

Note: In addition to the 16th December 2019, this presentation was presented to officers at the Borough Council of King's Lynn and West Norfolk on the 17th December 2019 and a further presentation to officers at Norfolk County Council on 27th January 2020



Medworth EfW CHP Facility

Cambridgeshire & Norfolk County Council & Fenland District Council Meeting

16th December 2019

MVV Environment Ltd.

Development of Energy-from-Waste and Biomass facilities in UK

**We inspire
with energy.**

Agenda

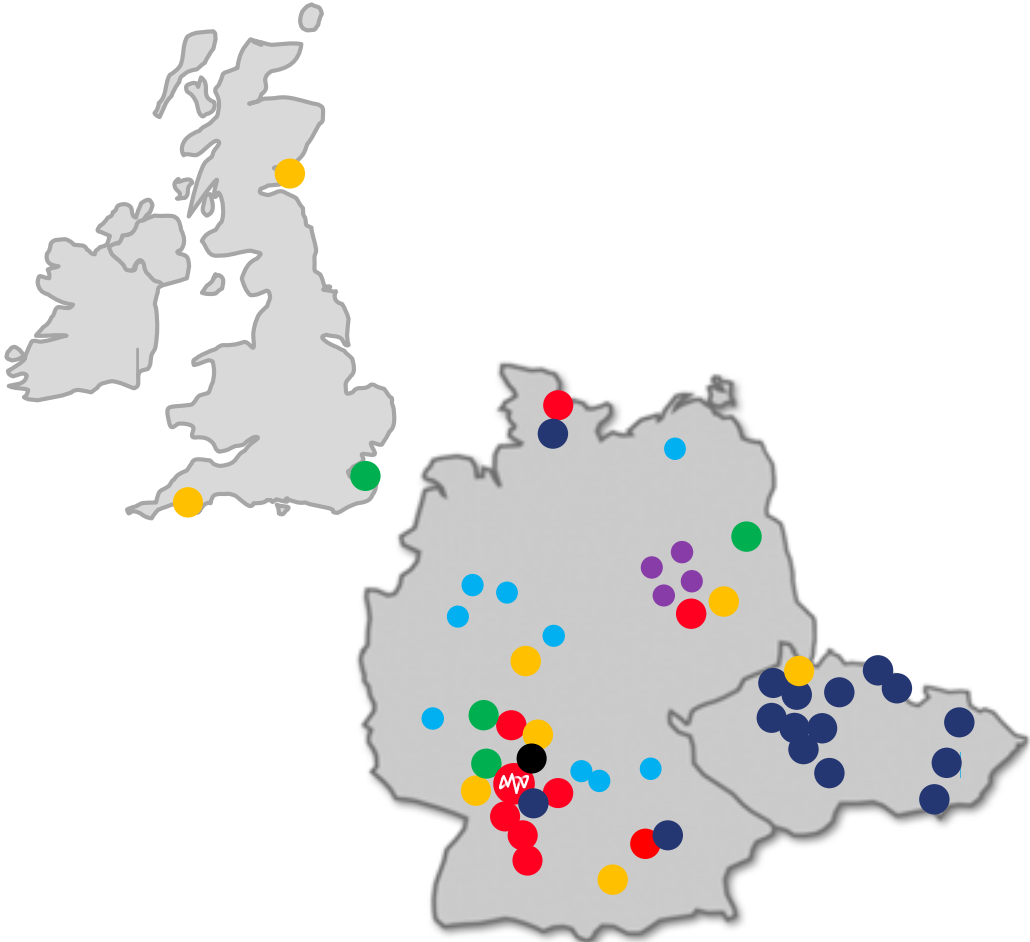
- **An introduction to MVV**
- **Background**
- **The site today**
- **The proposal**
- **The DCO process**
- **Summary**
- **Questions/discussion**



We aim to introduce who MVV are and familiarise you with our proposal

Introduction to MVV

Our Locations



- Coal CHP Plant
- Energy-from-Waste (EfW)
- Biomass
- Biogas
- Wind Energy
- District Heating
- Utilities

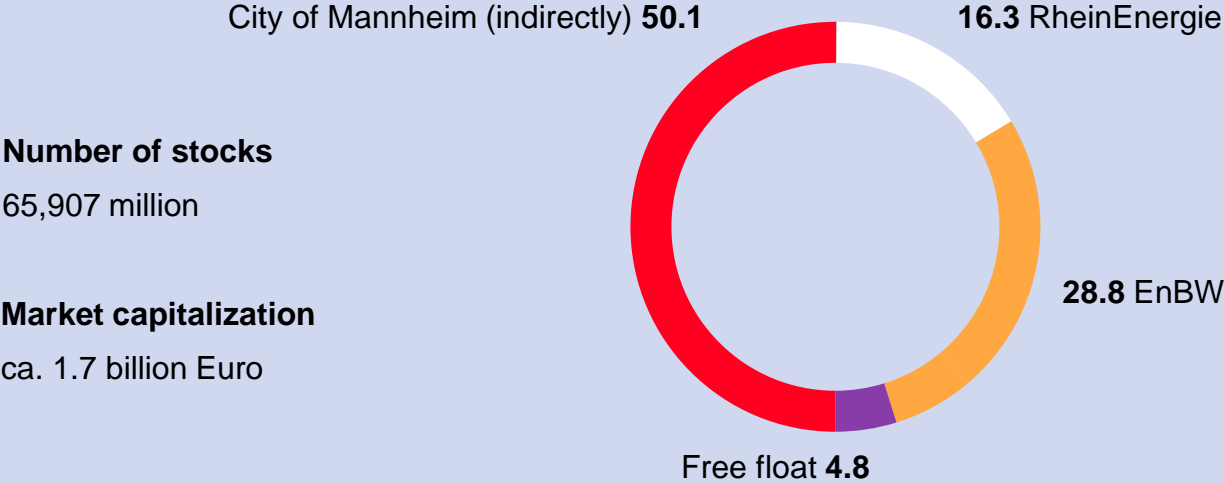


MVV Energie AG

Shareholder structure and key figures

Shareholder structure

In percent



Number of stocks

65,907 million

Market capitalization

ca. 1.7 billion Euro



MVV Energie AG

2019 Financial Year

Key Figures - adjusted

Euro million

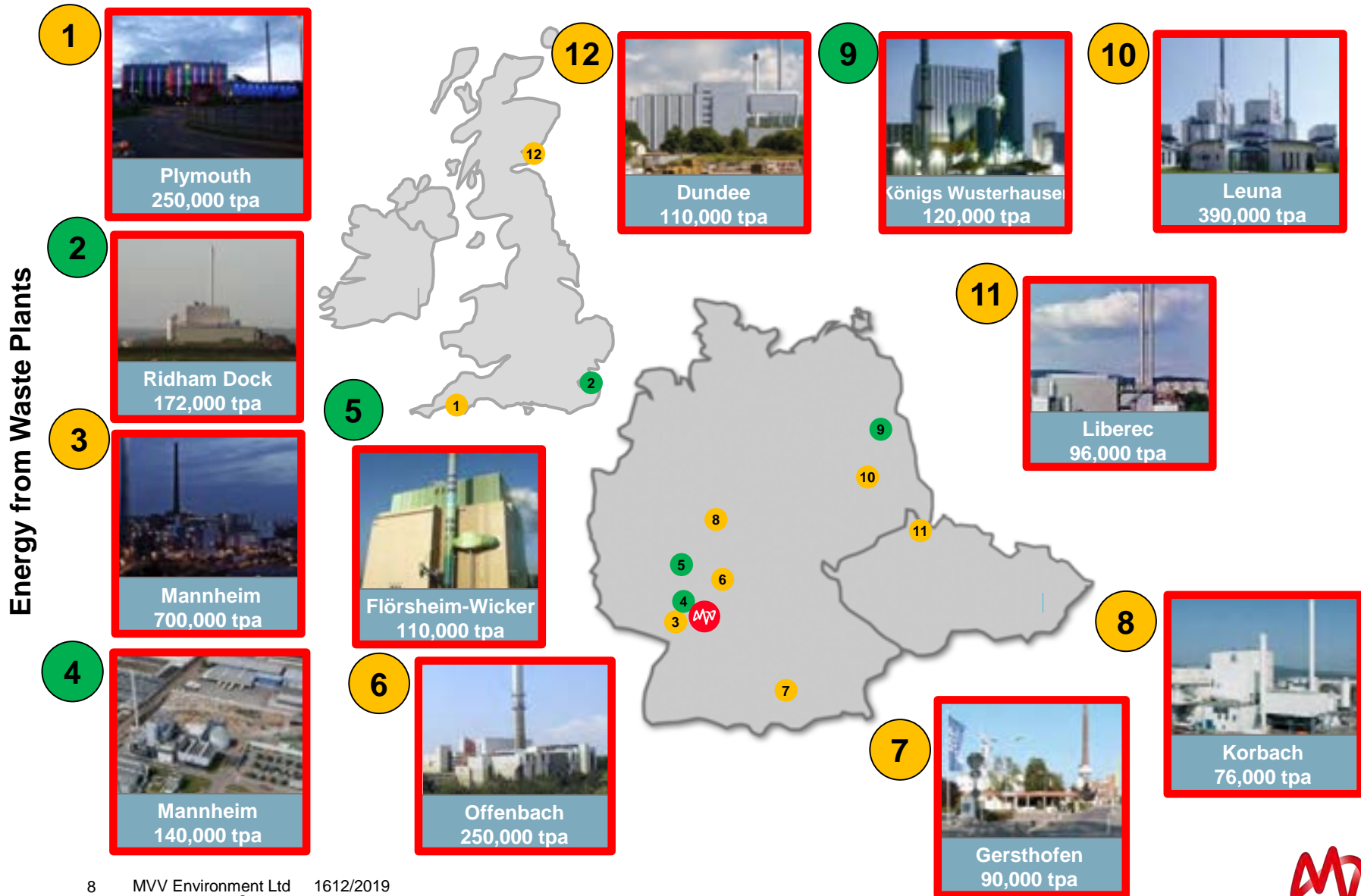
	FY 2019	FY 2018	% change
Adjusted sales excluding energy taxes	3,683	3,903	-6
Adjusted EBITDA ¹	409	443	-8
Adjusted EBIT ¹	225	228	-1
Adjusted annual net income ¹	115	111	+4
Adjusted annual net income after minority interest ¹	98	94	+4
Adjusted earnings per share ¹ (Euro)	1.49	1.43	+4
Cashflow from operating activities	238	331	-28

¹ Excluding non-operating measurement item for financial derivatives, excluding structural adjustments for part-time early retirement, excluding restructuring result and including interest income from finance leases



MVV Umwelt: 50+ year's experience in EfW

2.4 million tons of Waste = 1,300 GWh Electricity + 1,500 GWh Heat

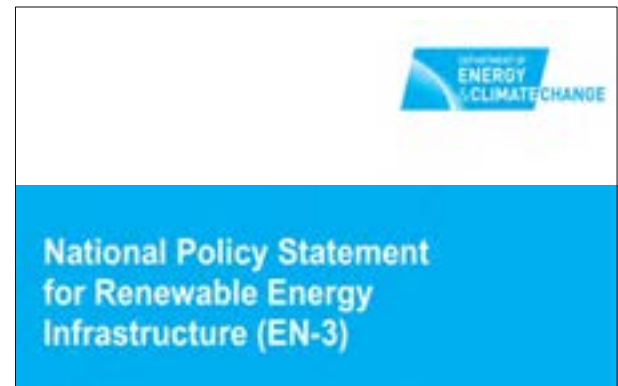
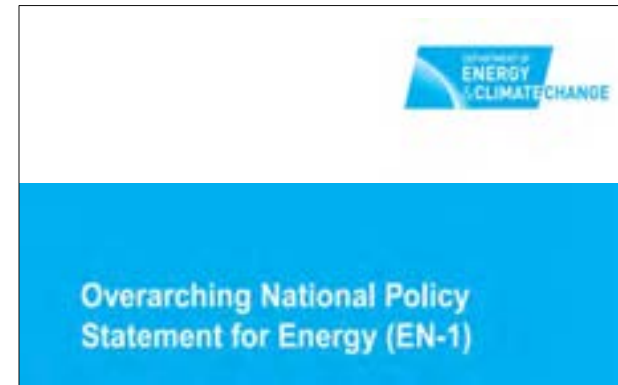


Energy from Waste Plants



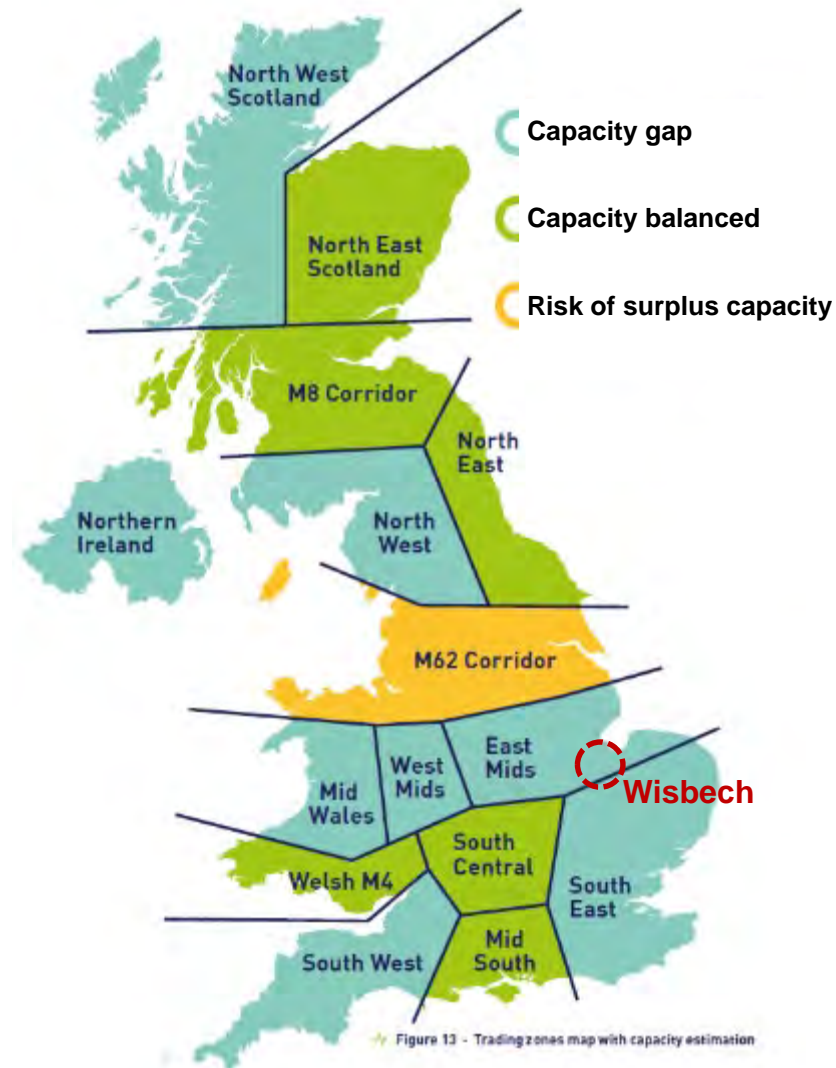
Medworth: Background the 'Need'

- National Policy Statement for Energy (EN-1) and Renewable Energy (EN-3) identifies a clear and pressing need to:
 - Change the UK's approach to energy generation
 - Reduce reliance on fossil fuels
 - Reduce greenhouse gas emissions
 - Promote renewable energy both 'intermittent' e.g. solar and 'dispatchable' e.g. energy from waste
 - Deliver sustainable waste management
 - Accord with the waste hierarchy



Medworth: Development of UK waste market

- The current gap between UK residual waste arisings and EfW capacity is estimated to be >15m tpa in 2020
- Most of this is landfilled – the rest is exported
- Landfill remains the last choice in the waste hierarchy
- Energy from waste facilities with capacities in the range of 500,000 tpa are necessary to divert waste from landfill and provide useful energy on an economic basis
- Regional Local Authority Collected Waste (LACW) and residual C&I waste contracts will be re-tendered
- Commercial and industrial waste is also available in the region

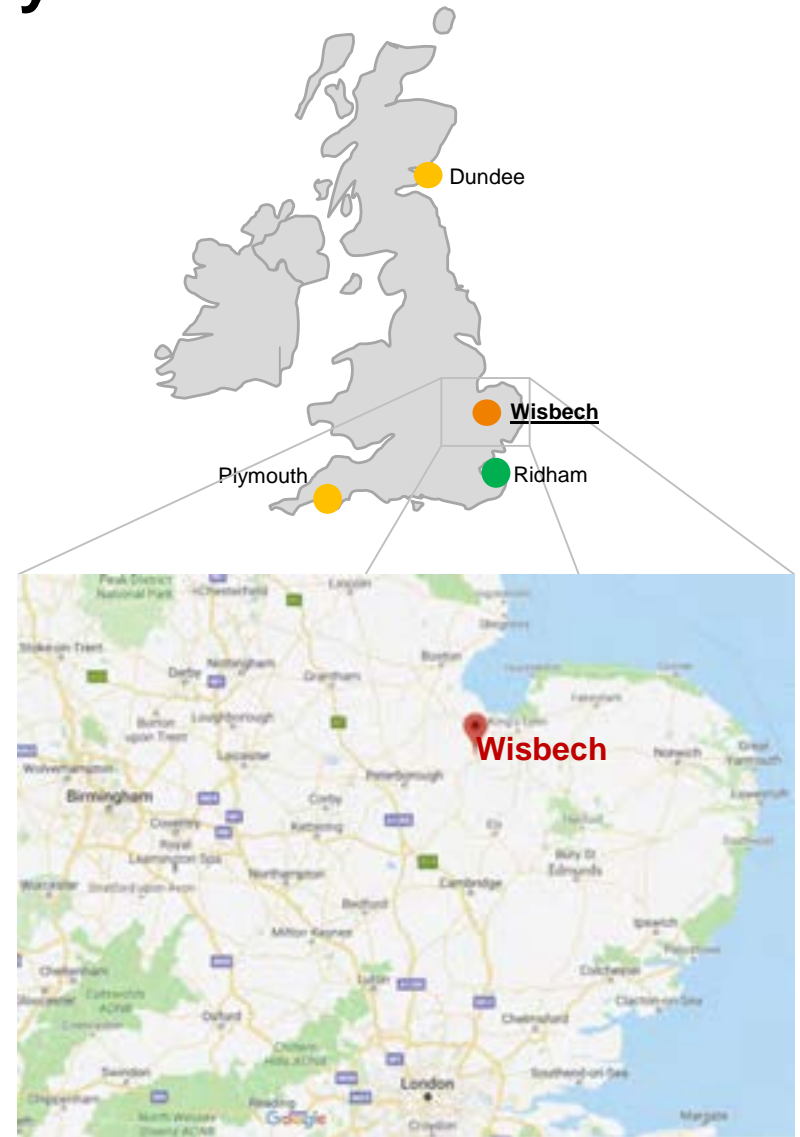


Source: Suez, Mind the Gap 2017-2035, 2017



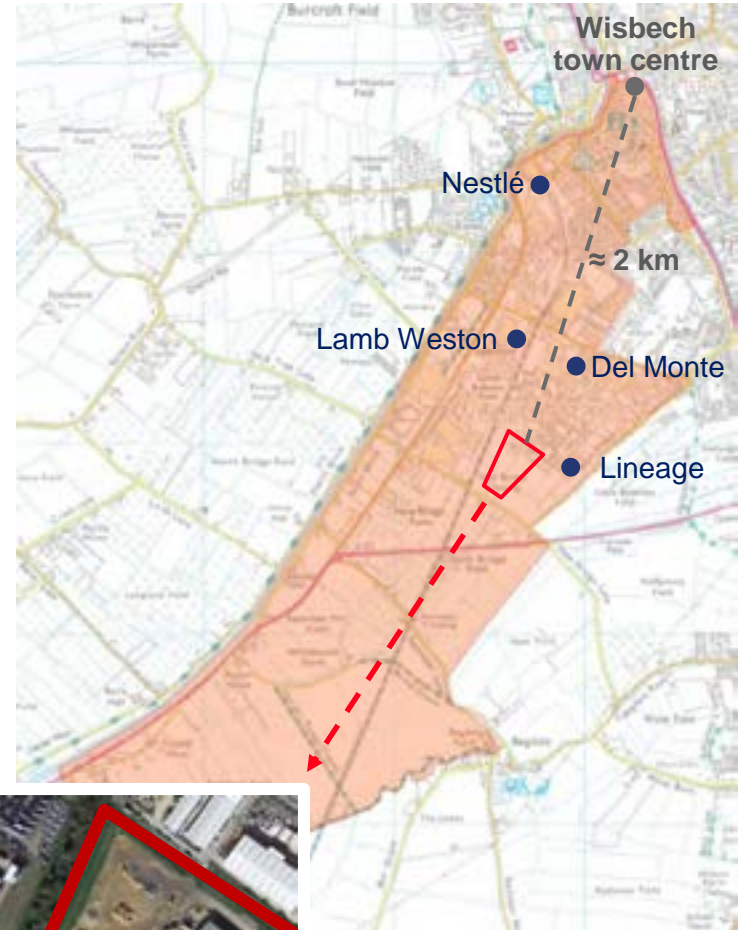
Medworth: High Level Summary

- MVV has an option on a lease for land on Algores Way, Wisbech
- Project is named 'Medworth' after the local ward
- MVV propose a 520 ktpa twin-line conventional Energy from Waste Combined Heat and Power Facility
- Commercial operation scheduled for 2025
- Heat and licence exempt power supply is possible in the immediate industrial area
- Provides opportunities for local industry to improve their environmental performance in many areas



Medworth: The Site Today – Location

- Medworth (shaded area) is a ward of Fenland District Council
- The site is located within an industrial area at the southern edge of Wisbech close to the A47, approximately 2 km from Wisbech town centre
- Site area approx. 3.9 ha
- Current access via existing road (Algores Way)
- Disused railway line runs along west side of site



Source: Google Earth



Medworth: The Site Today – Policy

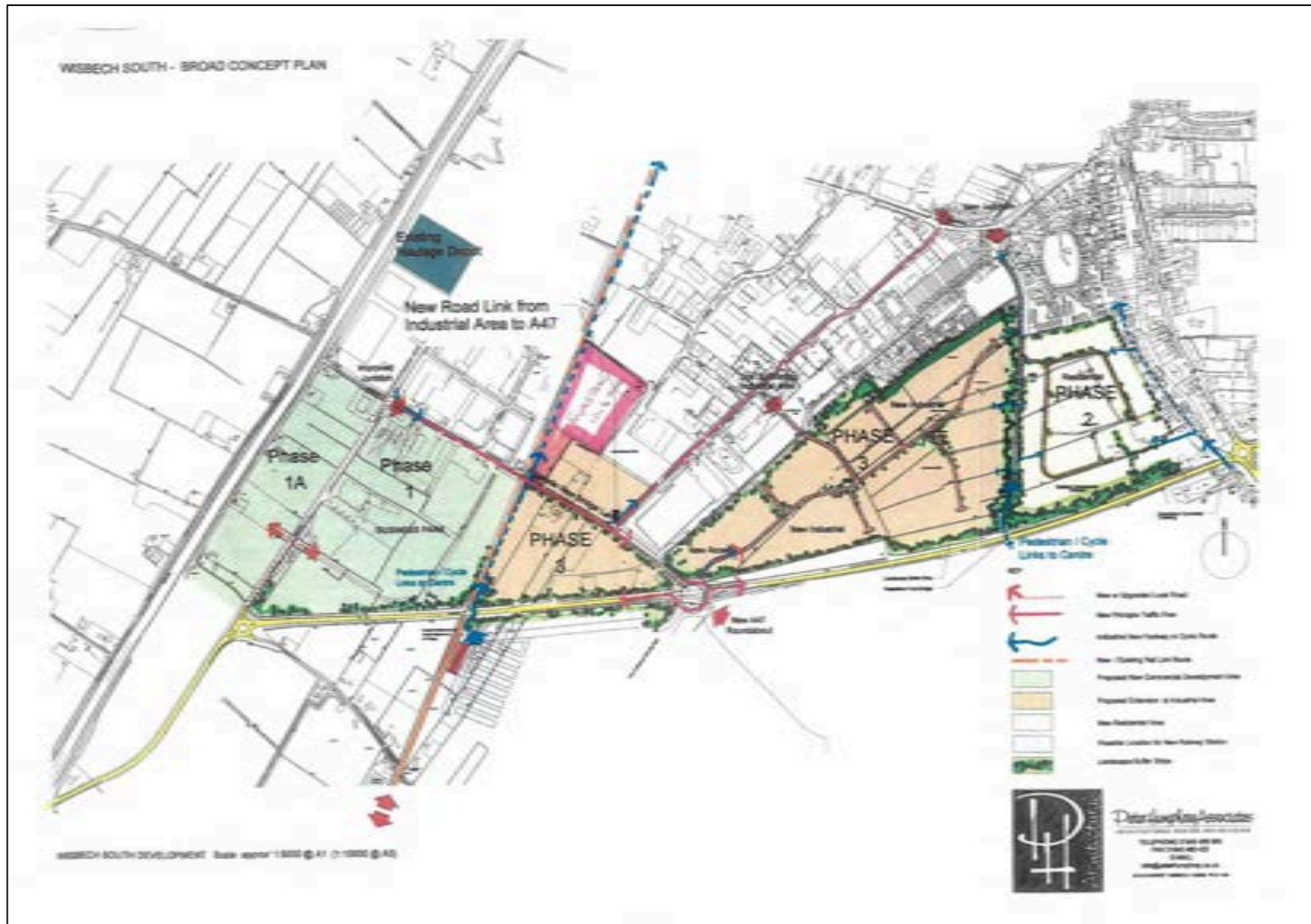
- Algores Way Waste Transfer Station
 - An operational waste transfer station and aggregates yard
 - Operations include, refuse derived fuel (RDF) baling and export to Europe
 - Currently permitted to process up to 75,000tpa
 - Allocated for future waste management development in the adopted Minerals & Waste Local Plan
 - Safeguarded as a waste management facility in the emerging Minerals & Waste Local Plan



Source: Cambridgeshire & Peterborough Site Specific Proposals Plan Document 2012



Medworth: The Site Today – Policy

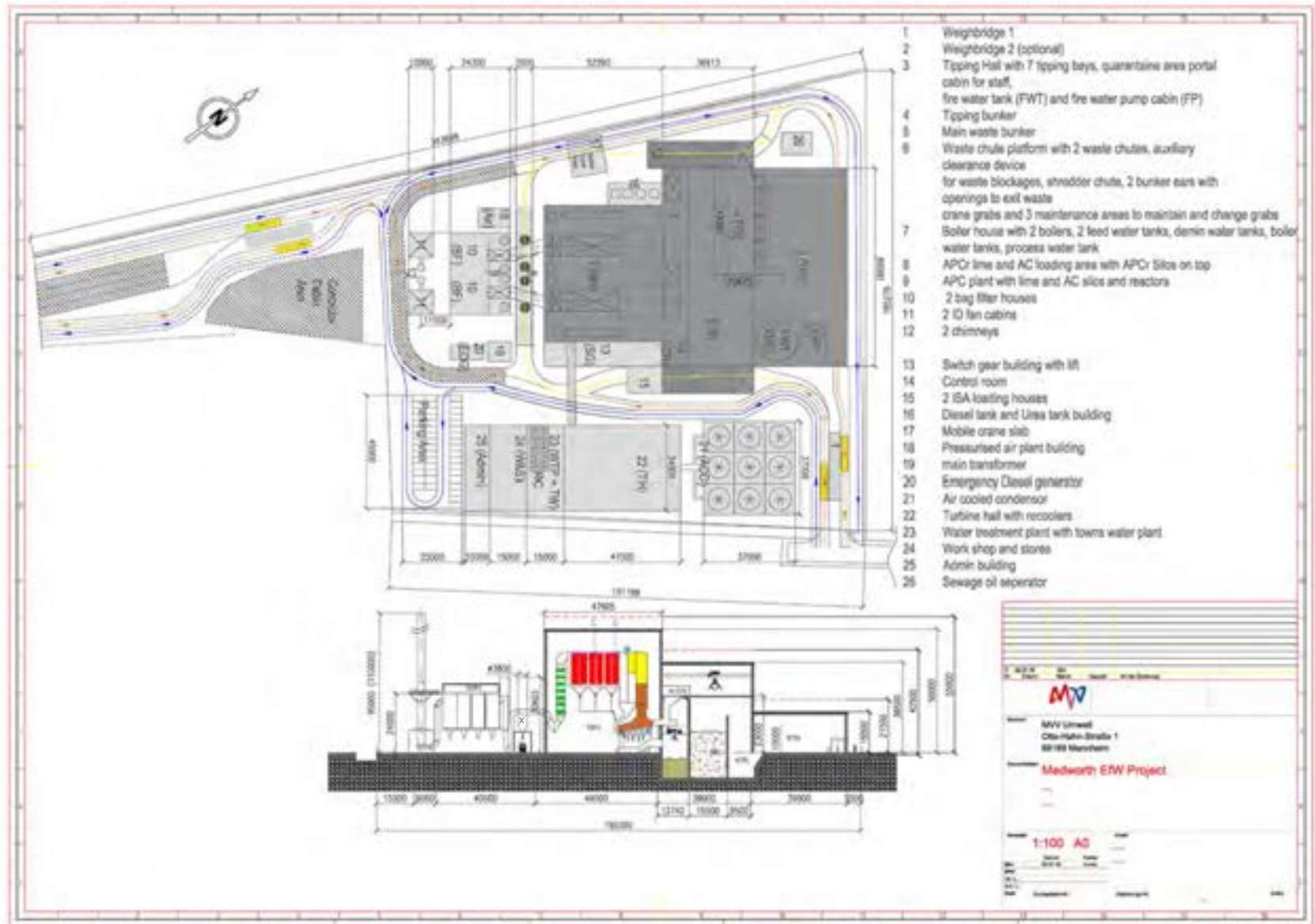


Medworth: The Proposal – Basic Facts

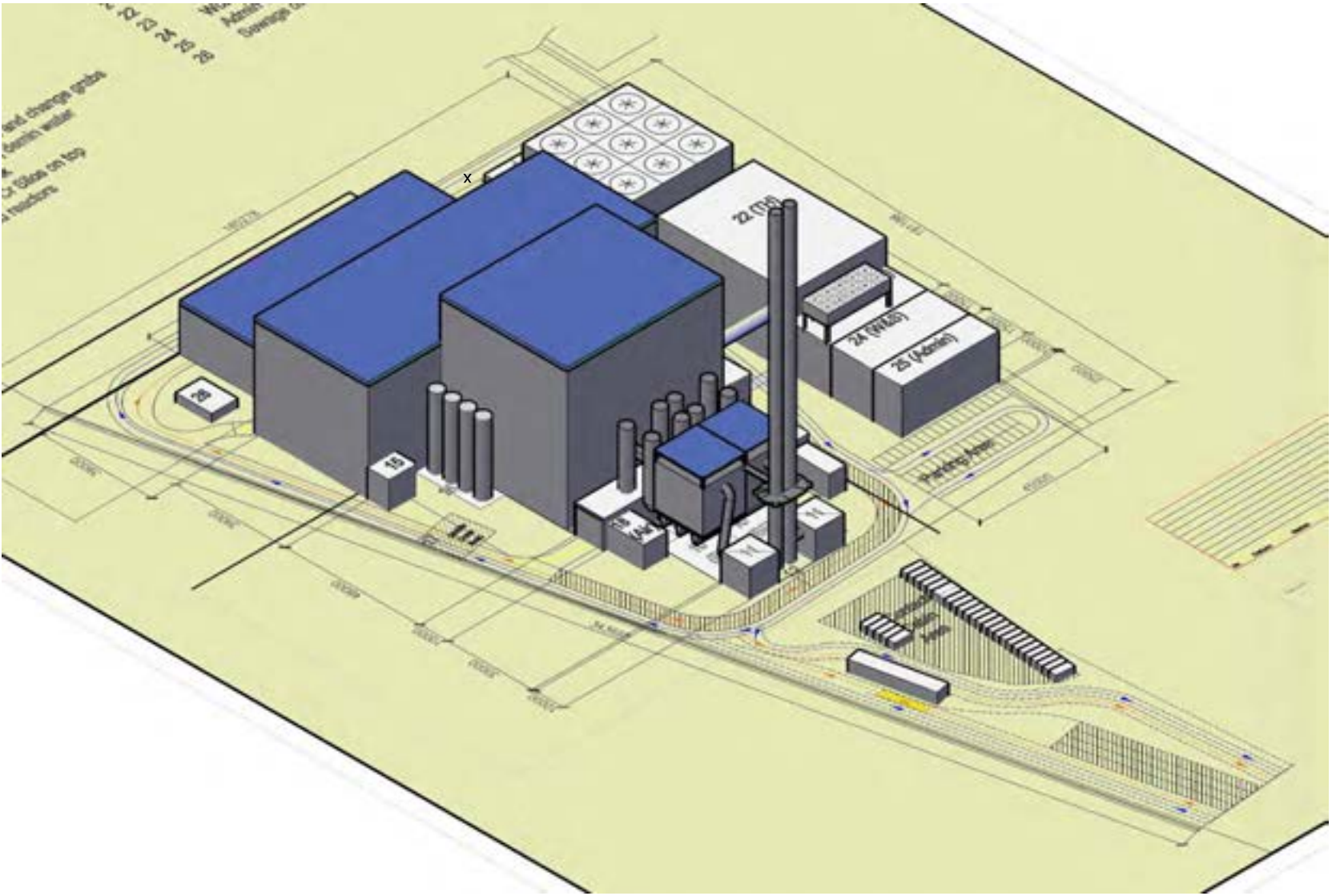
- Moving grate combined heat and power energy from waste facility
- Residual non-hazardous waste
- Design point 523,500tpa
- Maximum tonnage for EIA assessment 625,600tpa
- 58 megawatts (gross) 53 megawatts (net)
- CHP connection corridor to local businesses
- Grid connection to export electricity
- Site access improvements
- Temporary construction compound



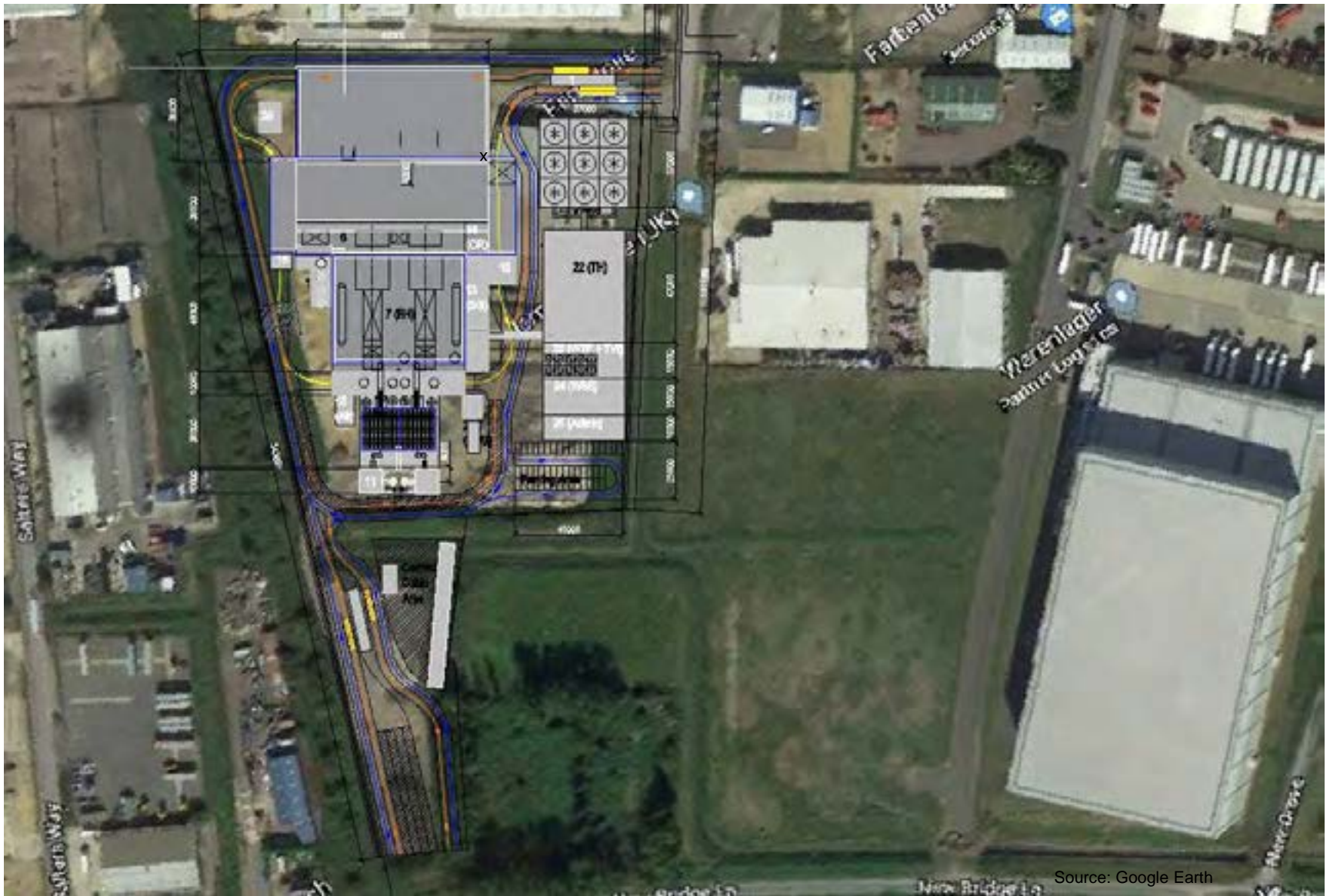
Medworth: The Proposal – Initial Layouts



Medworth: The Proposal – Initial 3D Model

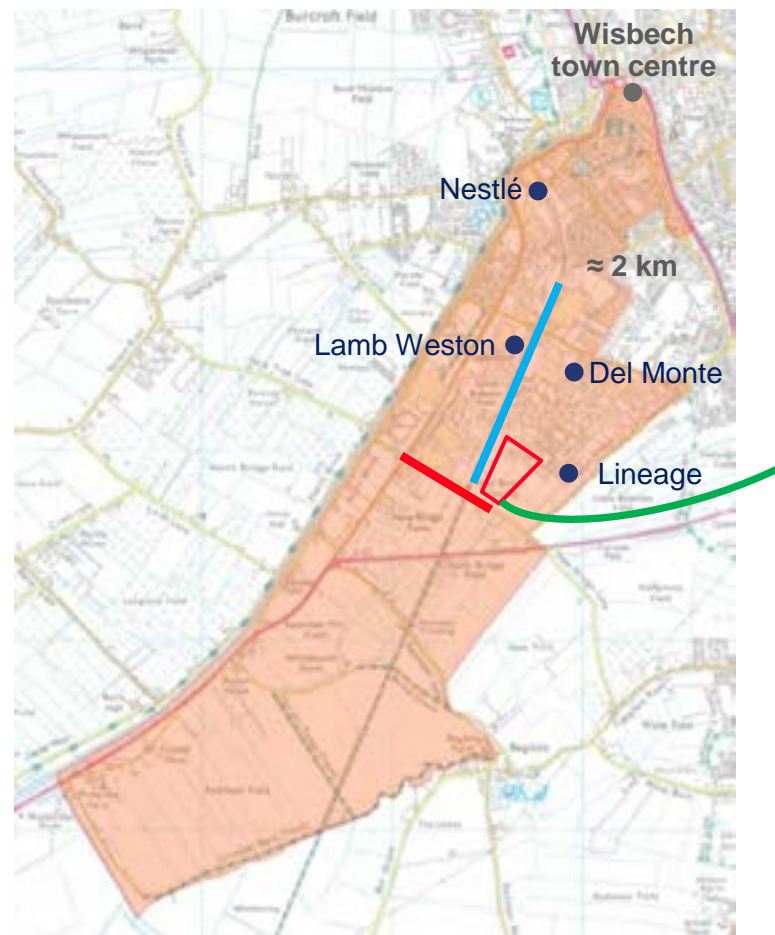


Medworth: The Proposal – Aerial View



Medworth: The Proposal – Inputs and Outputs

- Two access options
 - East access via existing road (Algores Way)
 - South access via New Bridge Lane off Cromwell Road
- Disused railway line on west side of site could be used as route for heat and private wire supply to industrial customers
- Grid connection to run eastwards to Elme Hall roundabout and onwards



Medworth: The Proposal – Initial Photomontage

Views from Halfpenny Lane, August 2019

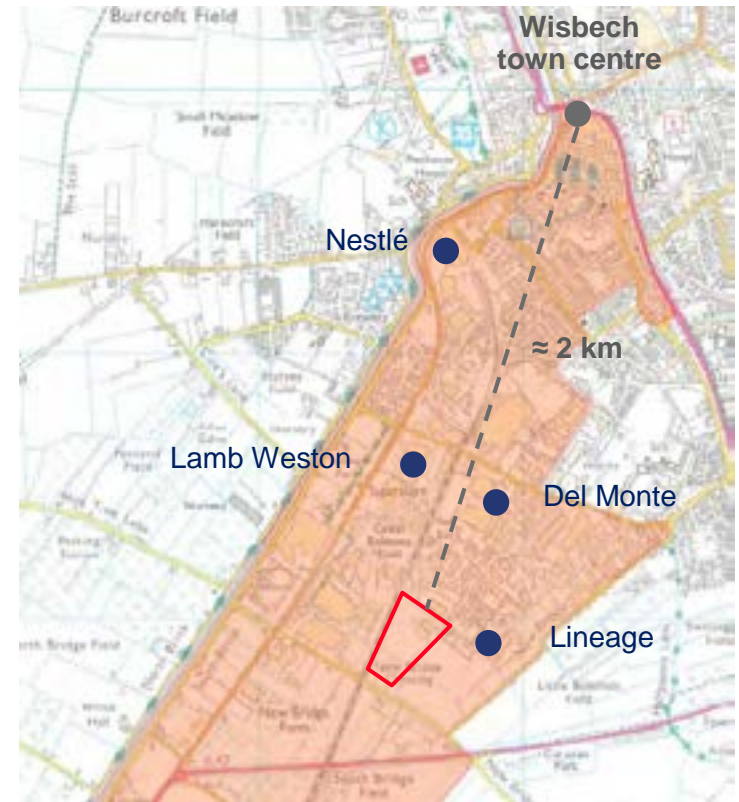


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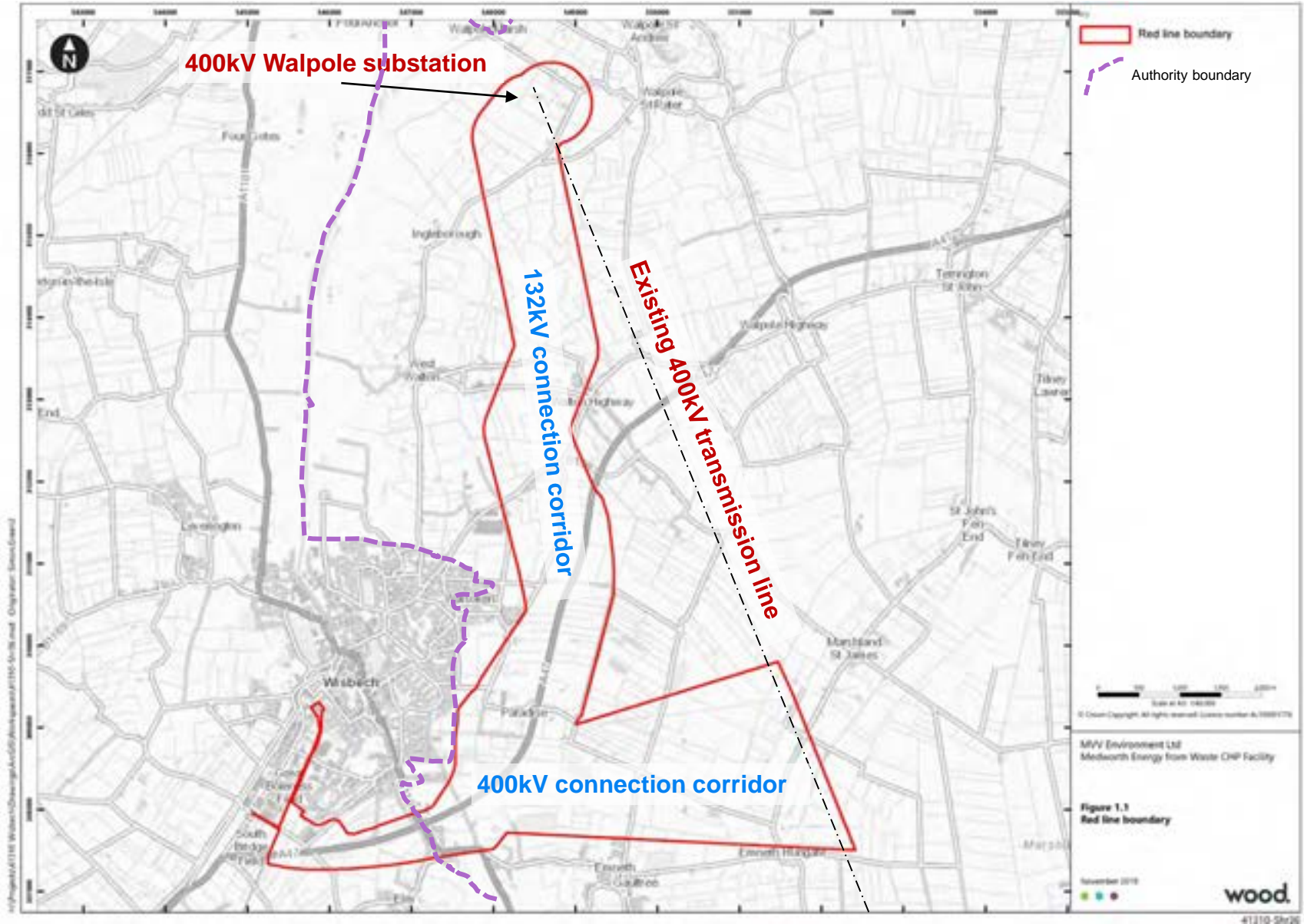


Medworth: The Proposal - Economic Information

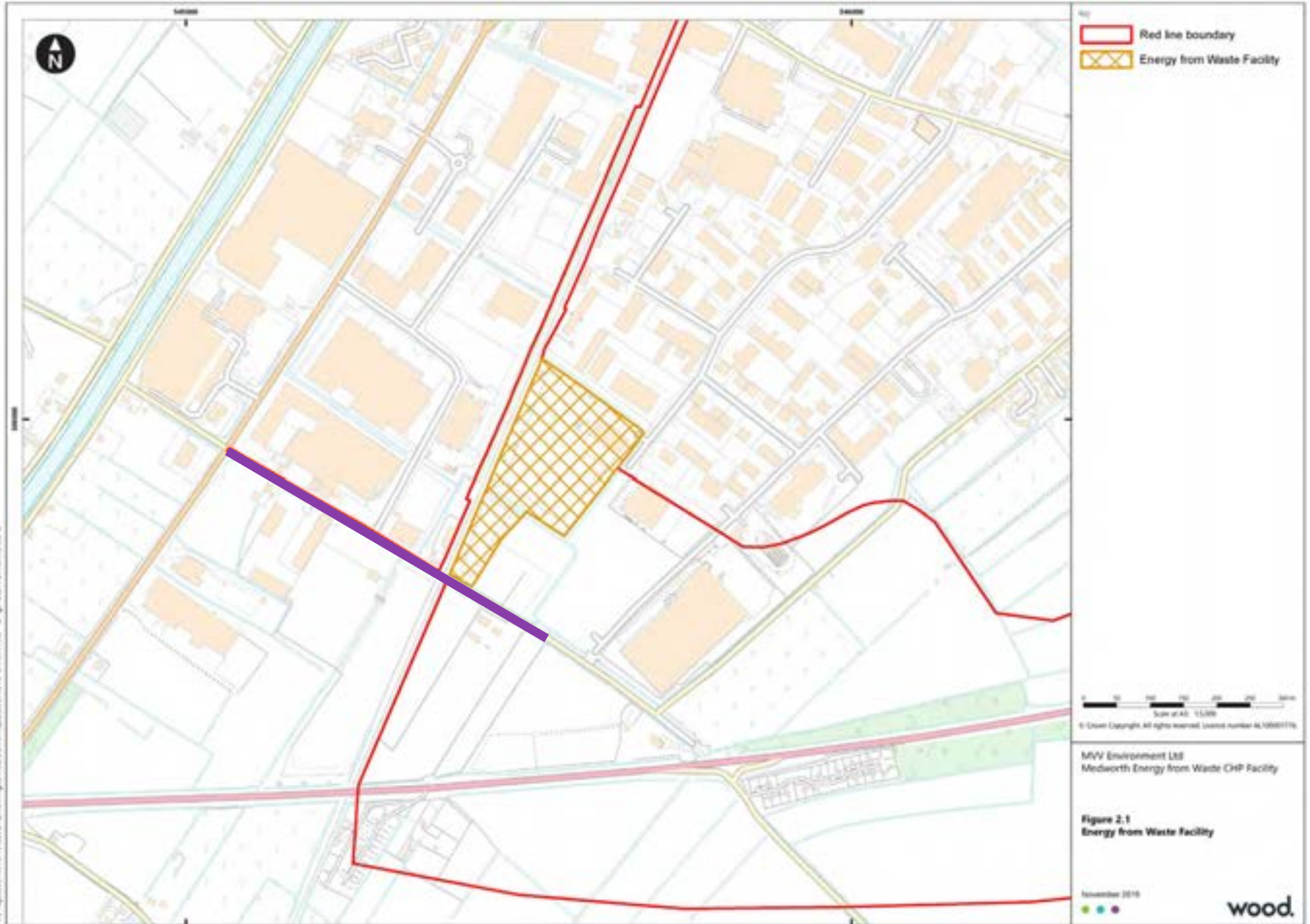
- £320m investment
- 3 year construction period from Q2 2022
- 40 year life span
- 40 FTE staff
- Mix of commercial, industrial and local authority residual waste contracts
- Possible energy offtakers:
 - Nestlé Purina
 - Lamb Weston
 - Del Monte
 - Lineage



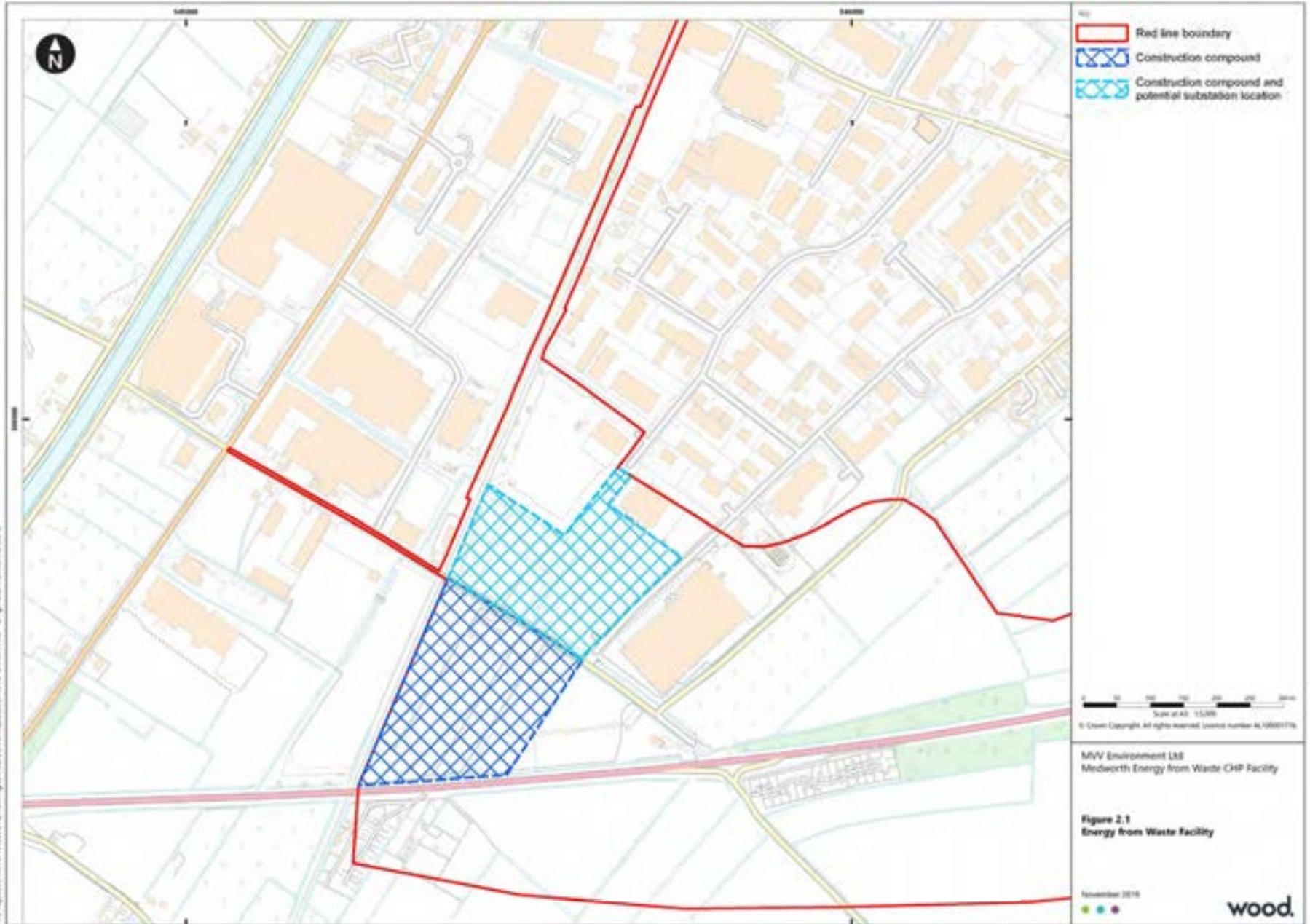
Medworth: The Proposal – Red Line Boundary



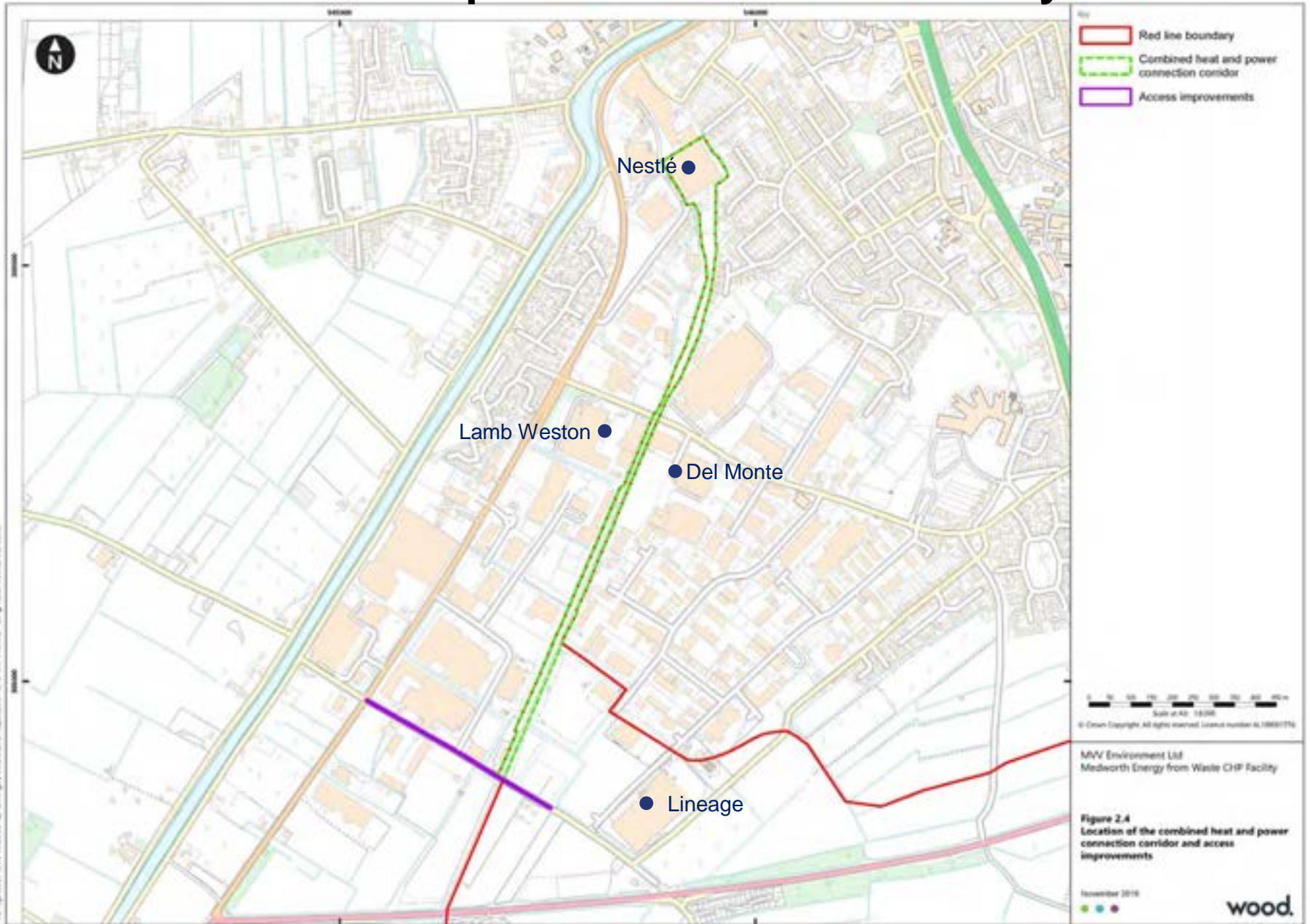
Medworth: The Proposal – Red Line Boundary



Medworth: The Proposal – Red Line Boundary



Medworth: The Proposal – Red Line Boundary



DCO Process Overview

- Power plants of more than 50 MW gross are considered as National Significant Infrastructure Projects
- Planning permission will be given as a Development Consent Order (DCO)
- Application to the Planning Inspectorate (PINS), which recommends a decision for the SoS for Business, Energy and Industrial Strategy to approve or refuse
- The DCO can include “associated development”; for example access ways, pipelines, and grid connections
- PINS recommends ‘twin tracking’ a DCO application with an Environmental Permit (EP) application.



Planning Act 2008

2008 CHAPTER 29

An Act to establish the Infrastructure Planning Commission and make provision about its functions; to make provision about, and about matters ancillary to, the authorisation of projects for the development of nationally significant infrastructure; to make provision about town and country planning; to make provision about the imposition of a Community Infrastructure Levy; and for connected purposes. [26th November 2008]



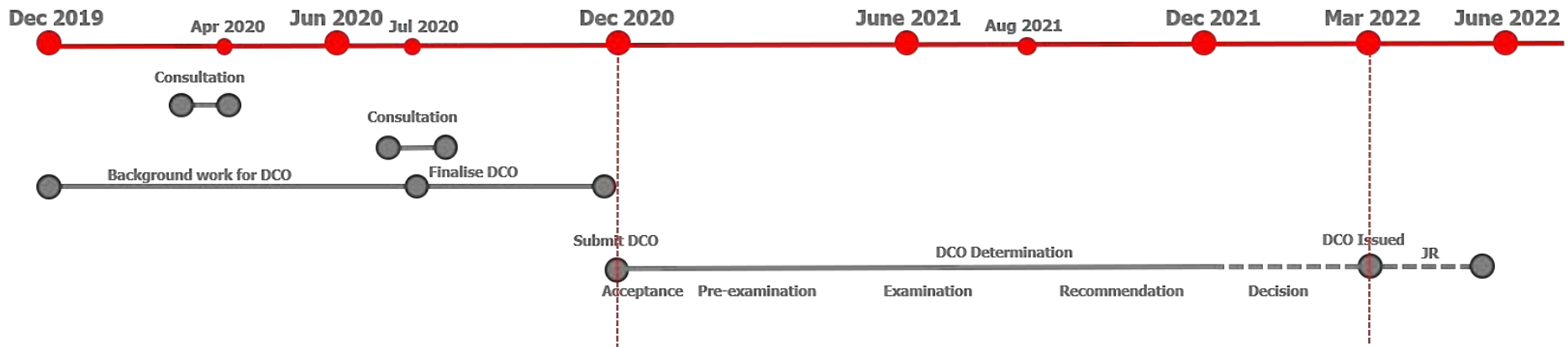
The Planning Inspectorate



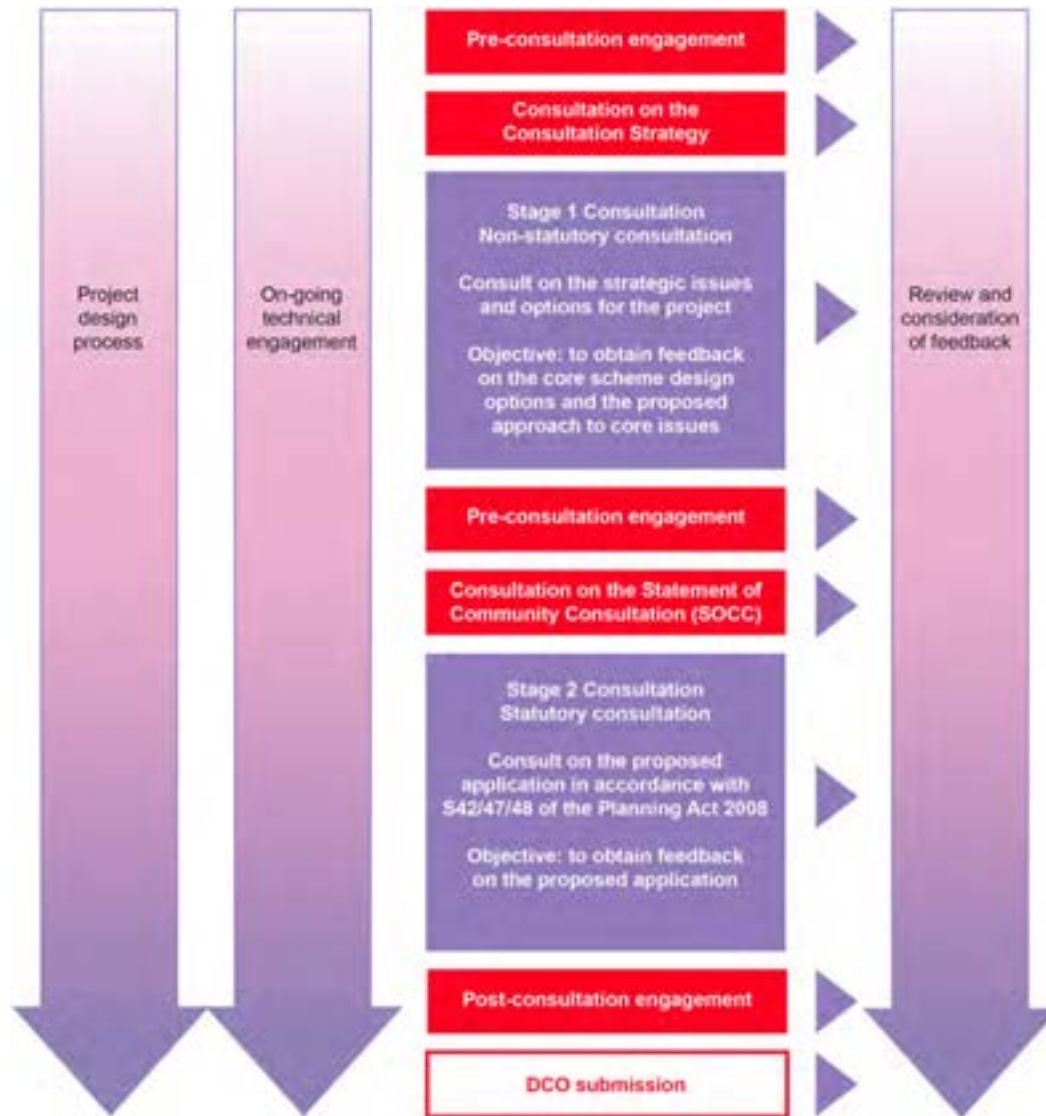
Medworth: DCO Process Overview

- **Oct to Dec 2019**

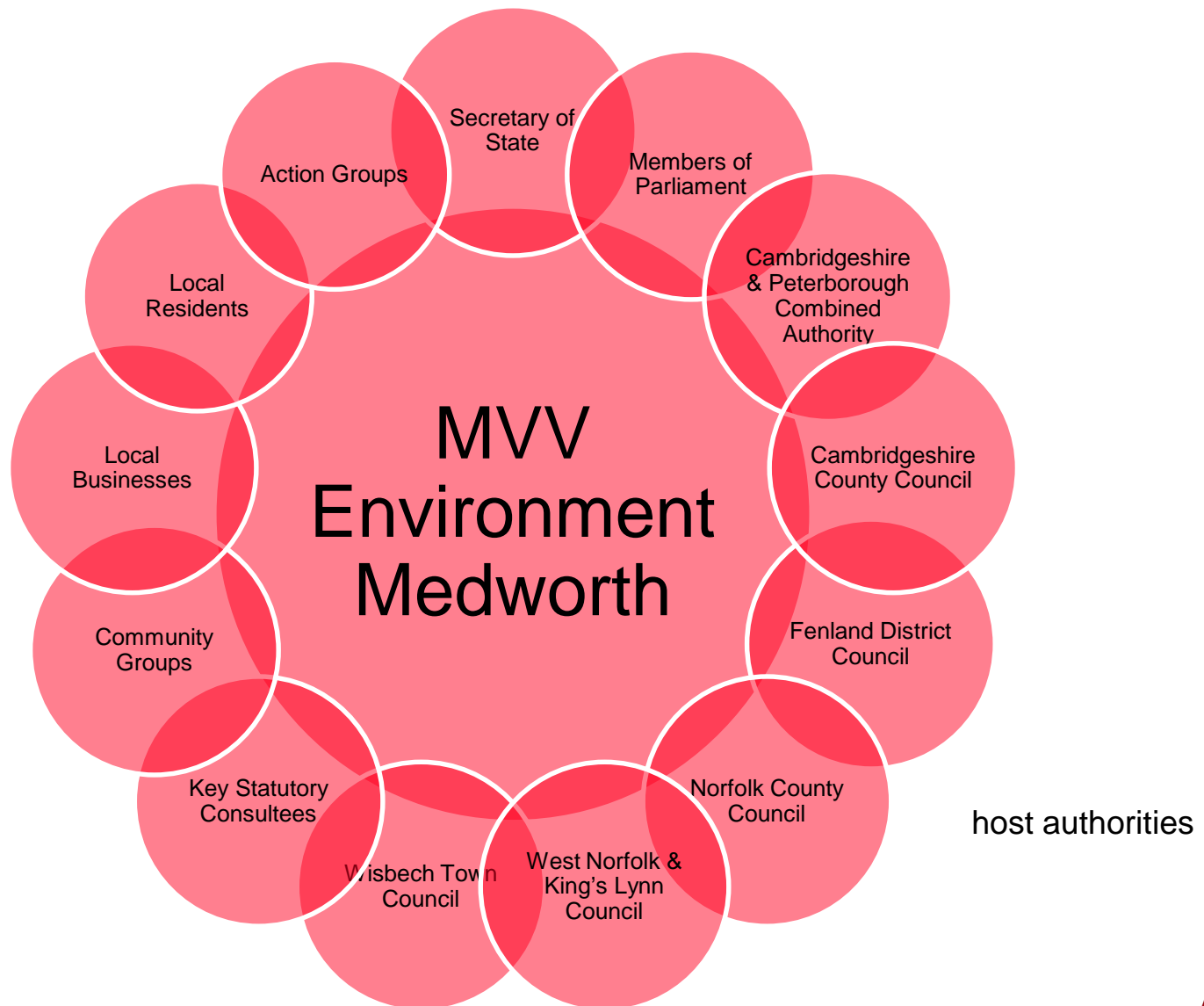
- Pre-application meeting with PINS ✓
- Registration of intention to submit application ✓
- Launch dedicated project website ✓
- Submit Scoping Report for Environmental Impact Assessment (EIA) ✓
- Pre-application meeting with Cambridgeshire CC ✓
- Submit non-statutory Statement of Community Consultation to 'host authorities'



Medworth: DCO Consultation



Medworth: DCO Stakeholders



Medworth: Engagement with Cambs & Norfolk CC & Fenland DC

How shall MVV and Cambridgeshire & Norfolk
County Council & Fenland District Council
work together?



MVV Environment Ltd.

MVV in the UK: developing and operating resource recovery projects
with MVV Umwelt GmbH and MVV Energie AG



**Ein Unternehmen in der
Metropolregion Rhein-Neckar**

