



Innovation to Accelerate Connections

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30/10/24



A quick reminder - what is the SIF?

Ofgem's £450M fund for innovation in the GB Energy Networks

Funded by energy network use system charges for energy network innovation

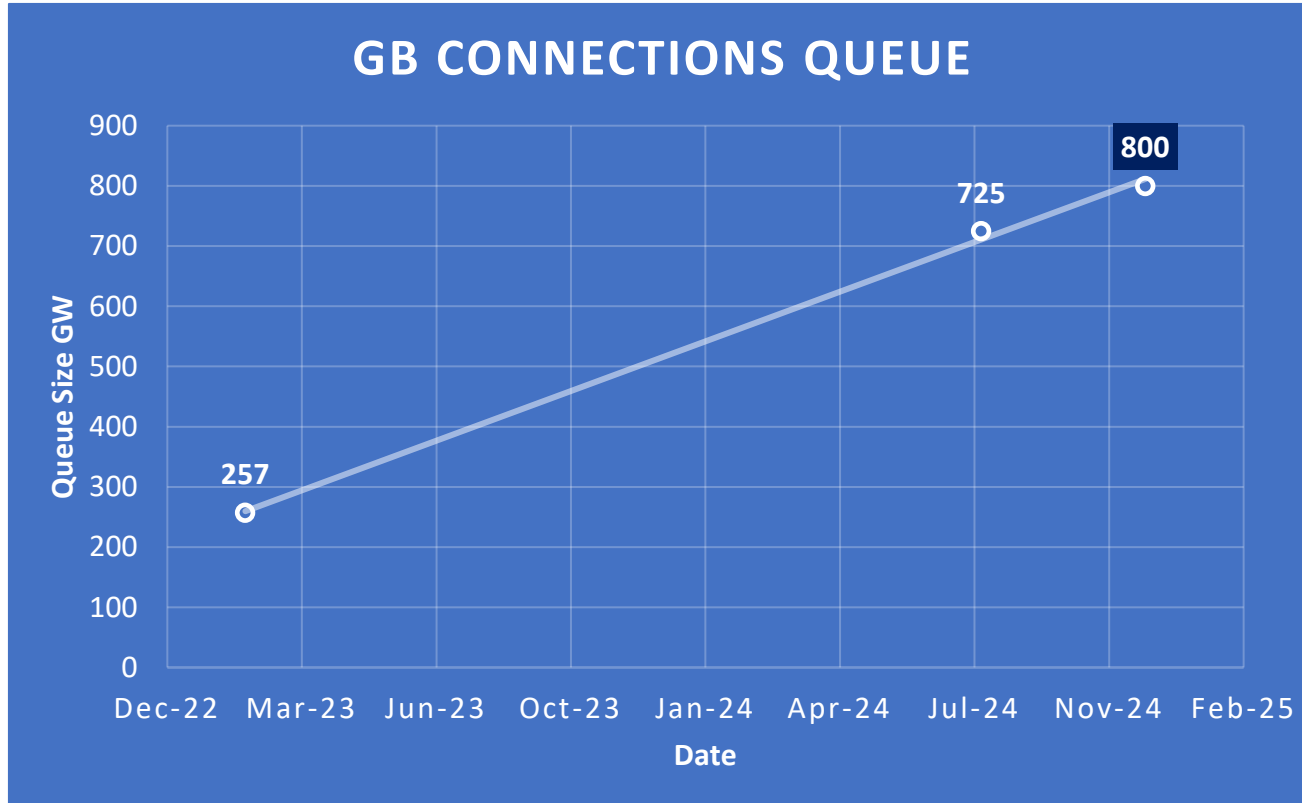
Paid for through consumer energy bills (not grant funding)

Part of the energy networks regulatory price control mechanism (RIIO-2)

Adopting an agile approach to managing uncertainty, using iterative design and fail-fast approaches

Delivering large scale demonstrations of innovation which can be replicated and scaled as business as usual

The need for accelerated connections



Data from Ofgem's online blogs on the Connections Reform.

Project name	Project owner	Stage	Capacity (GW)
Hornsea Three Offshore Wind Power Plant	ORSTED	On-going / Under Construction	2.852
East Anglia Hub Offshore Wind Complex	ScottishPower Renewables	On-going / Under Construction	3.100
Berwick Bank Offshore Wind Power Plant	SSE Renewables	Under Construction	4.100
West of Orkney Offshore Wind Power Plant	Offshore Wind Power Limited (OWPL)	Planning	2.000
Ossian Offshore Wind Power Plant	SSE, CIP and Marubeni	Development	3.600



Innovation Challenge 1: Whole system network planning and utilisation to facilitate faster and cheaper network transformation and asset rollout



Focus Areas for Innovators

1. Digital simulation and advanced modelling techniques to facilitate whole system network planning and development
2. Leveraging data, digital tools, and novel commercial arrangements to maximise existing network capacity
3. Reducing network connection times through use of demand and supply side flexibility
4. Supporting consumers in making cost-effective decarbonisation choices coordinated with wider local area or regional plans



... targeted outcomes

- Improve coordination, modelling and planning capability across networks to support holistic and timely system development
- Accelerate connection times for renewables and/or demand sites to meet 2030 target
- Support prioritisation of flexible assets in connection queues to increase network headroom and reduce time for viable assets to secure connection
- Improve availability of information to consumers to support more cost effective and diverse decarbonisation choices

Projects accelerating connections

Helping customers identify the best possible locations to connect to the power network



REACT

Shaping the future of grid connection requests



REACT (Rapid Evaluation Areal Connection Tool)
Data accessibility and interoperability report

March 31, 2024

Written by Stefan Haselwimmer, Emily Judson, Kathryn Corrick, Gea Mikic, Caroline Fraser

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Connectrolyser

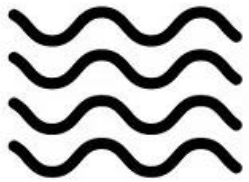
Opportunities for Hydrogen Developers to utilise cheaper non-firm connections

Renewable power

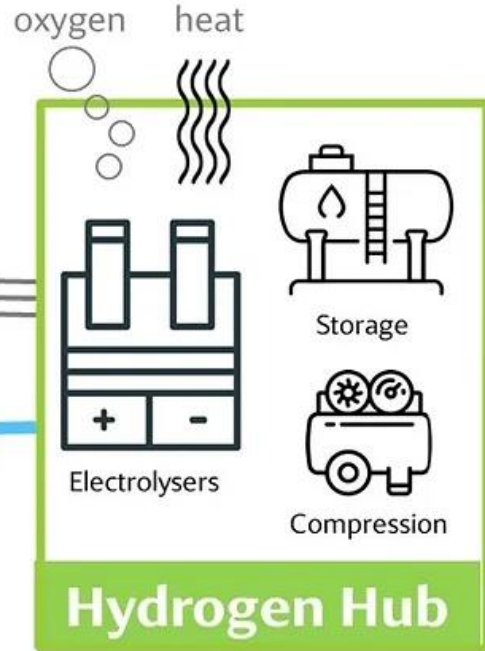


Electricity connection

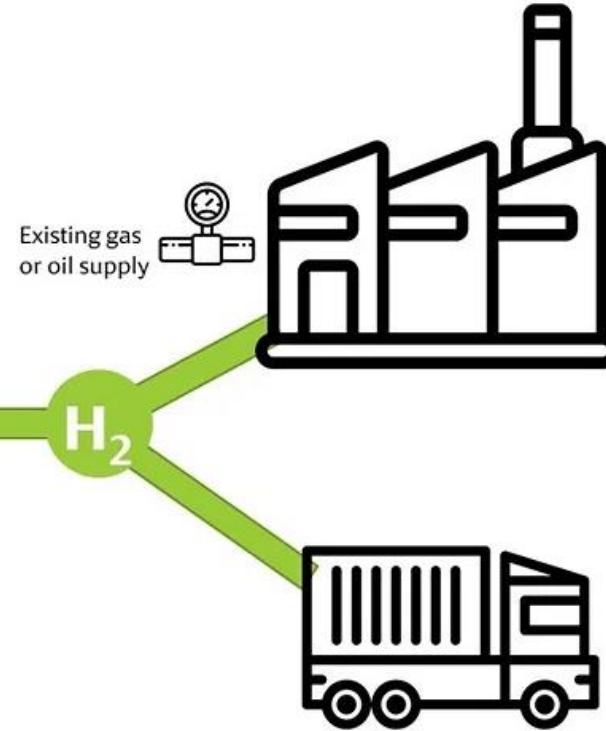
Water connection



Sustainable water



HydroGenus



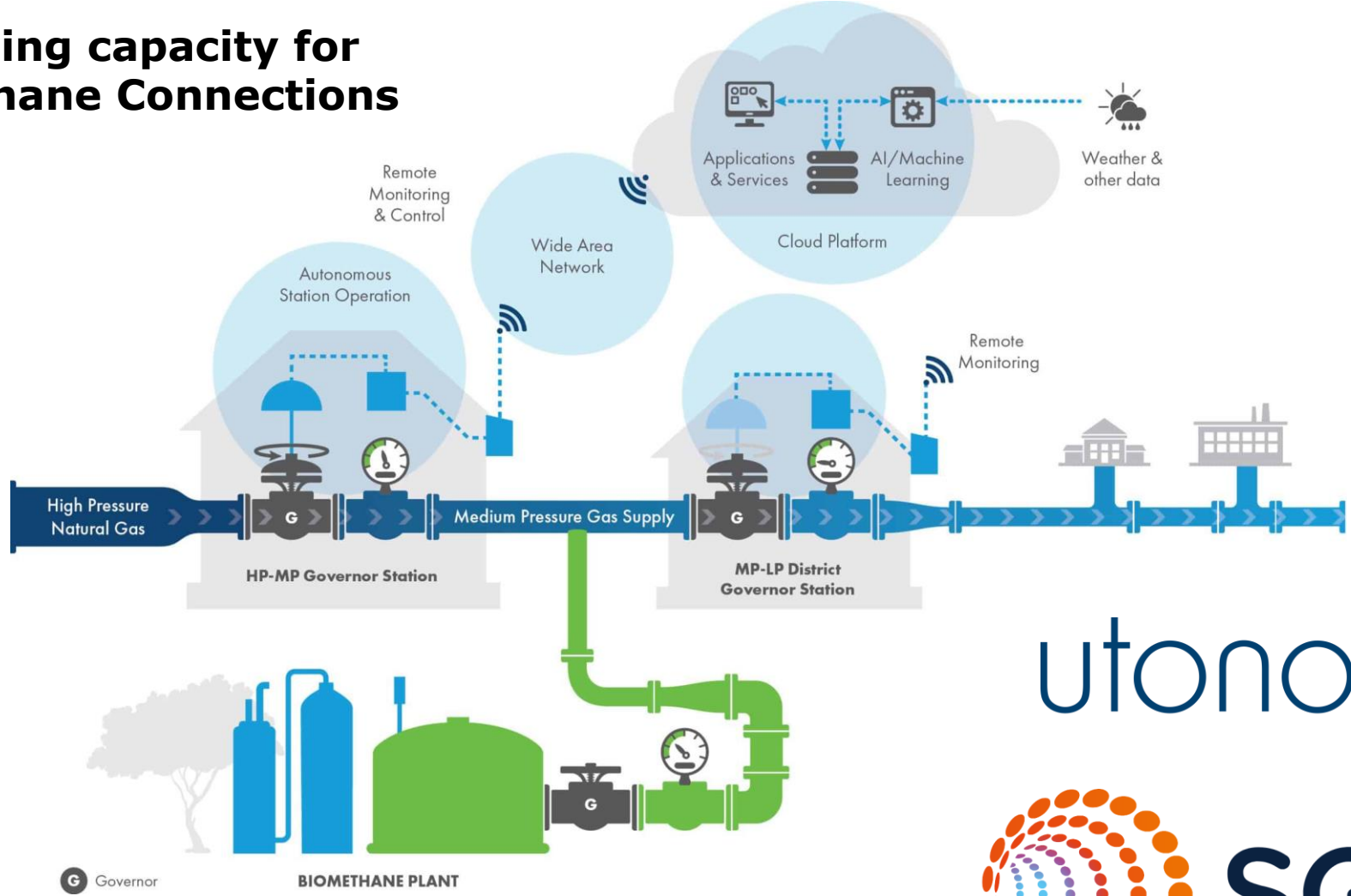
Need for Green Gas Connections



- Census 2021 found that 73.8% of households in England and Wales used mains gas.
- By increasing the volume of green gas in the gas grid, we can help support the decarbonisation of major demands such as home heating.
- Ofgem's Green Gas Support Scheme (GGSS) is designed to support the deployment of new anaerobic digestion (AD) biomethane plants to increase the proportion of green gas in the gas grid.
- Support will be provided to registered biomethane producers based on the volume of eligible biomethane, produced from AD, that they inject into the gas grid.
- Prioritise maximising existing gas capacity and connections over building new connections to the gas grid.

Intelligent Gas Grid

Increasing capacity for Biomethane Connections



utonomy



SGN



Thank You

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