

NATIONAL GRID ELECTRICITY DISTRIBUTION

Smart Metering – Obtaining and Using Consumption Data Relating to Domestic Premises

DATA PRIVACY PLAN

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Approved by the Gas & Markets Authority

in accordance with Standard Condition 10A
of the Distribution Licence

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	<p><u>This will enable us to maximise the benefits of smart meter data in relation to the development of flexibility services.</u></p> <p><u>1.21(b), 1.7, 1.31, 2.4, 2.5, 2.7, 3.6, 5.2 5.3, 5.12 6.11 amended.to insert "section of LV feeder"</u></p>
25/05/2022	<p>Anonymisation process</p> <p>To add a new provision for the anonymisation of smart meter data from groups of domestic customers who have entered into a flexibility contract.</p> <p>Additional sub-para at 1.21</p> <p>c) aggregate Consumption Data i.e half hourly readings (or consumption profiles) in a bespoke Reading Group with an auto-generated Group-id for groups of customers (of at least 10) who have entered into a flexibility agreement. The feeder and substations will not be identified within the secure database The Consumption Data aggregation process is shown as Schedule 4 to the PIA.</p> <p>And highlighted at 3.19</p>
15/05/2021	<p><u>Housekeeping Changes</u></p> <p>Introduction - Changes to commentary to reflect changes to smart meter roll-out timetable paragraph 1.4 and Schedule 7</p> <p>EU Exit changes affecting GDPR, Deletions on Page 42 & 58 for EU EXit</p>
15/05/2021	<p><u>Anonymisation process</u></p> <p>Changes to clarify three stage process for anonymization and aggregation. Data is anonimised on receipt and the unanonymised consumption data deleted. Aggregation of anonymised</p>

	<p>consumption data will take place within 1-2 days, and the anonymised consumption data will then be deleted. Paragraphs 1.19, 2.8, 5.5, and 5.7 and page 57</p>
<p>15/05/2021</p>	<p><u>Use of Consumption Data</u></p> <p>Changes to highlight that aggregated consumption data may be used to monitor the impact of social changes such as increased working from home during/following the pandemic and also to help vulnerable customers benefit from LCT, smart metering technology and the net zero future. Paras 1.7, & 3.18,</p>

1. Executive Summary

- 1.1 This Data Privacy Plan demonstrates how NGED will meet the requirements of Licence Condition 10.A.4, allowing NGED to collect and process domestic smart meter Consumption Data which relates to a period of less than one month.
- 1.2 Personal Data which is effectively anonymised will cease to be Personal Data and its processing will fall outside the scope of the DPA. NGED's approach is that anonymised Consumption Data will still be treated as Personal Data. On that basis, the minimisation, aggregation, anonymisation and other techniques used by NGED to safeguard Customers' privacy form part of its overall privacy solution, alongside its other privacy measures set out in this Data Privacy Plan and NGED's Privacy Impact Assessment.
- 1.3 In particular, this Data Privacy Plan:
- (a) sets out the nature of the data NGED will collect and process, the format in which NGED will store it; the period of time for which it will be retained; and the nature of the individuals from whom it will be collected;
 - (b) summarises how use of Consumption Data favourably compares to use of traditional electricity Consumption Data and the overall benefits NGED anticipates use of Consumption Data will bring;
 - (c) provides assurances that Consumption Data will not be used by us for marketing purposes or sold to third parties for commercial or marketing purposes;
 - (d) provides information about how NGED will collect, maintain, secure and use the Consumption Data, and explains who will be responsible for carrying out these activities;
 - (e) explains how NGED has considered the best available techniques for minimisation, aggregation, anonymisation and other techniques to safeguard Customers' privacy;
 - (f) includes a copy of NGED's Privacy Impact Assessment carried out by NGED in relation to its Smart Metering Implementation Programme;
 - (g) sets out how NGED's IT systems conform to ISO 27001 and ISO 27005 standards; and
 - (h) explains how NGED has engaged with relevant third party stakeholders in developing this Privacy Plan. In addition Ofgem has consulted with BEIS, the ICO and Citizen's Advice during the informal assessment of this Plan.
 - (i) The plan is structured to align with the OFGEM open letter to DNO's (30th September 2016) which identified eight key criteria which it is necessary for DNOs' privacy plans to meet. It should be read in conjunction with NGED's Privacy Impact Assessment (PIA), a copy of which is included at Appendix 1 of this Data Privacy Plan.

Introduction

What are the benefits of having access customer's smart meter data

- 1.4 The UK Government's Smart Metering Programme is targeting Energy Suppliers to install standardised intelligent meters in domestic energy consumers' homes by the end of 2025. Smart metering has a number of potential benefits for DNOs and Customers. By having access to **Consumption Data** obtained from smart meters, DNOs will be able to improve the management, safety and efficiency of their electricity distribution networks.
- 1.5 The Smart Metering Programme provides an opportunity for NGED to gain greater visibility of the operational parameters of the LV network. As a result of this NGED will be able to improve the electricity distribution network infrastructure with associated cost benefits. (See Appendix 3)
- 1.6 The introduction of LCTs (Low Carbon Technologies) such as heat pumps and electric vehicles has the potential to significantly increase the loading on localised sections of LV network. Widespread embedded generation means that voltage regulation is becoming an increasing challenge, along with managing two-way power flows. The additional functionality and information available from the implementation of smart meters represents a significant opportunity for DNOs to better understand the impact of this and address these challenges.
- 1.7 In addition, existing planning assumptions are increasingly being challenged due to the proliferation of micro generation on the LV network. At present, the majority of power load data is derived from measurements at primary substations but at low voltage, existing indicators provide a limited view of loads at distribution substations and no load duration is collected. Consumption Data derived from smart meters may be used to provide a more detailed view of the network by LV Feeder, Section of LV Feeder, distribution substation or other aggregated group (of at least three). This will provide a more comprehensive understanding of where there are issues on the network and where there is adequate capacity to accommodate additional connections or more LCTs. Better consumption data also provides the opportunity to understand the effect of social changes on consumption patterns such as the move to increased home working following the Covid-19 pandemic. Further studies may enable NGED to understand the extent to which vulnerable customers are able to benefit from smart metering technology and increased LCT.
- 1.8 In order to fully realise these benefits, NGED requires access to smart meter Consumption Data at half-hourly intervals in respect of each customer's meter. Collecting and processing of Consumption Data at these granular intervals is considered to be a data privacy issue, as a detailed profile of the energy consumption of a household may theoretically be used to deduce aspects of the lifestyle of a private individual. To that end, Licence Condition 10A.2 prohibits DNOs from processing any Consumption Data which relates to a period of less than one month unless they are able to meet certain conditions.
- 1.9 Consumption Data may be used to create a more detailed profile of the loads experienced at points on the network. This can support the identification of overloaded sections of network and aid in the prioritisation of transformer replacement where load issues have been identified. For example, whilst existing indicators may suggest that a substation is overloaded, aggregated metering data obtained using smart meters is capable of demonstrating whether this is an anomaly, or whether the site is experiencing high loads on a regular basis.
- 1.10 Unlike Suppliers, who need to know an individual Customer's electricity consumption in order to charge them for the electricity they have used, NGED will not typically be interested in the consumption pattern of individual households. Instead, NGED needs to know about the total volumes of energy moving across the various parts of the distribution network at each point in time. NGED can establish these total volumes by adding together the Consumption Data

for all Customers on the same part of the network and combining this with Consumption Data collected from any larger business customers on that part of the network.

- 1.11 This aggregated and anonymised data (by LV Feeder, Section of LV Feeder, distribution substation or other aggregated group (of at least three)) will provide NGED with enhanced visibility into electricity demands of the Low Voltage network to inform network planning, forecasting and reinforcement.

How we are going to treat customer data

- 1.12 Licence Condition 10A.4 permits a DNO to collect and process **Consumption Data** relating to a period of less than one month provided the DNO has first submitted a Data Privacy Plan to Ofgem demonstrating it can implement practices, procedures and systems designed to ensure that, so far as is reasonably practicable, the outcome described at Licence Condition 10A.5 is achieved. Once the DNO has implemented the relevant practices, procedures and systems, and received approval from Ofgem in relation to its Data Privacy Plan, the DNO can then access the Consumption Data pursuant to Licence Condition 10A.4. The Licence Condition is shown at Schedule 6 to the PIA.

- 1.13 The outcome in Licence Condition 10A.5 is as follows:

"... [Consumption Data] which is obtained by the [the DNO] and which relates to a period of less than one month ceases (through its aggregation with other [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".

- 1.14 Smart meters collect data about Customers' electricity consumption at half hourly intervals in respect of each Customer MPAN and store it as a profile log (i.e. the half hourly meter readings) for the relevant Customer.

- 1.15 NGED will receive unanonymised Consumption Data automatically from Customers' smart meters via processes and infrastructure governed by the Smart Energy Code. These processes and infrastructure link NGED to the Ofgem-regulated Data Communications Company (DCC) via secure data transmission.

- 1.16 The DCC provides a service which allows Consumption Data to be provided on a regular, scheduled basis. Consumption Data will be accessed by NGED on a monthly basis for all smart meters connected to the NGED network.

1.17

1.18

- 1.19 Each month NGED will request a copy of the half hourly meter readings for each customer with a smart meter to be provided automatically. This data is unanonymised.

1.20

1.21

- 1.22 NGED will retain aggregated anonymised data in a secure database as:

(a) the total of the half-hourly consumption for the month to give an aggregate monthly figure for each customer MPAN. SLC10A does not apply to this data. And this data is not

considered to be personal data.

(b) aggregate half hourly readings (or consumption profiles) for each LV Feeder, Section of LV Feeder, distribution substation or other aggregated group (of at least three). This data is referred to as Consumption Data. SLC10A requires this data to be anonymised where reasonably practicable to do so. The Consumption Data aggregation process is shown as Schedule 4 to the PIA.

(c) aggregate Consumption Data i.e. half hourly readings (or consumption profiles) for groups of customers (of at least 3) who have entered into a flexibility agreement. The Consumption Data aggregation process is shown as Schedule 4 to the PIA.

- 1.23 A feeder is a low voltage circuit running from a distribution substation to one or more customer's premises. NGED's network serves 7.8million connected customers.
- 1.24 For a small minority of domestic customers, where they are the only customer connected to a Feeder it will be possible for NGED to identify individual Customers from the Consumption Data if it is combined with other information such as the feeder/substation reference or the MPAN. The diagrams in Schedule 2 of the Privacy Impact Assessment highlight the differences which may arise between Feeders located in rural areas and those located in urban areas. The Consumption Data is therefore considered to be Personal Data for these customers.
- 1.25 NGED has considered whether it may be possible to render the Consumption Data anonymous through the use of data aggregation. This approach would require NGED to aggregate data relating to each premises so that the risk of an individual's meter reading (and therefore the Customer) being identified from it becomes virtually impossible. Complete anonymisation would mean that NGED would not be required to comply with the DPA in respect of such data (on the basis that it would no longer be Personal Data).
- 1.26 NGED has concluded that in practice, although anonymisation of Consumption Data through aggregation is effective for over 99% of domestic customers, it is not a completely effective privacy solution for the remaining 1% of domestic customers.
- 1.27 Aggregating Consumption Data to render it completely anonymous would mean for many areas covered by NGED, multiple Feeders would need to be combined. This would reduce the level of network visibility and ultimately reduce the overall benefits of smart meters for NGED and for Customers particularly in rural areas.
- 1.28 NGED's network is the largest of all the DNO groups. It serves a population roughly half urban and half rural with low population density. Across the whole of NGED's four DNO areas, one third of all feeders serve two or less Customer MPANs. This accounts for 1.89% of Customer MPANs. 39% of feeders serve three Customer MPANs or less, accounting for 2.67% of MPANs. Over 97% of customers are served by a feeder with three or more other customers, and over 93% of customers are located on feeders with 10 or more other customers.

Customer MPANs/feeder	Number of feeders		Number of Customer MPANs	
1 MPAN only	79,121	22.27%	79,121	0.96%
2 MPANs or less	116,993	32.93%	154,865	1.89%
3 MPANs or less	138,482	38.98%	219,332	2.67%
5 MPAN or less	162,635	45.78%	326053	3.97%
10 MPANs or less	191,247	53.83%	546571	6.65%

11 or more MPANs	164,001	46.17%	7668572	93.35%
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- 1.29 As we cannot render all Consumption Data anonymous through aggregation, NGED's approach is to treat the Consumption Data as Personal Data. Aggregation will still be carried out on the understanding that whilst the aggregation process will not be sufficient to render the Consumption Data anonymous, aggregation will form a key part of NGED's wider privacy solution. For example, it will enable NGED to ensure that it does not Process Personal Data excessively.
- 1.30 Consumption Data will be retained for five years on NGED's secure server before being permanently deleted.
- 1.31 NGED's view is that in the vast majority of cases, the Legal Obligation Condition will apply in relation to its Processing of Consumption Data. However, in some circumstances it is possible that the Legitimate Interests Obligation may apply. For completeness, these topics are covered in Schedule 5 to the PIA (Legal basis for Processing Consumption Data).
- 1.32 Therefore NGED's Data Privacy Plan explains the practices and procedures that NGED intends to use to ensure that, as far as is reasonably practicable, data is anonymised and kept secure as personal data, including in areas with a very small number of customers on a feeder. To realise the benefits of smart metering data, we need to be able to link half hourly meter readings to the LV Feeder, Section of LV Feeder, distribution substation or other aggregated group (of at least three) to which they relate in order to generate a load profile for that feeder or group type. This time of day load data will enable us to work out which smart solutions can be applied to manage load, at what time of day, as an alternative to reinforcement.
- 1.33 External consultation with key stakeholder groups has been carried out by NGED and the ENA acting on behalf of DNOs. This consultation has provided information about the attitudes of external groups (including Customers) towards DNOs accessing smart meter data within the scope of the data access and privacy framework. NGED will continue to keep abreast of, and participate fully in, any further consultation work undertaken by the ENA. In addition, NGED has consulted with Ofgem and the ICO on an on-going basis, independently of the ENA. NGED's Stakeholder presentation is shown as Appendix 6.
- 1.34 NGED will keep under review any emerging threats or potential risks that may affect how its process personal data and document the considerations and safeguards, in-line with GDPR Article 5(2) requirements. Article 5, paragraph 2 of the GDPR requires data controllers to be responsible for, and to be able to demonstrate compliance with, Article 5, paragraph 1 (which sets out the key overarching principles relating to the processing of personal data, e.g. "*personal data must be processed fairly and lawfully and in a transparent manner...*"). Where NGED becomes aware of any threats or risks relating to use of Consumption Data, it will have in place policies and procedures to assess whether a privacy impact assessment should be carried out to identify any necessary revisions to the Data Privacy Plan. For example, it may be appropriate to carry out a privacy impact assessment where the DCC has implemented new technology, or where NGED identifies new technology, techniques or methods being used by third parties to gain access to the Consumption Data.

2. Data to be Accessed – OFGEM Criteria 1

“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.”

Consumption Data

- 2.1 For the purposes of this plan NGED defines Electricity Consumption Data to be both Active Import and Reactive Import HH readings. NGED consider these readings to be personal data as defined within the Data Protection Act.
- 2.2 For the purposes of this plan this data will be referred to as “Consumption Data”. Whilst NGED consider this data to be personal it does not include any sensitive personal information.
- 2.3 The Consumption Data will be stored on NGED's secure servers.
- 2.4 Smart meters Consumption Data at half-hourly (HH). This Consumption Data will be stored by NGED in the form of a monthly total consumption per Meter and a Consumption Data Profile per Feeder, Section of LV Feeder, distribution substation or other aggregated group (of at least three) which shows electricity usage at half hourly intervals throughout the day. An illustrative example of a Consumption Data Profile is included in Appendix 2 of this Data Privacy Plan.
- 2.5 When a DCC operated smart meter is installed by a Supplier at any domestic or small non-domestic premises, NGED will schedule routine collection of Consumption Data from that Smart Meter on a monthly basis. The Consumption Data received by NGED will be used to generate:
 - (a) Total consumption in respect of each Meter; and
 - (b) Aggregated monthly HH profile data in respect of the Feeder, Section of LV Feeder distribution substation or other aggregated group (of at least three) the customer is connected to.

Purposes for which NGED will use Consumption Data

- 2.6 NGED will ensure Consumption Data is used strictly for the purpose of meeting its Electricity Act Section 9 Duty, or strictly in accordance with Licence Conditions 10A.6, 10A.7, or 10A.8. In general, this means NGED will only use Consumption Data to develop and maintain an efficient, co-ordinated, and economical system of electricity distribution. (See section 4 for more information on use of consumption data).

For how long will Consumption Data be retained?

- 2.7 NGED will retain the monthly consumption per Meter and aggregated Consumption Data for Feeder, Section of LV Feeder, distribution substation or other aggregated group (of at least three) only for as long as it needs to for the purposes stated in paragraph 3.6 of this Data Privacy Plan. In practice, this means NGED will generally hold the Consumption Data (which is only customer specific for 1% of customers) for a period of five years. For 99% of customers NGED will hold aggregated level Consumption Data, and will not retain any individual disaggregated Consumption Data.

2.8

2.9 Section 6 of this Data Privacy Plan sets out NGED's approach to aggregation of Consumption Data.

3. Use of Consumption Data - OFGEM Criteria 2

“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 (eg network benefits, consumer benefits, future development of smart grids etc.).”

- 1.1 As the UK progresses towards a low carbon technology future NGED will need to have a better understanding of how and when energy is used. This will assist us in assessing the impact on the network as customers connect additional loads such as space heating and electric vehicle chargers.**

Current Consumption Data

- 3.1 Currently most customers do not have half hourly metering installed. At present, for each customer premises, NGED receives a total of annual consumption from Suppliers together with any periodic meter readings taken. This does not provide details of how the consumption pattern changes throughout the course of a day or a year or any real data on the maximum demand for that “feeder”. A feeder is a low voltage circuit running from a distribution substation to one or more customer’s premises.
- 3.2 Currently the maximum demand on a HV/LV substation or an LV Feeder is assessed using either an estimated annual kWh consumption in conjunction with a hypothetical load profile, or an assumed after diversity maximum demand ("**ADMD**") for each connected Customer. The LV load profiles and ADMD are based on historic data gathered by industry load researchers as far back as the 90s prior to the use of low carbon technologies.
- 3.3 ADMD recognises that the power consumption of individual premises is often less than the maximum permitted, and that in a cluster of individual premises there is rarely coincidence of maximum demand. ADMD is an assumed maximum demand for the Customer at the time of the highest demand on the substation or LV circuit.
- 3.4 These planning assumptions are normally conservative. Maximum demand is often over-estimated resulting in an LV system with a level of spare capacity and inherent robustness. However these traditional assumptions are being challenged by the different types and patterns of consumption introduced through the use of low carbon technologies such as heat pumps, electric vehicles, and distributed generation.
- 3.5 Currently there is very limited scope to corroborate these planning assumptions. The majority of load data is derived from measurements at higher voltages. At LV, maximum demand indicators provide a limited view of maximum loading on distribution substations, but no load profile data is collected, and the load on individual LV Feeders is not measured. Portable monitoring instruments are used to diagnose voltage and current issues on the LV network, but these expensive tools are only used when problems are highlighted.

Future Consumption Data

- 3.6 To realise the benefits of smart metering data, we need to be able to link half hourly meter readings to the LV Feeder, Section of LV Feeder, distribution substation or other aggregated group (of at least three) to which they relate in order to generate a load profile. This time of day load data will enable us to work out which smart solutions can be applied to manage load, at what time of day, as an alternative to costly reinforcement.
- 3.7 The costs associated with accessing this consumption data are relatively low, given that we are investing in the infrastructure necessary to communicate with each smart meter for other

purposes such as power outage alerts. The alternative method of obtaining similar data would involve the installation of hundreds of thousands of measuring devices on distribution transformers and LV Feeders across the network, and the establishment of a data communication system for the remote acquisition of the measured data. This would require significant investment.

- 3.8 Use of smart meters will enable NGED to obtain a half-hourly Consumption Data Profile in respect of each Meter. Where possible, Consumption Data will be aggregated to provide a detailed view of the network by LV Feeder and distribution substation. This will provide two major benefits for DNOs:
- (a) more detailed information about network loading and voltage, that will allow better prioritisation of reinforcement work; and
 - (b) better information when designing connections, potentially reducing the time to connect as well as the cost of connection.
- 3.9 Two specific applications for which NGED will use Consumption Data include load related network investment, and new / augmented connections.

Load related network investment

- 3.10 Network planning involves checking that loading is within the operational and thermal capacities of network components. Demand which is over or under-estimated leads to inefficiency: the former through unnecessary reinforcement of the network, and the latter through network issues that arise as a result of overloading (including, for example, degraded power quality and loss of supply due to component failures).
- 3.11 NGED will aggregate half-hourly Consumption Data to create an accurate and more detailed profile of the loads experienced at different points on its network. This will enable more accurate identification of overloaded sections of network and inform the prioritisation of load-related network investment. This will become increasingly important as loads on the network increase to decarbonise heat and provide electric vehicle charging.
- 3.12 The Efficiency Incentive in the RIIO-ED1 framework works by sharing savings between DNOs and customers. NGED will get to keep a proportion of any savings made in load-related network investment, and Customers should benefit by having the rest of the savings returned through lower DUOS Charges. In NGED's case the efficiency incentive rate is 70%.

New / augmented connections

- 3.13 As with load-related network investment, the availability of authentic and more detailed load profile information will enable the thermal capacity headroom in network components to be determined more quickly. This will enable NGED to more quickly process Customer requests for new connections or additional loads (for example, to connect low carbon technologies). Improved access to such information will help reduce the decision making time and may also result in lower connection and use of system charges by avoiding unnecessary network reinforcement.
- 3.14 Where there is insufficient thermal capacity headroom for additional load at peak times, the Consumption Data Profile will reveal the times of day where the headroom will be adequate. Customers may be able to elect for a restricted time of use arrangement in exchange for lower connection charges rather than pay extra to reinforce the network for peak-time use.
- 3.15 Equipment installed solely for use by a single Customer is charged wholly to that Customer, whereas the costs associated with reinforcing shared parts of the distribution system is split

with a share attributed to the connecting party and the remainder being indirectly funded by all Customers through DUoS Charges. The costs are apportioned in accordance with defined Apportionment Rules.

- 3.16 The apportionment rules do not apply to reinforcement undertaken in compliance with Distribution Licence Condition 13C (i.e. small scale embedded generation, heat pumps and electric vehicle charging equipment are to be employed at existing whole current metered premises). In these instances the cost of reinforcing shared assets will be indirectly funded by all Customers through DUoS Charges. Avoiding reinforcement reduces the cost of connecting Customers and reduces the amount of work required to provide a connection.
- 3.17 The Time To Connect Incentive in the RIIO-ED1 framework aims to encourage DNOs to develop ways to speed up the various elements of providing a connection, including reducing the time taken to provide a quotation and, once the offer is accepted, reducing the time taken to complete the necessary connection works. Use of Consumption Data will assist NGED in providing quotations more quickly and determining which connections requires reinforcement.

Future applications

- 3.18 Many low carbon innovation projects are aimed at improving network utilisation by understanding, influencing or controlling the time of use. Use of Consumption Data obtained from smart meters provides an essential feedback mechanism in relation to these projects. NGED may also seek opportunities to work with Suppliers to exploit the potential of Time-of-Use tariffs and load shifting. These projects may involve studies of changes to time of use consumption due to social changes such as increased homeworking post pandemic, the increased take-up of electric vehicles and looking at ways to ensure vulnerable customers are able to access the benefits of smart metering technology and LCTs. We will carry out a DPIA for every project to comply with UK GDPR requirements.
- 3.19 ***We are looking to facilitate the participation of Domestic customers in our Flexibility Services (via third parties such as suppliers and aggregators). One potential barrier for providers is the collection of appropriate metering data for validation and settlement. If this data could be collected via existing smart meter infrastructure then there is one less technical requirement needed for participation. For smaller providers, such as community energy groups, this could significantly improve access. We assess the delivery of services at an aggregate level, and so would want to be able to aggregate a number of domestic premises into a portfolio, hence there would be a need for a more flexible way of aggregating customer data.***

Quantification of benefits

- 3.20 Modelling of the network using Consumption Data improves as the number of smart meters in use increases upwards from 80% saturation. In our RIIO-ED1 Business Plan, NGED estimates that improved knowledge of actual network loading will lead to an eventual 5% reduction in load and connection related reinforcement.
- 3.21 The financial benefit that NGED estimated when submitting our ED1 Business Plan is shown in the table below and in Appendix 3 of this Data Privacy Plan.

Estimated financial benefit of smart metering to WPD (£m)								
Year	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23
Efficiency saving on load-related reinforcement	0.00	0.00	0.00	0.00	0.00	0.43	0.70	0.85
Efficiency saving on connections-related reinforcement	0.00	0.00	0.00	0.00	0.00	0.50	0.80	0.98
Benefits for demand side response and active network management	0.00	0.00	0.00	0.00	0.00	0.5-1.5	0.5-1.5	0.5-1.5

The Table shows gross benefits and does not take into account the effect of the incentive mechanisms.

4. Commercial Use – OFGEM Criteria 3

“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 anonymization”.

4.1 NGED will ensure Consumption Data is used strictly for the purpose of meeting its Electricity Act Section 9 Duty, or strictly in accordance with Licence Conditions 10A.6, 10A.7, or 10A.8. NGED will not use the Consumption Data for any other purposes (whether commercial or non-commercial). This means that where NGED processes any Smart Meter Consumption Data, it will only do so in order to improve the safety or efficiency of its network. Subsidiary to this is Distribution Licence Condition 52.2(b) (ii) which requires NGED facilitate competition in the Local Connections Market through providing Input Services on an equivalent basis to all Connection Parties that operate in the Local Connections Market. An Input Service means 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. Use of domestic half hourly consumption data related to a single feeder will only be an essential input if it is required by an Independent Connections Provider (ICP) to design the connection to meet NGED published requirements. NGED’s Procedure for network analysis by Independent Connection Providers (ICPs) specifies the procedure where an ICP is to determine the ‘Point of Connection’ and / or self-approve the scheme design. Half hourly Consumption Data which is aggregated is not personal data.

4.2 NGED will maintain this approach both in respect of Consumption Data which has, and has not, been aggregated. In its Privacy Impact Assessment, NGED has identified the risks of Consumption Data being used for unauthorised purposes, and has proposed various solutions to address these risks.

Consumption Data will not be used for marketing or advertising purposes, or sold to third parties

4.3 The ICO (Information Commissioner’s Office) has highlighted unsolicited marketing and advertising messages as a practice that is particularly intrusive when it comes to individuals’ privacy rights. NGED will not use Consumption Data to contact individuals with marketing or advertising communications. NGED will implement measures in order to ensure this approach is strictly adhered to. For example, NGED will ensure its staff are appropriately trained in the limited purposes for which Consumption Data may be used, and that it has in place appropriate policies and procedures which must be followed, restricting use of Consumption Data for marketing or advertising purposes (see Paragraph 7 of NGED’s Privacy Impact Assessment; table entitled “Identification of Privacy Risks and Solutions”; Risk 5).

4.4 Consultation carried out by DECC/BEIS has highlighted the public’s concern that Personal Data collected via Smart Meters may be used to generate a detailed profile of Customers’ electricity consumption throughout the day. This profile of household electricity consumption may be valuable to third parties. For example, third parties may wish to use it for statistical, research, marketing or advertising purposes. It is NGED’s policy that Consumption Data will not be sold to third parties for these purposes. NGED will implement various measures to ensure Consumption Data is not used for these purposes (see Paragraph 7 of NGED’s Privacy Impact Assessment; table entitled “Identification of Privacy Risks and Solutions”; Risk 6).

Risk of unauthorised third party access

4.5 NGED has identified in its Privacy Impact Assessment that there is a risk third parties may gain unauthorised access to Consumption Data and use it for unauthorised purposes (see Paragraph 7 of NGED’s Privacy Impact Assessment; table entitled “Identification of Privacy Risks and Solutions”; Risk 5). This may arise where there has been a technical security

breach (e.g. where a third party hacks into a computer system) or an organisational security breach (e.g. where information is accidentally shared with an unauthorised third party). For 99% of customers there is no risk of unauthorised access as we will not be storing their HH consumption data at all.

- 4.6 NGED has implemented various technical and organisational measures to mitigate these risks (see Paragraph 7 of NGED's Privacy Impact Assessment; table entitled "Identification of Privacy Risks and Solutions"; Risk 5). In particular, use of industry standard DCC infrastructure and implantation of NGED's own information security policies, procedures and training. In particular NGED's systems are not connected to the public internet. Access to the internet is provided via completely separate servers.

Contractual arrangements with third parties prohibit use of Consumption Data for commercial purposes

- 4.7 In certain circumstances, NGED may need to share Consumption data with third parties working on behalf of NGED including;
- (a) Universities or consultancies carrying out research projects or modelling data on NGED's behalf;
 - (b) Individual contractors employed by NGED to carry out research or data modelling for NGED;
 - (c) Sub-contractors carrying our works on the network on NGED's behalf;
 - (d) Independent Connection Providers who request access to Consumption Data relating to a specified NGED LV Feeder, Section of LV Feeder, distribution substation or other aggregated group (of at least three) in order to design a connection, under circumstances where NGED policy specifies that this is an essential input i.e. that the ICP is unable to design the connection to meet NGED's published policy requirements without this data.

- 4.8 In sharing any Consumption Data with third parties, NGED will ensure it has in place:
- (a) internal policies and procedures setting out the types of third parties with which Consumption Data may be shared and for what purposes; and
 - (b) appropriate contractual arrangements with those third parties, restricting the way in which they may use the Consumption Data (for example, third parties will not be permitted to sell Consumption data, or share it with any other third parties (see Paragraph 7 of NGED's Privacy Impact Assessment; table entitled "Identification of Privacy Risks and Solutions"; Risks 6 &7).

Transparency about use of Consumption Data

- 4.9 NGED will include in the annual newsletter it sends out to Customers (Power for Life) a summary privacy notice. This will explain, in plain English, how NGED will use Consumption Data, make it clear that Consumption Data will not be used for marketing or advertising purposes or sold on to any third parties and provide details of the NGED Website where more information can be found. We will also put information on our website, see paragraph 10.9 below.
- 4.10 The NGED Website will include a full version of the Privacy Notice describing in more detail why NGED will collect consumption data, the nature of the Data, how it will be collected, how long it will be retained and the security measures and controls which will be used to safeguard it.

- 4.11 Customers who have concerns or complaints about how their Consumption Data is being used (including concerns about their Consumption Data being sold to third parties, or used for commercial purposes) will be provided with a straightforward means of contacting NGED via telephone or email.
- 4.12 NGED has consulted with the ICO in relation to the form of its privacy notice to ensure complies with the requirements of the DPA (see paragraph 7 of NGED's Privacy Impact Assessment; table entitled "Identification of Privacy Risks and Solutions"; Risk 1).

5. Data Processing – Ofgem Criteria 4

“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).”

- 5.1 Consumption Data will be obtained and stored where Licence Condition exceptions have been satisfied. For individual requests, and trials, data will only be collected following explicit consent from the customer being received.
- 5.2 In addition HH meter reading data will be obtained on a monthly basis. This will be used to generate:
 - (a) A total monthly consumption figure for each Meter and;
 - (b) Half Hourly consumption profile per LV Feeder, Section of LV Feeder, distribution substation or other aggregated group (of at least three) (Consumption Data)
- 5.3 As such Aggregated Consumption Data will be held in the following format:
 - (a) By Customer – Monthly consumption total
 - (b) By LV Feeder, Section of LV Feeder, distribution substation or other aggregated group (of at least three) – Aggregated monthly consumption profile
- 5.4 For each of these formats data will be de-identified so that a coded reference or pseudonym is attached to a record, which allows the data to be associated with a particular part of the electricity network but without individuals being identified through more obvious means such as MPANs, names and addresses.
- 5.5 Unanonymised customer specific HH Consumption Data will not be held on a database, or stored in a file, but will be totalled and aggregated as soon as reasonably practicable after receipt in a timely and secure manner. Following the completion of the totalling and aggregation processes the unanonymised HH Consumption Data will cease to exist as it has never been saved onto NGED’s systems. Within a reasonable time, following receipt, the anonymised meter readings will be aggregated for all readings for a group. Following aggregation the anonymised meter readings data will be deleted.
- 5.6 Monthly meter totals can be combined to provide monthly consumption totals for LV Feeder, Section of LV Feeder, distribution substation or other aggregated group (of at least three).
- 5.7 Monthly meter totals, LV Feeder, Section of LV Feeder, distribution substation or other aggregated group (of at least three) and customer HH data meeting the three licence condition exceptions will be retained in secure databases.
- 5.8 Access to stored data will only be granted to authorised staff via defined NGED functions that enforce agreed privacy rules.
- 5.9 Full audit trail information will be retained to prove adherence to the privacy rules.
- 5.10 Data will be retained for a period of five years at feeder level to enable strategic planning of the HV networks.
- 5.11 The table in Appendix 4 of this Data Privacy Plan summarises how, where, when and NGED will collate, maintain, use and delete Consumption Data securely and cost-effectively and who will be responsible for these activities.

6. Data Protection Techniques – OFGEM Criteria 5

“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.”

6.1 In developing its Privacy Impact Assessment, NGED has discussed with the ICO the risk of aggregated Consumption Data being linked to a particular individual. In particular, the fact that the risk is greater when Consumption Data from a small number of households is aggregated, compared to when Consumption Data obtained from a large number of households is aggregated. In practice, this means the privacy risks may be greater in the following circumstances:

- (a) when there are only a small number of smart electricity meters on a particular Feeder; and
- (b) in the period of time before the Consumption Data collected from a particular household has been aggregated with the Consumption Data of a sufficient number of other households so as to effectively render it anonymous.

6.2 In order to ensure Consumption Data is safeguarded (particularly in the circumstances set out in paragraph 6.1(a) and (b) of this Data Privacy Plan) NGED will implement the range of privacy measures set out in its Privacy Impact Assessment (see paragraph 7 of NGED’s Privacy Impact Assessment, table entitled "Identification of Privacy Risks and Solutions").

Data minimisation and data masking

6.3 In its Guide to Data Protection, the ICO identifies data minimisation and data masking as two key ways of reducing privacy risks. The concept of data minimisation centres on the idea that data controllers should only collect and process the minimum amount of Personal Data they need to fulfil properly the purpose(s) for which they are collecting and processing the Personal Data. The ICO describes the concept of data masking as the process of stripping out obvious personal identifiers, such as names, from a piece of information.

6.4 NGED will process and hold aggregated Consumption Data in the form of a Consumption Data Profile. This amounts to the minimum Personal Data NGED requires in order to meet the lawful purposes for which it will be processing the Consumption Data (specifically processing the Consumption Data in order to comply with its Electricity Act Section 9 Duty, or in accordance with Licence Conditions 10A.6, 10A.7 and 10A).

6.5 Identifiers such as MPANs, names, telephone and addresses are not included within the Consumption Data Profile database. For example, the Consumption Data Profile does not include any information relating to electricity suppliers, bills, tariffs, or the individual occupants of a household. This is consistent with the principle of data minimisation and data masking and has the following advantages:

- (a) Removal of identifiers reduces the risk of an individual being linked to the Consumption Data; and
- (b) The nature of the Consumption Data Profile (and the limited information it provides about individuals) means that the information is less likely to be desirable to unauthorised third parties.

Anonymisation through aggregation

- 6.6 The ICO Anonymisation Code of Practice provides guidance on the use of anonymisation techniques which may be used to reduce privacy risks associated with processing personal data, including guidance on the anonymisation of Personal Data through aggregation.
- 6.7 The ICO Anonymisation Code of Practice acknowledges that anonymisation "*does not have to be completely risk free*" and that in order to effectively anonymise Personal Data, "*you must be able to mitigate the risk of re-identification until it is remote*". Personal Data which is effectively anonymised will cease to be Personal Data and its processing will fall outside the scope of the DPA.
- 6.8 The ICO Anonymisation Code of Practice states: "*In reality it can be difficult to determine whether data has been anonymised, or is still personal data*". NGED's approach is that anonymised Consumption Data will be treated as Personal Data. On that basis, the anonymisation techniques used by NGED form part of its overall privacy solution, alongside its other privacy measures set out in this Data Privacy Plan and NGED's Privacy Impact Assessment.
- 6.9 The ICO recognises aggregation of Personal Data may be an effective way of anonymising Personal Data. In particular, the ICO Anonymisation Code of Practice states (on page 36) that: "*...aggregated data is relatively low risk, depending on granularity, sample sizes and so forth...*" NGED will aggregate Consumption Data on two levels:
- (a) it will total the Consumption Data to provide a monthly figure in respect of each Meter; and
 - (b) it will aggregate the Consumption Data Figures in respect of each Meter on a particular LV Feeder, Section of LV Feeder, distribution substation or other aggregated group (of at least three), so that the Consumption Data obtained from a particular household will be aggregated with that of other households.

Consumption Data will be totalled to give a Monthly Consumption Data Figure in respect of each Meter

- 6.10 Consumption Data obtained in respect of each meter will be totalled to provide a Monthly Consumption Data Figure for that meter. This means that the data will no longer be subject to the requirements of SLC10A. Once Consumption Data is totalled in this way it no longer contains detailed information about the energy usage habits of the individual customer. It does not provide an unauthorised third party with any information about what time of day the Customer is using a particular appliance, or what time of day their electricity usage is greatest.

Consumption Data for a particular household will be combined with those of other households on the same Feeder and substation

- 6.11 The Consumption Data obtained in respect of each meter on a particular LV Feeder, Section of LV Feeder, distribution substation or other aggregated group (of at least three) will be aggregated together to give a monthly HH profile for that particular LV Feeder, Section of LV Feeder, distribution substation or other aggregated group (of at least three). This means that the risk that an individual may be identified from it could only apply to the 1% of customers who are the sole connectee on an individual feeder or substation.
- 6.12
- 6.13
- 6.14

6.15

7. **Privacy Impact Assessment – OFGEM Criteria 6**

“Be accompanied by a Privacy Impact Assessment, consistent with the ICO’s code of practice”

7.1 A copy of NGED's Privacy Impact Assessment is included in Appendix 1 of this Data Privacy Plan.

7.2 NGED's Privacy Impact Assessment has been carried out in consultation with the ICO. NGED has incorporated the ICO's feedback into its Privacy Impact Assessment to ensure compliance with the DPA.

8. **IT security processes used in relation to processing of Consumption Data will conform to ISO 27001 and ISO 27005 standards – OFGEM Criteria 7**

“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”

8.1 NGED's IT systems have been thoroughly tested to ensure Smart Energy Code (SEC) compliance via the User Entry Process Tests.

8.2 Security has been validated by the successful completion of an audit of NGED systems by SEC appointed auditors. The Audit is an assessment against the relevant ISO standards for information security (ISO27001, 27005, 27035).

8.3 Ongoing management oversight will ensure that NGED systems continue to meet the standards expected by the SEC in the areas of system processes and security.

8.4 NGED will only obtain Consumption Data via SEC governed processes and infrastructure via secure data transmission.

8.5

8.6 In order to access Consumption Data NGED users will require a User ID and secure password. Individuals who access Consumption Data will need to be part of a defined security group that ensures only persons with a genuine business need are able to access Consumption Data.

8.7 Access to Consumption Data will be granted via a limited number of specific applications. NGED will not permit ad-hoc access to the Consumption Data (for example, via end user written reporting tools). In addition, external access to the Consumption Data (e.g. via the internet) will not be permitted.

8.8 In addition, NGED will implement policies, procedures and internal training to safeguard Consumption Data (see paragraph 7 of NGED's Privacy Impact Assessment; table entitled "Identification of Privacy Risks and Solutions"; Risk 12).

9. Stakeholder Engagement – OFGEM Criteria 8

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.

- 9.1 NGED has adopted a two pronged approach to Stakeholder engagement. Initially efforts were focussed on ENA initiatives to develop a common framework for all DNOs. Latterly a NGED specific stakeholder engagement initiative was put in place
- 9.2 Electricity Networks Association
- (a) The Generic Privacy Framework is being developed to provide a skeleton around which individual DNOs can build their specific Data Privacy Plans. The GPF was initially drafted in 2014 and various iterations have been shared with DECC/BEIS, Ofgem, CAB and the ICO.
- (b) EATL were commissioned to deliver a report 'Smart Meter Aggregation Assessment' to analyse how the technique of aggregation of customer data would ensure anonymity. Discussions were also held with the UK Anonymisation Network to explore the constraints around anonymization. This work identified an aggregation level of 2-3 customers would be most appropriate but also stressed the requirement to implement other controls to further safeguard the data.
- (c) In order to progress this issue the ENA instructed Ipsos MORI to undertake a project to determine consumer attitudes to DNOs accessing half hourly consumption data held in smart meters. The project involved 12 consumer focus groups convened throughout GB. The results have been published on the ENA website [here](#)
- (d) At the outset ENA obtained input and support for this work from Ofgem, Citizens Advice and BEIS to ensure that the project plan and execution was perceived as appropriate and provided the best chance for the findings and conclusions to be accepted by all stakeholders.
- 9.3 National Grid Electricity Distribution
- (a) Building on the experience gained in successfully submitting a Data Protection Strategy to OFGEM as part of the Low Carbon Network Fund Project Falcon, NGED produced a draft Data Privacy Plan for discussion in 2015. This plan included a formal privacy impact assessment, as suggested by DECC/BEIS, which was developed in liaison with Legal Advisers Osborne Clarke
- (b) The Plan and PIA were used to obtain internal feedback in advance of discussing the contents with key external stakeholders. During 2016 NGED met with ICO, Citizens Advice and OFGEM to discuss the content of the plan. Improvements were suggested by both the ICO and Citizens Advice, which were included within an updated version.
- (c) Following the publication of the OFGEM letter defining the overall criteria for assessment of the DNO plans, the NGED plan was reformatted to address the criteria identified. In addition following feedback from OFGEM on the original plan a number of sections were enhanced to provide a more comprehensive explanation of activities.
- (d) In January 2017 NGED undertook its own Customer stakeholder consultation exercise. (See Appendix 5).
- 9.4 Appendix 5 summarises the results of the NGED customer stakeholder consultation.

- 9.5 Responses from both customer consultations were consistent in that they both demonstrated that DNOs are generally trusted, particularly when their role and remit is fully understood.
- 9.6 Stakeholders were supportive of consumption data being used to deliver a more reliable and flexible electricity network which is built and maintained cost-effectively with less wastage through smart investment.
- 9.7 Over 90% of stakeholders at the NGED workshops were comfortable with NGED having access to smart meter data on the basis set out in the NGED plan. The most important aspect of the plan was that the data was not shared with or sold to unapproved third parties. (Appendix 6 is the presentation used at the workshops)
- 9.8 NGED Plan key components were summarised as:
- (a) As soon as the customers HH consumptions are received NGED will link this to the feeder (final cable in street) and remove any data that identifies the specific property
 - (b) Add the consumptions linked to each feeder to get a HH picture of load per feeder and substation
 - (c) Generate monthly consumption totals for each customer
 - (d) Individual customer HH consumptions will cease to exist immediately on completion of the above
 - (e) Monthly totals and feeder profiles to be deleted after five years
 - (f) Only NGED users with genuine business need allowed to access the data
 - (g) Appropriate controls to ensure data privacy & secure storage – externally audited
 - (h) Use the information for the sole purpose of monitoring the network
- 9.9 Using the feedback from the first two stages of our stakeholder engagement work NGED has undertaken the following:
- (a) Published a webpage <https://www.nationalgrid.co.uk/smarter-networks/smart-meter-data> that sets out in clear and simple way
 - the specific way in which NGED will use smart meter data
 - a statement on how the data will be used
 - an outline of the NGED data privacy plan
 - (b) Made stakeholders aware of this online resource via its annual power for life publication in Q3 2017
- 9.10 During 2017, NGED revised its initial draft Privacy Plan in response to detailed feedback from Ofgem, provide by BEIS, the ICO and Citizen’s Advice.

Glossary

Capitalised terms used in this Data Privacy Plan have the meanings given to them in the Glossary included in Schedule 1 of NGED's Privacy Impact Assessment. In addition, the following capitalised terms are used in this Data Privacy Plan.

ADMD means "after diversity maximum demand" as explained in paragraph 4.1 of this Data Privacy Plan

Consumption Data Profile means a profile of a Customer's electricity consumption at intervals throughout the day. An example Consumption Data Profile is included in

Data and Communications Company means the company granted a licence to manage the data and communications network to connect smart meters to the business systems of licensed suppliers, distributors and other authorised users

DUOS Charges means Distribution Use Of System Charges levied by DNOs which go towards the operation, maintenance and development of their electricity distribution networks

ENA Generic Privacy Framework means privacy framework produced by the ENA, which DNOs may use to inform their approach to privacy in relation to use of Consumption Data

GDPR means the General Data Protection Regulations effective 25 May 2018

ICO Anonymisation Code of Practice means the following anonymisation code of practice published by the ICO: <https://ico.org.uk/media/1061/anonymisation-code.pdf>

LV means low voltage which is nominal voltage 1,000 volts or below

HV means high voltage which nominal voltage over 1,000 volts but less than 22,000 volts

Monthly Consumption Data Figure means the monthly aggregated Consumption Data obtained in respect of each Meter, as set out paragraph 7.10 of this Data Privacy Plan

Privacy Impact Assessment means NGED's privacy impact assessment in relation to its Smart Metering Implementation Project, as included in Appendix 3 of this Privacy Plan.

Privacy Impact Assessment Code of Practice means the following guidance published by the ICO on carrying out Privacy Impact Assessments: the <https://ico.org.uk/media/for-organisations/documents/1595/Privacy-Impact-Assessment-code-of-practice.pdf>

Data Privacy Plan means this document

RIIO-ED1 means 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 1 April 2015 to 31 March 2023.

Smart Metering Directives means the Energy Efficiency Directive (2012/27/EC) together with EU Directives (2009/72/EC and 2009/73/EC) set out the European framework for smart meters

Time to Connect Incentive means the Time to Connect Incentive which encourages DNOs to develop ways to speed up the various elements of providing a connection, as described in paragraph 4.15 of this Data Privacy Plan.



Privacy Impact Assessment

Smart Metering Implementation Project

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Executive Summary

- 1.1. The aim of the UK Government's Smart Metering Programme is that every household in the UK should have a smart electricity and gas meter by 2020. Under the Smart Metering Programme DNOs will be able to access Consumption Data obtained from smart meters installed by Suppliers in Customers' premises.
- 1.2. Consumption Data collected via smart meters and accessed by NGED falls within the definition of Personal Data. NGED will be processing Consumption Data in order to improve the efficiency, cost-effectiveness, and safety of its electricity distribution network.
- 1.3. Smart metering will increase the data available about the LV network providing two major benefits for DNOs:
 - 1.3.1. more detailed information about network loading and voltage, that will allow better prioritisation of reinforcement work; and
 - 1.3.2. better information when designing connections, potentially reducing the time to connect as well as the cost of connection.
- 1.4. The data collected by smart meters, and accessed by NGED, will include Consumption Data for domestic premises. It will be possible for NGED to identify individual Customers from the Consumption Data. The Consumption Data will therefore be Personal Data.
- 1.5. This PIA identifies the key privacy issues relating to NGED's Processing of Consumption Data and the solutions NGED will implement to address them. In carrying out this PIA NGED's aim is to ensure compliance with the DPA and the PECR in a way which is proportionate to the risks to Customers' privacy and in compliance with NGED's regulatory obligations.
- 1.6. NGED has concluded that the key privacy risks can be reduced or removed entirely by implementing the solutions set out below.
 - (a) NGED will include an appropriate summary of its privacy notice in its annual newsletter, with the full version being held on its website. The Privacy Notice will explain to Customers how and why NGED will be processing their Consumption Data and setting out an appropriate means through which Customers may raise queries or make complaints;
 - (b) NGED will put in place and implement a Data Privacy Plan approved by Ofgem. This will set out how Consumption Data will be aggregated in order to reduce the risk of individuals being identified from the Consumption Data;
 - (c) NGED will ensure that appropriate members of its management team are appointed to take responsibility for ensuring key risks to privacy are addressed;
 - (d) NGED will implement local working instructions in order to safeguard Consumption Data and ensure that it is processed in compliance with the DPA and the PECR;
 - (e) NGED will have in place and implement an up-to-date policy governing the processing of Consumption Data by NGED staff and sub-contractors.
 - (f) NGED will ensure it has successfully completed the national User Entry Process Tests.
 - (g) NGED will ensure it has been successfully audited by an SEC Competent Independent Organisation.
 - (h) NGED will ensure that policies and procedures are implemented, and internal training is provided, to reduce the privacy risks associated with the Smart Metering Programme,

including for example, the risk of unauthorised third parties accessing Customer's Consumption Data.

Conclusion

1.7 Consumption Data obtained from smart meters will provide valuable information which may be used by DNOs to improve the efficiency and safety of their electricity distribution networks. There are a number of potential privacy risks associated with the Processing of Consumption Data. These risks will need to be addressed in a timely and proportionate way to enable NGED to meet the UK Government's 2020 target and in a way which ensures NGED's compliance with the DPA and the PECR.

1.8 By implementing the solutions identified in this PIA, NGED will be able to eliminate or minimise the privacy risks the Smart Metering Programme.

Identification of privacy and related risks

	Privacy issue	Risk to individuals	Compliance risk	Associated organisation / corporate risk
1	Fair and lawful Processing.	Collection and Processing of Consumption Data might not be properly understood and may be seen as intrusive by existing and new Customers.	Non-compliance with the first Data Protection Principle of the DPA.	<p>Reputational damage.</p> <p>Project may fail or be less effective if Customers do not trust that NGED is acting in compliance with the DPA.</p> <p>Customers may choose not to have smart meters installed which may jeopardise the success and benefits of the Smart Metering Programme.</p> <p>Enforcement action from ICO.</p> <p>Non-compliance with Licence Conditions.</p> <p>Non-compliance with Ofgem requirements relating to aggregation of Consumption Data.</p>

	Privacy issue	Risk to individuals	Compliance risk	Associated organisation / corporate risk
2	Excessive Processing.	Increased frequency and granularity of Consumption Data collection may amount to an intrusion on Customers' privacy.	Non-compliance with the first and third Data Protection Principles of the DPA.	<p>Reputational damage.</p> <p>Project may fail or be less effective if Customers do not trust that NGED is acting in compliance with the DPA.</p> <p>Customers may choose not to have smart meters installed which may jeopardise the success and benefits of the Smart Metering Programme.</p>

	Privacy issue	Risk to individuals	Compliance risk	Associated organisation / corporate risk
3	Purpose limitation.	Consumption Data may be used for additional purposes without the Customers' knowledge. Additional purposes may be considered intrusive.	Non-compliance with the first and second Data Protection Principles of the DPA.	Reputational damage. Project may fail or be less effective if Customers do not trust that NGED is acting in compliance with the DPA. Customers may choose not to have smart meters installed which may jeopardise the success and benefits of the Smart Metering Programme. Enforcement action from ICO. Non-compliance with DNO Licence Conditions. Non-compliance with ENA standards. Non-compliance with Ofgem requirements relating to aggregation of Consumption Data.

	Privacy issue	Risk to individuals	Compliance risk	Associated organisation / corporate risk
4	Use of Consumption Data by NGED or third parties for marketing purposes.	Customer may perceive that Consumption Data will be used by NGED to send unsolicited marketing messages or passed on to third parties who send Customers unsolicited marketing messages.	<p>Non-compliance with PECR.</p> <p>Non-compliance with the first Data Protection Principle of the DPA.</p> <p>Non-compliance with human rights legislation.</p>	<p>Reputational damage.</p> <p>Project may fail or be less effective if Customers do not trust that NGED is acting in compliance with the DPA.</p> <p>Customers may choose not to have smart meters installed which may jeopardise the success and benefits of the Smart Metering Programme.</p> <p>Enforcement action from ICO.</p> <p>Non-compliance with DNO Licence Conditions.</p> <p>Non-compliance with ENA standards.</p>

	Privacy issue	Risk to individuals	Compliance risk	Associated organisation / corporate risk
5	Use of Consumption Data for marketing purposes by third parties.	Third parties may gain unauthorised access to the Consumption Data which they may use to send Customers marketing messages, for example, by creating profiles of Customers' energy consumption in order to target them with marketing messages.	<p>Non-compliance with the PECR.</p> <p>Non-compliance with the first Data Protection Principle of the DPA.</p> <p>Non-compliance with human rights legislation.</p>	<p>Reputational damage.</p> <p>Project may fail or be less effective if Customers do not trust that NGED is acting in compliance with the DPA.</p> <p>Customers may choose not to have smart meters installed which may jeopardise the success and benefits of the Smart Metering Programme.</p> <p>Enforcement action from ICO.</p> <p>Non-compliance with DNO Licence Conditions.</p> <p>Non-compliance with ENA standards.</p>

	Privacy issue	Risk to individuals	Compliance risk	Associated organisation / corporate risk
6	Use of Consumption Data by third parties.	Consumption Data may be disclosed to third parties without Customers' knowledge, used for purposes which Customers are not expecting and/or combined with other data and then used in a way that may be considered intrusive.	Non-compliance with the first, second, third and sixth Data Protection Principles of the DPA.	<p>Reputational damage.</p> <p>Project may fail or be less effective if Customers do not trust that NGED is acting in compliance with the DPA.</p> <p>Customers may choose not to have smart meters installed which may jeopardise the success and benefits of the Smart Metering Programme.</p> <p>Enforcement action from ICO.</p> <p>Non-compliance with DNO Licence Conditions.</p> <p>Non-compliance with ENA standards.</p>

	Privacy issue	Risk to individuals	Compliance risk	Associated organisation / corporate risk
7	Use of Data Processors.	The involvement of numerous Data Processors in the collection, transfer, analysis and storage of Consumption Data may increase the risk of unauthorised access to and use.	Non-compliance with the first, second, fifth, seventh and eighth Data Protection Principles of the DPA.	<p>Reputational damage.</p> <p>Project may fail or be less effective if Customers do not trust that NGED is acting in compliance with the DPA.</p> <p>Customers may choose not to have smart meters installed which may jeopardise the success and benefits of the Smart Metering Programme.</p> <p>Enforcement action from ICO.</p> <p>Non-compliance with DNO Licence Conditions.</p>

	Privacy issue	Risk to individuals	Compliance risk	Associated organisation / corporate risk
8	Inability of Customers to control, manage or edit Personal Data.	<p>Customers may be unable to obtain information about how their Personal Data is being Processed, to correct errors, or to raise queries about privacy with NGED.</p> <p>Customers may be unable to exercise their subject access rights under the DPA.</p>	Non-compliance with the first and sixth Data Protection Principles of the DPA.	<p>Reputational damage.</p> <p>Project may fail or be less effective if Customers do not trust that NGED is acting in compliance with the DPA.</p> <p>Customers may choose not to have smart meters installed which may jeopardise the success and benefits of the Smart Metering Programme.</p> <p>Non-compliance with DNO Licence Conditions.</p>

	Privacy issue	Risk to individuals	Compliance risk	Associated organisation / corporate risk
9	Data accuracy.	Consumption Data collected may not be accurate and this may be perceived by Customers as having a detrimental impact on the services provided to them.	Non-compliance with the fourth Data Protection Principle of the DPA.	<p>Reputational damage.</p> <p>Project may fail or be less effective if Customers do not trust that NGED is acting in compliance with the DPA.</p> <p>Customers may choose not to have smart meters installed which may jeopardise the success and benefits of the Smart Metering Programme.</p> <p>Enforcement action from ICO.</p> <p>Non-compliance with DNO Licence Conditions.</p>

	Privacy issue	Risk to individuals	Compliance risk	Associated organisation / corporate risk
10	Data retention.	Consumption Data may be held for unduly long periods of time resulting in increased security risks, and a greater risk that the information may be out of date.	Non-compliance with the fifth and seventh Data Protection Principles of the DPA.	<p>Reputational damage.</p> <p>Project may fail or be less effective if Customers do not trust that NGED is acting in compliance with the DPA.</p> <p>Customers may choose not to have smart meters installed which may jeopardise the success and benefits of the Smart Metering Programme.</p> <p>Enforcement action from ICO.</p> <p>Non-compliance with DNO Licence Conditions.</p> <p>Non-compliance with ENA standards.</p> <p>Non-compliance with Ofgem requirements relating to aggregation of Consumption Data.</p>

	Privacy issue	Risk to individuals	Compliance risk	Associated organisation / corporate risk
11	Unnecessary or excessive Processing.	<p>The volume of Personal Data NGED is Processing and the extent of its Processing may be excessive or unnecessary.</p> <p>NGED's Processing of Consumption Data may amount to an excessive intrusion into Customers' private lives.</p>	<p>Non-compliance with the third Data Protection Principle of the DPA.</p> <p>Non-compliance with human rights legislation.</p>	<p>Reputational damage.</p> <p>Project may fail or be less effective if Customers do not trust that NGED is acting in compliance with the DPA.</p> <p>Customers may choose not to have smart meters installed which may jeopardise the success and benefits of the Smart Metering Programme.</p> <p>Enforcement action from ICO.</p> <p>Non-compliance with DNO Licence Conditions.</p> <p>Non-compliance with ENA standards.</p> <p>Non-compliance with Ofgem requirements relating to aggregation of Consumption Data.</p>

	Privacy issue	Risk to individuals	Compliance risk	Associated organisation / corporate risk
12	Data security.	<p>NGED's technical, physical and organisational security measures may not be robust enough to prevent unauthorised access, loss or hacking (including for example, its security measures to prevent third parties hacking smart meters).</p> <p>The technical, physical and organisational security measures of third party Processors may not be robust enough to prevent unauthorised access, loss or hacking.</p>	Non-compliance with the seventh Data Protection Principle of the DPA.	<p>Reputational damage.</p> <p>Project may fail or be less effective if Customers do not trust that NGED is acting in compliance with the DPA.</p> <p>Customers may choose not to have smart meters installed which may jeopardise the success and benefits of the Smart Metering Programme.</p> <p>Enforcement action from ICO.</p> <p>Non-compliance with DNO Licence Conditions.</p> <p>Non-compliance with Ofgem requirements relating to aggregation of Consumption Data.</p>
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• **Identification of Privacy Risks and Solutions**

	Risk	Solution(s)	Result
1	Collection and Processing of Consumption Data might not be properly understood and may be seen as intrusive by existing and new Customers.	<p>NGED Privacy Notice</p> <p>NGED will produce a Privacy Notice explaining how Consumption Data will be Processed. The notice will provide information to customers in a transparent and clear manner about:</p> <ul style="list-style-type: none"> • how NGED will collect the Consumption Data and how this differs from current practice; • the nature of the Consumption Data NGED will be collecting; • why NGED will be Processing the Consumption Data (including the fact that the smart meters initiative is Government-led and the benefits to NGED and to Customers); • NGED only obtaining and Processing Consumption Data in accordance with the Licence Conditions imposed upon it by Ofgem, and only Process Consumption Data in a way which is consistent with its Section 9 Duty including for network planning and asset management purposes or in accordance with Licence Conditions 10A.6, 10A.7 or 10A.8; • the security measures and controls which will be used to safeguard Consumption Data; • categories of third parties who will also have access to Consumption Data in limited circumstances and only as required to enable NGED to comply with its legal obligations (including, for example, DCC, DECC, Suppliers, Ofgem, or the police in order to assist with a criminal investigation); • how long NGED may retain Consumption Data and why it needs to retain it for this length of time; • how the Customer can contact NGED if they have any queries or wish obtain further information about their Consumption Data. 	<p>NGED's privacy notice will be agreed by NGED Executive –. A copy is attached in Schedule 7.</p> <p>A summary of the NGED's privacy notice will be included in its annual newsletter scheduled to be sent to Customers in September 2017.</p> <p>The Privacy Notice will be reviewed annually.</p> <p>An updated summary will be repeated in the subsequent annual newsletters scheduled to be sent in February each year in order to reduce the risk that new Customers do not see it.</p> <p>NGED will include a copy of the full notice in a prominent place on its website from the time that the Smart Metering Programme commences. The notice shall be permanently available.</p>

	Risk	Solution(s)	Result
		<p><i>Communication of privacy notice</i></p> <p>NGED will take proportionate steps to communicate the privacy notice to relevant Customers (including new Customers who have moved into the area covered by NGED).</p> <p>NGED will provide customers with a summary of the privacy notice via an article included in its annual newsletter “Power for Life”, which is published annually.</p> <p>The publication of the newsletter will coincide with the wider roll-out of smart meters.</p> <p>The full privacy notice will be available on NGED's main website at [insert link] and there will also a set of FAQs on the website. Details of how to access the web site will be included in the Power for life article</p> <p><i>Customer queries</i></p> <p>NGED will provide Customers with a straightforward way to raise queries about privacy issues (including via email and telephone). NGED will provide appropriate training to enable staff to deal with privacy-related Customer complaints or concerns.</p> <p><i>Internal guidance</i></p> <p>NGED will ensure that it has an internal policy which will summarise what Consumption Data is Processed by NGED, how it may be used and which specific individuals and categories of persons within NGED may access</p>	<p>NGED will provide contact details in its newsletter and on its website so that Customers may telephone or email its contact centre with privacy-related Customer queries. In addition, NGED will provide appropriate training to its staff.</p>

	Risk	Solution(s)	Result
		it. This will be supplemented by detailed local working instructions (see solution for Risk 3 below).	
2	Increased frequency and granularity of data collection may amount to an intrusion on Customers' privacy.	<p>Whilst Consumption Data will be transmitted more frequently and provide more detail about energy consumption as compared to existing network profile information it does not contain any sensitive Personal Data (as defined by the DPA).</p> <p>NGED shall ensure that all Consumption Data is Processed strictly as required by NGED to meet its Section 9 Duty or strictly in accordance with Licence Conditions 10A.6, 10A.7, or 10A.8.</p> <p>Before Processing any Consumption Data NGED will have in place a Data Privacy Plan approved by Ofgem to ensure Consumption Data is being Processed strictly as required to enable NGED to comply with its Section 9 Duty or strictly in accordance with Licence Conditions 10A.6, 10A.7, or 10A.8.</p> <p>This plan will outline the nature of the Consumption Data being Processed by NGED; the reasons why NGED is Processing the Consumption Data; the methods of access; the controls to be employed in Processing the Consumption Data and an explanation of how the relevant privacy issues will be addressed.</p> <p>In accordance with the Data Privacy Plan approved by Ofgem, NGED will put in place the following data aggregation process:</p> <ul style="list-style-type: none"> • NGED will, add up the half hourly Consumption Data recorded by each meter to give a monthly consumption figure per meter. • in respect of each month, NGED will aggregate the half hourly Consumption Data obtained in that month from each meter on a 	<p>NGED will apply for Ofgem approval for its Data Privacy Plan and obtain this before Consumption Data is collected.</p> <p>A nominated manager will ensure NGED complies with its Data Privacy Plan.</p> <p>NGED's local working instructions will be signed off by a responsible manager who will review NGED's compliance with the local working instructions on an on-going basis and annually.</p> <p>A nominated manager will ensure NGED's compliance with Licence Conditions 10A.6, 10A.7 and 10A.8.</p>

	Risk	Solution(s)	Result
		<p>particular Feeder. The number of meters on a particular Feeder may vary. In rural areas there may only be two meters on a Feeder. However, in more densely populated urban other areas there may be over one hundred meters on a Feeder.</p> <ul style="list-style-type: none"> • Subject to the below, following aggregation, the half hourly Consumption Data obtained from each meter will cease to exist. NGED will, retain only the monthly consumption figures for each meter and the aggregated consumption figures for each Feeder. • NGED may retain half hourly Consumption Data in the following circumstances permitted in the Licence Conditions: <ul style="list-style-type: none"> ○ where NGED has notified a domestic Customer that it will be obtaining half hourly Consumption Data and the domestic Customer has given explicit consent in accordance with Licence Condition 10A.6; ○ for the purpose of investigating a suspected theft or abstraction of electricity in accordance with Licence Condition 10A.7; ○ for the purpose of the trial, proposal for which have been approved by the Secretary of State and in respect which NGED has given the domestic Customer at least 14 days advance notice in accordance with Licence Condition 10A.8. <p>The diagram in Schedule 4 summarises NGED's Consumption Data aggregation process.</p> <p>NGED will implement local working instructions setting out</p> <ul style="list-style-type: none"> • which categories of individual within NGED's organisation may Process Consumption Data and; 	

	Risk	Solution(s)	Result
		<ul style="list-style-type: none"> the limited circumstances in which it may be used. <p>Access to Consumption Data will only be granted to authorised staff with a valid NGED user ID and secure password. Users will need to be part of a defined security group so that only staff with a genuine business need will be able to access the Consumption Data.</p> <p>If Consumption Data is required in relation to a complaint or revenue protection issue, then the relevant member of staff will be required to make a separate "on demand" request for the information. This request would occur and be managed by NGED's existing processes and systems outside of the monthly data collection and processing activities described in this PIA.</p> <p>NGED will appoint an appropriately qualified and skilled person to review its local working instructions. NGED will carry out an internal audit of compliance on a regular basis and appropriate records will be retained to provide evidence of compliance.</p> <p><i>Processing of Consumption Data in accordance with Licence Conditions 10A.6, 10A.7 and 10A.8.</i></p> <p>Where NGED wishes to Process Consumption Data in accordance with Licence Condition 10A.6, 10A.7 or 10A.8, it will only be Processed by NGED strictly in accordance with the privacy requirements of those Licence Conditions. A nominated manager will ensure NGED complies with the privacy requirements of the Licence Conditions.</p>	

	Risk	Solution(s)	Result
3	<p>Data may be used for additional purposes without Customers' knowledge.</p> <p>Additional purposes may be considered intrusive.</p>	<p>NGED shall only use Consumption Data to comply with its Section 9 Duty or strictly in accordance with Licence Conditions 10A.6, 10A.7 and 10A.8.</p> <p>NGED will implement system and security controls to prevent access to, and use of, the Consumption Data for any other purposes (see solution for Risk 2 above). Local working instructions will be used to ensure that systems are used in the correct manner.</p> <p>NGED's aggregation of the Consumption Data will reduce the risk of Consumption Data being used for additional purposes without the Customer's knowledge.</p>	<p>NGED's local working instructions have been signed off by a nominated manager.</p> <p>NGED system and security controls will be have been tested and signed off as appropriate by an appropriately qualified and skilled person.</p> <p>NGED's privacy notice will be signed off by NGED Executive –. A copy is attached in Schedule 7.</p> <p>NGED require Ofgem approval for its Data Privacy Plan.</p>

	Risk	Solution(s)	Result
4	Customer may perceive that Consumption Data will be used by NGED to send unsolicited marketing messages or passed on to third parties who send Customers unsolicited marketing messages.	<p>NGED shall only use Consumption Data to comply with its Section 9 Duty or strictly in accordance with Licence Conditions 10A.6, 10A.7 and 10A.8 (In particular, NGED will not be sending direct marketing messages to Customers).</p> <p>NGED will only share Consumption Data with limited categories of persons (for example approved subcontractors and connection companies) in compliance with its Licence Conditions. In particular, NGED will not sell Consumption Data to third parties.</p> <p>NGED will include appropriate provisions in its sub-contracts restricting sub-contractors from sending direct marketing messages to Customers or sharing Consumption Data with third parties.</p> <p>NGED will ensure that relevant individuals within NGED's procurement team receive appropriate training to ensure these provisions are included in third party sub-contracts. NGED will ensure that NGED's legal team will be required to approve any data sharing in advance.</p> <p>NGED will include appropriate wording in its privacy notice confirming it will not use Consumption Data to send unsolicited marketing messages or sell Consumption Data to third parties.</p> <p>NGED will ensure Customers are provided with a straightforward means through which Customers may raise queries about privacy-related issues (see solution for Risk 1 above).</p>	<p>NGED procurement team will receive appropriate training.</p> <p>NGED's privacy notice will be signed off by NGED Executive –. A copy is attached in Schedule 7.</p> <p>Customers may telephone or email NGED's contact centre with privacy-related complaints or concerns.</p> <p>In addition, NGED will provide training to its staff on handling Customers' privacy queries.</p>
5	Third parties may gain unauthorised access to the data which they may	<i>IT systems and infrastructure</i>	NGED require Ofgem approval for its Data Privacy Plan.

	Risk	Solution(s)	Result
	<p>use to send Customers marketing messages, for example, by creating profiles of Customers' Consumption Data in order to target them with marketing messages.</p>	<p>NGED will ensure that all IT systems and infrastructure used by NGED in relation to the Smart Metering Programme comply with the applicable regulatory standards and specifications relating to information security (see solution for Risk 12 below).</p> <p>NGED will implement system and security controls to prevent unauthorised access to the Consumption Data (see solution for Risk 2 above). Local working instructions will be used to ensure that systems are used in the correct manner.</p> <p>NGED will implement a data retention policy to ensure Consumption Data is not stored for longer than necessary (see solution for Risk 10 below).</p> <p><i>Data aggregation and deletion</i></p> <p>NGED will aggregate the Consumption Data to reduce the risk of third parties gaining unauthorised access to it (see solution for Risk 2 above).</p> <p><i>Security policies and procedures</i></p> <p>NGED will implement local working instructions restricting access to, and use of, the Consumption Data (see solution for Risk 2 above).</p> <p>NGED will ensure that its existing security measures and policies are reviewed, updated and applied to the Processing of Consumption Data.</p>	<p>NGED system and security controls will be developed tested and signed off as appropriate by the Business Owner.</p> <p>NGED's local working instructions will be signed off by a nominated manager who will review NGED's compliance with the local working instructions on an on-going basis and annually.</p> <p>NGED's updated IT security policy will be has been signed off by the appropriate manager.</p>

	Risk	Solution(s)	Result
6	Data may be disclosed to third parties without Customers' knowledge, used for purposes which Customers are not expecting and/or combined with other data and then used in a way that may be considered intrusive.	<p>NGED will only share Consumption Data with limited categories of persons (for example Universities & consultants carrying out work on its behalf) in compliance with its Licence Conditions. In particular, NGED will not sell Consumption Data to third parties.</p> <p>NGED will list in its privacy notice the categories of individuals with whom Consumption Data may be shared (see solution for Risk 1 above).</p> <p>NGED will include appropriate Data Processing provisions in its contracts with third parties that place obligations and restrictions on them in relation to their Processing of Consumption Data (including obligations not to sell Consumption Data or pass it on to third parties).</p> <p>[] has been appointed by NGED to ensure appropriate internal training on the disclosure of Consumption Data.</p>	<p>NGED's privacy notice will be signed off by NGED Executive. A copy is attached in Schedule 7.</p> <p>NGED's procurement team will receive appropriate training on the necessary provisions which must be included in all relevant third party contracts.</p> <p>All relevant NGED staff will receive appropriate training on sharing of Consumption Data. NGED must give its approval to any data sharing in advance.</p>
7	The involvement of numerous Data Processors in the collection, transfer, analysis and storage of Consumption Data may increase the risk of unauthorised third party access.	<p>NGED will ensure that IT systems and infrastructure through which it will obtain Consumption Data comply with industry best practices and all relevant regulatory requirements and standards. These will include:</p> <ol style="list-style-type: none"> 1. In-house systems development 2. Third party solutions <p>NGED will only share Consumption Data with limited categories of persons (for example approved subcontractors and connection companies) in compliance with its Licence Conditions.</p> <p>NGED will have in place an appropriate policy setting out the due diligence Process it applies before using any Data Processors.</p>	A nominated manager will ensure IT systems and infrastructure comply with industry best practice and relevant regulatory requirements.

	Risk	Solution(s)	Result
		<p>NGED will ensure that appropriate Data Processing obligations and restrictions are included in all its third party contracts with Data Processors.</p> <p>NGED will consult internally to identify which individuals within NGED are most likely to be involved in procurement and appointment of Data Processors. NGED to ensure those individuals identified receive appropriate training on appointing third party Data Processors.</p>	<p>NGED staff involved in procurement and IT will receive appropriate training on Data Processing restrictions and obligations which must be included in each third party contract with a Data Processor.</p> <p>NGED's policy covering appointment of third party subcontractors will be signed off by a nominated manager.</p> <p>IT Manager will confirm that NGED's contract with CGI includes appropriate Data Processing provisions.</p> <p>NGED will identify the individuals most likely to be involved in procurement and appointment of subcontractors: Appropriate training has been provided to those individuals.</p>

	Risk	Solution(s)	Result
8	<p>Customers may be unable to obtain information about how their Consumption Data is being Processed, to correct errors, or to raise queries about privacy issues with NGED.</p> <p>Customers may be unable to exercise their subject access rights under the DPA.</p>	<p>See information above in response to Risk 1 covering the provision of a privacy notice and the NGED newsletter.</p> <p>NGED will continue to use its existing contact centre to manage all privacy-related complaints and queries by telephone or email in connection with smart metering.</p> <p>NGED will appoint an appropriate person within its organisation to ensure that its existing contact centre is able to effectively manage Customers' complaints and queries and ensure that contract centre staff have received appropriate training on the privacy issues relating to smart metering.</p> <p>NGED will implement appropriate policies governing the handling of privacy-related complaints and queries relating to smart metering (including in relation to data breaches and subject access requests).</p> <p>NGED will include appropriate provisions in its contracts with Data Processors requiring them to assist NGED in complying with subject access requests. NGED will ensure that the individuals it has identified as most likely to be involved in procurement and appointment of Data Processors (see solution for Risk 7 above) have receive appropriate training on the contractual provisions which must be included in contracts requiring Data Processors to comply with subject access requests.</p>	<p>See result in response to risk 1 above. The Contact Centre manager will ensure that NGED is able to effectively manage Customer's complaints and queries relating to smart metering.</p> <p>All contact centre staff will receive appropriate training on the privacy issues relating to smart metering.</p> <p>NGED's policy governing the handling of privacy-related complaints and queries relating to smart metering will be signed-off by NGED's Legal Services Department.</p> <p>NGED will identify the individuals most likely to be involved in procurement and appointment of subcontractors: Appropriate training has been provided to those individuals.</p>

	Risk	Solution(s)	Result
9	Consumption Data may not be accurate and this may be perceived by Customers as having a detrimental impact on the services provided to them.	<p><i>Use of standards and specifications</i></p> <p>NGED will receive Consumption Data that is generated using systems and Processes that are defined via standard national meter specifications and parameters.</p> <p>Suppliers who are responsible for the procurement and installation of smart meters at Customer premises are required to ensure that the meters installed meet the national requirements.</p> <p>All smart meters are required to comply with the SMETS2 technical specification including in relation to information security.</p> <p><i>Privacy notice</i></p> <p>NGED will explain in the privacy notice it provides to its Customers the benefits associated with smart meters in terms of accuracy of meter readings and efficient management of the electricity network.</p> <p>NGED will also explain in its privacy notice that Consumption Data will not be used to make decisions which will directly affect that Customer (although the Customer's Personal Data may be used by NGED to make decisions about its network which may indirectly affect the Customer).</p>	<p>NGED's privacy notice has been will signed off by NGED Executive. A copy is attached in Schedule 7.</p> <p>Successful completion of the national User Entry Process Tests.</p> <p>Successful audit by the SEC Competent Independent Organisation.</p>

	Risk	Solution(s)	Result
10	Consumption Data may be held for unduly long periods of time resulting in increased security risks, and a greater risk that the information may be out of date.	<p>NGED will implement a data retention policy setting out how long different categories of Customer's Personal Data may be retained.</p> <p>NGED considers that five years is an appropriate retention period for Consumption Data because this will enable NGED to use the Consumption Data effectively for the purposes for which it has been collected and in addition enable NGED to check the accuracy of the Consumption Data and obtain an overview of all data collected during that period.</p> <p>[] will be responsible for ensuring compliance with, and reviewing, the data retention policy. The policy will be designed to ensure that where NGED no longer requires the data in order to fulfil its Section 9 Duty, for use in accordance with Licence Conditions 10A.6, 10A.7 or 10A.8. or in order to comply with any legal obligation, the data will be permanently and securely deleted.</p> <p>NGED will follow the data aggregation Process described above (see solution to Risk 2).</p>	<p>NGED's privacy notice has been signed off by NGED Executive. A copy is attached in Schedule 7.</p> <p>Compliance with data retention policy will be reviewed by NGED's Legal Services Department.</p>
11	<p>The volume of Consumption Data NGED is Processing and the extent of its Processing may be excessive or unnecessary.</p> <p>NGED's Processing of Consumption Data may amount to an excessive</p>	<p>Consumption Data will only be used by NGED to comply with its Section 9 Duty or strictly in accordance with Licence Conditions 10A.6, 10A.7 and 10A.8.</p> <p>NGED's aggregation of the Consumption Data will reduce the risk of unwarranted Processing (see solution to Risk 2 above).</p>	<p>NGED will obtain Ofgem approval for its Consumption Data Privacy Plan, a copy of which is attached in Schedule 7.</p> <p>NGED's local working instructions will be have been signed off by an appropriate manager.</p>

	Risk	Solution(s)	Result
	intrusion into Customers' private lives.		
12	<p>NGED's technical, physical and organisational security measures may not be robust enough to prevent unauthorised access, loss or hacking (including for example, its security measures to prevent third parties hacking smart meters).</p> <p>The technical, physical and organisational security measures of third party Processors may not be robust enough to prevent unauthorised access, loss or hacking.</p>	<p>NGED will ensure that the IT systems and infrastructure through which it will obtain Consumption Data is provided by third parties who are required by law to comply with certain regulatory requirements and standards.</p> <p>As part of the national Smart Metering Programme, rigorous testing of components individually and at all stages of the end to end process is undertaken. NGED may only access data from live smart meters once these tests have been completed.</p> <p>All smart meters are required to comply with the SMETS2 technical specification, including in relation to information security.</p> <p>NGED systems used to request Consumption Data will comply with all relevant smart meter design requirements. This will include provision for the necessary security safeguards for non-critical, critical and sensitive data and Processes.</p> <p>An independent review of the NGED computer security environment will be undertaken in advance of go-live by the SEC appointed auditor. NGED will have to satisfy the auditor of the security of our processes before being allowed to go-live.</p> <p>NGED will implement local working instructions restricting access to, and use of, the Consumption Data (see Risk 2).</p>	<p>NGED's local working instructions will be have been signed off by an appropriate manager.</p> <p>NGED's IT security policy.</p> <p>Successful completion of the national User Entry Process Tests.</p> <p>Successful audit by the SEC Competent Independent Organisation.</p>

	Risk	Solution(s)	Result
		<p>On-going security measures will be provided and monitored by NGED's dedicated in-house security team and NGED's IT security policy. NGED's IT security policy defines the controls to be employed within the computer and communications environments. The policy is reviewed regularly to ensure that it is kept up to date and is published to users to ensure that they are aware of their obligations under the policy. Where assessed as necessary, additional training will be provided to ensure compliance with the IT security policy.</p>	

Integration of PIA Outcomes - Implementation Plan

Action to be taken	Date for completion of actions	Responsibility for action
NGED's privacy notice to be signed off by NGED management.	July 2018	[]
A summary of NGED's privacy notice to be included in its annual newsletter.	September 2018	[]
Updated summary to be repeated in subsequent annual newsletters Scheduled to be sent year in order to reduce the risk that new Customers do not see it.	Ongoing each year for the duration of the roll out programme (TBC)	[]
NGED to include copy of privacy notice in a prominent place on its website.	September 2018	[]
NGED to provide contact centre details in its newsletter and on its website.	September 2018	[]

NGED to provide appropriate training to contact-centre staff to handle privacy-related queries.	September 2018	[]
NGED to obtain Ofgem approval for its Data Privacy Plan prior to Processing any Consumption Data.	June 2018	[]
[] has been nominated to ensure NGED complies with its Data Privacy Plan.	June 2018	
NGED's local working instructions have been signed off by []. [] will review NGED's compliance with the local working instructions on an on-going basis and annually.	September 2019	[]
A manager has been nominated to ensure NGED's compliance with Licence Conditions 10A.6, 10A.7 and 10A.8 in relation to Processing of Consumption Data.	April 2017	[]

NGED system and security controls, and IT policy have been tested and signed off as appropriate by [].	November 2017	[]
Successful completion by NGED of the national User Entry Process Tests.	March 2017	Completed – NGED Test Completion Certificate received 3 rd March 2017
NGED has been successfully audited by the SEC Competent Independent Organisation.	December 2016	Completed – NGED Obligations Fully Met – Confirmation received from SEC 13 th December 2016
NGED's procurement team has received appropriate training on the necessary provisions which must be included in all relevant third party contracts.	September 2018 onwards	[]
NGED's policy covering appointment of third party subcontractors has been signed off by Procurement.	September 2018	[]

All relevant NGED staff have received appropriate training on sharing of Consumption Data.	September 2018	[]
Appropriate training has been provided to those individuals likely to be involved in procurement and appointment of subcontractors.	September 2018	[]
NGED's policy governing the handling of privacy-related complaints and queries relating to smart metering have been signed off by Legal Services.	September 2018	[]

SCHEDULE 1

Glossary

BEIS means The Department for Business Energy and Industrial Strategy (and any successor government ministries with responsibility for energy).

Citizens Advice means the UK Citizens' Advice Bureau.

CGI means CGI Group Inc.

Customer means a domestic customer of a supplier who falls within an area covered by NGED's electricity distribution network.

Consumption Data means the data about domestic Customers' electricity consumption collected by smart meters and accessed by NGED as further described in Paragraph 2.2 of this PIA.

Competent Independent Organisation means the organisations appointed by the DCC in accordance with the SEC to ensure that users of the DCC have completed appropriate security assessments prior to using the DCC (including system, organisational, and information security assessments).

Data Privacy Plan means a plan each DNO is required to produce, under Licence Condition 10 A.5 which sets out how the DNO will reduce privacy risks associated with Processing of half hourly Consumption Data through a process of aggregation and anonymisation.

Data Processor has the meaning given to it in the DPA.

Data Protection Principles means the eight data protection principles of the DPA.

DCC means the data communications company established under licence granted by DECC which manages the data and communications network connecting smart meters to the business systems of energy suppliers, DNOs and other authorised service users of the network.

DECC means the Department of Energy and Climate Change. (the predecessor of BEIS)
DNO means a Distribution Network Operator operating under licence by Ofgem.

DPA means the Data Protection Act 1998 (and successor legislation such as the General Data Protection Act).

EEA means the European Economic Area.

ENA means the Energy Networks Association which is the industry body DNOs in the UK.

Feeder means the infrastructure that transmits electricity from a substation to customer's premises. There may be one or more Feeders linked to a substation.

ICO Guidance means the ICO Guidance referred to in Paragraph 1.5.

ICO means the Information Commissioner's Office.

LCT means low carbon technology.

Legal Obligation Condition means the condition relevant for the purposes of the first Data Protection Principle set out in Paragraph 3 of Schedule 2 of the DPA.

Legitimate Interests Condition means the condition relevant for the purposes of the first Data Protection Principle set out in Paragraph 6 of Schedule 2 of the DPA.

Licence Conditions means the standard conditions of the electricity distribution licence imposed by Ofgem and applicable to DNOs.

LV means low voltage.

MPAN means a Meter Point Administration Number used to uniquely identify electricity supply points, including at individual domestic residences and business premises.

Ofgem means the government regulator for gas and electricity markets in Great Britain.

PECR means the Privacy and Electronic Communications Regulations 2003.

Personal Data has the meaning given to it in the DPA.

PIA means this privacy impact assessment.

Process and Processor have the meanings given to them in the DPA.

SEC means the Smart Energy Code¹ - 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 Duty means the duty imposed on all DNOs under s.9 of the Electricity Act 1989 to "develop and maintain an efficient, co-ordinated and economical system of electricity distribution".

Smart Metering Directives has the meaning given to it in Paragraph 2.1.

Smart Metering Programme means the Government-led initiative to install smart meters throughout Great Britain as described in Paragraph 1.1.

SMETS2 means the current smart metering equipment technical specification produced by the Government which all smart meters are required to comply with.

Supplier means an electricity supplier operating under a licence issued by Ofgem.

User Entry Process Test means the tests required by the DCC which all users of the DCC must pass in order to show that the user is able to correctly interact with the DCC systems and that it complies with the DCC technical requirements and specifications.

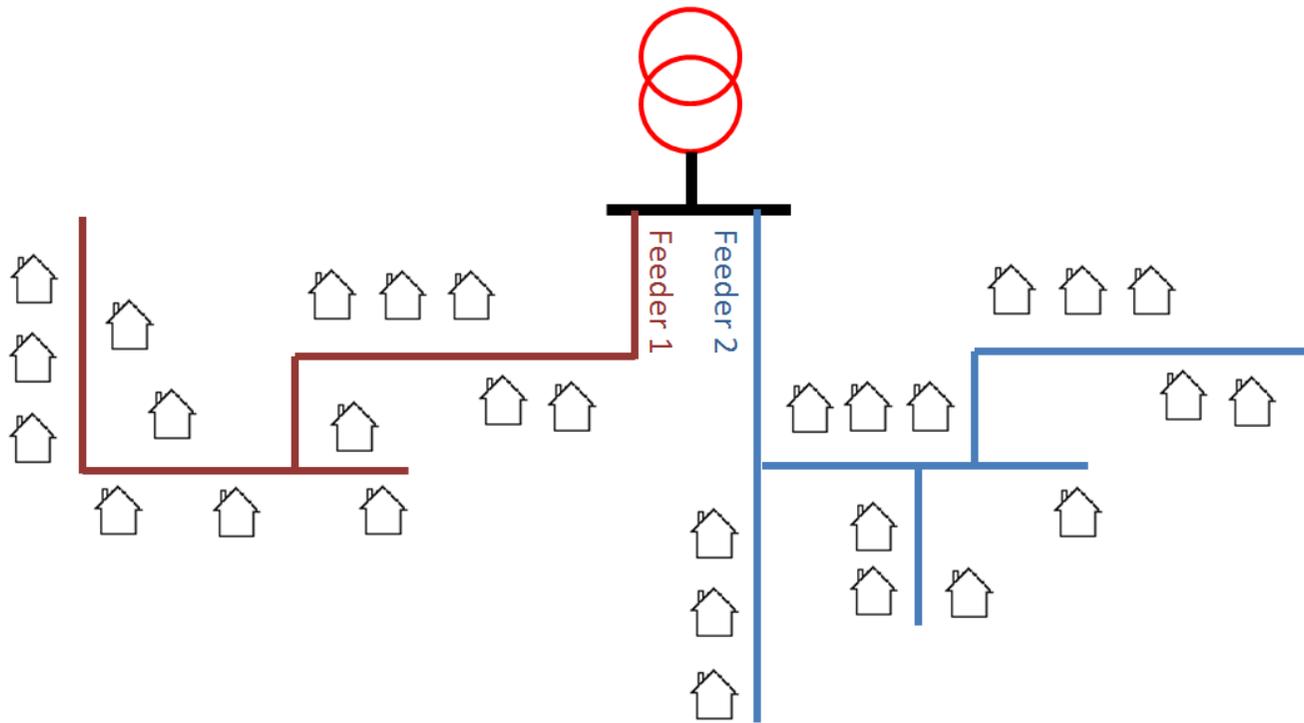
NGED means National Grid Electricity Distribution PLC 09223384; National Grid Electricity Distribution (East Midlands) Plc (company number 02366923); National Grid Electricity Distribution (West Midlands) Plc (company number 03600574); National Grid Electricity Distribution (South West) Plc (company number 02366894); National Grid Electricity

¹ <https://www.smartenergycodecompany.co.uk/>

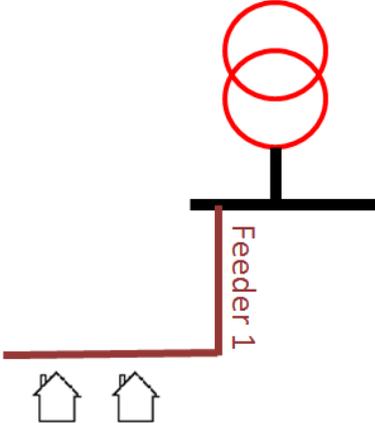
Distribution (South Wales) Plc (company number 02366985);, all of which have their registered address at Avonbank, Feeder Road, Bristol BS2 0TB.

SCHEDULE 2

Indicative Urban Substation



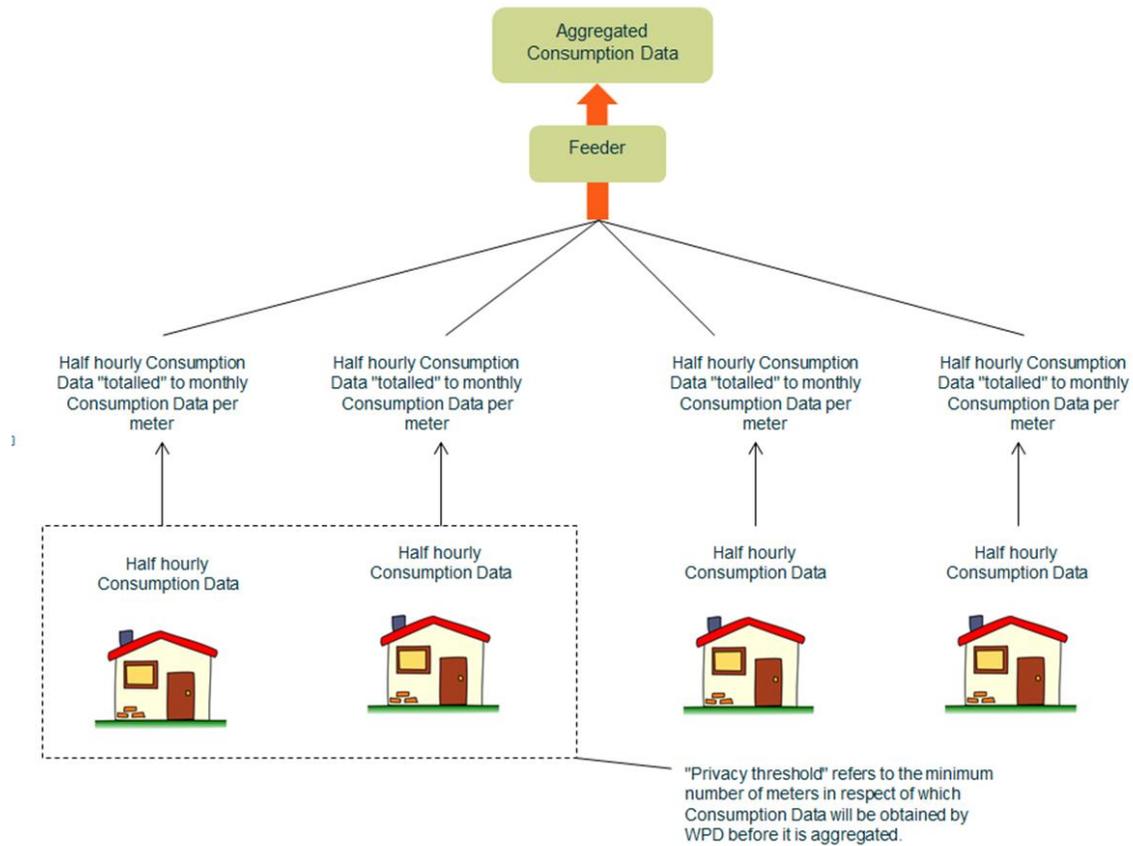
Indicative Rural Substation



SCHEDULE 3

SCHEDULE 4

Consumption Data aggregation process



SCHEDULE 5

Legal basis for Processing Consumption Data

- 1 Summary** - 1.1 NGED intends to use Consumption Data solely for the purpose of meeting its Electricity Act Section 9 Duty, and subsidiary obligations under the Distribution Licence and Industry Codes, or in relation to SLC52, This means NGED will only use Consumption Data in accordance with Article 6(1)(c) to develop and maintain an efficient, co-ordinated, and economical system of electricity distribution.
- 1.2 NGED intends to pass Consumption data to third parties only as follows:

 - (a) Independent Connections Providers - only as required to comply with SLC52.
 - (b) Third party contractors such as Engineering Consultants and Universities who are acting as Data Processors, processing the data on behalf of NGED, for the purposes of meeting NGED's legal obligations.
- 1.3 In sharing any Consumption Data with third parties, NGED will ensure it has in place:

 - (a) internal policies and procedures setting out the types of third parties with which Consumption Data may be shared and for what purposes; and
 - (b) appropriate contractual arrangements with those third parties, restricting the way in which they may use the Consumption Data. For example, it is NGED's current policy that third parties will not be permitted to sell Consumption data, or share it with any other third parties.
- 1.4 NGED's Privacy Notice will explain the legal basis for processing Consumption Data under the Legal Obligation Condition, and customer's rights under Articles 15 and 16.
- 1.5 If the ability to fully realise the economic benefits of smart meter data cannot be met under Article 6(1)(c) Legal Obligations, NGED may find that it wants to rely on legitimate interests as our lawful basis for processing. Under such circumstances, prior to processing data under Legitimate Interests NGED will:

 - (a) issue an amended Privacy Notice explaining the basis of processing under Legitimate Interests, for example detailing the third parties who will be processing Consumption Data as Data Controllers.
 - (b) update internal policies and procedures setting out the types of third parties with which Consumption Data may be shared and for what purposes;
 - (c) put in place enhanced procedures in order to respond to customers who wish to exercise their rights under Article 21 of the GDPR.

2 Legal Obligation Condition

- 2.1 NGED's view is that it meets the Legal Obligation Condition in relation to the processing of Consumption Data (Article 6(1)(c) of the GDPR, which states that: "*The Processing is necessary for compliance with a legal obligation to which the controller is subject*"), on the basis that NGED is required to Process Consumption Data in order to comply with its Section 9 Duty and subsidiary obligations under the Distribution Licence and Industry Codes, or in relation to SLC52 .
- 2.2 Before processing any Consumption Data, NGED will carry out an analysis of its lawful basis for processing the data for each of the types of activity for which Consumption Data will be used to confirm that processing relates to a Legal Obligation. 2.3. Where analysis identifies that the processing of Consumption Data is above and beyond NGED's legal obligations, a further analysis will be carried out to ascertain whether the Legitimate Interests Condition applies. Activities where this is likely to apply is where we contract with a third party to undertake data analysis for us, where this is not strictly necessary.

3 Legitimate Interests Condition

- 3.1 An activity or project (that seeks to use Consumption Data) that does not meet the Legal Obligation Condition, will only be authorised where it can be demonstrated that the requirements of the Legitimate Interests Condition are met, including advising customers in advance,
- 3.2 The "Legitimate Interests Condition" in Article 6(1)(f) of the GPDR is as follows:
- "The Processing is necessary for the purposes of legitimate interests pursued by the controller or by a third party, except where such interests are overridden by the interests of fundamental rights and freedoms of the data subject which require protection of personal data, in particular where the data subject is a child".*
- 3.3 In order to meet the Legitimate Interests Condition, NGED must meet two requirements. The first is that NGED's Processing of the Consumption Data must be necessary for the purposes of its legitimate interests. The second is that the Processing must not be overridden by the interests of fundamental rights and freedoms of the data subject which require protection of personal data.
- 3.4 In relation to the first requirement, the European Commission Article 29 Working Party has stated (in Opinion 06/2014²) that what is a legitimate interest could potentially include a broad range of interests, including ones which are trivial, compelling, straightforward or more controversial. NGED's view is that Processing of Consumption Data is in the legitimate interests of NGED as an operator of an electricity distribution network. In particular, NGED needs to Process the Consumption Data to fulfil its Section 9 Duty.
- 3.5 In relation to the second requirement, ICO has stated in its "*Guide to Data Protection*" (the "**ICO Guidance**")³ that there is a balancing test to be applied when considering whether the

² Article 29 Working Party, "Opinion 06/2014 on the notion of legitimate interests of the data controller" http://ec.europa.eu/justice/data-protection/article-29/documentation/opinion-recommendation/files/2014/wp217_en.pdf (accessed 10 November 2015)

³ The Guide to Data Protection" <https://ico.org.uk/for-organisations/guide-to-data-protection/conditions-for-processing/> (accessed 10 November 2015)

Processing of the Consumption Data is unwarranted. NGED's view is that the balancing test is in favour of NGED Processing the Consumption Data for the following reasons:

- (a) Processing of Consumption Data is a legitimate interest pursued by NGED as an operator of an electricity distribution network (and Processing of the Consumption Data is necessary for these purposes);
- (b) NGED will only Process the Consumption Data to the extent strictly necessary for the purpose of fulfilling its Section 9 Duty or strictly in accordance with Licence Conditions 10A.6, 10A.7, or 10A.8 (as set out in Schedule 6);
- (c) Although NGED's legitimate interests do not exactly align with those of its Customers, they are unlikely to conflict with those interests;
- (d) NGED will be using the Consumption Data solely in connection with NGED's network and not for any other purposes;
- (e) Processing of the Consumption Data will not result in any significant intrusion into Customer's lives;
- (f) There is unlikely to be any material negative impact on Customers. For example, Customers will not be discriminated against or excluded from receiving services. In addition, it is unlikely Customers will suffer any disruption or be unduly irritated by NGED Processing the Consumption Data (for example NGED's Processing of the Consumption Data will not result in Customers being contacted by NGED or any third parties) since the information will be collected remotely without any involvement of the Customer;
- (g) NGED will ensure technical and organisational safeguards are implemented to keep Consumption Data secure at all times as well as to comply with all the other principles and obligations in the DPA; and
- (h) NGED's use of the Consumption Data is likely to fall within the reasonable expectations of Customers. For example, Customers would reasonably expect NGED to collect and use Consumption Data in order to reduce outages and improve network efficiency and performance;
- (i) The process for objecting to use of personal data, raising concerns or making complaints about how NGED uses personal data will be set out in the privacy notice NGED provides to its customers (See Schedule 7).

4 Responding to Customers wishing to exercise their rights under the GDPR

4.1 Chapter 3, Section 2 of the GDPR sets out the rights which data subjects have in relation to the processing of their personal data. Some of these rights will only apply where NGED seeks to rely on the Legitimate Interests Condition as its lawful basis for processing Consumption Data.

(a) Rights under Articles 15 and 16 of the GDPR

4.2 Under the GPDR customers have the following general rights:

- (a) to access their Consumption Data (Article 15 – "Right of access by the data subject")
- (b) to have inaccurate data rectified (Article 16 – "Right to rectification");

4.3 In addition to the above, customers have the right to have their Consumption Data erased, or to restrict processing in the following circumstances:

- (a) the Customer may exercise their right to restrict processing if the Customer contests the accuracy of the Consumption Data (in which case, NGED may not process the Consumption Data unless and until it is able to verify the accuracy); the processing is unlawful and the Customer wishes to restrict the processing rather than require it to be erased; or where NGED no longer needs the Consumption Data, but needs to retain it for the establishment, exercise or defence of legal claims; and
- (b) the Customer may exercise their right to require NGED to erase their Consumption Data if the Consumption Data is no longer necessary in relation to the purpose for which it was collected, or otherwise processed by NGED, or if the Consumption data has been unlawfully processed.

(b) Additional rights under Article 21 GDPR

4.4. Article 21 provides that Customers will have a right to object to the processing of their Consumption Data at any time if processing is based on the Legitimate Interests Condition. These rights are then limited if NGED can demonstrate it has met the Legitimate Interests Condition.

4.5 In the event NGED receives such an objection (and processing is based on the Legitimate Interests Condition), NGED must not process the Consumption Data unless it can demonstrate that it has compelling legitimate grounds for doing so, which override the interests, rights and freedoms of the Customer (or unless it is necessary for NGED to continue processing the Consumption Data for the establishment, exercise or defence of legal claims).

4.6 Articles 17 and 18 of the GDPR both cross-refer to Article 21. Under Articles 17 and 18, a Customer who objects to processing in accordance with Article 21 also has the following rights under Articles 17 and 18 respectively:

- (a) the right to request that their Consumption Data is erased unless NGED has an overriding legitimate ground to continue the processing; and
- (b) the right to restrict processing pending the verification by NGED that its legitimate grounds for processing the Consumption Data override those of the Customer.

(c) Other rights which Customers have under the GDPR

4.7 The GDPR includes rights for data subjects which give them:

- (a) the right to port their data to another data controller in certain circumstances, or to receive a copy of it from the data controller in a structured, commonly used, machine readable format (the "right to data portability"); and
- (b) to not be subject to decisions based solely on automated processing.

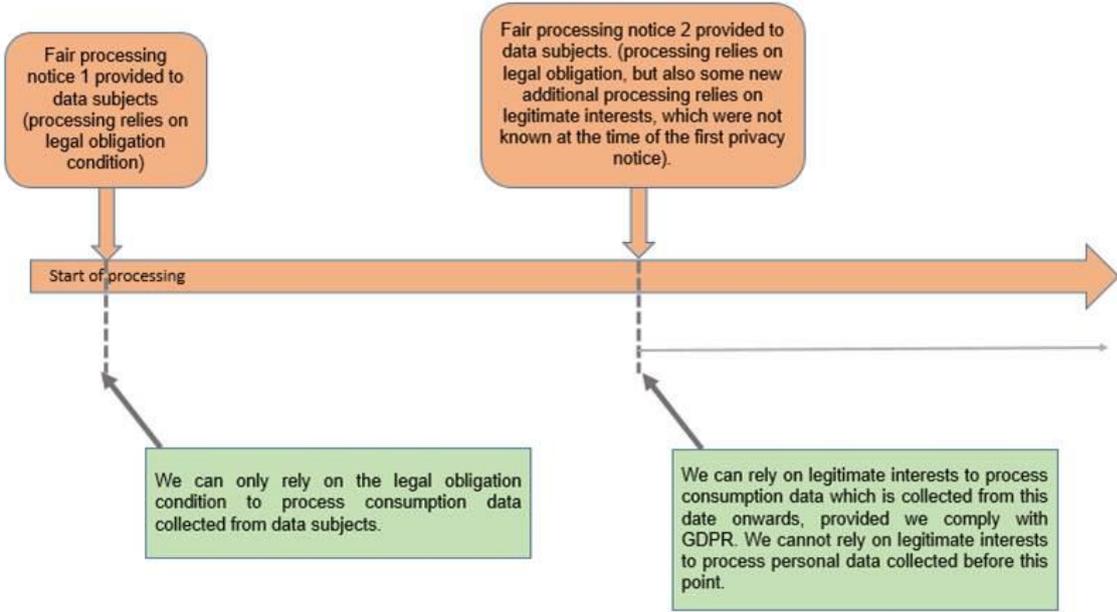
4.8 The GDPR makes it clear that the right to data portability will only apply where the processing is based on consent or on a contract, and only if it is carried out by automated means. Neither of these will apply to the circumstances in which NGED will be processing Consumption Data. The right not to be subject to decisions based solely on automated processing will not apply, as NGED will not be carrying out any such automated processing activities.

5 NGED response to Customers' requests to exercise their rights

- 5.1 In order to meet its obligations under the GDPR, NGED must ensure that it is able to respond to Customers who wish to exercise their rights. Prior to processing of any Consumption Data based on the Legitimate Interests Condition, NGED will ensure that it has in place appropriate systems and procedures to handle requests from Customers who exercise their rights.
- 5.2 NGED will have in place and implement clear policies and procedures to enable to respond to data subjects wishing to exercise their rights. These will be drafted with input from NGED's legal team.
- 5.3 If NGED seeks to rely on Legitimate Interests, unless NGED can identify which lawful basis applies to which customers, in the privacy notice, we will provide all customers with the rights granted in the case of legitimate interest basis.
- 5.4 The flow chart in the Appendix to this Schedule 5 illustrates the approach NGED will take before processing any Consumption Data based on the Legitimate Interests Condition and how it will respond to Article 21 objections received from Customers.

6. Article 13 - Customers to be made aware of their rights

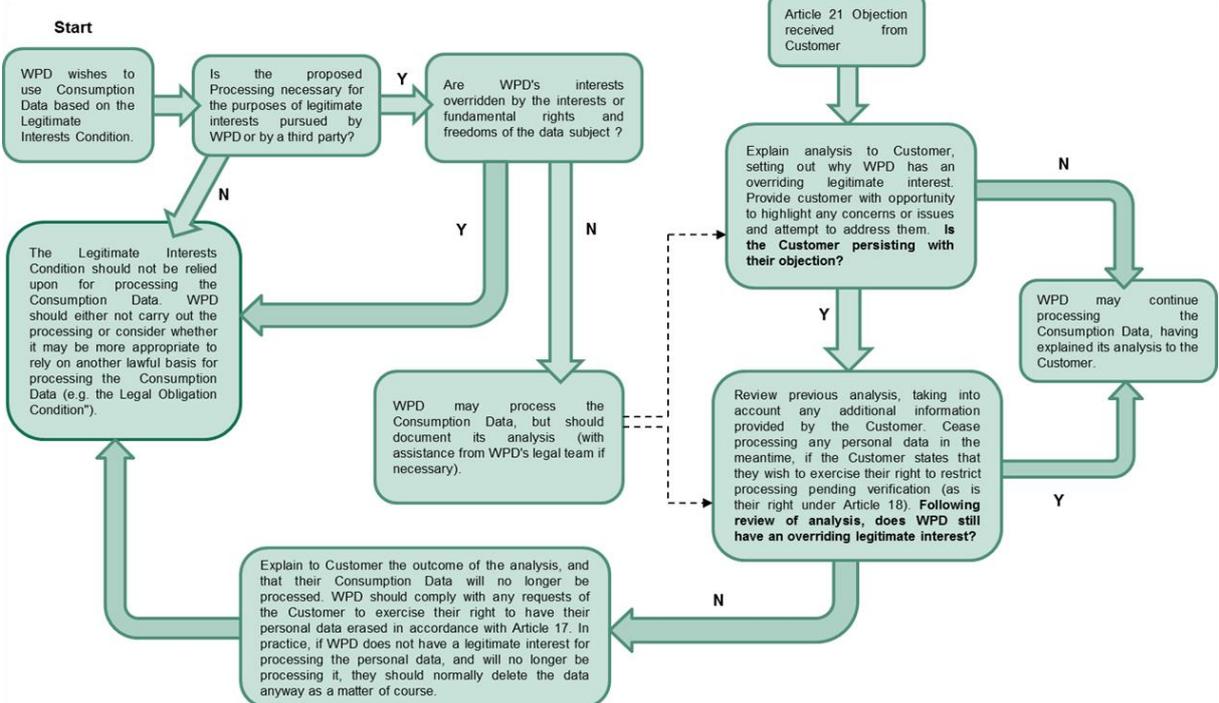
- 6.1 It is a requirement of the GDPR that the rights available to data subjects are communicated to them, as part of the data controller's information provision obligations in Article 13 of the GDPR. NGED's privacy notice (a copy of which is included in Schedule 7 of this Privacy Plan) will set out the range of rights available to Customers and how to contact NGED in order to exercise them.
- 6.2 If NGED seeks to rely on Legitimate Interests as a lawful basis for processing it will issue a revised privacy notice prior to processing data in this way.



6.3 As noted about, a customer’s right to request that we cease processing or erase data, is offset by NGED’s legitimate interests to process the data. Therefore the privacy notice needs to reflect this, and avoid misleading customers.

APPENDIX TO SCHEDULE 5

Handling requests from Customers who object to processing based on the Legitimate Interests Condition



SCHEDULE 6

Standard Conditions of the Electricity Distribution Licence

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;
- (i) 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
- (ii) 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;
 - (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 given 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 Customer:
 - (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
- (iii) the Domestic Customer has not objected to being included in the Trial.

SCHEDULE 7

Illustrative Privacy Notice

The newsletter will clearly identify who the privacy notice is from. NGED will display its full name, company registration number and registered address in the newsletter.

Smart meters and your information

The UK Government's aim is that every home in the UK should have a smart electricity meter by 2020. Smart meters have a number of advantages over conventional meters. For example, customers with a smart meter will be able to find out how much energy they are using via a digital display in their home, and suppliers will no longer need to take meter readings in order to produce a bill.

Smart meters collect information about your electricity consumption automatically. NGED is responsible for the distribution of electricity in the network in your area. Information from smart meters will provide distribution network operators like NGED with more information about how much electricity is being consumed across the network. This will in turn help to prioritise work on the network, connect properties to the network more easily and lead to the improvement of services and a safer and more efficient network.

How we will use your information

We will only use smart meter data to improve our electricity distribution network. NGED is focusing on the way that electricity is required across its entire network and does not intend to monitor or use data collected from smart meters to specifically identify individuals or to make decisions that directly affect you. For example, we may use your information to help identify when a particular transformer needs to be upgraded or replaced, or we may combine your information with other customers' information to build up a picture of energy consumption in a particular area. For 99% of customers we will be able to use aggregated smart meter consumption data, so we will not need to store your data at all. For some customers in remote rural areas, we may need to store your individual meter readings.

We may also use your information in the following ways:

- (i) if we have reasonable grounds to suspect theft of electricity from our electricity distribution network;
- (ii) for the purpose of a trial approved by the Secretary of State, provided that we have given you at least 14 days' notice of the trial and provided that you do not object to use of your information for the purpose of the trial.

We will not:

- (i) send your personal information outside the European Economic Area;
- (ii) use your information to contact you with adverts, offers or promotions; or
- (iii) sell or provide your information onto third parties for use for marketing purposes.

How we keep your information secure

The computer equipment used to collect, store and process your information must be designed and built in accordance with government or regulatory standards. This includes the smart meters which are required to comply with specific security standards. In addition, we have implemented specific systems, policies and procedures to safeguard your information. For example, where possible we will aggregate information about customers' consumption in order to reduce the risk that an individual could be identified that information.

Sharing your information

We may share your smart meter data with the following third parties in order to ensure electricity is supplied to you safely, effectively and efficiently:

- 1) academic institutions, consultants and sub-contractors who carry out work for us;**
- 2) with government bodies where we are required to do so by law or in order to assist with a criminal investigation;**
- 3) with Independent Connection Providers in order to comply with the licence conditions imposed on us by Ofgem;**

Storing your smart meter readings

We will retain aggregated smart meter consumption data relating to the network in your area. For 99% of domestic customers we will not store any individual meter readings. However in more remote rural areas we will need to store some individual meter readings. We will store this data anonymously, separate from names and addresses. We will keep this data securely for up to five years, after which time it will be permanently and securely deleted.

What rights do you have?

You have the right to ask us if we are using your individual smart meter readings.

As smart meter readings are considered to be personal data, if we hold them for your property, you have the right to;

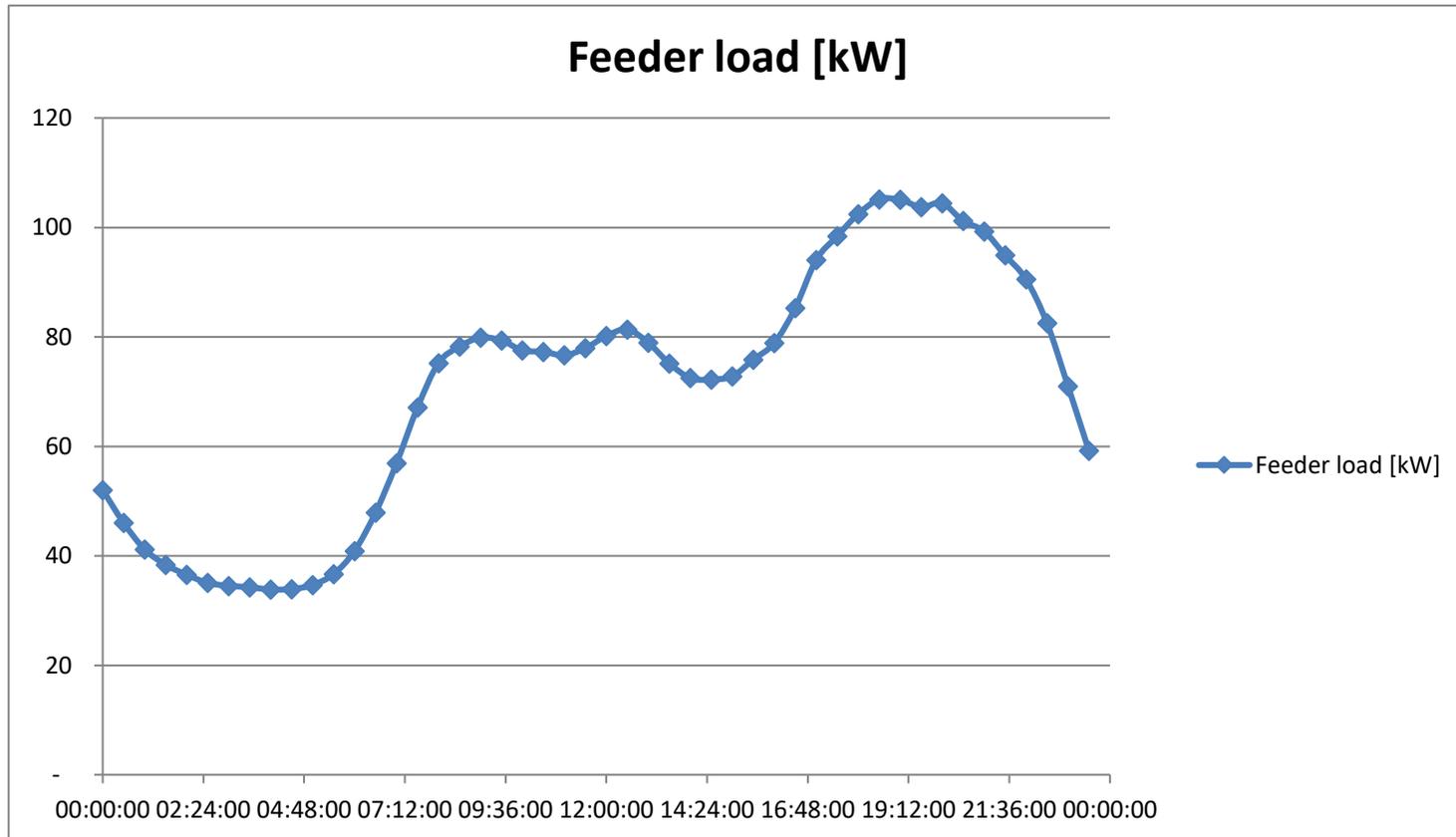
- request a copy of any smart meter readings that we hold
- ask us to correct readings that you think are inaccurate
- ask us to delete readings that you think we no longer need
- to ask us to explain why we are using your smart meter readings, including any third parties who may have access, and to ask us to consider any objections you have to this.

If you have any questions or concerns or you wish to exercise any of the above rights, please contact us on [xxx email/telephone].

We will consider all such requests and provide our response as soon as we can. In general we consider that we need to keep processing your meter readings to comply with our legal obligations to plan and operate our network efficiently. Please note that we may request you confirm your identity.

APPENDIX 2

Illustrative Example Consumption Data Profile



APPENDIX 3

Estimated financial benefit of smart metering to NGED

Estimated financial benefit of smart metering to WPD (£m)								
Year	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23
Efficiency saving on load-related reinforcement	0.00	0.00	0.00	0.00	0.00	0.43	0.70	0.85
Efficiency saving on connections-related reinforcement	0.00	0.00	0.00	0.00	0.00	0.50	0.80	0.98
Benefits for demand side response and active network management	0.00	0.00	0.00	0.00	0.00	0.5-1.5	0.5-1.5	0.5-1.5

Table shows gross benefits and does not take into account the effect of the incentive mechanisms

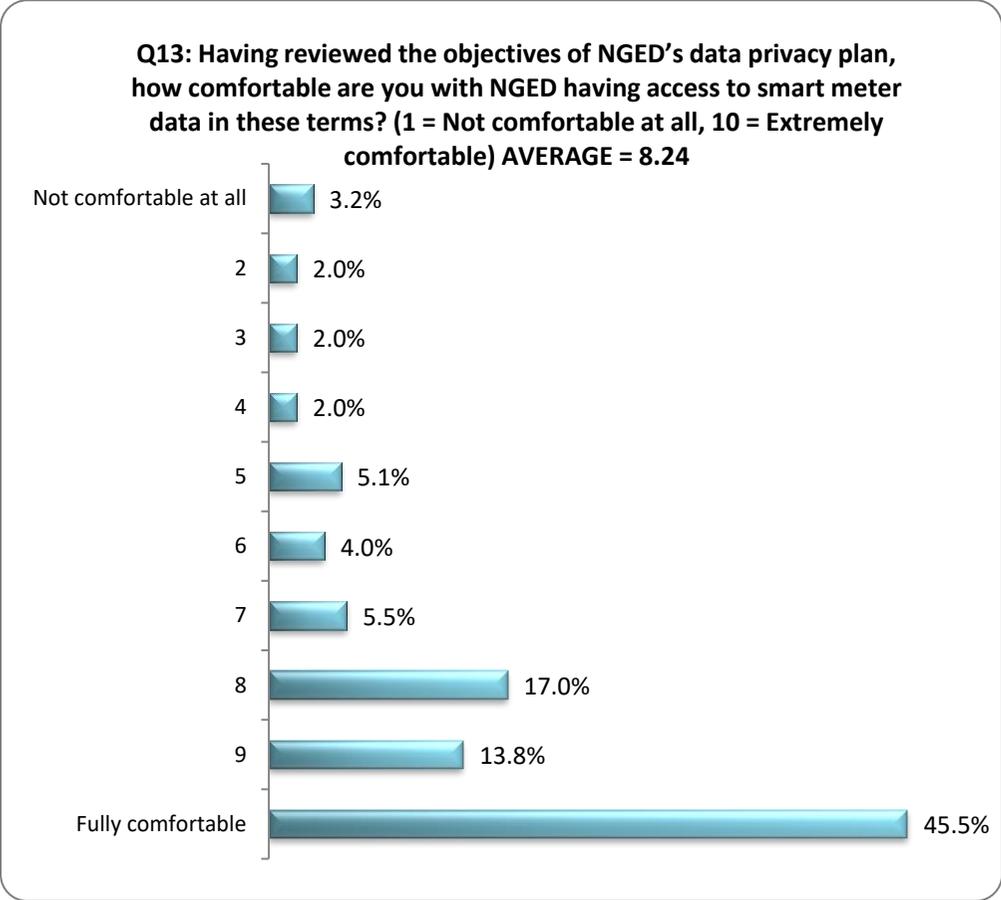
APPENDIX 4

Collection, Maintenance, Use and Deletion of Consumption Data

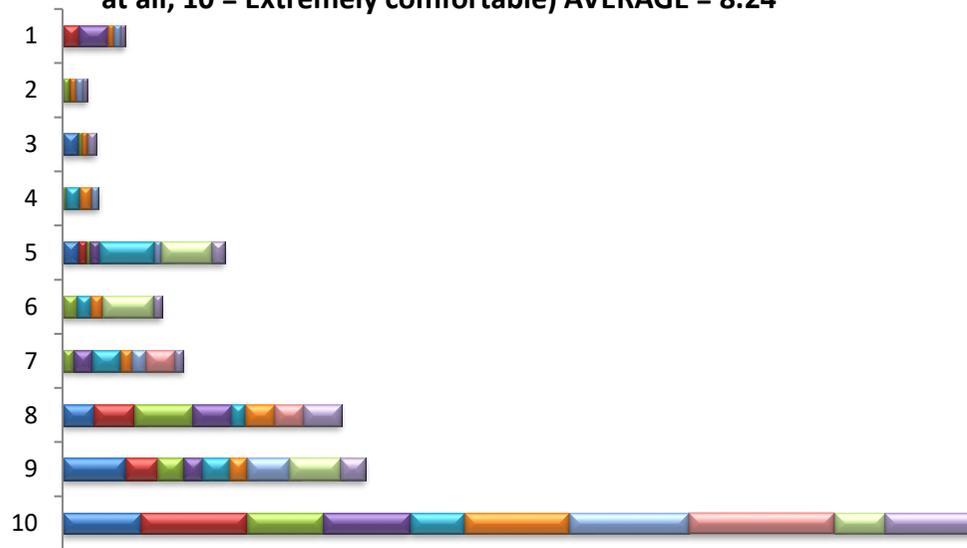
	Collection	Maintenance and use	Deletion
Where	Processes set up and managed by NGED Systems.	<p>Data will be held on databases within the secure NGED IT environment. Enquiries on data will only be possible from within the NGED trusted network.</p> <p>Data will not be held by other parties or within any cloud based environment.</p>	Current plans are for Monthly Meter totals and Feeder/Substation profiles to be held for a period of 5 years.
When	Following notification of meter installation a Monthly routine read instruction will be sent to the meter. This will obtain consumption data on a monthly basis	Consumption data is write once, read many. Maintenance is rare and by exception. (e.g. deletion where not enough readings have been obtained to protect anonymization). Clean up routines will be automated and based on reading count thresholds. Manual maintenance would be extremely rare, and subject to normal Change control/data fix processes	<p>Following 5 year expiry period all Monthly Meter totals and Feeder/Substation profiles to be securely deleted.</p> <p>Timescales for deletion to be reviewed during post-implementation evaluation stage.</p>
By Whom	<p>Automated processes written in house by NGED IT.</p> <p>Processes thoroughly tested and signed off by the Business Owner in advance of implementation.</p>	Consumption Data will only available to staff with a genuine business need. Access groups will be approved by the Business Owner	<p>Automated rules based process to be implemented to delete source when criteria met.</p> <p>Timescales defined by Business Owner and implemented via entry of relevant parameter by authorised user.</p>

Appendix 5 – Stakeholder Engagement

2017 NGED Stakeholder Workshop Results – (260 attendees across 6 Stakeholders Events)

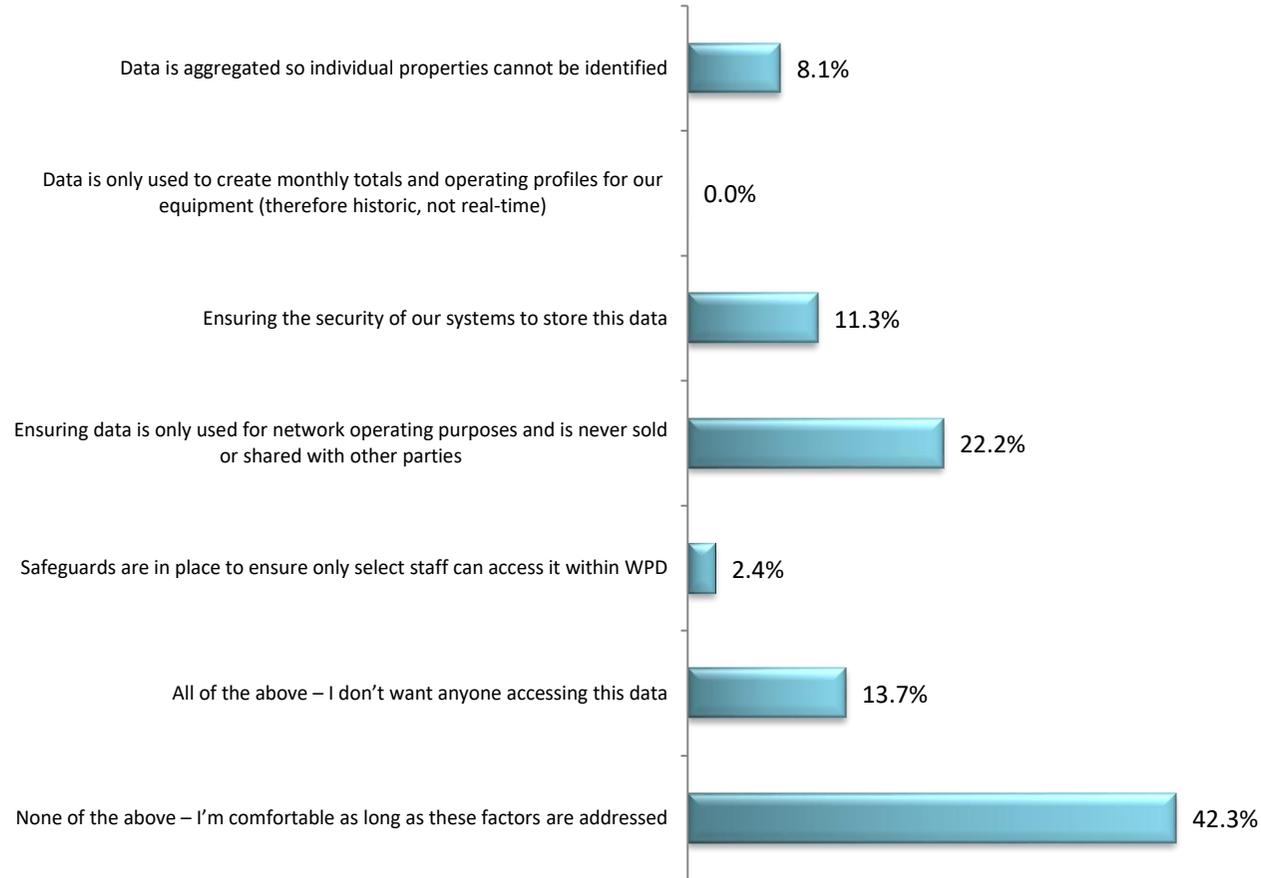


Q13: Having reviewed the objectives of WPD's data privacy plan, how comfortable are you with WPD having access to smart meter data in these terms? (1 = Not comfortable at all, 10 = Extremely comfortable) AVERAGE = 8.24



- | | |
|----------------------------------------------------|------------------------------------------|
| ■ Domestic customer / consumer interest body | ■ Business customer (or representative) |
| ■ Local authority officer / elected representative | ■ Developer / connections representative |
| ■ Environmental representative | ■ Energy / utility company |
| ■ Charity / non-profit organisation | ■ Academic / education institute |
| ■ Housing / development | ■ Other |

Q14: Which of the following factors for consideration is most important to you?



Q14: Which of the following factors for consideration is most important to you?



Session 3a: Spotlight on: 'Future Networks'

Key feedback:

Distribution System Operator (DSO) priorities

□ Stakeholders were strongly supportive of building a more flexible network and transitioning from a DNO to DSO. They agreed with NGED's DSO priorities and did not indicate that they were missing

Smart meter data privacy plan

□ 91% are comfortable with NGED's approach and having access to smart meter data in these terms – 76.3% extremely comfortable.

□ The key concern is that data is only ever used for network operating purposes and is never sold or shared with other parties (stated by 22.2% as their key priority)

NGED action as a result:

18. NGED will publish a DSO strategy document in 2017 and communicate this to stakeholders.

19. NGED will revise and resubmit to Ofgem our data privacy plan, reflecting customer feedback, in particular including safeguards to ensure data is never shared with others

20. NGED will publish a one-page summary of the plan online, including FAQs

21. NGED will publicise the availability of our data privacy plan and how we will use smart meter data to all 7.8m customers via our annual 'Power for Life' campaign

22. NGED will brief the Ombudsman to identify potential areas for complaint and how to mitigate against them. We will provide regular KPIs to monitor this.

23. NGED will expand the successful trial with EDF to other suppliers, ensuring a smoother customer journey during the smart meter roll out. This includes better co-ordination of the re-booking of appointments when installations require NGED to also attend due to safety reasons.