



# Smart Street Engaged Customer Panel Interim Project Report

20 December 2014

A stylized white illustration of a cityscape on rolling hills. A prominent sign on two posts reads "SMART STREET" in green capital letters. The cityscape includes various buildings, power lines, a bus, a train, and wind turbines.

**SMART STREET**

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## VERSION HISTORY

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## APPROVAL

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## GLOSSARY

Abbreviation	Term
C <sub>2</sub> C	Capacity to Customers (Second Tier LCN Fund project)
CCC	Customer contact centre
CEP	Customer engagement plan
CLASS	Customer Load Active System Services (Second Tier LCN Fund project)
CVR	Conservation voltage reduction
DECC	Department of Energy and Climate Change
DNO	Distribution network operator
ECP	Engaged customer panel
FAQ	Frequently asked question
HV	High voltage
LCN Fund	Low Carbon Networks Fund
LCT	Low carbon technology
LV	Low voltage
Ofgem	Office of Gas and Electricity Markets
PSI	Planned supply interruption
PSR	Priority services register
Q&A	Question and answer
SDI	Short duration interruption
SDRC	Successful delivery reward criteria
SMS	Short message system

# 1. FOREWORD

This document is one of a series of reports that will be published as part of Electricity North West's Smart Street project, which is funded by Ofgem's Low Carbon Networks (LCN) Fund Second Tier mechanism. The project is being undertaken by Electricity North West and key project partners. It received formal notification of selection for funding on 29 November 2013 and commenced in January 2014. The project is due to be completed in December 2017.

The Smart Street trials will test innovative technologies and demonstrate how distribution network operators (DNOs) can apply innovative technology to augment the performance capabilities of existing networks by reducing reinforcement costs, improving carbon efficiency and reducing energy costs for customers. Smart Street combines the concepts of network interconnection, developed within our Capacity to Customers (C<sub>2</sub>C) project and voltage control, developed within the Customer Load Active System Services (CLASS) project. New technologies and techniques will be trialled to optimise network voltages and configuration in real time. The trials will also demonstrate how these techniques can be incorporated with Conservation Voltage Reduction (CVR) to ensure both networks and customers' appliances operate as efficiently as possible, whatever the customer needs might be.

This four year project will employ these new techniques to prove that a DNO can quickly release capacity and voltage headroom to facilitate the connection of low carbon technologies (LCTs) and at the same time operate a cost, carbon and energy efficient distribution network. Smart Street will demonstrate that DNOs can prepare their networks to meet the new challenges arising from the anticipated increase in the adoption of LCTs by proving that this method is faster and cheaper to apply than traditional reinforcement. Critically, the project will prove the hypothesis that these techniques can be applied without any adverse effect on customers and may deliver a reduction in customers' energy consumption.

This report and the analysis therein forms part of the project's dissemination. The research activities documented concern the project's initial phase of customer engagement, which was undertaken with an engaged customer panel (ECP), convened to ascertain domestic customer reactions to Smart Street and to help formulate an effective awareness campaign aimed at customers, stakeholders and the wider community. This approach was used successfully in Electricity North West's previous Second Tier LCN Fund projects, C<sub>2</sub>C and CLASS.

The research approach outlined within this document was submitted as part of Electricity North West's Smart Street customer engagement plan (CEP), which was approved by Ofgem on 16 July 2014.

All materials referenced in this document can be found on the [key documents](#) or [customer](#) pages of the Smart Street website.

## 2. EXECUTIVE SUMMARY

### 2.1 Background and business objective

Electricity demand in Great Britain (GB) is expected to increase and potentially double by 2050 with the anticipated increase in new electricity loads from LCTs such as heat pumps for heating, and electric vehicles for transport. The expected increase in the adoption of LCTs, when coupled with new low carbon and renewable generation sources, will create significant challenges for the operators of electricity networks.

Smart Street provides a novel solution and will test innovative technologies which could enable DNOs to prepare networks to accommodate the increase in LCTs. The new technologies and innovative voltage optimisation techniques will integrate with existing assets, enabling both the network and customers' appliance to run more efficiently. Smart Street may also deliver cost savings to customers by reducing energy consumption.

The solution is quicker and cheaper to deploy than traditional reinforcement, which involves major capital investment, is carbon-intensive and can be extremely disruptive to customers.

Smart Street will generate a number of outputs which will define how a series of low cost interventions can be applied to networks, as customers adopt LCTs. This learning will be shared allowing other DNOs to quickly and effectively implement the Smart Street solution.

### 2.2 Customer engagement objective

The customer hypothesis for Smart Street is that:

*Customers within the Smart Street trial areas will not perceive any changes in their electricity supply when the Smart Street method is applied.*

This hypothesis is tested through a range of customer engagement activities during the trials, which are defined in the Smart Street CEP. The engaged customer panel (ECP) is one of the most important of these activities and this research is conducted in two stages to achieve separate customer engagement objectives:

- The first stage, which is the subject of this report, focused on developing effective communication, to inform customers within the trial areas about Smart Street, why the method is being trialled and its potential benefits to customers.
- The second stage of customer engagement with an ECP will take place in two phases. Firstly, mid way through the live trial phase in 2016 and at the end of the trials in 2017. This research will elicit customer perceptions and observations of any perceived changes in their electricity supply, providing evidence to test the customer hypothesis.

### 2.3 Research approach

The approach to this research was outlined in the Smart Street CEP, which was approved by Ofgem on 16 July 2014. In the CEP Electricity North West committed to:

- Communicate with customers from the outset by publicising the Smart Street Project in advance of the technology installation stage and to provide a basic understanding of the Project objectives and the importance of the low carbon agenda.
- Communicate with customers via a number of tailored channels, such as written, audio and visual mediums, in such a way that there is no confusion with the smart meter rollout.
- Be guided by feedback from the ECP in order to define its customer communication approach.

The recruitment of the ECP and moderation of focus group meetings was conducted by Impact Research, an independent market research agency and a Smart Street project partner. All research was carried out in accordance with the professional standards set out in the Market Research Society Code of Conduct.

The ECP participants were selected to reflect an appropriate cross-section of customers in each of the three trial regions of Cumbria (Wigton and Egremont), Lancashire (Wigan and Hindley Green) and Manchester (Denton and Longsight). Full details of the recruitment and selection of ECP members is included in Section 11.

The ECP met twice in each area to share information regarding the trials and to test customer awareness materials. Each meeting of the ECP had distinct objectives, as set out in Section 4.1.

## 2.4 Summary of key findings

### *ECP awareness materials*

As concluded in previous Second Tier LCN Funded projects, ECP members generally need to have the identity and role of Electricity North West explained, before they are able to evaluate project awareness material.

Consequently, the first ECP meeting was entirely devoted to introducing participants to Electricity North West, and outlining the impact of the low carbon agenda. The materials presented to participants to give background and context to Smart Street were:

- A question and answer (Q&A) document that informed participants about Electricity North West and its role within the electricity industry (Appendix 11.1)
- Information cards that contextualised the problem of likely increased future demand and potential solutions including Smart Street (Appendix 11.2).

The information cards and the Q&A document proved effective as an introduction to Electricity North West and the project, although further time was required to explain and discuss the project in more detail.

Spontaneous reactions to parts of the Q&A document and the information cards generated discussion among the ECP. Some participants expressed cynicism about government carbon reduction targets, the likely take up of electric heat pumps and vehicles and the perceived impact of higher customer bills. As a result, more time than expected was spent re-focussing participants on the intended topics.

A learning outcome from this was that the context given in awareness materials should be targeted and carefully worded to focus participant's attention on the relevant points.

### *Key messages in the customer leaflet*

The project team decided that the most efficient and cost-effective means of disseminating key information about the project to customers in Smart Street trial areas was by means of a suitable leaflet.

Two draft versions of the customer leaflet were presented to participants during the first phase of ECP discussions:

- A concise leaflet that provided basic information about the project, which focused on improvements in supply quality (Appendix 11.3)
- A more informative version that contained further details about Electricity North West and why and how the trials were being conducted (Appendix 11.4).

The more informative version of the leaflet was preferred. However, feedback revealed that the quantity of information and the way in which it was structured should be revised to cover the following key questions more prominently and succinctly:

- Who is Electricity North West?
- What is Smart Street?
- Why is it happening?
- How will it impact me?

These key questions reflected the content and structure of a concept board that had been developed to summarise the key elements of the project and address anticipated concerns. The concept board was introduced in the first meeting, but only after the draft leaflets had been considered (see Section 6.2). The board was well received by participants, with some suggesting that it might replace the leaflet in its entirety. The ECP generally agreed that key elements from the concept board should be incorporated into the leaflet to deliver the information more succinctly.

This resulted in two revised versions of the leaflet being produced, which were evaluated during the second phase of the ECP. These leaflets began by summarising the key messages. The inside then provided additional information for interested customers, who chose to read the remainder of the leaflet (Appendices 11.5 and 11.6).

#### *Leaflet design*

A major challenge in producing a customer leaflet was to ensure that recipients did not perceive it to be 'junk' mail and therefore immediately discard it.

The significance of the front cover's design in achieving this emerged early on during the first phase of focus groups. Consequently, almost half of the second meeting was devoted to discussing the cover's imagery, headlines, layout, text and format. Several versions of the front cover were introduced to participants, allowing them to select their preferred combination of elements.

The ECP concluded that a mainly text-based front cover had the greatest impact and was less likely to be discarded without being read. A light green background was considered the easiest to read of the options provided.

The ECP highlighted the importance of appropriately selected imagery and repeatedly indicated a preference for an image of an engineer climbing an electricity pylon against a cloudy sky. Participants considered that this was a good visual portrayal of Electricity North West's role as a DNO. This image was included in the prominent top left of the final cover to supplement the text.

#### *Leaflet content detail*

Some content in the first drafts of the customer leaflet were perceived to be negative in tone. Participants recognised that LCTs provide solutions to the UK's environmental and sustainable energy challenges and were confused when introduced to supply problems associated with high penetration of LCTs on a DNO's network.

These issues were addressed in the final version by emphasising the positive network and customer benefits that will be derived from Smart Street.

#### *Leaflet effectiveness evaluation*

A small-scale piece of quantitative research was undertaken to assess the effectiveness of the Smart Street customer leaflet and ascertain customer reaction to it, following its mailing to all customers on the Smart Street trial circuits.



37% of those interviewed recalled receiving the leaflet. 26% of all participants, or 70% of those that recalled receiving it, claimed to have read or skimmed the content of the leaflet.

Only 2% thought the leaflet was delivering bad news, whilst 76% thought it contained only good news. The remainder considered the leaflet to be a mixture of good and bad news.

## 2.5 Conclusions

The final leaflet (Appendix 11.8) was considered to offer the greatest potential to maximise the number of customers who would at least read the front cover and comprehend the basic principles of the Smart Street project.

The ECP provided an essential forum for collecting constructive and independent feedback about Electricity North West's initial drafts of the customer leaflet. The second phase of focus groups, conducted with the same participants, was valuable for assessing their reaction to the changes made as a result of their earlier suggestions.

Although several learning outcomes from previous, related projects were considered in the preparation for Smart Street customer engagement activities, new and unexpected findings emerged, some of which conflicted with findings from previous ECP. This emphasises the need for consultation with customers when developing awareness materials for each new project.

## 3. BACKGROUND AND OBJECTIVES

### 3.1 Project background

Electricity demand is forecast to increase as GB transitions to a low carbon economy and our reliance on fossil fuels for transport and heat diminishes. This trend is expected to continue, potentially doubling electricity demand by 2050, with the increase in new loads from LCTs such as heat pumps and electric vehicles. When coupled with the new low carbon and renewable generation sources, this will create thermal and voltage challenges for the DNO's management of high voltage (HV) and low voltage (LV) networks.

DNO must connect the new LCTs to facilitate customers' transition to a low carbon future, whilst maintaining statutory voltages, reducing network losses, managing power quality and, against a backdrop of increasing energy bills, help reduce costs to customers.

DNOs would have historically employed traditional reinforcement, involving major capital investment to address the problems created by new LCTs. This option is no longer appropriate due to the high financial cost, the carbon intensity of the works and the associated customer disruption.

Smart Street is a novel solution which makes effective use of network interconnection combined with voltage control techniques. New technologies will integrate with existing network assets to deliver benefits to customers by releasing latent capacity and voltage headroom, which will accommodate the connection of LCT and low carbon generation more quickly and at less cost than traditional reinforcement methods.

By implementing innovative Smart Street techniques to maintain customer voltage close to the minimum for optimum CVR performance, the method will enable both the network and customers appliances to operate more efficiently and consequently, may reduce customers' energy consumption.

### 3.2 Customer engagement objectives

The principal objective of the first phase of customer engagement with an ECP, as set out in Section 2.2, was to identify the most effective method of communicating Smart Street in a

simple and easily understood manner to customers in the trial areas. To achieve this objective, two rounds of focus group meetings were arranged with ECP panellists in three regions. These focussed on the following four key questions:

- Do customers understand the role and responsibilities of the DNO within the energy sector?
- Do customers understand the impact of decarbonisation and the transition from traditional fossil fuels to cleaner sources of energy?
- Do customers understand the Smart Street concept?
- Which key components of Smart Street need to be communicated to customers and how should they be communicated?

Based on their reactions, the ECP helped Electricity North West formulate effective communications materials, which were used to launch a targeted awareness campaign aimed at customers in the trial regions along with stakeholders and the wider community. This approach helped as many people as possible understand the project, its aims and objectives and the benefits it might deliver to both customers and other DNOs.

The second phase of customer research will be conducted during the trials to test the key Smart Street customer hypothesis that:

*Customers within the Smart Street trial areas will not perceive any changes in their electricity supply when the Smart Street method is applied.*

This hypothesis will be tested through a range of customer engagement activities, key among which is a series of customer focus groups with an ECP. These will be conducted mid way and at the end of the live trial phase to elicit customer observations about any perceived effects on their electricity supply.

Smart Street will generate outputs and learning in a number of key areas and will reflect customer feedback. These will be of particular interest to other DNOs, Ofgem, the Department of Energy and Climate Change (DECC) and other stakeholders. Various dissemination activities will be undertaken to share relevant learning.

### 3.3 Customer impact

A range of Smart Street technologies will be trialled in six regions, across three counties, on circuits fed by six primary substations and 38 related distribution substations. These areas are representative of a range of Electricity North West's rural and urban networks. The trial regions comprise approximately 67,000 customers, representing 2.5% of Electricity North West's customer base and will thereby robustly demonstrate the application of the Smart Street method.

A customer leaflet produced for Smart Street summarised the scope, size and areas of the distribution network included in the Smart Street project. It also set out the objectives and customer benefits of the trials within the context of GB's low carbon agenda and clarified that installation of enabling technology may, in a small number of cases, require a planned supply interruption.

Four overlapping groups of customers will be engaged as part of Smart Street:

#### **Customers in the trial areas**

A targeted awareness campaign was launched to inform customers in the trial areas (who had not participated in the ECP) about the Smart Street project. This was achieved by distributing a customer leaflet, which was developed with the aid of the ECP. The leaflet provided key information about Smart Street, the energy issues that it seeks to address and its benefits to customers. The leaflet directed customers to the Smart Street website and

social media platforms where interested customers could obtain more detailed information. It also provided the project team's telephone number and a short message service (SMS) service contact for enquiries.

This report also outlines activities conducted after distribution of the leaflet to test its effectiveness and the return on investment. This research involved a previously unengaged sample of customers, unrelated to the ECP.

### **Customers on the trial networks who would experience planned interruptions for the installation of the network equipment**

It is anticipated that approximately 5% of customers on trial networks might experience planned supply interruptions associated with installation of the enabling technology. Electricity North West will take all practicable steps to avoid planned interruptions but where these are necessary; their impacts will be managed by notifying affected customers in writing, in accordance with standard business as usual procedures.

The Smart Street team will also use the priority services register (PSR) to identify vulnerable customers and will contact them by telephone in addition to sending the standard written notification. This proactive approach will enabled the Smart Street team to appropriately manage the specific needs of affected vulnerable customers, to mitigate the effects of a planned supply interruption.

### **Customers on the trial networks who could experience short duration interruptions (SDIs)**

Due to the application of interconnected configurations to LV networks, there is a possibility that any normally occurring fault on an LV feeder will lead to other customers in a Smart Street trial area being affected. In this instance, the network will be reconfigured remotely and the majority of those customers will have their supply restored within approximately three minutes. It is expected that there will be an improvement in the overall reliability of circuits involved in the trials resulting from the combination of advanced circuit breaker technology and automation software. Using historical fault data it has been calculated that approximately 240 customers on the Smart Street trial networks will experience, on average, 58 minutes less time without supply from transient faults per year.

### **Customers on the trial networks who agreed to participate in customer focus groups (the ECP)**

Understanding whether customers observe any effect during the trial is fundamental to the viability of the Smart Street solution and its acceptability. Therefore a representative sample of customers, from each of the trial areas, will be engaged throughout the project to provide feedback in relation to two key stages of customer research (refer to Section 2.2). The results of ECP engagement during stage 1 of the research form the basis of this report. This focussed on shaping suitable communications materials for customers in the trial areas.

The second stage of customer research with an ECP will take place mid way through the live trial phase in 2016 and at the end of the trials in 2017 and will focus on perceived customer impact once the trials have commenced. These results will be published in April 2018.

Customers who agreed to participate in the ECP were fully informed by the research partner, Impact Research, how their data would be utilised and shared before signing up. Customers were asked to sign a consent form and by doing so agreed to their information being used for research purposes. The process for obtaining customer consent is fully documented in the Smart Street data privacy statement (DPS).

No consents were required for the method's application to the network and as no installation of equipment or any other intervention works took place at customers' premises, there was

no requirement to obtain consent such purposes. However, to keep customers fully informed and allay customer concerns, the Smart Street team:

- Distributed project awareness material to all customers in the trial regions. These were designed to provide an overview of the aims and objective of the project and address key concerns raised by the ECP. It was originally proposed that customers would be informed about the theoretical increase in SDIs and improvements in restoration times, in the event of an unplanned supply interruption. Despite a CEP commitment to inform customers on trial networks about a theoretical increase in SDIs, this reference was removed from the leaflet on the guidance of the ECP, who found the concept very confusing. This is covered in Section 8.8.
- Held training sessions to fully brief the customer contact centre (CCC) about the Smart Street project to ensure any associated customer enquiries were captured and call handlers were equipped to address general project queries.
- Produced a frequently asked questions (FAQ) document, evaluated and improved by the ECP, which was incorporated into the final leaflet.
- Will use any feedback from customers, stakeholders and partners, to revise plans and improve the customer engagement strategy, as appropriate, during the remainder of the project. Ofgem will be consulted in advance of any significant changes to the project plan.
- Will share all customer communication materials and findings, as set out in the Smart Street CEP.

### 3.4 Objectives met

An ECP was convened, consisting of three groups of customers covering each of the trial regions. Research with this ECP identified the most effective method of communicating Smart Street to customers in the trial areas.

Separate groups will be convened during and after completion of the live trial phase of the project, to test the hypothesis that customers will not perceive any changes in their electricity supply as a consequence of Smart Street. These customer engagement activities will constitute stage 2 of the research.

The market research conducted to date was considered successful and feedback from the ECP was used to refine a leaflet which was subsequently distributed to customers on Smart Street trial circuits. As outlined in Section 3.3, six primary substations were selected to trial Smart Street. However, only 11 HV circuits out of these substations and 38 associated distribution substations will involve the Smart Street method. To ensure customer communication was appropriately targeted, leaflets were sent only to the 19,500 properties that will be directly affected by the application of Smart Street technologies and techniques.

Figure 3.1 below lists how each of the successful delivery reward criteria (SDRC) was met during the course of the project to date. This report forms the evidence for criteria 2 and 3: 'produce appropriate campaign materials to raise awareness about Smart Street' and 'test the customer survey materials using the ECP'.

Figure 3.1: Customer engagement SDRC for the Smart Street project

Criterion	Required evidence	Actual evidence
1. Develop customer engagement plan and data privacy statement	1. Send customer engagement plan and data privacy statement to Ofgem by June 2014	1a. Customer engagement plan 1b. Data privacy statement
2. Produce appropriate campaign materials to raise awareness about Smart Street	2. Deliver general awareness materials and publish on the Smart Street website by October 2014	2a. Customer leaflet 2b. Technology installation customer letter
3. Test the customer campaign materials using the engaged customer panel	3. Engaged customer panel workshop delivered by September 2014, lessons learned published on the Smart Street website by October 2014	3a. ECP lessons learned report
4. Customer contact centre briefing and training materials created and delivered	4. Customer contact centre training delivered and materials published on the intranet by July 2015	4a. Customer contact centre briefing 4b. Customer contact centre briefing (slideshow)
5. Produce report of customer surveys	5. Publish on Smart Street website the customer survey report by December 2017	Available December 2017

### 3.5 Required modifications to the planned approach during the course of the project

No changes were required to the planned approach.

## 4. CUSTOMER ENGAGEMENT METHODOLOGY

This section of the report outlines the customer engagement methodology employed to understand customers' perceptions of Smart Street, to meet the research objective for stage 1, as set out in Section 2.2, 'to form effective communication materials'.

This first research objective was exploratory by nature and required a methodology that elicited deeper understanding of customers' perception of Smart Street.

After convening the ECP, a professional, independent moderator asked participants semi-structured questions relating to a predefined list of topics. This format gave the moderator the flexibility to question participants further on issues arising through open discussion. It also fostered the natural evolution of the ECP's understanding of Smart Street and its likely implications for customers.

The approach to developing suitable customer engagement materials with the guidance of an ECP was derived from the successful outcome of this technique with the CLASS ECP.

### 4.1 Objectives of the ECP meetings

In the CEP Electricity North West committed to:

- Communicate with customers from the outset by providing them with basic information about the project objectives and the importance of the low carbon agenda in advance of the technology installation stage.
- Communicate with customers through a number of tailored communication channels, such as written, audio and visual mediums, in such a way that Smart Street is not confused with the smart meter rollout.
- Be guided by feedback from the ECP in defining its customer communication approach.

Each regional ECP met on two separate occasions in September and October 2014. During these meetings, information was shared; draft awareness materials tested and the participants were encouraged to provide detailed feedback. This approach was based on previous experience with C<sub>2</sub>C and CLASS and allowed the project team to develop, test and evaluate communication materials intended for customers iteratively.

The key objectives and learning outcomes agreed for each of the ECP meetings are listed in Figure 4.1.

Figure 4.1: ECP meeting objectives

ECP meeting	Research objective
ECP meeting 1	<ul style="list-style-type: none"> <li>• Educate the ECP about the role of Electricity North West and the Smart Street method</li> <li>• Develop an understanding, from the ECP's perspective, of the key elements of Smart Street that need to be highlighted in communications to customers</li> <li>• Evaluate the proposed customer leaflet that will be used to raise awareness of the trials.</li> </ul>
ECP meeting 2	<ul style="list-style-type: none"> <li>• Review the revised awareness materials</li> <li>• Determine which version of the materials was the most appropriate to send to customers</li> <li>• Evaluate a range of front cover options for the printed awareness materials to help increase potential readership beyond the front cover.</li> </ul>

The ECP was influential in determining the most effective form of words to describe Smart Street to customers. This enabled Electricity North West to communicate information about Smart Street in a succinct and easily understood manner, using customer-friendly terms.

## 4.2 Membership of the ECP

A maximum of ten customers were recruited in each of the three Smart Street trial regions of Cumbria, Lancashire and Manchester. Recruitment was on the basis that participants would attend both scheduled meetings. Participants were geographically clustered to enable easy access to the meeting venues.

Domestic customers were the key target group, representing the overwhelming majority of customers served by Smart Street trial circuits. No customer engagement had taken place concerning any aspect of Smart Street prior to this piece of research, other than published articles and materials available only on the Smart Street website.

The ECP was recruited to reflect the broad customer profile of the region, with an appropriate cross-section of customer demographics reflective of ages, gender, social grade, region and household composition, as demonstrated in Figure 4.2.

Figure 4.2: ECP group definitions

Trial area	Rural/ Urban	Customer type	Gender	Age
<b>Cumbria</b> (Wigton and Egremont)	Rural	Domestic	Equal proportion of males and females	50+
<b>Lancashire</b> (Wigan and Hindley Green)	Dense urban	Domestic	Equal proportion of males and females	18-30
<b>Manchester</b> (Denton and Longsight)	City	Domestic	Equal proportion of males and females	31-49

These ECP meetings took place purely to develop suitable customer communication materials, prior to the Smart Street trials commencing. New ECPs will be recruited for the second stage of the customer engagement, to be conducted in 2016 and 2017.

### 4.3 Frequency of meetings and attendance

The ECP met on two occasions in autumn 2014 (see Figure 4.3). The meetings lasted approximately 90 minutes each and were facilitated by an accredited Interviewer Quality Control Scheme qualitative moderator.

Figure 4.3: ECP meeting dates

Meeting	Date
ECP meeting one	16-18 September 2014
ECP meeting two	30 September and 1-2 October 2014

The ECP was expected to attend both meetings and to secure this; participants were advised of the dates prior to committing to take part.

A target attendance level of at least eight customers was set for each meeting. Based on previous customer engagement, it was anticipated that the attrition rate of customers who no longer wished to participate would be approximately 10%, or one person, between the two meetings. Recruiting ten customers allowed sufficient mitigation for non-attendance.

The minimum attendance of eight people per group was achieved on all but one occasion, as set out in Figure 4.4.

Figure 4.4: ECP attendance

ECP meeting	Cumbria	Lancashire	Manchester
ECP meeting one	8	9	10
ECP meeting two	8	9	7

## 4.4 Incentives

Customers were offered a cash payment of £40 for attending each ECP meeting. This was recommended by Impact Research based on previous experience of recruiting customers to take part in similar multi-session panels. Customers were required to sign a claim form to document receipt of the payments and could elect to make an equivalent donation to a registered charity of their choice, if they preferred.

## 5. KEY LEARNING OUTCOMES INCORPORATED FROM THE C<sub>2</sub>C AND CLASS PROJECTS

Figure 5.1 lists the learning from previous LCN funded Second Tier projects – C<sub>2</sub>C and CLASS – that were subsequently applied to the Smart Street customer engagement methodology:

Figure 5.1: Applied learning

Learning from C <sub>2</sub> C and CLASS	Application to Smart Street
<ul style="list-style-type: none"> <li>The ECPs for both projects demonstrated that customers had little or no understanding of Electricity North West's identity or and were unable to differentiate the roles of DNOs from suppliers. They also lacked awareness of the decarbonisation agenda, the increasing demand for electricity and the potential need to expand the electricity network. Customers needed to be educated about these matters before new concepts could be introduced.</li> </ul>	<ul style="list-style-type: none"> <li>Draft communication materials were presented at the first ECP meeting to introduce participants to Electricity North West, the DNO's role and responsibilities and how they differ from those of suppliers and National Grid Electricity Transmission. Once this was done, the ECP could engage in informed discussions about solutions to enable decarbonisation.</li> </ul>
<ul style="list-style-type: none"> <li>The ECPs valued a simple Q&amp;A factsheet, a concept board and a video which explained how the projects could address the problem and how customers on trial circuits might be affected. Customers needed reassurance about the reliability of their supply to maintain their interest and the project's credibility.</li> </ul>	<ul style="list-style-type: none"> <li>Smart Street was explained in a simple manner through a mixture of audio and visual methods that had been effective in the previous projects (FAQs, concept board, video).</li> <li>A statement was made emphasising that customers' electricity supplies would remain as reliable during the trial as before.</li> </ul>
<ul style="list-style-type: none"> <li>Videos were found to be particularly effective in explaining the project concepts to customers in a simple manner. However, a video was unlikely to be the primary means of raising customer awareness. A customer leaflet was the most cost-effective method for reaching all customers on trial circuits.</li> </ul>	<ul style="list-style-type: none"> <li>The video was only shown to ECP participants after the written materials had been introduced and debated. This approach identified which elements of the leaflet were most effective, before the video offered any clarification to the ECP.</li> </ul>
<ul style="list-style-type: none"> <li>Customers' main concern was the likely impact or benefit, if any, of the method on them. They were also concerned about whether there would be any change or disruption in service, or increase to their bills.</li> </ul>	<ul style="list-style-type: none"> <li>The first draft of the Smart Street customer leaflet placed greater emphasis on the customer impact and benefits of Smart Street for customers than on the method itself.</li> </ul>



## 6. KEY ANALYSES AND RESULTS

### 6.1 ECP Awareness materials

#### *Insight*

In Electricity North West's previous Second Tier LCN Funded projects, a key learning outcome was that, in general, customers needed to be educated about the identity and role of Electricity North West, its responsibilities as a DNO and how these differ from those of electricity generators, a transmission company and suppliers. The ECP then require information explaining the low carbon agenda and challenges facing the energy sector. Only after this has been established, are they able to appreciate why projects such as Smart Street are necessary to meet anticipated future electricity demand and digest project awareness materials.

#### *Action*

The ECP was provided with a Q&A document (see Appendix 12) to read before the first ECP meeting.

This approach built on the positive feedback received about the Q&A documents that were included as part of C<sub>2</sub>C and CLASS customer engagement activities.

The Q&A document provided an overview of Electricity North West and its position in the electricity industry to assist in differentiating the role of a DNO from suppliers and the National Grid. However, when the ECP was probed about the content of the document, they expressed some cynicism about the information it contained, specifically concerning carbon reduction targets and whose responsibility it should be to fund the required changes.

*"I think to get to their target for 2050, I think it's going to cost us, the public... we're going to be the ones who are going to end up paying for it all to be done... it's not costing them, it doesn't come out of their pockets as such, obviously the government give them a fund, like I think it was £42 billion or something they put into the Green Deal... and the first time nothing even happened and then they redone it all again, invested some more money into it, but at the end of the day, that's taxpayers money that's going to be doing it." - Manchester*

During these debates, it emerged that some participants incorrectly perceived that Smart Street provided a solution which benefitted Electricity North West, but not its customers. Because of this, more time than expected was spent explaining the positive customer impacts, dispelling this misconception and re-focussing the participant's attention on the intended discussion framework.

In the first round of meetings, participants who were interested in the technical aspects of the project asked for more information to be included in the Q&A document. No changes were made in response to this request, as the deliberate omission of technical detail was intended to allow Smart Street to be explained and discussed in a step by step manner during the ECP meetings.

Information cards explaining how demand is likely to increase in the future were also presented to the ECP. These were similar to cards which had proved effective with the CLASS ECP. Based on previous experience, it was expected that these would meet certain obstacles, such as customers' inability or general reluctance to accept the expected take-up of electric vehicles and heat pumps. At present, customers have generally had limited exposure to LCTs in their daily lives. Therefore, they can find it difficult to make the connection between the reduction in fossil fuel usage, an increase in demand for electricity and the implications this may have on everyday functions such as heating and travel.

*“The thing is with cars it is not just electricity, there is hydrogen fuel and they are looking at all other fuels all the time.” - Wigton*

The information cards were reassessed following their introduction at the first regional meeting, when participants had spent too much of the limited time available debating them. Some cards were omitted, leaving just two:

- A problem statement– summarising the need to meet increased future demand
- A card showing the options for solutions to the problem.

This reduced participants’ tendency to debate details, or dwell on their suspicions of ‘profiteering’ by energy suppliers and DNOs.

### *Outcome*

The Q&A and other background information presented to the ECP were supplementary to the draft customer leaflets that were expected to form the basis of the customer awareness campaign. These materials informed the refinement of the leaflet’s design and content.

The Q&A document was effective as an introduction to Electricity North West and the challenges facing DNOs in a low carbon future. The document briefly introduced Smart Street and provided a platform for follow up discussion during the first ECP, when the project was explained and debated in further detail.

This research reflects findings from previous projects and highlighted that an ECP, predominantly comprised of domestic customers, needs educating before they can be effectively engaged in group discussions. However, the context of educational materials should be targeted, to limit opportunity for wider debate on tenuous issues. It should be anticipated that in the present economic climate, discussions around the electricity needs of customers might generate debate on topics, such as rising energy prices, fuel poverty and cost implications for taxpayers. These valid concerns might resonate with participants but be irrelevant to the key ECP objectives. Any deviation from the key focus of discussion requires careful management to avoid distraction, confusion and the waste of valuable time.

## **6.2 Key messages in customer communication materials**

The project team, guided by the ECP collectively agreed that one of the most effective ways of communicating with customers on trial circuits was through a customer leaflet. This offered the most efficient and cost effective way of reaching all affected customers and disseminating key facts about trials. Importantly, leaflets are accessible to those customers without access to the internet.

### *Insight*

Previous leaflets for C<sub>2</sub>C and CLASS had been refined on the basis of their respective ECP’s feedback and both leaflets varied greatly. Therefore, it was expected that the feedback from the Smart Street ECP would be influential in shaping effective customer communication materials for the project.

Feedback from C<sub>2</sub>C and CLASS ECP members had also highlighted the need to distil the complexities of the project into a concise description, with a focus on the customer implications and benefits.

### *Action*

Two draft versions of the customer leaflet were introduced to participants during the first meeting of each regional focus group.

Version 1a was a concise leaflet (Appendix 11.3), similar to the one developed for C<sub>2</sub>C. This provided a basic level of information about the project, which focused on improvement in supply quality. This draft provided no supplementary information about how the technology works.

Version 1b (Appendix 11.4) was closer to the design of the CLASS customer leaflet and contained detailed information about Electricity North West and why and how the trials are being conducted. The leaflet also included an FAQ section, based on the most anticipated enquiries and learning from previous customer engagement activities.

The second, more informative version of the leaflet was preferred. However, some panellists considered that this contained too much information and did not like the way in which it was structured.

In terms of the quantity of information, participants asked Electricity North West to summarise the most pertinent aspects of the project more succinctly at the start of the leaflet and then provide further detail on later pages for those who may want it. Their key questions were:

- Who is Electricity North West?
- What is Smart Street?
- Why is it happening?
- How will it impact me?

The order in which information was arranged was criticised because participants had to read the majority of the leaflet before concerns about how the trials were likely to affect them and their households were addressed. The ECP wanted to be reassured much earlier that:

- There would be no requirement to install equipment in their homes
- They would not see increased bills
- There would be no major disruption to their electricity supply or disruptive works in the local area.

*“Are they gonna come and fit something in houses, is there gonna be something at the end of the street... it might be like... we have to come in and put these in your house and you’ve gotta have this on your kitchen wall.” - Manchester.*

A concept board, which summarised the Smart Street method in less detail than the draft customer leaflets, was then introduced to the ECP. A concept board is an established market research tool which can be effective in simplifying complex ideas into key aspects that may resonate with customers:

**Concept: A smart step into the future**

**electricity north west**  
Bringing energy to your door

**Background**  
As we face the challenge of making the transition from fossil fuels to lower carbon means of electricity generation, homes are likely to be heated by electricity instead of gas and cars will be electric rather than petrol fuelled. This will mean that demand for electricity in Great Britain will rise significantly.  
To maintain current levels of service, the cost of upgrading the network would mean *higher bills*. However, using the existing network more efficiently could help meet this increased demand, without increasing your bills.

**Problem**  
Electricity loses voltage as it is distributed across cables and this means networks and appliances can operate less efficiently. This problem is set to increase as demand for electricity rises in the near future.

**Solution**  
**SMART STREET** will balance voltage so that our network and your appliances work in harmony.

**How?**  
As a customer your supply will be as **safe and reliable** as usual. These variations in voltage would be so small that you would not notice the difference. Innovative voltage control equipment will maintain a standardised level of voltage to your home whilst still remaining within statutory limits. The voltage control technology will be trialled between September 2015 and July 2017 on circuits that supply electricity to approximately 2.5 percent of our customers.

**What's in it for me?**  
When the **SMART STREET** technology is implemented across the region, it will help keep your **bills lower** and contribute to a more **energy-efficient** and **sustainable** future. The technology used will also help us **improve** the time it takes to restore your electricity supply on the rare occasion there is a power cut.

**Smart Street – coming to your street soon!**

The board was met with approval from the ECP and was considered to be a good summary of a complicated concept. Several participants suggested it could replace the leaflet in its entirety. Others favoured key elements from the concept board being incorporated into the leaflet to deliver the information more succinctly.

Concept boards had been successfully used in C<sub>2</sub>C and CLASS; however, in these previous projects, they had been introduced at a later stage, after the ECP had seen a project video, a Q&A document and information cards. The C<sub>2</sub>C and CLASS ECPs had also been involved in discussions outlining the likely customer impact of these projects. Therefore, the participants already had a good understanding of the project before they were presented with a summary of the concept in this format.

The early introduction of the concept board during the Smart Street ECP was important to evaluate the effectiveness of a 'stand alone' written summary of the key aims and objective of the project, as the direct methods of communication that previous ECPs had found valuable (group discussion and videos) will not be available for the majority of customers on trial circuits.

#### Outcome

Presenting the concept board before the showing the video elicited more valuable feedback on the written content of the board and enabled elements of it to be included in the leaflet. In future ECPs, the concept board should be introduced at a corresponding point to achieve maximum benefit from participant feedback.

In preparation for the second phase of ECP meetings, the first page (front cover) of the leaflet was re-written as a project summary, similar to the content of the concept board (Appendices 11.5 and 11.6). This included all key messages and was very well received by the participants, who generally considered this addressed all their questions at the outset,

while providing further information for those customers who might choose to read the remainder of the leaflet.

Focussing on these key messages and clarifying 'how will this affect me' from the outset reassured customers that they were unlikely to notice any difference in their supply.

### 6.3 Leaflet cover design

#### *Insight*

The ECP was advised that leaflets would be delivered with a printed address, but were unlikely to be addressed to a named recipient, as Electricity North West holds only limited information about its customers. Panellists recognised that this type of mail, particularly if addressed to 'the occupier', could easily be perceived as 'junk' mail.

Based on previous leaflet design for C<sub>2</sub>C and CLASS, it was accepted that the front cover needed to clearly distinguish the Smart Street leaflet from:

- Energy supplier sales-related information
- Other advertising and sales literature.

#### *Action*

The ECP agreed that the front cover of the leaflet needed to be designed in such a way as to prevent customers from immediately discarding it and that this would be a major challenge. The design needed to avoid any images or text which could be construed as 'junk' mail or information perceived by the customer to have no relevance to them.

Participants were resolute that unless the leaflet's cover immediately struck them as important and, more specifically, relevant to their household, they were likely to discard it without even skim-reading the content.

*"Because I don't know who they are, if that came through the door, I'd think it was a supplier." - Wigan*

*"If I came in and saw that on the back of my door, I'd just think, oh and stick it in the recycling, cos I'd think, oh I'm not with Electricity North West, I'm with whoever and that would just go straight in the bin." - Manchester*

The ECP made a number of suggestions which they believed might help focus customers' attention and encourage them to read the literature:

- Make the word 'important' more prominent and larger on the front cover
- Carefully select imagery specifically related to the electricity distribution industry (eg engineers at work on electricity pylons) to help differentiate from marketing literature and general 'junk' mail
- Remove generic phrases such as 'investing for the future'
- Personalise the leaflet's cover, by adding the postcode or town name, to demonstrate the leaflet is relevant to the individual or local area.

The significance of the front cover design emerged early on during the first round of focus groups. As such, the discussion guide for the second phase devoted almost half of the session to discussing the cover's imagery, headlines, layout, text and format. Several front cover designs were presented to participants, enabling them to select their optimal combination of elements to design the most effective front cover. The different cover designs introduced to the ECP are included in Appendix 11.7 and referenced below.

During this exercise, opinions were initially divided between a largely image-based cover, 2a (Appendix 11.5) and a text-based cover, 2b (Appendix 11.6). Some participants considered

that the text-based cover was too cluttered and busy. They also reported that the vivid green background of the text-based cover made the font difficult to read and was inappropriate, particularly for visually impaired readers. However, those who preferred the text-based cover said they found it looked more official, likening it to literature from a government department. For that reason, they said they would be more inclined to read it.

Some participants considered the image on the cover of leaflet 1b (of photovoltaic panels) as more likely to be associated with sales and marketing for solar generation systems.

*“At first glimpse I wouldn’t read it because... I think you’re trying to offer me these monstrosity solar panels...” - Manchester*

In general, images of Electricity North West employees at work were preferred as these were seen as accurately reflecting the role of a DNO and were distinct from other kinds of imagery generally found on unsolicited mail. Images with pylons were overwhelmingly preferred.

*“I think it is better to have a pylon which to most people says electricity supply.” - Wigton and Egremont*

Of the several options presented, those with a cloudy, grey sky were selected as more reflective of typical weather in the North West of England, rather than those with clear blue skies.

The image of an electric heat pump inside leaflet 1b was poorly received. None of the participants were able to correctly identify it. Some assumed it was an air conditioning unit, as heat pump installations are not yet common and are unfamiliar to many customers. The value of this image was questioned, in light of the confusion it caused.

Another image that was generally disliked, in versions 2a and 2b, was a picture of a woman standing in front of a boiling kettle, whose face was obscured by the steam. The ECP considered that her face had been deliberately blurred out. Many found this perplexing and this resulted in unhelpful debate about whether permission to use her face in the image had been denied. This distracted the focus from the kettle itself, which had been chosen to represent a common domestic electrical appliance.

### *Outcome*

The ECP concluded that a mainly text-based front cover was more likely to be read and therefore less likely to be immediately discarded. The text-based version was selected on this basis. However, the lighter green background colour was preferred by the majority and considered much easier to read than alternative backgrounds.

Small changes were made to the front cover in order to help draw attention to the key points: for example, the words ‘Important information’ formed the cover’s title and the bold font increased its prominence for greater impact. The abstract reference to ‘investing in the future’ was considered an over-used marketing term and was replaced with a more personal reference to ‘improving the electricity network that supplies your home’.

The participants’ favoured image of an Electricity North West engineer climbing a pylon against the backdrop of a cloudy sky was incorporated into the cover in the final design. The image served to enhance Electricity North West’s brand identity, broke up the text and helped to differentiate it from other kinds of marketing leaflets and circulars.

The inclusion of individual postcodes or town name to the front cover was investigated by the Smart Street team, but the complications and costs involved were prohibitive within the scope of this project. However, this idea might be considered in future customer engagement activities, particularly for smaller-scale projects covering a more limited geographic area.

## 6.4 Further leaflet content details

### *Insight*

The ECP considered that leaflet versions 1a (Appendix 11.3) and 1b (Appendix 11.4) were written in a relatively negative tone. For example, 1a devoted an entire page to what to do in the event of a power cut and 1b contained a section on page 4 that discussed the 'problems' associated with bringing renewable generation onto the grid. This conflicted with the optimistic messages the leaflets were attempting to convey, as participants believed that renewable energy production is a positive development.

When presented with leaflet 1a, headed 'Good News', the panel questioned 'what is the good news and how does that apply to me?' Based on the leaflet and stimulus materials, participants did not consider there were sufficient grounds to claim 'good news' as they equated this with a quantifiable and substantial financial saving or a significantly improved level of service.

*"It starts off positive. Good news and you think, "Great," and you just think positive and you just get lost in this draft of waffle and you think, well tell us the good news. What are these smart initiatives? What am I going to be part of and how is it going to affect us?" - Wigton and Egremont*

*"It's all to do with the environment isn't it really? About this fossil fuel and all that lot, but customers aren't going to look at that, they're going to look at you know the way it is now and the saving money somewhere and if they are not going to save money, then they are not going to be interested." - Wigan*

Any direct cost savings resulting from Smart Street will be small and not necessarily applicable to everyone on the trial circuits. Furthermore, the 'good news' message was in some instances regarded with scepticism, raising questions about whether customers would see any benefit, given that energy prices are increasing.

Customers in Electricity North West's distribution region will, on average, experience a supply interruption once every three years. The Cumbria ECP commented on having experienced considerably more interruptions than average, which was anticipated, because of the exposed rural nature of their supply.

For this group, the anticipated reduction in frequency of service interruptions was perceived as good news and relevant. However, for customers residing in the densely urban areas of Manchester and Lancashire, the reduction in frequency was not perceived so positively.

### *Action*

As a direct result of the ECP's feedback, the information about what customers should do in the event of a power cut was reduced to a short paragraph, providing a telephone number to call in the event of a supply interruption. This reflected the CLASS leaflet design. This approach substantially reduced the concerns of the ECP about perceived negative effects of Smart Street and reinforced the message that the trials are not expected to have any discernible customer impact.

The section referring to the adoption of LCTs was re-drafted in a more customer-focused manner. All references to potential voltage problems were removed and more emphasis placed on the positive effect of Smart Street in enabling the network to quickly adapt to the connection of new LCTs.

*“I’m baffled by this... We’ve all put solar panels on and now they are saying that they are making the matter worse.” - Cumbria*

*“So these things that people are paying a lot of money to have are now causing problems.” - Manchester*

In light of ECP comments and cynicism concerning tangible benefits, all reference to potential cost savings were removed. This was replaced with the more positive message about the potential for a small reduction in consumption, achieved through the network and appliances operating more efficiently as a result of the project. The potential for cost saving was implied in imagery, without explicitly mentioning the value.

The reference to fewer power cuts was retained, as this was encouraging for those customers in the rural regions of Wigton and Egremont, who generally experience a greater number of supply interruptions than the regional average.

The value of each image in the leaflet was examined individually and those that were perceived as contentious or caused confusion were removed or replaced (see Section 6.6 for more on images).

## 6.5 Further layout amendments

### *Insight*

The updated text and information included in both leaflets was generally very well received during the second meeting of each regional focus group. However, the following minor issues remained:

- The last sentence on the front cover of version 2b invited customers to visit the Smart Street website to find out more about ‘this project’, but this text followed a paragraph about smart meters and may have caused confusion between the Smart Street trials and the rollout of smart metering.

The confusion this caused was at odds with a commitment in the CEP *‘take care to communicate with customers through a number of tailored communication channels, such as written, audio and visual mediums, in such a way that there is no confusion with the smart meter rollout’*.

- Further confusion was caused in the FAQ section, where a web link was given for vulnerable customers to register on the PSR. This text was set apart from the rest of the PSR information using bold, large font. This was interpreted by the ECP as a web link to the general Smart Street project website.

### *Action*

Both of these issues were addressed in the final version of the leaflet by changing the font size and emphasis of the paragraphs. The web address was made larger and more prominent on the front cover. The contact information for the PSR was changed to the same font size as the rest of the PSR information, with only the phone number and email address highlighted in bold.

## 6.6 Video

### *Insight*

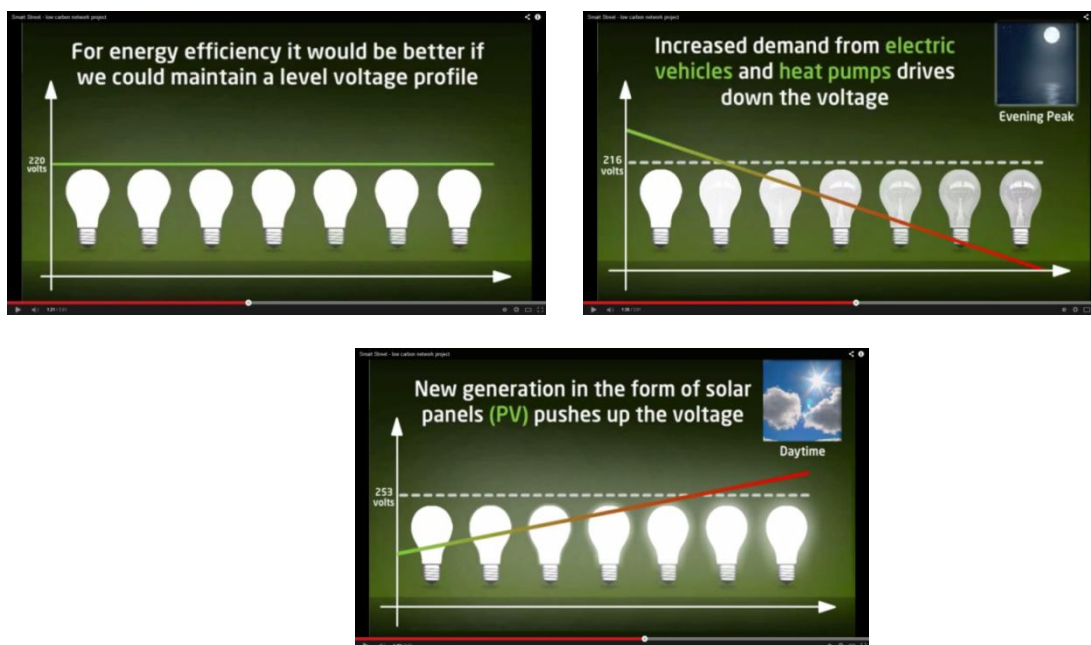
The Smart Street team had produced a video as part of the bid process, which was introduced to the ECP to help visually convey the method. Panellists confirmed they found it helpful in simply illustrating the complex concepts. The video explained the following key points:



- Customer benefits of Smart Street
- Anticipated cost savings
- Reduction in the environmental impact of generating and transmitting electricity
- How the technology works; balancing voltage, no matter where on a circuit you are connected.

The ECP generally found the tone positive and the images assisted participants in understanding the objectives of Smart Street. However, in common with the draft leaflet 1b, the section depicting effects on supply voltage, associated with the uptake of LCTs, was perceived as negative. Nevertheless, the video was able to more effectively articulate the effects of predicted increase in demand and generation than the leaflet and demonstrated the need for innovation to enable DNOs to address these problems. On the basis of the video, the ECP recognised that projects such as Smart Street were necessary to meet customers' future energy needs and environmental commitments.

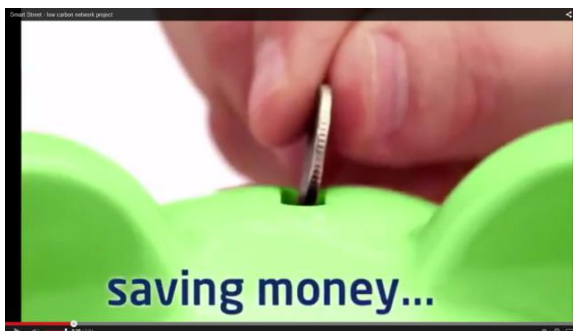
Despite the perceived negative connotation of the message around LCTs, the sequence of images portraying a series of light bulbs progressively dimming, relative to the distance from the substation, was considered useful in explaining the concept and this was easily grasped by the ECP.



Another unexpected effect of the video arose from explaining that appliances may sometimes not operate at their optimum efficiency and consequently use more electricity than required. Explaining that Smart Street would create more efficient networks by managing the traditional descending voltage profile was counterproductive. Some participants questioned whether their electricity usage and therefore their bills vary depending where their homes are situated on the circuit and when they used their appliances. Operating appliances outside their optimal voltage range might affect electricity consumption; however, the aggregated effects for individual consumers are negligible. The video's reference to losses and waste detracted from its intended positive message that Smart Street provides a solution to manage the cumulative voltage effect of large penetrations of LCTs on future networks. Following the screening of the video, it was necessary to re-focus participants from dwelling on what they perceived as a negative message, which was not constructive to the aims of the ECP.



The ECP liked the energy efficiency logo similar to that found on appliances, as it was familiar and reinforced the energy efficiency concept simply, without the need for further explanation. Participants suggested that these images should be incorporated into the leaflet in place of some of the less relevant graphics.



Finally, participants found the video's repeated reference to saving money and the piggy bank visual appealing. Participants were encouraged by the message that money would be saved as a result of Smart Street's implementation.

### Action

The ECP considered the benefits of incorporating certain images from the video into the customer leaflet.

The video effectively used the piggy bank image to convey the positive Smart Street message and potential customer benefits arising from a small reduction in consumption. However, without a detailed explanation, the piggy bank stills were unable to communicate efficiencies from the optimisation of appliances and the network. These images also implied more significant cost savings than the project is currently able to quantify.

The image of the energy efficiency house and graph was more positively reviewed by participants in the second round of focus group meetings, by demonstrating efficiencies and savings without any implied value.

Similarly, the light bulb images, which were animated in the video and effectively explained the Smart Street concept, were unable to convey the same narrative when taken out of the context of the video, without additional explanatory text. Therefore, they were not included in the final version of the leaflet.

### *Outcome*

The Smart Street video had been published on the project website and was in the public domain at the time of the ECP meetings. The video was considered to effectively explain the aims and objectives of the project and there was no real scope for amendments. However, it is worth considering the tone and implications of 'problem' statements in future projects, to ensure positive consumer benefits from innovation are balanced with potential negative network impacts.

## **7. LEAFLET EFFECTIVENESS EVALUATION – POST-DISTRIBUTION**

### **7.1 Background and objectives**

Following distribution of the Smart Street leaflet to customers on trial circuits, a small-scale piece of quantitative research was undertaken to assess the effectiveness of the leafleting campaign, to ascertain customer reaction to it and gauge the return on investment.

This was evaluated through a customer survey, focussing on:

- Recall of receipt of the leaflet
- Claimed readership
- Evaluation of the content among those who read it.

This type of 'post distribution' evaluation had not been conducted to assess the effectiveness of previous general awareness campaigns, associated with projects such as C<sub>2</sub>C or CLASS. Consequently, little information was available to quantify how communication materials for those projects had been received by the recipients.

### **7.2 Method**

The evaluation exercise was conducted by Impact Research using meter point administration number data, provided by Electricity North West, to identify customers on Smart Street trial circuits. Customers interviewed were a representative mix of those in Electricity North West's region by age and gender and were split equally across the three trial areas of Cumbria, Lancashire and Manchester. 150 telephone interviews were conducted. Each interview lasted 15 minutes on average.

Interviews were conducted in early November 2014, approximately one week after the leaflet was sent, providing sufficient time after posting for the leaflet to have been received, but not so long after receipt that it might have been forgotten.

### **7.3 Key findings**

The questionnaire (refer to Appendix 11.9) was designed to cover the following points:

- Recall of having received the leaflet
- Inclination to read the leaflet
- General understanding of the leaflet and specific areas/terms
- Understanding of the role and responsibility of Electricity North West
- True/false statements about what the Smart Street project will involve
- Outstanding questions about Smart Street and the trials

- Usefulness of, and interest in the leaflet
- Any action taken as a result of receiving the leaflet
- Any other comments
- Demographic information.

The leaflets were distributed by the Royal Mail's second class postal delivery service. The Royal Mail's Quality of Service targets were considered to provide the most cost effective means of ensuring the leaflets reached their intended destination

Overall 37% of those interviewed recalled receiving the leaflet. This figure is not reflective of the Royal Mail's target to deliver 98.5 percent of second class mail within three working days and suggests around 60% of recipients may have discarded the leaflet. Of the 19,500 leaflets posted, only 150 were returned by the Royal Mail as undelivered, again suggesting that leaflets were delivered but not read by a significant proportion of customers.

It is worth noting that leaflets were addressed to 'the customer', rather than any specific individual. This approach was adopted to maximise potential readership within the household and negate against any erroneous customer data that might have been attributed to the property. It is possible that omitting an addressee might have been counterproductive, with some recipients more inclined to construe the leaflet as direct marketing. Although there is no comparative data from other LCN funded projects against which the recollection of receipt figure can be judged, this response is generally considered to be good for printed material, delivered unnamed, which could potentially be perceived as 'junk mail'.

When survey participants were asked if they had read the leaflet, 26% overall and 70% of those who recalled receiving it, claimed to have either thoroughly read or at least skimmed the content. Recall and readership figures did not vary significantly by region or demographic. Those who read the leaflet claimed to have done so as it seemed relevant to their household; it might inform them of changes to their supply or it simply interested them. Reasons cited for not reading the leaflet included assumptions that it was from an energy supplier encouraging customers to switch to them, or that it was another type of sales leaflet or general 'junk' mail.

ECP feedback demonstrated that the public's lack of awareness about Electricity North West and its role within the energy sector, poses one of the most significant barriers to effective customer engagement. Likewise, based on the post distribution survey, ignorance of the DNO's identity appears to present the greatest obstacle to the effectiveness of large scale awareness campaigns, using materials such as leaflets. One in three of those who read the leaflet thought Electricity North West was a supplier and a third claimed to have no knowledge of the organisation.

Among those who read the leaflet, the main message they recalled was that there might be changes to their electricity supply as a result of the project. However, only 18% of readers recalled the Smart Street project by name. The main messages in the leaflet were generally well-understood. Nevertheless, one area of misunderstanding was eligibility for the PSR. While this was not the main objective of the customer leaflet, and was only covered briefly, it is important that future communication, aimed at vulnerable customers, reflects this feedback.

Survey participants who had read the leaflet were asked to decide whether it conveyed good or bad news: only 2% thought the leaflet described purely bad news, While 76% thought it contained only good news. The remaining 22% considered the leaflet delivered a mixture of good and bad news, resulting from concerns over what the actual impact might be of Smart Street on customers:

*“Until they actually put it in I don't know what is going to happen, all new things have teething problems.”*

Participants were asked if there was anything more they would like to know about Smart Street, or Electricity North West, that was not included in the leaflet. One in ten indicated that they wanted further information, which was primarily related to concerns about the installation of equipment, for example, where cabinets housing new technology would be situated, and any potential supply disruption. This feedback reflected the findings from the ECP, which highlighted that clarity concerning direct customer impact must be paramount when designing any communication material.

#### **7.4 Lessons learned for future communications**

Prior to this evaluation exercise, there had been no data available to assess the effectiveness of Electricity North West's leafleting campaigns. This post-marketing research provides an initial benchmark against which future evaluation of general awareness campaigns can be compared. It would be advisable to test future customer communication materials, wherever possible, to enhance understanding about which aspects are most effective so that those produced in future can be optimised. However, evaluation metrics such as the levels of recall and readership may vary depending on the leaflet's layout, content and communication objectives.

This research reinforced some of the key lessons learned from the ECP specifically, that customers wish and expect to be informed about Electricity North West, its role, responsibilities and critically, how to make contact should they need to. In addition to this information, there is a requirement to provide a basic but clear explanation about the importance of innovation to meet changing energy needs. These two factors must be introduced in a manner that is understood by customers before they can be expected to comprehend new concepts. These areas should therefore continue to be a focus in future communication materials.

Optimising the potential readership of customer leaflets is challenging and depends largely on good design that quickly commands the recipient's attentions and distinguishes it from marketing mail. However, a customer's inclination to read a leaflet is also likely to be influenced by external factors including the amount of mail received around the time of delivery. For example, a project-related leaflet from Electricity North West is less likely to be read if its distribution coincides with the delivery of direct marketing from third parties or the increase in mail experienced around Christmas.

The Smart Street leaflet was distributed around the time that Electricity North West launched a separate general awareness campaign, to provide its customers with information about what to do in the event of a supply interruption. This highlighted that the timing of project-related communications should be integrated with other planned campaigns, wherever possible, to prevent any perception that Electricity North West is communicating with customers too frequently, thereby diluting the messages' impact.

#### **7.5 Conclusions**

Over a third of customers surveyed recalled receiving the leaflet and it was generally well received and understood, fulfilling its objectives. The low level of awareness about Electricity North West as a company and its role and responsibilities in the electricity industry remains a significant barrier to reaching some customers through printed materials. General awareness campaigns such as that conducted shortly after this research, and greater emphasis on customer and community engagement programmes should gradually start to improve customers' understanding of the relevance of Electricity North West to their homes and businesses.

This research provides a valuable benchmark for future customer communications strategies by Electricity North West, both for LCN Fund projects and other engagement activities.

## 8. LESSONS LEARNED FOR FUTURE INNOVATION PROJECTS

The lessons learned from the first two meetings of the ECP were specific to delivering an effective awareness campaign and were as follows:

### 8.1 Sufficient time should be allowed at the bid stage for ECP activity

Timings in the early part of the Smart Street project became compressed because of the lead times needed to mobilise project partners and to obtain Ofgem approval of the CEP. The Ofgem CEP approval process requires an eight-week window during which no relevant customers can be contacted for research purposes.

After receiving Ofgem approval, time was very limited for recruiting ECP participants; organising and conducting the initial focus groups; analysis; revising the leaflets between phases 1 and 2; conducting the second phase of focus groups and then making final changes to the customer leaflet before print and despatch by the end of October 2014. All these activities needed to be fulfilled to meet the requirements of the SDRC.

Future Second Tier LCN Fund bids should allow for the eight-week Ofgem approval window when setting SDRCs for customer engagement activities. This should mitigate the risk of reduced learning because of insufficient time to plan and execute research activities.

### 8.2 Educational background information on the project should be focused

It is important to provide participants with background and context on the low carbon agenda, government targets, dates and expected increase in electricity demand. However, such information can also be counterproductive, provoke distracting debate and a certain degree of cynicism.

ECP participants were suspicious of what they perceived as Government imposition of legislative targets on the taxpayer and of higher fuel prices. Reference to fuel bills including Distribution Use of System charges led to expressions of contempt towards the energy sector, as participants perceived suppliers to be making large profits.

Therefore, background and context given to introduce LCN Funded projects and the low carbon agenda should be very carefully considered and limited to key facts that provide sufficient information, without generating an inflammatory reaction from a generally wary public.

### 8.3 Do not have pre-conceived ideas about customer information preferences

Following the success of the ECP activity in C<sub>2</sub>C, an identical approach was adopted in the subsequent Second Tier project, CLASS. However, While the process undertaken was the same, the outcome of the CLASS ECP was quite different with participants preferring greater detail about the CLASS project than had been required in C<sub>2</sub>C.

In the Smart Street focus groups, sharing a very concise version of the leaflet (version 1a, modelled on the C<sub>2</sub>C leaflet) was a fruitless exercise, as the extended and more informative version was preferred from the outset. Nevertheless, previous learning has found that pre-conceived ideas need to be tested, given that each project is perceived differently by customers who are focused on the risks and benefits of the proposals.

Future projects should consider multiple versions of an extended leaflet, in addition to a concise version, to speed up the iterative design process. These might provide the same information in a variety of different formats, use different tones, focus on different messages and have different illustrations.

#### **8.4 The design of the front cover is critical to reading rates**

The single biggest challenge in achieving an effective leaflet awareness campaign is in persuading customers to read the material and not immediately dispose of it. The leaflet needs to look as 'official' as possible, to distinguish it from 'junk' mail.

It is recommended that multiple examples of front covers are presented for participants to evaluate, with various designs comprising text, imagery and a combination of both. However:

- This can be difficult to manage in a large group with numerous options.
- Reactions to the text will be influenced by the image and vice versa.

Therefore a 'pick and mix' approach should be adopted in future ECP focus groups, offering a selection of different images, headline text and body text, enabling participants to piece together the ideal front cover.

#### **8.5 'Good news' needs to be considered genuinely good by customers**

If a customer communication is positioned as 'good news' it must be perceived as genuinely good by customers and needs to be articulated fully. The information in the Smart Street leaflet was not sufficiently compelling for ECP participants to agree with the 'good news' headline.

In light of this learning, a 'good news' message should only be included when there is a consensus among customers that there is sufficiently clear, measurable and valid 'good news' with tangible benefits, such as guaranteed cost savings or improved reliability of supply.

#### **8.6 The relationship between DNO and supplier is still confusing for customers**

Questions posed during previous ECPs were raised again, including: "will the leaflets be sent with your bill" and "isn't that the best way to make sure it is read?" Further clarification of the relationship between Electricity North West and electricity suppliers is required, explaining that Electricity North West does not have any involvement in the production or distribution of customers' bills.

#### **8.7 Information about the trial method should be simple and informative, to avoid confusion**

It is generally assumed that communication materials need to contain a lot of information to explain the project method and the technology behind the method. However, this level of detail may be considered excessive by some and its inclusion can raise more questions than it answers.

The techniques and concepts behind large Second Tier projects are often too complex for many customers to comprehend. Some customers considered that attempts to explain decarbonisation, which was intended to achieve their acceptance of the problem, or enhance the appeal of the solution, simply presented them with information that they deemed unnecessary or too technical.

The learning from the Smart Street ECPs was that there is a need to balance an appropriate granularity of detail with a summary of the key information at the start. Those customers who require further detail can then read on.

#### **8.8 Including advice on what to do in the event of a power cut can be interpreted as an indication that power quality is set to decrease**

Information outlining '*what to do in the event of a power cut*' was considered negative and contrary to the objectives of the leaflet. Although popular with C<sub>2</sub>C, this information was

considered to be less relevant to the ECPs who guided development of both CLASS and Smart Street project materials.

The emphasis placed on providing advisory information concerning power cuts should be carefully considered in the context of the project, the affected networks and the customers they serve.

The C<sub>2</sub>C ECP firmly believed that the main benefit of the C<sub>2</sub>C method was a reduction in the duration of unplanned supply interruptions. They accepted the method might result in more short duration interruptions (SDIs) but there would be no reduction in the security of supply. Explaining this increased the relevance of the information in the C<sub>2</sub>C customer leaflet to the ECP.

In common with C<sub>2</sub>C, the Smart Street method involved interconnection of networks which will similarly result in shorter unplanned interruptions but potentially more SDIs. However, the Smart Street ECP was less able to clearly define the overall benefits of voltage optimisation as they perceived little or no discernible customer impact. Consequently, reference to a potential increase in the number of SDIs was not favourably received and was regarded as sending a negative and contradictory message.

*“I am confused, is it that there is going to be more power cuts because of this system?”  
Manchester*

Therefore, despite a CEP commitment to inform customers on trial networks about a theoretical increase in SDIs, this reference was removed from the leaflet on the guidance of the ECP, who found the concept very confusing. Based on ECP feedback, it was anticipated that the leaflet would be unable to effectively explain SDIs sufficiently to allay customer concerns among its intended recipients. This omission was considered to be consistent with the undertaking made at the outset of the project to, *‘be led by feedback from the ECP in order to define the customer communication approach’* and benefitted the project and the customer experience overall.

Furthermore, as Smart Street is expected to improve the overall quality and reliability of the electricity supply, it was deemed more appropriate to focus the message on the positive aspects of the project.

## **8.9 Vulnerable customers**

The ECP generally considered information highlighting Electricity North West’s responsibilities to its vulnerable customers useful and positive, in line with findings on earlier projects. The content was brief, concentrating on services available to vulnerable customers and provided details of how to register on the PSR.

## **8.10 Expectations of bill savings are enticing, but need careful management**

Financial cost savings directly leading to a reduction in electricity bills, such as that portrayed in the Smart Street video, are the most common benefit thought of by customers. In Smart Street, the tangible saving may be relatively small for customers and will certainly vary from one individual to the next, based on their appliances and electricity usage. It was decided therefore it was inappropriate to allude to monetary savings at an individual level in the customer leaflet.

Customers are extremely sensitive to and sceptical about ambiguous language. Unless savings can be clearly defined and quantified with a substantive financial benefit to the individual, specific claims should be omitted from awareness materials. Customers are also sceptical about potential cost savings being passed on from their supplier.



### 8.11 Setting appropriate expectations about the installation of new Smart Street technology

The ECP thought it was important that the leaflet clarified there would be some short term disruption associated with the installation of Smart Street enabling technology. They also agreed that the leaflet should set appropriate expectations and explain that before any new street furniture, housing this equipment, is installed near to a customer's property, they will receive prior notification.

It is also possible that planned supply interruptions (PSIs) may be required to install some Smart Street Technology. The ECP confirmed that this information should be included in the leaflet, with an explanation that affected customers will be notified prior to the PSI.

The Smart Street team have committed to using the PSR to identify vulnerable customers and contact them personally if their home will be affected by a PSI to install Smart Street technology. PSI numbers are expected to be small with very few vulnerable customers affected. Therefore, this commitment will be managed internally and was not introduced to the ECP, as it was considered including this information in the leaflet presented the risk of causing unnecessary concern to some of Electricity North West's most vulnerable customers.

### 8.12 Outcome

Recruitment of the ECPs in the three trial regions was a proactive approach to effectively engaging customers and was successful in developing appropriate materials to communicate Smart Street to customers on trial networks. This initial stage of customer research involved a representative selection of customers on trial circuits and took place before the live trials started.

An information leaflet was produced, the content and design of which was influenced by ECP feedback and lessons learned from this process. The leaflet subsequently sent to all customers on each of the trial circuits and can be found in Appendix 11.8 or on the key documents page of project's website.

## 9. CONCLUSION

The ECP provided an influential forum for collecting constructive, independent feedback on the initial drafts of the customer leaflet. Re-engaging with the original participants during the second phase of focus groups was essential in assessing their reaction to the changes made as a result of their initial feedback.

Although several learning outcomes from previous projects were considered in the preparation for Smart Street customer engagement activities, new and unexpected findings emerged, some of which conflicted with findings from previous ECPs.

The importance of using customer feedback in developing information materials should not be underestimated and what represents a successful approach for one project may not necessarily translate or be appropriate for another.

The customer leaflet was well received as a piece of direct mail, recalled by over a third of those surveyed. The evaluation scores for the Smart Street leaflet will be used as a benchmark against which future communication materials can be measured to achieve continuous improvement in quality and effectiveness.

As part of Electricity North West's commitment to inform customers about the Smart Street trials, the final version of the Smart Street leaflet was posted to approximately 19,500 homes and businesses on Friday, 24 October 2014.

A copy of the final leaflet was issued to Electricity North West's CCC prior to its distribution and employees were fully briefed about the project, in anticipation of any enquiries. A process was implemented to ensure that any enquiries arising from the leaflet were captured and handled appropriately.

## **10. NEXT STEPS**

The first phases of customer engagement, as summarised in this report, has provided Electricity North West with an enhanced understanding of customer expectation about how it communicates the aims, objectives and likely impact of Smart Street to those affected by the project. The second phase of customer engagement, involving ECPs (as outlined in Section 2.2), will focus on perceived customer impact following commencement of the trials.


The CCC will receive further information to coincide with the technology installation phase of the project with guidance on how to manage related issues. Detailed briefing sessions will be delivered to the CCC in July 2015, prior to the live trial phase of the project and further supplementary information/briefings will be provided if required during the trials. The project team will continue to monitor any enquiries associated with Smart Street throughout the trials, to detect any reported customer impact on power quality resulting from the method's application.

Key learning will be reviewed throughout the life of the project, to reflect customer feedback.

In line with the vision of the LCN Fund, all outputs and learning from customer engagement activities will be made available to other DNOs. Specifically, all communication materials developed in the project are publicised on the Smart Street website. All relevant learning will be shared at Smart Street learning events, through trade magazines and in other appropriate forums.

# 11. APPENDICES

## 11.1 ECP Questions and Answers document




### Questions & Answers September 2014

Thank you for taking part in our customer consultation research

#### Who's who in the electricity industry?

There are many different types of companies and organisations involved in supplying you with electricity:

- **The National Grid** is responsible for operating some of the power lines in the UK – the most powerful ones – and transmitting electricity from power stations around the country closer to where people live and work. The National Grid is a little like the UK's motorway network.
- **Distribution network operators** – sometimes called DNOs – maintain many of the UK's electricity wires and cables. Each region of the UK has a DNO to maintain the electricity network in that area. Electricity North West is the distribution network operator – or DNO – for the region in which you live. The DNOs connect the National Grid's network to individual homes, offices, and other buildings – a little like the UK's 'A' and 'B' roads and local roads.
- **Suppliers** are the final step in the process and are the people who send you bills for your electricity such as EON, British Gas, EDF and Npower. Some of the money you pay to your supplier is passed to DNOs to cover their costs in supplying you with electricity.



## What does Electricity North West do?

- Electricity North West manages and maintains the electricity distribution network in North West England.
- The network consists of overhead lines, underground cables, substations, transformers and other equipment.
- We are responsible for connecting your home or business to the electricity network, repairing the network when things go wrong and investing to replace worn out or old equipment.
- Electricity North West's network is 99.99% reliable. A typical home in the North West will experience a power cut once every three years and, on average, is without power for about an hour. These figures are only averages – some homes will experience problems more often, while some homes and businesses will never have problems with their power supply.
- You may remember before Electricity North West, we were part of United Utilities and before that we were known as Norweb.



**Investing in the North West**  
Electricity North West owns and operates the network in the North West of England. Any money we invest goes right back into the North West region.

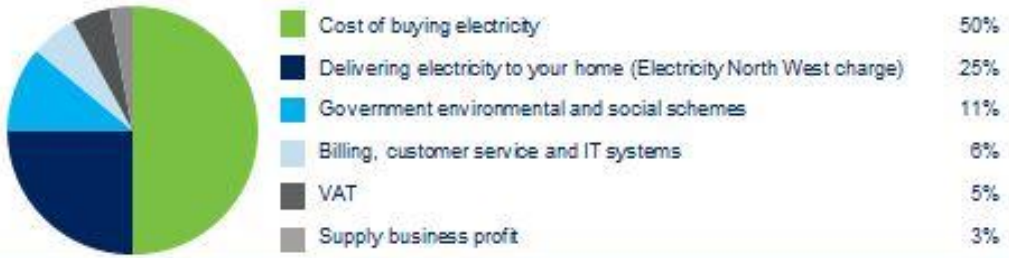
We are responsible for planning for the future and making sure the network can cope with any changes in how electricity is used.

## Why have I never heard of Electricity North West?

In many ways, Electricity North West is a 'behind the scenes' company. We don't send you a bill for our services. Instead, your supplier passes on part of what you pay them to us.

**2.4 million**  
We connect 2.4 million households (5 million people) to the National Grid.

### How a typical electricity bill is made up



## Why are we discussing Electricity North West ?

There are a number of issues and challenges facing Electricity North West. As well as experts inside the company thinking about these issues, we want to get the views of our customers who live in the North West.

Part of our role as distribution network operator (DNO) is to plan for the future. In 2007 the UK government set challenging targets to protect the environment by making significant reductions in carbon emissions and reducing our reliance on fossil fuels like gas and oil. This means that demand for electricity in Great Britain is set to rise significantly.

This will present new challenges to DNOs who will need to invest heavily in new network infrastructure (overhead power lines, pylons, underground cables and substations) to meet the increased demand. This programme of work would lead to disruptive roadworks and power cuts and could lead to higher bills for customers in the near future.

To minimise potential costs, disruption and carbon emissions, we need to develop smarter and more efficient ways of managing our electricity networks.

Electricity North West has developed an innovative and low cost solution called Smart Street. Smart Street will trial the use of innovative technology combined with our existing network infrastructure. It aims to make networks and customers' appliances perform more efficiently and make it easier to adopt low carbon technologies (solar panels, electric vehicles and heat pumps) onto the electricity network.

This innovative approach will keep electricity costs down for customers, reduce carbon emissions and help get the most from the existing network.

The Smart Street project will run until December 2017.



[futurenetworks@enwl.co.uk](mailto:futurenetworks@enwl.co.uk) • [www.enwl.co.uk/smartstreet](http://www.enwl.co.uk/smartstreet)

0800 195 4141 • Text 87070


(Start text message with Smart Street.

All text messages will be charged at your standard network rate).




## 11.2 Information cards presented at the first ECP meeting

# Climate Change Act 2008




The Climate Change Act 2008 asks the UK to reduce greenhouse gas emissions by 80% by 2050. This will mean that we have to burn fewer fossil fuels.




At the same time, the demand on electricity networks is expected to **double** because:

- Homes are likely to be heated by electricity instead of gas; and
- Cars will be electric rather than petrol fuelled.

# Electric cars





One of the biggest challenges the electricity network will face in the future is powering thousands of electric cars for the region's commuters.



Electric cars need re-charging regularly. An 80-mile drive uses about the same amount of electricity that an average house uses in one day.

Instead of petrol stations, charging points will be needed at:

- Homes
- Offices
- Supermarkets
- Other public areas



## Problem Statement



**electricity**  
**north west**  
Bringing energy to your door



If we (Electricity North West) continue to use our electricity network in the same way as we do now, in order to cope with the extra demand, we would need to invest nearly £9 billion in the North West to expand the network.

The **cost** of expanding the network would have to be passed on to customers through increasing their bills.

3

## Possible Options



**electricity**  
**north west**  
Bringing energy to your door

### A

Invest heavily in new overhead lines, underground cables and substations to meet the increase in demand. This option will be costly, disruptive to society and carbon intensive. These extra costs would be passed onto customers.

### B

Roll out the **SMART STREET** concept. Voltage control equipment will balance voltage, meaning that appliances can work more efficiently, whilst using the existing capacity in the network to meet increased demand and keeping bill prices stable.

### C

Invest in **other** alternative low carbon technologies and strategies designed to use existing capacity more effectively. Other electricity companies are trialling their own initiatives.

### D

Do a **combination** of the above options.

4

### 11.3 Leaflet option 1a presented at the first ECP meeting (4 x 1/3 A4)



**electricity north west**  
Bringing energy to your door

## Priority service register

Some of our more vulnerable customers may need additional specialised help from us if their electricity supply is interrupted. That's why we've set up a priority service register so we can provide extra support when you need it most. As part of our priority service we work in partnership with the British Red Cross who can help you with practical necessities when things go wrong.

You can sign up to our priority service register if you live in the Electricity North West area and:

- you are registered disabled
- you have a disabled dependant
- you are visual or hearing impaired
- you are seriously ill
- you have mobility problems
- you are over 65
- you have any other reason for needing our priority service.

To register, call us on **0800 195 4141** or complete the form on our website at: [www.enwl.co.uk](http://www.enwl.co.uk)

**Electricity North West**  
Bringing energy to your door

This leaflet is also available in Braille, large print and a number of different languages on request.

**electricity north west**  
Bringing energy to your door

Electricity North West Limited, 304 Bridgewater Place, Birchwood Park, Warrington, WA3 6XG.  
01925 846 999

05145013416

## Good news

We are improving your electricity supply.

**SMART STREET**





## Hello. We are Electricity North West and we are proud to operate your local electricity network.

It's our job to deliver a safe, reliable supply of electricity from the national grid to your home through our network of overhead lines, underground cables and substations.

It's also our job to invest in the future of the electricity network and plan for the extra demand that we are likely to need in the North West. As we start to use less fossil fuels like oil and gas we will start to use much more electricity for heating and electric vehicles.

Instead of building new overhead lines, cables and substations, which is disruptive and expensive for electricity customers, we are trialling new, smarter and cheaper ways of using the existing network to cope with the extra demand.

It's all part of our continuing commitment to invest in ground-breaking technology to improve our service, reduce costs to you and prepare the electricity network for the future.

### How does this benefit you?

We have sent you this leaflet because we are trialling new technology on the part of the electricity network which supplies your home or business. Throughout the two-year trial period you will benefit from the new technology which enables us to restore power more quickly if your home or business is affected by a power cut. You will continue to receive the same reliable electricity service and you may see a small reduction in your electricity usage.

The trials affect around 62,000 customers in Manchester, Wigan, Egremont and Wigton. Occasionally we will need to turn off electricity to a small number of properties for a few hours while we install the new equipment, but we will contact you beforehand if we need to do that.

Understanding what you think is important to us. At the end of the trials we will contact some of our customers in the areas where the new technology has been installed to ask for feedback about their electricity supply during the trial period.

To find out more about this project, please visit [www.enwl.co.uk/smartstreet](http://www.enwl.co.uk/smartstreet)

Call us on **0800 195 4141**

Or text **87070**

(Start text message with Smart Street. All text messages will be charged at your standard network rate).

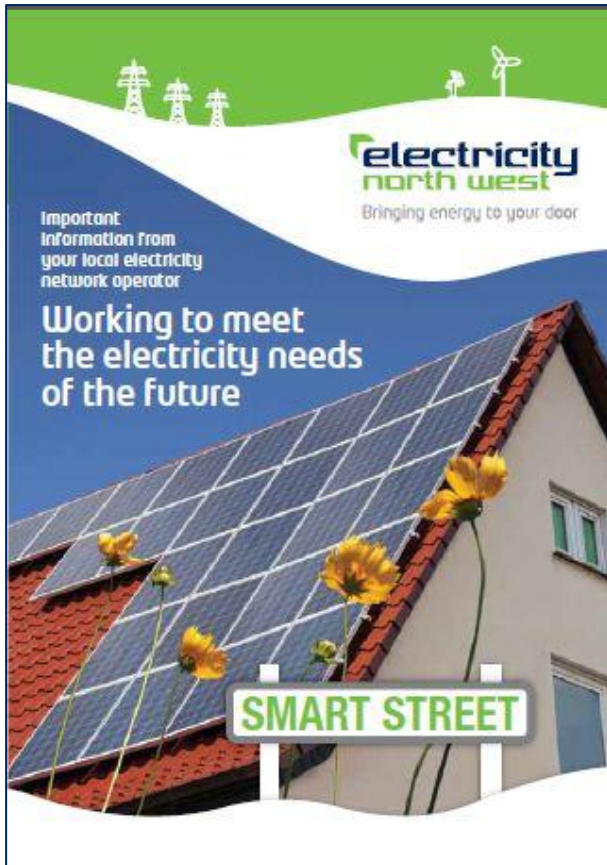
### What to do if there's a power cut

Occasionally your electricity may go off because of a fault on our network or because of a problem in your home. If you do experience a power cut because of a network fault, the new technology we are installing will help us to restore your electricity much more quickly than before. If you are affected by a power cut, please follow the steps below to help us get your electricity back on as quickly as possible.

- Check your trip switches in the consumer unit next to your meter - you can do this by turning your trip switch on and off. If you don't know where your trip switch is, please call us.
- Check if your neighbour's power is on or if the streetlights are lit. If not, there may be a fault in your area.
- If your neighbours and the streetlights still have power, there are several reasons why your electricity may be off. Please call us so we can help you understand the cause.
- You can call us on **0800 195 4141** 24 hours a day, 365 days a year.

For more information on what to do if there's a power cut please visit: [www.enwl.co.uk/powercuts](http://www.enwl.co.uk/powercuts)

11.4 Leaflet option 1b presented at the first ECP meeting (6 x A5)



**Hello. We are Electricity North West and we are proud to operate your local electricity network.**



2

It's our job to deliver a safe, reliable supply of electricity from the national grid to your home through our network of overhead lines, underground cables and substations.

The national grid is responsible for the biggest power lines in the UK which transmit electricity around the country from power stations. Electricity North West looks after the local network which is connected to the national grid. We are responsible for distributing electricity directly to your homes and businesses.

You could say the national grid is a little like the UK's motorway network while our network makes up the region's A and B roads.

In many ways we are a 'behind the scenes' company. We don't send you a bill for our services. Instead, your supplier passes on part of what you pay them to us.

**Changing the way we use electricity**

As the regional operator it's also our job to invest in the future of the electricity network and plan for the extra demand that we are likely to need in the North West. To meet government carbon reduction targets we all need to use less fossil fuels like oil and gas. This means we will start to use much more electricity for heating and running electric vehicles, which will place a huge demand on our network.

Building new overhead lines, cables and substations would lead to disruptive roadworks and power cuts and is expensive for customers. Instead we are trialling new, smarter and more affordable ways of using the existing network to cope with the extra demand.

It's all part of our continuing commitment to invest in ground-breaking technology to improve our service, keep costs to you down and prepare the electricity network for the future.




3



## Meeting the electricity needs of the future

One of the challenges of running the electricity network at present is a loss of voltage as electricity flows through the network. This can result in your appliances performing less efficiently. The connection of large numbers of low carbon technologies (solar panels, electric vehicles and heat pumps) onto the electricity network in the future will make this worse.

To address this problem we have developed an innovative low cost solution called Smart Street. By combining innovative technology with our existing network, Smart Street will balance voltage so that our network and your appliances perform more efficiently, and make it easier to adopt low carbon technologies onto the electricity network.

This innovative approach will help keep costs down for customers, reduce carbon emissions and help get the most from the existing network.



### Trialling the Smart Street technology

An important part of the project is to trial the Smart Street technology and its impact on customers. The project involves a series of trials to test the technology, which will be installed at six primary substations and 38 local substations, supplying electricity to around 62,000 customers in Wigan, Egremont, Manchester and Wigan. This represents about 2.5 percent of our network.

We will conduct these five trials for a two year period starting in late 2015 until late 2017.



4



## How Smart Street will benefit you

We have sent you this leaflet because we are trialling Smart Street on the part of the electricity network which supplies your home or business. We are installing devices at your local substation which enables us to control voltage and make our electricity network perform more efficiently. Throughout the two-year trial period and beyond you will benefit from the new technology which enables us to restore power more quickly if your home or business is affected by a power cut. You will continue to receive the same reliable electricity service and you may see a small reduction in your electricity usage.

### Installing Smart Street technology

Over the next several months we will be installing 'street pillars' to house some of the new equipment on a small number of footpaths in the trial areas. We will also replace or install a small number of chambers under the pavement. If your property is very near to a new pillar or chamber we will write to you before we install it and we'll do our best to keep any disruption to a minimum.

We may also need to turn off electricity to a small number of properties for a few hours while we install the new equipment, but we will contact you beforehand if we need to do this.

### Engaging with our customers

Understanding what you think is important to us. At the end of the trials we will contact some of our customers in the areas where the new technology has been installed to ask for feedback about their electricity supply during the trial period.

To find out more about this project, visit [www.enwl.co.uk/smartsstreet](http://www.enwl.co.uk/smartsstreet)  
 Call us on 0800 195 4141  
 Or text 87070  
*(Start text message with Smart Street. All text messages will be charged at your standard network rate).*



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## Frequently asked questions

**Can I opt out if I live or have a business in the trial area?**  
 You cannot opt out of the trials because the substations where we are installing this technology serve thousands of different customers. Please be assured you will continue to receive the same safe and reliable service throughout the trials.

**Am I likely to notice a difference in my electricity supply?**  
 It is unlikely that you will notice any difference in your electricity supply as a result of the trials taking place. One of the effects of installing the technology is an increase in the number of power cuts you would normally experience. But these power cuts will be much shorter than before – in most cases a power cut will last less than three minutes. Occasionally you may experience a power cut because of a fault on our network. If this happens please call our 24 hour helpline on 0800 195 4141.

**What changes are you making to my electricity supply?**  
 We will install new technology to the electricity network which supplies your home or business. This will enable us to better manage the voltage in your area. You shouldn't notice a difference to your electricity supply and you may even see a small reduction in your electricity usage.


**Will there be any other effects on my appliances or local infrastructure?**  
 During the trials, voltage levels will remain within statutory safe limits. It is unlikely that you will notice any adverse effect on your appliances. The trials will not affect local infrastructure such as street lights and traffic lights.

**Why are you telling me this – is it a legislative requirement?**  
 Our industry regulator Ofgem expects us to communicate this information to you. Ofgem has set up the Low Carbon Networks Fund to support local electricity operators like Electricity North West to develop innovative solutions to meet the predicted huge increase in electricity usage. It's our responsibility to make you aware of any action we are taking to prepare your local electricity network for a sustainable future and how that might affect you.

**I rely on electricity for special medical needs - will I be affected by the trials?**  
 The trials will not directly affect you but you may want to consider joining our priority service register. We have set up this service for our more vulnerable customers who may need additional support during a power cut. As part of our priority service we work in partnership with the British Red Cross who can help you with practical necessities when things go wrong.

**To register, call us on 0800 195 4141 or complete the form on our website at [www.enwl.co.uk/priority](http://www.enwl.co.uk/priority)**

**This leaflet is also available in Braille, large print and a number of different languages on request.**

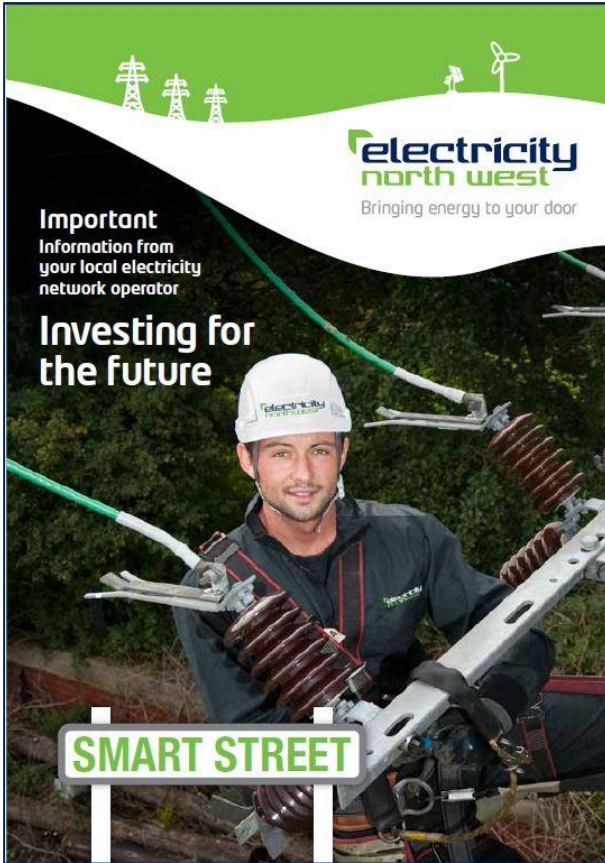


Bringing energy to your door

Electricity North West Limited, 214 Ormerod Way, Beckwith Park, Warrington, WA3 9JG. (0)201 545 000

6

11.5 Leaflet option 2a presented at the second ECP meeting (6 x A5)



**Who is Electricity North West?**  
We operate the local electricity network and distribute electricity to all five million homes and businesses in the North West.

**What are we doing?**  
We are trialling smarter ways of managing the electricity network by installing new technology to supply electricity to your home or business more efficiently. This will help reduce costs for all electricity customers. The project is called Smart Street.

**Why are we doing this?**  
To help protect the environment we need to stop using fossil fuels like gas and oil and use cleaner sources of power. This means that in the future we'll need more electricity for running electric cars and heating systems.

**How will I benefit?**  
In the unlikely event of a power cut, we'll be able to restore power to your property more quickly than before. You may also see a small reduction in your electricity usage.

**At Electricity North West** it's our job to deliver a safe, reliable supply of electricity from the national grid to your home through our network of overhead lines, underground cables and substations. You may not have heard of us before, as you normally only need to contact us if you have a power cut.

In many ways we are a 'behind the scenes' company. We don't send you a bill for our services. Instead, your supplier passes on part of what you pay them to us.

**Changing the way we use electricity**  
It's also our job to plan for the future and help reduce the impact of fossil fuels like gas and oil on the environment. As we use fewer fossil fuels, we will start to use more electricity for heating and running electric vehicles. This means that demand for electricity will rise significantly, which will place a huge demand on our network.

**Will I need a smart meter or other equipment installed in my house?**  
Smart Street is not related to smart metering so we don't need to install a meter or any other kind of equipment in your home.  
*To find out more about this project you can read the rest of this leaflet or visit [www.enwl.co.uk/smartstreet](http://www.enwl.co.uk/smartstreet) Call us on 0800 195 4141 Or text 87070 (Start text message with Smart Street. All text messages will be charged at your standard network rate).*

The cost of upgrading the network to meet this demand will mean higher bills for customers. So we are trialling smarter, more affordable ways of using the existing network which will reduce costs for all our electricity customers in the future.

**Meeting the electricity needs of the future**  
One of the challenges of running the electricity network at present is a loss of voltage as electricity flows through the network. This can cause appliances in your home, such as washing machines, televisions, computers etc, to perform less efficiently. We also need to adapt our network to allow for the connection of large numbers of low carbon technologies such as solar panels, electric vehicles and new electric heating systems.  
To meet this challenge we have developed an innovative low cost solution called Smart Street. By combining technology with our existing network, Smart Street will balance voltage so that our network and your appliances perform more efficiently, and make it easier to adopt low carbon technologies onto the electricity network.  
This innovative approach will help keep costs down for customers, reduce carbon emissions and help to get the most from the existing network.

## Trialling the Smart Street technology

An important part of the project is to trial the Smart Street technology and its impact on customers. The project involves a series of trials to test the technology, which will be installed at six primary substations and 38 local substations, supplying electricity to around 62,000 customers in Wigan, Egremont, Manchester and Wigan. This represents about 2.5 percent of our network.

We will conduct these live trials for a two year period starting in late 2015 until late 2017.

## How Smart Street will benefit you

We have sent you this leaflet because we are trialling Smart Street on the part of the electricity network which supplies your home or business. We are installing devices at your local substation which will enable us to control voltage and make our electricity network perform more efficiently. Throughout the two-year trial period and beyond you will benefit from this new technology which enables us to restore power more quickly if your home or business is affected by a power cut. You will continue to receive the same reliable electricity service and you may see a small reduction in your electricity usage.



## Installing Smart Street technology

Over the next several months we will be installing 'street cabinets' to house some of the new equipment on a small number of footpaths in the trial areas. We will also replace or install a small number of chambers under the pavement. If your property is close to a new cabinet or chamber we will write to you before we install it and we'll do our best to keep any disruption to a minimum.

We may also need to turn off electricity to a small number of properties for a few hours while we install the new equipment, but we will contact you beforehand if we need to do this.

## Engaging with our customers

Understanding what you think is important to us. At the end of the trials we will contact some of our customers in the areas where the new technology has been installed to ask for feedback about their electricity supply during the trial period.

4

## Frequently asked questions

### How will Smart Street affect me?

It is unlikely that you will notice any difference in your electricity supply or any affect on your electrical appliances as a result of the trials taking place. Smart Street is not related to smart metering so we don't need to install a meter or any other kind of equipment in your home.

You will still receive the same reliable supply of electricity and if your property is ever affected by a power cut, we will be able to restore electricity to your home much more quickly than before.

On average customers experience a power cut once every three years because of a fault on our network. If this happens please call our 24 hour helpline on 0800 195 4141.

### Can I opt out if I live or have a business in the trial area?

You cannot opt out of the trials because the substations where we are installing this technology serve thousands of different customers.



### Will there be any other effects on my appliances or local infrastructure?

During the trials, voltage levels will remain within safe statutory limits. It is unlikely that you will notice any adverse effect on your appliances. The trials will not affect local infrastructure such as street lights and traffic lights.

### Why are you telling me this – is it a legislative requirement?

Our industry regulator Ofgem expects us to communicate this information to you. Ofgem has set up the Low Carbon Networks Fund to support local electricity operators like Electricity North West to develop innovative solutions to meet the predicted huge increase in electricity usage. It's our responsibility to make you aware of any action we are taking to prepare your local electricity network for a sustainable future and how that might affect you.

### I rely on electricity for special medical needs - will I be affected by the trials?

The trials will not directly affect you but you may want to consider joining our priority service register. We have set up this service for our more vulnerable customers who may need additional support in the unlikely event of a power cut. As part of our priority service we work in partnership with the British Red Cross who can help you with practical necessities when things go wrong.

To register, call us on 0800 195 4141 or complete the form on our website at: [www.enwl.co.uk/priority](http://www.enwl.co.uk/priority)

This leaflet is also available in Braille, large print and a number of different languages on request.

**electricity north west**

Bringing energy to your door

Electricity North West Limited, 201 Bridgewater Place, Birchwood Park, Warrington, WA3 9JG. 01525 948 999

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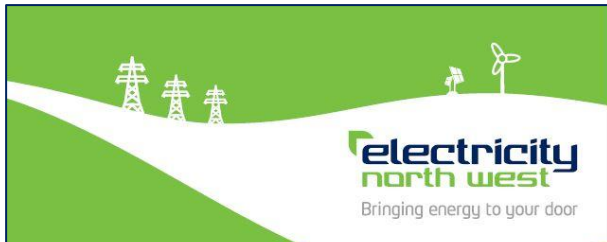
Important information from your local electricity network operator

**electricity north west**  
Bringing energy to your door

From address: Electricity North West, Training House, Lisson Street, Salford, Manchester M6 6AP



11.6 Leaflet option 2b presented at the second ECP meeting (6 x A5)



**electricity north west**  
Bringing energy to your door

Important information from your local electricity network operator

## We are improving your electricity network for the future

**Who is Electricity North West?**  
We operate the local electricity network and distribute electricity to all five million homes and businesses in the North West.


**How will I benefit?**  
In the unlikely event of a power cut, we'll be able to restore power to your property more quickly than before. You may also see a small reduction in your electricity usage.

**What are we doing?**  
We are trialling smarter ways of managing the electricity network by installing new technology to supply electricity to your home or business more efficiently. This will help reduce costs for all electricity customers. The project is called Smart Street.

**Will I need a smart meter or other equipment installed in my house?**  
Smart Street is not related to smart metering so we don't need to install a meter or any other kind of equipment in your home.

**Why are we doing this?**  
To help protect the environment we need to stop using fossil fuels like gas and oil and use cleaner sources of power. This means that in the future we'll need more electricity for running electric cars and heating systems.

To find out more about this project you can read the rest of this leaflet or visit [www.enwl.co.uk/smartstreet](http://www.enwl.co.uk/smartstreet)

At Electricity North West it's our job to deliver a safe, reliable supply of electricity from the national grid to your home through our network of overhead lines, underground cables and substations. You may not have heard of us before, as you normally only need to contact us if you have a power cut.

In many ways we are a 'behind the scenes' company. We don't send you a bill for our services. Instead, your supplier passes on part of what you pay them to us.

### Changing the way we use electricity

It's also our job to plan for the future and help reduce the impact of fossil fuels like gas and oil on the environment. As we use fewer fossil fuels, we will start to use more electricity for heating and running electric vehicles. This means that demand for electricity will rise significantly, which will place a huge demand on our network.


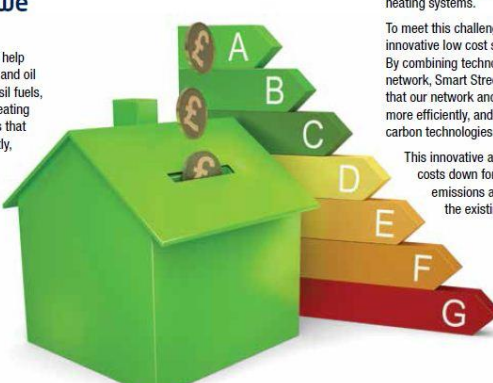
The cost of upgrading the network to meet this demand will mean higher bills for customers. So we are trialling smarter, more affordable ways of using the existing network which will reduce costs for all our electricity customers in the future.

### Meeting the electricity needs of the future

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2

### Trialling the Smart Street technology

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3



## How Smart Street will benefit you

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We may also need to turn off electricity to a small number of properties for a few hours while we install the new equipment, but we will contact you beforehand if we need to do this.

## Engaging with our customers

Understanding what you think is important to us. At the end of the trials we will contact some of our customers in the areas where the new technology has been installed to ask for feedback about their electricity supply during the trial period.

**Find out more at**  
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 Or text 87070  
*(Start text message with Smart Street. All text messages will be charged at your standard network rate).*



4

## Frequently asked questions

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On average customers experience a power cut once every three years because of a fault on our network. If this happens please call our 24 hour helpline on 0800 195 4141.

### Can I opt out if I live or have a business in the trial area?

You cannot opt out of the trials because the substations where we are installing this technology serve thousands of different customers.



### Will there be any other effects on my appliances or local infrastructure?

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### Why are you telling me this – is it a legislative requirement?

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**This leaflet is also available in Braille, large print and a number of different languages on request.**

5



Bringing energy to your door

Electricity North West Limited, 204 Bridgewater Place, Birchwood Park, Warrington, WA3 6XG 01925 846 999

DD14SD0414

Important information from your local electricity network operator



Bringing energy to your door

Return address: Electricity North West, Technology House, Leazes Street, Salford, Manchester M6 6AP

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Printed by  
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11.7 Alternative leaflet covers presented at the second ECP meeting (A5)

**electricity north west**  
Bringing energy to your door

Important information from your local electricity network operator

## We are improving your electricity network for the future

**Who is Electricity North West?**  
We operate the local electricity network and distribute electricity to all five million homes and businesses in the North West.

**What are we doing?**  
We are trialling smarter ways of managing the electricity network by installing new technology to supply electricity to your home or business more efficiently. This will help reduce costs for all electricity customers. The project is called Smart Street.

**Why are we doing this?**  
To help protect the environment we need to stop using fossil fuels like gas and oil and use cleaner sources of power. This means that in the future we'll need more electricity for running electric cars and heating systems.

**How will I benefit?**  
In the unlikely event of a power cut, we'll be able to restore power to your property more quickly than before. You may also see a small reduction in your electricity usage.

**Will I need a smart meter or other equipment installed in my house?**  
Smart Street is not related to smart metering so we don't need to install a meter or any other kind of equipment in your home.

To find out more about this project you can read the rest of this leaflet or visit [www.enwl.co.uk/smartstreet](http://www.enwl.co.uk/smartstreet)

**SMART STREET**

**electricity north west**  
Bringing energy to your door

Important information from your local electricity network operator

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**SMART STREET**

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We are improving your electricity network for the future

## Important information from your local electricity network operator

**SMART STREET**

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Bringing energy to your door

Important Information from your local electricity network operator

## Investing for the future

**SMART STREET**



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Bringing energy to your door

Important  
Information from  
your local electricity  
network operator

**Investing for the future**

**SMART STREET**

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**Investing for the future**

**SMART STREET**

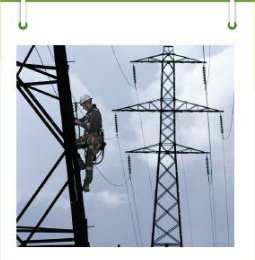
**electricity north west**  
Bringing energy to your door

Smart Street  
coming to your  
street soon

**Good news from  
your local electricity  
network operator**

**SMART STREET**

## 11.8 Final version of the customer leaflet (6 x A5)



**electricity north west**  
Bringing energy to your door

### Important information from your electricity network operator

We are improving the electricity network that supplies your home

**Who is Electricity North West?**  
We operate the local electricity network and distribute electricity to all 2.4 million homes and businesses in the North West.



**What are we doing?**  
We are trialling smarter ways of managing the electricity network by installing new technology to supply electricity to your home or business more efficiently. This will help reduce costs for all electricity customers. The project is called Smart Street.

**Why are we doing this?**  
To help protect the environment we need to use fewer fossil fuels like gas and oil and use cleaner sources of power. This means that in the future we will need more electricity for running electric cars and heating systems.

**How will I benefit?**  
In the unlikely event of a power cut, we will be able to restore power to your property more quickly than before. You may also see a small reduction in your electricity usage.


**Will I need a smart meter or other equipment installed in my house?**  
Smart Street is *not* related to smart metering so we don't need to install a meter or any other kind of equipment in your home.

To find out more about this project you can read the rest of this leaflet or visit: [electricitynorthwest.co.uk/smartstreet](http://electricitynorthwest.co.uk/smartstreet)

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In many ways we are a 'behind the scenes' company. We don't send you a bill for our services. Instead, your supplier passes on part of what you pay them to us to maintain your power supply.

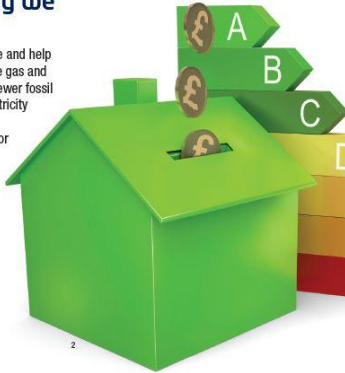


There are already 12,000 electric and plug-in hybrid vehicles registered in Great Britain.

### Changing the way we use electricity

It's also our job to plan for the future and help reduce the impact of fossil fuels like gas and oil on the environment. As we use fewer fossil fuels, we will start to use more electricity for heating and for running electric vehicles. This means that demand for electricity will rise significantly, which will place a huge demand on our network.

The cost of upgrading the network to meet this demand will mean higher bills for customers. So we are trialling smarter, more affordable ways of using the existing network which will reduce costs for all our electricity customers in the future.




### Meeting the electricity needs of the future

One of the challenges of running the electricity network at present is a loss of voltage as electricity flows through the cables. This can cause appliances in your home, such as washing machines, televisions, computers etc, to perform less efficiently. We also need to adapt our network to allow for the connection of large numbers of low carbon technologies such as solar panels, electric vehicles and new electric heating systems.

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### Trialling the Smart Street technology

An important part of the project is to trial the Smart Street technology and its impact on customers. The project involves a series of trials to test the technology, which will be installed at six primary substations and 38 local substations, supplying electricity to around 67,000 customers in Wigan, Egremont, Manchester and Wigan. This represents about 2.5 percent of our network.

We will conduct these live trials for a two year period starting in late 2015 until late 2017.




### How Smart Street will benefit you

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### Engaging with our customers

Understanding what you think is important to us. At the end of the trials we will contact some of our customers in the areas where the new technology has been installed to ask for feedback about their electricity supply during the trial period.

Find out more at [electricitynorthwest.co.uk/smartstreet](http://electricitynorthwest.co.uk/smartstreet)

facebook.com/ElectricityNorthWest  
@ElecNW\_News  
youtube.com/ElectricityNorthWest

### Installing Smart Street technology

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We may also need to turn off electricity to a small number of properties for a few hours while we install the new equipment, but we will contact you beforehand if we need to do this.

If you have any queries about Smart Street or your electricity supply call us on 0800 195 4141 Or text 87070 (Start text message with Smart. All text messages will be charged at your standard network rate).

**Frequently asked questions**

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 It is unlikely that you will notice any difference in your electricity supply or any effect on your electrical appliances as a result of the trials taking place. Smart Street is not related to smart metering so we don't need to install a meter or any other kind of equipment in your home.  
 You will still receive the same reliable supply of electricity and if your property is ever affected by a power cut, we will be able to restore electricity to your home much more quickly than before.  
 On average customers experience a power cut once every three years because of a fault on our network. If this happens please call our 24 hour helpline on 0800 195 4141.

**Can I opt out if I live or have a business in the trial area?**  
 The substations where we are installing this technology serve thousands of different customers. So it is not possible for individual customers to opt out of the trials.



**Will there be any other effects on my appliances or local infrastructure?**  
 During the trials, voltage levels will remain within safe statutory limits. It is unlikely that you will notice any adverse effect on your appliances. The trials will not affect local infrastructure such as street lights and traffic lights.

**Why are you telling me this – is it a legislative requirement?**  
 Our industry regulator Ofgem expects us to communicate this information to you. Ofgem has set up the Low Carbon Networks Fund to support local electricity operators like Electricity North West to develop innovative solutions to meet the predicted huge increase in electricity usage. It's our responsibility to make you aware of any action we are taking to prepare your local electricity network for a sustainable future and how that might affect you.

**I rely on electricity for special medical needs - will I be affected by the trials?**  
 The trials will not directly affect you but you may want to consider joining our priority services register. We have set up this service for our more vulnerable customers who may need additional support in the unlikely event of a power cut. As part of our priority services we work in partnership with the British Red Cross who can help you with practical necessities when things go wrong.  
 To find out more about our services for vulnerable customers or to join our priority services register, call us on 0800 195 4141 or visit our website at: [electricitynorthwest.co.uk/priority](http://electricitynorthwest.co.uk/priority)

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**electricity north west**  
 Bringing energy to your door  
 Electricity North West Limited  
 304 Englewood Place, Birchwood Park, Warrington, WAG 6JG  
 0845 211 4800

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10142025/14-000002

**11.9 Leafleting survey**

A survey was carried out among customers who received the Smart Street leaflet to gauge their views on its effectiveness. The survey findings can be found on the [customer page](#) of the Smart Street website.

**11.10 ECP terms of reference**

**ENGAGED CUSTOMER PANEL – TERMS OF REFERENCE**

As the demand for electricity is expected to increase and potentially double by 2050, the Smart Street trials aim to test innovative technologies to enable DNOs prepare networks to meet the expected increases in low carbon technologies, such as solar panels, electric vehicles and heat pumps. The project has the potential to lower electricity consumption for many customers by helping appliances to run more efficiently.

This document and the analysis therein forms part of the project's dissemination. The research has been undertaken with an ECP to ascertain domestic customer reactions to Smart Street, to help formulate an effective awareness campaign aimed at customers, stakeholders and the wider community. This approach was used successfully in Electricity North West's previous Second Tier LCN Fund projects, C<sub>2</sub>C and CLASS.

Active customer participation is an integral part of Smart Street and will form an influential part of the learning and development for future low carbon programmes.

*Overall objectives*

The Smart Street customer hypothesis is that:

*Customers within the Smart Street trial areas will not perceive any changes in their electricity supply.*

To test this hypothesis a range of customer engagement activities are being undertaken during the life of the project. Key among these is the ECP, split across two stages. The first stage, covered in this report, focused on developing effective communication to inform customers within the trial areas about Smart Street and its likely benefits to them. The second stage of the ECP will align with the middle of the live trials in 2016 and end of the trials in 2017 and will elicit customers' perceptions and observations of any perceived effects on their electricity supply.

In the CEP Electricity North West committed to:

- Communicate with customers from the outset by publicising the Smart Street project in advance of the technology installation stage and to provide them with a basic comprehension of the project objectives and the importance of the low carbon agenda
- Communicate with customers through a number of tailored channels, such as written, audio and visual mediums, in such a way that there is no confusion with the smart meter rollout
- Be guided by feedback from the ECP in order to define its customer communication approach.

### *Membership*

The ECP convened for the first stage of customer research consisting of two phases of focus group meetings, reflected an appropriate cross-section of domestic customers in sufficient numbers to provide qualitative feedback. A range of participants were recruited by age, gender and from the Smart Street trial regions of Cumbria, Lancashire and Manchester. Meeting locations were selected for each area that would be easily accessible to participants.

The ECP consisted of 27 customers, all of whom had to be available to attend two group discussions in September and October 2014, with prior notice of the dates and times. The size of the ECP was based on the following principles:

- It allowed the research to cover a sufficiently wide range of customers (age, gender, area).
- It allowed the research to cover a group of participants in each of the Smart Street trial areas. There was a group comprised of up to ten domestic participants recruited for each region.
- The focus group dates were sufficiently close together that they could be notified to participants at the outset and therefore minimise the risk of drop outs.
- Standard qualitative research protocol is to over-recruit to allow for drop outs that cannot be replaced in within time scale of the research. As attendance was required at both of the two meetings, up to ten customers were recruited to take part in each regional ECP group on the basis that between six and eight customers would actually participate.
- Recruiting and interviewing panellists is a costly process and a panel of 27 represented a cost-effective balance between the requirements of the consultation process and the cost of that consultation.

Participants were informed at the recruitment stage what would be expected of them, how frequently they would need to participate and how they would be incentivised for participation. The profile of the participants who attended the ECP is shown in Figure 11.1:

Figure 11.1: Profile of ECP participants

Trial area	Total	Male	Female	Ages
<b>Cumbria (Wigton and Egremont)</b>	8	4	4	43-69
<b>Lancashire (Wigan and Hindley Green)</b>	9	5	4	23-32
<b>Manchester (Denton and Longsight)</b>	10	5	5	32-58

The second stage of customer research involving an ECP will be conducted in 2016 and 2017 to test the hypothesis that Smart Street techniques can be applied without any adverse effect on customers. New participants will be recruited for this stage of research. In previous LCN Funded projects, the original ECP had been reconvened during the project. In this case, however, it is not practical to attempt to retain the same participants for both stages of engagement because the stages are over a year apart and their circumstances might change. Therefore, the most appropriate means to ensure that the required minimum numbers for the 2016 and 2017 ECP is achieved, will be to recruit new participants. Having a mixed group composition, where some participants are new to the topic and others have taken part in the previous ECP discussions, could prove disruptive to group dynamics.

An established learning, derived from previous customer engagement during C<sub>2</sub>C and CLASS, is that participants need appropriately educating about the basic structure of the electricity industry and the challenges posed by decarbonisation, before they can contextualise new innovation strategies and their potential impact. This takes up a significant proportion of the first meeting. However, the aims of the second stage of the ECP (to ascertain whether participants perceived any changes in their electricity supply during the trials) will be such that prior background knowledge is not a pre-requisite. There is no requirement to build on the issues already discussed during the first stage. Therefore, newly recruiting all the participants for the 2016 to 2017 groups is the most methodologically sound approach.

#### *Frequency*

ECPs will be convened four times during the life of the Smart Street project:

- Twice during the autumn of 2014 (stage 1- pre-technology installation)
- Once in 2016 (stage 2 - mid-trial)
- Once in 2017 (stage 2 - end of trial).

The ECP recruited for the first stage agreed to the two scheduled meeting dates and times in advance of consenting to participate. If potential participants were unable to attend both meetings, they were not selected. This approach has been effective in achieving high attendance rates at all group session both for CLASS and Smart Street. It is anticipated the ECPs for the second stage of customer engagement will be recruited using a similar approach.

#### *Administrative support and facilitation*

The ECP research is being conducted by Impact Research, an independent market research agency, on behalf of Electricity North West. All research is being conducted in accordance with the professional standards set out in the Market Research Society Code of Conduct.

Impact Research is responsible for the day to day management of the ECP, booking of venues and associated arrangements, moderating group discussions, conducting analysis and reporting findings.

### *The research approach*

During the initial stage of customer engagement, each regional ECP met on two separate occasions, when information was shared, draft awareness materials tested and participant's feedback documented. . This approach was based on previous experience with C<sub>2</sub>C and CLASS and allowed the project team to iteratively develop, test and evaluate the customer communication materials.

Objectives of the first round of ECP meetings (phase 1) were to:

- Educate the ECP about the role of Electricity North West and the Smart Street method
- Develop an understanding, from the ECP's perspective of the key elements of Smart Street that need to be highlighted in communications to customers
- Evaluate and appraise the proposed customer leaflet that will be designed to raise awareness of the trials.

Participants were provided with the following information during phase 1:

- A Q&A document sent in advance of the first session to provide background on Electricity North West and its role in the electricity industry
- Information cards outlining the anticipated increase in future demand and the challenges of meeting this.
- A concept board summarising decarbonisation, the problem arising from increased future demand and how projects like Smart Street could provide a solution
- Draft versions of the proposed general awareness leaflet, to be sent to customers within the Smart Street trial areas, after ECP evaluation
- A video explaining the aims and objectives of the project, its likely customer benefits and impact.

Following completion of the first phase of the focus group meetings, the proposed communication materials were amended to incorporate ECP feedback. The updated materials were then re-presented to the three regional focus groups during phase 2. This approach facilitated further discussion to assess the ECP's opinion of whether the amendments had improved the overall clarity and quality of the awareness materials. The specific objectives for phase two of the ECP were to:

- Review the revised awareness materials
- Determine which version of the materials was the most appropriate to send to customers
- Evaluate a range of front cover options for the printed awareness materials to help:
  - Maximise potential readership
  - Improve the chance of the leaflet being read beyond its front cover
  - Improve return on investment.

The revised customer leaflets and a variety of front cover options were presented to the ECP in phase 2 for discussion and can be found in Appendices 11.5 and 11.7.

This iterative approach to designing the customer communication materials allowed the project and its impact on customers to be well understood by the ECP. Consequently, the ECP was well placed to react to the materials presented, suggest improvements and approve the final version.

In total there were six 90-minute focus group discussions (one for each of the two phases of the research) conducted with domestic customers in the three trial regions:

- Group 1: Cumbria - Wigton and Egremont (rural)
- Group 2: Lancashire - Wigan and Hindley Green (dense urban)
- Group 3: Manchester - Denton and Longsight (city).

### 11.11 Project replication

The ECP research was conducted by Impact Research on behalf of Electricity North West. Impact Research was responsible for the day to day management of the project and learning dissemination in relation to the customer engagement.

The physical components needed to replicate this activity are:

- Database of customers in the trial area
- Recruitment screener
- Recruitment quotas
- Discussion guide
- Stimulus materials
  - Show cards explaining the role of a DNO and industry structure, a problem statement, list of potential solutions to the problem and an analogy of the problem and proposed solution
  - Communication materials (audio and/or visual as appropriate) eg video and leaflet
  - Customer survey instrument and FAQ.
- Focus group venue
- Transcripts and audio recordings.

The knowledge required to replicate the outcome of this activity is as follows:

- Knowledge of trial area
- Knowledge of customer profiles in the trial area
- Knowledge of various methods of recruiting customers for ECP
- Knowledge of qualitative research methods required to produce the physical components listed above for recruitment, design, moderation, analysis and reporting
- Knowledge of quantitative research methods required to produce the survey instrument and FAQs.

The anticipated business as usual costs are in the region of:

- Conducting an ECP (27 customers taking part in two phases of focus groups across three different locations) – £25.5k
- Incentivisation – £2.25k
- Designing and printing the leaflet – £3.5k
- Mailing a leaflet to 19,500 customers – £ £4.9k.