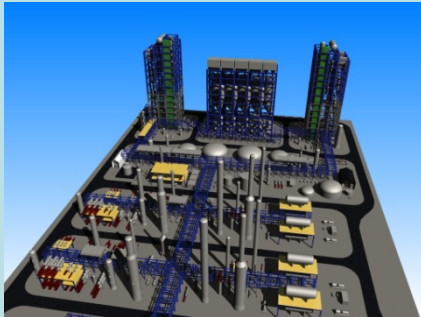
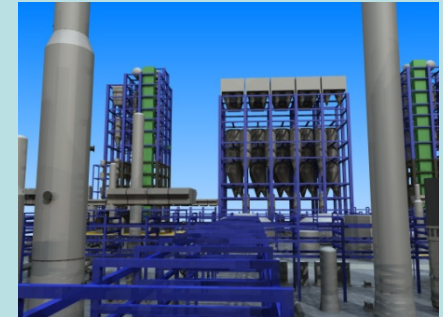




Hatfield 900MW IGCC Power Station with CCS

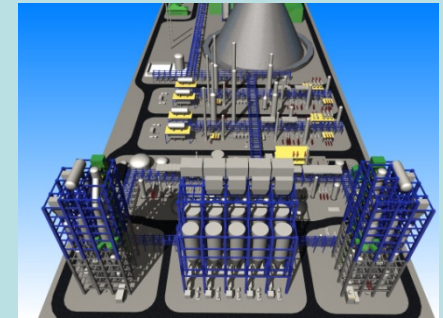
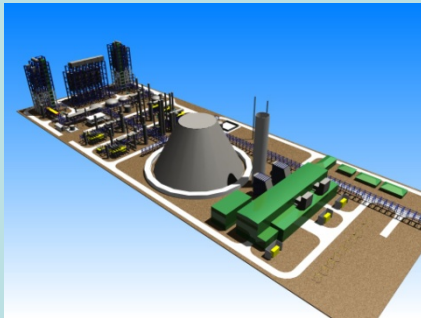


By Grant Budge, Director
Powerfuel Power Ltd

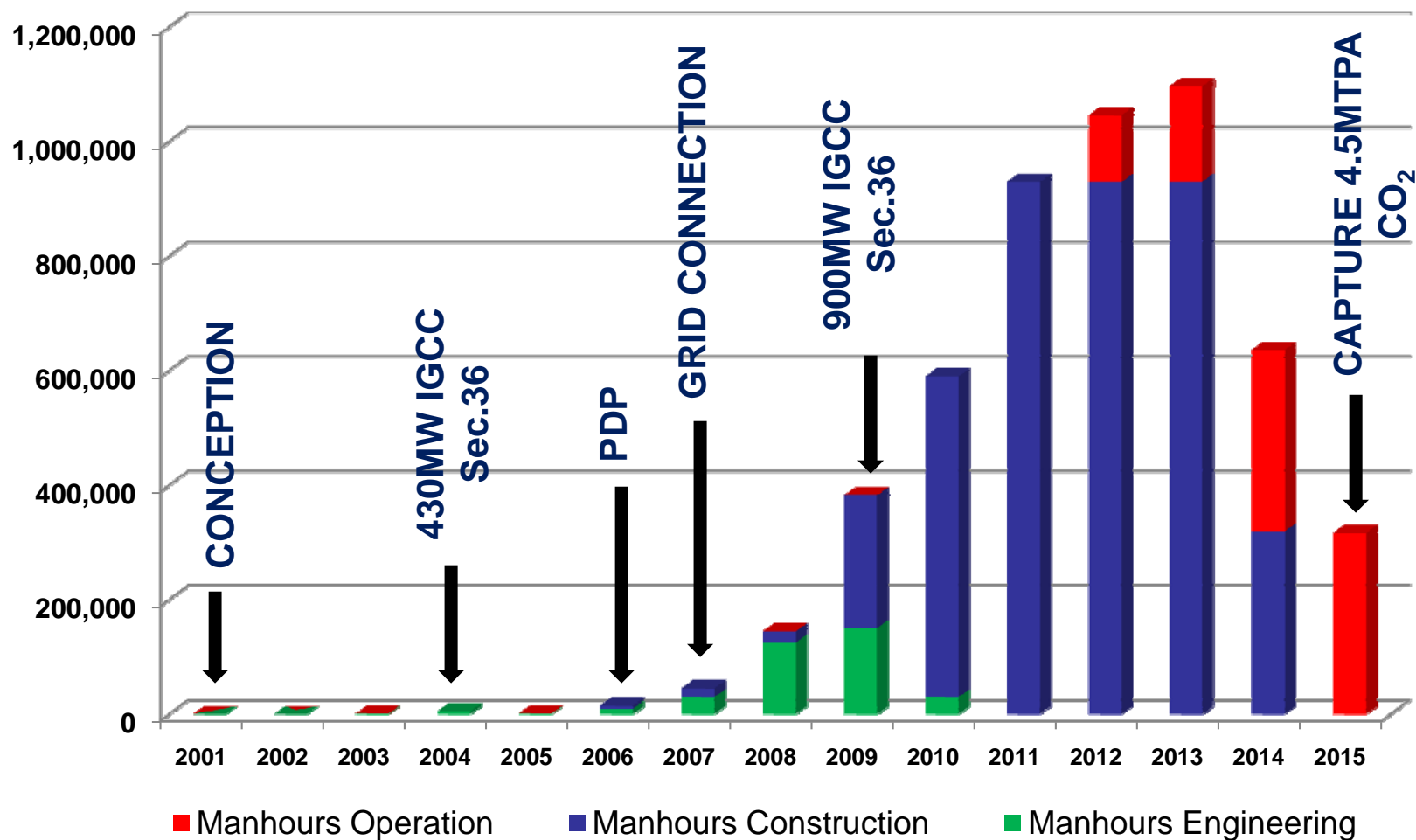


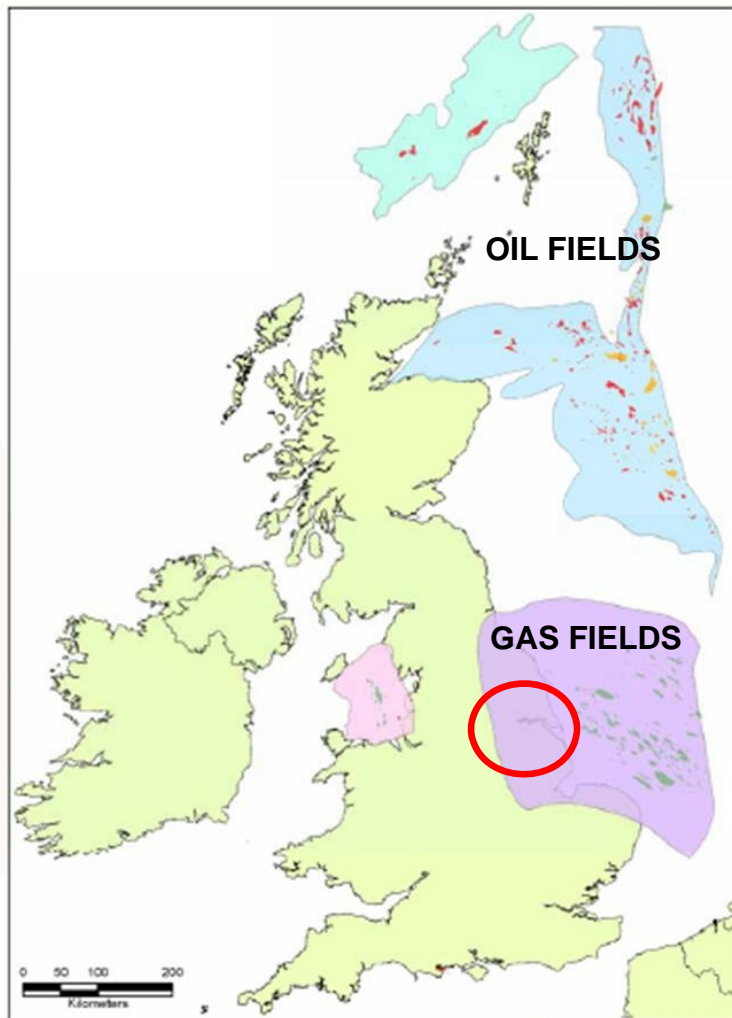
*Coal Research Forum
Leeds*

April 2009



-
- Life Line
 - Philosophy and beliefs
 - The Site
 - Development update
 - Basis of design
 - Plot Layout
 - Flexibility, availability and opportunity
 - Sustainable operation
 - Inputs and outputs





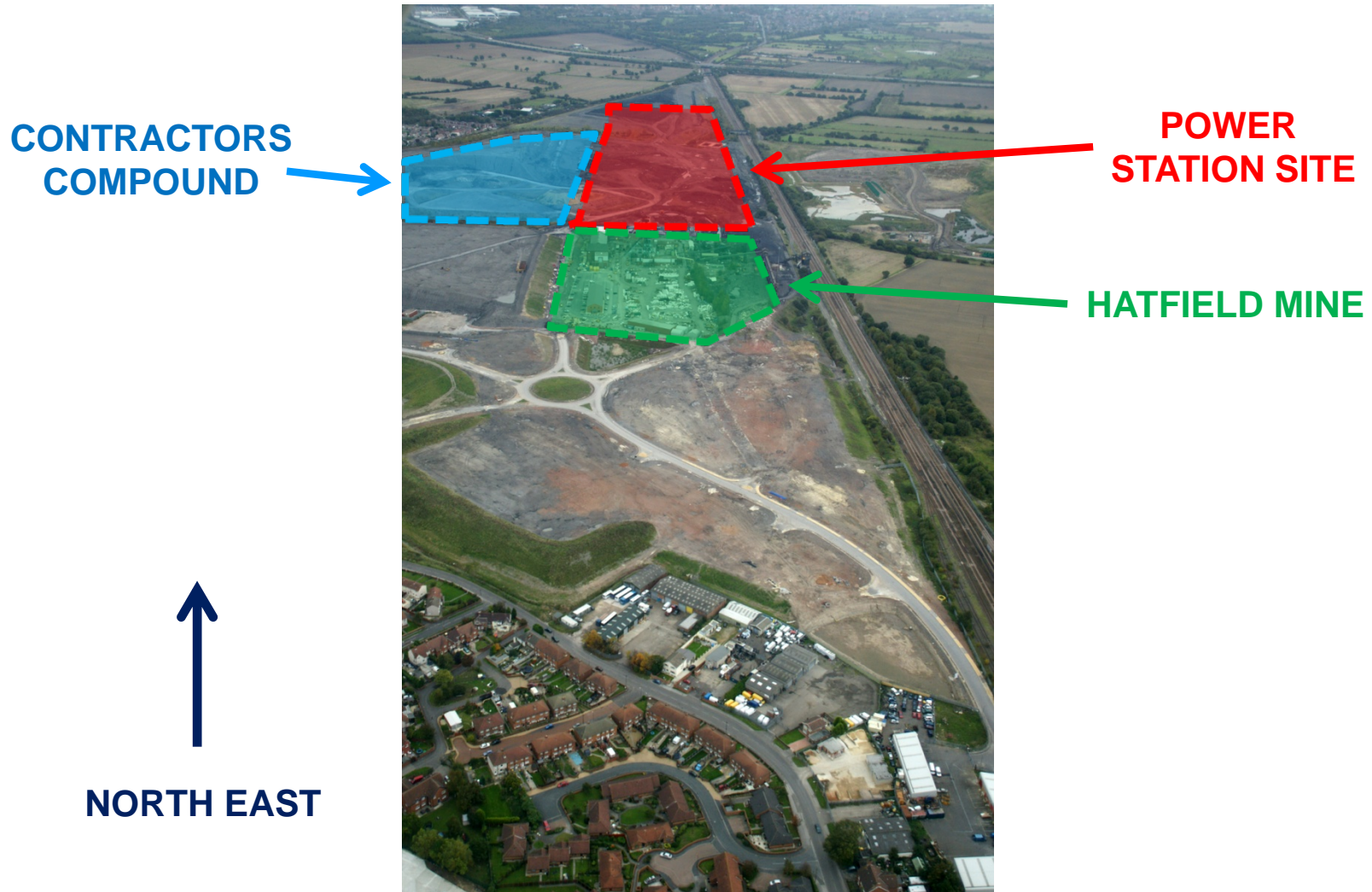
SUSTAINABLE CLUSTER DEVELOPMENT

- Access 100 million tonnes of high quality coal (Other coal reserves within the region)
- Deliver 900MW IGCC Power Station with CCS
- 60% of coal and gas power stations situated on the estuary of the Trent and Aire are in Humberside
- Ideally located in the middle of the depleted inshore gas fields (short term sequestration and buffer storage for EOR)
- Ideal location for IGCC on shores of Humber for raw material feed (coal imports and indigenous production)
- In total 80 million tonnes of CO₂ could be captured within 30km radius of the Humber.

Site Layout



Aerial Picture of Site



- Section 36
- Section 14
- Section 37
- Abstraction Licence
- Gas Pipeline
- Water Pipeline
- Environmental Permit

Planning & Consents



- Phase 1 - Engineering
- FEED
 - SRU
 - AGR
 - Gasifiers

Design & Engineering



- Electricity/Gas Connection
- EPC Contract
- EEP Contract
- Of-Site Utilities
- Trading Agreement
- O&M Agreement
- LTSA
- Water Supply

Contracts



Development Map



Agreement	Preferred Contractor Selected/Applied For	Contract in Final Form	Contract Signed and Subject to Conditions Precedent	Effective Date
EPC	Yes	Near	Near	Near
EEP	Yes	Near	Near	Near
CSA	Yes	Near	Near	Near
OMSA	Yes	Near	Near	Near
Trading	Yes	Near	Near	Near
Gasifier Licence	Yes	Yes	Yes	Yes
AGR Licence	Yes	Yes	Yes	Yes
SRU Licence	Yes	Yes	Yes	Yes
Abstraction Licence	Yes	Near	Near	Near
Water Supply Agreement	Yes	Near	Near	Near
Discharge Licence	Yes	Near	Near	Near
Catalyst Supply (IGCC)	Far	Far	Far	Far
Section 36	Yes	Yes	Yes	Yes
Section 14	Yes	Yes	Yes	Yes
Section 37	Yes	Near	Near	Near
Grid Connection	Yes	Yes	Yes	Yes
Environmental Permit	Near	Far	Far	Far
Gas Connection	Yes	Near	Near	Near
Land Rights (Overhead Power Line)	Yes	Near	Near	Near
Land Rights (Gas/Water Pipeline)	Near	Near	Near	Far
Planning (Gas/Water Pipelines)	Near	Far	Far	Far

Yes

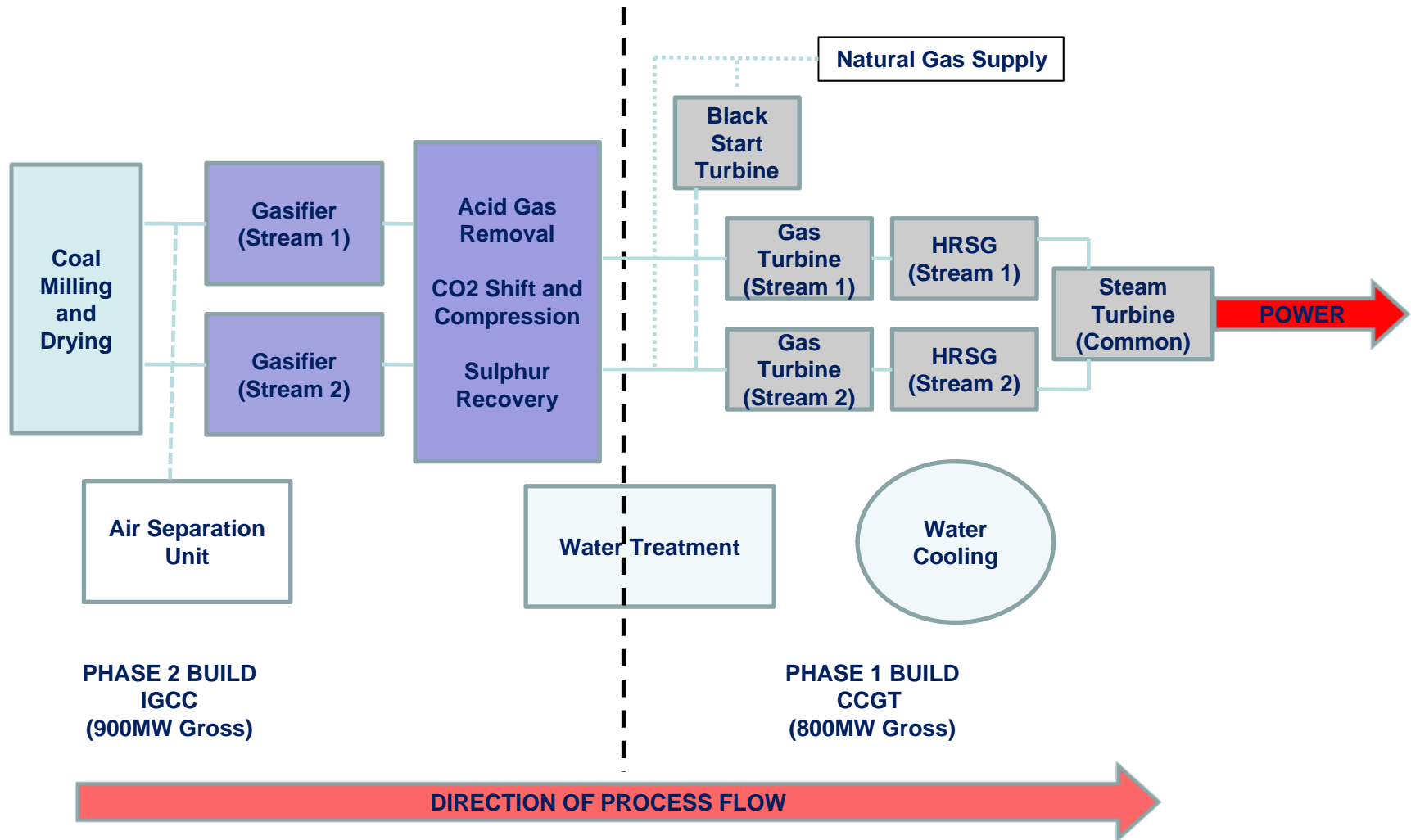
Completed

Near

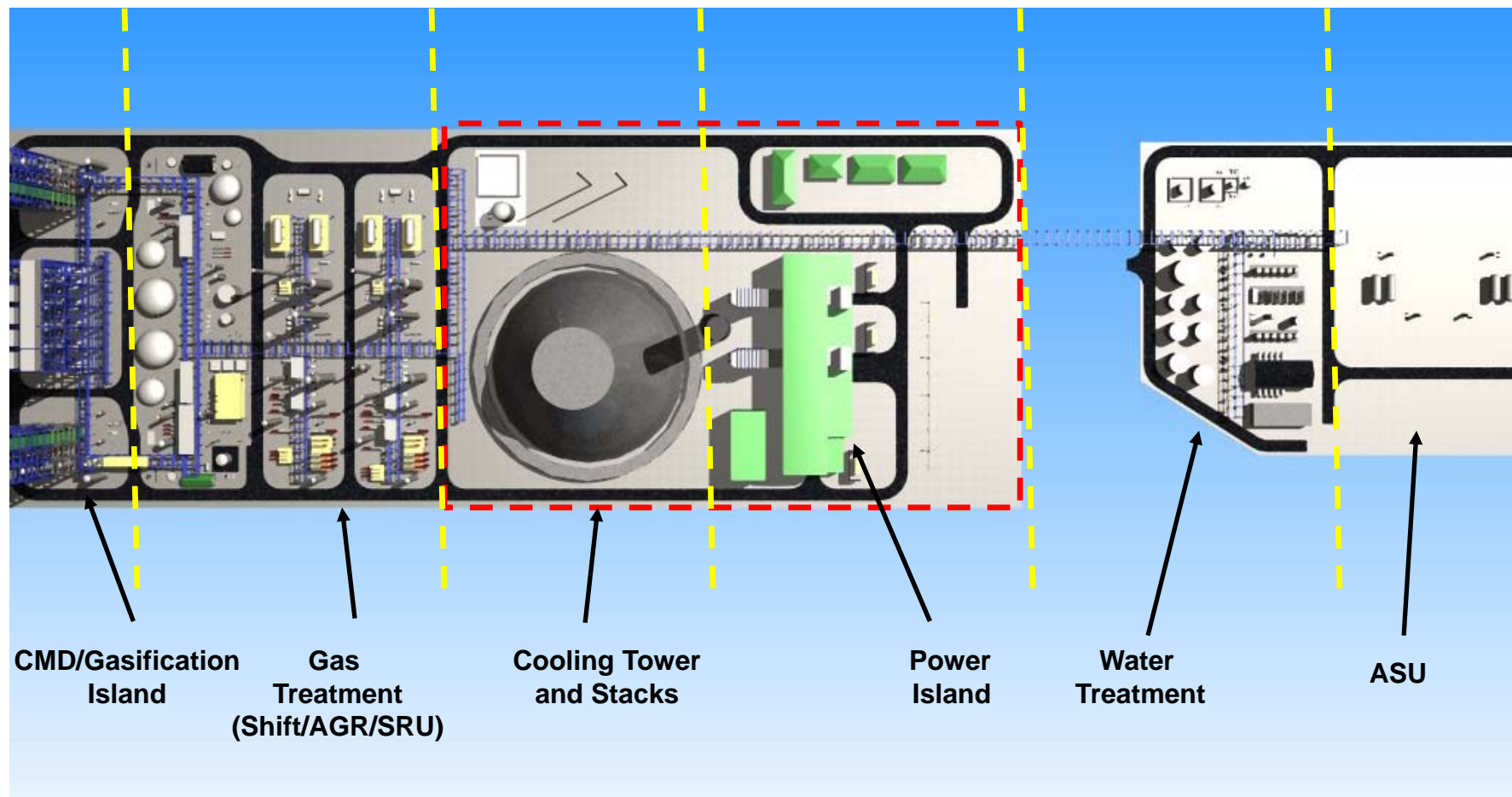
0 – 6 Months

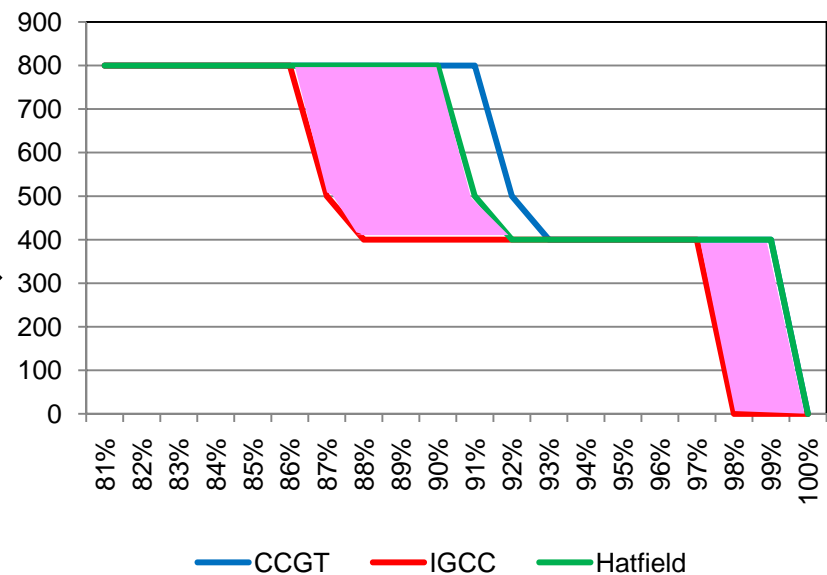
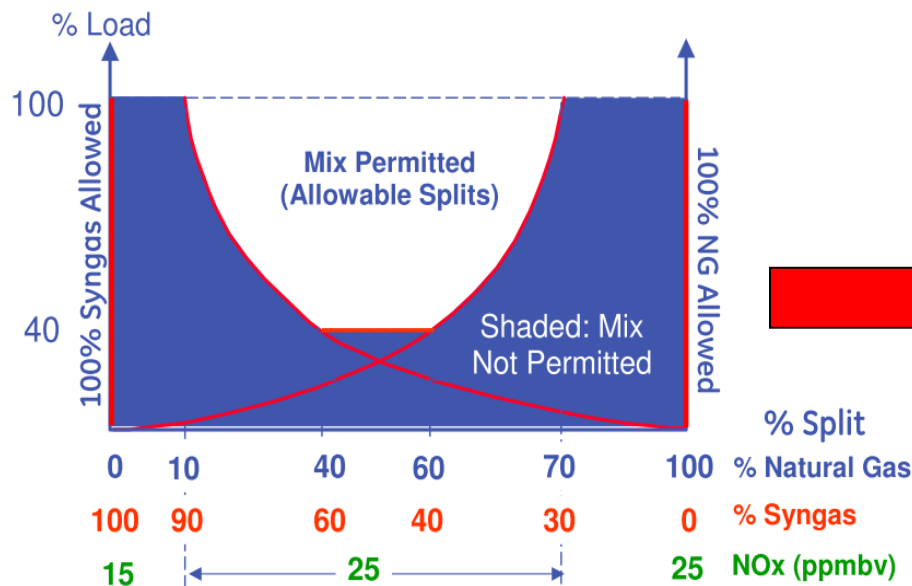
Far

6 – 12 Months

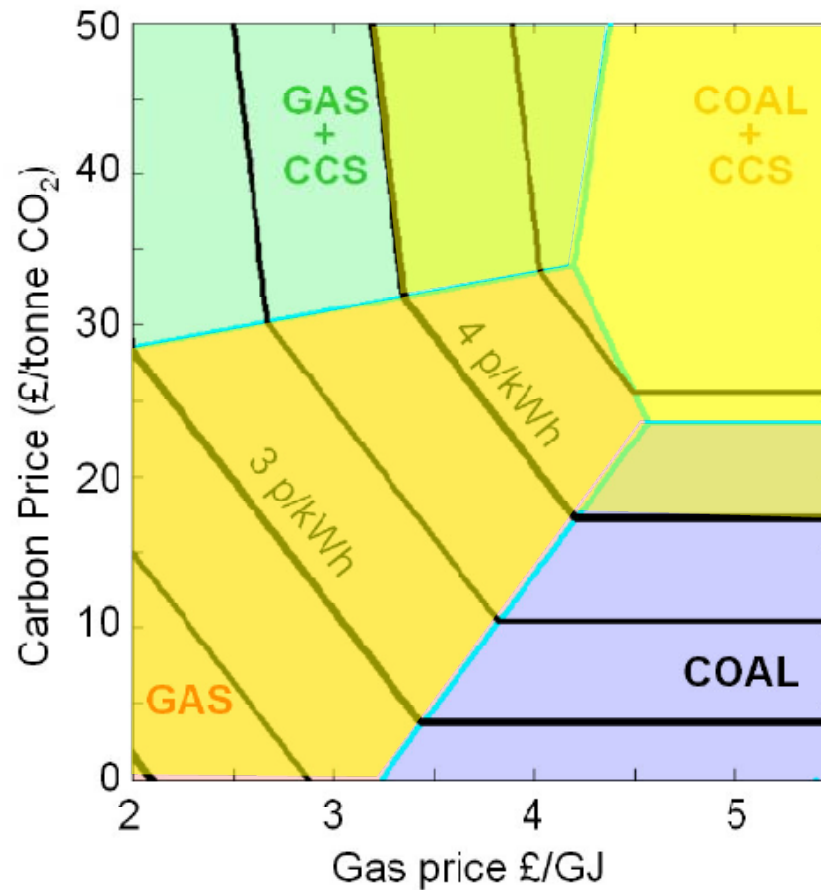


Plot Layout





Hatfield Project Sustainable Operational Phase Diagram



View From The South



View From the South West

Powerfuel



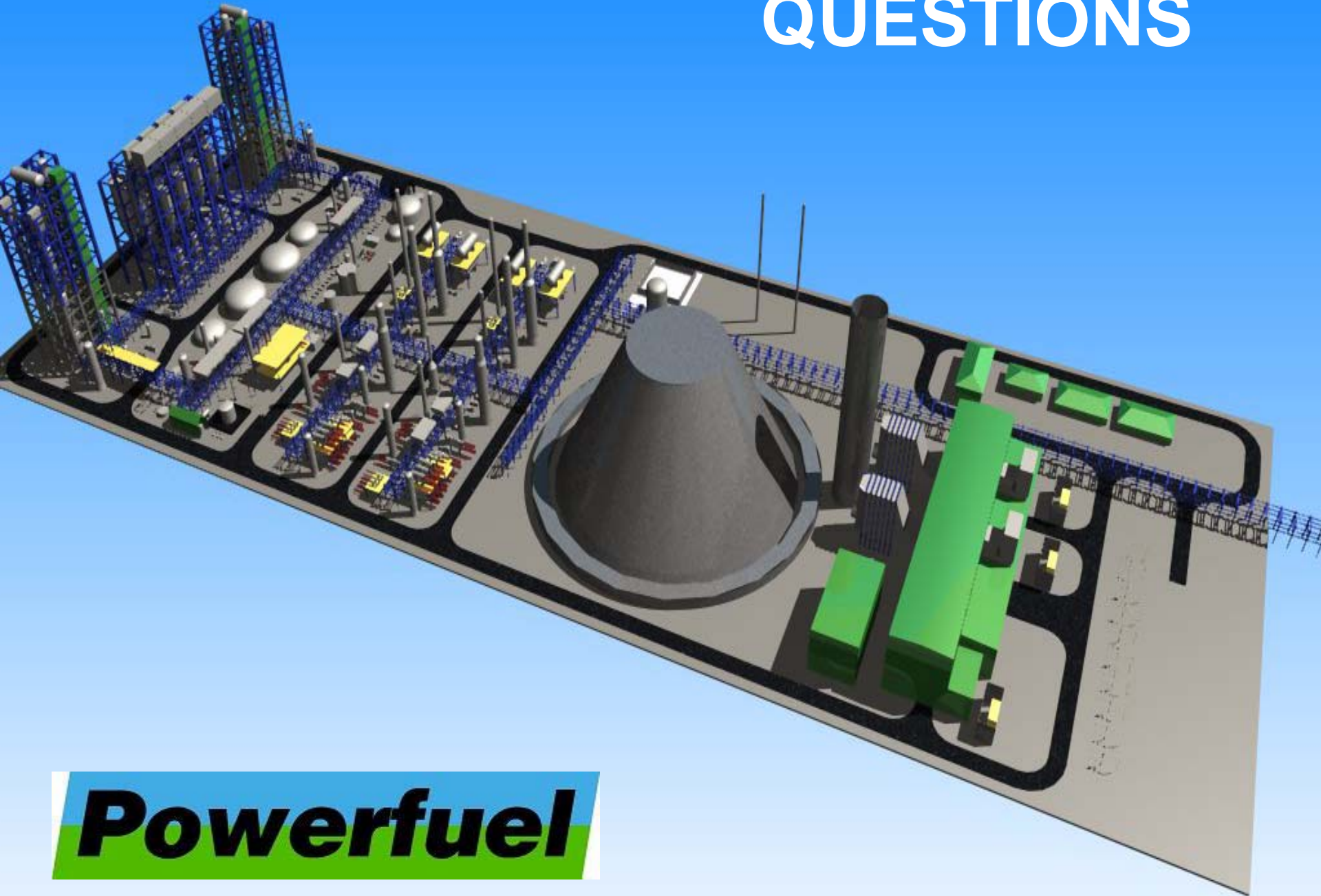
Summary

Why Hatfield Works?



- Based on **PROVEN TECHNOLOGY**
- Opportunity to Deliver Sustainability of **COAL RESERVES**
- On CO₂ **CLUSTER REGIONAL NETWORK** Practical Route
- Inherent **TRANSPORT SECURITY** for Raw Material supply
- Gas Secondary Fuel Base Through **LOCAL CONNECTIVITY TO NTS**
- Security of **GRID CONNECTION**

QUESTIONS



Powerfuel