Open Networks

Workstream 4: Whole Energy Systems 2021
Product 3: Coordinated Regional Data Gathering

Introduction & Background

In 2021, WS4 Product 3 (Coordinated Regional Data Gathering) aimed to develop a methodology for a consistent and co-ordinated approach to gathering regional data. In this context “regional data” is defined as data that each network gathers from local authorities. This data provides an indication of the expected growth of new customer connections in each network area, which when combined with national level targets and scenario frameworks allows networks to undertake strategic investment planning. The use of external data and services in this regard ensures that networks are proactive in assessing the energy requirements of customers, in doing so demonstrating that network development planning is coordinated and efficient.

The primary benefit of a more coordinated approach to regional data gathering is to reduce the demand on Local Authorities for similar data requests. In addition, the use of consistent input data for both gas and electricity distribution networks can help to ensure a whole system approach to strategic network planning.

Key findings

The product group developed a Regional Data Repository, to allow gas and electricity Distribution Network Operators to share any information gathered from regional stakeholders. In order to monitor the effectiveness of the Regional Data Repository multiple electricity and gas networks are required to upload any information gathered and review the information of other networks to promote best practice.

Electricity Distribution Network Operators (DNOs) gather regional data from stakeholders annually as part of the Distribution Future Energy Scenarios (DFES) process. The regional data gathered from local stakeholders is used to plan for wider strategic development of their networks. To ensure strategic development is coordinated, economic, and efficient DNOs must demonstrate that the growth projections are well-justified, for which the regional data is an important factor.

The granularity of regional data covered by this product is not directly shared between DNOs and National Grid ESO. Instead, the regional data gathered by DNOs is translated into scenario projections; these are shared with National Grid ESO as part of the annual Future Energy Scenarios (FES) and DFES data exchange.

A key finding of the usage of the Regional Data Repository is that whilst regional data in this format can be utilised for longer term planning in the electricity sector (e.g. through Long Term Development Statement), gas distribution networks do not currently plan network development based on proposed developments outlined in local plans. Instead, the development of the gas distribution networks is based on customer applications, annual engagement with large gas users and data gathered as part of annual demand forecasting processes, such as connection / meter numbers. This significant difference is driven...
by the much higher levels of constraints on the electricity networks, combined with considerable planned growth, resulting in much larger levels of expected load related network reinforcements. Lower levels of constraints in gas supports a more reactive tactical approach to load growth.

Whilst a coordinated approach to regional data gathering may not currently benefit the network led strategic planning activities, emerging work such as Local Area Energy Planning offers further opportunities to develop a coordinated approach. Local Area Energy Planning is led by regional stakeholders (such as local or combined authorities) and plans how regions will develop their energy requirements as the UK transitions to a net zero future. Energy networks are key stakeholders in this process, and in order to assess the network impact of any plans; networks will require similar regional data as reviewed in this product.

The aforementioned difference between gas and electricity networks in their approach to the use of regional data in strategic planning limits the current benefit of the coordinated regional data gathering approach suggested. As owners of this information, regional stakeholders are best placed to lead on the provision and coordination of data provided to networks for strategic planning. The wider development and usage of Local Area Energy Plans may identify a need for coordination of the regional data shared between local stakeholders and energy networks, for which the learning from this product can be drawn upon.

**Next Steps**

The key findings outline that the proposed coordinated approach to regional data gathering for the purposes of network-led strategic planning currently provides minimal benefit. As a result, the product will be parked by the Open Networks programme, but could potentially be used in the future. The learnings from this product will be used to inform further work on how energy networks support Local Area Energy Plans (Workstream 4 Product 5 in 2022) to create best practice for Local Authorities in providing their data to energy networks.

If in the future the Gas Networks require Local Authority data, in the first instance they will liaise with their electricity counterparts to ensure consistent data is used and LAs are not receiving multiple network approaches asking for similar data.

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