



Department for International Trade

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Decarbonisation of the UK Energy System

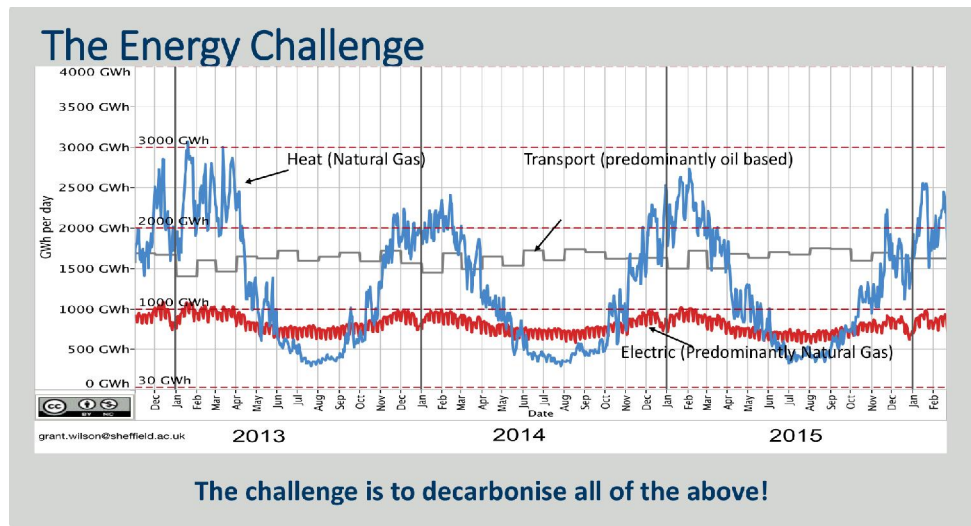
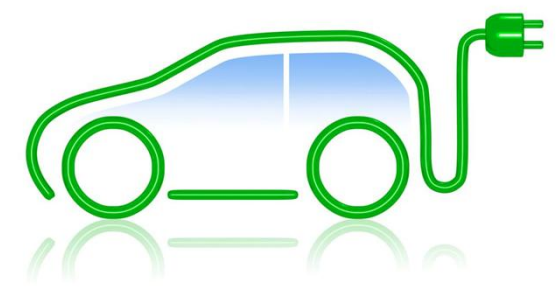
Target is for 80% reduction from 1990 levels by 2050

Need to address:

Power

Heat

Transport





What is the role of gas in a decarbonised future?

Electrification of heat and transport

Generation

T&D

People

Air quality

Combustible gases

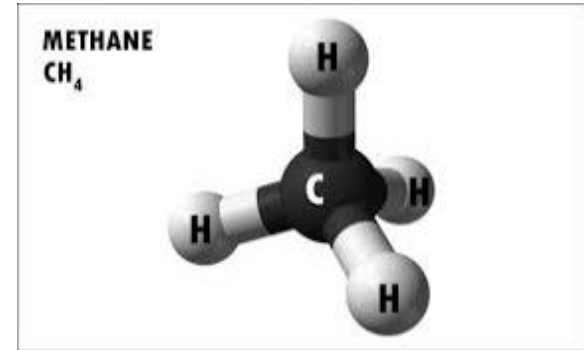
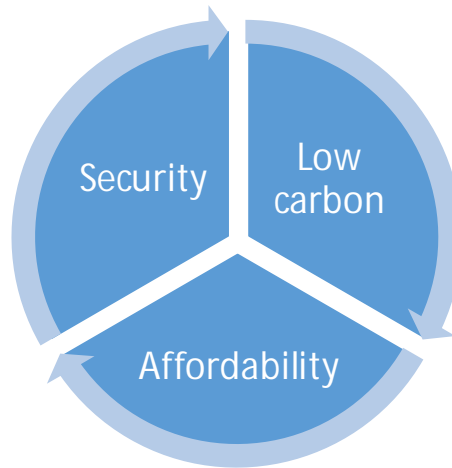
Natural gas

Biomethane

Synthetic natural gas

Hydrogen

- CCS/U
- P2G/P2X



[Unlocking Potential of Green Gas](#)



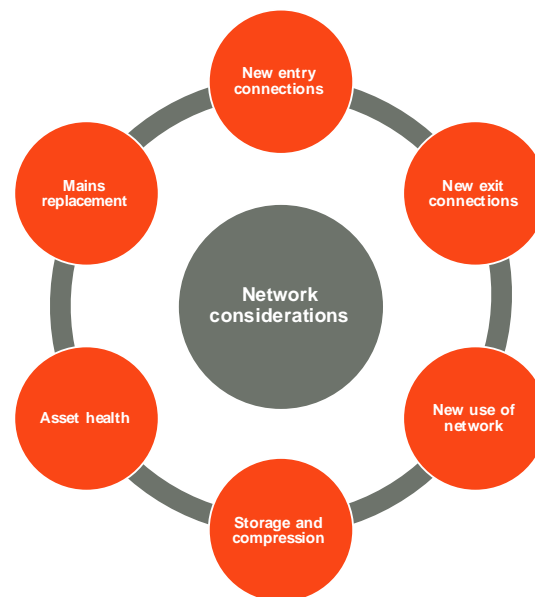
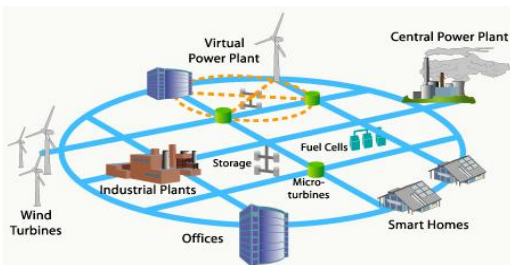
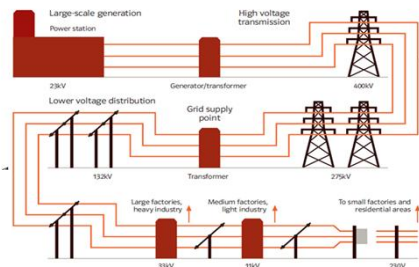
Energy Networks Role in Decarbonising the UK Energy System

Revenue = Incentives + Innovation + Outcomes (RIIO)

The overriding objectives of the RIIO framework is for energy network companies are to encourage them to:

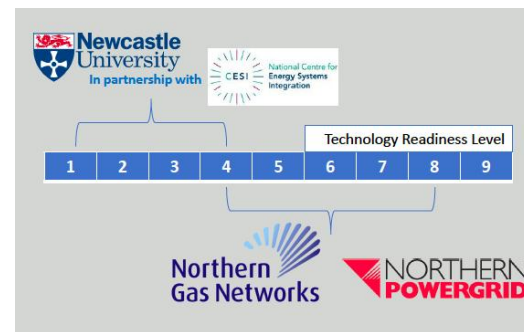
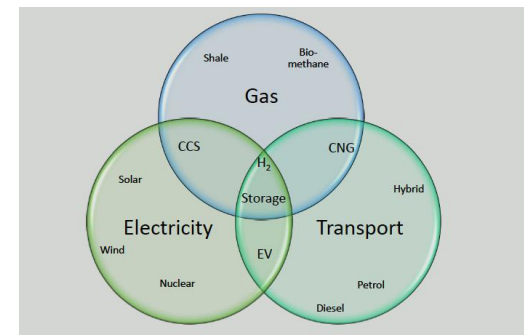
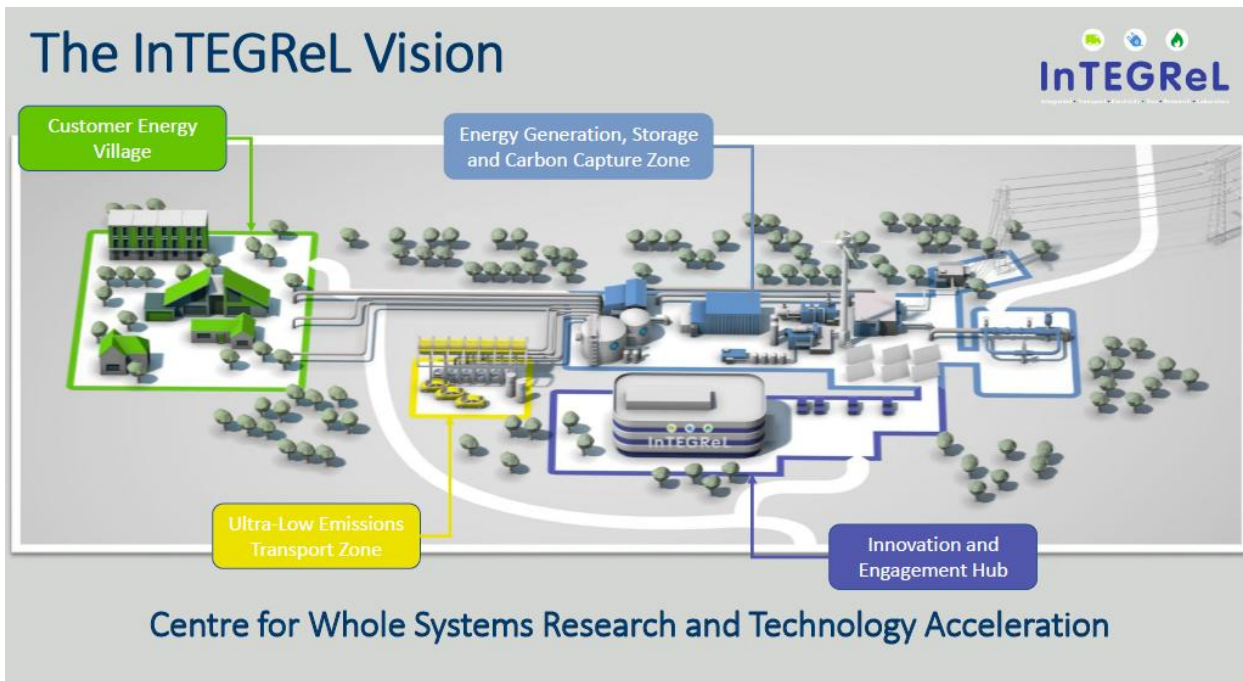
play a full role in the delivery of a sustainable energy sector; and deliver network service with long-term value for money for existing and future consumers.

Innovation support mechanisms





Integrated Transport Electricity Gas Renewable Energy Laboratory (InTEGReL)





Renewable Heat Incentive & Biomethane opportunity

All supported under the Renewable Heat Incentive (RHI);

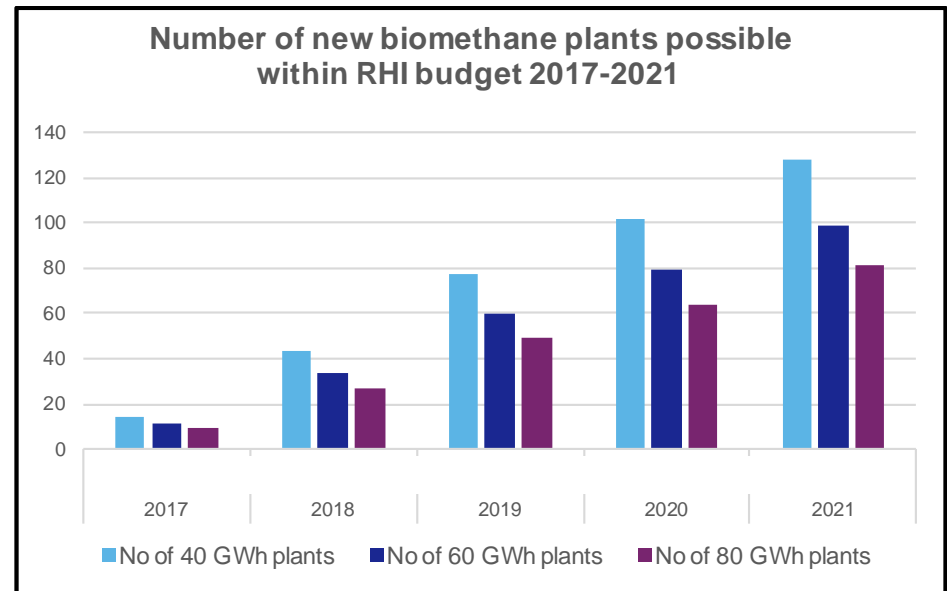
Which pays the producer per kWh of biomethane injected

for 20 years from first injection and linked to inflation

The RHI has a total budget spend of £1,150 million across all technologies in April 2021

REA analysis

There is scope for many more new facilities for the generation of biomethane of all types in the UK.





EVs gaining traction for personal transport

HGVs may need an alternative solution

CNG and LNG fueling fleet growing

Biomethane is eligible for support under the RTFO mechanism

<http://www.gasvehiclehub.com/refuelling-facility>



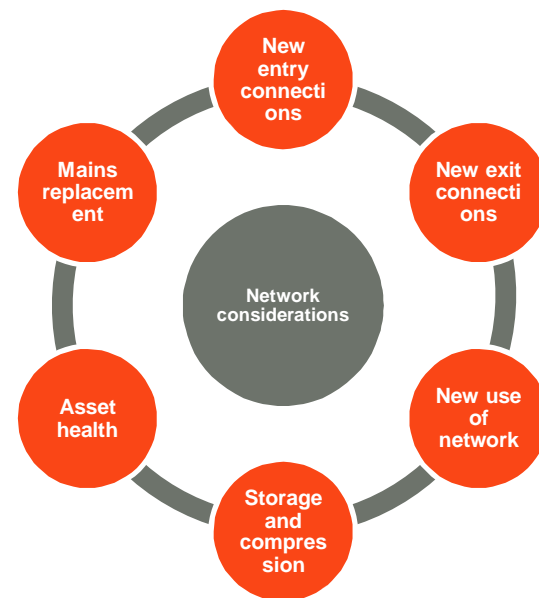
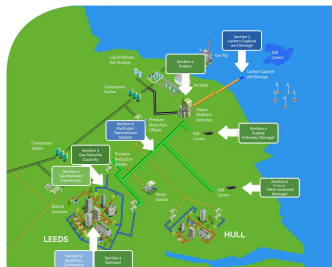
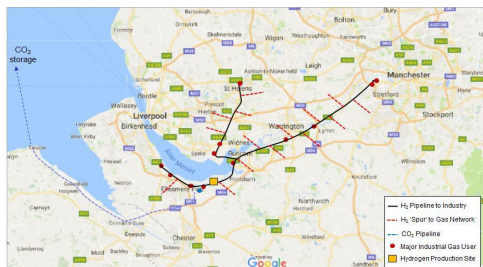


Future Gas Network

Gas provides 80% of heat at times of peak demand.

320TWh per annum to domestic customers.

Over 23 million UK gas customers use the world class infrastructure.



Hear from Cadent and Northern Gas Network

<https://attendee.gotowebinar.com/recording/7275588674664605965>



- Offshore Wind
- Nuclear
- Oil & Gas
- Energy Networks
- Waste to energy
 - Markets, capability, heritage
 - Energy as an Industry
 - Energy Projects
 - Interfaces



A history of providing energy security, a future leading in affordable low carbon energy



Energy in the Northern Powerhouse (NPH)

>27% of UK electricity is generated in the NPH

>30% of UK renewable electricity is generated in NPH

3 of 6 Distribution Network Operators are in the NPH

2 of 4 Gas Distribution Networks are in NPH

The NPH is the home of UK civil nuclear

Shale gas

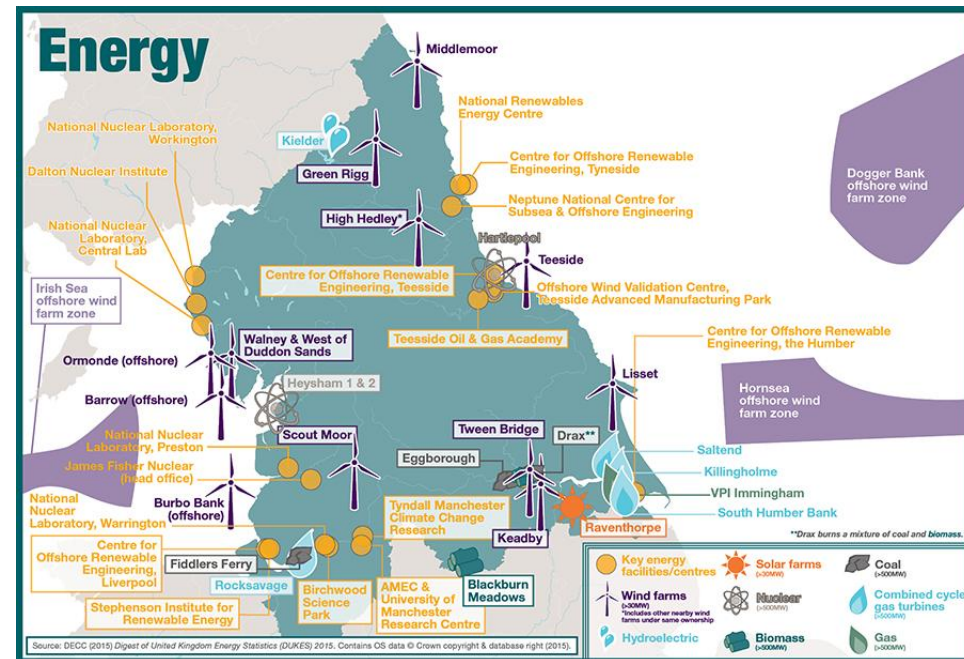
World leader in Offshore Wind

Existing Private Wire networks

Local markets

Leading Innovation

Resource/asset coordination





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