



# Project Falcon

Data Protection Plan – Project Falcon

Version 1

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## VERSION HISTORY

Version	Date	Comment
0.1	03/09/12	First draft by Jenny Woodruff
0.2	05/09/12	Comments from Roger Hey, Sanna Atherton
0.3	15/10/12	Updated following comments from Ofgem
0.4	27/11/12	Updated following additional comments from Ofgem (Legitimate interest and Demographic data)
1	13/12/12	Final version created

## 1. Executive Summary

This document is a companion to the customer communications plan which sets out the groups of customers affected by project Falcon.

Project Falcon will use customer data to get a better insight into consumption patterns, helping DNOs plan investment more effectively and ultimately keeping network charges as low as possible. This improved load estimation requires the use of some customer data. This will include personal data such as name and address and other information that is pertinent to estimating individual customer's energy consumption. The project does not require the use of any sensitive personal data as defined in the Data Protection Act 1998.

Some customer related data used in Falcon is not classified as personal data within the DPA good practice guide, but will require responsible handling. This will include items such as the names and addresses of commercial or industrial customers and information about their electricity usage. These data items and their uses have also been included in this document.

The data relates to two areas within the WPD service area. Project Falcon is centred around six primary substations in Milton Keynes which service approximately 55,000 customers. Some additional project sites will also be located in Milton Keynes that will be fed from neighbouring primary substations. This is not expected to increase the quantity of customer data significantly with the number expected to be under 2000.

Data from the LV Network Templates project will also be used which involves approximately 103,000 customers that are associated with 957 distribution substations in selected areas of South Wales.

Data will be shared with two companies that have been contracted to provide specialised load estimates. These companies are Logica and Energy Savings Trust. Both these companies have experience of managing data securely, including personal data.

Data will also be shared under a contract to support setting up and operating the trials of the commercial methods. This contract is with the National Energy Foundation which also has a clear commitment to data protection.

WPD has adopted the principles set out in the Data Protection Act to ensure that personal data is handled appropriately.

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## 2. Definition of Personal Data

The following definitions are taken from the Data Protection Act 1998.

**“Personal Data”** is defined as any information which is capable of being used to identify a living individual. In addition to name, address and contact details, this could include individual preferences, transactional history, record of activities or travels, profiles or credit scores.

**“Sensitive Personal Data”** is defined as any personal data that relates to any of the following: racial or ethnic origin, political opinions, religious or other similar beliefs, trade union membership, physical or mental health, sexual life, criminal convictions or proceedings.

**Data Subject:** the individual of which data is being disclosed or held.

From these definitions it follows that information about a corporate entity is not personal data as it does not relate to an individual. Thus while we intend to handle the names and addresses of non-domestic customers responsibly, this data does not require the same treatment as personal data.

### **3. What Data will be collected and how will it be used.**

#### **Load Estimation**

Customer data will be used to generate new ways of estimating load at distribution substations. The mechanism for estimating load at distribution substations requires individual customer load estimates to be created then aggregated together according to the substation that the customer is normally supplied from. The estimates for distribution substations will be compared to measured load as a way of determining the quality of the estimates. It is not expected that the estimates will be perfect but that there will be an iterative process of validation and improvement.

This validation will include comparisons of estimated loads to actual loads for certain customer types. For example, it may be useful to compare estimated values for a number of call centres to their actual consumption data to determine how well this type of customer is being modelled. The number of customer types to be compared will depend on the initial view of the accuracy of the substation estimates and so cannot be fully determined at this point.

Some of the validation data will relate to half hourly metered customers. However there may be a need to obtain additional half hourly data for customers that are not half hourly metered. In this case we would approach Suppliers for this data. We have included this potential use of customer data in this document for completeness but would finalise the details and revise this data protection document if and when an agreement with a Supplier was reached.

#### **Creating load estimates**

Logica will be using Industry data to replicate the Supplier Volume Allocation Agent process, SVAA.

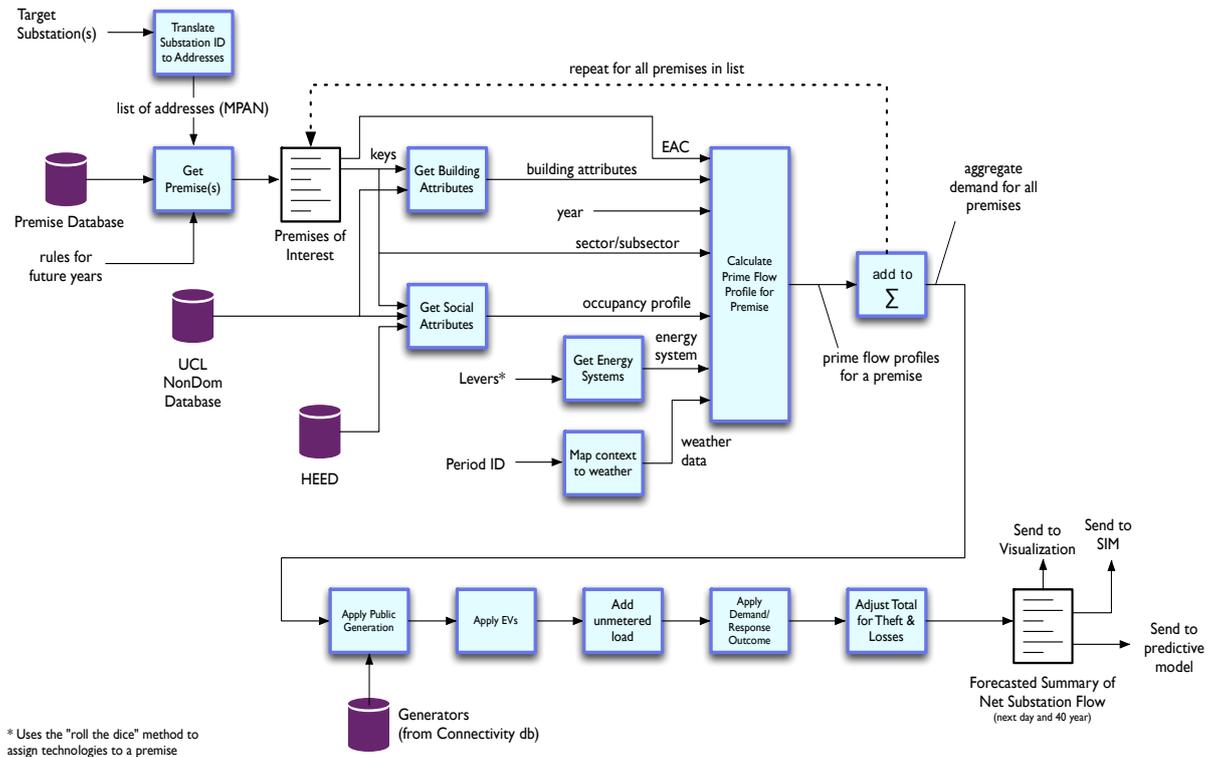
This is the process for settlement which creates estimates of half hourly consumption using profile coefficients and estimated annual consumption values. This uses MPANs to identify customers rather than address and name and therefore is not associated with any personal data.

Energy Savings Trust are creating an energy model which will be used to estimate consumption of individual consumers, and to model the uptake of low carbon technologies under different load scenarios. This requires combining some DNO sourced customer data, such as their annual consumption and which substation they are supplied by, with a range of customer data held on their own systems including HEED, the home energy efficiency database. This includes details about the property that affect its energy consumption, such as the heating system, the type and age of property and whether any energy efficiency improvements have been made. Some additional demographic data is held about occupants of the property which may affect their likelihood of adopting new technologies. This demographic data is owned and managed by EST and will not be visible to or directly accessible to WPD users of the energy model, therefore it is not included in the list of data items. Demographic data is provided by Mosaic and classifies household types at a postcode

level. The Mosaic classifications will reflect features such as income, life stage and green attitudes but do not contain Sensitive Personal Data. These datasets do not include MPAN as a customer identifier and therefore address is required for domestic customers to allow the relevant records to be linked.

For non domestic customers, address data is often insufficient to provide a unique match and so customer name is also provided.

Falcon Energy Model Overview



While the EST model creates load estimates for individual customers, this is merely a stage in an internal process that involves aggregation at distribution substation level. (The exception to this is for substations feeding one customer only where the aggregated value is the same as the individual estimate.)

None of the individual customer data from the EST systems is transferred to WPD. The output from the EST model is an estimate of load at a distribution substation and an estimate of the potential load/ generation which could be contracted for the commercial techniques.

**Commercial Method Trials**

Falcon involves trialling two commercial techniques namely;

- demand side management , and
- generator support.

Under these trials we will instruct demand customers to reduce their consumption of electricity supplied through the distribution network and also ask generators to vary their electricity output. In order to verify the speed and degree of response for these commercial services we will need to measure the load / generation of these customers.

### List of Data Items

#### Non half hourly metered customer data

No.	Data item name	Source	Purpose	Personal Data	Sharing
1.	MPAN	WPD's MPAS and Crown systems	Identifier required by SVAA process to create an estimate.	No	Logica
2.	Customer Name (Non domestic customers only.)	WPD's MPAS and Crown systems	Customers are identified as non-domestic if they have a profile class of 3,4,5,6,7 or 8 Used with address to identify a customer so that data held by EST can be combined with WPD data (Items 4 & 5) to create an individual customer load estimate which is then aggregated to either substation or HV feeder level using data items 9 or 10.	No	Energy Savings Trust
3.	Customer Address	WPD's MPAS and Crown systems	As above	Yes – but only for domestic customers with profile class 1 or 2	Energy Savings Trust
4.	Estimated Annual Consumption	Quarterly P222 data files from non half hourly data aggregators	Required by SVAA process to create an estimate Used as a scaling factor for customer profiles in the energy model.	No	Logica Energy Savings Trust

No.	Data item name	Source	Purpose	Personal Data	Sharing
5.	Profile class	MPAS / CROWN	Required by SVAA process to create an estimate Cross referenced against EST data for heating system type to identify potential data errors.	No <sup>1</sup>	Logica Energy Savings Trust
6.	Line loss factor ID	Quarterly P222 data files from non half hourly data aggregators	Required by SVAA process to create an estimate	No	Logica
7.	Standard settlement class ID	Quarterly P222 data files from non half hourly data aggregators	Required by SVAA process to create an estimate	No	Logica
8.	Data Aggregator	Quarterly P222 data files from non half hourly data aggregators	Used for error checking and ensuring a dataset is complete	No	Logica
9.	Distribution substation identifier	CROWN	Used for aggregation of customer estimates	No	Logica Energy Savings Trust
10.	HV feeder	CROWN	Used for aggregation of customer estimates	No	Logica Energy Savings

<sup>1</sup> Profile class is not considered Personal Data for the following reasons. For customers with a profile class of 3-8, these customers are non-domestic and therefore the information relates to a business or other entity but not to an individual and therefore this is not Personal Data. Personal data is that which can be used to identify a living individual, however as all domestic customers are either profile class 1 or 2, knowing that there is a customer in an area who has a particular profile class does identify who that individual is. Even in a small sample of customers, the profile class would not be an effective means to identify an individual as it is hard to infer. While generally customers with profile class 2 might be expected to have off-peak electric heating, this is not always the case.

No.	Data item name	Source	Purpose	Personal Data	Sharing
	identifier				Trust
11.	Primary substation identifier	CROWN	Used for aggregation of customer estimates	No	Logica Energy Savings Trust

Data items 1,4,5,8 and 9 are part of the set of data used to determine substation and feeder characteristics. These characteristics will be compared to quality metrics for the estimates to determine the factors affecting whether estimates can be reliable. For example we will consider the number of customers at a substation, the proportion of load that relates to unrestricted tariffs and the split of load between domestic and non-domestic customers.

**Half hourly metered customer data**

No.	Data item name	Source	Purpose	Personal Data	Sharing
12.	MPAN	WPD's MPAS and Crown systems	Identifier to allow Half Hourly loads to be added to non half hourly load estimates for comparison to measured values	No	Logica
13.	Customer Name	WPD's MPAS and Crown systems	Used with address to identify a customer so that data held by EST can be combined with WPD data (Items 4 & 5) to create an individual customer load estimate which is then aggregated to either substation or HV feeder level using data items 9 or 10  Used to identify potential customers that may be able to assist with the commercial methods trials.	No	Energy Savings Trust

No.	Data item name	Source	Purpose	Personal Data	Sharing
14.	Customer Address	WPD's MPAS and Crown systems	As per Customer Name	No	National Energy Foundation
15.	Total annual consumption	Values in Half Hourly metering systems Durabill and UoSSHP	Required for the calculation of substation / feeder characteristics. Required for validation of the energy model for non-domestic customers.	No	Logica  Energy Savings Trust
16.	Half hourly values for Active Import, Active Export, Reactive Import, Reactive Export	Values in Half Hourly metering systems Durabill and UoSSHP	Values added to non half hourly estimates at a substation to enable comparison to measured values  Required for validation of the energy model for non-domestic customers.  Used to identify potential customers that may be able to assist with the commercial methods trials.	No	Logica  Energy Savings Trust  National Energy Foundation
17.	Distribution substation identifier	CROWN	Used for aggregation of customer estimates  Used to identify potential customers that may be able to assist with the commercial methods trials.	No	Logica Energy Savings Trust National Energy Foundation
18.	HV feeder identifier	CROWN	Used for aggregation of customer estimates  Used to identify potential customers that may be able to assist with the commercial methods trials.	No	Logica Energy Savings Trust National Energy Foundation

No.	Data item name	Source	Purpose	Personal Data	Sharing
19.	Primary substation identifier	CROWN	Used for aggregation of customer estimates	No	Logica Energy Savings Trust

**Smart Meter Data for Validation of the Energy Model**

We may require additional data to validate the energy model. This will be particularly true for non-domestic customers where there is little published material with which to validate the models assumptions. While some validation may be possible using half hourly metered customer data there will be a number of non domestic customer types with smaller loads where validation would be useful, for example schools, newsagents/convenience stores, garages, etc. We expect to identify candidate customers using the name and address data and then provide a Supplier with a list of MPANs.

No.	Data item name	Source	Purpose	Personal Data	Sharing
20.	MPAN	MPAS / CROWN	Candidate set of customers that we would like data for in order to validate the energy model.	No	Suppliers
21.	MPAN	Supplier - TBA	Validation of energy model for non-domestic customers but possibly for domestic customers too.	No	Energy Savings Trust
22.	Half hourly load data for defined time periods	Supplier - TBA	As above	No	Energy Savings Trust

**Trials data**

<b>No.</b>	<b>Data item name</b>	<b>Source</b>	<b>Purpose</b>	<b>Personal Data</b>	<b>Sharing</b>
23.	Falcon HV Network Monitoring	HV Monitoring Equipment	To allow comparison of the intervention techniques in practice with the theoretical models.	No	Aston University
24.	Falcon LV Network Monitoring	LV Network Monitoring equipment.	To provide load data for comparison to estimates so that estimate accuracy can be assessed and improved.	No	Logica Energy Savings Trust
25.	LV Network Templates LV Network Modelling	LV Network Monitoring equipment	As above	No	Logica Energy Savings Trust
26.	Individual customer load data	“Smart” Meter or existing customer metering if sufficient	Monitor the timing and response to WPD requests for changes to load or generation as part of the commercial method trials. This may need to be at a higher resolution than the half hourly data provided for billing.	No	National Energy Foundation

## 4. Consent for data use and prior information

The only personal data as defined in the Data Protection Act 1998 being used and shared is the address details for domestic customers. The Data Protection Act does not always require consent or notification when Personal Data is shared. We have followed the guidance given in the Information Commissioners Office Data Sharing Code of Practice to determine whether consent and notification are appropriate for this project and outline the rationale below.

### Consent

In terms of consent, the Data Sharing Code of Practice explains on page 15 that consent is not always required, but is only one of the many different conditions that could be met for sharing data to be legitimate. It states that;

*"Whilst consent will provide a basis on which organisations can share personal data, the ICO recognises that it is not always achievable or even desirable."*

Our legitimate interest provides a valid justification for data sharing and therefore we do not require consent as a justification for data sharing. WPD has a legitimate interest in estimating the existing and future demands at its substations as this is required in order to ensure that its networks remain fit for purpose. The predicted uptake of low carbon technologies and a requirement for greater understanding of network loads to support smart grid solutions necessitate improvements in load estimation and therefore WPD has a legitimate interest in improving its load estimation in order to ensure that it can support long term strategic decisions and potentially reduce the cost of network monitoring,

The code further suggests that

*"Consent or explicit consent for data sharing is most likely to be needed where:*

- *confidential or particularly sensitive information is going to be shared without a clear legal basis for doing so;*
- *the individual would be likely to object should the data be shared without his or her consent; or*
- *the sharing is likely to have a significant impact on an individual or group of individuals"*

The data being shared is not sensitive and the data sharing is not likely to have a significant impact on an individual or group. It is unlikely that an individual would have a reasonable objection given that address data has been routinely shared within the industry for many years i.e. between Network Operators, Suppliers, Data Aggregators and Meter operators. This routine address data sharing is described in more detail within the data transfer catalogue available via the MRASCO website. The flow references are D0169 and D0302.

## Notification

On page 18 the code confirms that notification is not mandatory and suggests the considerations to inform decision making.

*"The DPA leaves it open as to how, or whether, you have to provide a privacy notice.*

*A good way to decide whether to communicate a notice actively is to try to anticipate whether the individual would expect their personal data to be shared or would object if they knew about it."*

And continues

*"The need to communicate a privacy notice actively is strongest where:*

- *you are sharing sensitive personal data; or*
- *the data sharing is likely to be unexpected or objectionable; or*
- *sharing the data, or not sharing it, will have a significant effect on the individual; or*
- *the sharing is particularly widespread, involving organisations individuals might not expect; or*
- *the sharing is being carried out for a range of different purposes."*

Once again these considerations do not apply to project FALCON as no Sensitive data is being shared, the impact on an individual is not significant, the sharing is limited, for a single purpose and unlikely to result in a reasonable objection.

- The following additional factors were also considered in relation to consent and notification. The address information is being shared with Energy Savings Trust for matching purposes only. Energy Savings Trust already have customer address data and therefore this sharing does not result in a new company having address data that did not have it previously.
- Load estimation is not a new practice but an improvement on existing methods. We are required to estimate loads to contribute to National Grid planning and so it would not be reasonable for customers to object to this use of their personal data.
- The use of the data by the third parties is strictly limited by contractual agreements to that for which it is intended and handled securely. In many respects this is similar to the use of Data Processors which we do not notify customers about.
- Estimates of individual consumption are temporary and held entirely within the systems memory. Individual customer consumption estimates will not be generally accessible.
- Personal data will not be used for marketing purposes.
- Due to the large number of customers, notification would be a significant and costly administrative burden. As permission is not being sought for the use of their data then notification may be seen by customers as "junk mail".

On this basis we do not plan to obtain customer consent or notify customers on an individual basis. However a privacy notification will be added to the WPD website [www.westernpower.co.uk](http://www.westernpower.co.uk) with the plan itself on [www.westernpowerinnovation.co.uk](http://www.westernpowerinnovation.co.uk) and [www.lowcarbonuk.com](http://www.lowcarbonuk.com)

Were we to source any customer data from Suppliers, they would obtain customer consent for sharing their customer data.

## 5. Priority Services Register Customers

Customers who are on the priority service register will not be identifiable in the data that is used. The data protection arrangements for these customers are identical to the rest of the customer base.

## 6. Who owns the personal data

Customer Name and Address data are owned by WPD. Personal data used by Energy Savings Trust remains their property and is used under licence by WPD within the Energy Model but not accessible directly. Were we to source any data from Suppliers they would own this data.

## 7. How long will personal data be retained

Personal data that has been exchanged is retained until the end of the contracts with EST, NEF and Logica. To allow for processing the Falcon Trials data these will run until the end of Falcon in March 2015.

## 8. Managing personal data on a privacy by design approach

The Information Commissioners Office Data Sharing Code of Practice was used to inform the approach to data sharing.

The Data Protection Principles have been considered as follows.

<p>1. " Personal data shall be processed fairly and lawfully and, in particular, shall not be processed unless-(a) at least one of the conditions in Schedule 2 is met, and (b) in the case of sensitive personal data, at least one of the conditions in Schedule 3 is also met".</p>	<p>No Sensitive personal data is included. The condition within schedule 2 that is met is that the data being shared for a valid business purpose. i.e. to pursue the legitimate interests of the data controller.</p>
<p>2 " Personal data shall be obtained only for one or more specified and lawful purposes, and shall not be further processed in any manner incompatible with that purpose or those purposes".</p>	<p>The purposes for which the data may be used by the contractors is clear and bounded by contractual arrangements.</p>
<p>3 " Personal data shall be adequate, relevant and not excessive in relation to the purpose or purposes for which they are processed".</p>	<p>Personal data has been limited to that which is required. No alternative to the provision of the personal data would enable the estimation to be done i.e. aggregation or anonymous data would not be acceptable.</p>
<p>4 " Personal data shall be accurate and, where necessary, kept up to date".</p>	<p>There are normal processes for sharing updates to address data within the industry.</p>
<p>5 " Personal data processed for any purpose or purposes shall not be kept for longer than is</p>	<p>Contractual clauses require the data to be returned or destroyed at the end of the project.</p>

necessary for that purpose or those purposes”.	
<b>6</b> “ Personal data shall be processed in accordance with the rights of data subjects under this Act”.	This data processing and sharing does not contravene the rights of data subjects.
<b>7</b> “ Appropriate technical and organisational measures shall be taken against unauthorised or unlawful processing of personal data and against accidental loss or destruction of, or damage to, personal data”.	Secure methods of data transfer and storage will be used and obligations placed on contractors to do the same.
<b>8</b> “ Personal data shall not be transferred to a country or territory outside the European Economic Area unless that country or territory ensures an adequate level of protection for the rights and freedoms of data subjects in relation to the processing of personal data”.	Data will remain within the EEA.