The Future of the UK Continental Shelf

Powering the UK through the energy transition

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Oil and gas under the spotlight

CCC Balanced Net Zero Pathway Demand and OGA Production projections

UK Gas Spot Price

Oil & gas meets
3/4 UK energy demand

-33% Reserves replacement

Source: ICE, US Energy Information Administration, ERCE Estimates
North Sea Transition Deal

NSTD: £16bn investment committed

- £10bn for hydrogen
- £3bn for electrification
- £3bn for CCS
- 50% local content
- Supply Chain Champion

Industry commitment to reducing upstream GHG emissions

- 10% in 2025
- 25% in 2027
- 50% in 2030

Net zero basin by 2050

OGA tracking and monitoring progress

- GHG target as OGA KPI
- Annual OGA dashboard
- Intensity benchmarks
- Flaring & venting
- Overall KPI target progress

- Govt & industry commitment to transition
- First of kind for G7 country
- Future licensing climate checkpoint
- Quid pro quo
A clear direction of travel

Framework

OGA Strategy
Corporate Governance
ESG Taskforce
Net zero expectation
New fields
Flaring & venting

OGA interventions & industry progress

11% Annual reduction in CO2 emissions
23% Annual reduction in flaring volume
12% Annual increase in venting volume
20% Annual reduction in CH4 emissions

993,000 tonnes CO2 avoided YTD
80% OGA PE target retained
11.2/boe Unit operating cost
23% Decom cost reduction since 2017
Buy in from right across industry

UKCS investor landscape: share of production (mmboe)

- Supermajor/large cap: 33.5
- Private equity: 16.8
- Mid cap: 11.8
- Other: 108.1
- Small cap: 119.5
- Utilities: 381.2

Learning exported globally
Flare gas recovery system
Committed to Scope 1 & 2 Net Zero status
Low carbon power solutions
# Importance of UK domestic gas

New gas/condensate fields expected/onstream in near future

## UK’s gas supply by origin

<table>
<thead>
<tr>
<th>Source</th>
<th>2019 Gas Volume (billion m³)</th>
<th>2019 Average Emission Intensity (kgCO₂e/boe)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic Gas Production</td>
<td>40 (46%)</td>
<td>22</td>
</tr>
<tr>
<td>Pipeline</td>
<td>28.9 (33%)</td>
<td>18</td>
</tr>
<tr>
<td>LNG</td>
<td>18.4 (21%)</td>
<td>59</td>
</tr>
</tbody>
</table>

| Sources: Wood MacKenzie Upstream Emissions Benchmarking Tool, OGA PPRS, EEMS Database, EU ETS, BEIS, NPD |
| "Gas imported via the Belgian and Dutch interconnectors cannot be traced to the point of origin therefore the intensity could be higher" |
Offshore contribution to UK net zero

2050 net zero emission abatement from 2018 baseline

~30% Energy Integration technologies
~60% UKCS Contribution

- Offshore electrification
- CCS
- Blue H2
- Green H2
- Offshore windpower
- Onshore measures

Offshore net zero projects (ongoing)
- Hynet
  - 1 Mtpa from mid 2025;
  - 3 Mtpa by 2030 (with blue H2)
  - Re-uses existing infrastructure
- Endurance CCS
  - (Teeside & Humber clusters)
  - 4 Mtpa from 2026
  - 10 Mtpa by 2030
  - Re-uses existing infrastructure
- V Net Zero
  - (Humber cluster)
  - 3.6 Mtpa from late 2026
  - 11 Mtpa by 2030
  - Re-uses existing infrastructure
- Bacton Hydrogen
  - Early stage, potential for H2 supply into London area

Source: NAEI 2019 data, OGA analysis
Note: Total CO2 emissions on the map account for ca.186 mtCO2 (~40% of UK total)
CCS – the time is now

![Graph showing CCS Projects and Balanced Net Zero Pathway with Injection Rate (Mt PA) on the y-axis and years from 2022 to 2050 on the x-axis.]

Potential to get ahead of the curve

- **78 GtCO₂** Total UKCS CO₂ storage resource estimate
- **75-175 MtCO₂** CCC estimate requirement in 2050
- **Spatial planning to high-grade future sites**

**Northern Endurance Partnership, Teesside**

**HyNet, North West England**

**Acorn, St Fergus**

**V Net 0, Immingham**
Power of data and digital

Geographic Information Systems (GIS)

- Insights
  Data collected, analysed and disclosed to encourage action

Digital Energy Platform

- Advancing the energy transition
  New NDR already being used by industry & academia across multiple CCS & hydrogen studies

  • Open to all
  • Cloud based
  • View & download data
  • Integrated with other data sources
  • Authoritative
Leading with purpose

Climate change – Loss of Biodiversity – Social inequality

Unique opportunity post pandemic green and just recovery

Requires whole systems approach and down to all of us

Ambition  Resilience & adaptation  Drive systems change  Mobilise finance
Thank you