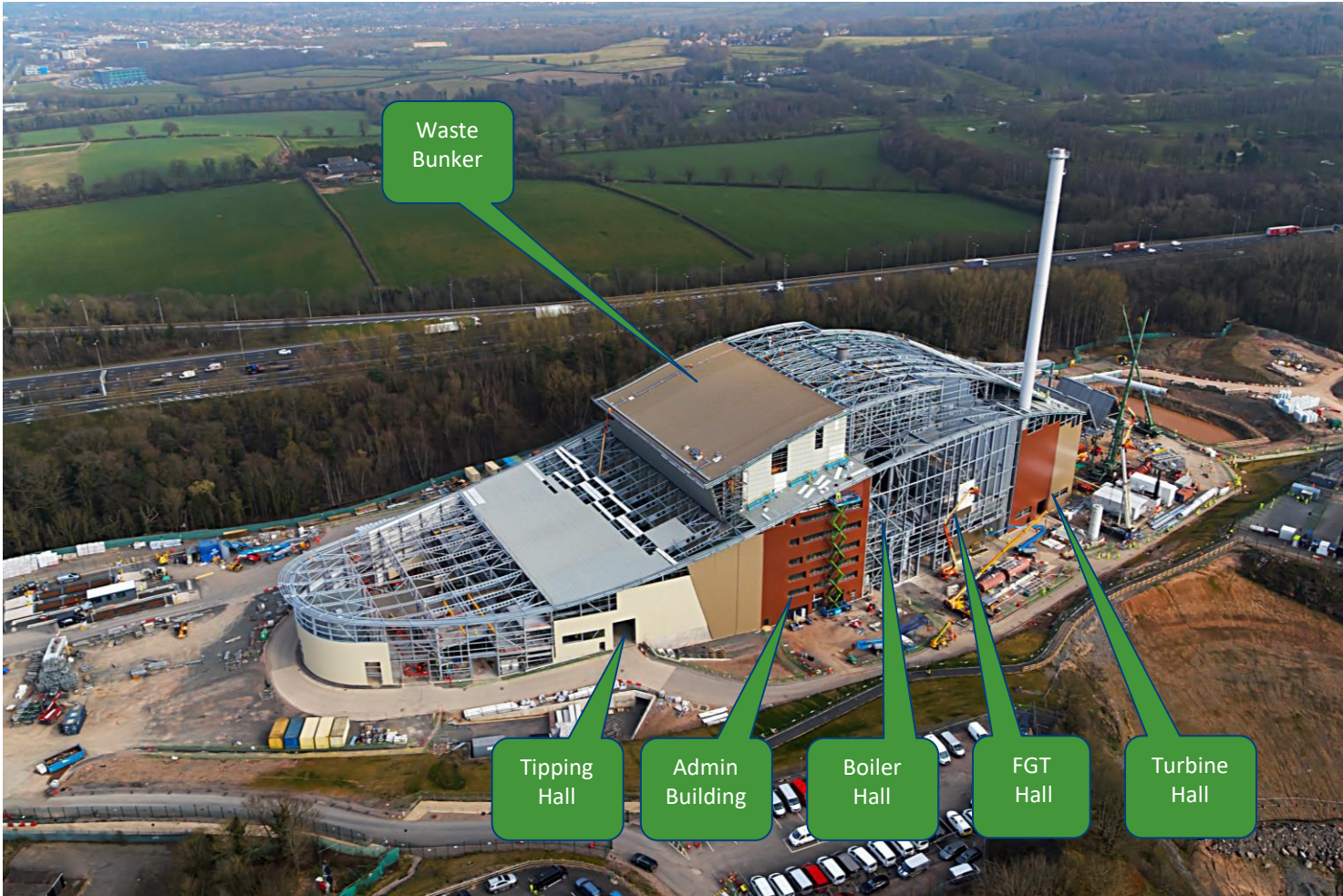
Residue Handling and Treatment

- 22 Bottom ash extractor
- 23 Boiler ash discharge
- 24 Residue silos
- 25 Bottom ash area
- 26 Fire water tank

Project Timeline







Progress Photos – April 2022



View looking north

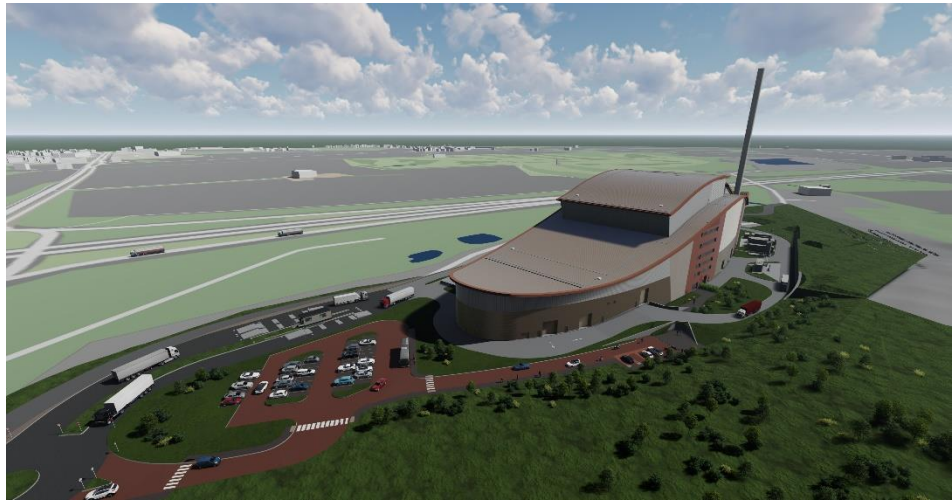


View looking south-east

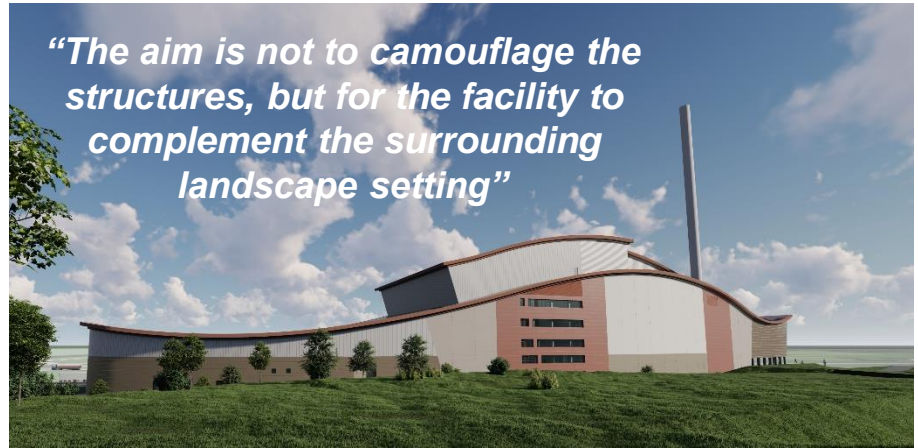


View looking north-west

What will it look like when it is built?



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



“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”



Planned vs Reality



Extract from ES Chapter 7 Drawing NH 7.42 Viewpoint 6-8 Photomontages.pdf\NH 7.42



Section 73 Planning Model Comparison



Site Photo March 22



3 Month Lookahead

- Erection of the Building Envelope will continue including steelwork and cladding.
- M&E Contractors will continue with installation of the Combustion equipment, Flue Gas Treatment and Water Steam Cycle equipment.
- Electrical and Piping subcontractors will continue with installation.
- Installation of the Turbine Generator to continue.
- Energisation of the 132kV grid connection.
- Recruitment of O&M staff ongoing.

- ***Any questions?***

Environmental Permit Pre-Commissioning Conditions

Condition	Summary of pre-operational condition	Status / Responsibility
PO1	Prior to commencement of commissioning, submit Environment Management System for approval by EA.	CEL have completed document, ready for issue to the EA (via Biffa). Submission to EA – April 2022.
PO2	Prior to commencement of commissioning, submit report describing options for heat utilisation including CHP and district heating.	Draft report under review by CEL before issue to EA. Submission to EA – April 2022.
PO3	Prior to commencement of commissioning, submit protocol for sampling of incinerator bottom ash for approval by EA.	CEL have completed document, ready for issue to the EA (via Biffa). Submission to EA – April 2022.
PO4	At least 4 months prior to the commencement of commissioning submit commissioning plan for approval by EA.	Awaiting revision from EPC Contractor following comments. Submission to EA - April 2022.
PO5	No later than one month after completion of the final design submit Computational Fluid Dynamics (CFD) report to EA demonstrating achievement of 850°C for 2 seconds in the combustion chamber/ furnace.	Approved by EA. Closed

Environmental Permit Pre-Commissioning Conditions

PO6	At least 3 months before the commencement of commissioning for EA approval a methodology to demonstrate 850° / 2s residence time in furnace.	EPC Contractor preparing document.
PO7	Submit to the EA for approval, confirmation of which option will be implemented, including details of the incinerator technology configuration and a review of the air dispersion modelling.	Closed.
PO8	Prior to the commencement of commissioning submit a written report to the EA for approval, commissioning plan and monitoring procedure for the odour abatement system.	Awaiting revision from EPC Contractor following comments. Submission to EA - April 2022.
PO9	During commissioning, carry out tests to demonstrate whether the furnace combustion air will provide the required air flows to ensure that negative pressure is achieved throughout the reception hall. Demonstrate whether air is pulled through the reception hall and bunker area into the furnace and activated carbon filter odour abatement system with dead spots minimised.	EPC Contractor to carry out tests during commissioning and prepare report.
PO10	At least 3 months prior to the commencement of commissioning, submit updated Fire Prevention Plan (FPP) to EA for approval.	Draft report under review by CEL before issue to EA. Submission to EA – April 2022.

Environmental Permit Pre-Commissioning Conditions

PO11	Prior to the commencement of commissioning, submit to the EA for approval an updated Noise Impact Assessment (NIA) to reflect the final, designed plant.	Acoustics Consultant completing review against latest EPC Contractor's Noise Impact Assessment. Final report expected mid-April 22.
PO12	Prior to the commencement of commissioning, submit to the EA for approval the waste acceptance procedure to be used at the site.	CEL have completed document, ready for submission.
PO 13	Prior to the commencement of commissioning, submit to EA for approval a protocol for monitoring soil and groundwater.	Protocol prepared by Environmental Consultants, currently under review by CEL.

Recruitment Update



Newhurst Energy Recovery Facility Organisational Structure

