

Stakeholder surgery: Digitalisation & Data

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Current performance: Digitalisation & data

**roadmap to
achieving
digitalisation of
the energy
system
published**



**Digitalisation
strategy and
action plan
published**

Co-created with
stakeholders



**WPD Data
Charter**

commitment to ensure
we capture, manage
and share data to
enable delivery of the
Net Zero transition















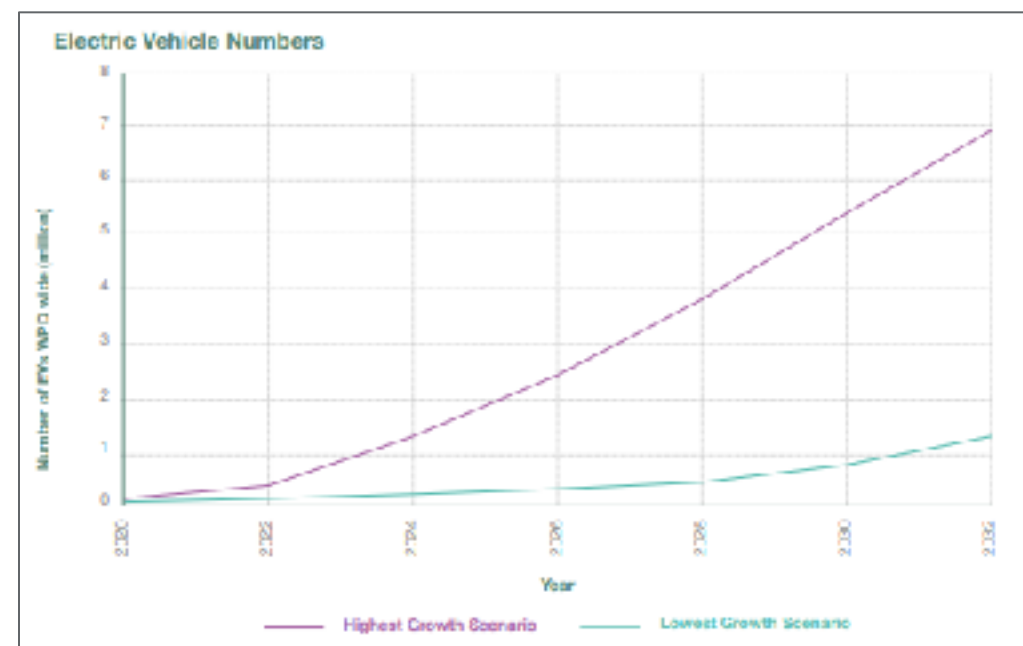
**Energy Data
Hub**

Interactive hub with
easy access to wide
range of data, both raw
and with user friendly
tools



Digitalisation & data - Need

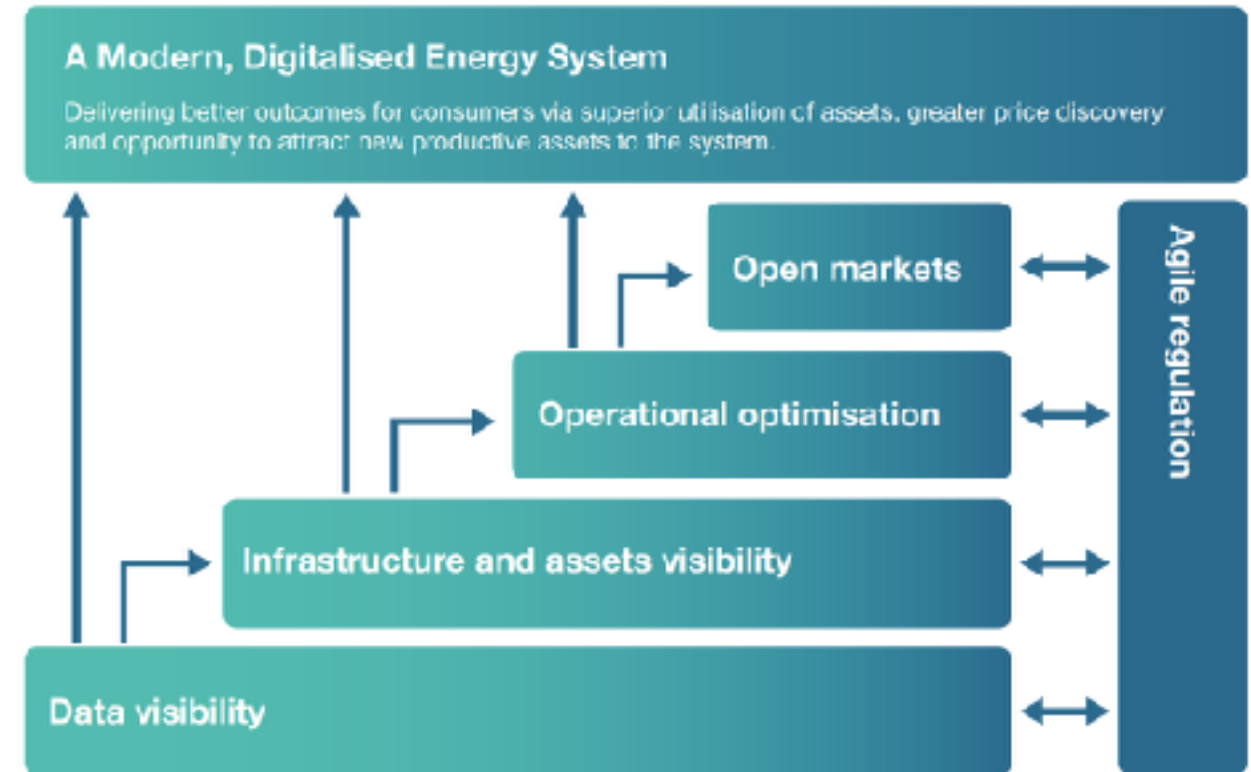
	Today	Tomorrow
Power generation structure	 Large centralised power plants	 Many small energy generators
Electricity market	 Centralised	 Decentralised
Transmission	 Simple transmission structure	 Small-scale clusters, regional balance of supply
Distribution	 Simple distribution structure	 Complex distribution structure
Metering	 Electro-mechanical meter	 Smart meter
End consumers	 Simple end consumers	 Smart end consumers



Digitalisation & data - Challenge

ESC's Energy Data Taskforce Report has identified five key steps to support the transition to a modern, digitalised energy system:

- **Data Visibility:** Understanding the data that exists, the data that is missing, which datasets are important, and making it easier to access and understand data.
- **Infrastructure and Asset Visibility:** Revealing system assets and infrastructure, where they are located and their capabilities, to inform system planning and management.
- **Operational Optimisation:** Enabling operational data to be layered across the assets to support system optimisation and facilitating multiple actors to participate at all levels across the system.
- **Open Markets:** Achieving much better price discovery, through unlocking new markets, informed by time, location and service value data.
- **Agile Regulation:** Enabling regulators to adopt a much more agile and risk reflective approach to regulation of the sector, by giving them access to more and better data.



Digitalisation & data – Our approach



Improved data management



Increased network insight and operation



Presumed open data



Digitalisation & data – Our approach

We recognise that improving our data and delivering our digitalisation commitments are key to:

- Further improving business efficiency
- Driving enhanced performance
- Turning data into information that benefits customers
- Providing open data to market participants
- Producing better insight into asset capability for customers planning to connect new loads, storage, or generation
- Developing new connection and service propositions



Digitalisation & data – Progress so far

Automated Power Restoration System (APRS) is a function of our network management system, PowerON. It applies an algorithmic approach to fault detection, isolation and restoration.

It uses telemetered network data to understand the location of a fault and then either recommend, or automatically execute a sequence of switching actions to isolate a fault and restore power to as much of the network as possible.

This enables us to respond to faults and restore customers more rapidly, meaning that customers are disconnected from the network for shorter periods of time. It also demonstrates the capability and capacity of automating control system functions, which will be needed to support and deliver a flexible network to meet net-zero.

Time Series Data Store (TSDS) contains all operational data points from the network which includes both detailed asset information, such as switch and circuit breaker telemetry states (open or closed), real time and calculated analogue values.

Historic data can be accessed either directly through our NMS for technical users or via an internal web service for more general use.

Historically only 30 minute maximum, minimum and average data of how the network has performed has been available, which has been appropriate and suitable, but for today and tomorrow the access to real-time and accurate data is critical to ensure our design and operational activities are optimised.

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Playback and draft outputs

Digitalisation and data

What we heard from you:

- Clear, simple and easy access to good data is vital in supporting customers' planning and unlocking innovative approaches.
- WPD should make as much data as possible open and easily available
- Sharing data can facilitate and encourage collaboration for more efficient outcomes for customers
- Increased granularity in data especially at a local level can help improve planning decisions and forecasting

And so the outputs we are proposing:

Demonstrate leadership in publishing network data, with relevant data presumed open and promote its availability to customers.

▶ Developing the API interface and data availability under API

Provide accurate, user-friendly and comprehensive market information

Wider commitments

An interactive 'data request portal' will be developed aimed at staff and third parties to deliver a single focal point for suggestions and requests for new datasets to support future operation and solutions with agreed SLAs for response / data provision

Provision of LV and HV online self-serve functionality to enable new and existing customers to more quickly and effectively assess the connection of LCTs and generation to the network

Questions for breakout room discussion

- ① Have we interpreted stakeholder feedback correctly? Is anything missing from the outputs proposed?
- ② What specific targets, measures and performance levels do you want to see for each output?
- ③ Covid-19: Has there been any change in priorities or emerging issues which will need to be addressed?