

**NEXT GENERATION
NETWORKS**

LV Connect & Manage
Data Protection Strategy



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Contents

1.	Introduction	5
1.1	Statement of compliance	5
1.2	Project overview	5
2.	Data Protection Strategy	9
2.1	Definition of personal data	9
2.2	Collection of personal data	9
2.3	Use of personal data	10
2.4	Information provision to the Customer	11
2.5	Obtaining Priority Service Register Customers' personal data	11
2.6	Ownership and retention of personal data	12
2.7	Management of personal data	13
	Appendix A – Secure Data Collection and Communication	15
	Appendix B – Customer Trial Participation Consent Forms	16
	Appendix C – WPD's standard supply interruption leaflet	18

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Glossary

Term	Definition
ANM	Active network management
DLC	Domestic load control
DNO	Distribution network operator
EV	Electric vehicle
LCT	Low carbon technology
LV	Low voltage
NIA	Network Innovation Allowance
NML	Nortech Management Limited
PPC	Power Plus Communications
PV	Photovoltaics
WPD	Western Power Distribution

1. Introduction

1.1 Statement of compliance

The LV Connect and Manage Data Protection Strategy has been prepared in compliance with the Customer Protection requirements as laid out in the Electricity Network Innovation Allowance (NIA) Governance Document.

This document has been submitted to Ofgem at least two months prior to initiating any form of engagement with Relevant Customers. It sets out how WPD, its Project Partner Nortech Management Limited (NML) and contractors will collect and use any personal data of Relevant Customers as part of the project.

WPD, NML and its contractors will:

- Not initiate any form of engagement with Relevant Customers until the strategy has been approved by Ofgem; and
- Comply with the approved strategy at all times.

The approved document will be published on WPD's website and the Learning Portal, making it readily available.

If WPD's approach to Data Protection alters, we will submit a revised strategy to Ofgem.

The compliance to the NIA Governance Customer Engagement requirements has been addressed in a separate document.

1.2 Project overview

LV Connect and Manage is a collaborative project being delivered by Western Power Distribution (WPD), Nortech Management Limited (NML) and Power Plus Communications (PPC), together with an electrical contractor and customer engagement contractor (to be appointed as part of the project mobilisation phase). Over a 3-year period, WPD, its partner NML and equipment/service contractors will be developing and trialling a smart solution for the connection of photovoltaics (PV) with energy storage and, separately, fast chargers for electric vehicles (EVs).

The project organogram is given in Figure 1.

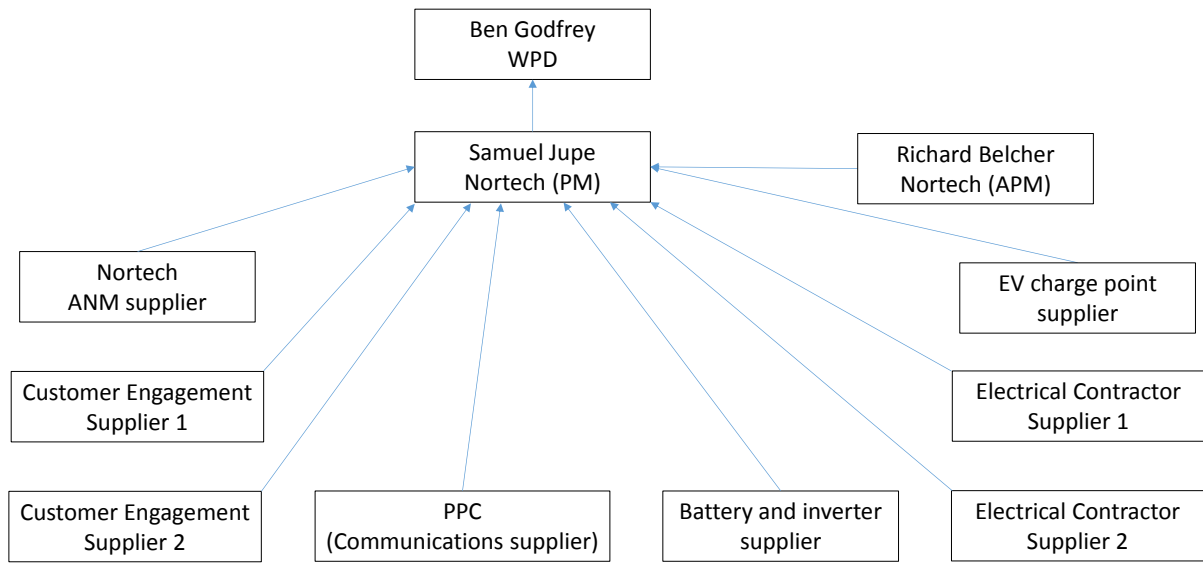


Figure 1 – LV Connect and Manage organogram

The active network management (ANM) system, being developed in this project, will allow customers to connect larger-than-conventional capacities of low carbon technologies (LCTs) to the distribution network whilst safe-guarding WPD’s assets (cables and transformers) from overloads and voltage excursions. This provides benefits for WPD and its customers.

The project is based in Nottingham and Milton Keynes, in WPD’s East Midlands Licence Area, and will involve residential customers in suburban locations.

Western Power Distribution is the consortium lead, project sponsor and will support the on-going engagement of customers (as well as dealing with customer queries or complaints) through its well established customer service channels.

Nortech Management Limited is supporting WPD with the project delivery and is providing the ANM control equipment for the trials. PPC is the communications solution provider for the ANM system. As part of this project, the control and communications equipment will be integrated into a “domestic load control (DLC) unit” and deployed within customers’ premises.

Figures 2a and 2b show the DLC arrangement within customers’ homes for the EV fast charger and PV/storage solutions respectively.

During the mobilisation phase of the project, one or more Customer Engagement contractors will be appointed. Their role will be to recruit customers into the trial, disseminate information, support WPD with the on-going communications and deal with queries / complaints as they arise. The role profile is outlined in Appendix A. In addition, an Electrical Contractor will also be appointed during project mobilisation. Their role will be to install the ANM equipment within customers’ premises.

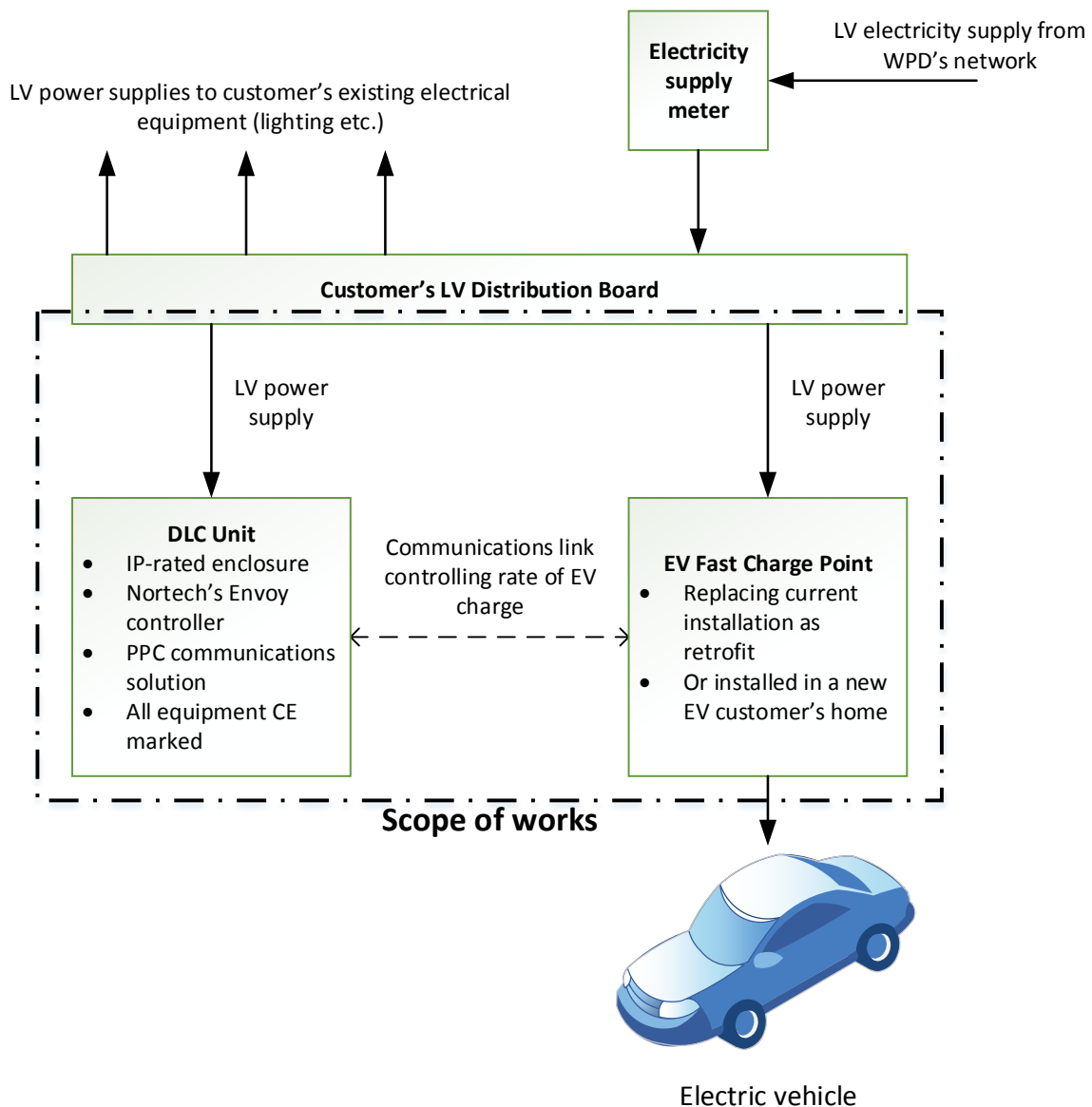


Figure 2a – Scope of works for DLC unit and EV fast charger installation

The ANM solution for EV connections will be deployed at up to 50 customers' homes and three distribution substations in Nottingham. The ANM solution for the solar-battery connections will be deployed at up to 50 customers' homes and three distribution substations in Milton Keynes.

This project will enable WPD to evaluate solutions for the integration of LCTs into LV distribution networks.

More detailed information can be found in the project registration document:

<http://www.smarternetworks.org/>

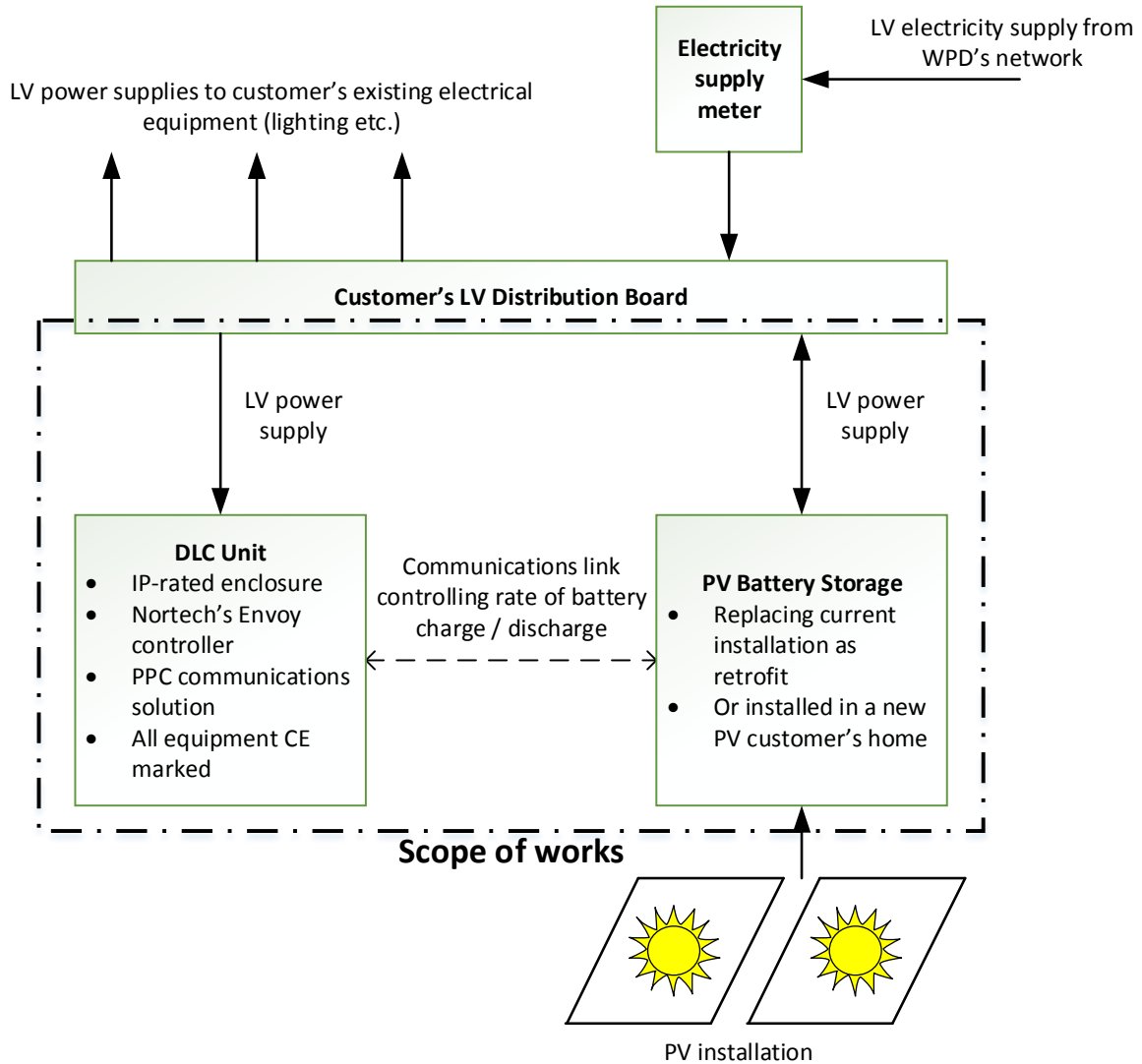


Figure 2b – Scope of works for DLC unit and PV battery storage installation

2. Data Protection Strategy

2.1 Definition of personal data

The Data Protection Act 1998 contains the following definitions of personal data:

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 similar beliefs, trade union membership, physical or mental health, sexual life, criminal convictions or proceedings.

Data Subject is defined as the individual of which data is being disclosed or held.

In order to engage with customers and achieve the project goals, the LV Connect and Manage project delivery team will collect some elements of personal data related to Customers.

2.2 Collection of personal data

The Customer Engagement Contractor will be looking to recruit up to 50 Customers for trial participation in each geographical location. (Up to 50 Customers in Nottingham for the EV trials and up to 50 Customers in Milton Keynes for the PV-battery storage trials, up to 100 Customers in total).

As part of the LV Connect and Manage mobilisation phase, the name, address and contact details of trial prospective participants will be collected together with any further details required for the solution design (such as their type of EV or solar inverters).

Depending on the Customer Engagement Contractor appointed, the name and address of Customers selected for trial participation may already be held within their existing systems. Moreover, WPD already has the information relating to registered EV and PV connections in its customer records.

Electrical generation, demand and storage data (electrical currents and voltages) will be monitored at individual customer's premises and aggregated at a distribution substation level. The Customer Engagement Contractor will anonymise the personal details of customers so that their electrical data profiles cannot be linked to specific individuals. In addition, it is only the aggregated data that will be used for control decisions and retained. Following the anonymization and aggregation process, it will not be possible to identify the data related to individual customers.

The architecture of the secure data collection and communication system is given in Appendix A.



2.3 Use of personal data

Personal data will only be used by organisations within the LV Connect and Manage delivery team where it is absolutely necessary for achieving the project deliverables. The Customer Engagement Contractor will use names, addresses and contact details of trial participants for on-going communications. The Electrical Contractor(s) will require the names, addresses and contact details of trial participants to facilitate the installation of the LV Connect and Manage equipment.

WPD and Nortech will use aggregated and anonymised data for developing the control approach, analysis purposes and for evaluating the effectiveness of the LV Connect and Manage solution.

None of the project delivery team organisations will use data, disclosed as part of the project, outside of the project.

Table 1 summarises the different data types, category, source, expected users and how the data will be used.

Table 1 – LV Connect and Manage Data

Data type	Category	Source	Who will use data and how?
Addresses of Customers with registered PV and EV connections	Personal	WPD’s systems	Who: WPD, Nortech and the Customer Engagement Contractor How: Identification of prospective trial participants
Name, address and contact details of prospective and selected Customer participants	Personal	Customer engagement process	Who: Customer Engagement Contractor How: Customer recruitment for trials and on-going communications Who: Electrical Contractor How: Contacting customers to arrange equipment installations and removals Who: WPD How: Only in the case of emergency, where customers have contacted WPD to raise a concern
Anonymised Customer details	Non-personal	Customer Engagement Contractor	Who: WPD and Nortech How: Solution design, analysis and evaluation



Data type	Category	Source	Who will use data and how?
Customer-specific EV / PV equipment details	Personal	Customer Engagement Process	Who: Customer Engagement Contractor How: Collected and then anonymised for WPD and Nortech use Who: Electrical Contractor How: Customer-specific equipment installations
Anonymised EV / PV equipment details	Non-personal	Customer Engagement Contractor	Who: WPD and Nortech How: Solution design, analysis and evaluation
Anonymised electrical profiles of individual customers	Non-personal	DLC unit	Who: WPD and Nortech How: Solution analysis and evaluation
Aggregated electrical profiles of customers on a per-substation basis	Non-personal	Nortech	Who: WPD and Nortech How: Active network management, solution analysis and evaluation
Customer feedback from trials	Non-personal	Customer Engagement Process	Who: WPD and Nortech How: Knowledge capture and dissemination

2.4 Information provision to the Customer

As part of the participant registration process, customer consent will be sought relating to the use of their contact details for equipment installations and on-going communications, and the anonymised use of their electrical data for active network management, analysis and evaluation. The planned use of this data will be explained to Customers, including which parties will access their data and why.

The consent will be collected and stored by the Customer Engagement Contractor.

Customers opting to participate in the trial will be asked to sign a Customer Agreement Letter. An example is given in Appendix B.

2.5 Obtaining Priority Service Register Customers' personal data

Potential participants will be cross-checked with WPD's Priority Services Register (PSR). Participant data will be matched with the PSR primarily based on addresses and in exceptional circumstances, where this is insufficient to match them, then name data will also be provided.

For this project, WPD will not actively target any customers on the Priority Services Register (PSR) during the recruitment process. However, WPD acknowledges that some PSR customers may contact us to participate in the trial, if they become aware of the project through general media-based and other dissemination channels. In such cases, the



implications of the trial will be explained in full. If the customer remains committed to participate, WPD will carefully consider their involvement on an individual basis. WPD will carry out a suitable risk assessment as part of the project design, and prior to installation, to ensure that no customer is put at additional risk.

WPD will also take the opportunity, during the customer engagement process, to raise customers’ awareness of the PSR. These details are included on the Interruptions to Supply leaflet in Appendix C.

2.6 Ownership and retention of personal data

The ownership and retention of data is summarised in Table 2.

Table 2 – LV Connect and Manage Data: Ownership and retention

Data type	Category	Owner	Retention
Addresses of Customers with registered PV and EV connections	Personal	WPD	WPD will retain data Nortech and the Customer Engagement Contractor will destroy data at the end of the project
Name, address and contact details of prospective and selected Customer participants	Personal	Customer	Data will be retained securely for the duration of the project and then destroyed
Anonymised Customer details	Non-personal	WPD	This information can be retained as it is non-personal in nature
Customer-specific EV / PV equipment details	Personal	Customer	Data will be retained securely for the duration of the project and then destroyed
Anonymised EV / PV equipment details	Non-personal	WPD	This information can be retained as it is non-personal in nature
Anonymised electrical profiles of individual customers	Non-personal	WPD	This information can be retained as it is non-personal in nature
Aggregated electrical profiles of customers on a per-substation basis	Non-personal	WPD	This information can be retained as it is non-personal in nature
Customer feedback from trials	Non-personal	WPD	This information can be retained as it is non-personal in nature

2.7 Management of personal data

In-line with the NIA Governance Document, the LV Connect and Manage project team will adopt a “privacy by design” approach to the management of personal data, as advocated by the Information Commissioner’s Office.

The principles of Data Protection have been considered, as shown in Table 3.

Table 3 – LV Connect and Manage Data Protection principles

Data Protection Principle	Commentary
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”.	Sensitive personal data for PSR Customers is held in an existing WPD database. This will not be shared. The condition within Schedule 2 that is met - the data is being shared for a valid business purpose. i.e. to pursue the legitimate interests of connecting customers to the network more efficiently.
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”.	The purpose for which the data may be used by the contractors is clear and bounded by contractual arrangements.
3. “Personal data shall be adequate, relevant and not excessive in relation to the purpose or purposes for which they are processed”.	Personal data has been limited to that which is required to facilitate the demonstration of the LV Connect and Manage solution.
4. “Personal data shall be accurate and, where necessary, kept up to date”.	This is a requirement for the installation of equipment and on-going communication with Customers.
5. “Personal data processed for any purpose or purposes shall not be kept for longer than is necessary for that purpose or those purposes”.	Contractual clauses require the data to be returned or destroyed at the end of the project.
6. “Personal data shall be processed in accordance with the rights of data subjects under this Act”.	The data processing and sharing proposed in LV Connect and Manage is for the benefit of Customers and does not contravene their rights as Data Subjects.
7. “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.

Data Protection Principle	Commentary
8. "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.

Furthermore, Figure 3 shows the Data Protection steps in practice.

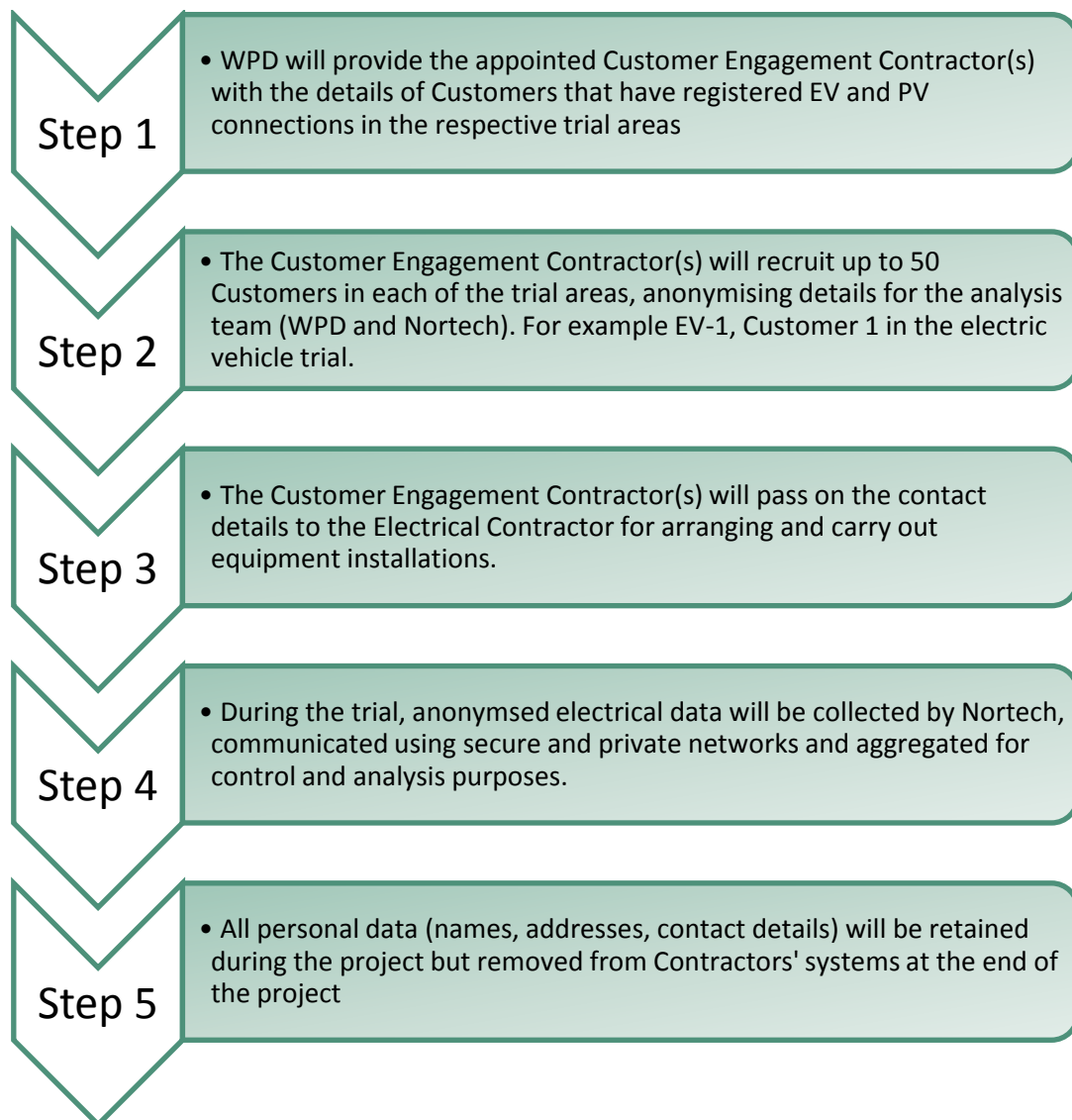
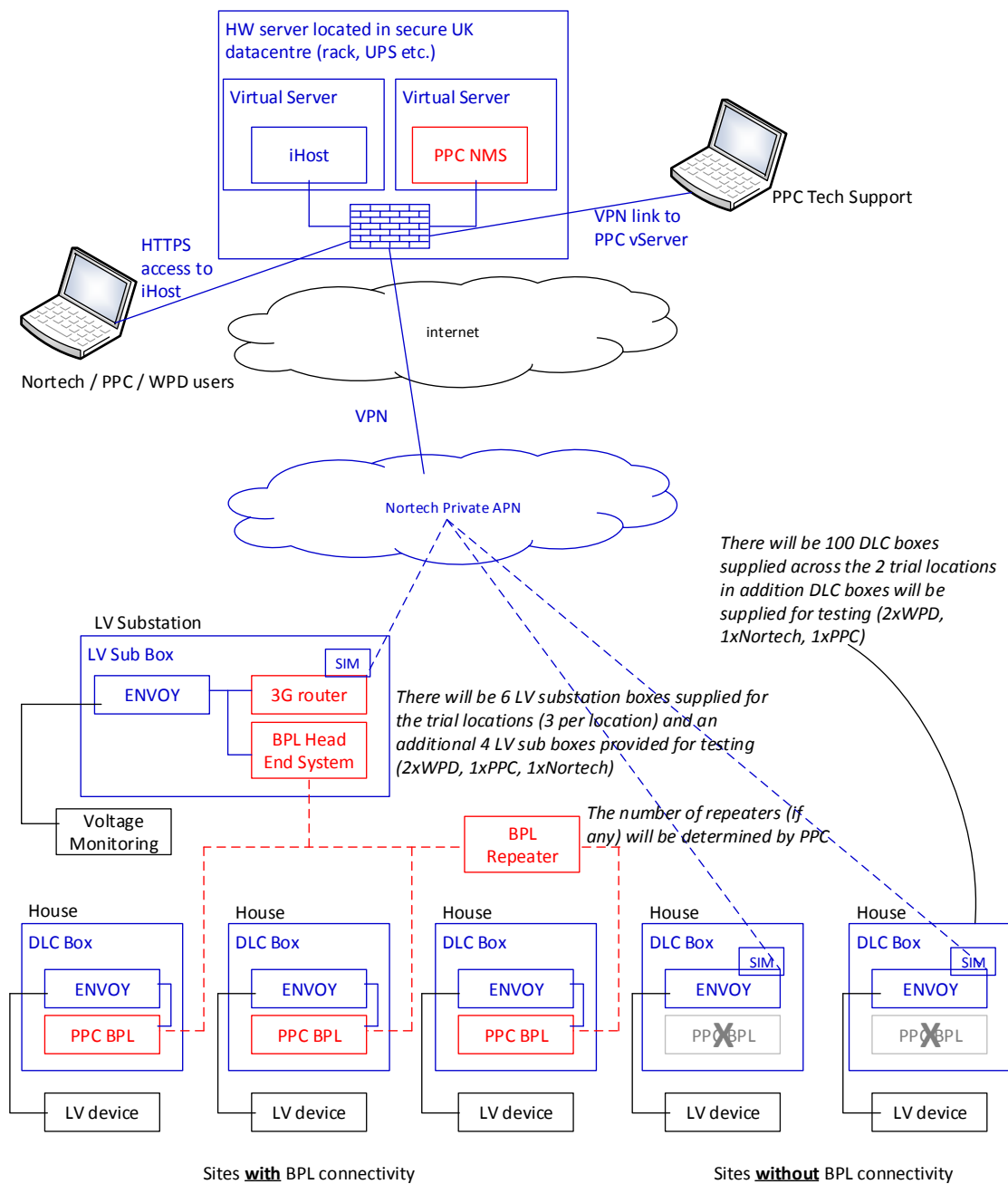


Figure 3 – Data Protection in practice

Appendix A – Secure Data Collection and Communication

The secure data collection and communication architecture is shown below. Data is transmitted over private networks with secure encryption techniques.

Items marked in black are responsibility of WPD.
 Items marked in blue are responsibility of Nortech.
 Items marked in red are responsibility of PPC.



Appendix B – Customer Trial Participation Consent Forms

LV Connect and Manage: Customer Consent Form for Trial Participation

Thank you for agreeing to take part in the LV Connect and Manage trials. Please read the information below carefully, sign and return the form to the installer.

Background

LV Connect and Manage aims to provide participating residents in [Nottingham / Milton Keynes] with a free [fast charge point for your electric vehicle / battery system for storing your PV electricity].

Western Power Distribution (your local distribution network operator) is leading the project supported by Nortech Management Limited, [electrical contractor] is installing the electrical equipment and the domestic load control (DLC) box, [customer engagement contractor] is coordinating customer engagement and Nortech Management Limited, together with Power Plus Communications, is providing the DLC technology.

The project started in May 2016 and is due to end by March 2019. The equipment will be installed in your home during the period April – September 2017. The trial will run from the equipment installation date through to September 2018.

Our Responsibilities

- Provide and install the [EV fast charge point / battery system for your PV installation] together with the domestic load control (DLC) box, which will remain the property of WPD for the duration of the trial.
- Maintain the domestic load control system for the duration of the trial.
- Explain how the equipment works.
- Remove the equipment at the end of the trial (unless you have expressed an interest to keep it).
- Provide helplines for support:
 - For emergency information please call WPD on 0800 6783 105
 - For all other electrical enquiries call the WPD Customer Call Centre on 0800 096 3080
 - For general enquiries related to the trial, please call [customer engagement contractor on XXXX]



Your Responsibilities

- To participate in the trials for the duration outlined above.
- Ensure care is taken when in the vicinity of the equipment to avoid damage.
- Ensure access to your home for equipment installation and maintenance (via prior appointments). As a home-owner you will not be liable for any system maintenance or repair costs unless caused by wilful damage.
- Customers participating in the trial will receive information about a web-based portal to access information about the project.
- Subject to agreement, you may be able to keep the control equipment on completion of the trials.
- If you move home during the course of the trials, you must contact WPD to arrange the removal of the equipment.

Publicity

With prior consent, some households will be invited to take part in project dissemination activities.

Data Protection

Your personal information will be held in a secure database and used in accordance with the Data Protection Act 1998. The LV Connect and Manage project will not disclose such information to any unauthorised person or party outside of the project delivery team.

Name:

Signature:

Address:

.....

.....

.....

Date:

Installer Signature:

Appendix C – WPD’s standard supply interruption leaflet



PLEASE REMEMBER
If you would like further information about the planned interruption to your electricity supply please contact the Local Office using the telephone number or address on the notification letter.

Priority Services Register
If you are blind, partially sighted or rely on an electricity supply for medical equipment, you can be included on a priority services register. Please contact your electricity supplier to be registered – their name and telephone number will be on your bill.

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Western Power Distribution (West Midlands) plc
Registered in England and Wales No 26005774
Western Power Distribution (South Wales) plc
Registered in England and Wales No 23669985
Western Power Distribution South West plc
Registered in England and Wales No 25668904
Registered Office: Avonbank, Tudear Road, Braid BS2 0TB
Website: www.westernpower.co.uk
WPD0105

Planned interruptions to your electricity supply

From time to time Western Power Distribution carries out work in the electricity distribution system, for example, to maintain the electricity network or connect new supplies. Inevitably this means electricity supplies have to be interrupted for practical and safety reasons until the work is completed.

Timing

Whilst we always endeavour to carry out our work with the minimum of inconvenience to our customers there will be times when we have no choice but to interrupt the electricity supply. Even in these cases we try to opt for the times which are best for the majority of our customers, but because of our extensive rolling work programme, this is not always possible.

Every effort is made to ensure the work is completed as quickly and as efficiently as possible.



What you can do?

- Keep a torch handy and make sure you check its batteries.
- Make up fizzles with hot drinks and food for use during the supply interruption.
- Keep your freezer door shut while the electricity supply is off. Placing a blanket over the freezer will help keep it cold as will filling any spare space inside with newspaper before the electricity is switched off. Remember to remove the blanket as soon as the power is restored.



- If your freezer has a fast freeze facility, switch it on for one hour before the electricity is interrupted and keep it on for one hour after the electricity is restored. Depending on the type of freezer you have, it is possible for food to stay frozen for up to 12 hours without power.

Alternative electricity supplies

If you need an alternative electricity supply, it may be possible to hire a generator from an electrical contractor.

Should you decide to hire a generator, for safety reasons it is essential that it is connected by a qualified electrician.

Remember, the quality of the electricity supply provided by a generator may not be as high as that of the main supply.

Safety

- In the interests of safety, **TURN OFF** electrical appliances and machinery when the electricity supply is interrupted.
 - Leave one or two lights 'switched on' so you know when your supply has been restored.
 - When the electricity is restored, don't forget to turn your appliances back on and re-set any timing equipment e.g. water heater, burglar alarm, digital clocks, DVD/video equipment etc.

If you run a business

Commercial freezers will only tolerate a short interruption of the electricity supply and if you have an open freezer it is advisable to empty it or make arrangements for an alternative electricity supply.

If you have a business where telephone services are vital, remember to check if your system will operate when the electricity is switched off.



