ELEXON

ELEXON SMART METER DATA REPOSITORY

Elexon proposals to make Settlement data more accessible

Public

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Contents

Executive summary

Introduction

Elexon is leading on the delivery of Market-wide Half Hourly Settlement (MHHS). As part of that how we receive data will change. In addition to changes on how data will enter our systems, the granularity of data will also increase.

Historically, our systems have only received data once it had been collected and aggregated by Data Collectors (DCs) and Data Aggregators (DAs) respectively; when our new systems go live at the MHHS programme's 'Milestone Ten' (M10), we will start to receive individual Meter reads rather than aggregated data. This means that for each Meter we will receive 48 reads per day, or 17,520 reads per year; roughly equivalent to 500 billion Meter reads per year for the whole of Great Britain.

In addition to having meter reads we will also have extensive range of other data, including:

- Market Participant Identification (MPID)s for industry participants
- Data Integration Platform (DIP) Identification (DIP ID) for industry participants
- Consumption Component Class (CCC) data for Metering systems
- Metering Technical Details (MTDs)
- Distributor and Grid Supply Point (GSP) information related to each Metering System
- Predicted consumption values for Supplier Volume Allocation (SVA) Metering Systems

As part of the MHHS Programme Ofgem has directed that 'access to data for third parties must be provided on fair and non-discriminatory terms and that use of the data itself should be on the same basis'. This is to 'ensure that data is made available to drive innovation in a manner that does not distort competition'.

How we will share data

Subject to data protection and data governance measures, data we will collect via BSC Settlement Systems will be shared via a dedicated platform – the Smart Meter Data Repository (SMDR). We will build an API library of pre-determined datasets to allow people to access data. Additionally, we will respond to requests for new data sets and, if data protection measures are satisfied, and if we think others will benefit, we will create a new API for the library.

All of this will be underpinned by governance arrangements that ensure we remain compliant with data protection laws. We are actively engaged with Ofgem and DESNZ regarding their development of an industry-wide consent framework and we will ensure this forms part of our platform design.

MPAN data is Personal Data under the UK General Data Protection Data Regulation (UK GDPR). This means that it must only be processed in accordance with UK data protection laws. With this in mind, we plan to undertake a Data Protection Impact Assessment (DPIA) before we complete the design of the SMDR to ensure that privacy protections are incorporated into the design of the systems and that our handling of personal data meets all our obligations under data protection law. In addition, we will ensure that our design allows for the expected outcomes of the consumer consent framework being developed.

Next steps

As announced on 20 January 2025 in our Newscast we will work with ElectraLink to ensure continuity of service while we fill up the SMDR data-lake – further details of this will follow in due course.

This document is intended to provide an initial high-level overview of our long-term intent, and we acknowledge that further detail will be required in several areas. At the end of the document, we have asked several questions, but we would welcome any feedback regarding this subject, not just in answer to our questions. We will follow-up on this document with an event in March to help refine our intent for the SMDR and provide further details.

Smart Meter Data Repository (SMDR) Usage

Data collection

The proposal is that the SMDR will use the data ingested into the data layer of our Kinnect platform. This new layer has been purpose built for connectivity to the new Data Integration Platform (DIP). The data ingested will then be used for Settlement purposes and it is this data that the SMDR ingest.

It is our intent that SMDR Users will be able to operate the SMDR 24/7 (notwithstanding planned maintenance periods).

Intended stakeholders

Although primarily aimed at those with an interest in the electricity industry, the SMDR will be available to anybody. The groups that we envisage will make use of the SMDR include:

- Suppliers
- Generators
- System Operators
- Code Bodies
- Government bodies
- Educational institutes
- Energy Brokers
- Local Authorities
- Consumer bodies/groups
- Price comparison sites

SMDR use cases

In considering the design of the SMDR we are looking at several ways in which the SMDR could be used and have engaged with some industry members already to gain feedback. Some of these use cases are described below:

Price comparison – non-domestic

- An energy broker or Supplier could use the SMDR to access the consumption levels for a potential client to help them to prepare a quote for that client.
- We are investigating measures to ensure this use case is not used for market research and customer poaching

Price comparison – domestic

- An Energy Broker or Supplier could use the SMDR to access the consumption levels for a potential client to help them to prepare a quote for that client
- We are considering how an individual consumer's rights could be protected when data about an individual consumer's energy consumption is provided

Price Comparison sites

- A price comparison site would be able to access the SMDR to estimate a consumer's potential energy usage when finding potential deals for that consumer
- We are considering how an individual consumer's rights could be protected when data about an individual consumer's energy consumption is provided
- Other data options could be considered, such as providing the Load Shaping Service (LSS) profiles for customers to give a reasonably accurate approximation sufficient for an indication of how much each Supplier may charge

Data verification

- Ofgem, or other organisations, could use the SMDR to verify figures given as part of environmental programmes such as the Feed-in Tariffs (FIT) or Renewable Obligation (RO)
- At the moment we provide this information to Ofgem, but there will be a possibility for Ofgem, or other organisations, to pull whatever data they require.

Regional and/or seasonal trends

- This would allow users to determine trends within a given region, as determined by either the post code (first three/four letters e.g. NW4 or SW12), town/city, or GSP Group.
- This could help, amongst other things, with where to deploy embedded generation or flexibility assets (including for Demand-side response)
- This could include analysis of locational specific data could support Nodal markets. Participants could use data to determine trends over time and therefore when the optimal time to participate would be.
- We are considering how individual consumers' rights could be protected by providing aggregated data

Machine learning

- Data could be added into machine learning applications to identify trends or predict outcomes for any number of reasons, which will help development of the market, improve competition, and support the movement to net-zero.

Accessing data

It is proposed that the raw unprocessed data from the DIP will be ingested into Elexon's Kinnect platform. The Kinnect platform will encompass the new Settlement systems to be deployed as part of the Market-wide Half Hourly Settlement (MHHS) Programme. In addition to MPAN level consumption data, this would make numerous additional datasets available to SMDR uses.

The intention is that we will make data available via an API library and other potential mechanisms. SMDR Uses will then be able to pull the required data from the repository and have the ability to filter and or combine data sets. For example:

- A list of all MPANs in each GSP area as one data set with their associated post codes
- The total amount of energy supplied by each Supplier per quarter for each GSP area
- The total number of MPANs registered with each Registration service each quarter over the last two years – this could be used for switching trends

The intention is that as data sets are requested, wherever we think that several other potential users could make use of that data set, we will add it to the API library so that the API library remains an evolving piece, rather than set in stone. We are considering whether to restrict access to the library and the best way to do this to protect the rights of individual data subjects in accordance with data protection law.

Additionally, we are looking at existing Elexon platforms and services and how the SMDR could link with them to make the user-experience as seamless as possible.

Costs

We envisage that for the most part the SMDR will be free at point of use, with the cost of operating the SMDR being built into Elexon's wider operating costs. Our operating costs each year are subject to consultation as part of our business planning cycle.

As with existing arrangements we intend to retain the right to pass through costs for creating datasets to requesters where applicable.

Transition period

We are aware that a lot of industry participants rely on data from the Data Transfer Service (DTS) via ElectraLink at the moment. With the implementation of MHHS, several Data Flows will cease to exist, and a huge amount of data will be sent via the DIP instead. The result of this is that DTS and ElectraLink will not be a viable option in the long-term for industry participants looking for specific data and reports.

In the short term though, the DTN will still be used as it is now. During the MHHS Migration period industry participants will still be able to receive data from ElectraLink as Dataflows will continue to be sent over the DTN. Once migration has completed however, the dual running period will end.

However, the 'depth' of our data lake at the end of MHHS migration will still not be sufficient for the SMDR to provide data alone so ElectraLink will continue to provide data until the SMDR has sufficient historic data. For example, if a SMDR User requires two years of historic data and makes the request three months after the DTN stopped being used for the data being requested, then they will get three months of data from the SMDR and 21 months from ElectraLink.

We are working with ElectraLink about how to manage the transition and further details will follow.

Governance

Openness and transparency

Releasing data as we are proposing is a step-change to how data is shared and made available at present. We realise that there may be concerns about our ability to release data in a safe and controlled way and as such, the 'watchwords' for data sharing will be **Openness and Transparency**.

We will raise a BSC Modification to further develop arrangements that were introduced as part of P398 'Increasing access to BSC Data'. This will include reviewing and updating the role and responsibilities of a specific data sharing group that will be a sub-committee of the BSC Panel and ensuring that our processes and decisions are publicised to the best possible extent.

We already have a consultation process for releasing data sets for the first time as well as laid down classification, triaging, and mitigation processes. All of these are being reviewed and will be shared publicly.

Protecting personal data and sensitive information

We are undertaking a DPIA to ensure that, the design and operation of the SMDR complies with data protection law.

As well as protecting personal data we will also have measure in place to protect commercially sensitive data and intellectual property rights.

Data retention

Data protection laws require that personal data is not retained for any longer than is required to achieve the purpose for which it is being processed. At present Settlement data is retained for 40 months and we are reviewing whether this is appropriate too for the SMDR.

Next steps

Request for information

We are very keen to hear from potential stakeholders how they think the SMDR should develop; what their own use case may be; and what else we should take into consideration.

We are not formally consulting at this stage, more looking for helpful feedback to develop a product that can best serve industry. We would welcome any feedback in any format that suits you best and this should be sent to communications@elexon.co.uk

In providing feedback, we would welcome your thoughts on:

- What sort of data set would you want, and at what granularity level e.g. per Period/day/week/month/season?
- Have we considered all the potential use cases? If not, what other use cases and/or uses do you envisage?
- Would you prefer to use APIs, or another means such as a dashboard or a report sent to you, or a combination of these?
- How would you use the SMDR?
- How often would you use the SMDR?
- What are your concerns about sharing data?
- When would you like us to consult before sharing data?
- Is there anything we have proposed that you think should be different?
- How long do you think data should be retained in the SMDR?

Industry workshop

We intend to host a workshop and will promulgate further details in due course. This will be an opportunity to review use cases and governance arrangements in more detail.

Bilateral discussions

We have already met with several groups, but welcome further discussion – if you would like to meet with us bilaterally to discuss concerns and/or requests, please do reach out.