Title: ***An update on Government developments specific to Energy Market Data and the role of digitalisation in facilitating market developments.***

Summary

To ensure stable and efficient future energy supplies there is a significant focus on the digitalisation of energy networks to address the increasingly dynamic nature of system operation and energy flows. In light of this there is an expectation that the exchange of operational data across the energy networks and between networks assets will need to be enhanced to facilitate / support the net zero carbon ambitions of Government.

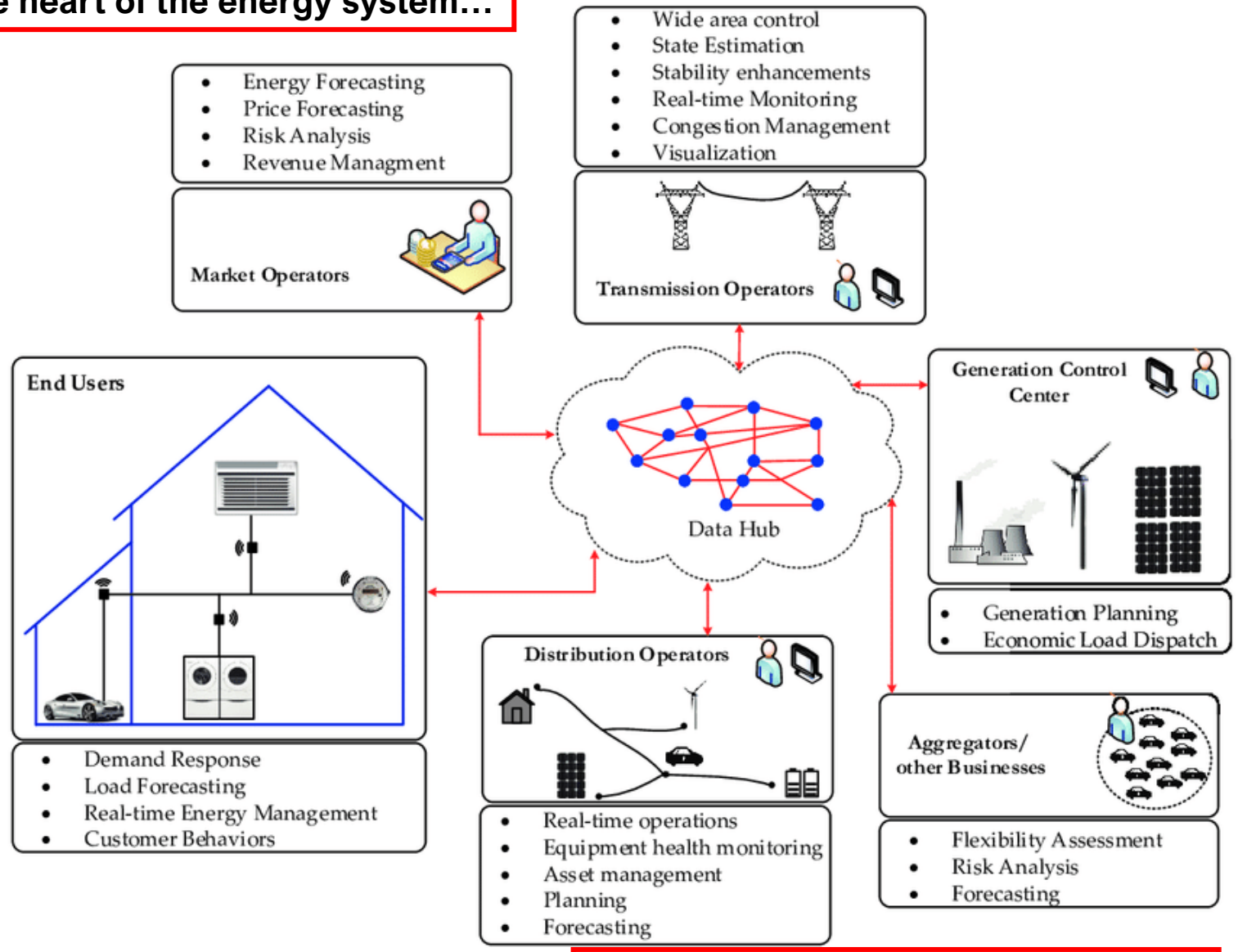
Presentation Flow

1. **Why is digitalisation of the energy system important?**
2. **What does a digitalised energy system *really* mean?**
3. **What is the current landscape of digitalisation efforts?**
4. **What are the next steps from Government/Regulator perspective?**
5. **Questions…**

Why is digitalisation of the energy system important

- Data enables integration of large volumes of low carbon power, heat and transport.
- As levels of low carbon generation and demand technologies increase, data about and from these assets will become critical for system operation, investment planning and consumer engagement.

Data is at the heart of the energy system…



…therefore digitalisation is a priority

What is a digitalised energy system

Digitisation *is the process of converting information from a physical format into a digital one.*

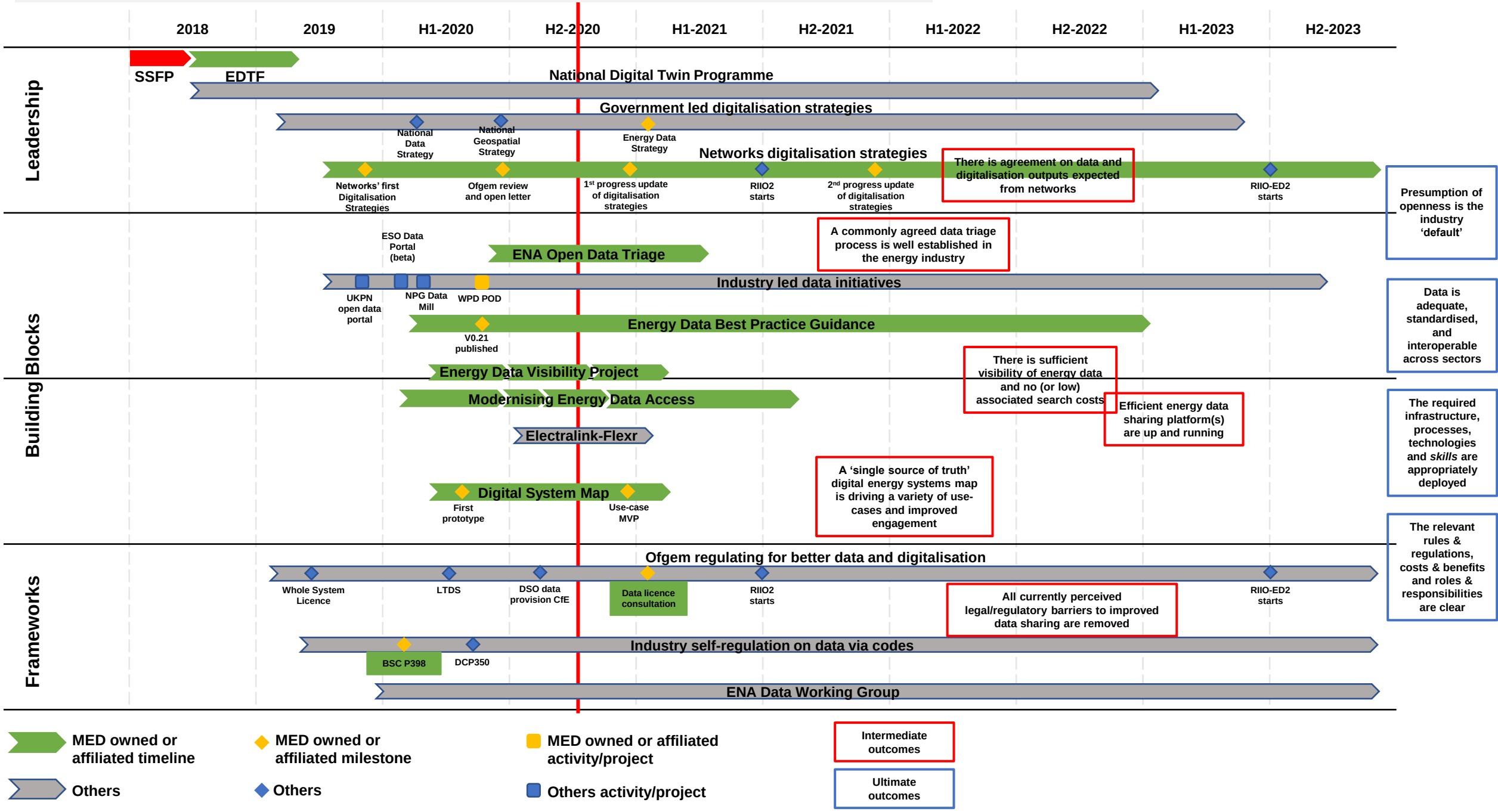
When this process is leveraged to improve business processes, it is called ***digitalisation.***

A digitalised energy system is one where:

Digitalisation :

- Presumption of openness is the industry default
- Data is adequate, standardised, and interoperable across sectors
- The required infrastructure, processes, technologies and skills are appropriately deployed
- The relevant rules & regulations, costs & benefits and roles & responsibilities are clear

Modernising Energy Data (MED) – Roadmap to desired outcomes



How we are modernising energy data

Based on our policy development thus far, below are the broad categories of all our planned activity

Leadership

- **Communicating progress** of our activity since EDTF publication
- **Setting a vision** for digitalisation of the energy sector
- Providing a **coordination function** across the landscape of all relevant activity/initiatives (e.g. ENA-DWG, energy digital services forum)
- Regulator **investing in** its own ‘data & digital’ **capabilities**
- **Engaging with wider networks** for cross-sectoral coordination (e.g. CBDD-NDT programme, DCMS-National Data Strategy)

Building Blocks

- A prototype energy data visibility service (aka data catalogue) with ONS
- A co-ordinated series of innovation programmes (with Innovate UK).
- Developing an effective asset registration process

Frameworks

- **Consulting to clarify regulatory expectations**, (e.g. best practice guidance, DSAPs; DSO key enablers and next steps
- **Embedding** expectations **into regulation**, such as new licences conditions being included in the RIIO-2 determination process
- **Engaging with the wider regulatory topics**, such as the SO review to include data specific governance issues within its scope of reforms

https://www.gov.uk/government/groups/modernising-energy-data

Ofgem- upcoming energy data regulations

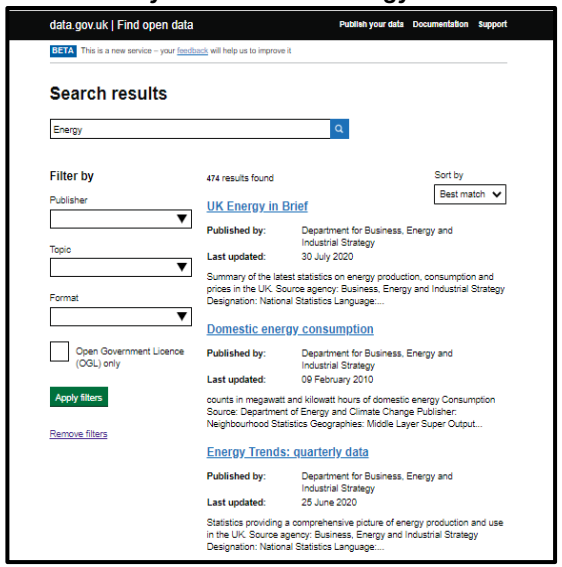
Establishing our stances on: (1) Digitalisation of the energy system and; (2) the use of Energy System Data	
Ofgem feedback on network companies' digitalisation strategies	https://www.ofgem.gov.uk/publications-and-updates/review-and-next-steps-riio-digitalisation-strategies
Links to network companies' digitalisation strategies (to be updated this year to also include their action plans for delivery)	https://www.ofgem.gov.uk/publications-and-updates/digitalisation-strategies-modernising-energy-data
Data Best Practice guidance (draft)	https://www.ofgem.gov.uk/publications-and-updates/we-are-creating-data-best-practice-guidance

Where we're already embedding our stances into regulation	
RIIO-2 Draft Determinations consultation (see the "core" document)	https://www.ofgem.gov.uk/publications-and-updates/riio-2-draft-determinations-transmission-gas-distribution-and-electricity-system-operator
RIIO-ED2 Sector Specific Methodology consultation (see the "overview" document, and related detail in Annex 2)	https://www.ofgem.gov.uk/publications-and-updates/riio-ed2-sector-specific-methodology-consultation

Where to find all of Ofgem's updates on Modernising Energy Data	
Ofgem website homepage for Modernising Energy Data	https://www.ofgem.gov.uk/about-us/ofgem-data-and-cyber-security

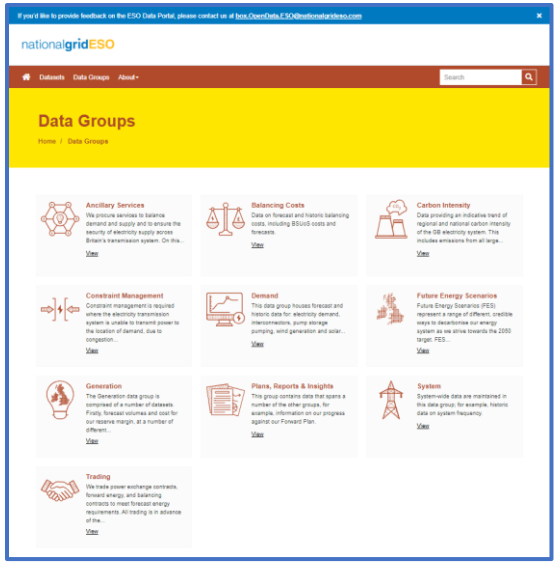
Questions

Data.gov.uk results page
Keyword search- “Energy”



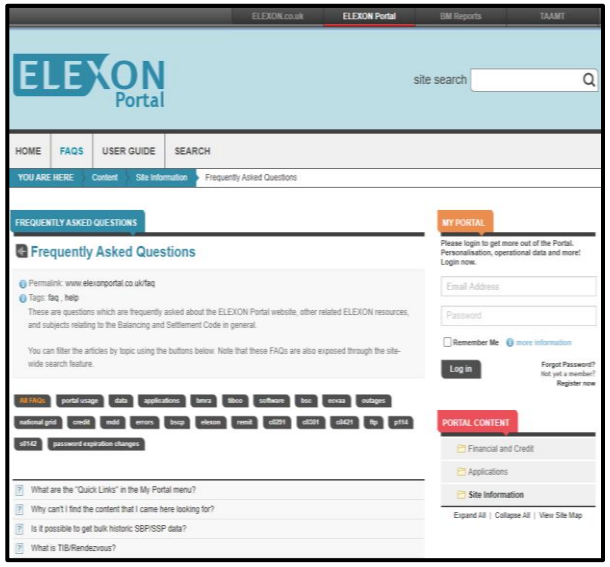
This is the data.gov.uk website and links to all data published by the government. You can do simple keyword searches and filter data published under OGL if you want. Clicking on the link of data item takes you to a brief landing page with downloadable data (if available). Data is not standardised in any format and can be PDF/Image files also, so not always machine readable.

GB-ESO Data Portal



This is the data portal of GB’s Electricity System Operator. This is a beta service and they are inviting user feedback. Data is arranged under 10 Data Groups

Elexon data portal

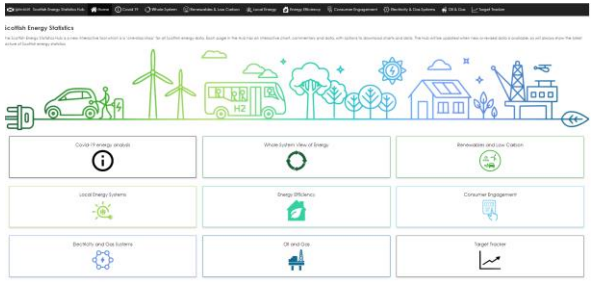


This is the data portal of Elexon who manage some key data flows in the energy market and are code administrator for the Balancing and Settlement Code (BSC)
More detail on data flows managed by Elexon:
https://www.elexon.co.uk/data/key-data-reports/data-flows-available-from-bsc-systems/
https://www.bmreports.com/bmrs/?q=help/about-us

ENA web-page

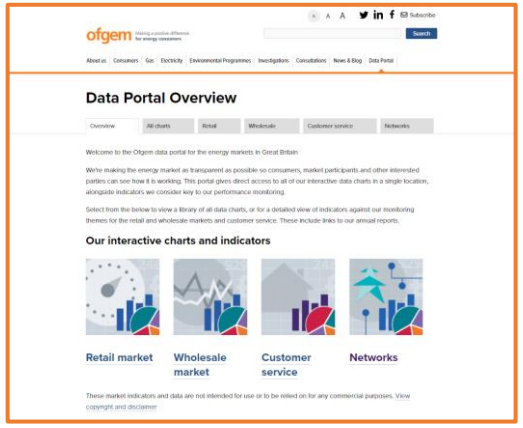
This is web-page on Energy Networks Association (ENA) website that links to individual DNO webpages that contain their respective Embedded Capacity Registers (ECR)

Scottish Energy Statistics Hub



This is the Scottish government catalogue for all energy data/statistics

Ofgem Data Portal



This is the data portal of GB’s Energy Regulator- Ofgem

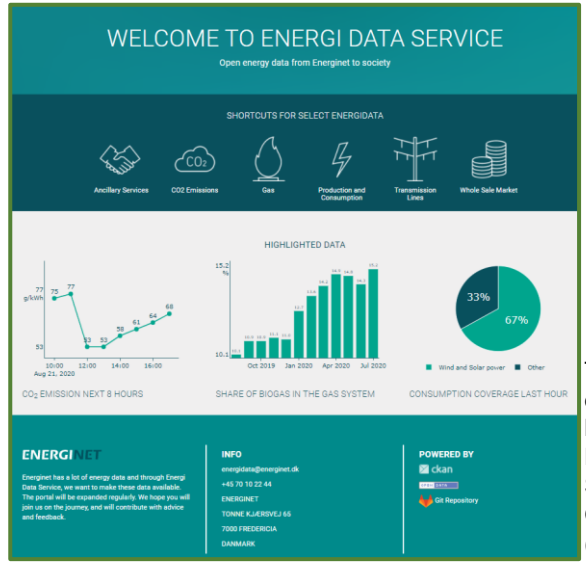
Some more examples of data being published by GB Electricity Distribution Network Operators (DNOs)

https://www.westernpower.co.uk/maps-hub

https://www.westernpower.co.uk/our-network/energy-data-hub

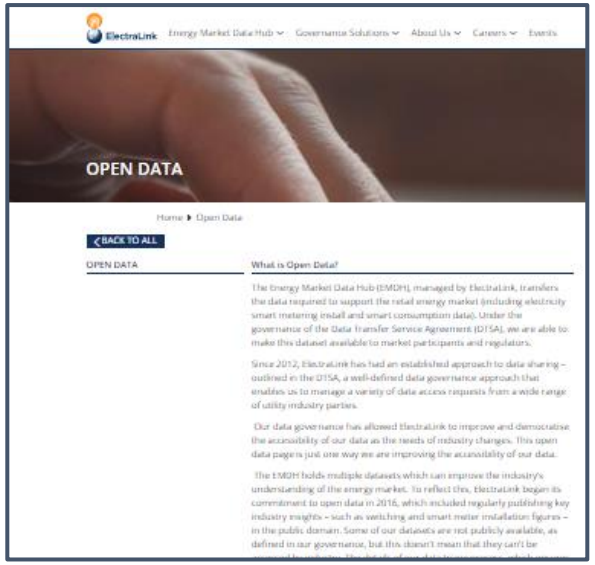
https://datamillnorth.org/dataset/northern-powergrid-dfes/

Danish SO Data Portal



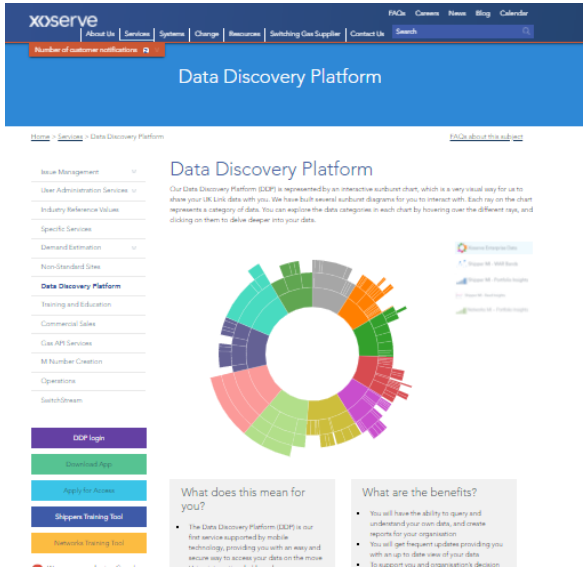
This is the energy data hub of the Danish System Operator (Energinet)

Electralink-EMDH



This is Electralink's Energy Market Data Hub

Xoserve- DDP



This is the data discovery platform developed by xoserve