



IGas
Energy

The Role for Onshore Oil & Gas in Net Zero

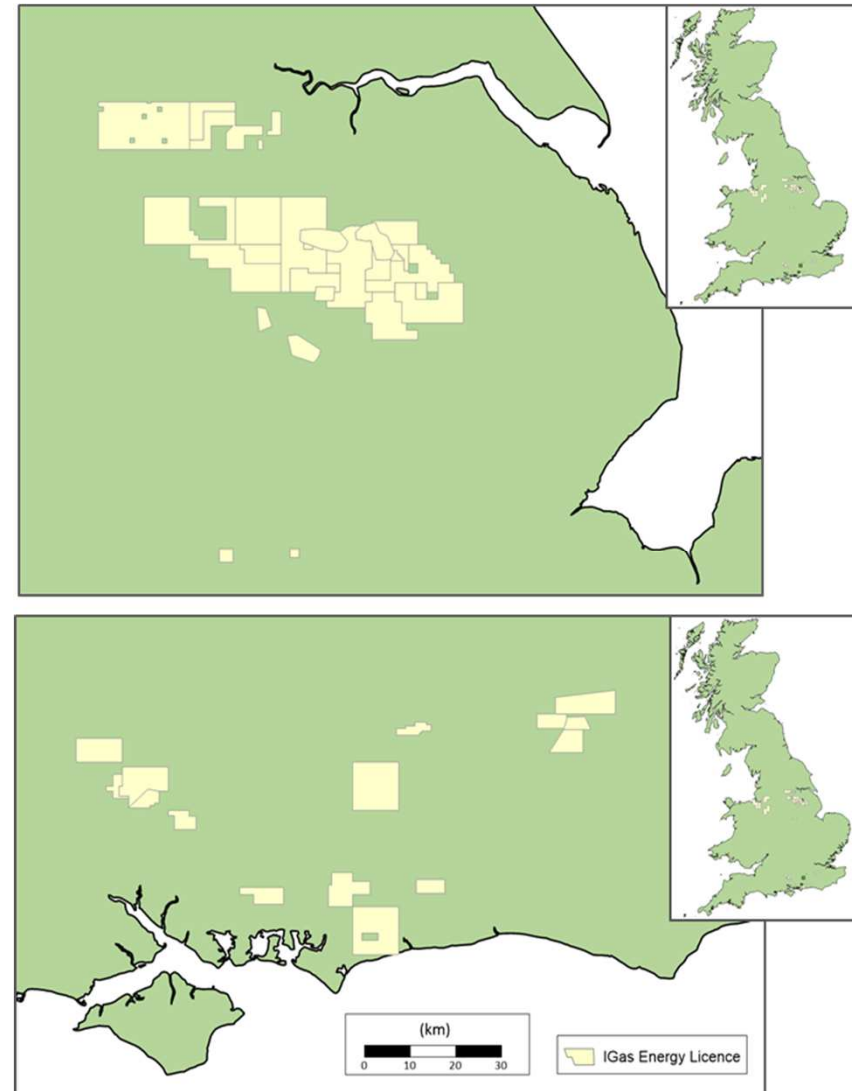


IGas Energy

Trusted onshore operator



- UK producer of oil, gas and electricity
- Operator of c.90 sites across 28 fields: East Midlands and South East
- Committed to safe and responsible development
- ISO 14001 and 9001 accredited: Environmental Management System and Quality Management System
- Diversify into the wider UK energy market whilst leveraging our core competencies as an UK onshore operator



Embarking on the energy transition

Driven by policy, investor sentiment and future opportunity



“The projections for demand for oil and gas though much reduced is forecast to continue for decades to come.”

Source: Energy White Paper



Progressing diversification

Leveraging existing assets and skill set



- Acquired GT Energy, deep geothermal development in Sept 2020
 - Pathfinder Stoke-on-Trent geothermal project will supply Stoke City with renewable heat for generations
 - Rapidly expanding pipeline of developments
- Announced MOU with Bayotech for hydrogen production from methane in Nov 2020
 - Developing two projects in Surrey
- Carbon sequestration
 - Screening sites to assess viability - focus on regional carbon emitters
 - Working with BGS, OGTC, Newcastle University, Durham University, Oxford University Bristol University on research funding opportunities
- New development on our sites:
 - Energy storage, e.g. batteries
 - Solar



Small scale distributed hydrogen

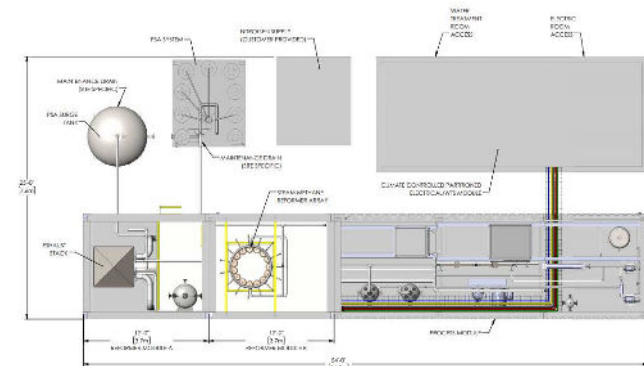


Signed an MoU with BayoTech

- Containerised SMR modules

Route to market for hydrogen

- Producing fuel cell quality hydrogen
- Increasing local demand for new hydrogen bus and HGV fleets across UK now



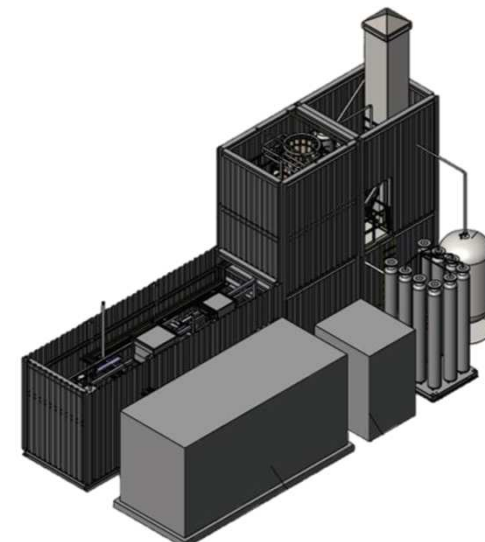
Conceptual module arrangements courtesy of Bayotech Inc.

Future Growth Potential

- Existing associated gas
- New (known) gas fields
- Other sources, e.g. Biogas

Pathway to Blue Hydrogen

- Sequestration of CO₂ byproduct at site



Hydrogen

Production from existing sites

Two existing sites identified in the South East

- Albury and Bletchingley

Albury – existing GtG and GtW infrastructure

- Anticipated production = 1000kg/day Hydrogen
- Planning and permits submitted July 2021

Bletchingley - existing gas processing installation

- Anticipated production = 2000kg/d initially
- Planning submitted and permit preparation underway

Commercial Offtake agreement under negotiation

Initially for 3000kg/day – enough to fuel c.120-150 buses

Community consultation indicates local support



CCS Background and activity

Fast deployment, geographically distributed



UKCS offers significant future potential, BUT

- BEIS study indicates that CO₂ transport to port or point of sequestration is a major issue
Many industrial facilities risk being 'stranded assets'
- Requires extensive development of cutting edge techniques in difficult environments
Early stage development could de-risk and accelerate deployment

Onshore offers immediate opportunities:

Existing surface sites, wells and infrastructure

- Depleted oil and gas reservoirs (current)
- Deep Saline Aquifers (future)

Distributed small scale locations

- Logistically simpler and cheaper
- Closer to emitters

Benefits:

- Significantly reduced transportation (infrastructure) requirements
- Lower infrastructure costs and complexity
- Improved ease of monitoring
- Greater flexibility in operational scenarios and potential for evolution of equipment and techniques



Summary



- Smaller scale, distributed Hydrogen production presents an opportunity:
 - It is a tool to accelerate the transition to hydrogen - local production can meet local demand now and supply will create further demand.
 - Distributed production leads to resilience, local investment and local jobs
- Smaller scale onshore carbon sequestration presents an opportunity
 - To assist with the development work required for the larger scale offshore facilities
 - A lower cost and quicker to deploy solution for the significant proportion of industry that does not sit close to the hubs linked to offshore sequestration.

Policy is key:

- Our fields, wells and other infrastructure are valuable assets in achieving the energy transition
- Policy should encourage projects at all scale, not just 'mega' projects. Smaller scale projects
 - Will be deployed more rapidly than mega projects;
 - Can be pathfinders for testing business models, regulation; and
 - Can build resilience to new energy networks.