

Data Privacy Plan for Access to Smart Meter Consumption Data

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1. Executive summary

1.1. To lawfully access and use Consumption Data obtained from Smart Meters relating to a period of less than one month DNOs are required to have a Data Privacy Plan approved by Ofgem. To be approved, each Data Privacy Plan must address eight criteria identified by Ofgem in its open letter to DNOs dated 30 September 2016 (the "Ofgem Letter")¹. The purpose of this Data Privacy Plan is to address each of the eight criteria in turn and set out how UK Power Networks will meet the requirements of Licence Conditions 10A.4 and 10A.5. In producing this Data Privacy Plan, UK Power Networks has consulted with Ofgem, BEIS and external legal experts. In summary:

- a) UK Power Networks will only use Smart Meter Consumption Data for the purpose of meeting its duties under Section 9 of the Electricity Act 1989, to develop and maintain a safe, efficient, co-ordinated and economical system of electricity distribution.
- b) For the intended purposes currently identified, UK Power Networks' lawful basis for processing Consumption Data under the General Data Protection Regulations (GDPR) and Data Protection Act 2018 (DPA 2018) will be Article 6(1)(c) of the GDPR (e.g. that the processing is necessary for compliance with a legal obligation to which UK Power Network is subject).
- c) Collecting and processing Smart Metering Consumption Data at Section of Feeder level will allow the greatest benefits to be delivered to customers, as well as supporting Great Britain's transition to low carbon technologies, which is not possible using traditional electricity consumption data.
- d) Robust controls will be put in place to prevent Consumption Data from being used for commercial purposes, such as direct marketing, by UK Power Networks or third parties.
- e) UK Power Networks will, so far as reasonably practicable, only store aggregated and masked Consumption Data. Disaggregated Consumption Data will be permanently deleted after aggregation has taken place.
- f) All Consumption Data will be treated as if it was Personal Data and safeguarded in accordance with the requirements of the GDPR. Aggregation will form a key part of UK Power Networks' privacy solution to ensure that Consumption Data is protected.
- g) A Privacy Impact Assessment has been conducted in consultation with external legal experts to cover UK Power Networks' current intended purposes for processing Consumption Data.
- h) All Consumption Data will be stored in a secure database within UK Power Networks' secure IT environment.
- i) UK Power Networks has constructively engaged with relevant stakeholders, including consumer groups and experts in data privacy, through telephone surveys, roadshows and ENA initiatives. Their feedback has been incorporated into this Data Privacy Plan.

1.2. Overall, obtaining access to Consumption Data is key to enabling UK Power Networks to improve the safety, efficiency and cost-effectiveness of its electricity distribution network, ensuring that it provides a superior service to its customers. Additionally, access to Consumption Data will allow UK Power Networks to support Great Britain meet the opportunities made available through the introduction of low carbon technologies and the move to smarter networks.

2. Glossary

2.1. Capitalised terms used throughout this Data Privacy Plan are defined in the Glossary, included in Appendix H.

¹ <https://www.ofgem.gov.uk/publications-and-updates/open-letter-dnos-privacy-plans-access-smart-meter-data>

3. Introduction

Smart Meters and their benefits to UK Power Networks

- 3.1. Great Britain's transition to Smart Meters is being led by energy suppliers, who are required by their Licence Conditions² to take all reasonable steps to roll-out Smart Meters to all of their domestic and small business customers by the end of 2020.
- 3.2. Smart Meters have the capability to record energy consumption in half-hourly intervals and communicate with energy suppliers and network operators. Traditional meters are not capable of doing this, and replacing them with Smart Meters is seen as an important step in helping to achieve a more reliable and cost-effective electricity system across Great Britain.
- 3.3. For the purpose of this Data Privacy Plan, UK Power Networks defines electricity Consumption Data obtained from smart meters to be half-hourly active import and reactive import readings.
- 3.4. In the future, increasing uptake of solar panels, electric vehicles, battery storage and other technologies are likely to place increased demands on the Low Voltage Network. It is essential that DNOs are able to effectively manage their networks to cope with the increasing demand, in an efficient, coordinated and economical way. Consumption Data obtained from Smart Meters can be used to provide DNOs with a much clearer view of loads on the Low Voltage Network, which is currently not available (see Appendix D1 and D2 for a detailed overview of the Low Voltage Network).
- 3.5. By having an improved visibility of the demands on the Low Voltage Network across Substation, Feeder and Section of Feeder, UK Power Networks will be able to improve practices and deliver benefits by:
 - a) Improving planning of reinforcement of the existing network.
 - b) Improving the design and planning to accommodate new and increased capacity connections.
 - c) Building efficient networks that make use of the available data to respond intelligently to network conditions and the introduction of Low Carbon Technologies³.

Obtaining access to Smart Meter Consumption Data

- 3.6. Collecting and processing Consumption Data from Smart Meters raises the notional possibility of being able to assume certain behaviours within a household whose Consumption Data has been collected, and thus potentially impact on the privacy of the household occupants.
- 3.7. To address these privacy concerns, access and use of Consumption Data collected for periods of less than one month is conditional upon meeting the requirements set out in Licence Conditions 10A.4 and 10A.5 of the Electricity Distribution Licence (a copy of the Licence Condition 10A is included in Appendix G1).
- 3.8. As well as having to comply with Licence Conditions 10A.4 and 10A.5, to the extent that it is Personal Data, UK Power Networks will need to comply with the requirements of the General Data Protection Regulations (GDPR) and Data Protection Act 2018 (DPA 2018) when collecting and processing Smart Meter Consumption Data.
- 3.9. This Data Privacy Plan demonstrates how UK Power Networks meets the requirements set out in Licence Condition 10A.4 and 10A.5 as well as relevant Data Protection laws to collect and process Smart Meter Consumption Data in a manner that protects the privacy of households.

² The Standard Conditions of Electricity Supply Licence applicable to electricity suppliers in the UK

³ 'Use of Smart Meter Information for Network Planning and Operation', Low Carbon London Learning Report C1, UK Power Networks, September 2014, <http://innovation.ukpowernetworks.co.uk/innovation/asset/b6ba358a-d0b1-48a9-ad28-8ea08c3664fB/LCL+Learning+Report+-+C1+-+Use+of+smart+meter+information+for+network+planning+and+operation.pdf>

- 3.10. In demonstrating this, the Data Privacy Plan sets out the practices, procedures, and systems which UK Power Networks will implement in order to aggregate or otherwise anonymise Consumption Data, so that, so far as reasonably practicable, it can no longer be associated with an individual premise.

4. Ofgem Criteria 1 – Data to be accessed

Explain clearly what electricity consumption data will be accessed, in what format, over what period of time, from which consumers, and for which specific purposes. Those purposes must be relevant to the regulatory requirement to develop and maintain efficient, co-ordinated and economical systems for the distribution of electricity.

Access to Consumption Data

- 4.1. Consumption Data will be accessed by UK Power Networks in the form of an aggregated Consumption Profile for a Substation, Feeder or Section of Feeder (an example Consumption Profile is included in Appendix D5).
- 4.2. DNOs do not obtain Consumption Data directly from the Smart Meters. Each Smart Meter transmits Consumption Data to servers controlled and operated by Smart DCC (see paragraph 4.3 below). UK Power Networks may only access Consumption Data via the Smart DCC infrastructure, which interfaces with UK Power Networks' own secure IT systems. Access to Consumption Data via Smart DCC is strictly regulated and is subject to compliance with the Smart Energy Code, which set out the terms for the governance of the end-to-end management of Smart Metering.
- 4.3. Smart DCC (a wholly owned subsidiary of Capita Plc) operates under licence (the "Smart DCC Licence") granted by the Department for Energy and Climate Change (now part of BEIS) and regulated by Ofgem (the "Smart Meter Communication Licence"). This licence runs for a fixed term and is granted to a single licence holder. It permits the licence holder to establish and manage Smart Metering data and communications infrastructure in Great Britain.

In what format will Consumption Data be stored?

- 4.4. Smart Meters store Consumption Data in accordance with the following parameters:
- a) Half-hourly Consumption Data recorded every 30 minutes with a date and time stamp for:
 - i. Active Energy Imported
 - ii. Reactive Energy Imported
 - b) The total consumption value for each month
 - c) The total consumption value for each 13-month period
- 4.5. When a Supplier installs a Smart Meter at any domestic or small non-domestic premises, which is successfully commissioned to Smart DCC to make available Consumption Data, UK Power Networks will develop a process through Smart DCC to collect this information on a monthly basis. Collecting Consumption Data on a monthly basis will ensure that UK Power Networks' IT systems and Smart DCC systems are not overloaded by more frequent Consumption Data service requests, which can be data intensive and has the potential to slow down the performance of UK Power Networks' smart metering systems. In addition to the above, the justification for collecting Consumption Data on a monthly basis rather than at a longer or shorter period is that collecting data at a longer or shorter period will provide no additional benefits to users that require the data to fulfil their roles. For example, authorised system design and planning engineers who will use the data for network reinforcement analysis or new connections will be able to fulfil their roles using aggregated Consumption Data collected on a monthly basis.
- 4.6. The Consumption Data received from Smart DCC will be used to generate consumption load profiles in the format described below:

- a) Aggregated monthly half-hourly consumption load profiles for each Substation, Feeder and Section of Feeder (see Appendix D5 as an example). Since these load profiles will relate to a period of less than one month, the requirements of Licence Condition 10A.4 and 10A.5 apply to this data, and UK Power Networks will need to ensure that, so far as is reasonably practicable, it ceases to be data which is capable of being associated with a domestic customer at relevant premises.
 - b) The monthly maximum, monthly minimum, monthly average and monthly total consumption value for each individual MPAN (see Appendix D6 for a detailed example). This information does not relate to a period of less than one month and will not be subject to the requirements of Licence Condition 10A.
- 4.7. In addition to the above, disaggregated half-hourly Consumption Data will be collected, when required, for specific purposes strictly in accordance with Licence Conditions 10A.7 and 10A.8, as detailed below:
- a) **Suspected Theft** – If UK Power Networks has reasonable grounds to suspect theft or abstraction of electricity and uses Consumption Data for investigating the suspected theft.
 - b) **Trials** – If UK Power Networks is conducting a trial that has been approved by the Secretary of State. UK Power Networks must give at least 14 days' notice to the domestic customer and the customer must not have objected to being included in the trial.

Specific purposes for the use of Consumption Data

- 4.8. Consumption Data aggregated to Substation, Feeder and Section of Feeder will be used by UK Power Networks to help improve the visibility of the demand on the Low Voltage Network at the best possible level of granularity, whilst at the same time ensuring that the requirements of Licence Condition 10A.4 and 10A.5 are satisfied. By using Consumption Data to produce aggregated consumption load profiles, UK Power Networks will be able to deliver benefits in relation to network planning, asset management and new connections (see Ofgem Criteria 2 for a detailed explanation of the benefits and typical scenarios where aggregated Consumption Data may be used).
- 4.9. UK Power Networks will process Consumption Data obtained from Smart Meters solely for the purpose of meeting its duty under Section 9 of the Electricity Act 1989, in particular subsection (a): “to develop and maintain an efficient, co-ordinated and economical system of electricity distribution”.

Consumption Data retention period

- 4.10. From the date of collection, UK Power Networks will store Consumption Data for a period of 7-years. The stored data will be permanently deleted automatically by UK Power Networks' system on a rolling 7-year period. UK Power Networks' application support team will ensure that Consumption Data is deleted in compliance with the 7-year retention period. The 7-year retention period is considered to be the optimum period for long term strategic planning of the LV network as it will provide a long term historical load profile with the capability of producing more accurate trends for future load growth. UK Power Networks' 7-year retention period also aligns with the RIIO-ED2 reporting period (5-year regulatory period plus an additional 2 years following closure of RIIO-ED2 to respond to any queries). Storing data for a 7-year period will therefore support UK Power Networks during the regulatory reporting period.
- 4.11. UK Power Networks will ensure that aggregated Consumption Data is deleted after use by authorised data requesters rather than stored for an uncontrollable length of time by:
- a) Updating its data retention standard to state that all authorised users who have access to and use Consumption Data will have the responsibility and strict requirements to delete the data after use.
 - b) Creating business policies and standard operating procedures to ensure that processes are in place for deleting the data after it has been used for its intended purposes.
 - c) Having contractual arrangements in place with third parties so that they are obligated to have procedures in place to delete the data after it has been used for its intended purposes.

- 4.12. Where UK Power Networks collects disaggregated half-hourly Consumption Data in accordance with Licence Condition 10A.7 or 10A.8 to investigate a theft or for a trial, this data will be held in a secure environment with controlled access restricted to specific users. In accordance with Licence Condition 10A.7, relating to UK Power Networks investigating suspected theft or abstraction of electricity, the disaggregated Consumption Data will be deleted following closure of all legal proceedings and any subsequent prosecution of theft or on completion of the investigation where no legal proceedings take place. In the event of any appeals following the conclusion of a legal trial, there may be a requirement to extend the duration that the disaggregated Consumption Data is held for until the appeals process is concluded. When collecting disaggregated Consumption Data in accordance with Licence Condition 10A.8, for a trial basis, the trial will have a defined period of time dependent on the purpose of the trial. All disaggregated Consumption Data will be deleted following completion of the trial period.

5. Ofgem Criteria 2 – Use of Consumption Data

Explain how Smart Metering data favourably compare to traditional electricity consumption data in terms of feasibility, cost effectiveness and efficiency in achieving the purposes described in our first criterion, and provide any supporting quantification of the benefits that could be delivered for different groups through access to this data (e.g. network benefits, consumer benefits, future development of smart grids etc).

- 5.1. The roll-out of Smart Meters will play a crucial role in Great Britain's transition to a low-carbon economy, helping Great Britain to meet its long-term challenges of ensuring an affordable, secure and sustainable energy supply. Smart Meters will enable the introduction of more sophisticated energy management through Time-of-Use Tariffs and Load Shifting that will pave the way for the smart grid and the network of the future.
- 5.2. Although the roll-out is Supplier-led to maximise the potential for consumer benefits, Smart Meter Consumption Data presents significant opportunities for UK Power Networks and other DNOs.
- 5.3. For example, the transition to low carbon technologies, especially the increase in domestic micro-generation, heating and the electrification of transport has intensified the need to improve the visibility of demand and use of the distribution network, especially the Low Voltage Network. The data from Smart Meters will assist UK Power Networks in understanding where and when energy is used, allowing for more effective decisions to be made in the areas of network planning, asset management and new connections.

Limitations of traditional meters

- 5.4. Currently, UK Power Networks has a limited level of monitoring of loading on the Low Voltage Network. The yearly maximum demand at distribution Substations is monitored either using a Remote Terminal Unit (RTU) with monitoring equipment installed at the Substation or by manually reading the maximum demand information from metering at Substations with no capability to capture load profile data.
- 5.5. RTUs deployed at Substations provide an ability to monitor the performance of the Low Voltage Network and collect load profile data of the whole Substation. However, they do not provide load profiles for Feeders or Sections of Feeders from each substation. Smart Meter Consumption Data can be used to generate load profiles for Feeders and Sections of Feeders. These load profiles will help to provide a more detailed view of the Low Voltage Network, allowing more informed decisions to be made in the areas of network reinforcement and new connections.
- 5.6. Moreover, installing RTUs and monitoring equipment incurs substantial cost and is not possible in many locations, for example, due to physical space constraints. It is, therefore, not feasible to install an RTU in every Substation for the collection of loading data and the cost of monitoring every Substation may not provide the best value to customers.

- 5.7. A traditional method of modelling the Low Voltage Network, in particular the loads on the Feeders from each Substation, is by using an assumed “after diversity maximum demand” (ADMD) figure for each connected customer, or an estimated annual kWh consumption with a hypothetical load profile.
- 5.8. The ADMD data and assumed hypothetical load profiles have been developed from studies carried out many decades ago and are reviewed annually to provide an average customer load profile that is used for network modelling and understanding load patterns on the Low Voltage Network. However, the data used is unlikely to be reflective of the requirements of load patterns from the emergence of low carbon technologies on the Low Voltage Network. Smart Meter Consumption Data will be able to provide a much more accurate and up to date view of load patterns on Feeders of the Low Voltage Network, allowing for improved decisions to be made in the future development of smart grids.
- 5.9. Finally, network design and planning assessments are based on ADMD and hypothetical load profiles that have tended to be conservative in their evaluation, resulting in a distribution network with available spare capacity. These assessments are now being challenged by the changes in load profiles from the installation of rooftop solar photo-voltaic systems and the winter and night-time loads due to an increase in the electrification of transport and heating. Smart Meter Consumption Data will help to overcome some of these challenges by improving visibility of the Low Voltage Network and providing true load profiles.

Consumption Data from Smart Meters

- 5.10. Traditional electricity meters measure the cumulative energy consumed at a property. The information collected from traditional meters, therefore, does not allow a load profile to be created for the Feeder so that an analysis can be made for a specific time-period, for example, an annual, monthly, weekly or daily load profile.
- 5.11. Compared to traditional meters, Smart Meters measure and store energy Consumption Data at half-hourly intervals, thus, potentially providing a more granular view of electricity consumption.
- 5.12. An improved view of electricity consumption provides a number of opportunities for DNOs. For example, UK Power Networks’ Low Carbon Network Fund (LCNF) Tier 1 project from 2013 known as ‘Distribution Network Visibility’ identified a number of benefits in relation to monitoring the distribution network, in particular, improving the assessment of existing assets to determine if reinforcement is required as well as speeding up customer requests for new connections.
- 5.13. Furthermore, the UK Power Networks’ Low Carbon London report called ‘Use of Smart Meter Information for Network Planning and Operation’ published in 2014 identified benefits from monitoring the Low Voltage Network. The report analysed Smart Meter Consumption Data from the Low Carbon London Smart Meter trial to better understand how customers contribute to network loads and how Consumption Data would be useful to network operators. The findings of the report showed that Smart Meter Consumption Data could improve business processes to deliver benefits around connection of new loads, planning of reinforcement of the existing network, voltage issue investigations and supply interruption management. The collection of Consumption Data aggregated to Feeders and Sections of Feeders will provide valuable information and improved Low Voltage Network visibility that will help to achieve the findings and benefits identified in the report.
- 5.14. In addition to the benefits identified above, it is also important to note that as one of the network operators, and under the Smart Energy Code, UK Power Networks has obligations to connect to the national smart metering communications infrastructure established and managed by Smart DCC. UK Power Networks contributes to Smart DCC operations through an annual fixed charge for each installed meter plus further charges for transaction services for the delivery of benefits.

- 5.15. Since UK Power Networks currently pays charges to Smart DCC operations and has obligations to connect to the infrastructure, obtaining a detailed view of the performance of the Low Voltage Network through smart meter Consumption Data is therefore a more efficient and cost effective approach compared to traditional methods such as installing an RTU at every distribution substation. This supports UK Power Networks in meeting its duties under Section 9(a) of the Electricity Act 1989, to develop and maintain a safe, efficient, co-ordinated and economical system of electricity distribution network. It is important to note, however, that RTUs deliver significant benefits on the high voltage (HV) network as they allow for the remote control operation of switches and automation to restore supply to customers following a fault on the High Voltage network and as such these will continue being installed for this purpose.

Network condition and planning – improved asset and performance data

- 5.16. UK Power Networks frequently installs temporary load data recording equipment in substations with Low Voltage Feeders to gain an understanding of network loads. This method is a time-consuming operation that also incurs additional costs when preparing quotations for customers requesting a new connection or increased capacity connection. Once sufficient Smart Meters have been installed, use of aggregated Consumption Data to understand loads will eventually replace the need for this time consuming method and will, therefore, help to improve timescales for responding to connection customers.
- 5.17. Reinforcement of a network often involves the provision of new, replacement or upgraded assets to increase its electrical capacity or to maintain security of supply to customers. This includes activities such as replacement of assets to relieve potential overload conditions and the provision of load-transfer capability. Aggregated Consumption Data can be used to provide visibility of the actual load on assets. This will allow over-load situations to be mitigated, subsequently helping to prevent asset failure and, therefore, extending the life and performance of assets.
- 5.18. The availability of detailed aggregated Consumption Data across the network offers the opportunity to significantly improve network planning. For example, aggregated Consumption Data will support the identification of specific areas of the Low Voltage Network that may need reinforcement or allow informed decisions to be made to defer network reinforcement. UK Power Networks currently relies on assumptions when analysing load allocation on networks which involves the use of safety margins to account for unknown and unexpected loading conditions. Having accurate information regarding the loading of assets (e.g. visibility of real load profiles at each Feeder, Section of Feeder and Substation) will allow these assets to be utilised more efficiently, while at the same time ensuring they are not overloaded. In turn, this may lead to a reduction in the number of faults on the network, helping to reduce overall operational expenditure and subsequently support keeping charges low for customers.
- 5.19. Under-utilisation and over-utilisation of assets can lead to premature failure, poor power quality and unnecessary losses. Visibility of the consumption load profiles in Sections of Feeders and Substations can identify locations where there is capacity to transfer load from one Substation to another, deferring reinforcement and better utilising existing capacity.
- 5.20. In future, problematic phase imbalance on Low Voltage Feeders may be detectable using aggregated Consumption Data in conjunction with phase association techniques or trials. This visibility can help to balance loads across phases on the Feeder and, therefore, has the potential to release capacity and defer reinforcement requirements.
- 5.21. Accurate load data collected from Smart Meters will help to improve network studies and assist in the identification and prioritisation of assets and cable replacement. Aggregated Consumption Data will help network studies to understand whether the network requires reinforcement, minimal reinforcement or whether reinforcement can be deferred until load reaches a specific level.

New and increased capacity connections – avoiding damage to assets

- 5.22. Detailed network loading analysis using aggregated Consumption Data and parameters such as Harmonics obtained from other measuring equipment, can be used to ensure that assets are being utilised within safe limits and are not being subjected to damage. Simulation of planned network changes and operations using aggregated Consumption Data to provide accurate load data for modelling tools will help to avoid damage to assets, as it will highlight the conditions that the network would experience as a result of any proposed alteration.
- 5.23. By having a better understanding of the conditions that would adversely affect the network from any proposed changes, new connections or requests for an increased capacity connection could be made without the need for significant network reinforcement.
- 5.24. In addition, aggregated Consumption Data can help identify where spare capacity on network assets is not continuously available. This can allow for timed connections to be offered to customers based on the time of day or day of week including considering any seasonal factors where headroom is identified as available on the network during certain time periods. The ability to offer timed connections will enable a quicker connection to the customer, help avoid potential damage to assets and may reduce the need for costly reinforcement.
- 5.25. Licence Condition 52(2)(b) stipulates that UK Power Networks must facilitate competition in the market for new connections to the electricity distribution system. Using aggregated Smart Meter Consumption Data to assess load profiles will improve the position, capacity and timing of connections. This may attract a wider variety of independent connection providers, encouraging customers to choose these based on the enhanced accuracy and efficiency of network designs from use of the aggregated Smart Meter Consumption Data. Tackling barriers to competition in this way may produce benefits of improved customer satisfaction, improved timeliness of quotations, increased incentives to innovate and reduced prices to those customers.
- 5.26. Aggregated Smart Meter Consumption Data will help to provide more accurate costs for new connection requests when carrying out network assessments, compared to current processes that use assumed load data. Additionally, accurate assessments will also support managing loads on the network, avoiding any potential overload situations that could damage assets.

Improved real-time data and control – supporting the future network

- 5.27. The combination of accurate aggregated Smart Meter Consumption Data and asset data with greater real-time control will pave the way for the network of the future. It will provide the information and a capability to support expansion of low carbon technologies (LCT) with Time-of-Use Tariffs. There will be the ability to undertake Active Network Management (ANM) on the Low Voltage Network and defer the need for network reinforcement and new investment, with Smart Meters paving the way for a full smart grid.
- 5.28. Increases in the use of small-scale micro-generation from Low Voltage connected photovoltaic roof-top systems cause a reduction in network performance, preventing the network from operating at its maximum available capacity. Aggregated Smart Meter Consumption Data will provide the ability to carry out improved assessments of the performance of the network and allow for mitigating actions to be taken to help ensure that the network is operating as close as possible to its optimum capacity.
- 5.29. For example, use of aggregated Smart Meter Consumption Data can help to identify areas of poor power factor giving UK Power Networks the opportunity to install power factor correction equipment on the network. Installing this equipment can improve voltage control and release system capacity by reducing system losses. Additionally, improved knowledge of power flow direction, including generation export, can help to identify where adverse situations may exist that could have an impact on planning, outage calculations and restoration actions after an outage. Aggregated Smart Meter Consumption Data can therefore help UK Power

Networks to better manage and adapt to the changes and impacts associated with the introduction of small-scale microgeneration roof-top systems.

- 5.30. Smart Meter Consumption Data has a crucial role to play in Great Britain's transition to a low carbon technology society. The introduction of electric vehicles (EV's) and charging points, as well as other low carbon technologies such as electric heat pumps, have the potential to drive electricity consumption far in excess of historic natural load growth.
- 5.31. Traditional network reinforcement is likely to be expensive and may be unable to support this growth, necessitating smarter management of the Low Voltage Network. Aggregated Smart Meter Consumption Data will be used to better understand load related issues on existing infrastructure and provide visibility of which sections of the network may need reinforcement, helping UK Power Networks to support the use and expansion of low carbon technologies (see Appendix E2). It will provide a more detailed insight into networks by Feeder and Section of Feeder, enabling UK Power Networks to understand total volumes of energy movement and daily peaks of energy consumption from EV's and other low carbon technologies. Having this understanding, will help UK Power Networks' future development of a coordinated and efficient smart grid that is able to adapt effectively to the demands on the network.

Quantification of benefits

- 5.32. As part of UK Power Networks' ED1 submission, significant benefits relating to Smart Meters were identified in the Smart Metering Business Plan. However, due to the delays in the roll-out of Smart Meters, the majority of benefits identified may not be realised during the ED1 period. Accordingly, the majority of benefits are likely to be realised once a large proportion of UK Power Networks' customer base has a Smart Meter installed (see Appendix E1 for more details on the quantification of benefits).
- 5.33. The knowledge gained during the ED1 period about network and Consumption Data, as well as the systems being used, will help to provide the platform for a transformed DNO role moving towards a DSO that can support extensive low carbon technologies and distributed generation. This is a vital step in helping the UK secure long-term sustainable energy provision.

6. Ofgem Criteria 3 – Commercial use

Provide assurance that any commercial use of the data by the DNO or third parties is excluded from these purposes, both before and after the data anonymisation.

Use of Consumption Data by UK Power Networks, Independent Network Operators, Independent Connection Providers and other third parties

- 6.1. UK Power Networks will process Consumption Data obtained from Smart Meters solely for meeting its duties under Section 9 Electricity Act 1989. As such, UK Power Networks will only use Consumption Data to meet its legal obligations and not for any other commercial use. UK Power Networks will not share or sell Consumption Data to Independent Network Operators, Independent Connection Providers or other third parties for commercial use or marketing purposes. UK Power Networks will implement appropriate policies, procedures and internal controls (such as restricted access controls) to ensure that Consumption Data is not used for any other purposes.
- 6.2. UK Power Networks will be using Consumption Data for the purposes described in Criterion 1 and Criterion 2 to allow it to develop and maintain a safe, efficient, co-ordinated and economical system of electricity distribution network. Aggregated Consumption Data will be shared with ICPs and IDNOs only to the extent necessary to comply with Licence Condition 52.2, allowing them to operate to agreed procedures for network analysis to determine a "self-approved" point of connection on the network. This data will be made available

on an equivalent basis with controls to ensure that it is not used for any other purpose such as commercial use or marketing.

Contractual arrangements with Independent Network Operators, Independent Connection Providers and other third parties

- 6.3. Only aggregated Consumption Data will be made available to ICPs and IDNOs with whom UK Power Networks has entered into a framework agreement relating to the Competition in Connections Code of Practice. The data will only be shared in compliance with Licence Condition 52.2 to facilitate competition in the Local Connections Market. ICPs and IDNOs will only have access to aggregated Consumption Profiles for Substations, Feeders and Sections of Feeders.
- 6.4. UK Power Networks may share aggregated Consumption Data with consultants and universities who will act as Data Processors and process the data on behalf of UK Power Networks, for example, to support a research project. Where UK Power Networks is conducting a trial in accordance with Licence Condition 10A.8, and are working with a university or consultancy as part of the trial due to technical expertise being required, UK Power Networks may share disaggregated Consumption Data for the purpose of that trial with the university or consultancy. Before sharing any Consumption Data with these parties, UK Power Networks will ensure that appropriate contractual arrangements will be in place, including clauses providing sufficient guarantees that the Data Processor will protect Consumption Data, ensure compliance with the GDPR, and not use the Consumption Data for any purposes other than those specified by UK Power Networks. ICPs and IDNOs will only have access to aggregated Consumption Profiles for Substations, Feeders and Sections of Feeders.

Controls for using Consumption Data

- 6.5. UK Power Networks, BEIS, ENA and Ipsos MORI have carried out consultations with various consumer groups and customers to understand their views on the collection of Consumption Data from Smart Meters. Where concerns have been raised, these generally focus on Consumption Data potentially being used for other purposes such as marketing. UK Power Networks will develop internal policies and procedures explicitly stating the types of user and third parties that may have access to Consumption Data. Only authorised users including third party users who form part of a defined authorised group with the required training will have access to aggregated Consumption Data, thus limiting the risk of unauthorised access and incorrect use of aggregated Consumption Data.
- 6.6. Authorised users will only have access to the aggregated Consumption Data or the monthly total, maximum, minimum and average consumption value. The limited nature of the information, therefore, will prevent aggregated Consumption Data being used for commercial or marketing purposes.
- 6.7. UK Power Networks will set up organisational processes to ensure that all user applications that will have access to aggregated Consumption Data will be subject to a Data Protection Impact Assessment (DPIA) before any aggregated Consumption Data is made available, ensuring that appropriate controls are identified in order to further protect and prevent Consumption Data from being used for commercial or marketing purposes. UK Power Networks will also ensure that appropriate contractual arrangements will be in place, including clauses providing sufficient guarantees that Data Processors will protect Consumption Data, comply with the GDPR, and not use Consumption Data for any purposes other than those specified by UK Power Networks.
- 6.8. Once UK Power Networks is able to collect Consumption Data, the information systems team will update UK Power Networks' IT security policy in accordance with its document review procedure. Currently, the document review period is every three years. However, if updates are required to the document, changes will be implemented before the three-year review period. Updating the IT security policy will help to ensure that users are kept aware of their obligations under the policy and do not use the data for unintended purposes.

- 6.9. Aggregated Consumption Data is further protected from unintended use for commercial purposes by the nature and format of the data. UK Power Networks will only make this data available in the form of a Consumption Profile. In practice, a Consumption Profile is likely to be of limited commercial value to third parties who may attempt to gain unlawful access to it. This is particularly the case where the Consumption Data has been aggregated, which is one of the measures UK Power Networks will implement to safeguard it.
- 6.10. UK Power Networks is registered with the Information Commissioner's Office (ICO) and has appointed a dedicated Data Protection Officer (DPO) to oversee all aspects of data protection, including responding to requests received from customers wishing to exercise their rights under the GDPR. The duty of this person is to ensure compliance with the GDPR and DPA 2018, including ensuring that Consumption Data is not used for any purposes other than those specified in this Data Privacy Plan. Customers who have concerns about how their Consumption Data is used, where this could include concerns about their data being used for marketing or other commercial purposes, will be able to contact UK Power Networks' DPO to discuss their concerns⁴.
- 6.11. UK Power Networks will update its privacy policy on its website, clearly explaining the limited purposes for which it will use Consumption Data. Any customers who have concerns that their Consumption Data may be used for other purposes will be provided with appropriate contact details to enable them to raise these concerns with UK Power Networks' DPO.

7. Ofgem Criteria 4 – Data processing

Explain clearly how, where, when and by whom collation, maintenance, use and deletion of the data would take place securely and cost-effectively (these steps form what is referred to as 'Electricity Consumption Data life cycle' in the ENA's Generic Privacy Framework).

Collation

- 7.1. UK Power Networks will issue automated service requests on a monthly basis to Smart DCC to obtain half-hourly Consumption Data stored in Smart Meters. Consumption Data will only ever be collected by UK Power Networks via Smart DCC infrastructure which has been rigorously tested to ensure its security (see figure 4 in Appendix A for an overview of the Smart Meter infrastructure). To access and use Smart Meter Consumption Data, UK Power Networks is obliged to become a party to the Smart Energy Code. The Smart Energy Code is a multi-party agreement that sets out the terms for the governance of the end-to-end management of smart metering. This includes setting out strict requirements which must be met by organisations allowing access to Smart Meter data. For example, all users of Smart DCC must complete the Smart Energy Code's "User Entry Process" including passing the required user Entry Process Tests.
- 7.2. UK Power Networks' Smart Metering IT systems will interface with Smart DCC systems to enable Consumption Data to be collected. Smart DCC publishes and maintains a number of interface specification documents which set out guidance on the interaction of Smart DCC infrastructure with the infrastructure of its users. This includes technical and interface specifications which set out technical and security requirements which users' interfaces must meet to be granted access to Smart Meter data and enable their systems to interact with Smart DCC services. UK Power Networks' interface will comply with Smart DCC specifications. This compliance will be tested as part of the process of granting access to Smart DCC systems.
- 7.3. [Redacted]

⁴ UK Power Networks' Data Protection Officer may be contacted at DPO@ukpowernetworks.co.uk.

- 7.4. Consumption Data for a period of less than one month will only be collected for the purpose of complying with Licence Condition 10A and where the requirements of Licence Conditions 10A.4, 10A.5, 10A.7 or 10A.8 are satisfied:
- a) **10A.4 & 10A.5** – Data Privacy Plan submitted and approved demonstrating that UK Power Networks can implement practices, procedures and systems ensuring that Electricity Consumption Data obtained which relates to a period of less than one month ceases to be data which is capable of being associated with a Domestic Customer at relevant premises
 - b) **10A.7** – Suspected Theft – UK Power Networks has reasonable grounds to suspect theft or abstraction of electricity
 - c) **10A.8** – Trial – UK Power Networks is conducting a trial that has been approved by the Secretary of State. UK Power Networks will have given at least 14 days’ notice to the domestic customer and the customer will not have objected to being included in the trial.
- 7.5. UK Power Networks will collect the following information:
- a) Half-hourly Consumption Data in respect of each Smart Meter (MPAN). Consumption Data from each Smart Meter will be immediately aggregated with the half-hourly Consumption Data of all other Smart Meters connected to the same Substation, Feeder and Section of Feeder. This will provide aggregated half-hourly Consumption Profiles for each Substation, Feeder and Section of Feeder (see Appendix D5 for an example of a Consumption Profile). Consumption Data will be stored in the following format:
 - i. By Substation – aggregate half-hourly Consumption Profile
 - ii. By Feeder – aggregate half-hourly Consumption Profile
 - iii. By Section of Feeder – aggregate half-hourly Consumption Profile
 - b) In addition, UK Power Networks will collect and store the following information in relation to each individual Smart Meter (MPAN) (see Appendix D6 for a detailed example):
 - i. Monthly maximum value
 - ii. Monthly minimum value
 - iii. Monthly total value
 - iv. Monthly average value
- 7.6. [Redacted]
- 7.7. Aggregation of the half-hourly Consumption Data will take place immediately after all of the required data has been received. Following aggregation of the half-hourly Consumption Data, the disaggregated data will be permanently deleted and will not be stored, in accordance with the ‘Electricity Consumption Data Life Cycle’ in the ENA’s Generic Privacy Framework. This deletion will happen automatically.
- 7.8. The only exception will be where there is only one Smart Meter (MPAN) connected to a Feeder or Section of Feeder. In this scenario, aggregation will not be possible, as there will be no other Smart Meters connected to the relevant Feeder or Section of Feeder with which to aggregate the half-hourly Consumption Data. UK Power Networks will therefore store the half-hourly Consumption Data in disaggregated form. This currently accounts for 0.28% of all customers connected to a Feeder (23,560 customers) and 1.89% of all customers

connected to a Section of Feeder (156,941 customers). UK Power Networks currently has 8,301,027 connected customers.

- 7.9. When a Feeder or Section of Feeder has more than one MPAN associated with it, half-hourly Consumption Data will only be collected and aggregated when two or more Smart Meters are connected on the Feeder or Section of Feeder. Where only one MPAN exists on the Feeder or Section of Feeder, half-hourly Consumption Data will be collected and linked to the Feeder or Section reference number.

Maintenance & Use

- 7.10. [Redacted]

- 7.11. [Redacted]

- 7.12. [Redacted]

- 7.13. In the scenario where UK Power Networks may store disaggregated half-hourly Consumption Data in accordance with Licence Conditions 10A.7 or 10A.8, the data will be held in a secure environment with restricted access to a defined set of users who have an approved business need for access to the data to investigate a theft or for a trial. Any investigation of theft or trial will be for a defined period of time, whereby the disaggregated Consumption Data will be deleted after the investigation and any subsequent prosecution of theft or trial has taken place.

- 7.14. UK Power Networks will treat all Consumption Data as if it were Personal Data. This approach means that a consistent, high level of security will be applied to all Consumption Data. The measures that UK Power Networks will implement to safeguard Consumption Data are set out in the Privacy Impact Assessment in Appendix A of this Data Privacy Plan.

Deletion

- 7.15. All source data relating to individual Smart Meters which is used to calculate the aggregated Consumption Profiles set out in paragraph 7.5(a) will be automatically permanently deleted as soon as the data has been aggregated (see Appendices D4 and D5 for a further explanation of how the data will be calculated and presented to end users).
- 7.16. All stored Consumption Data will be automatically deleted by UK Power Networks' systems on a rolling basis following expiration of the 7-year retention period. UK Power Networks considers that 7-years constitutes the

minimum period necessary to enable it to effectively carry out long-term strategic planning in respect of its Low Voltage Network.

- 7.17. The table in Appendix C1 summarises how, where, when and who will collate, maintain, use and delete Consumption Data and who will be responsible for these activities.

8. Ofgem Criteria 5 – Consideration of techniques to mitigate processing risks

Demonstrate that consideration has been given to the best available techniques for minimisation, aggregation, anonymisation and/or other treatment of data. The ICO’s Anonymisation Code of Practice should be used, among other sources, to inform the data anonymisation processes adopted.

- 8.1. UK Power Networks has sought external legal advice in relation to anonymising Consumption Data. In considering the ICO’s Anonymisation Code of Practice, UK Power Networks has taken into account the fact that the Anonymisation Code of Practice was published prior to the GDPR coming into effect and that in the future, the ICO is likely to replace the Anonymisation Code of Practice with GDPR-compliant guidance on anonymisation. However, no such guidance has currently been published. UK Power Networks has therefore reviewed and taken into account the current Anonymisation Code of Practice, among other sources, to help identify and adopt the best available techniques to safeguard Consumption Data with an awareness that parts of the Anonymisation Code of Practice may not reflect current practice or law.
- 8.2. The process of ‘anonymisation’ can, in principle, be achieved using various techniques to convert Personal Data into anonymised data, with the term ‘anonymised data’ referring to data rendered anonymous in such a way that the data subject is no longer identifiable.
- 8.3. Under the GDPR it remains possible to anonymise Personal Data using the technique of aggregation⁵. However, there is no guidance on when exactly an aggregated data set will be deemed to have been aggregated to the extent that it has been effectively anonymised.
- 8.4. UK Power Networks acknowledges that despite Consumption Data undergoing different anonymisation techniques, there are different views as to when it has been aggregated to the extent it has been rendered anonymous (and, therefore, no longer constitutes Personal Data). As there is no industry-wide consensus on this issue, UK Power Networks intends to take the approach that it will treat all Consumption Data as if it was Personal Data. Therefore, UK Power Networks will comply with the GDPR and Data Protection Act 2018 in relation to its processing of Consumption Data (see Appendix B for more details relating to GDPR) and apply appropriate techniques to safeguard the data.

Data minimisation

- 8.5. Data minimisation is one of the seven key principles set out in Article 5 of the GDPR and has been taken into consideration in the development of UK Power Networks’ data processing techniques for Consumption Data.
- 8.6. UK Power Networks will implement the principle of data minimisation by:
- Only collecting Consumption Data to the extent that it needs the data for the specific, pre-determined purposes;
 - Ensuring that it has sufficient data to properly fulfil those purposes; and
 - Periodically reviewing its data retention standard to ensure that it is storing Consumption Data for a justifiable period of time and that it is deleted when no longer needed. Reviews will be conducted in line with UK Power Networks’ current document review period, which is every 3 years. UK Power Networks will conduct this through internal assurance and the “data champions” within the business,

⁵ Recital 162 of the GDPR implies that aggregation may, in principle, be used to anonymise personal data.

in conjunction with its Data Protection Officer. If during the review, UK Power Networks identifies that it no longer needs to store Consumption Data for the current planned 7-year period, the data retention standard will be updated and UK Power Networks will only store Consumption Data for the newly defined period of time and permanently delete any data that it does not need.

- 8.7. UK Power Networks will collect and use Consumption Data only to the extent that it needs to for the purposes described in this Data Privacy Plan. For example, authorised users will only have access to Consumption Data in the form of an aggregated half-hourly Consumption Profile that cannot be linked to an individual MPAN, address or name. Having the data in this format, will ensure that its use is limited solely for the purpose of helping to improve the visibility of the demand on the Low Voltage Network, allowing authorised end users, such as system design and planning engineers, to make improved decisions relating to network reinforcement or new connections (see Appendix D5 as an example). In practice, the nature of a Consumption Profile includes only the minimum information required for UK Power Networks to fulfil these purposes.
- 8.8. The information that UK Power Networks will store will equate to the minimum amount of data that UK Power Networks needs to fulfil its intended lawful purpose of processing Consumption Data to provide and develop an efficient, co-ordinated and economical system of electricity distribution.

Data masking

- 8.9. UK Power Networks will carry out a process of "data masking" in relation to the Consumption Data that it collects. Data masking 'involves stripping out obvious personal identifiers such as names from a piece of information, to create a data set in which no personal identifiers are present'⁶.
- 8.10. Aggregated Consumption Data held in UK Power Networks' systems, as well as the aggregated Consumption Profiles, will be de-personalised. Identifiers such as MPANs, names, addresses and contact details (including, for example, mobile number, home telephone number, email address) will be stripped from the aggregated Consumption Data when it is stored and made available to restricted authorised end users. For example, the Consumption Profile will not include any information relating to billing, individual occupants of a house or electricity supplier.
- 8.11. [Redacted]
- 8.12. Authorised end users requiring the data to fulfil their roles, such as design and planning engineers, will only have access to aggregated Consumption Data in the form of a Consumption Profile. All system access will follow the principles set out in UK Power Networks' Access Control Policy. The objective of the policy is to ensure that only authorised individuals gain access to information assets such as applications or environments.
- 8.13. [Redacted]

⁶ Anonymisation: Managing data protection risk code of practice, ICO, Page 51, <https://ico.org.uk/media/1061/anonymisation-code.pdf>

Anonymisation through aggregation

- 8.14. UK Power Networks will aggregate Consumption Data in the following ways:
- a) Half-hourly Consumption Data will be totalled to provide a total monthly figure for each Smart Meter (such that the resultant data falls outside the requirements of Licence Condition 10A).
 - b) Half-hourly Consumption Data figures for each meter on a particular Feeder will be totalled, so that the half-hourly Consumption Data obtained from a particular household will be added with that of multiple households on the same Feeder.
 - c) Half-hourly Consumption Data figures for each meter on a particular Section of Feeder will be totalled, so that the half-hourly Consumption Data obtained from a particular household will be added with that of multiple households on the same Section of each Feeder
- 8.15. Consumption Profiles, made available to authorised end users such as system design and planning engineers, will ensure that no data relating to or identifying individuals is shown, with data being displayed as aggregated and masked consumption values. Appendix D1 and D2 provide detailed examples of how the Low Voltage Network is comprised of unique ID's that will enable aggregation of Consumption Data to take place per Feeder and Section of Feeder. Appendix D4 provides further detail on UK Power Networks' approach to aggregation to ensure that it meets the requirements of Licence Condition 10A.
- 8.16. Figures 1 and 2 below show the current number of customer MPANs connected to a Feeder and Section of Feeder for the entire UK Power Networks customer base (8,301,027 customers). 98% of UK Power Networks' customers (8,161,566) are served by a Feeder with more than five meters connected to it. When analysing to Section of Feeder level, which will help to provide additional Low Voltage Network visibility and benefits, 84% of customers (7,007,715) are on a Section of Feeder with more than five meters connected to it. This means that in the majority of cases, UK Power Networks will be aggregating Consumption Data obtained in respect of at least five Smart Meters.

MPANs per Feeder Summary				
Customer MPANs	Number of LV Feeders	% of Total number of LV Feeders	Number of Customer MPANs	% of Total number of Customer MPANs
1 MPAN only	23,165	9.87%	23,560	0.28%
2 MPANs or less	36,921	15.73%	51,423	0.62%
3 MPANs or less	46,153	19.66%	79,149	0.95%
5 MPANs or less	59,495	25.34%	139,461	1.68%
More than 5 MPANs	175,280	74.66%	8,161,566	98.32%

Figure 1 MPAN per Feeder Summary

MPANs per Section of Feeder Summary				
Customer MPANs	Number of LV Feeder Sections	% of Total number of LV Feeder Sections	Number of Customer MPANs	% of Total number of Customer MPANs
1 MPAN only	146,924	16.44%	156,941	1.89%
2 MPANs or less	259,750	29.07%	398,659	4.80%
3 MPANs or less	343,199	38.41%	667,281	8.04%
5 MPANs or less	474,524	53.11%	1,293,312	15.58%
More than 5 MPANs	418,924	46.89%	7,007,715	84.42%

Figure 2 MPAN per Section of Feeder Summary

- 8.17. UK Power Networks recognises that there may be scenarios where the number of Smart Meters on a particular Feeder or Section of Feeder are insufficient to enable Consumption Data to be aggregated. Currently 0.28% (23,560 customers) of all UK Power Networks' customers are solely connected to a Feeder and 1.89% (156,941 customers) are solely connected to a Section of Feeder. In these circumstances, UK Power Networks will reduce the risk of re-identification of individuals in accordance with Licence Condition 10A.5 through the additional anonymisation techniques described in this criterion. For example, data masking

will ensure that the data is stored against the Feeder or Section of Feeder reference number and not the individual MPAN. Additionally, access to Consumption Data will be restricted to only recipients that need the data to fulfil their roles, for example, system design and planning engineers who will use the data for network reinforcement analysis or new connections (see Appendix A, the Privacy Impact Assessment, for further details on privacy measures).

- 8.18. Overall, UK Power Networks will use aggregation, as well as other techniques detailed in this criterion, to form part of its privacy solution and minimise the risk relating to processing Consumption Data. UK Power Networks will adopt a best practice approach and treat all Consumption Data as Personal Data and will therefore comply with the provisions of the GDPR and DPA 2018 when processing Consumption Data.

9. Ofgem Criteria 6 – Privacy Impact Assessment

Be accompanied by a Privacy Impact Assessment, consistent with the ICO's code of practice.

- 9.1. UK Power Networks has carried out a Privacy Impact Assessment that is consistent with the ICO's Code of Practice. The Privacy Impact Assessment has been carried out in consultation with experts in Data Privacy to ensure compliance with the GDPR and DPA 2018.
- 9.2. A copy of the Privacy Impact Assessment can be found in Appendix A of this Data Privacy Plan.

10. Ofgem Criteria 7 – IT Security Processes

Demonstrate the conformity of the adopted IT security process to the ISO 27001 and ISO 27005 standards in order to exclude any possibility of the DNO re-associating the granular data to a premises after its anonymisation has been achieved.

- 10.1. [Redacted]
- 10.2. Smart Energy Code appointed auditors carried out an initial assessment during 2017 and a full assessment during 2018 of UK Power Networks' smart metering network against Smart Energy Code Section G. The assessments were successfully completed and are an audit of compliance with the Smart Energy Code and relevant ISO standards for information security (ISO27001, 27005, 27035).
- 10.3. The smart metering network is subject to a defined governance regime incorporating regular operational and management oversight. This ensures that there is continuous improvement of UK Power Networks' smart metering systems to meet or exceed the system processes and security standards set by the Smart Energy Code. Risk and performance management is included as a standard component of the governance framework.
- 10.4. UK Power Networks will only obtain Consumption Data from Smart Energy Code governed processes and infrastructure linking UK Power Networks to the central Smart DCC system using secure data transmission. It is not possible to obtain data from Smart Meters without using the secure Smart DCC communications link.
- 10.5. [Redacted]

- 10.6. Access to the data will be controlled by a governance function providing audited access to a limited number of specific applications used by authorised users, such as the network management system used by the control centre or the network modelling application. Ad-hoc access to the data will not be permitted through any other applications.
- 10.7. All data accessed through the limited set of user applications will have undergone aggregation and masking techniques to remove personally identifiable information such as names, addresses and contact details.
- 10.8. Policies and procedures documenting the governance processes deployed on UK Power Networks' Smart Metering IT systems are published on UK Power Networks' internal intranet site. Relevant policies and procedures will be updated to document the provisions to safeguard Consumption Data.
- 10.9. [Redacted]

11. Ofgem Criteria 8 – Stakeholder Engagement

Demonstrate that, in developing its privacy plan, the DNO has engaged constructively with relevant stakeholders, including consumer groups and those with expertise in approaches to data privacy. The DNO must provide details about the output of such engagement, including how it has responded to the feedback in refining its Data Privacy Plans.

- 11.1. UK Power Networks has engaged constructively with stakeholders during the development of its Data Privacy Plan by carrying out the following activities:
 - a) Telephone surveys with customers and consumer groups;
 - b) Roadshows with stakeholder groups;
 - c) Engagement with experts in data privacy and GDPR; and
 - d) ENA initiatives

Telephone survey with UK Power Networks customers and consumer groups

- 11.2. During October and November 2018, UK Power Networks undertook a telephone survey with 535 customers and consumer groups (e.g. local authorities, housing associations, charities). Using a five-point scale response approach to the questions, the telephone survey focused on obtaining views relating to UK Power Networks receiving access to Consumption Data as well as views on the safeguards that UK Power Networks will put in place to protect the data.
- 11.3. Responses showed that 72% of people surveyed were “comfortable” with UK Power Networks having access to Consumption Data to help provide them with a more efficient and reliable service (Appendix F1 summarises the key findings and results from the telephone survey in further detail). Of those who did not feel comfortable, the prevailing reason was a general suspicion that data could be used to monitor their daily lives and because they felt UK Power Networks was not widely known.
- 11.4. Additionally, customers were provided with a list of measures that UK Power Networks will put in place to protect their data and asked to rate the importance of each measure using a five-point scale where 5 was very important and 1 was very unimportant. On average, 80% of customers felt that all of the safeguards that UK Power Networks commits to putting in place to protect their data as part of the Data Privacy Plan were either very important or fairly important (figure 3).
- 11.5. The most important safeguard (83% net importance) was that UK Power Networks would not use, share or sell consumption information for marketing purposes with third parties.

UK Power Networks Data Privacy Plan

Privacy Plan for Access to Household Electricity Smart Metering Data

11.6. The safeguard with the least importance (73% net importance) was that UK Power Networks will only collect and store information where it cannot be linked to individual properties.

11.7. In general, respondents that agreed with the UK Power Networks privacy measures believed that Consumption Data would allow UK Power Networks to provide a better service to customers. However, those who raised concerns were generally worried about a data breach taking place and unnecessary data being collected and stored.

Q I am now going to read out a list of measures that UK Power Networks will put in place to ensure smart data security. How important is it **to you/those you represent** that UK Power Networks will...

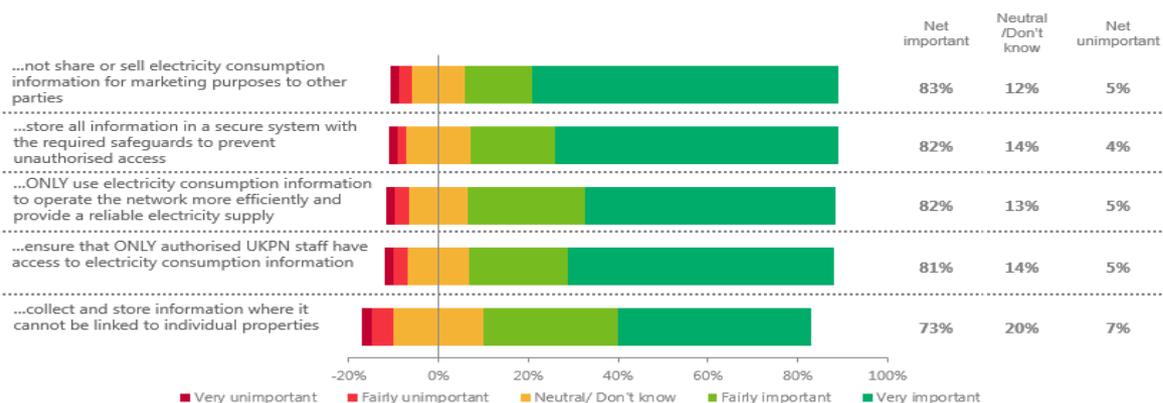


Figure 3 Telephone Survey Results – Importance of UK Power Networks Safeguards (535 total respondents)

Roadshows with stakeholder groups

11.8. In November 2018, UK Power Networks also consulted customers and consumer groups at three stakeholder roadshows across the different UK Power Networks' DNO regions.

11.9. Responses from the roadshows were consistent with the findings from the telephone survey. 91% of respondents were either "extremely comfortable" or "fairly comfortable" with UK Power Networks having access to Consumption Data to help provide them with a more efficient and reliable service.

11.10. 90% of stakeholders agreed with the key commitments set out in the UK Power Networks Data Privacy Plan (Appendix F2 summarises the key findings from the roadshows).

11.11. UK Power Networks' key commitments were presented as:

- We will ensure the information collected will be stored in a way where it cannot be linked to individual properties
- We will store this information in a secure system with the required safeguards to prevent unauthorised access
- We promise that UK Power Networks authorised staff will only use this information to operate our network more efficiently in order to provide a more reliable electricity supply
- We will delete stored information after a defined period
- We will not share or sell electricity consumption information to anybody outside of the UK Power Networks organisation
- We will regularly review our Privacy Plan and procedures.

11.12. Using the feedback received from both the telephone survey and roadshows, UK Power Networks has ensured that all safeguards committed to the customers were included in the Data Privacy Plan and Privacy Impact Assessment controls. For example, concerns around UK Power Networks collecting and storing unnecessary data were addressed by UK Power Networks ensuring that it only stores aggregated and masked Consumption Data, with all other information such as MPANs, names, addresses and contact details stripped from the half-hourly aggregated Consumption Data.

Engagement with experts in data privacy and GDPR

- 11.13. External legal advice has been sought in relation to this Data Privacy Plan (including the Privacy Impact Assessment) to ensure that the plan satisfies the requirements of Licence Condition 10A, GDPR and the DPA 2018.
- 11.14. Using the feedback received and to ensure compliance with the GDPR 'Lawfulness, Fairness and Transparency' principle, the PIA includes a requirement to ensure that the Privacy Policy on UK Power Networks' website covers the necessary information that needs to be provided to customers when processing half-hourly Consumption Data, as set out in Article 13 of the GDPR (please refer to Risk 2 in the PIA for further details).
- 11.15. The Plan and PIA went through an internal sign-off process prior to being discussed with key external stakeholders. This included feedback from expert teams within UK Power Networks from Regulation, IS Cyber Security, Legal and the DPO. Feedback focused on ensuring that UK Power Networks has the correct safeguards in place to protect the data; GDPR and Licence Condition 10A compliance; and the purposes for which Consumption Data would be used in the business. Feedback was reviewed and used to refine the Data Privacy Plan.
- 11.16. During 2018 and early 2019, UK Power Networks consulted with Ofgem and BEIS to discuss the content of the plan. This version of the Data Privacy Plan incorporates certain points which were discussed with Ofgem and BEIS.
- 11.17. UK Power Networks also consulted with the ICO in December 2018 to obtain its expert views in data privacy and UK Power Networks' Data Privacy Plan. However, the ICO did not consider it necessary to have direct involvement in the initial assessment of UK Power Networks' Data Privacy Plan and believed that engagement was better addressed through liaison with Ofgem.

Electricity Networks Association initiatives

- 11.18. In addition to the stakeholder engagements carried out specifically by UK Power Networks as detailed above, a number of ENA sponsored initiatives have also taken place. For example, a Generic Privacy Framework was developed to provide guidance to all DNOs around access to Consumption Data from Smart Meters and the Smart Meter Data Privacy Plan.
- 11.19. In the latter part of 2016, Ipsos MORI conducted 12 ENA sponsored consumer focus groups, designed to be representative of the GB population, to obtain consumer views and attitudes to DNOs having access to the half-hourly Consumption Data contained in Smart Meters.⁷ Appendix F3 provides a summary of the report findings.
- 11.20. Overall, the results from the focus groups were similar to those of the telephone surveys and stakeholder roadshows carried out by UK Power Networks. Generally, Consumption Data was not considered sensitive information by most participants and many were comfortable with the data being accessed (on the understanding that this was not linked to any personal contact information). Once participants understood the role and remit of DNOs, they were reassured that access to their Consumption Data would not result in negative outcomes for them, for example no selling or marketing.

⁷ Ipsos MORI Report, 'Consumer attitudes to DNO access to half-hourly electricity consumption data', 2016, <http://www.energynetworks.org/assets/files/Ipsos%20MORI%20Report%20DNO%20Use%20of%20HH%20Data%20-%20FINAL%2016-03-17.pdf>

Appendix A.

Privacy Impact Assessment



About this Privacy Impact Assessment

UK Power Networks wishes to collect and process Consumption Data obtained from customers to meet its duty under Section 9 of the Electricity Act 1989 to maintain an efficient, coordinated, and economical system of electricity distribution. Consumption Data may be linked to the MPAN located at a premises, which is capable of identifying an individual and constitutes Personal Data. This Privacy Impact Assessment identifies the key privacy issues relating to the processing of Consumption Data and the controls that will be implemented by UK Power Networks in order to address them.

UK Power Networks' aim in carrying out this Privacy Impact Assessment is to ensure compliance with the GDPR and the DPA 2018, ensuring that appropriate controls are put in place to address the issues identified that may affect the privacy of UK Power Networks' customers when processing Consumption Data.

In developing this Privacy Impact Assessment, UK Power Networks has concluded that key privacy risks can be mitigated or removed completely through the implementation of the solutions described in this Privacy Impact Assessment and summarised below:

- a. UK Power Networks' Privacy Policy will be updated on its website before processing of Consumption Data takes place. The Privacy Policy will follow the requirements set out in Article 13 of the GDPR and will be clear, open and honest.
- b. The Smart Meter section on the UK Power Networks website will also be updated to include information relating to how UK Power Networks plans to process and use Consumption Data. This will be done prior to UK Power Networks processing any Consumption Data.
- c. UK Power Networks will implement a Data Privacy Plan approved by Ofgem. The document will set out how UK Power Networks can implement the appropriate practices, procedures and systems to aggregate or otherwise anonymise Consumption Data so that it can no longer be associated with an individual premise.
- d. UK Power Networks has appointed a dedicated Data Protection Officer (DPO) to meet the requirements of the ICO and act as single point of contact for customers wishing to exercise their rights under the GDPR. Accordingly, the DPO will handle any personal data requests or privacy queries relating to Consumption Data.
- e. Rigorous end to end industry testing has been carried out as part of the Smart Meter roll-out, ensuring that the Consumption Data that UK Power Networks receives is through robust and secure processes.
- f. UK Power Networks will only obtain Consumption Data from Smart Energy Code governed processes and infrastructure linking UK Power Networks to the central Smart DCC system using secure data transmission. It is not possible to obtain data from Smart Meters without using the secure Smart DCC communications link.
- g. [Redacted]
- h. UK Power Networks will produce new policies and procedures or update relevant existing policies and procedures for the handling and management of Consumption Data. Training, including a mandatory data protection eLearning course, will be provided to employees handling Consumption Data.

Consumption Data constitutes Personal Data

All Consumption Data collected, as described above, will be treated as if it were Personal Data, ensuring that UK Power Networks complies with the requirements of the GDPR and DPA 2018 when processing Consumption Data.

For the purpose of this Data Privacy Plan, data obtained from Smart Meters will be referred to as “Consumption Data” where this information is considered Personal Data under the GDPR and DPA 2018. As such, UK Power Networks will comply with the provisions of the GDPR and the DPA 2018 when processing Consumption Data.

UK Power Networks will not be processing any special category Personal Data

UK Power Networks has sought external legal advice on Article 9, paragraph 1 of the GDPR and the specific point around whether Consumption Data should be considered as special category Personal Data. Special category Personal Data is data which ‘reveals racial or ethnic origin, political opinions, religious or philosophical beliefs, etc.’⁸

Based on the external legal advice received, UK Power Networks does not regard Smart Meter Consumption Data to reveal the type of information stated in Article 9(1) of the GDPR. Any inference of special category information drawn from Consumption Data would be too speculative to warrant that Consumption Data should be treated as a special category. The requirement to identify a separate condition for processing special category data under Article 9 of the GDPR is, therefore, considered outside the scope of this Data Privacy Plan.

⁸ Article 9(1), GDPR

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Smart Metering System Infrastructure

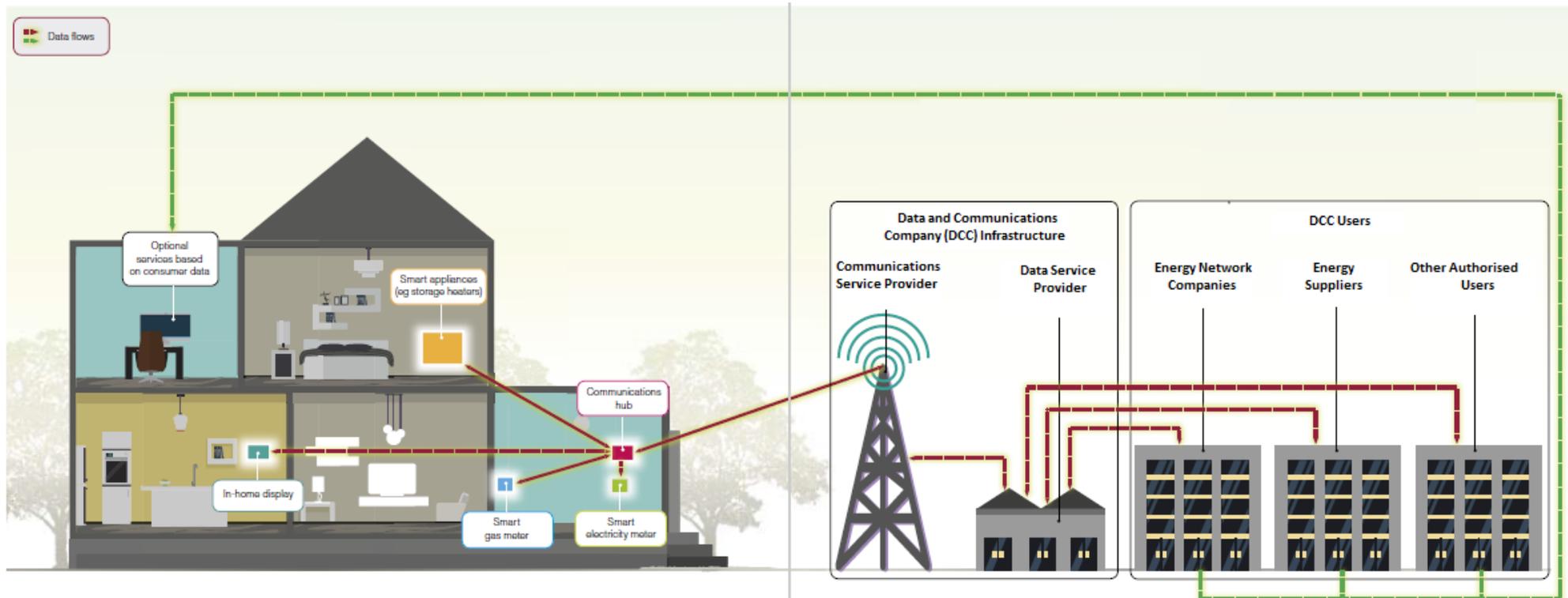


Figure 4 Overview of the Smart Metering Infrastructure

(Source: National Audit Office – Rolling out Smart Meter Report Nov. 2018)

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Identification of Data Protection Risks relating to processing Consumption Data and steps taken to address the risks

	Legal Principle(s)	Privacy Consideration	Risk	Steps taken to address relevant Risk
1.	GDPR, Chapter V – International Transfers	Whenever Personal Data is transferred outside of the EEA, adequate safeguards need to be implemented to protect the Personal Data being transferred.	Consumption Data may be transferred outside of the EEA without adequate protection in place.	<ul style="list-style-type: none"> • [Redacted] • UK Power Networks' legal and procurement teams will ensure contracts with third party contractors include appropriate wording restricting transfer of Consumption Data outside of the EEA and the UK.
2.	GDPR, Article 13 – Information to be provided where Personal Data is collected from the data subject	Customers need to understand how UK Power Networks will be using their Consumption Data. UK Power Networks' use of their Consumption Data needs to be explained in a clear and transparent way. Additionally, UK Power Networks has a large and diverse Customer base and will need to ensure that it is able to communicate its Privacy Notice in an appropriate way so that it reaches all of its customer base.	Data subjects may be unaware (1) that their data will be processed; and (2) how it will be processed	<ul style="list-style-type: none"> • UK Power Networks' Privacy Policy will be updated before processing of Consumption Data takes place, explaining to customers how UK Power Networks will be using Consumption Data. The Privacy Policy will be easily accessible via a link on the homepage of UK Power Networks' website and will be clear, open and honest ensuring that it follows the requirements set out in Article 13 of the GDPR. Additionally, UK Power Networks' website will display a message to inform customers that the Privacy Policy has been updated and draw their attention to the changes. • The Smart Meter section on UK Power Networks' website will also be updated to include information relating to how UK Power Networks plans to process and use Consumption Data. This will be done prior to UK Power Networks processing any Consumption Data. • UK Power Networks does not currently have a business as usual process for communicating with all customers directly (e.g. via a newsletter). It will, therefore, be prohibitively costly and logistically disproportionately challenging to set this up in order to send the updated Privacy Policy directly to customers. • As such, based on UK Power Networks' current processes in relation to communicating with customers, updating the Privacy Policy on UK Power Networks' website is seen as the best available solution to make

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	Legal Principle(s)	Privacy Consideration	Risk	Steps taken to address relevant Risk
				customers aware of how UK Power Networks intends to use Consumption Data.
3.	GDPR, Chapter III - Rights of the Data Subject	UK Power Networks needs to be able to deal with any queries, complaints, and other issues which customers may have in relation to their Consumption Data. Customers need to be able to contact UK Power Networks in a straightforward way.	Customers may be unable to obtain information about how and why UK Power Networks is processing and using Consumption Data as well as raise queries about privacy with UK Power Networks (e.g. they are not able to exercise their different rights)	<ul style="list-style-type: none"> UK Power Networks has a dedicated Data Protection Officer to act as a single point of contact for any Personal Data requests or privacy queries relating to Consumption Data. The Data Protection Officer's contact details can be found on UK Power Networks' Privacy Policy located on UK Power Networks' website. UK Power Networks will have an internal work instruction/guide to help staff deal with customer privacy related queries and complaints about Consumption Data. Where necessary, queries will be escalated to the Data Protection Officer, whom with the assistance of the relevant Smart Metering Manager, will be able to respond to customer queries. Training will be provided to UK Power Networks' call centre teams before UK Power Networks has access to Consumption Data so that they are able to handle customer queries relating to Consumption Data and follow the relevant procedures. In order to help deal with any queries, complaints and other issues that customers may have about data privacy, UK Power Networks has policies and procedures, including the following: <ul style="list-style-type: none"> Data Protection eLearning Data Subject Access Request Guidance Data Breach Reporting Policy "Team Briefs" and GDPR awareness sessions across the organisation Internal Data Champion Network
4.	GDPR Article 5(1)(b) - Principles relating to	The GDPR requires that Consumption Data may only be	There is a risk that Consumption Data is not used for its intended	<ul style="list-style-type: none"> UK Power Networks will rely on Legal Obligation as its lawful basis for processing Consumption Data and ensure that Consumption Data is only

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	Legal Principle(s)	Privacy Consideration	Risk	Steps taken to address relevant Risk
	processing of Personal Data	collected for specific lawful purposes and not be processed in a way which is incompatible with these processes. UK Power Networks will need to be clear about the purposes for which it will use Consumption Data from the outset.	purpose of helping to develop and maintain a safe, efficient and co-ordinated system of electricity distribution.	<p>processed in order to help UK Power Networks meet its duty under Section 9 of the Electricity Act 1989 or strictly in accordance with Licence Conditions 10A.7 or 10A.8. Please refer to Appendix B1 for further details on UK Power Networks' lawful basis for processing.</p> <ul style="list-style-type: none"> UK Power Networks' Privacy Policy will be periodically reviewed to ensure that UK Power Networks' use of Consumption Data complies with its specified lawful purpose for processing Consumption Data. A Data Protection Impact Assessment (DPIA) has been carried out for processing Consumption Data. The DPIA has focused on understanding the envisaged processing operations and the purposes of processing Consumption Data. The DPIA will be reviewed periodically by the Smart Metering Manager, in consultation with the Data Protection Officer, once UK Power Networks has access to Consumption Data to ensure that it is being used for its intended purposes. Dedicated training and procedures will be provided to authorised users who will have access to aggregated Consumption Data to ensure that it is used lawfully. Training will cover data protection and will provide authorised users with knowledge about Personal Data in order to ensure the aggregated Consumption Data is safeguarded. Access to aggregated Consumption Data will be restricted to only recipients that need the data to fulfil their roles, for example, system design and planning engineers who will use the data for network reinforcement analysis or new connections. UK Power Networks will ensure that contractual arrangements are put in place with third parties restricting what they are able to use Consumption Data for, thus helping to ensure that it is not used for unintended purposes.

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	Legal Principle(s)	Privacy Consideration	Risk	Steps taken to address relevant Risk
5.	GDPR Article 5(1)(c) - Principles relating to processing of Personal Data	UK Power Networks will need to make sure that the Consumption Data that it collects and processes is adequate, relevant and limited to what is necessary in relation to the purposes for which they are processed.	Data collected and processed may be excessive and not required for the purpose of helping UK Power Networks develop and maintain a safe, efficient and co-ordinated system of electricity distribution (e.g. extraneous data or excessive collection of data).	<ul style="list-style-type: none"> Disaggregated Consumption Data will be immediately aggregated after receipt in a secure manner. Following aggregation, the disaggregated Consumption Data will be permanently deleted. This will ensure that once Consumption Data has been processed, only the adequate amount of information is stored by UK Power Networks to allow it to meet its intended purposes. UK Power Networks will only store, where practicably possible, aggregated Consumption Data and the total monthly, maximum monthly, minimum monthly and average monthly consumption values. The information that is held equates to the minimum amount of data that UK Power Networks needs to fulfil its intended lawful purpose of processing Consumption Data to provide and develop an efficient, co-ordinated and economical system of electricity distribution. All stored Consumption Data will be automatically deleted on a rolling 7-year basis, ensuring that UK Power Networks deletes data that is no longer needed. Aggregated Consumption Profiles will only be made available to authorised end users, such as system design and planning engineers, who require Consumption Data for their roles to help UK Power Networks maintain an efficient and co-ordinated system of electricity distribution. In the scenario where UK Power Networks may store disaggregated half-hourly Consumption Data in accordance with Licence Conditions 10A.7 or 10A.8, the data will be held in a secure environment with restricted access to a defined set of users who have an approved business need for access to the data to investigate a theft or for a trial. Any investigation of theft or trial will be for a defined period of time, whereby the disaggregated Consumption Data will be deleted after the investigation and any subsequent prosecution of theft or trial has taken place.

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	Legal Principle(s)	Privacy Consideration	Risk	Steps taken to address relevant Risk
6.	GDPR Article 5(1)(d) - Principles relating to processing of personal data	UK Power Networks will need to ensure that the Consumption Data it collects is accurate and up to date. UK Power Networks will need to take every reasonable step to correct any inaccuracies in the Consumption Data.	Consumption Data collected and processed may be inaccurate, resulting in incorrect operational decisions about network configuration being made.	<ul style="list-style-type: none"> UK Power Networks will receive Consumption Data through systems and processes set up with Smart DCC and in line with its Smart Energy Code obligations. These systems have gone through rigorous testing in order to ensure that accurate data is collected. In setting up the Smart Meter Programme, DECC / BEIS has given Energy Suppliers the responsibility for procuring, installing and operating Smart Meters. The responsibility, therefore, is with the Energy Suppliers to install accurate meters that meet the requirements set out by the Smart Energy Code and the Smart Metering Equipment Technical Specification (SMETS). If UK Power Networks is notified by Smart DCC of any inaccuracies in the data it receives, where possible, UK Power Networks will work with Smart DCC and the Energy Supplier to correct the inaccuracies in the data.
7.	GDPR Article 5(1)(e) – Principles relating to processing of Personal Data	Under the GDPR, Personal Data must not be kept for longer than necessary. This means that UK Power Networks will need to delete the Consumption Data, or anonymise it when it is no longer needed.	UK Power Networks may store Consumption Data for longer than necessary, resulting in it being held for an unduly long period of time and also becoming out of date.	<ul style="list-style-type: none"> UK Power Networks will conduct periodic reviews against the Data Retention Standard to ensure that it is storing Consumption Data for a justifiable period of time and that it is deleted when no longer needed. Reviews will be conducted in line with UK Power Networks' current document review period which is every three years. The Smart Meter team will conduct this through internal assurance, in conjunction with the Data Protection Officer or with the "data champions" within the business. UK Power Networks will only store, so far as reasonably practicable, aggregated Consumption Data and the total monthly, maximum monthly, minimum monthly and average monthly consumption values. The data will be stored for a period of 7-years to allow for long term strategic planning of the Low Voltage Network. All stored Consumption Data will be automatically deleted on a rolling 7-year basis, ensuring that UK Power Networks deletes data that is no longer needed.

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	Legal Principle(s)	Privacy Consideration	Risk	Steps taken to address relevant Risk
				<ul style="list-style-type: none"> In the scenario where UK Power Networks may retain disaggregated Consumption Data in accordance with Licence Conditions 10A.7 or 10A.8 (to investigate theft or for a trial) this data will be held in a secure environment with restricted access. Any investigation of theft or trial will be for a defined period of time, whereby the disaggregated Consumption Data will be deleted after the investigation and any subsequent prosecution of theft or trial has taken place.
8.	GDPR Article 5(1)(f) – Principles relating to processing of Personal Data	UK Power Networks will need to make sure that the Consumption Data that it collects is kept secure. UK Power Networks will need to ensure that it has secure IT systems in place, as well as policies and procedures designed to safeguard the Consumption Data.	The security measures that UK Power Networks puts in place (technical, physical and organisational) may not be robust enough to prevent the loss or hacking of Consumption Data.	<ul style="list-style-type: none"> [Redacted] UK Power Networks' Smart Metering IT environment is compliant with the relevant ISO standards for information security (ISO27001, 27005, 27035). It is also regularly reviewed and audited by internal and external audit teams. Rigorous end to end industry testing has been done as part of the Smart Meter roll-out, ensuring that the Consumption Data that UK Power Networks receives is through robust and secure processes. UK Power Networks will only obtain Consumption Data from SEC governed processes and infrastructure linking UK Power Networks to the central Smart DCC system using secure data transmission. The Smart Metering network is subject to a defined governance regime incorporating regular operational and management oversight. This ensures that there is continuous improvement of UK Power Networks' Smart Metering systems to meet or exceed the system processes and

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	Legal Principle(s)	Privacy Consideration	Risk	Steps taken to address relevant Risk
				<p>security standards set by the SEC. Risk and performance management is included as a standard component of the governance framework.</p> <ul style="list-style-type: none"> • Policies and procedures documenting the governance processes deployed on UK Power Networks' Smart Metering IT systems are published on the UK Power Networks internal intranet site. Relevant policies and procedures will be updated to document the provisions to safeguard Consumption Data. • All Consumption Data will be stored in a secure database within UK Power Networks' secure IT environment. • Consumption Data will be kept secure through anonymisation techniques described in the ICO Code of Practice including aggregation and data masking. • [Redacted]
9.	<p>GDPR Article 5(1)(a) - Principles relating to processing of Personal Data GDPR Chapter IV – Controller and Processor</p>	<p>Customers may not want their Consumption Data to be shared with third parties.</p>	<p>Without adequate measures in place, sharing of Consumption Data with third parties could mean that the Consumption Data is put at risk and Customers may lose confidence in the Smart Metering initiative.</p>	<ul style="list-style-type: none"> • Aggregated Consumption Data will only be made available to Independent Connection Providers (ICPs) and Independent Distribution Network Operators (IDNOs) with whom UK Power Networks has established a Framework Agreement relating to the Competition in Connections Code of Practice. Aggregated Consumption Data will only be shared in compliance with Licence Condition 52 to facilitate competition in the Local Connections Market. As such, this will ensure that aggregated Consumption Data is not put at risk or used for unintended purposes, such as marketing.

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	Legal Principle(s)	Privacy Consideration	Risk	Steps taken to address relevant Risk
				<ul style="list-style-type: none"> UK Power Networks may share Consumption Data with engineering consultants and universities who will act as Data Processors and process the data on behalf of UK Power Networks, for example, to support a research project or a trial. In sharing any Consumption Data with these parties, UK Power Networks will ensure that appropriate contractual arrangements will be in place, including clauses providing sufficient guarantees that the Data Processor will protect Consumption Data and ensure compliance with the GDPR. Authorised end users and third parties will only have access to aggregated Consumption Data and will be unable to use the information for additional purposes (e.g. marketing). Third parties will go through a robust procurement process carried out by the UK Power Networks procurement team, including a Data Privacy Impact Assessment.
10.	Privacy and Electronic Communications Regulations 2013	Customers are unlikely to want their Consumption Data to be used for direct marketing purposes.	Consumption Data accessed and processed by UK Power Networks' users and / or third parties may be used for purposes that differ from its originally specified reasons (e.g. for marketing)	<ul style="list-style-type: none"> UK Power Networks will have policies and procedures stating the purposes for which Consumption Data may be used by authorised end users. A Data Protection Impact Assessment (DPIA) has been carried out for UK Power Networks' intended processing of Consumption Data. The DPIA has focused on understanding the envisaged processing operations and the purposes of processing Consumption Data. The DPIA will be reviewed periodically by the Smart Metering Manager, in consultation with the Data Protection Officer, once UK Power Networks has access to Consumption Data to ensure that it is being used for its intended purposes.

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	Legal Principle(s)	Privacy Consideration	Risk	Steps taken to address relevant Risk
				<ul style="list-style-type: none"> • Third parties will go through a robust procurement process carried out by the UK Power Networks procurement team, including a Data Privacy Impact Assessment. This will help to ensure that Consumption Data is not used for purposes that differ from the originally specified reasons (e.g. marketing). • Only authorised users and third parties who are part of a defined authorised group will have access to aggregated Consumption Data, thus limiting the risk of the data being used for unintended purposes. Training for UK Power Networks staff will cover data protection and will provide authorised users with knowledge about Personal Data in order to ensure the aggregated Consumption Data is safeguarded. • UK Power Networks will develop internal policies and procedures explicitly stating the types of third parties that may have access to aggregated Consumption Data, for example, ICP's and IDNOs whom UK Power Networks has established a Framework Agreement with. • UK Power Networks will ensure that contractual arrangements are put in place with third parties restricting what they are able to use aggregated Consumption Data for. • UK Power Networks is a regulated organisation and therefore does not market its services. Additionally, UK Power Networks' customer base is fixed by geography and, therefore, marketing is not a function that provides additional value to UK Power Networks.
11.	GDPR, Article 24 – Responsibility of the data controller	The GDPR requires UK Power Networks to implement appropriate technical and organisational measures to	There is no control of who has access to Consumption Data / authorisation levels in order to safeguard against use for unauthorised purposes.	UK Power Networks' IS system will ensure that: <ol style="list-style-type: none"> 1. [Redacted]

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	Legal Principle(s)	Privacy Consideration	Risk	Steps taken to address relevant Risk
		safeguard the Consumption Data.		<ol style="list-style-type: none"> 2. All disaggregated Consumption Data will be permanently deleted immediately after aggregation has taken place. 3. Any systems through which disaggregated Consumption Data passes during processing will have additional controls in place to protect the data. 4. End users will only have access to aggregated and masked Consumption Data. These users will only be those who form part of a defined authorised group and require the data to fulfil their normal roles, for example, system design and planning engineers who require the data for network reinforcement analysis or new connections. 5. In order to further protect the data, Consumption Data will be masked, ensuring that the data is linked to a unique ID (e.g. Feeder or Section of Feeder unique ID) and not an MPAN. 6. Any systems and / or 3rd parties that have access to Consumption Data will have a Data Privacy Impact Assessment 7. Data Privacy training will be provided to all users with access to Consumption Data. <ul style="list-style-type: none"> • UK Power Networks will have a specific individual in the IT team to be responsible for, and to sign off on, security measures relating to Smart Meter IT systems. • UK Power Networks has a Data Breach Reporting Policy in place to meet our obligations to report certain Personal Data Breaches to the ICO and Data Subjects in accordance with the requirements of the GDPR.

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Additional Legal Considerations relating to the processing of Consumption Data that are currently not considered risks

In developing the Privacy Impact Assessment, UK Power Networks also considered a number of additional legal data protection principles and risks relating to processing Consumption Data. For transparency and visibility of the work carried out, the table below highlights legal privacy considerations that were identified but have not been considered as risks for this Privacy Impact Assessment.

	Legal Principle(s)	Privacy Consideration	Explanation
1.	GDPR Article 5(1)(a) – Principles relating to processing of Personal Data	UK Power Networks will need to ensure that it has taken appropriate steps to identify any particular privacy concerns which Customers may have about its use of their Consumption Data. These can then be used to inform its privacy by design approach.	<p>As per the current assessment, no risk has been identified relating to Article 5(1)(a) due to the following reasons:</p> <ul style="list-style-type: none"> UK Power Networks has engaged constructively with stakeholders to identify any privacy concerns that they may have about UK Power Networks' use of Consumption Data. Engagement has been conducted through: <ul style="list-style-type: none"> Telephone surveys with customers and consumer groups Roadshows / Workshops with stakeholder groups ENA sponsored focus groups The findings from this engagement have been detailed in Criteria 8 and Appendix F of this Data Privacy Plan. Stakeholders did not identify any particular privacy concerns beyond those which have been identified and addressed in the Privacy Impact Assessment above.
2.	GDPR, Article 6 – Lawfulness of Processing	UK Power Networks will need to ensure that it has a lawful basis for processing the Consumption Data. UK Power Networks will need to be as clear as possible about what its lawful basis for processing the Consumption Data is at the outset of the processing, as UK Power Networks will need to explain the lawful basis on which it is relying to its Customers	<p>As per the current assessment, no risk has been identified relating to Article 6 due to the following reasons:</p> <ul style="list-style-type: none"> UK Power Networks has carried out an assessment of the correct lawful bases for processing Consumption Data prior to processing any Consumption Data. Based on the current assessment, UK Power Networks has identified Legal Obligation as its lawful basis for processing Consumption Data, solely to meet its

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	Legal Principle(s)	Privacy Consideration	Explanation
		before any Consumption Data is collected. In addition, ascertaining the correct lawful basis at an early stage is important, as Customers will have different rights in relation to their Consumption Data, depending on what the lawful basis for processing it is.	<p>duty under Section 9 of the Electricity Act 1989 to ‘develop and maintain an efficient, co-ordinated and economical system of electricity distribution’.</p> <ul style="list-style-type: none"> The assessment will be reviewed and updated from time to time, particularly if new processing activities commence. The Record of Processing will be updated based on the outcomes of such assessments. UK Power Networks' Privacy Policy will be updated before processing of Consumption Data takes place, explaining to customers how UK Power Networks will be using Consumption Data. The Privacy Policy will be easily accessible via a link on the homepage of UK Power Networks' website and will be clear, open and honest ensuring that it follows the requirements set out in Article 13 of the GDPR.
3.	GDPR, Article 9 – Processing of special categories of Personal Data	Under the GDPR, certain special categories of Personal Data are deemed to be particularly sensitive and are given special protection. This includes information which reveals an individual's race, ethnic origin, politics, religion, trade union membership, genetics, biometrics (where used for ID purposes), health, sex life, or sexual orientation. Article 9 of GDPR requires you to meet certain conditions if you wish to process this type of personal data. In most cases, this would require you to obtain the explicit consent of the relevant individual.	<p>As per the current assessment, no risk has been identified relating to Article 9 due to the following reasons:</p> <ul style="list-style-type: none"> UK Power Networks has sought external legal advice on Article 9 and the specific point about whether Consumption Data should be considered as special category Personal Data. Based on the legal advice received, UK Power Networks does not regard Consumption Data as being special category Personal Data because it does not reveal information stated in Article 9(1). Any inference that may be drawn from Consumption Data about special category information would be too speculative to mean that Consumption Data should be treated as a special category Personal Data.
4.	GDPR, Article 25 – Data protection by design and default	UK Power Networks must follow the principle of Data Protection by Design and Default. UK Power Networks must ensure that the technical solution is designed from the outset	<p>As per the current assessment, no risk has been identified relating to Article 25. UK Power Networks' technical solution will be designed with protection in mind from the outset, following the Data Protection by Design and Default principle. The below measures will be implemented to minimise privacy risks:</p>

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	Legal Principle(s)	Privacy Consideration	Explanation
		with data protection in mind to minimise the risks.	<ul style="list-style-type: none"> • See Risk 11 (above) for information relating to the technical IS solution principles. • By default, UK Power Networks' systems will only collect and process the minimum amount of Personal Data that is needed in order to meet UK Power Networks' stated purpose for why it is collecting and processing Consumption Data. This will ensure that the data it collects is adequate, relevant and not excessive. • Aggregation will be used as one of UK Power Networks' anonymisation and data protection techniques. UK Power Networks will aggregate Consumption Data in the following ways: <ol style="list-style-type: none"> 1. Half-hourly Consumption Data will be totalled to provide a total monthly figure for each Smart Meter (such that the resultant data falls outside the requirements of Licence Condition 10A). 2. Half-hourly Consumption Data figures for each meter on a particular Feeder will be totalled, so that the half-hourly Consumption Data obtained from a particular household will be added with that of multiple households on the same Feeder. 3. Half-hourly Consumption Data figures for each meter on a particular Section of Feeder will be totalled, so that the half-hourly Consumption Data obtained from a particular household will be added with that of multiple households on the same Section of each Feeder • In order to adhere to the GDPR Data Minimisation Principle, only aggregated consumption load profiles will be made available to authorised users who form part of a specific authorised group. This equates to the minimum amount of Personal Data that UK Power Networks needs to fulfil its intended lawful purpose of processing Consumption Data to provide and develop an efficient, co-ordinated and economical system of electricity distribution.

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	Legal Principle(s)	Privacy Consideration	Explanation
			<ul style="list-style-type: none"> • All users with access to aggregated Consumption Data will have received the necessary training. For example, training for UK Power Networks' staff will cover data protection and will provide authorised users with knowledge about Personal Data in order to ensure the aggregated Consumption Data is safeguarded. • Aggregated half-hourly Consumption Data will be stored against a unique Feeder and Section ID, allowing aggregated Consumption Data to be associated with a part of the electricity network but without individuals being identified through their MPANs, names and addresses, therefore reducing the risk of re-identification of an individual. • [Redacted] • All stored Consumption Data will be automatically deleted on a rolling 7-year basis, ensuring that UK Power Networks deletes data that is no longer needed. • UK Power Networks' Smart Metering IT environment is compliant with the relevant ISO standards for information security (ISO27001, 27005, 27035). It is also regularly reviewed and audited by internal and external audit teams. • UK Power Networks' will update existing contractual agreements with the ICPs and IDNOs to ensure that robust processes are in place for the secure use of aggregated Consumption Data. • Rigorous end to end industry testing has been done as part of the Smart Meter roll-out, ensuring that the Consumption Data UK Power Networks receives is through robust and secure processes.

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	Legal Principle(s)	Privacy Consideration	Explanation
			<ul style="list-style-type: none"> UK Power Networks will only obtain Consumption Data from Smart Energy Code governed processes and infrastructure linking UK Power Networks to the central Smart DCC system using secure data transmission. Where UK Power Networks wishes to process Consumption Data in accordance with Licence Condition 10A.7 or 10A.8 (theft or trial), it will only be processed by UK Power Networks in accordance with the privacy requirements of those Licence Conditions. Any investigation of theft or trial will be for a defined period of time, whereby the disaggregated Consumption Data will be deleted after the investigation and any subsequent prosecution of theft or trial has taken place.
5.	GDPR, Article 28 - Processor	If UK Power Networks wishes to engage third party sub-contractors to process Consumption Data on its behalf, it must only use third parties which provide sufficient guarantees to safeguard the Consumption Data.	<p>As per the current assessment, no risk has been identified relating to Article 28 due to the following reasons:</p> <ul style="list-style-type: none"> Training will be provided to UK Power Networks' staff involved in the procurement and appointment of Data Processors, ensuring that they are aware of the obligations and restrictions of Data Processors. Data Processors will go through a robust procurement process carried out by UK Power Networks' procurement team, including a Data Privacy Impact Assessment. This will help to ensure that Consumption Data is not used for purposes that differ from the originally specified reasons. As part of the DPIA and IS project procedure, IT security will consult with the Data Protection Officer if engaging new suppliers to process Consumption Data.
6.	GDPR, Article 29 – Processing under the authority of the controller or processor	Any subcontractors which process personal data on behalf of UK Power Networks must only do so in accordance with UK Power Networks' instructions.	<p>No risk has been identified relating to Article 29 due to the following reasons:</p> <ul style="list-style-type: none"> As part of its general approach to ensuring compliance with GDPR, UK Power Networks will review third party contracts to ensure that they comply with the legal obligations and liabilities placed on data processors under GDPR and the DPA 2018.

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	Legal Principle(s)	Privacy Consideration	Explanation
7.	GDPR, Article 30 – Record of processing activities	The GDPR requires UK Power Networks and any third party subcontractors it engages to process Consumption Data on its behalf, to maintain records of processing.	As per the current assessment, no risk has been identified relating to Article 30 due to the following reasons: <ul style="list-style-type: none"> UK Power Networks has a Record of Processing in place and maintains this document regularly by verifying it against approved Data Protection Impact Assessments (DPIA). Such reviews will ensure that that all processing activities for Consumption Data, defined in the DPIA, are reflected in the Data Processing Inventory.
8.	GDPR, Article 33 – Notification of a personal data breach to the supervisory authority	As a data controller in respect of Consumption Data, UK Power Networks must notify the supervisory authority of a data breach without undue delay and in any event no later than 72 hours after having become aware of the breach.	As per the current assessment, no risk has been identified relating to Article 33 due to the following reasons: <ul style="list-style-type: none"> In the event of a Data Breach, the Data Protection Officer will assess the data breach in line with UK Power Networks' Data Breach Reporting Policy. The Data Protection Officer will calculate the severity of a breach using a methodology that is based on ENISA guidelines. In accordance with Article 33 of the GDPR, the Data Protection Officer will notify the ICO of a data breach without undue delay. If the Personal Data breach is severe enough to result in a high risk to the data subject(s), UK Power Networks will report the breach to the affected individuals, as required under Article 34 GDPR. UK Power Networks assesses and documents all breaches within 72 hours. Remedial actions and mitigation measures are implemented accordingly. UK Power Networks has agreements with Data Processors specifying that the Processor shall notify the Controller (UK Power Networks) of any personal data breach relating to the data being processed.
9.	GDPR, Article 34 – Communication of a personal data breach to the data subject	In the event of a data breach, UK Power Networks must notify data subjects about the breach where it is likely to result in a high risk to their rights and freedoms. This must be done without undue delay.	As per the current assessment, no risk has been identified relating to Article 34 due to following reasons: <ul style="list-style-type: none"> In the event of a Data Breach, the Data Protection Officer will assess the data breach in line with UK Power Networks' Data Breach Reporting Policy. The Data

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	Legal Principle(s)	Privacy Consideration	Explanation
			<p>Protection Officer will calculate the severity of a breach using a methodology that is based on ENISA guidelines. In accordance with Article 33 of the GDPR, the Data Protection Officer will notify the ICO of a data breach without undue delay. If the Personal Data breach is severe enough to result in a high risk to the data subject(s), UK Power Networks will report the breach to the affected individuals, as required under Article 34 GDPR. UK Power Networks assesses and documents all breaches within 72 hours. Remedial actions and mitigation measures are implemented accordingly.</p> <ul style="list-style-type: none"> UK Power Networks has agreements with Data Processors specifying that the Processor must notify the Controller (UK Power Networks) of any Personal Data breach relating to the data being processed.

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Data Subject Rights applicable when using Legal Obligation as the Lawful Basis for processing

The lawful basis for processing Consumption Data that is relied on by UK Power Networks has an impact on the corresponding rights of individuals under the GDPR. The following table outlines the Data Subject Rights applicable to the **Legal Obligation** lawful basis for processing and the steps taken by UK Power Networks to address potential issues.

Data Subject Rights	Description of Law	Right Applicable to Legal Obligation?	Steps taken by UK Power Networks to address potential issues
Right to be Informed	<p>Where Personal Data relating to a data subject are collected from the data subject, the controller shall, at the time when Personal Data are obtained, provide the data subject with all of the following information:</p> <ol style="list-style-type: none"> 1. The identity and the contact details of the controller and, where applicable, of the controller's representative; 2. The contact details of the Data Protection Officer, where applicable; 3. The purposes of the processing for which the personal data are intended as well as the legal basis for the processing; 4. Where the processing is based on point (f) of Article 6(1), the legitimate interests pursued by the controller or by a third party; 5. The recipients or categories of recipients of the personal data, if any; 6. Period for which the personal data will be stored, or if that is not possible, the criteria used to determine that period; 7. The right to lodge a complaint with a supervisory authority; 	Yes	<ul style="list-style-type: none"> • UK Power Networks' Privacy Policy will be updated before processing of Consumption Data takes place, explaining to customers how UK Power Networks will be using Consumption Data. The Privacy Policy will be easily accessible via a link on the homepage of UK Power Networks' website and will be clear, open and honest ensuring that it follows the requirements set out in Article 13 of the GDPR. • The Smart Meter section on UK Power Networks' website will also be updated to include information relating to how UK Power Networks plans to process and use Consumption Data. This will be done prior to UK Power Networks processing any Consumption Data.
Right of Access	<p>Data subjects have the right to obtain a copy of their Personal Data and also the following information:</p> <ol style="list-style-type: none"> (a) The purposes of the processing; (b) The categories of Personal Data concerned; 	Yes	<ul style="list-style-type: none"> • UK Power Networks will adopt a consistent approach to respond to customers wishing to exercise their 'Right of Access' to Consumption Data under the GDPR. In practice, only a small percentage of customers (for example, those

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Data Subject Rights	Description of Law	Right Applicable to Legal Obligation?	Steps taken by UK Power Networks to address potential issues
	<p>(c) The recipients of categories of recipient to whom the Personal Data have been or will be disclosed, in particular recipients in third countries of international organisations;</p> <p>(d) Where possible, the envisaged period for which the Personal Data will be stored, or if not possible, the criteria used to determine that period;</p> <p>(e) The existence of the right to request from the controller rectification or erasure of Personal Data or restriction of processing of personal data concerning the data subjects to object to such processing;</p> <p>(f) The right to lodge a complaint with a supervisory authority;</p> <p>(g) Where the Personal Data are not collected from the data subject any available information as to the source; and</p> <p>(h) The existence of automated decision-making including profiling referred to in Article 22(1) and (4) and, at least in those cases, meaningful information about the logic involved, as well as the significance and the envisaged consequences of such processing for the data subject.</p>		<p>on single MPANs per Feeder or Section of Feeder; those being investigated for theft; or those who are part of an ongoing trial) will have actionable rights relating to their Personal Data because these customers are the only disaggregated data subjects (and therefore the only ones where UK Power Networks can truly identify the individual). Where Consumption Data has been aggregated, UK Power Networks cannot disaggregate that data at the request of a customer because 1) it may not be possible and 2) it could reveal the Personal Data of another customer (for example, if there were two MPANs on a Feeder then extracting Personal Data for one customer would reveal the Personal Data of the other customer through comparison with the aggregated data).</p> <ul style="list-style-type: none"> The Privacy Policy on UK Power Networks' website currently sets out the customers' rights, including their Right of Access and how to contact UK Power Networks to make a request. The Privacy Policy on UK Power Networks website will be updated to include information explaining how Consumption Data will be processed and how to contact UK Power Networks' Data Protection Officer with complaints or queries about Consumption Data. Training will be provided to UK Power Networks' contact centre staff to continue to ensure that they are able to recognise and respond to data subject access requests.
Right to Rectification	Under the GDPR, customers have the right to have inaccurate Personal Data held about them rectified. UK Power Networks must ensure that it has the technical and	Yes	<ul style="list-style-type: none"> In setting up the Smart Meter Programme, DECC / BEIS has obliged Energy Suppliers to have responsibility for procuring, installing and operating Smart Meters. Correcting Consumption Data, therefore, is not within UK Power

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Data Subject Rights	Description of Law	Right Applicable to Legal Obligation?	Steps taken by UK Power Networks to address potential issues
	<p>organisational capabilities to recognise and respond to requests to exercise these rights.</p>		<p>Networks' direct control. Issues relating to accuracy will typically be as a result of an issue with the meter itself or with the IT systems controlled by Smart DCC. Inaccurate Consumption Data will result in inaccurate bills being generated for customers by the Energy Suppliers. It is, therefore, expected that the Energy Supplier/customer would report this problem to each other prior to UK Power Networks obtaining the data. As such, UK Power Networks will inform the customer to refer to their supplier if they request rectification of their Consumption Data. UK Power Networks will also inform the relevant Energy Supplier, whose responsibility is to ensure the efficiency and accuracy of Smart Meters.</p> <ul style="list-style-type: none"> Energy Suppliers are responsible for ensuring the installation of accurate meters that meet national requirements set out by the Smart Energy Code and the Smart Metering Equipment Technical Specification (SMETS).
<p>Right to Restrict Processing</p>	<p>Customers have the right to restrict processing of their Consumption Data in the following circumstances:</p> <ul style="list-style-type: none"> (a) The accuracy of the Personal Data is contested by the Customer for a period enabling the controller to verify the accuracy; (b) The processing is unlawful and the Customer opposes the erasure of the personal data and requests the restriction of use of the data instead; (c) UK Power Networks no longer needs the personal data for the purposes of the processing but they are required by the data subject for the establishment exercise or defence of legal claims; (d) UK Power Networks is processing the Consumption Data based on the legitimate 	<p>Yes</p>	<ul style="list-style-type: none"> Based on UK Power Networks' current intended purpose for processing Consumption Data in order to comply with a Legal Obligation (duty under Section 9 of the Electricity Act 1989), it has ascertained that the Right to Restrict Processing can only be exercised on the basis of inaccuracy or where processing is unlawful and the data subject does not want the data erased (or needs it for legal claims). If accuracy is contested, this will most likely relate to a defective meter which the Energy Supplier has the responsibility for installing and operating. Accordingly, UK Power Networks will inform the customer to refer to their Energy Supplier if they query accuracy with UK Power Networks. UK Power Networks will also inform the relevant

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Data Subject Rights	Description of Law	Right Applicable to Legal Obligation?	Steps taken by UK Power Networks to address potential issues
	<p>interests ground, and the Customer has objected to the processing pending the verification of whether UK Power Networks' legitimate grounds for processing override those of the Customer</p>		<p>Energy Supplier, whose responsibility is to ensure the efficiency and accuracy of Smart Meters.</p> <ul style="list-style-type: none"> UK Power Networks' Data Protection Officer will review and respond to requests where the data subject wishes to exercise their right to Restrict Processing.
<p>Right to Erasure</p>	<p>Under the GDPR, Customers can require their Personal Data to be erased in certain specific circumstances, including where:</p> <ol style="list-style-type: none"> The Personal Data is no longer necessary in relation to the purpose of which they were collected or otherwise processed; The data subject withdraws consent on which the processing is based, and where this no other legal ground for processing; The data subject objects to the processing pursuant to Article 21(1) and there are no overriding legitimate grounds for the processing or the data subject objects to the processing pursuant to article 21(2); The Personal Data has been unlawfully processed 	<p>No</p>	<ul style="list-style-type: none"> The Right to Erasure under the GDPR is not an absolute right, and for certain processing activities is not applicable. This includes processing activities that are required to comply with a Legal Obligation, and hence the Right to Erasure will not be applicable for UK Power Networks' activities by virtue of its processing being necessary in order to comply with its duty under Section 9 of the Electricity Act 1989. UK Power Networks will have a process to be able to explain to the customer why the Right to Request Erasure does not apply when processing Consumption Data. The Privacy policy on UK Power Networks' website sets out the customer rights and how to contact UK Power Networks. UK Power Networks has a Data Deletion Process to handle any data subject request for the 'Right to be Erased' for other scenarios where UK Power Networks processes Personal Data under a different lawful basis and the Right to Request erasure is applicable. Currently, UK Power Networks only intend to process Consumption Data based on the Legal Obligation lawful basis for processing. Before any new processing takes place, a Privacy Impact Assessment will be carried out (and

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Data Subject Rights	Description of Law	Right Applicable to Legal Obligation?	Steps taken by UK Power Networks to address potential issues
<p>Right to Data Portability</p>	<p>In certain circumstances, Customers have the right to receive a copy of their Personal Data from UK Power Networks in a structured, commonly used and machine-readable format, and potentially require the transmission of those data to another controller.</p>	<p>No</p>	<p>approved by Ofgem if required) including an assessment of how UK Power Networks will respond to data subjects' rights if a new lawful basis for processing is applied.</p> <ul style="list-style-type: none"> Based on UK Power Networks' current intended purpose for processing Consumption Data in order to comply with a Legal Obligation (duty under Section 9 of the Electricity Act 1989), it has ascertained that the Right to Data Portability will not be applicable. The principle here is similar to the comments made above in relation to the Right of Erasure – this is another area where UK Power Networks' requirement to comply with law means that individuals are restricted in how they can manage actions relating to their Personal Data. UK Power Networks will explain to the customer why the Right to Data Portability does not apply when processing Consumption Data upon request.
<p>Right to Object</p>	<p>Under GDPR, the Customer has the right to object, on grounds relating to his or her particular situation, at any time to processing of Personal Data concerning him or her which is based on point (e) or (f) of Article 6(1) including profiling based on those provisions. The controller shall no longer process the Personal Data unless the controller demonstrates compelling legitimate grounds for the processing, which override the interests, rights and freedoms of the data subject or for the establishment, exercise or defence of legal claims.</p> <p>In addition, data subjects have the right to object to processing for direct marketing purposes, in which case the controller must cease processing the Personal Data.</p>	<p>No</p>	<ul style="list-style-type: none"> The Right to Object only applies where processing is based on points (e) or (f) or article 6(1) of the GDPR. Based on UK Power Networks' current intended purpose for processing Consumption Data in order to comply with a Legal Obligation (duty under Section 9 of the Electricity Act 1989), it has ascertained that the Right to Object will not be applicable. Again, this is another area where UK Power Networks' need to comply with law means that customers cannot have full discretion over the use of their Personal Data by UK Power Networks, but of course there are many safeguards built into this Privacy Impact Assessment to ensure that such use is well controlled and compliant.

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Data Subject Rights	Description of Law	Right Applicable to Legal Obligation?	Steps taken by UK Power Networks to address potential issues
			<ul style="list-style-type: none"> UK Power Networks will explain to the customer why the Right to Object does not apply when processing Consumption Data upon request. Currently, UK Power Networks only intend to process Consumption Data based on the Legal Obligation lawful basis for processing. Before any new processing takes place, a Privacy Impact Assessment will be carried out including an assessment of how UK Power Networks will respond to data subjects' rights if a new lawful basis for processing is applied.
<p>Rights in relation to automated decision making and profiling</p>	<p>Customers have the right not to be subject to a decision based solely on automated processing, including profiling, which produces legal effects concerning him or her or similarly significantly affects him or her. This right shall not apply if the processing is authorised by Union or Member state law on which the controller is subject and which also lays down suitable measures to safeguard the data subjects rights and freedoms or legitimate interests or if it is based on the Customer's explicit consent.</p>	<p>No</p>	<ul style="list-style-type: none"> As part of processing Consumption Data, no automated decision making and profiling will be made. Decisions will be made based on manual analysis of aggregated Consumption Data.

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Appendix B.

Appendix B1 UK Power Networks' Legal Bases for Processing Consumption Data

Summary

UK Power Networks intends to process Consumption Data obtained from Smart Meters solely for the purpose of meeting its duties under Section 9 Electricity Act 1989 and the Distribution Licence. It is therefore anticipated that the main lawful ground for processing under GDPR will be Legal Obligation.⁹

Where a future processing activity is found not to be subject to a Legal Obligation, UK Power Networks will conduct an assessment at that time to examine the suitability of an alternative legal basis.

A Privacy Impact Assessment (PIA) has been conducted to cover UK Power Networks' current intended purpose for processing Consumption Data. However, UK Power Networks recognises that privacy compliance is an ongoing process which will require continual review. As such, UK Power Networks will update the PIA in the future should it identify that it has any new requirements for processing Consumption Data.

As it is considered that Consumption Data is not special category Personal Data, the requirements of Article 9 GDPR are considered outside the scope of this Data Privacy Plan and therefore are not analysed in this section.

Establishing the lawful basis for processing Smart Meter Consumption Data

UK Power Networks may only process personal data if it can demonstrate, in a transparent and accountable manner, that it meets the requirements of at least one of the six lawful bases contained within Article 6 GDPR.

The 'Legal Obligation' basis consists of the following:

'Processing [Personal Data] is necessary for compliance with a Legal Obligation to which the Controller is subject'.¹⁰

UK Power Networks believes that the processing of half-hourly Smart Meter Consumption Data for Low Voltage Networks meets the requirements of the Legal Obligation basis, for the reasons set out below.

Under Section 9(1)(a) Electricity Act 1989, UK Power Networks is legally obliged to develop and maintain an efficient, coordinated and economical system of electricity distribution. Half-hourly Consumption Data will provide a more detailed insight into networks by Low Voltage Feeder and Section of Feeder, enabling UK Power Networks to understand total volumes of energy movement and daily peaks of energy consumption.

This data will allow UK Power Networks to efficiently discharge its obligations under the Electricity Act 1989. Firstly, prioritising reinforcement for potentially overloaded Sections of Feeders will improve the safety and efficiency of the distribution network. Secondly, new consumer technologies such as EVs, solar panels and battery storage will transform the future of electricity. In order for UK Power Networks to enable the £40bn of benefits that these facilities may provide by 2050,¹¹ Smart Meter Consumption Data may help anticipate the challenges to traditional network infrastructure and provide for smart energy flexibility services. Finally, UK Power Networks can coordinate governmental initiatives to decarbonise, decentralise and digitalise, by integrating these with the trends of half-hourly Consumption Data and shaping its electricity networks accordingly.

⁹ Article 6(1)(c) GDPR.

¹⁰ Article 6(1)(c) GDPR

¹¹ According to research by the Carbon Trust and Imperial College London (commissioned by BEIS) 'Can storage help reduce the cost of a future UK electricity system?' (2016) <https://www.carbontrust.com/media/672486/energy-storage-report.pdf>

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Licence Condition 52(2)(b)¹² stipulates that UK Power Networks must facilitate competition in the market for new connections to the electricity distribution system. Half-hourly Consumption Data will improve the position, capacity and timing of connections, as alternative providers will be able to determine points of connection based on a more accurate understanding of network capacity and demand. In this way, UK Power Networks will be minimising the Input Services that only it provides,¹³ thereby attracting a wider pool of ICPs for customers to choose from. By encouraging entry and participation in the Local Connections Market, half-hourly Consumption Data may reduce market barriers and produce benefits of improved customer satisfaction, improved timeliness of quotations, increased innovation incentives and reduced prices.¹⁴

UK Power Networks will explain the purposes for using the data, the Legal Obligation basis and corresponding rights available to data subjects within its Privacy Policy. The PIA and the Record of Processing will be fully updated accordingly.

Possible alternative bases for processing Smart Meter Consumption Data

The ICO states that, of the available legal bases, no single basis is considered more important than the others.¹⁵ In the limited circumstances where an activity or project seeks to use Consumption Data but does not satisfy the Legal Obligation condition, UK Power Networks will conduct further analysis to ascertain whether an alternative lawful basis applies under GDPR.

It is anticipated that UK Power Networks would consider the following bases:

- a) **Legitimate Interests:**¹⁶ a future processing activity involving Smart Meter Consumption Data may prove necessary for UK Power Networks' Legitimate Interests. At the point of such activity arising, and before processing begins, UK Power Networks will examine the purposes and conduct a 'Legitimate Interests Assessment' ("LIA"). This LIA will ensure that:
 - i. UK Power Networks' legitimate interest has clear, demonstrable benefits which are real and present (not merely speculative)¹⁷;
 - ii. Any potential impact(s) on data subjects are duly considered, with provision of mitigating safeguards, and;
 - iii. The processing is not overridden by the interests or fundamental rights and freedoms of data subjects.
- b) **Task in the Public Interest:**¹⁸ this may apply if UK Power Networks can demonstrate that a relevant activity has a clear basis in law and is in the public interest, perhaps relating to providing critical infrastructure or reducing power consumption.¹⁹ UK Power Networks will fully assess and document the suitability of this basis for such a future activity when it arises.

Once a lawful basis for processing has been established, UK Power Networks will not swap to another basis, unless it has clear justifications which have been approved by its Data Protection Officer. It will ascertain whether the new purpose for processing is fair and compatible with the initial purpose, and therefore whether the original lawful basis of Legal Obligation applies.

¹² Gas and Electricity Markets Authority: Electricity Act 1989 'Standard conditions of Electricity Distribution Licence' (25th August 2017) <https://epr.ofgem.gov.uk/Content/Documents/Electricity%20Distribution%20Consolidated%20Standard%20Licence%20Conditions%20-%20Current%20Version.pdf>

¹³ Condition 52.2(b)(i), *Competition in Connections Code of Practice*

¹⁴ Ofgem, 'The findings of our review of the electricity connections market' (2015)

¹⁵ 'Information Commissioners' Office (ICO) Guide to the General Data Protection Regulation (GDPR): 'Lawful Basis for Processing' <https://ico.org.uk/for-organisations/guide-to-the-general-data-protection-regulation-gdpr/lawful-basis-for-processing/> (accessed December 2018)

¹⁶ Article 6(1)(f) GDPR

¹⁷ Article 29 Data Protection Working Party Opinion 06/2014 on the notion of legitimate interests of the data controller under Article 7 of Directive 95/46/EC (2014) 844/14/EN WP 217

¹⁸ Article 6(1)(e) GDPR

¹⁹ Article 29 Data Protection Working Party Opinion 12/2011 on Smart Metering (2011) 00671/11/EN WP 183

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If a new lawful basis and/or purpose is identified, it will be documented within UK Power Networks' PIA, Privacy Policy, and Record of Processing. In particular, it is recognised that the PIA is a living document and forms UK Power Networks' central risk record of Smart Meter Consumption Data processing activities. Any processing changes or lawful basis updates to the PIA will be in consultation with, and regularly reviewed by, UK Power Networks' Data Protection Officer.

In accordance with the transparency requirements under Article 13 GDPR, UK Power Networks' Privacy Policy will set out how and why Consumption Data will be processed and the applicable data subject rights. It will also explain how a customer may raise a query or make a complaint.

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Appendix B2 Principles of the GDPR

Context

This Data Privacy Plan has considered at length the data protection principles set out in Article 5 GDPR. This appendix will summarise how UK Power Networks' Smart Meter technical solution will be designed and shaped in accordance with these principles, therefore demonstrating how GDPR will be applied in practice.

Lawfulness, fairness and transparency

If UK Power Networks can demonstrate, to Ofgem's satisfaction, that it has met the requirements of 10A.4 (Exceptions to Prohibition) under Licence Condition 10A, then the collection, storage and processing of Consumption Data, which relates to a period of less than one month, will be permitted by law.

UK Power Networks has identified 'Legal Obligation' as the appropriate lawful ground under GDPR for processing Consumption Data.

Since neither automated decision-making, marketing activities nor profiling will take place, and Consumption Data will not be used as a basis to contact customers, UK Power Networks ensures that the processing is fair.

In line with the requirements of Article 13 GDPR, UK Power Networks will ensure transparency by updating its online Privacy Policy before processing any Consumption Data. This will include purposes of use, retention, intended recipients (if any), methods to lodge a complaint and opportunities to exercise data subject rights.

Purpose Limitation

The purposes for processing Consumption Data will be limited to those set out in this plan. In particular, improving the efficiency, coordination and economics of the electricity distribution network are deemed legitimate purposes. This is due to the fact that they are in line with industry expectations and are not considered novel or outside the norm for DNOs.

If a new purpose arises, UK Power Networks will consult the Data Protection Officer to identify its legitimacy, including the applicability of an appropriate legal ground under Article 6 GDPR. These purposes will be explicitly set out, along with the current known purposes, in UK Power Networks' Privacy Policy.

Data Minimisation

UK Power Networks is only interested in Consumption Data for the value it will provide to network management. It has no intention to identify patterns of consumption on an individualised basis and indeed there is no benefit to UK Power Networks of doing so. UK Power Networks will therefore apply aggregation techniques, which will combine consumption values at Section of Feeder level, for the whole Feeder, and per Substation. Aggregation will occur as soon as disaggregated Consumption Data is received, to ensure adequacy and relevancy from the outset.

[Redacted]

Accuracy

It is the Energy Supplier's duty to ensure the accuracy of data generated by Smart Meters and it is therefore expected that the supplier will identify and address discrepancies.

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In the event that a customer contacts UK Power Networks wishing to exercise their right to rectification, this request will be passed on to the relevant Energy Supplier whose responsibility it is to ensure the efficiency of Smart Meters.

The ability to obtain Smart Meter data on a half-hourly basis, rather than monthly, increases the responsibility to ensure data is kept up-to-date. To meet this demand, UK Power Networks' systems will aggregate Consumption Data immediately, as well as perform automated deletion following expiration of the retention period.

Storage Limitation

To ensure that data is not stored in a format that permits identification of data subjects for any longer than necessary, UK Power Networks will mask Consumption Data. This will remove the MPAN by linking the data to a unique ID that is associated with a Feeder or Section of Feeder on the network. Furthermore, aggregation will ensure that the data is not stored on an individualised basis.

Appropriate security and protection measures

The integrity and confidentiality of Consumption Data will be achieved by UK Power Networks as far as possible using a security plan. The host of mechanisms will include strict access controls, defined business users, secure internal databases, automated deletion, aggregation, masking, training, internal policies and regular effectiveness testing of the IT environment. The DPO ensures UK Power Networks' adherence to the Data Breach Reporting Policy.

Accountability

UK Power Networks has an appointed DPO, who will review the PIA periodically and ensure all relevant security and controls are in place to maintain compliance with data protection laws.

Any new third parties will have contractual arrangements in place to ensure processors and sub-processors comply with GDPR obligations. This will be overseen by the DPO and appointed individual(s) in legal and, if required, procurement.

All employees and contractors of UK Power Networks are responsible for protecting Company and personal data in line with internal policy. All employees undertake mandatory data protection training in the form of an eLearning module.

Data privacy by design

By building the technical solution with the above principles in mind, UK Power Networks integrates safeguards from the outset of the processing activity.

UK Power Networks treats all Consumption Data as if it were Personal Data. This is to afford all data the equivalent respect in terms of controls, regardless of its stage in the aggregation process.

UK Power Networks has implemented sufficient measures that ensure the data is not accessible to an indefinite number of people, and is instead restricted to authorised personnel within an internal security group.

The PIA anticipates the data protection risks in this processing activity, including, *inter alia*: data minimisation, the extent and purposes of processing, retention periods and accessibility. All controls are documented accordingly.

Appendix C.

Appendix C1 Collection, Maintenance, Use and Deletion of Smart Meter Consumption Data

	Collection	Maintenance & Use	Deletion
Where	The Smart Metering System will retrieve Consumption Data from the meter via Smart DCC's secure gateway.	Consumption Data will be stored in a secure database within UK Power Networks' IT environment. Access to aggregated Consumption Data will be restricted to a limited number of specific applications used by authorised users. Ad-hoc access to the aggregated Smart Metering Consumption Data will not be permitted through any other applications.	UK Power Networks' IT environment will include a dedicated database to store all Consumption Data. Consumption Data will be automatically deleted on a 7-year rolling basis directly from this database.
When	UK Power Networks will issue automated Service Requests on a monthly basis to Smart DCC to obtain half-hourly Consumption Data stored in Smart Meters.	Consumption Data will be stored in a secure database within UK Power Networks' IT environment. UK Power Networks will maintain overall protection of the environment of its IT assets and review this on an ongoing basis.	All stored Consumption Data will be automatically deleted on a rolling 7-year basis, ensuring that UK Power Networks deletes data that is no longer needed.
Whom	Automated processes to retrieve, aggregate and mask Consumption Data will be developed by UK Power Networks. The automated process will be robustly tested by UK Power Networks prior to implementation.	Only users who form part of a defined authorised group with the required training will have access to aggregated Consumption Data. This will help to ensure that aggregated Consumption Data is only made available to users that require it to fulfil their normal roles, for example, system design and planning engineers who require the data for network reinforcement analysis or new connections.	An automatic process will be developed to delete Consumption Data following expiration of the 7-year retention period. UK Power Networks' application support team will ensure that Consumption Data is deleted in compliance with the 7-year retention period. If the retention period for Consumption Data changes in the future, the Data Privacy Plan will be updated and resubmitted to Ofgem for their approval.

Figure 5 Collection, Maintenance, Use and Deletion of Consumption Data Table

Appendix D.

Appendix D1 Typical Urban Underground Cable Network

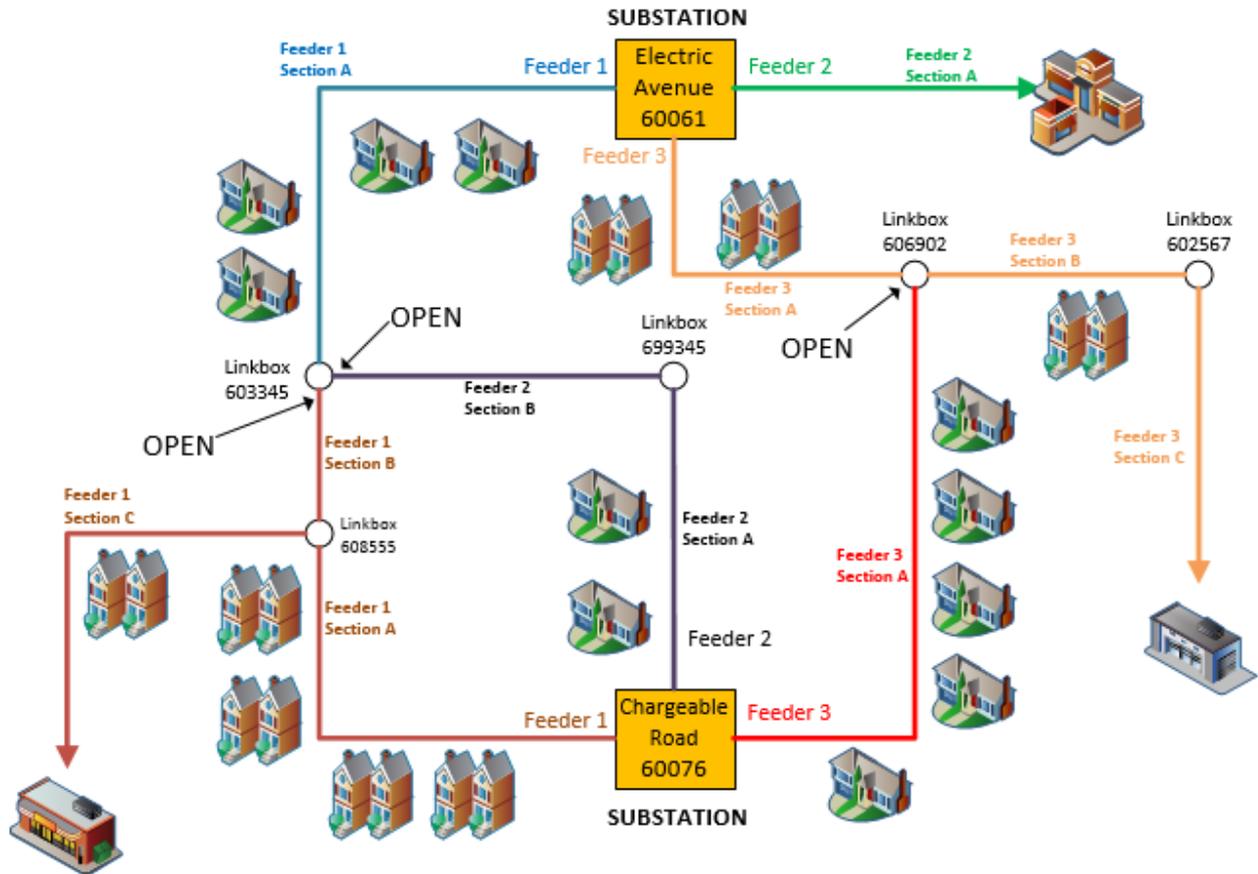


Figure 6 Diagram of Typical Urban Underground Cable Network

The diagram above provides a view of a typical urban network with underground cables supplying electricity to customers.

A substation can have multiple Low Voltage Feeders supplying the surrounding area with inter-connection to cables from neighbouring substations. A Feeder is comprised of different Sections which are the points between link boxes and substations or between different link boxes. For example, in the diagram above, Electric Avenue Substation has Feeder 1 supplying electricity to a number of customers. A Section of Feeder, therefore, is shown as Section A of Feeder 1, which supplies customers between Electric Avenue Substation and linkbox 603345.

The different components of the Low Voltage Network are comprised of unique ID's as per the below:

- Each substation has a name and a unique identification reference number
- Within each substation, each feeder has a unique identification reference number

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- Each underground link box has a unique identification reference number

Accordingly, UK Power Networks will use the unique reference numbers for each component of the network to generate:

- Load profiles for each Section of Feeder between substations and link boxes or between different link boxes
- Load profiles for each Feeder from a Substation that includes all Sections of Feeders (e.g. those with the same colour as shown in figure 6).
- Load profiles for each substation, including all feeders from that substation to the open points

Appendix D2 Typical Rural Overhead Line Network

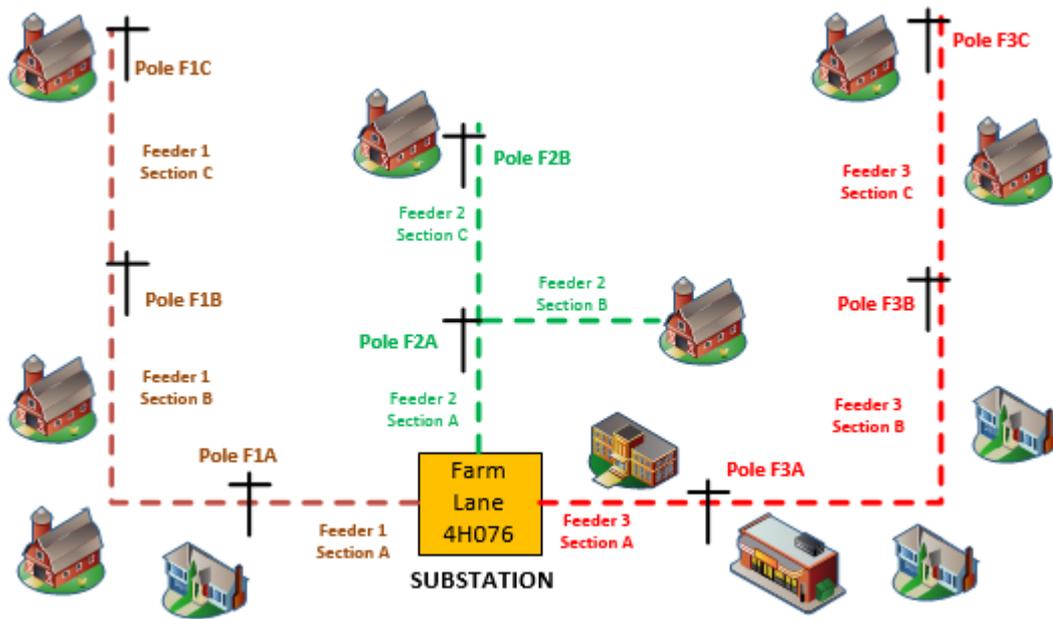


Figure 7 Diagram of Typical Rural Overhead Line Network

The diagram above provides a view of a typical rural network with overhead lines supplying electricity to customers.

A Substation can have multiple Feeders using overhead lines supplying the surrounding area, mostly with no inter-connection between lines from neighbouring substations. A Feeder is comprised of different sections which are the points between overhead poles and Substations or between different overhead poles. For example, in the diagram above, Farm Lane Substation has Feeder 1 supplying electricity to a number of customers. A Section of Feeder, therefore, is shown as Section A of Feeder 1, which supplies customers between Farm Lane Substation and Pole F1A.

The different components of the Low Voltage Network are comprised of unique ID's as per the below:

- Each substation has a name and a unique identification reference number
- Within each substation, each feeder has a unique identification reference number
- Each pole on the overhead line has a unique identification reference number

Accordingly, UK Power Networks will use the unique reference numbers for each component of the network to generate:

- Load profiles for each section of overhead line between poles where switching can be carried out
- Load profiles for each feeder from a substation that includes all sections of overhead line (e.g. those with the same colour)
- Load profiles for each substation that includes all feeders from that substation

Appendix D3 High Level System Design Process Map

[Redacted]

Figure 8 High Level System Design Process Map

Appendix D4 Collection and Aggregation of Data at Feeder and Section of Feeder

Summary

- The diagrams of typical urban and rural networks in Appendix D1 and D2 show that the network is constructed of electrical equipment where each site and component has a unique reference number. The unique reference number is used for many purposes, for example in the asset register to track performance, maintenance and fault history.
- A reference number is shown against each substation site, each Feeder at the substation, underground link boxes and on poles of the overhead line Feeders.
- In addition, each cable and overhead line section has a unique reference number where these are associated with the Feeder from the supplying Substation. Therefore, as Consumption Data is aggregated at the lowest level of the section in the network, these values will also combine to produce aggregated Consumption Profiles for the whole feeder and then the whole substation.

Substation

- A substation can have multiple Low Voltage Feeders, with the example in figure 9 showing one substation with one Feeder.
- Consumption profiles for a substation will consist of Consumption Data aggregated from all of the Feeders supplied by the substation. Using the diagram on this page, the Consumption profile for substation Electric Avenue will be the aggregated Consumption Data from all of the properties on Feeder 1.

Feeder

- Each Feeder may consist of one or more Sections, with figure 9 on this page showing three Sections A, B and C.
- Using figure 9 as an example, the total Feeder load profile for Feeder 1 will be constructed by totalling the load profile of sections A, B and C of Feeder 1. This information will then be stored using the Feeder reference number (e.g. Feeder 1).
- When a Feeder has only one Section with only property connected with a Smart Meter, the half-hourly Consumption Data will be masked by storing the Consumption Data against the Feeder reference number and not the MPAN. The raw half-hourly Consumption Data will be permanently deleted so that it cannot be associated with the property.

Section of Feeder

- Each Section of Feeder (e.g. section A of feeder 1 in the diagram) may have one or more properties connected taking an electricity supply that is measured with a Smart Meter.



Figure 9 Collection and Aggregation of Data at Feeder and Section of Feeder

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- When a Section of Feeder has two or more properties connected with a Smart Meter, their half-hourly Consumption Data will be aggregated to anonymise. The total Section load profile will be aggregated from all of the properties in the specific Section of Feeder. Using figure 9 as an example, the load profile for Section A of feeder 1, will be the aggregated Consumption Data from all of the properties in Section A. The raw half-hourly Consumption Data will be permanently deleted after aggregation.
- When a Section of Feeder has only one property connected to it and has a Smart Meter, aggregation will not be practicably possible. As such, the half-hourly Consumption Data will be masked and stored using the Feeder Section reference number. In reference to figure 9, if Section C of feeder 1 only had one property connected and the property had a Smart Meter, the Consumption Data and load profile would be stored against the Section ID and not the individual MPAN. The raw half-hourly data will be permanently deleted so that it cannot be associated with the property.

Appendix D5 Monthly Aggregated half-hourly Consumption Feeder Load Profile

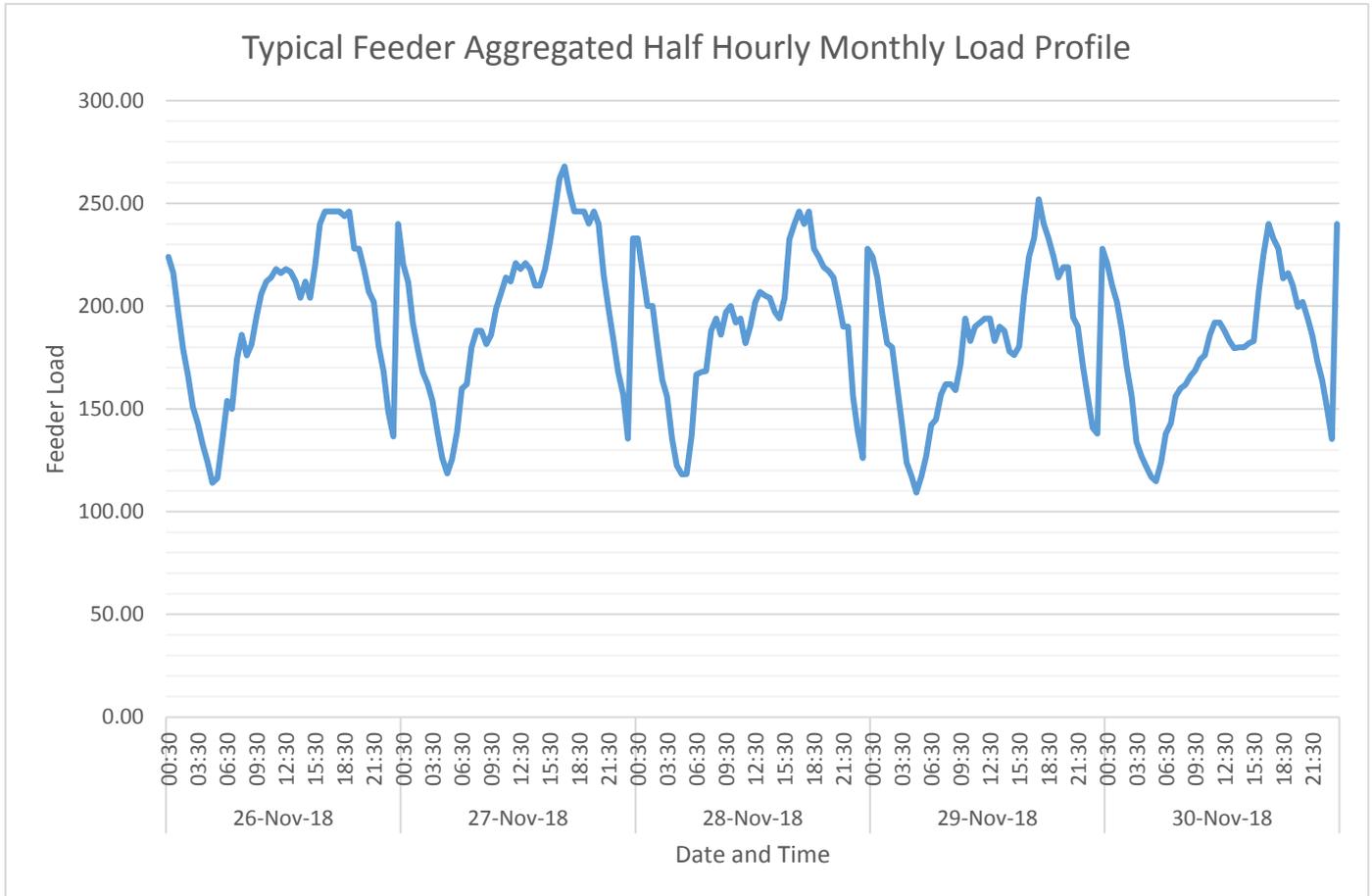


Figure 10 Typical Aggregated Feeder half-hourly Monthly Load Profile Chart

The chart above shows an example of a typical load profile, over a five day period, for a Low Voltage Feeder where the half-hourly Consumption Data from each connected Smart Meter has been aggregated. Aggregated half-hourly Consumption Data for any Section of Feeder would also be displayed in the same manner.

This information will be useful for Distribution Planners or Connections Engineers to understand the demand profile on a Feeder over a selected period. In turn, this could support decisions for new connection requests by providing information that can help identify whether the request should be approved or whether reinforcement action would be required. Currently, this is done by manually installing monitoring equipment at substations which can be costly and time consuming.

Additionally, the information also supports decisions for the day-to-day management of the network by providing greater visibility of loads, allowing load balancing across Feeders to take place in order to optimise the network configuration.

Appendix D6 Monthly Consumption Load Profile Charts for a Typical Domestic Property

As well the load profile described in Appendix D5, UK Power Networks also intends to total the Consumption Data for each meter (MPAN) to provide a monthly consumption figure for each meter (such that the resultant data falls outside the scope of Licence Condition 10A).

By doing this, monthly Consumption Data will be stored for each individual meter (MPAN) as below:

1. The total monthly consumption value - this will be collected from the meters “Cumulative and Historical Value Store”
2. The highest consumption value each month - this will be collected from the highest recorded value of half-hourly Consumption Data each month
3. The lowest consumption value each month - this will be collected from the lowest recorded value of half-hourly Consumption Data each month
4. The average monthly consumption value - this will be calculated using the “Total Monthly Consumption” value collected from the meter store for each month.

Accordingly, data described above could be made available to authorised users in a graphical format as displayed in the two example charts below, figures 11 and 12.

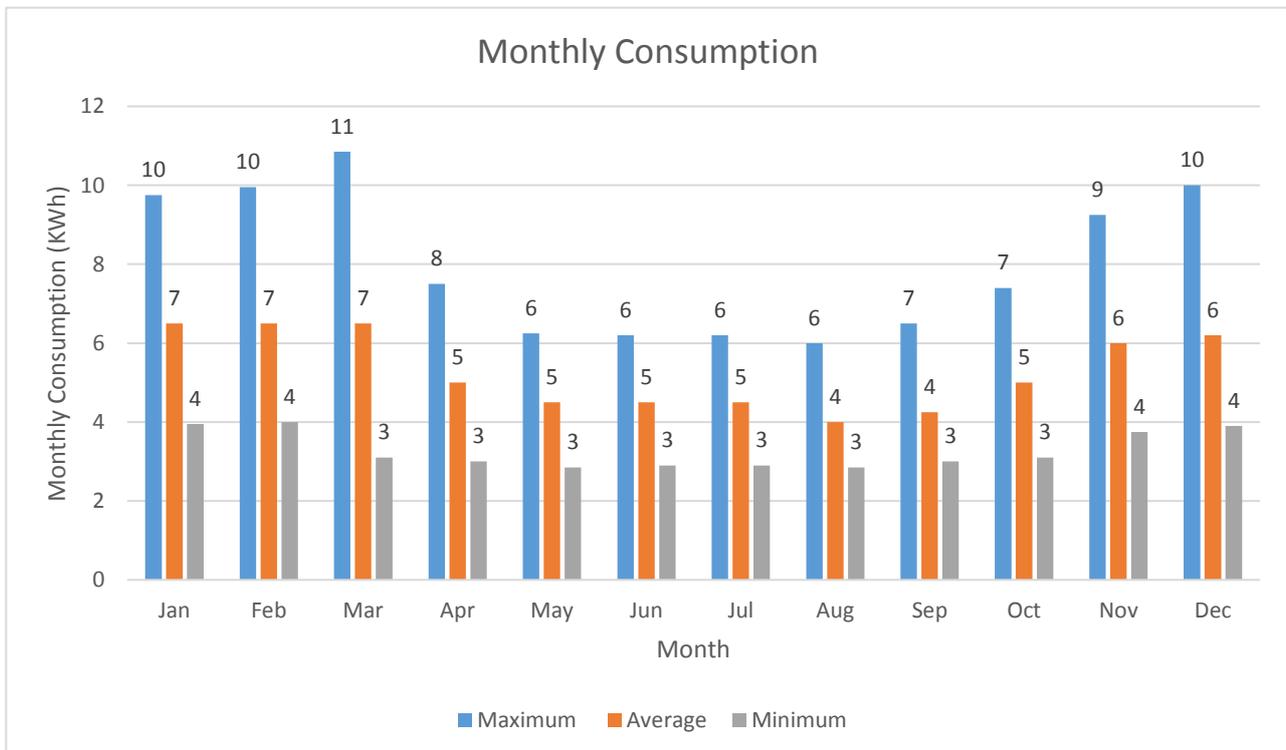


Figure 11 Typical Monthly Consumption of a Single Domestic Property Chart

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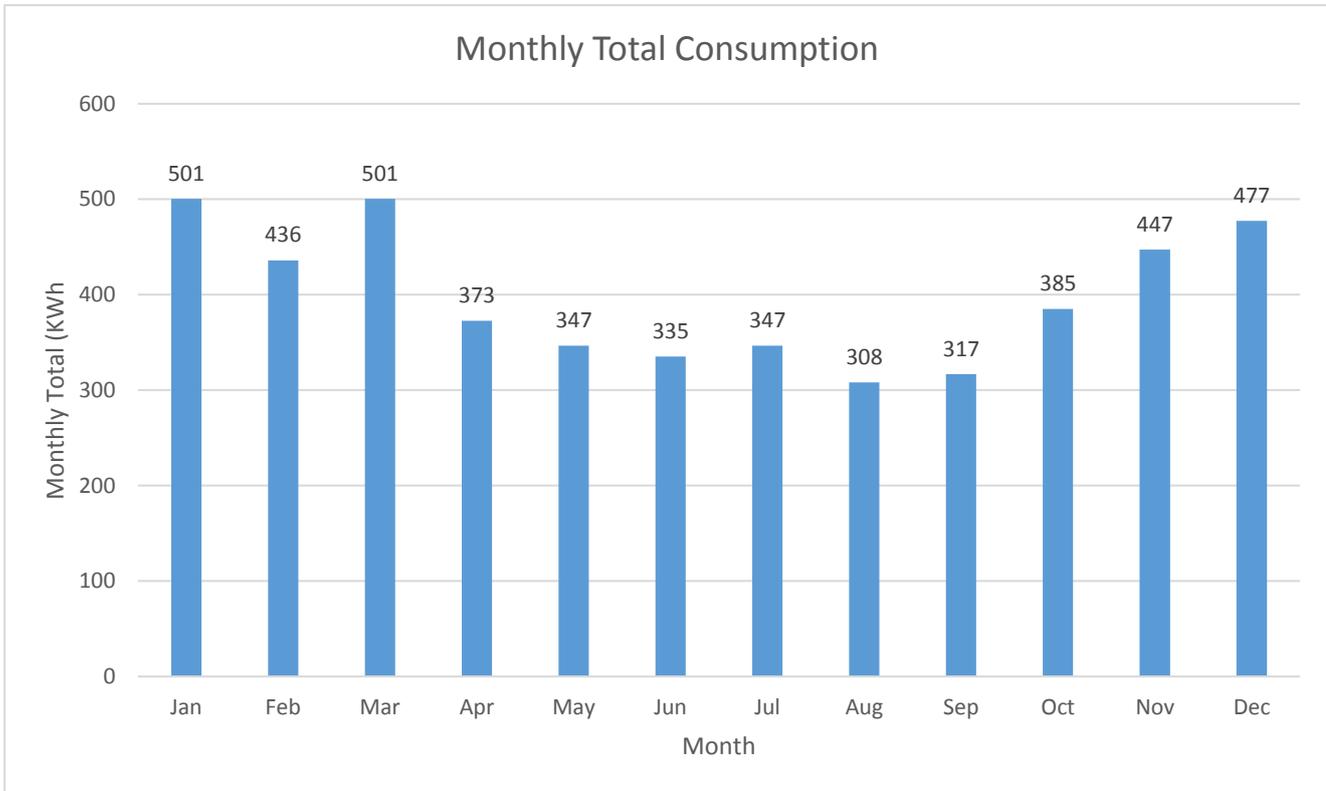


Figure 12 Typical Monthly Total Consumption of a Single Domestic Property Chart

Benefits of having monthly Consumption Data

Collecting the monthly maximum, minimum, average and total Consumption Data from Smart Meters will help to provide a more granular view of the changing demand in the network.

Having this visibility and, therefore, understanding step changes in load profiles, will help to identify specific Sections of the network that have seen an increase in load. Subsequently, this information could support network reinforcement decisions as well as mitigating actions to safeguard against potential network failures from overload situations.

Additionally, this information may be helpful in working with suppliers for load shifting through the development of time of use tariffs in order to support the predicted uptake of EV ownership.

Appendix E.

Appendix E1 Smart Meter Benefits – ED1 Submission

UK Power Networks submitted its Smart Metering Business Plan in 2013 as part of the Ofgem ED1 submission with the following key principles forming its Smart Metering strategy:

- The interests and experience of the customer are paramount. Work undertaken during ED1 must create a good customer experience and customer benefits must be realised early where possible, to help encourage positive adoption of Smart Metering.
- Smart Metering will yield data and functionality that provides a significant opportunity for business benefits and these opportunities must be seized.
- Smart Metering provides the vanguard in moving the GB distribution networks towards a smart grid, capable of supporting load shifting, pervasive low carbon technologies and active network management. Investment must be made to take advantage of these opportunities in ED1 and provide a sustainable platform to maximise opportunities in ED2.
- Smart Metering provides a new infrastructure that benefits not just DNOs, but customers, Suppliers, other participants and GB plc. All benefits must be sought and analysed, not just those that accrue to UK Power Networks.
- To measure these principles, UK Power Networks will aim to meet or exceed the benefits set out in the ENA's paper 'Analysis of Network Benefits from Smart Meter Message Flows Interim Review (Phasing and Categorisation)' and seek wherever possible to meet the benefits that can be distilled from the Impact Assessment completed by BEIS.

The Smart Meter Readiness Programme was established by UK Power Networks to plan, design, coordinate and programme manage the delivery of the plan to ensure a smooth roll-out of Smart Meters by Suppliers as well providing business and customer service improvements. The plan has been devised as three strands that will deliver the business benefits from:

1. Smart Meter related interventions
2. Fault management and customer service
3. Network Operations and Planning

Consumption Data is expected to provide benefits in the area of network operations and planning, as described below.

Network operations, planning and the path to the smart grid

There will be limited changes to the business model early in the programme due to the small number of installed Smart Meters. UK Power Networks will focus during this period on accumulating Smart Meter data to drive a greater understanding of the network.

Towards the end of mass roll-out, UK Power Networks will acquire sophisticated modelling tools to assess and optimise the use of the data. Such tools and data are expected to significantly enhance the capabilities of the design and planning function and facilitate the deployment of Low Carbon Technology and the move to smarter networks. This change will predominantly occur during ED2, but may generate some changes during ED1 dependant on the suppliers roll-out programme. UK Power Networks will also actively work with Suppliers and seek opportunities to exploit the potential of Time-of-Use tariffs and load shifting.

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Smart Meter Consumption Data benefit summary

UK Power Networks has undertaken a rigorous approach to identifying and quantifying potential benefits where the benefits from Consumption Data have been reviewed against the BEIS Impact Assessment and ENA Impact Assessment. This analysis was carried out as part of the Ofgem ED1 submission process.

Benefit	BEIS Impact Assessment	ENA Impact Assessment	UK Power Networks Assessment	Other Beneficiaries (Customers & Suppliers)	Comment
Reduced Losses	£26m	£28m		£19.5m	Reduced losses will accrue to Suppliers
Investment Decisions	£20m	£5.5m	£1.5m		Current projected low levels of reinforcement mean that the comparable BEIS/ENA benefit cannot be fully realised
New Connections		£4.5m		£3.5m	Benefit will accrue to new customers as connections are requested through reduced network reinforcement costs
Active Network Management (ANM)	Nil	£5m	£4m		RIIO ED1 plan already includes the use of ANM to reduce investment
Load Shift/Time of Use Tariffs	£2m	£18m	£13.5m		RIIO ED1 plan includes the use of load shifting to reduce investment. Note this is dependent on Suppliers.
Sub-Totals			£19m	£23m	
Total Overall	£48m	£61m	£42m		

Figure 13 Benefits Summary from 2013 Business Plan

[Redacted]

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[Redacted]

Figure 14 Analysis of capabilities against smart meter volumes deployed

Appendix E2 Managing Charging of Electric Vehicles using Smart Meter Data

The introduction of EV's and other low carbon technologies are expected to drive electricity consumption far in excess of natural load growth.

Traditional network reinforcement is unlikely to support this growth, and smarter management of the Low Voltage Network will be required to manage the risk of overloading Low Voltage Feeders and the supply cables to domestic properties.

An approach to controlling the load of charging electric vehicles is likely to be necessary, as increasing demand without reinforcement has the potential to lead to the Low Voltage Network protection fuses operating and / or overheating of the cables supplying customers. This can result in power outages for all households connected to those Feeders. Supply restoration to customers may take from around an hour to attend site and replace the fuse(s) or longer if there is damage to the network from overloading.

The conventional method of dealing with this problem is to reinforce the distribution network by installing new fuses, entire transformers and / or replacing the underground cables supplying entire streets. All of this incurs additional cost and has a high level of disruption.

Smart management of the Low Voltage Network using Consumption Data from Smart Meters will provide visibility of the performance of the Low Voltage Network, allowing informed decisions to be made to help adapt to the increased demand on the network due to the introduction of EV's. There could be many examples of methods for managing the demand during peak load periods including:

1. Working with Suppliers who would manage demand through the introduction of Time of Use Tariffs to shift load. UK Power Networks is currently developing a project around this area, building on its learnings from the Low Carbon London report called 'Use of Smart Meter Information for Network Planning and Operation' published in 2014.
2. Working with Suppliers who would control the time periods of EV charging points or to regulate the charge delivered from smart chargers
3. DNOs introducing technical solutions to control the time periods of EV charging points or to regulate the charge delivered from smart chargers.

There is currently no industry level view on the best method of managing this expected increase in demand on the distribution network. However, *[Redacted]* is due to start a trial on point 3 above. The proposed method is where a signal could be transmitted through Smart DCC to the communications hub of Smart Meters connected to specific Feeders. The instruction would curtail EV charging on the chargers connected to the Feeder so that there would be reduction of the charging rate applied to smart charging units. This would protect the Feeder and ensure that all customers on the Feeder have their electricity supplies maintained.

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Appendix E3 Existing UK Power Networks Data Protection and IT Policies

[Redacted]

Figure 15 UK Power Networks' Data Protection and IT Policies

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Appendix F.

Appendix F1 Telephone Survey Results

535 interviews with UK Power Networks' customers were conducted as part of the telephone survey between 23rd October and 5th November 2018. The interviewees were split between customers and consumer groups (e.g. local authorities, housing association, charities who provide advice and support to the general public on energy efficiency).

SAMPLE PROFILE: CUSTOMERS		n=
Age 18-39		180
Age 40-59		163
Age 60+		137
Male		226
Female		257

SAMPLE PROFILE: CONSUMER GROUPS		n=
Business customers		10
Local authorities		15
Housing associations		9
Other organisations (charities/advice)		18

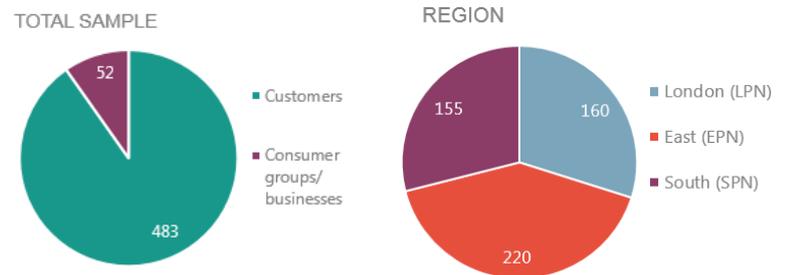


Figure 16 Telephone Survey Interviewee Profile

Almost three-quarters customers (72%) of the respondents were comfortable with UK Power Networks receiving data from Smart Meters to help provide a more reliable service.

Q: If everybody in your street had a smart meter, the meters would automatically tell UK Power Networks how much electricity is being used in your area. This would let UK Power Networks deal with situations sooner and would help them improve the reliability of the service. If you had a smart meter, **how comfortable would you/those you represent** be for UK Power Networks to have access to the electricity consumption information from your smart meter in order to provide a more reliable service to your area?

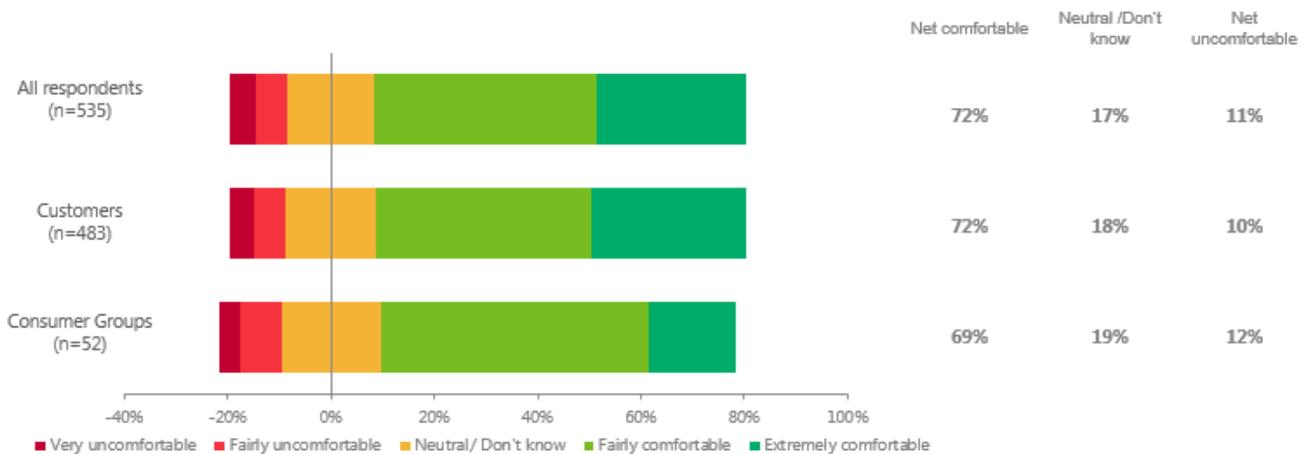


Figure 17 Telephone Survey Results – UK Power Networks having access to Consumption Data

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All privacy safeguards set out in the UK Power Networks Data Privacy Plan were important to the majority of respondents. The most important, however, was that UK Power Networks does not use, share or sell electricity consumption information for marketing purposes with third parties.

Q. I am now going to read out a list of measures that UK Power Networks will put in place to ensure smart data security. How important is it **to you/those you represent** that UK Power Networks will...

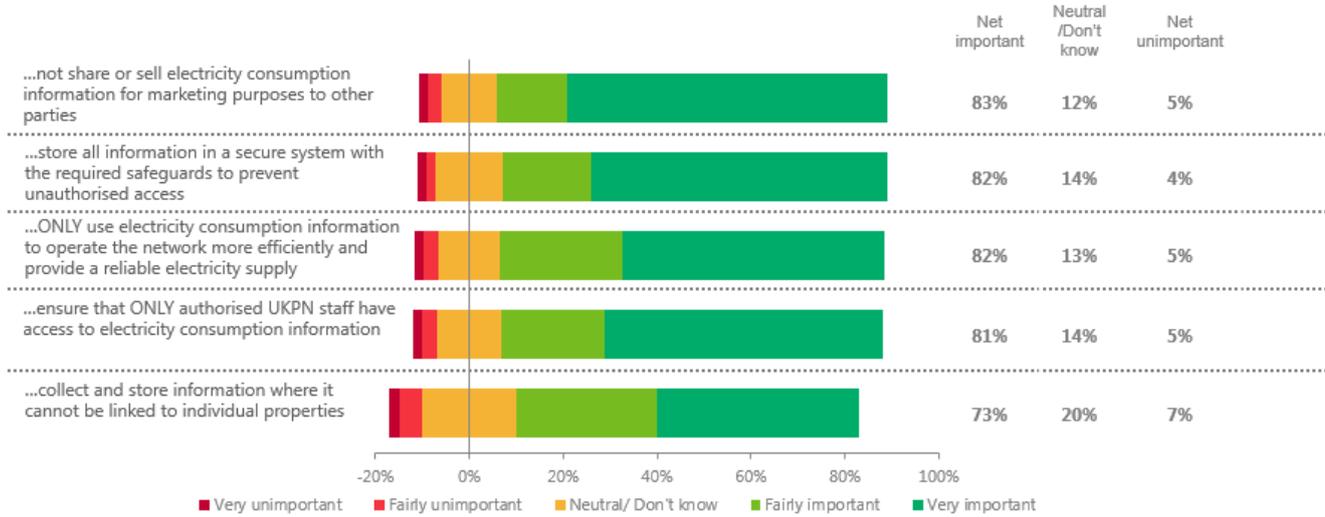


Figure 18 Telephone Survey Results – Importance of UK Power Networks’ Safeguards

Both customers and consumer groups rate data privacy highly. Customers, however, were more concerned about Consumption Data not being linked to individual properties than consumer groups (business customers, local authorities, housing association).

Q. I am now going to read out a list of measures that UK Power Networks will put in place to ensure smart data security. How important is it **to you/those you represent** that UK Power Networks will...

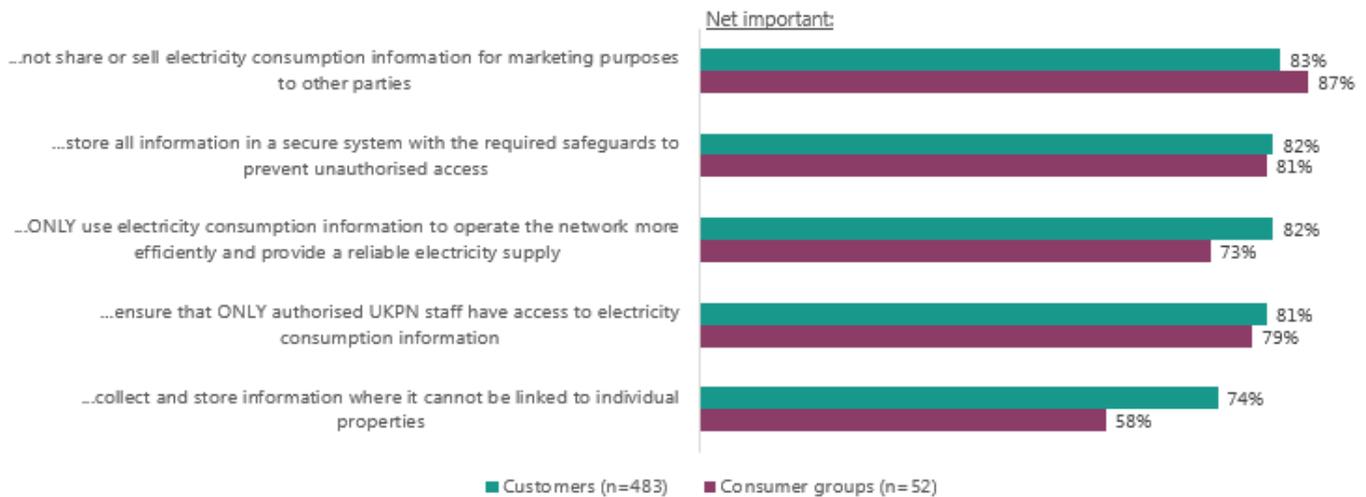


Figure 19 Telephone Survey Results – Importance of UK Power Networks’ Safeguards

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Some further elaborations to responses relating to the importance of the data privacy safeguards captured during the telephone surveys are detailed below, in figure 20.

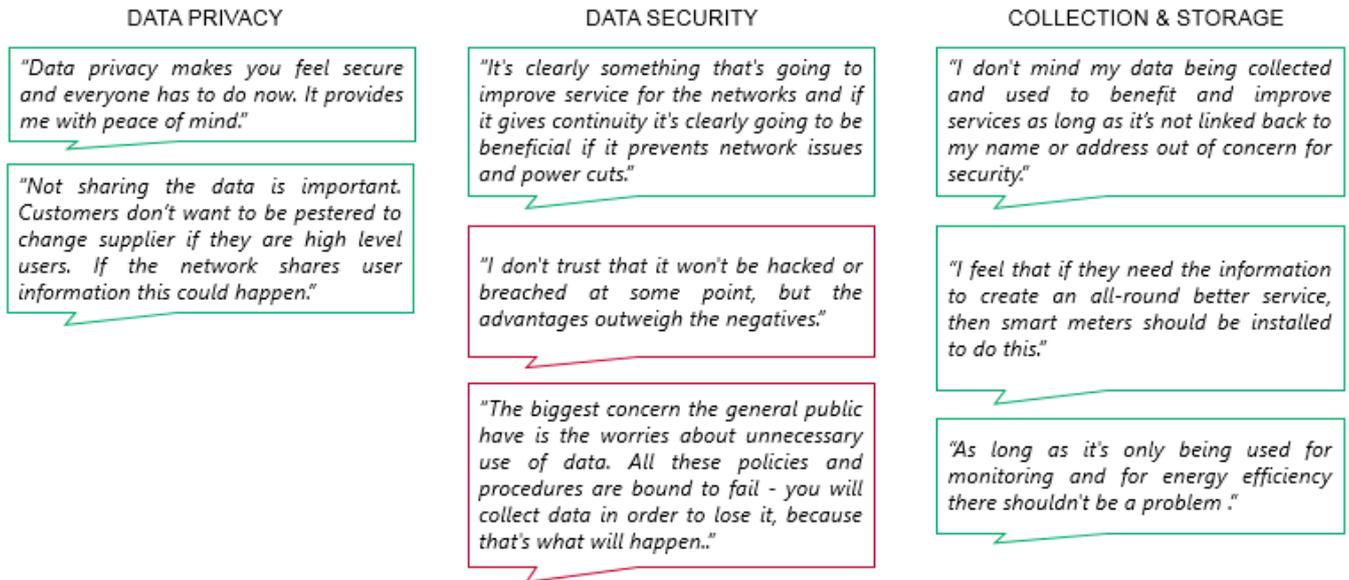


Figure 20 Telephone Survey Responses relating to Privacy Safeguards

Appendix F2 UK Power Networks’ Roadshow Survey Results and Additional Information

November 2018 UK Power Networks Roadshow Event Survey Results (95 attendees across three Roadshow events)

What type of stakeholder are you?

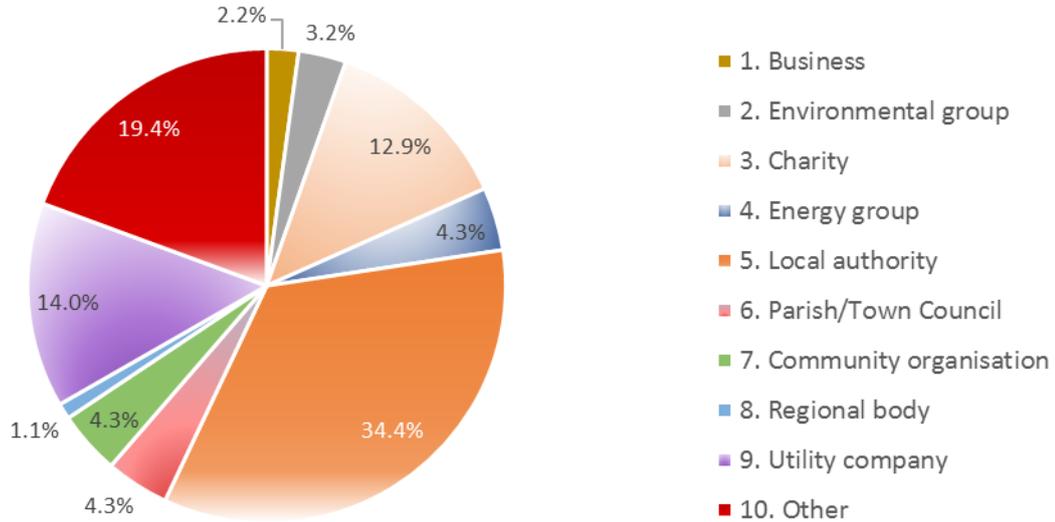


Figure 21 Roadshow Stakeholder Breakdown – November 2018

Do you agree with the principles of our smart meter data privacy plan?

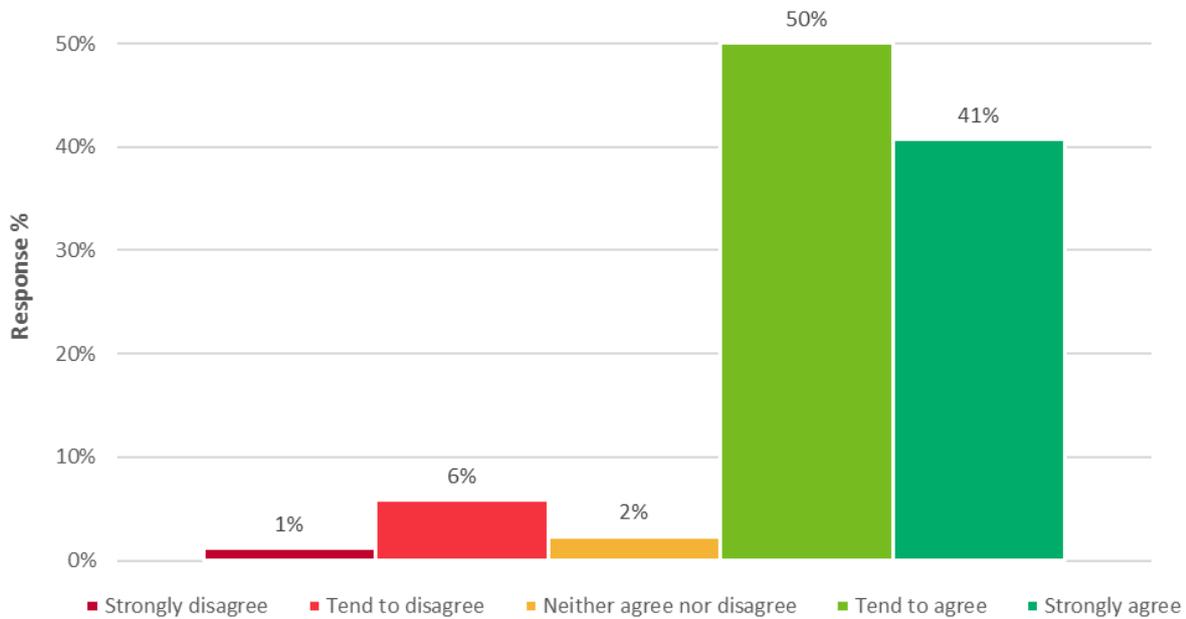


Figure 22 Stakeholder Roadshows – Agreement with UK Power Networks’ Privacy Principles - November 2018

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[Redacted]

Figure 23 Smart Meter Data Privacy Plan Focus Area - Roadshow Presentation

[Redacted]

Figure 24 Smart Meter Data Privacy Plan - Commitments

Appendix F3 Ipsos Mori Report on ‘Consumer Attitudes to DNOs having Access to half-hourly Electricity Consumption Data’

Overall, the study carried out by Ipsos MORI aimed to understand consumer attitudes to DNOs accessing half-hourly electricity Consumption Data contained in Smart Meters, within the scope of the current data access and privacy framework. The research was carried out in the latter part of 2016 and consisted of 12 focus groups designed to be representative of the GB population.

The research found a high level of support for DNOs to access half-hourly Consumption Data held by Smart Meters. Support was expressed by most participants engaged in the study on the following basis:

1. Electricity Consumption Data was not considered sensitive information by most participants, and many were comfortable with this being accessed (on the understanding this was not linked to any personal contact information).
2. Once participants understood the role and remit of DNOs (their initial awareness was low), they felt further reassured that access to their Consumption Data would not result in negative outcomes for them (for example, no selling or marketing, or increases in bills.)
3. The use of Consumption Data to assist more efficient strategic planning was a benefit that resonated with many participants. Despite there being high levels of scepticism around DNO investment savings being passed to consumers via electricity bills, these network related benefits as well as a general sense of reducing wastage and preserving resources, were sufficient motivation for most participants to be supportive (though some would like to see further evidence of a more direct benefit for themselves).
4. While most participants were comfortable with DNOs using Consumption Data on a half-hourly basis, and even at the level of individual properties, there is appetite for further information on the additional value this level of data provides to DNOs.
5. There were a small number of participants who were less supportive of the DNO proposal; this did not reflect concerns about DNO safeguarding of data or DNO use of data, but instead reflected a more general pervasive attitude about the importance of data privacy. In general, these participants were suspicious of claims that any data, Smart Meter or otherwise, can be kept completely safe and secure. Although participants did not have direct experience of data loss or data hacking, these risks were a concern to some based on coverage in the media – for the majority this did not, however, affect their reaction to the DNO proposition to access Consumption Data.
6. The majority of consumers involved in the Ipsos MORI research did not need direct communication from DNOs on data privacy and benefits, but an online resource would be welcomed by some consumers so that they could get a clear understanding of:
 - a. What purpose DNOs are using Consumption Data for & how this benefits their local area;
 - b. The amount of investment savings made by DNOs & how this is passed back to consumers via reductions in their bills;
 - c. The limitations of what DNOs can do with data (including limits of information linked to data);
 - d. How the data will be effectively managed and controlled.

Appendix G

Appendix G1 – Electricity Distribution Licence Condition 10A Smart Metering – Matters Relating to Obtaining and Using Consumption Data

Application

- 10A.1 This condition applies in respect of each Domestic Premises supplied with electricity through the licensee's distribution system (the **relevant premises**):
- (a) to which the electricity is supplied through an Electricity Meter that forms part of a Smart Metering System; and
 - (b) in respect of which the quantity of electricity supplied is measured by that Electricity Meter.

Prohibition on obtaining consumption data

- 10A.2 Subject to paragraph 10A.3, the licensee must not, in respect of any relevant premises, obtain any Electricity Consumption Data which relates to a period of less than one month.
- 10A.3 Paragraph 10A.2 does not apply where the requirements of any of paragraphs 10A.4, 10A.6, 10A.7 or 10A.8 are satisfied.

Exceptions to the Prohibition

- 10A.4 The requirements of this paragraph are that:
- (a) the licensee has submitted proposals to demonstrate to the satisfaction of the Secretary of State (or, in respect of proposals submitted after 31 December 2014, to the satisfaction of the Authority) that it can implement practices, procedures and systems which are designed to ensure that, so far as is reasonably practicable, the outcome described at paragraph 10A.5 is achieved;
 - (b) the Secretary of State or the Authority (as the case may be) has given approval to the licensee to obtain, once it has implemented such practices, procedures and systems, Electricity Consumption Data which relates to any one or more periods of less than one month; and
 - (c) the licensee has implemented those practices, procedures and systems.
- 10A.5 The outcome described at this paragraph is that, except to the extent that the requirements of any of paragraphs 10A.6, 10A.7 or 10A.8 have also been satisfied, Electricity Consumption Data which is obtained by the licensee and which relates to a period of less than one month ceases (through its aggregation with other Electricity Consumption Data or by means of any other process) to be data which is capable of being associated with a Domestic Customer at relevant premises.
- 10A.6 The requirements of this paragraph are that:
- (a) the licensee has given Notice to the Domestic Customer at the relevant premises informing the Domestic Customer that:
 - (i) the licensee intends to obtain Electricity Consumption Data which relates to any one or more periods of less than one month;

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- (ii) the licensee requires the Domestic Customer's consent to obtain that Electricity Consumption Data; and
- (iii) where the Domestic Customer gives consent he may withdraw it at any time; and
- (b) the Domestic Customer has give explicit consent to the licensee obtaining that Electricity Consumption Data and such consent has not been withdrawn.

10A.7 The requirements of this paragraph are that the licensee has reasonable grounds to suspect that any person is taking, from that part of the licensee's distribution system through which the relevant premises are supplied, a supply of electricity which is in the course of being conveyed by the licensee (for the purposes of this paragraph referred to as the suspected theft or abstraction of electricity), and it obtains Electricity Consumption Data which relates to any one or more periods of less than one month only for the purposes of investigating that suspected theft or abstraction of electricity.

10A.8 The requirements of this paragraph are that:

- (a) the Secretary of State has approved proposals submitted by the licensee for obtaining Electricity Consumption Data which relates to any one or more periods of less than one month, in respect of a particular category of relevant premises and for a particular purpose (in each case as specified in the proposal), on a trial basis (the **Trial**);
- (b) the relevant premises fall within that category;
- (c) the licensee has given at least 14 days advance Notice to the Domestic Customer at the relevant premises informing the Domestic Customers:
 - (i) of the nature and purpose of the Trial;
 - (ii) that he may at any time object to being included in the Trial;
 - (iii) of the process by which the Domestic Customer may object; and
- (d) the Domestic Customer has not objected to being included in the Trial.

Appendix H

Appendix H1 - Glossary

Term.	Definition
Active Energy Imported	In respect of a relevant premises, the quantity of electricity energy in Watt-hours (Wh), measured by the electricity meter as having been supplied to the relevant premises.
Active Network Management (or ANM)	A control system that manages separate components of a smart grid such as energy generators, renewable generation and storage devices by implementing software to monitor and control the operation of these devices and allows reconfiguration of the distribution network to optimise the availability of the connected devices.
After Diversity Maximum Demand (or ADMD)	Existing method of understanding loads on feeders of the low voltage network from each substation.
Anonymisation Code of Practice	The ICO's anonymisation code of practice, published by the ICO in November 2012.
BEIS	The Department for Business, Energy, and Industrial Strategy
Competition in Connections Code of Practice	A code of practice that licensees must have, maintain and comply with to facilitate competition in the Local Connections Market.
Connection Parties	Connection Parties means: a) any business of the licensee comprising the provision of connections to the licensee's Distribution System; b) any business of any Affiliate or Related Undertaking of the licensee comprising such provision; and c) any business of any other person comprising such provision
Consumption Data	Half-hourly Active Import and Reactive Import readings collected from customers' electricity Smart Meter.
Consumption Profile	An aggregated profile of electricity consumption at intervals throughout the day to show usage pattern at the substation, feeder or feeder section level.
Customers	A domestic customer of a Supplier who falls within an area covered by UK Power Networks' electricity distribution network.
Data Controller	A data controller is a person, company, or other body that determines the purpose and means of personal data processing (this can be determined alone, or jointly with another person/company/body).
Data Minimisation	A principle of the GDPR ensuring that the data processed is adequate, relevant and limited to what is necessary.
Data Privacy Plan	A document each DNO is required to produce, under Licence Condition 10 A.4 and 10A.5. The document should demonstrate that practices, procedures and systems can be implemented to aggregate or otherwise anonymise Consumption Data from household level Smart Meters to ensure that, as far as is reasonably practicable and cost-effective, it can no longer be associated with individual premises. This document, is UK Power Networks' Data Privacy Plan.
Data Processor	A data processor is responsible for processing personal data on behalf of a data controller.
DECC	The Department of Energy and Climate Change (the predecessor of BEIS)
Distribution Licence Condition (or Licence Condition)	The standard conditions of the Electricity Distribution Licence with which all DNOs must comply.

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Term.	Definition
Distribution Network Operator (or DNO)	A company licensed to distribute electricity in the UK. Distribution Network Operators own and operate the system of cables and towers that bring electricity from the high voltage transmission grid to industrial, commercial and domestic users.
DPA 2018	The Data Protection Act 2018
DPO	Data Protection Officer
DSO	Distribution System Operator
Energy Networks Association (or ENA)	The industry body for DNOs in the UK
ENA Generic Privacy Framework	The privacy framework produced by the ENA, which DNOs may use to inform their approach to privacy in relation to use of Consumption Data.
Feeder	The infrastructure that transmits electricity from a substation to customers' premises. There may be one or more Feeders linked to a substation.
GDPR	EU Regulation (EU) 2016/679 known as the 'General Data Protection Regulations', effective 25 May 2018
Harmonic	A voltage or current superimposed on a network that is produced by fluctuating loads such as rectifier, discharge lighting or motor operated equipment.
High Voltage	Nominal voltage over 1,000 volts but less than 22,000 volts
Independent Connection Provider (or ICP)	An accredited company that carries out works (e.g. new connections) on behalf of clients on the Distribution System or which when adopted by the DNO will form part of the Distribution System.
IDNO	Independent Distribution Network Operator
Input Services	Any essential input required to enable another party to connect to the licensee's Distribution System, as further clarified in the Competition in Connections Code of Practice.
Legal Obligation Condition	The condition set out in Article 6(1)(c) of the GDPR for the lawful processing of Personal Data.
Low Carbon Technology (or LCT)	New electrical demands including domestic electrical heat pumps and recharging of electric vehicles and small scale electrical generation, for example, domestic photovoltaic solar panels.
Low Voltage Network (or LV)	A distribution network operating at a nominal voltage of 1,000 volts or below.
MPAN	Meter Point Administration Number used to uniquely identify electricity supply points, including at individual domestic residences and business premises.
Ofgem	The regulator for gas and electricity markets in Great Britain.
Ofgem Letter	Open letter published by Ofgem on DNOs privacy plans for access to smart meter data.
Personal Data	Any information relating to an identified or identifiable natural person ('data subject'); an identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person.
PIA	Privacy Impact Assessment
Reactive Energy Imported	In respect of a relevant premises, the quantity of electricity energy in Watt-hours (Wh) measured by the Electricity Meter. Reactive Energy is the resultant power in watts of an AC circuit when the current waveform is out of phase with the waveform of the voltage, usually by 90 degrees if the load is purely reactive,

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Term.	Definition
	and is the result of either capacitive or inductive loads that can used for providing voltage management on the network
RIIO-ED1	Ofgem's RIIO-ED1 price control, which set the outputs DNOs are required to deliver for Customers and the associated revenues DNOs are allowed to collect in respect of those outputs for the eight-year period between 1 April 2015 to 31 March 2023.
Remote Terminal Unit (or RTU)	An electronic device that connects electrical switch gear and monitoring equipment, allowing remote switching operations to be carried out as well as the collection of data such as volts, amps and power to be sent back to the distribution network operators.
SECAS	Smart Energy Code Administration and Secretariat
Smart Energy Code (or SEC)	A multi-party agreement which defines the rights and obligations of Energy Suppliers, network operators and other relevant parties involved in the end to end management of Smart Metering in Great Britain.
Section 9 (or Section 9 duty)	The duty imposed on all DNOs under section 9 of the Electricity Act 1989 to develop and maintain an efficient, co-ordinated and economical system of electricity distribution.
Section of Feeder	The sections within a feeder. This is comprised of the points between link boxes and substations on a feeder or between different link boxes on a feeder.
Smart DCC (or Data and Communications Company)	The company granted a licence to manage the data and communications network to connect Smart Meters to the business systems of licenced suppliers, distributors and other authorised users.
Smart Meter	The next generation of electricity meters being installed in homes across Great Britain that have the capability to send consumption and voltage information to suppliers and distribution network operators.
Smart Meter Communication Licence	The licence granted by the Department of Business, Energy and Industrial Strategy (BEIS), and regulated by Ofgem, to Smart DCC allowing them to establish and manage the smart metering data and communications infrastructure.
Substation	A part of an electrical distribution system. Substations transform high voltage to Low Voltage, supplying electricity to customers in the local networks.
Supplier	A company that is authorised to supply electricity to a customer's premise.
Time of Use Tariff	Tariffs which charge different rates for electricity depending on the time of day.
User Entry Process Test	Tests required by Smart DCC which all users of Smart DCC must pass in order to show that the user is able to correctly interact with Smart DCC systems and that it complies with Smart DCC technical requirements and specifications.

Appendix I

Appendix I1 – UK Power Networks’ Draft Smart Meter Data Privacy Notice

At UK Power Networks, we are committed to protecting and respecting your privacy

Our smart meter data privacy notice sets out the basis on which we process smart meter consumption data that we collect about you. By processing, we mean when we collect, use, store, delete or access smart meter consumption data, which is considered to be personal data.

Please read this privacy notice carefully to understand our practices regarding smart meter consumption data and how we will treat it. We recommend that, from time to time, you visit our website to review this privacy notice and stay up to date with any changes to it.

This privacy notice is comprised of the following sections:

1. Personal data that we collect about you and the purposes for which we use your smart meter consumption data;
2. UK Power Networks’ legal basis for using smart meter consumption data;
3. Information about sharing smart meter consumption data;
4. Retention of smart meter consumption data;
5. Your data protection rights;
6. Changes to this privacy notice;
7. How to contact us

1. Personal data that we collect about you and the purposes for which we use your smart meter consumption data

Smart meters

Great Britain’s transition to smart meters is being led by energy suppliers, who are required by their licence conditions to take all reasonable steps to roll-out smart meters to all of their domestic and small business customers by the end of 2020.

Smart meters have the capability to record energy consumption in half-hourly intervals and communicate with energy suppliers and network operators. Traditional meters are not capable of doing this, and replacing them with smart meters is seen as an important step in helping to achieve a more reliable and cost-effective electricity system across Great Britain.

In the future, increasing uptake of solar panels, electric vehicles, battery storage and other technologies are likely to place increased demands on our network. It is essential that we are able to effectively manage our network to cope with this increasing demand in an efficient, coordinated and economical way. Consumption data obtained from smart meters can be used to provide us with a much clearer view of how much electricity is being consumed on our network, which is currently not available. In turn, this will help us to improve planning and prioritise work on the network, allowing us to deliver a more efficient service to our customers.

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Purposes for which we will use your smart meter consumption data

We are only interested in consumption data from smart meters for the value that it will provide in enabling us to improve our network management and the services that we provide to you. We have no intention to identify patterns of consumption on an individualised basis. We will apply aggregation techniques to the consumption data we collect, which will combine consumption values of multiple smart meters on the same part of the network. However, for a small amount of customers living in rural areas (1.89%), it will not be possible to aggregate smart meter consumption data, and we will need to store disaggregated smart meter consumption data.

We will process consumption data obtained from smart meters solely for the purpose of meeting our duties under Section 9 of the Electricity Act, to develop and maintain an efficient, co-ordinated and economical system of electricity distribution. For example, the information will assist us in understanding where and when energy is being used on the network, allowing us to improve the way we operate our electricity distribution network and the quality of service that we offer to our customers. Our use of electricity consumption data is regulated by Ofgem.

We may also use your information in the following ways:

- a) If we have reasonable grounds to suspect theft or abstraction of electricity from part of our distribution network; and
- b) If we are conducting a trial that has been approved by the Secretary of State. This is dependent on us giving customers at least 14 days' notice and the customer not objecting to being included in the trial.

We will not:

- a) use your information for marketing purposes or to contact you with adverts; or
- b) sell or provide your information to third parties for use for marketing purposes

2. UK Power Networks' legal basis for using smart meter consumption data

We believe that the processing of smart meter consumption data for the purposes set out in this privacy notice meets the requirements of the Legal Obligation basis. Under Section 9 of the Electricity Act 1989, we are legally obliged to develop and maintain an efficient, coordinated and economical system of electricity distribution. Smart meter consumption data will provide a more detailed insight into network electricity usage, enabling us to understand total volumes of energy movement and daily peaks of energy consumption. In turn, this will help us to prioritise work on the network and improve the efficiency of the network.

3. Information about sharing smart meter consumption data

We may share smart meter consumption data with consultants and universities who will process the data on our behalf, for example, to support a research project. The information will only be used to the extent that they need in order to carry out their specific tasks.

Before sharing any smart meter consumption data, we will have appropriate contractual arrangements in place with parties processing the data on our behalf. This will include obligations providing sufficient guarantees that the data will be adequately protected; that GDPR compliance is met; and that the data will not be used for any purpose other than those specified by us.

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In addition to the above, and in order to comply with licence conditions set on us by Ofgem, we will share smart meter consumption data with Independent Connection Providers (ICPs) and Independent Distribution Network Operators (IDNOs) to facilitate competition in the Local Connections Market. The data will only be made available to ICPs and IDNOs with whom we have entered into a framework agreement relating to the Competition in Connections Code of Practice.

4. Retention of smart meter consumption data

We will retain aggregated smart meter consumption data relating to different parts of the distribution network. For a small amount of customers living in rural areas (1.89%), it will not be possible to aggregate smart meter consumption data, and we will need to store disaggregated consumption data. Information such as names and addresses will be removed from the stored data.

From the date of collection, we will store smart meter consumption data for a period of 7-years. The stored data will be permanently and securely deleted automatically on a rolling 7-year period.

5. Your data protection rights

The GDPR provides you with a number of rights in relation to your personal data. As smart meter consumption data is considered to be personal data, you hold specific rights under the GDPR.

Based on our processing of smart meter consumption data under the legal obligation basis, the following rights are applicable to you:

- Right of Access to obtain a copy of the personal data that we hold;
- Right to Rectification to have inaccurate data corrected; and
- Right to Restrict Processing on the basis of inaccurate data being processed or where you believe the processing is unlawful but do not wish the data to be erased.

If you wish to exercise any of the rights set out above, please contact us using the details provided in the 'How to Contact us' section of this privacy notice.

6. Changes to this privacy notice

If in the future we make any changes to our privacy notice, the latest version of our privacy notice will be posted on our website.

7. How to contact us?

If you have any questions about this privacy notice, or about how we use personal information, please contact us on: DPO@ukpowernetworks.co.uk.

If you would like to contact us in writing, please use the below address and direct your correspondence to our Data Protection Officer:

UK Power Networks (Operations) Limited
237 Southwark Bridge Road
Camberwell, London
SE1 6NP

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References

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2	Low Carbon Network Fund Tier 1 Close Down Report	UK Power Networks	Dec. 2013
3	Long Term Development Statement (EPN, LPN and SPN)	UK Power Networks	May 2018
4	Smart Meters Act 2018	HMG	May 2018
5	Anonymisation: Managing Data Protection Risk Code of Practice	Information Commissioner's Office (ICO)	2012
6	Smart Meter Aggregation Assessment Final Report v1.5	EA Technology	June 2015
7	Consumer Attitudes to DNO access to HH Electricity Consumption Data	Ipsos MORI	March 2017
8	Can storage help reduce the cost of a future UK electricity system?	Carbon Trust / Imperial College London	2016
9	The findings of our review of the electricity connections market	Ofgem	2015
10	Information Commissioners' Office (ICO) - Guide to the General Data Protection Regulation (GDPR)	Information Commissioner's Office (ICO)	2018
11	Article 29 Data Protection Working Party Opinion 06/2014 on the notion of legitimate interests of the data controller under Article 7 of Directive 95/46/EC (2014) 844/14/EN WP 217	European Advisory Body	2014
12	Article 29 Data Protection Working Party Opinion 12/2011 on Smart Metering (2011) 00671/11/EN WP 183	European Advisory Body	April 2011