

NEXT GENERATION NETWORKS

LV Connect & Manage Customer Engagement Plan





LV Connect and Manage

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LV Connect and Manage

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
РРС	Power Plus Communications
PV	Photovoltaics
WPD	Western Power Distribution

LV Connect and Manage



1. Introduction

1.1 Statement of compliance

The LV Connect and Manage Customer Engagement Plan 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 engage with, or impact upon, Relevant Customers as part of the project.

WPD, NML and its contractors will:

- Not initiate any form of engagement with Relevant Customers until the plan has been approved by Ofgem;
- Comply with the approved plan at all times;
- Not visit a premises of any Customer for sales or marketing activities in connection with, in the context of or otherwise under the guise of the project; and
- Have regard to the implementation of the smart meter roll-out in the geographical areas (Nottingham and Milton Keynes) relevant to the Project to ensure that the Project does not impede the implementation of the roll-out in any way.

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

If WPD's approach to Customer Engagement alters, we will submit a revised plan to Ofgem.

The compliance to the NIA Governance Data Protection 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.

LV Connect and Manage

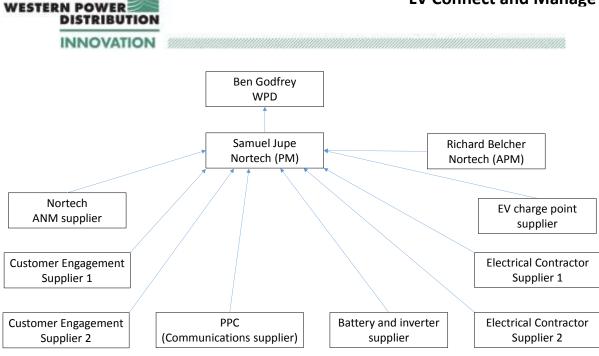


Figure 1 – LV Connect and Manage organogram

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 ongoing 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.

LV Connect and Manage

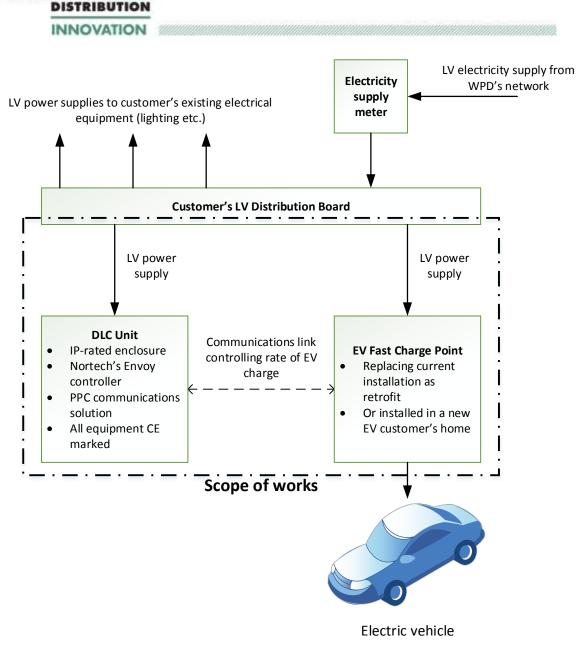


Figure 2a – Scope of works for DLC unit and EV fast charger installation

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/

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LV Connect and Manage



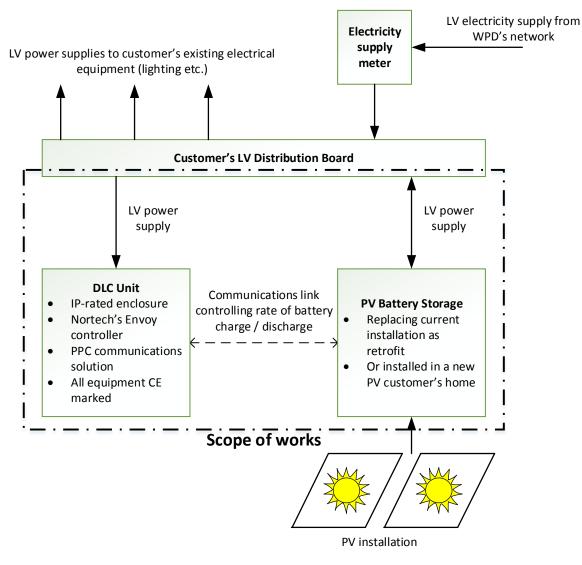


Figure 2b – Scope of works for DLC unit and PV battery storage installation

LV Connect and Manage



2. Communications Strategy

2.1 Interaction with Relevant Customers

2.1.1 Proposed interactions with customers and their premises

LV Connect and Manage will involve interactions with up to 100 Relevant Customers. The interaction process is illustrated in Figure 3.

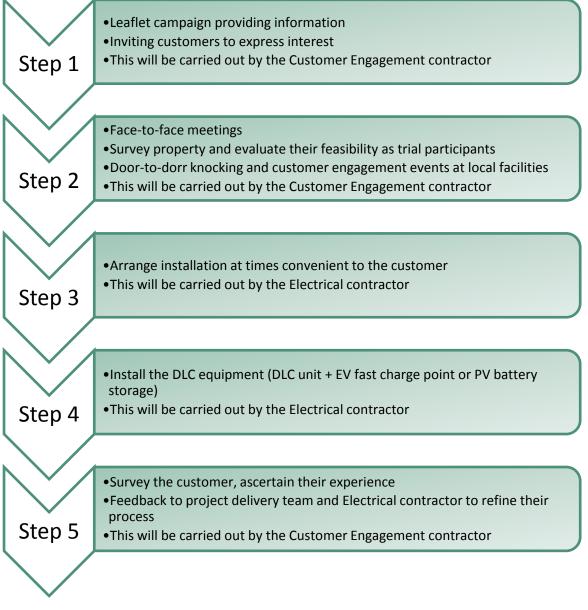


Figure 3 – Customer interaction steps

As part of the trial, a DLC unit will be installed in customers' premises. Details of supply interruptions are given in Section 2.1.2.



2.1.2 Interruptions to supply

The scope of LV Connect and Manage is to carry out works that only affect individual consenting customers. Customers that are not involved in LV Connect and Manage will not be affected by the project works and will not experience any interruptions to their supply.

The project will involve the augmentation of customers' domestic wiring to integrate the LV Connect and Manage control/communications equipment. Depending on the customers' existing distribution board, this work can be carried out without any interruption to supply. Where it has not been possible to eliminate supply interruption by design, WPD's normal procedure for informing customers of supply interruptions will be followed (which includes checking the Priority Services Register). In some circumstances, for example when installing the EV fast charge point, there may be short term interruptions (up to 30 minutes) to a customer's supply.

In advance of installations, customers will be advised they may experience a short interruption and their consent will be sought. This will be indicated in the information pack and will be explained to the customer by the Customer Engagement contractor during the engagement/recruitment process. WPD's standard leaflet for informing customers of supply interruptions is included in Appendix B. The installation works will be scheduled to take place at a convenient time to minimise any disruption to customers. Contingency plans will come into effect if planned interruptions exceed the notified time.

Equipment installations within domestic dwellings will be of a standard type (with necessary standard approvals). However, to further de-risk the installation process, WPD plans to carry out test installations and training sessions at a depot.

Using WPD's standard techniques, the installation of distribution substation monitoring equipment will not result in interruptions to customers' supplies.

2.1.3 Notification process

WPD does not envisage there will be widespread interruptions to customers' supplies as part of LV Connect and Manage.

Electricians visiting customers' premises will notify them at least a fortnight in advance and confirm a convenient timeslot (e.g. morning or afternoon) for the installation works to take place. As part of the preparatory information and in case customers' plans change, they will be given a hotline number for the electrician.

2.2 On-going communications

WPD understands that keeping customers informed is vital to its reputation and the success of the project. Maintaining engagement with customers is key for gathering learning and feeding it back into dissemination activities.

For example, following the first few installations of the LV Connect and Manage DLC units, the Customer Engagement contractor will contact the customers, proactively seek assess



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the effectiveness of the installation process and feed this back to the Electrical contractor carrying out the installation works.

Customers registering their interest in the trial will be kept informed of the project through leaflets, monthly newsletters, face-to-face contact, dissemination events, email bulletins and the project website. WPD plans to have a survey facility and will work with the Customer Engagement contractor to create a social media forum where trial participants can discuss experiences and post questions to the project delivery team.

On completion of the trials, equipment will be removed from customers' premises or left in place, if the customer has elected for this option. In the case of customers retaining the equipment, they will take on the responsibility for ownership and maintenance.

Any queries or complaints will be dealt with as per Section 2.3.

2.3 Arrangements for responding to queries or complaints

2.3.1 Telephone, email and face-to-face

Building on lessons learnt from WPD's and other DNOs' previous projects, contact details for WPD (including telephone numbers and email addresses) will be included on the publicity leaflets and information materials being used to engage customers. WPD complaints line is 0800 055 6833. WPD's complaint email address is <u>complaints@westernpower.co.uk</u>. Emergency contact details will also be included on a label fixed to the DLC unit installed in customers' homes, as shown in Figure 4.

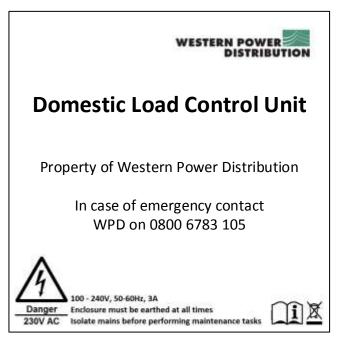


Figure 4 – DLC unit label



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Customer queries and complaints will be handled via WPD's established and effective channels (for example via the Customer Call Centre) and reported in accordance with the RIIO-ED1 Regulatory Instructions and Guidance: Annex H - Customer Service. The project team will provide training materials for the Call Centre as part of the mobilisation phase of the project.

WPD also plans to pre-empt queries by producing an FAQ in conjunction with the Customer Engagement contractor.

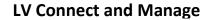
All complaints or enquiries will be dealt with within 14 days. If the complaint is deemed to be of a serious nature, the project team will respond more rapidly – a contingency measure will be put in place for WPD's electrical contractor (Haste) to be on hand for 24-hour call out to fix domestic wiring faults.

The project will supply the Electrical contractor with a stock of spare parts in case the need for replacement arises.

2.3.2 Website

More detailed information on the project is available on WPD's website:

http://www.westernpowerinnovation.co.uk/





INNOVATION

3. Priority Service Register Customers

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 B.



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4. Safety Information

All equipment within the DLC unit will bear a CE mark, demonstrating it complies to the relevant standards. The DLC enclosures will be ingress protection IP-rated for outdoor use and padlocked (allowing access only by WPD or its contracted electricians).

On completion of the installations, customers will be briefed on the installed equipment, contact numbers and the escalation process, should further issues arise.

All equipment for the LV Connect and Manage trials (DLC units, battery storage units, EV charge points) will be installed in accordance with British Standard BS 7671 "Requirements for Electrical Installations. IET Wiring Regulations.". In addition, the EV charge points will be installed in compliance with the "IET Code of Practice for Electric Vehicle Charging Equipment Installation". This will ensure that the customers are not exposed to live wires and the equipment is suitably earthed.

As part of the customer engagement process, customers' premises will be surveyed and the most suitable location for the LV Connect and Manage equipment will be discussed with them. During this process, access requirements will be assessed and any limitations/restrictions/risks will be identified. For example, if the customer owns dogs (or other potentially erratic animals), suitable measures will be put in place to control the dogs during the customer engagement / equipment installation process. This will build on WPD's existing processes and business-as-usual practices for interfacing with customers.

The electrical contractor will carry out a risk assessment as part of the installation process. This will identify any key risks and the control measures to put in place to manage the risks.





5. Obtaining Customer Consent

The LV Connect and Manage project will trial new technologies for the monitoring and control of solar/battery and EV fast charge point installations at customers' premises. The control of these LCTs will take place in real-time based on actual voltage / current measurements. Customers participating in the trials will be expected to give full consent for their equipment to be controlled. As part of the trial, this behaviour may need to be incentivised. However, longer term it is expected that customers will recognise the value of the LV Connect and Manage intervention through a reduced connection charge (compared to traditional network reinforcement).

All customers registering their interest to participate in the trials will be given a comprehensive pack of information (covering aspects such as the installation process, the equipment to be installed and how it functions, contact numbers in case of queries and the benefits of trial participation). Prior to selection for trial participation, customers will be asked to complete a consent form, which confirms they have received and read the information and understood the implications of trial participation. At this stage, we may seek additional consents to take photos of the installation process, participating customers and use any feedback (written or verbal) as part of the project dissemination activities.

This document outlines the engagement process. The Data Protection Strategy will outline what personal data will be collected for the project, how this personal data will be used, how consent will be obtained, ownership of personal data, PSR customers and managing their personal data, retention of personal data and the overall data management process.

The project delivery team will seek re-confirmation of customer consent in the event that there are material changes to the details contained within the Customer Engagement Plan and Data Protection Strategy documents. In this case, the changes will be made explicit to customers and they will be asked to completed amended consent forms.

Example consent forms are contained in Appendix C for the respective EV fast charger and solar/battery storage trial areas.



Appendix A – Profile of the Customer Engagement contractor role

The profile of the Customer Engagement contractor role is outlined below.

- Based in the locality of customers to be engaged;
- The target is to recruit up to 50 customers (households) for electric vehicle trials in Nottingham;
- The target is to recruit up to 50 customers (households) for PV/storage trials in Milton Keynes;
- Produce a plan for engaging with customers and recruiting them into the trials;
- Produce marketing materials to attract customers to participate in trials (including leaflets, Frequently Asked Questions sheets, website material);
- Face-to-face door knocking to recruit customers;
- Support on-going communications (e.g. host an on-line forum; survey participants pre-trial, during trial and post-trial);
- Feedback success of installations to project delivery team (this will be used to provide feedback to the installation contractors as needed);
- Support WPD with responding to queries and complaints;
- Organise and host customer engagement and dissemination events (likely to be three events);
- Have a suitable data protection policy in place;
- Prior experience interacting with consumers;

The LV Connect and Manage project team is looking to appoint a Customer Engagement contractor / contractors by September 2016. Subject to the approval of the Customer Engagement Plan, they will be tasked with recruiting customers into the trials by April 2017. An approved electrical contractor will carry out the installation works from April – September 2017. The equipment will be trialled in customers' homes for 12 months and the project will conclude by March 2019.

The project team is investigating various incentive options for engaging customers (for example, giving the customers the option to purchase the control equipment, after the trial, for a nominal fee).

In parallel to Ofgem's approval of this Engagement Plan, potential Customer Engagement Contractors will be identified and assessed for their suitability, based on the profile outlined above.

The short-list of Customer Engagement contractors has already been identified and contacted. Several prospective companies, in each of the geographical trial locations, have been asked to provide quotations for the customer engagement works.



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Appendix B – WPD's standard supply interruption leaflet



WESTERN POWER INNOVATION

Customer Engagement Plan

LV Connect and Manage



If you run a

of the electricity supply and if where telephone services are only toleade a short interruption Commercial freezens will you have an open freezer it chemative electricity supply. vial, remember to check if make arrangements for an s advisable to empty it or If you have a business your system will operate





business

Remember, the quality of

electrician.

when the electricity is whiched off.



equipment etc.

electricity supplies

Should you decide to hive a generator, for safety reasons If you need an ahemative from an electrical contractor

by a generator may not be as tigh as that of the main supply the electricity supply provided

- In the interests of sofety, TURN OFF electrical machinery when the electricity supply is appliances and interrupted.
- know when your supply Leave one or two lights switched on' so you has been nedated.
- digital clocks, DVD/video tum your appliances bac on and reset any fiming restored, don't forget to When the electricity is equipment e.g. water heater, burglar alarm,

Alternative

electricity supply, it may be possible to hire a generator corrected by a qualited it is essential that it is

Safety



blanket as soon as the power is restored.



freeze focility, switch it on ood to stay hozen for up hour after the electricity is If your freezer has a last restored. Depending on for one hour before the and keep it on for one he type of freezer you electricity is interrupted have, it is possible for o 12 hours without DOWRT.

to carry cut our work with the minimum of inconvenience to our customers there will be choice but to interrupt the times when we have no



What you can do?

Planned interruptions to your electricity supply

- Keep a torch handy and make sure you check its batteries.
- Make up flasks with hot drinks and food for use during the supply interruption.

means electricity supplies have to be interrupted for practical and safety reasons until the work is

completed.

network or connect new supplies. Inevitably this

system, for example, to maintain the electricity

From time to time Western Power Distribution carries out work in the electricity distribution

will help keep it cold as electricity is switched off. Remember to remove the Keep your fieezer door blanket over the freezer shut while the electricity supply is alf. Placing a newspaper before the auds Aup Built line space inside with

he mojority of our outlamers,

but because of our extensive

these cases we try to opt for

Whilst we always endeavour

Timing

electricity supply. Even in

the times which are best for

rolling work programme, this

is not always possible.

- Page 18 of 21
- Every effort is made to ensure the

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Appendix C – 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:
 - \circ For emergency information please call WPD on 0800 6783 105
 - $\circ\,$ For all other electrical enquiries call the WPD Customer Call Centre on 0800 096 3080
 - \circ For general enquiries related to the trial, please call [customer engagement contractor on XXXX]



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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: