



Customer Load Active System Services Engaged Customer Panel Summary Report

30 March 2014



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VERSION HISTORY

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GLOSSARY

Abbreviation	Term
BAU	Business as usual
CCC	Customer contact centre
CEP	Customer Engagement Plan
CLASS	Customer Load Active System Services
C ₂ C	Capacity to Customers
DG	Distributed Generation
DNO	Distribution Network Operator
DSR	Demand side response
DUoS	Distribution Use of System
ECP	Engaged customer panel
ENWL	Electricity North West Limited
FAQ	Frequently Asked Questions
GB	Great Britain
GSP	Grid supply point
HV	High Voltage
I&C	Industrial and commercial
ICQS	Interviewer Quality Control Scheme
LCN	Low Carbon Networks
MRS	Market Research Society

MPAN	Meter Point Administration Number
NGET	National Grid Electricity Transmission
PSR	Priority Service Register
SDI	Short duration interruption
SDRC	Successful delivery reward criteria
SMS	Short Message Service

1 FOREWORD

This report is submitted as part of the Electricity North West Customer Load Active System Services (CLASS) Tier 2 Low Carbon Network Fund (LCN Fund) Project.

The CLASS Project seeks to prove that innovative voltage and frequency management techniques can be utilised to provide a range of effective demand response capabilities. Furthermore, it is proposed that the Method will reduce peak network demands, without adversely affecting customers or compromising a Distribution Network Operator's (DNO) existing demand control obligations.

This document and the analysis therein forms part of the Project dissemination and specifically references the learning from a series of strategic qualitative market research activities.

This report is derived from a customer engagement methodology designed by Electricity North West and its specialist market research provider, Impact Research. The engagement methodology was externally validated by an independent peer reviewer, Professor Ken Willis of Newcastle University.

Impact Research held a series of meetings with an engaged customer panel (ECP), the findings from which are summarised in this report. A subsequent report will be published in September 2015 which encapsulates the learnings from the quantitative customer surveys, designed to test customer perception of power quality throughout the Trials. Although both pieces of customer engagement were inextricably linked, there is significant learning from both elements warranting separate reports.

Electricity North West welcomes this report and recommends it to all LCN Fund stakeholders. The report findings will be incorporated into the closedown report for the CLASS Project, also due to be published in September 2015.

Impact Research will repeatedly engage with Electricity North West customers throughout the life of this Project, to understand if any effect associated with the application of the CLASS Method is observed. Key findings from the customer engagement will be documented and incorporated into learning and dissemination material. This report and related learning material has been published on the Project [website](#).

The research approach referenced within this document was submitted as part of the CLASS Customer Engagement Plan (CEP), which was approved by Ofgem on 31 July 2013.

2 EXECUTIVE SUMMARY

2.1 Background and business objectives

As GB moves to a low carbon future, electricity demand and the level of renewable and low carbon generation is expected to increase significantly. This decarbonisation agenda will introduce a number of challenges for the operators of GB electricity networks and has the potential to necessitate expensive capital investments.

CLASS is a LCN funded initiative which seeks to maximise the use of existing assets using innovative technology and voltage regulation techniques to manage peak demand on a DNO network and help manage the generation and demand balance on the GB electricity network.

The CLASS Method will be trialled on 60 primary substations, serving 485,000 customers, representing 175% of Electricity North West's network. The customer survey methodology has been designed to select participants' representative of both the DNO's and the wider GB demographic and social population, across the broad range of regional distribution networks.

Detail of the qualitative research findings are comprehensively documented in the following sections of this report and include the customer engagement activities, methodology, analysis protocols and lessons learned.

2.2 Customer engagement objective

The CLASS Method was designed to ensure customers' supply voltage remains comfortably within statutory limits when innovative techniques are applied. Given that small variations in voltage instigated by the Method are already routinely experienced by customers each day during normal operational conditions, Electricity North West do not anticipate customers' supply will be negatively affected.

To prove the hypothesis that "CLASS will be indiscernible to customers and they will not observe any adverse impact on power quality", a two stage programme of customer engagement was developed. An ECP consisting of both domestic and I&C customers was initially formed to test communication and survey materials in advance of the second stage of quantitative research, which was the large scale customer survey.

The principal objectives of the ECP engagement were to identify the most effective method of communicating CLASS in a simple and easily understandable manner to customers in the Trial area, and to optimise the survey instrument. To achieve these objectives, four phases of ECP meetings were scheduled, to answer three key questions;

- Do customers understand the CLASS concept?
- Which key components of the CLASS Project need to be communicated to customers and how should they be communicated?
- How can the learnings from the ECP be utilised effectively to design and implement a customer survey to test the CLASS hypothesis?

2.3 Research Approach

Qualitative research was undertaken with an ECP to understand both domestic and I&C customers' perceptions of CLASS. The ECP reflected an appropriate cross section of 30 domestic and I&C customers from the Trial areas, with quotas set on demographic information along with business size and sector respectively.

Impact Research, a CLASS project partner and independent market research agency, managed both the recruitment of the ECP and the moderation of the focus groups. All research was carried out according to the standards of the Market Research Society (MRS) Code of Conduct.

In each phase of the research, three 90 minute focus group discussions were administered:

- Group one: Carlisle, domestic customers
- Group two: Manchester, domestic customers
- Group three: Manchester, I&C customers.

Two of the three groups were comprised of solely domestic customers, reflecting the high ratio of residential Meter Point Administration Numbers (MPAN) on CLASS Trial circuits.

The first ECP meeting was entirely devoted to introducing customers to Electricity North West, its role within the energy sector and explaining the CLASS concept. Utilising the first meeting for this purpose was influenced by the complexity of the CLASS concept, and built on [learnings from the LCN Capacity to Customers \(C₂C\) Project](#), which similarly needed to convey subject matter that was likely to be initially quite challenging for customers. During the following 3 sessions, customers' appreciation of the objectives of the Trial and the effectiveness of the Solution were assessed to gradually develop, test and evaluate communication materials.

Following completion of each phase of the research, the communication materials presented to the ECP were enhanced to incorporate targeted feedback. The updated communications materials were then presented to the ECP at the next meeting to ascertain if participant's considered there had been an improvement in their clarity and quality. This phased approach was part of a deliberate strategy to understand customers' appreciation of the problem statement and the proposed CLASS solution.

2.4 Summary of Key Findings

2.4.1 Do customers understand the CLASS concept?

With appropriate education customers generally understood the CLASS concept.

A direct learning from the C₂C Project was the apparent lack of customer understanding of a DNO's role in the energy sector, more specifically the different role and responsibility of Electricity North West, as a licensed DNO from that of electricity Suppliers. Confusion about the electricity transmission, distribution and supply chain was similarly apparent in the CLASS ECP. This important leaning will inform future communications strategies, which should initially educate customers about Electricity North West's role in the energy sector and its responsibility to consumers.

The CLASS video was effective in explaining a relatively complicated problem and the Solution in a simple and understandable manner.

CLASS was explained as a means of balancing supply and demand by controlling voltage. The use of a kettle analogy was successful in explaining how a small change (2%) in voltage will affect the time taken to boil the kettle (approximately 8 seconds) but would not alter the energy used or cost to the customer. This effectively illustrating that customers would be unlikely to notice a change in their supply and that a small change in voltage made to a much larger population could have significant benefits overall.

Once the CLASS concept was understood, some customers expressed reservations concerning the impact on their electrical appliances/equipment and if equipment would have to be upgraded. This originated from a general misconception that CLASS would permanently and significantly reduce voltage both during and outside times of peak demand. Misunderstandings of this nature were addressed by including a frequently asked questions (FAQ) section in the customer leaflet, which was tested in a subsequent ECP meeting.

2.4.2 Which key components of the CLASS Project need to be communicated to customers and how should they be communicated?

The key components of the Project that needed to be communicated included; a summary of the problem and the Solution (CLASS), the likely effect of the Method, if any, and how customers could help to evaluate the success of CLASS by participating in the customer surveys. The ECP concluded that the most effective channels for communicating the key components were a mixture of audio (video) and visual (leaflet) materials.

Based on learning from the C₂C Project, information about the complex CLASS technology and details of how Trials would work in practice was intentionally communicated at a high level and presented in a clear, concise and tactical manner. This strategy was designed to prevent further questions or concerns by addressing them directly.

However, customers participating in the CLASS ECP had an appetite for more detailed information about the CLASS Solution and questioned the Trial dates and duration, whether the tests would be intermittent and how their household/property/appliances and power quality would be affected.

Another key benefit of the CLASS Method, which needed to be communicated, was the associated long term financial saving to customers, derived from deferment or avoidance of traditional reinforcement techniques.

The ECP suggested that communication materials should inform customers how they could participate in the surveys and provide instruction for online registration. A maximum £150 incentive to take part in up to four surveys was presented to the ECP, which was considered very appealing. This prompted requests for information pertaining to the frequency, duration, location, format and content of the surveys to be made available.

Inclusion of advisory information outlining “what to do in the event of a power cut” was felt to contradict the positive message that no changes in power quality were anticipated as a result of the Trials. This information was therefore excluded from the final leaflet.

The ECP agreed that social media should not be utilised in isolation as a means of engaging with customers, due to constraints surrounding content and audience reach.

The [final general awareness leaflet](#), optimised over the course of the ECP meetings, clearly summarised the problem, the Solution (CLASS) and the likely effect of the Method on customers. It also explained how customers on Trial circuits could register to participate in the surveys. The leaflet contained an informative FAQ section, which addressed the specific requirements and questions raised by the ECP in relation to the Trials and provided contact information for Electricity North West.

2.4.3 How can the learnings from the ECP be utilised effectively to design and implement a customer survey to test the CLASS hypothesis?

The ECP appraised the survey instrument as clear and easy to understand. Only minor changes were suggested to the wording of specific questions and their placement. ECP feedback was particularly helpful in ensuring unfamiliar terminology was explained and also assisted in expanding the list of common electrical appliances included in the survey.

The [customer survey FAQ](#), (informed and evaluated by the ECP) was considered to be very useful and will therefore be utilised when recruiting survey participants.

The ECP considered that the maximum incentive of £150, available for taking part in the quantitative surveys would be a highly motivating reason for participation and should therefore be highlighted at the outset of the recruitment phase.

Aside from the financial incentives for taking part in the ECP, the panellists also demonstrated a genuine interest in the CLASS Project and a desire to be kept informed during the progression of the Trials.

2.5 Conclusions

The CLASS Method was generally understood when the following key components were communicated in a simple and concise manner:

- The role of a DNO is clearly differentiated from that of electricity Suppliers;
- The problems associated with an increasing demand for electricity, due to the decarbonisation agenda, is contextualised through seeking alternatives to traditional reinforcement;
- CLASS is expected to be indiscernible to customers, as demonstrated through the impact on common electrical appliances by the use of a simple analogy.

The ECP concluded that the most effective channels for communicating the key components were a mixture of audio (video) and visual (leaflet) materials.

The CLASS video was commended by the ECP for conveying the problem and CLASS Solution in a concise and easy to understand way.

The layout, content and images utilised in the customer leaflet were all amended in response to constructive feedback from the ECP. This culminated in the ECP perceiving that the leaflet was ultimately more effective than the video in explaining how CLASS would affect customers and the overall benefits to individuals/business'.

The leaflet was distributed to all 485,000 customers on the Trial circuits in February 2014.

The learnings from the ECP will be exploited to optimise the survey recruitment materials and incentivise a robust and representative sample of customers to participate in the surveys, which in turn will provide the evidence required to test the CLASS hypothesis.

3 BACKGROUND AND OBJECTIVES

This document and the analysis therein forms part of the Project dissemination. The findings summarised in this report support other Project learning outcomes by demonstrating the customer engagement strategy deployed to develop and evaluate effective communication materials and refine a robust survey instrument prior to the CLASS Trials commencing.

3.1 Project background

As GB moves to a low carbon future, electricity demand and the penetration of renewable and low carbon generation is expected to increase significantly. The decarbonisation agenda will introduce a number of key challenges for the operators of electricity networks with the potential to necessitate expensive capital investment.

CLASS is an LCN Fund Tier 2 Project which seeks to demonstrate that peak electricity demand, and the balance of generation and demand on the GB network can be managed using innovative technology and existing electricity assets to control voltage, without any discernible impacts on customers.

CLASS seeks to address three key problem areas:

1. Rapid demand growth;
2. Network voltage rise;
3. Frequency services.

The CLASS Method will be trialled at 60 primary substations, representing 17% of Electricity North West's network. These were specifically selected to provide a robust and statistically significant sample of GB's primary network assets, encompassing all of the types of demand and generation customers connected to High Voltage (HV) networks.

The CLASS Trials fall under the three categories of load modelling, demand response and frequency response. A comprehensive explanation of all the Trials and the testing methodology employed are provided in the ['Design approach to CLASS Trials and associated test schedules'](#).

3.2 Customer engagement objectives

The CLASS Project seeks to prove one key Customer Workstream hypothesis, which is critical to the Trial:

- CLASS will be indiscernible to customers (customers within the CLASS Trial areas will not see/observe/notice an impact on their power quality when these innovative techniques are applied).

To test the hypothesis, Electricity North West and its market research provider, Impact Research, will repeatedly engage with a carefully selected customer survey population throughout the duration of the CLASS Project. A mixture of qualitative and quantitative research methods will produce the evidence required to evaluate the following research objectives in support of the hypothesis:

- To formulate effective communication plans and materials in order to provide clear information for customers in Trial areas concerning the impact, if any, CLASS would have on customers (Qualitative research);
- To determine the effect CLASS has, if any, on Trial customers who participate in the customer survey throughout the duration of the Trial tests (Quantitative research);

- To determine the effect CLASS has, if any, on the control group of customers who participate in the customer survey throughout the duration of the Trial tests (Quantitative research).

Qualitative research is primarily exploratory by nature and employed to acquire an understanding of underlying reasons, opinions, and motivations. It provides insights into a problem or helps to develop ideas or hypotheses for potential quantitative research.

Quantitative research is a more logical and data-led approach which provides a measure of customers' perceptions from a statistical and numerical point of view. This report is principally focused on the qualitative stage of research. However the materials evaluated by the ECP were designed to assist with the execution of the quantitative stage and therefore the approach adopted for this stage is documented as useful context.

All engagement activities were designed to ensure that the LCN Fund made available for the CLASS Project was utilised efficiently by the Customer Workstream in order to test the hypothesis and evaluate the transferability of the CLASS Method. The customer engagement methodology was externally authenticated by an independent peer reviewer, Professor Ken Willis of Newcastle University. The peer review is available [here](#).

3.3 Customer impact

The system voltage of a typical DNO's network is continuously regulated by the automatic adjustment of the tap position of primary transformers. The adjustments to voltage that will be conducted during the CLASS testing regime, are designed to maintain supply well within statutory limits (between 216V to 253V) and are not anticipated to be discernible to customers. Any impact on customers' perceptions of power quality that could conceivably be influenced by the Trials may include, but not be limited to:

- Unplanned supply interruptions potentially caused by a spike or dip in voltage during a CLASS test;
- Impact on specific appliances (particularly older appliances with a lower tolerance for fluctuations in voltage), specifically observations of appliances working slower quicker or less effectively than usual;
- Flickering, dimming or increased brightness of lighting during testing periods.

Customers' existing perception of their power quality and any observed/perceived changes will be assessed by ongoing quantitative customer surveys, measured against network data collected over the duration of the Trial. The findings will be published in full on the [CLASS website](#) in September 2015.

3.4 Objectives met

This report specifically addresses the objective 1) in section 3.2 above which has been achieved.

To embed on-going stakeholder engagement an ECP was convened consisting of three groups of ten customers. The research identified the most effective method of communicating CLASS in a simple manner to customers in the Trial area and assisted in optimising the survey instrument. This activity was considered successful and feedback from the ECP was used to refine the design of a leaflet which was subsequently distributed to 485,000 households on CLASS Trial circuits.

This ECP Summary Report forms the evidence for criterion three; 'deliver the customer survey pilot workshop by March 2014' and criterion two, 'produce customer marketing/campaign materials by January 2014'.

The table below shows how each Successful Delivery Reward Criteria (SDRC) has been met during the course of the Project.

Table 3.6.a: SDRC Requirements of the CLASS Project

Title	Criterion	Required Evidence	Actual Evidence
Customer Engagement	1. Create the Customer Engagement Plan and Data Privacy Statement by July 2013;	1. Send the Customer Engagement Plan and Data Privacy Statement to Ofgem for approval by July 2013;	1a. Customer Engagement Plan 1b. Project website
	2. Produce customer marketing/ campaign materials by January 2014;	2. Publish customer marketing/campaign materials on CLASS website by September 2013;	2a. Engaged customer panel - introduction document 2b. Engaged customer panel stimulus board 2c. Customer leaflet
	3. Deliver the Customer Survey Pilot workshop by March 2014;	3. Deliver first customer workshops by October 2013; complete workshops by December 2013	3. ECP report

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 provides supplementary information on the customer engagement methodology employed to test the hypothesis referred to in section 3.2.

The first research objective; to form an effective communication plan and set of materials, was exploratory by nature and required a methodology that elicited deeper understanding of customers' perception of CLASS. A professional, independent moderator asked the ECP semi-structured questions linked to a pre-defined list of discussion topics. This format gave the moderator the flexibility to question participants further on issues arising through open discussion and fostered the natural evolution of the ECP's understanding of CLASS and its likely impact on customers.

The ECP approach to developing suitable engagement materials was successful in CLASS and will be used as a template for the Smart Street ECP to be administered in 2014.

4.1 Objectives of the ECP meetings

The ECP met on four separate occasions between October 2013 and January 2014 and provided in-depth feedback on evolving CLASS materials.

The ECP reviewed draft communication materials intended for use in the CLASS awareness campaign during three separate meetings. They then supported the optimisation of the survey instrument before the quantitative stage of research, due to commence in May 2014.

The key objectives and learning outcomes agreed for each of the four ECP meetings are listed in Table 4.2.a.

Table 4.2.a: Objective of each ECP meeting

ECP meeting	Research objective
ECP meeting 1	<p>Do customers understand the CLASS concept?</p> <ul style="list-style-type: none"> Introduce Electricity North West, CLASS and establish customer perceptions and understanding of the concept.
ECP meeting 2	<p>Which key components of the CLASS Project need to be communicated to customers and how should they be communicated? (Part one)</p> <ul style="list-style-type: none"> Establish the most effective way of communicating CLASS to customers and encourage participation in the customer research.
ECP meeting 3	<p>Which key components of the CLASS Project need to be communicated to customers and how should they be communicated? (Part two)</p> <ul style="list-style-type: none"> Sign off the customer leaflet. Establish the most effective way of communicating the CLASS survey to customers on selected Trial circuits. Explore the use of social media.
ECP meeting 4	<p>How can the learnings from the ECP be utilised effectively to design and implement a customer survey to test the CLASS hypothesis?</p> <ul style="list-style-type: none"> Feedback on the draft Customer Survey.

The ECP was influential in the final determination of the optimal form of words to describe CLASS to customers. This enabled Electricity North West and Impact Research to communicate Project information in a succinct, simple and easily understood manner, using customer-friendly terms. This resulted in an effective general awareness leaflet, the efficient recruitment of suitable participants and the success of the subsequent customer surveys.

4.2 Membership of the ECP

30 customers were recruited to take part across three groups of equal size, based in two different geographical areas of the North West; Greater Manchester and Carlisle.

Ten customers were recruited to take part in each group on the basis that they would then participate in all four scheduled meetings.

Unlike the phase of quantitative customer surveys, where customer perception/observations of changes in power quality will be critical in testing the hypothesis, it was unnecessary to restrict ECP participants to customers on CLASS Trial circuits. The ECP meetings took place prior to the Trials and did not require location based knowledge. Participants were geographically clustered in the urban and rural locations and were easily able to access the meeting venues.

One of the three ECP groups consisted entirely of I&C customers in order to explore whether their perception of CLASS was different to domestic customers. All I&C participants were required to hold decision making responsibility for their organisation’s energy bills and contracts and/or responsibility for production or operation of electrical machinery. This was a pre-requisite for taking part in the ECP and a recommendation made by Professor Ken Willis in his peer review of the proposed engagement methodology.

A broad profile of customers were recruited into the ECP to reflect diversity within the region, with an appropriate cross section of customer demographics reflective of ages, gender, social grade, region and household composition, as demonstrated in Table 4.3.a:

Table 4.3.a: ECP group definitions

Location	Rural/Urban	Customer type	Gender	Age
Manchester (A)	Urban	Domestic	Equal proportion of male & females	45+
Manchester (B)	Urban	I&C (range of business sizes)	Appropriate balance	Appropriate balance
Carlisle	Rural	Domestic	Equal proportion of male & females	<45

4.3 Frequency of meetings and attendance

The ECP met on four separate occasions between October 2013 to January 2014 (refer to table 4.3.b). The meetings lasted approximately 90 minutes each, and were facilitated by an accredited Interviewer Quality Control Scheme (ICQS) qualitative moderator.

Each ECP phase was hosted over two consecutive evenings with the first taking place in Carlisle and the second in Manchester.

Table 4.3.b: ECP meeting dates

Meeting	Date
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ECP meeting one	15 th /16 th October 2013
ECP meeting two	5 th /6 th November 2013
ECP meeting three	3 rd /4 th December 2013
ECP meeting four	14 th /15 th January 2014

To secure, as far as possible, the attendance of all four meetings, participants were advised of the dates prior to committing to take part.

Based on standard market research protocol, it was anticipated that across the four meetings the attrition rate of customers who no longer wished to participate would be approximately 10%. Ten customers were recruited to take part in each ECP meeting, on the basis that eight would actually participate on the day. This allowed sufficient mitigation for non-attendance of meetings.

The minimum attendance of eight people per group was achieved on all but one occasion, as Table 4.3.c demonstrates:

Table 4.3.c: ECP attendance

ECP Meeting	Carlisle	Manchester (Domestic)	Manchester (I&C)
ECP meeting one	9	10	9
ECP meeting two	7	9	9
ECP meeting three	8	10	9
ECP meeting four	8	9	9

4.4 Incentivisation

Domestic customers were offered a cash incentive of £40, and I&C customers received £70 for attending each ECP meeting. These incentives were recommended by Impact Research, based on its experience of recruiting customers to take part in similar on-going 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 preferred.

5 KEY LEARNINGS FROM THE C2C PROJECT INCORPORATED IN THE CLASS ECP

The purpose of this section of the report is to demonstrate application of learning from previous LCN Funded Tier 2 Projects.

The objective of Electricity North West’s flagship C₂C Project was to test a combination of enhanced automation technology, non-conventional network operational practices (i.e. increased network interconnection), commercial demand side response (DSR) contracts, and critically, customer acceptance these technologies/techniques.

The customer engagement conducted in C₂C comprised of both qualitative (ECP) and quantitative (customer surveys) research.

Table 5a demonstrates the learnings from the C₂C Project that were subsequently applied to the CLASS customer engagement methodology:

Table 5a: Applied learning

Learning from C ₂ C	Application to CLASS
<ul style="list-style-type: none"> The ECP demonstrated that customers had little or no understanding of Electricity North West and the differing roles of a DNOs and Suppliers. Nor was there understanding of the decarbonisation agenda, the increasing demand for electricity and the need to potentially expand the electricity network. Customers required educating about these matters before the C₂C concept could be introduced. 	<ul style="list-style-type: none"> Communication materials were designed and presented at the first ECP meeting to introduce participants to Electricity North West, the DNOs role and responsibilities and how they differ from those of Suppliers and National Grid Electricity Transmission. This then allowed for discussions around the necessity for decarbonisation.
<ul style="list-style-type: none"> The ECP valued a simple question and answer factsheet, video material and concept board which explained how C₂C could address the Problem and how customers on a C₂C Trial circuit were affected. To maintain interest and credibility customers required reassurance about the reliability of their supply. 	<ul style="list-style-type: none"> CLASS was explained in a simple manner through a mixture of audio and visual methods that had been effective in C₂C (FAQ, video, concept board). A statement supporting the notion that customers’ electricity supplies would be as reliable during the Trial as before it was included in the FAQ.
<ul style="list-style-type: none"> Customers’ main concern was the likely impact, if any, of the C₂C Method on them. Customers were preoccupied with whether they would notice any change or disruption in service, or increase to their bills. 	<ul style="list-style-type: none"> The first draft of the CLASS customer leaflet placed a greater emphasis on the customer impact and benefits of CLASS for customers rather than the Method itself.
<ul style="list-style-type: none"> Contacting the most appropriate person within I&C organisations was a challenge due to the absence of a current, detailed customer contact database (common amongst DNOs). 	<ul style="list-style-type: none"> Additional time was allowed in the CLASS Project plan to source accurate telephone numbers and recruit appropriate I&C customers.
<ul style="list-style-type: none"> When recruiting I&C customers to participate in market research, consideration should be given to offering a 	<ul style="list-style-type: none"> I&C customers were given a higher incentive for participation in the ECP in recognition of potential disruption to

wide range of support and incentives.

their working day/value of their time. The incentive could be exchanged for a charitable donation where the respondent was unable to accept personal incentives.

- A maximum cash incentive of £150 for participation in a suite of customer surveys was promoted in the customer leaflet. This successfully led to over 3000 customer survey registrations, a proportion of which were from I&C customers.
- The incentive for participating will be available to customers in the form of a BACS payment, online e-vouchers and charitable donations.

6 KEY ANALYSES AND RESULTS

This section of the report disseminates the key findings of the ECP, as summarised in the executive summary (section 2.4), with greater granularity. The analysis answers three key questions;

1. Do customers understand the CLASS concept?
2. Which key components of the CLASS Project need to be communicated to customers and how should they be communicated?
3. How can the learnings from the ECP be utilised effectively to design and implement a customer survey to test the CLASS hypothesis?

6.1 Do customers understand the CLASS concept?

This sub-section disseminates the lessons learned during the first of four ECP meetings held to elicit customers' understanding of the CLASS concept, as explained using communication/stimulus materials designed for this purpose. It lists the various materials shared with customers and documents their effectiveness in improving customer understanding of the Project.

6.1.1 Introducing Electricity North West

Key learning acquired from the C₂C Project revealed that customers generally require educating about the low carbon agenda and the anticipated increase in electricity demand before they are willing to accept that solutions to the problem are required. Only then can more detailed information concerning the concept, Method and Trials be introduced. As anticipated, this meant that a significant proportion of the first CLASS ECP meeting was devoted to explaining the role of Electricity North West, its relationship to Suppliers, the NGET and the reasons behind the anticipated increase in electricity demand along with its consequences.

As previously encountered in the C₂C ECP, only a very small proportion of customers in the CLASS ECP were aware of Electricity North West. One I&C customer had recently contacted Electricity North West with a query, although their knowledge was still limited in terms of its responsibilities. The privatisation and restructuring of the electricity industry has resulted in confusion amongst customers about the roles of transmission, distribution and supply companies within the energy sector. The existence of network operators such as Electricity North West was largely unknown to most of the panellists, despite this being summarised on electricity bills and recent brand awareness campaigns to improve visibility. Most participants confessed that they did not look at their bills in detail and had not realised the industry was structured in this way.

Cynicism over energy Suppliers' 'rising profits' featured in discussions arising during the first phase of meetings, however, once the role of Electricity North West (and DNOs in general) was more clearly understood, there was no further deliberation about the issue.

Supplementary information regarding Electricity North West and the CLASS Project was then shared with the ECP in the form of a short [video](#), which is available to view on the CLASS website and YouTube.

6.1.2 Introducing CLASS (problem statement and concept board)

In order to contextualise the CLASS Solution, customers were presented with a series of information cards, which explained why electricity demand is expected to double by 2050. These also included information about the increase in low carbon technologies including solar panels and electric vehicles along with a statement of the problem that the CLASS Method seeks to remedy.

Common to observations made during the C₂C ECP, there was initially some scepticism surrounding the claim that electricity consumption will double by 2050. The likely increase in

demand was spontaneously attributed to the increased use of technology such as mobile phones, tablets, leaving appliances on standby and leaving lights on in empty rooms.

“I’m charging half a dozen things every night and the amount of electricity we are using has increased because of all the gadgets and technology that we’ve got in our homes.” Domestic customer, Manchester

The ECP particularly struggled to accept the 2050 scenario, where the majority of vehicles would be electric and households would have moved from gas central heating systems to electric heat pumps. These projections were perceived by some (particularly in Carlisle) to be unrealistic and scaremongering. The ECP initially perceived that in actuality, the situation would not change as quickly as predicted and that technology would not sufficiently advance by then. Based on this reasoning, the ECP believed this would negate or reduce the projected increased demand and its implications.

“People live for the here and now, you know, they tend not to look 37 years ahead. Our descendants, will be more interested but it’s hard for us to think that far ahead” I&C customer, Manchester

However, after some group discussion and moderator intervention, most ECP participants accepted that as fossil fuels become increasingly limited and more expensive, there would be a need to find alternatives and technology would improve to make this more viable (e.g. the introduction of high performance electric vehicles with a longer battery life).

Interestingly the transition to electric vehicles was likened to the move towards household recycling in the 1990’s and 2000’s, during which time it became an increasingly necessary and socially expected phenomenon. This demonstrates the potential for currently held perceptions, regarding adoption of electric vehicles, to improve over time.

A problem statement ‘show card’ (depicted in chart 6.1.2a) was designed to inform the ECP of the investment required to address the problem using traditional reinforcement.

Chart 6.1.2.a: Problem statement

Problem Statement

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.

The problem statement was followed by a show card listing the potential solutions, ranging from traditional reinforcement, to CLASS and other alternative low carbon technologies.

The illustrative cost (£9bn) associated with expanding infrastructure through traditional reinforcement techniques were seen by some to be Electricity North West’s responsibility and not something that should be passed onto customers. There was also a perception that it was a problem to be solved by the government without an appreciation that government budgets and Electricity North West’s profits come from the tax or bill payer, so the benefits of finding a solution were mutual.

In the first meeting customers were also presented with a 'concept board' which succinctly summarised the problem statement, how CLASS attempts to address that problem and why customers should care ('what's in it for me?'). Presenting new concepts in this format is an established method in market research for eliciting actionable feedback.

A copy of the concept board appraised by customers is shown in chart 6.1.2b.

Chart 6.1.2.b: Concept board

Keep our bills lower and meet the electricity needs of the future

electricity north west
Bringing energy to your door

Problem
As we face the challenge of making the transition from fossil fuels to lower carbon means of electricity generation, demand for electricity in Great Britain is set to rise significantly. To maintain current levels of service, the cost of upgrading the network would mean *higher bills from 2015*. However, using the existing network more efficiently could help meet this increased demand, without increasing your bills.

Solution
CLASS (Customer Load Active System Services) will make **better** use of our existing network to **increase capacity** *without* expanding the network and will **keep bills down for everyone**. By varying the voltage to your home, depending on demand at different times of the day, we can make better use of the electricity that is generated and control supply to reduce wastage.

How?
As a customer your supply will be as **reliable** as usual. These variations in voltage would be so small that you would not notice the difference. During less busy times of day your voltage may increase slightly, and conversely during busy times of the day your voltage may decrease to make the best use of electricity.

What's in it for me?
The CLASS project will help keep your bills lower and contribute to a more energy-efficient, stable and renewable future for electricity generation.

CLASS – part of our smart future

The concept board was positively received due to its simple and concise structure with use of sub-headings.

Based on specific feedback from the C₂C ECP, the CLASS concept board deliberately omitted the scale of the change in demand anticipated, the timeline for the change or level of investment required. Statistics were replaced with more general terms such as demand “rising significantly” and the prospect of “higher bills”. The information on the concept board was generally conducive to customers accepting the problem and solution because it was perceived to have been presented in an effective and engaging manner.

6.1.3 The CLASS video

The CLASS video was shown to all participants, and was referenced several times in ECP meetings as a simple and clear way of articulating a complex subject.

The video conveyed information that alternative communication materials such as the show cards and concept board had not. For example, it was much easier for customers to comprehend that electricity cannot easily be stored, the difficulties in accurately predicting demand and that supply interruptions can occur if generation and demand are not balanced. These were revelations for participants who had never before given sustained thought to the quality and continuity of their electricity supply on this manner.

The CLASS concept was understood to be a means of balancing supply and demand by “controlling voltage”. Some customers questioned if and how the Method would affect their electrical equipment and whether the Trial would necessitate the upgrade of any appliances or machinery. These concerns originated from a misconception that the reduction in voltage would be permanent and not just applied at peak times of demand.

Whilst the video was well received, the Carlisle ECP found the reference to “sharing the problem between 26 million customers” confusing. Some customers understood this to mean that Electricity North West was asking customers to think of solutions themselves, rather than conveying that the CLASS Method could provide a GB wide solution.

The video ended with a summary of benefits from implementation of the CLASS method, which included a cost saving statistic. This provoked debate about whether customers were likely to genuinely benefit from this saving in their bills. Cynicism over energy Suppliers’ ‘rising profits’ contributed to this negative perception and for this reason specific reference to financial cost savings were omitted from communication materials in favour of more general claims about the benefits of CLASS to individuals.

6.1.4 Conclusion

With sufficient education customers generally understood the CLASS concept. The most appropriate and effective form of education for a complicated concept such as CLASS was found to be:

- A simple explanation of the problem, correlating the anticipated increase in electricity demand to a decline in the availability and use of fossil fuels. The prohibitive cost of traditional reinforcement to meet this demand necessitating alternative technological solutions, which utilise existing assets more efficiently, keeping customers’ bills down.
- A brief description of the Solution (CLASS); balancing electricity supply and demand by “controlling voltage” at times of peak demand.
- Selling the benefits of the Solution to the end customer; keeping bill prices down with a Method that has no discernible effect on customers’ supply or electrical appliances.

The following actions were taken as a direct result of the learning from the first ECP meeting:

1. Communication materials were refined to highlight that the predicted increase in electricity demand would be driven by customers’ reliance on electric vehicles and electric heating, arising from the scarcity of fossil fuels, rather than by a conscious lifestyle choice to change to LCTs.
2. The video was made available to interviewers recruiting customers to take part in the quantitative customer survey as a means of informing participants about the Project.
3. The communication materials stipulated that the reduction in voltage would only be at peak times for a relatively short period of time during the Trial.

6.2 Which key components of the CLASS Project need to be communicated to customers and how should they be communicated?

This sub-section disseminates the lessons learned during the second and third ECP meetings which were dedicated to identifying which components of the CLASS Project were most relevant to communicate to customers on Trial circuits and through which channels. Allocating two meetings for this activity allowed stage one materials to be refined and then presented back to participants in stage two.

6.2.1 The development of the customer leaflet (first draft)

During the second ECP meeting, the merits of utilising a customer leaflet as a means of informing customers about the CLASS Project were evaluated. Customers were shown three versions of the leaflet; the first was a long three page edition, the second contained the same wording with a different set of images and was intended to be personally addressed to the customer. The third was an abridged two page version. These leaflets are included in the appendix (section 10.1).

The purpose of the leaflet was twofold:

- To notify all customers in the CLASS Trial area about the Trials and provide key information, including the likely impact on their electricity supply;
- To act as a recruitment tool to encourage customers to register their interest in taking part in the customer surveys.

On balance the more comprehensive three page leaflet was perceived to be the most effective, being more informative and giving greater context and background to the problem. This version also provided greater detail of the customer survey, which the ECP felt was lacking in the abridged version.

The following improvements were made to the three page leaflet as a direct result of the targeted ECP feedback:

- The Project name CLASS was referenced throughout the leaflet rather than just on the front page and the acronym explained, for consistency and branding purposes;
- In light of the unfamiliarity of Electricity North West to customers and to counteract the perception that the leaflet might be a circular/marketing information, the front cover was refined with a prominent opening phrase “Important information from your local electricity network operator”. This was added in bold font to initially grasp the attention of the reader.
- Relevant examples of the impact that CLASS may have on a customer’s supply were included in the narrative within the leaflet, notably using an analogy of the effect of a small change in voltage, on the time it takes to boil a kettle. Customers considered this to be an influential component in explaining the concept;
- None of the draft leaflets informed customers when the CLASS Trials would start and finish, which was rectified by including the information in an FAQ section;
- None of the leaflets stated that the changes instigated by the Trial would only be for short periods of time and not continuously, or every day. Clarifying this was considered likely to offer reassurance to customers that the effect on them would be limited;
- The presence of the “what to do if there’s a power cut” section contradicted the assertion that customers were unlikely to notice the impact of CLASS. This section was therefore shortened considerably to include only important contact details and advice for vulnerable customers about how to be added to the Priority Service Register (PSR);

“Yeah, they’ve made a bit of a big deal about the power cut thing. They’ve actually written half, well nearly a whole page on power cuts so it makes people think it’s going to happen” Domestic customer, Manchester

This key learning was in stark contrast to that from the C₂C ECP where the consensus was that this information was useful and should be included to raise public awareness.

- The phrase “enables us to control voltage and manage electricity supply and demand” was referenced (from the concept board) as an effective means of explaining the Solution;
- The multiple communication channels (e.g. website, phone number or SMS) available to customers for CLASS related communication were added;
- An overview of the customer survey was included due to the interest exhibited by the ECP, this included brief details of how the survey would be administered, the frequency, duration and the incentive for participation.

In addition to the content of the leaflet, participants discussed the layout, language, style and intended delivery method. The language and tone were positively received and considered to be pitched at the correct level.

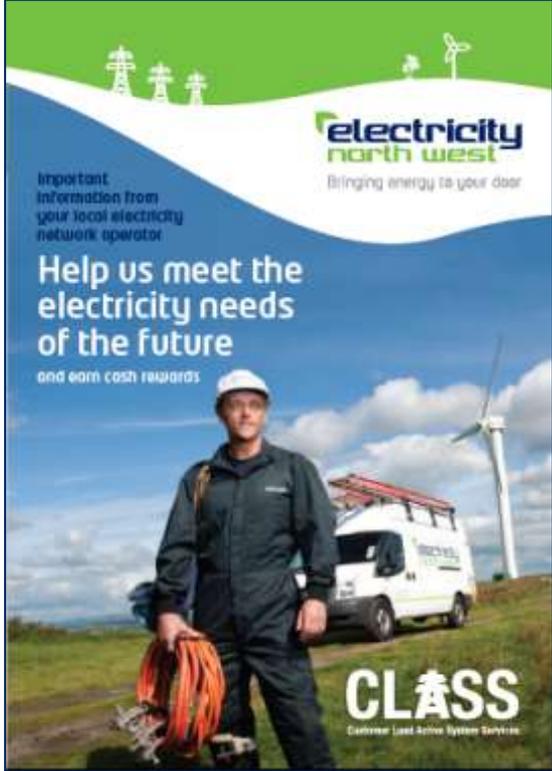
The ECP were asked to consider the most appropriate image to appear on the front cover of the leaflet. The preference was for that of an engineer at work, which was perceived to be more professional and representative of Electricity North West's brand, than an alternative image of a customer using a kettle. This generic image was also considered far more likely to be disregarded.

Incorporating ECP feedback to refine the final version maximised the likelihood of the leaflet being read and understood by customers when it was distribute, reducing the chances of it being simply discarded, as general marketing/circular post.

6.2.2 The development of the customer leaflet (second draft)

The amended version of the customer leaflet, incorporating the changes listed in section 6.2.1, was shared with participants prior to and during the third meeting, to consider any final constructive feedback. Participants expressed satisfaction from learning that their comments had evidently been considered and influenced the revised version, illustrated below.

Image 6.2.2.a: Revised CLASS customer leaflet used in ECP meeting three



This revised draft of the leaflet was commended by the ECP as being laid out in clear and accessible sections and as having relevant content and a logical flow, meaning the reader could easily navigate to the sections of most interest to them. Furthermore, the ECP resolved that A5 was a convenient leaflet size and less likely to be confused with circular mail.

Before the third meeting took place, participants were asked to show the revised leaflet to a friend or family member. This exercise provided a new customer perspective, which assisted in establishing the likelihood of the leaflet being read and whether the content was understood (having not had the benefit of prior education/information concerning the Project).

In general, the leaflet was positively received; however, it was felt that the purpose of the leaflet could still be misconstrued;

“Looking at this at face value, the biggest problem is everybody seems to be brainwashed that anything that comes through the door with electricity on it, they know it is switching or some form of switching, they don’t automatically think there’s anything else within the industry to talk about.” Domestic customer, Manchester.

Despite some minor reservations that the leaflet was too detailed, the following (risk and reward) information stood out positively for the third party readers:

- The cash reward of up to £150 for participation in the survey (most participants and their family or friends) claimed that they would take part in the survey with this level of incentive);
- Reassurance that electricity would not need to be switched off during the Trial;
- The inclusion of an FAQs section;

“And I like the range of questions because sometimes I only read the answer to the question that I am interested in,” Domestic customer, Carlisle.

During the third meeting, a final alternative version of the leaflet was presented to the ECP for review. This version contained the same wording, but all of the key information was presented on the front cover, with an image of Electricity North West’s mascot, ‘Edison the light bulb’ replacing that of the engineer. Although the ECP considered the key information was more prominent in this version, the layout was viewed as crowded and the green background considered overpowering.

In the final analysis, the front cover, using the image of the Electricity North West engineer was overwhelmingly considered to be the most effective amongst the options tested by the ECP.

A number of minor changes were made to improve the three page version of the customer leaflet before it was [published](#) as a direct result of final customer feedback:

- The “can I opt out” question and answer was moved to the end of the FAQs to keep the general tone of the information as positive as possible;
- The colour of the introductory text on the front cover, “Important information from your electricity network operator” was changed to white following feedback that it was hard to read and this information was important as it differentiated Electricity North West from electricity Suppliers.

6.2.3 Recruiting customers to take part in the surveys

During the third meeting, the ECP was given a brief overview of how Impact Research proposed recruiting customers on Trial circuits to take part in the customer surveys and what this activity would entail. The ECP was asked to provide general feedback on the likely success of the suggested approach and offer suggestions for optimising response rates.

As previously reported in section 6.2.2, the £150 (maximum) reward being advertised for taking part in the customer surveys was highly motivating to the ECP. It was proposed that reference to the incentive should prominently appear on the front of the customer leaflet and should also be one of the first aspects to be referenced when recruiting customers to take part. To further enhance participation rates throughout the duration of the Trial, it was also recommended that survey participants be made aware of the availability of a bonus reward, to be allocated should customers complete all of the surveys that they are invited to participate in during the Trial and distributed to those eligible at the end of the Project.

Impact Research anticipates administering the baseline (pre-Trial) survey of domestic customers face to face, with subsequent seasonal surveys (Trial) conducted by telephone. The face to face contact provides greater opportunity to answer any questions customers have when signing up to take part in the surveys.

There was some resistance amongst domestic ECP participants to the initial survey being conducted face to face. This stemmed from both the imposition of inviting a stranger into the home and the inconvenience of committing to being in at the time of the interview. For these reasons, the ECP proposed that the baseline survey was conducted by telephone.

“Well, probably women living on their own or being on their own or even inviting people – strangers coming in, you know, and they’re alone with somebody who they don’t know who’s come along to this interview on a one to one basis, I think that probably does present problems” Domestic customer, Manchester.

The suggestion of a pre-arranged appointment time at the customers’ convenience enabled this approach to gain traction amongst the ECP.

Some customers also expressed a desire to receive updates regarding the survey and the CLASS Trials during the course of the Project, with social media proposed as a suitable channel for disseminating information. Whilst social media was appreciated as a useful channel to aid survey recruitment, the ECP asserted that it should not be used in isolation and that other communication methods would be needed for those who are not regular users of social media. Emails were considered to be a more accessible channel; however the ECP agreed that there was still a need for information to be available in a range of formats such as leaflets, the website and email.

Enhancements were made to the customer survey recruitment strategy as a direct result of the feedback obtained from the ECP:

- The CLASS video will be provided to interviewers so that it can be included as part of the briefing materials for the initial survey recruitment, in order to help customers quickly understand the concept and the problem that CLASS seeks to remedy;
- A prize draw (to win a one-off cash amount) will be administered with a reward made available to a randomly selected winner. The winner will be amongst a list of participants who take part in every survey they are invited to complete during the Trial period. This was perceived as the fairest method of administering the prize draw.

6.2.4 Conclusion

The key components of the CLASS Project that need to be communicated to customers on Trial circuits included a summary of the problem and the Solution (CLASS), the likely effect of the Method, if any, on customers (eg kettle analogy to demonstrate impact on appliances) and how customers can help Electricity North West evaluate the success of CLASS by participating in the customer surveys.

The CLASS video, an animated storyboard, was praised by the ECP for conveying the problem and CLASS Solution in a concise and easy to understand manner and should therefore be used as part of the survey recruitment materials.

The [final CLASS leaflet](#) (appendix 10.1) achieved a delicate balance between asking readers to absorb too much information, (resulting in it not being read or digested) and not providing sufficient information. The latter risked generating unavoidable CLASS related enquiries, which might negatively impact Electricity North West’s Customer Contact Centre (CCC) in its ability to provide a normal emergency telephone response to customers experiencing network faults.

The layout, content and images included in the leaflet were all amended in response to feedback from the ECP. The resulting leaflet was more effective than the video in explaining to customers how CLASS would affect them, if at all, and what the benefits were to them as an individual/business.

6.3 How can the learnings from the ECP be utilised effectively to design and implement a customer survey to test the CLASS hypothesis?

This sub-section disseminates the lessons learned during the fourth ECP meeting which was dedicated to identifying how the learnings from the various sessions could be utilised effectively to design and implement a customer survey to test the CLASS hypothesis.

6.3.1 Administration of the customer survey

During the final ECP meeting, participants were asked to complete a draft paper version of the baseline customer survey which had been designed by Impact Research. This exercise had two main objectives; to check the duration of the interview was within the target of 20 minutes; and to test the ECPs comprehension of the survey questions.

A 20 minute survey was recommended to strike a balance between extracting maximum value through relevant and thorough questioning and the avoidance of the survey being onerous to complete. In practice the time taken by the ECP to complete the survey generally fell within the target of 20 minutes. It was therefore unnecessary to remove any questions on the basis to time constraints.

The survey instrument was considered to be an understandable and straightforward information gathering exercise. The questions were perceived to be easy to answer, with only limited interviewer intervention and guidance likely to be necessary during the survey administration.

“I thought it was pretty simple, straight and easy-going, I didn’t have to think too much about the questions ...” Domestic customer, Manchester

There was some scepticism amongst the ECP regarding the collection of personal data (e.g. including income and employment) and concern that this information might be passed to third parties for sales or marketing purposes. The ECP’s reaction reiterated the importance of reassuring participants about the legitimate collection and use of their personal data, according to strict market research codes of practice, to acquire their buy-in and trust.

Questions of a more personal nature, such as employment and household income, are commonly included in market research studies for accurate socio-economic profiling of the survey population, to ensure a representative sample has been surveyed. The learning from the ECP’s feedback was that extra care should be taken to assure customers of the relevance of questions and how their data will be utilised. This was achieved by appropriate and reassuring language, placement of the most personal questions (moved to the end of the survey where feasible) and also inclusion of the option to refuse to answer specific questions.

I&C participants also had some apprehension as to whom in their respective organisations the survey should be targeted, to enable complete and accurate responses. There was some debate as to whether the most appropriate person would be the person responsible for bill payment or a person who is regularly based on site. The latter might include an office manager or shift / production manager, being more likely to notice any variance in the organisations power supply or performance of electrical appliances.

“Bizarrely although I’m responsible for electricity I’m out and about quite a lot, so maybe I am not the right person, I would then need to ask the staff whether they’ve noticed anything” I&C customer, Manchester

The ECP considered a series of questions designed to screen out customers not fulfilling the required criteria. It was suggested that the screening questions should be asked at initial appointment making phase of the process, or early in the survey, so as not to waste either the interviewer's or customer's time needlessly.

6.3.2 Detailed feedback on the customer survey questions

The ECP were prompted to elaborate on their overall perceptions of the draft survey and give more thorough feedback on specific questions. This feedback is summarised below.

Industry screening questions

The panel asked whether it was necessary for customers working in advertising, journalism, marketing and market research to be excluded from taking part in the survey, on the basis that the CLASS Project was not a marketing related study. Industry exclusions are common practice in market research surveys where expertise in a specific industry can introduce a potential bias or predisposition towards the subject matter. Instead, it was suggested that interviewers ask for clarification of the participant's profession to establish if they have any "professional" knowledge concerning the electricity industry.

Age of children in domestic households

Participants queried not why this data was needed, but why it was required to such a detailed level. Family composition was considered to be influential in terms of influencing electricity appliance ownership and usage, however, the level of detail originally intended was not required so the feedback from the ECP was heeded and the age groups were reduced to two bands – 0-11 years and 12-18 years. It was agreed that this was likely to seem less intrusive and therefore more likely to be answered by participants.

Domestic household income

There was some debate concerning what constituted a household for the purposes of this question, e.g. a collection of friends or housemates living together. There was also reasonable doubt as to whether all customers would know the combined income of all of the members of their household, even within family structured households.

As a direct result of the feedback received from the ECP, household income was removed from the customer survey and replaced with the personal income of the participant. This measurement will be utilised in combination with the employment status of the chief income earner to determine the socio-economic status of the household.

It was proposed that personal income would be asked as a self-completion question. To mitigate against refusal to answer, interviewers were instructed to pass the tablet to the customer enabling them to answer the question without the interviewer knowing the response.

Medical needs within domestic households

A question was included in the draft survey which sought to understand if any person within the household was dependent on electricity for medical reasons. A "none/prefer not to say" option was included, which participants preferred to see split as two differentiated answer codes. This was implemented in the final version of the survey.

Times when domestic customers are typically at home

There was some confusion over the purpose of this question, likely due to its positioning within the survey. Most perceived it was to determine when customers would be at home to take part in surveys during the Trials. In fact this information was elicited in a different question and to reduce confusion the questions regarding re-contact were moved to the end of the survey.

Furthermore additional descriptive text was added to explain the need to know when members of the household were typically at home;

“The following questions will help us understand when your home is typically occupied and therefore times of the day when your household’s electricity usage could be highest”

This data will also provide an indication as to whether customers are likely to have had the opportunity to notice the scheduled CLASS tests. Participants will be given the opportunity to refuse to answer this question (similar to other sensitive questions).

Times of the day when appliances are typically utilised

The typical usage patterns for electrical appliances owned and utilised by customers was a key aspect of the survey, given that specific times of usage could potentially be correlated with noticing a CLASS effect.

Customers recommended that an “always on” option should be included for appliances such as the fridge which are typically constantly connected. It was agreed that this code would be added as an option for all appliances.

The Panel were also initially unclear if the question was related to the entire household or personal usage of appliances. The question was reworded to clarify that responses would be in relation to typical household usage (to the best of the participants’ knowledge), as this would provide an indication about whether patterns of usage might coincide with CLASS tests.

Finally the ECP suggested adding a frame of reference to the question so that it was asked in terms of the participants previous week’s usage rather than general usage. This was a valuable recommendation given that household usage patterns may not be consistent and could vary by season. Variations in usage patterns will also be considered during the data analysis phase of the Project as the ECP predicted that the use of heating systems/appliances would be higher in the winter than during the spring when the baseline survey was conducted.

Discernible effect: items working slower than usual

It was highlighted during the meeting that customers regularly notice variation in their broadband speed which is most likely to be completely unrelated to their electricity supply. It was agreed that an explanation should be included in the survey, instructing customers to discount any such changes on this basis.

The number of staff based on-site in commercial organisations

The panel asked for clarification as to whether the question regarding the total number of employees based on site should exclude those who regularly work from home (or elsewhere). This prompted rewording of the question to clarify that the calculation should only include those regularly working out of the site.

Overall satisfaction

Overall satisfaction with the services provided by Electricity North West is a key metric included in the customer survey. This will contribute to the evidence required to demonstrate the validity of the CLASS hypothesis.

Many of the panellists were previously unfamiliar with Electricity North West or its role and had made no prior contact with the DNO. This lack of familiarity made answering this question challenging.

The briefing instructions in the main survey explain that questions are designed to understand the customers’ perceptions of their service, which need not require any previous contact with the organisation.

Survey participants could also be reminded that Electricity North West is responsible for ensuring that households and businesses in the North West have a safe and reliable supply of electricity, which can form the basis of customers' satisfaction rating.

6.3.3 Data protection

The final part of the ECP meeting was dedicated to discussing data protection and the extent to which the information provided in the survey materials reassured customers about how their data would be processed.

Participants were asked to assess specific types of information interviewers might present to customers during the survey recruitment phase, which might alleviate concerns regarding participation.

Although all materials were considered to be valuable in their own right, a consent form explaining any potential sharing of data was regarded as best practice;

"You want it guaranteed that it's not going to get forgotten about and left on the bus or the train anywhere because it's got your name and your address, your phone number". Domestic customer, Carlisle.

In the spirit of the CLASS data privacy statement and direct customer feedback, the customer survey materials will include a consent form, which provides the reason for and the relevance of the survey questions and explicitly states how customers' data will be utilised.

The ECP found the availability of a freephone telephone number for customers to check the authenticity of the research study very appealing. Impact Research is able to provide research participants with a freephone number to call the Market Research Society (MRS) in order to check its status as an approved and independent market research provider and to reassure them as to the authenticity of the study being conducted.

Photographic identification is a mandatory requirement of the MRS code of conduct, thus interviewers are required to carry this when approaching customers and the ECP agreed that this was an appropriate course of action.

Other materials the ECP considered would be conducive to a successful recruitment strategy included:

- A letter from Electricity North West, endorsing the customer survey, which could be presented to the customer by the interviewer.
- Access, in due course, to a summary of the survey results.

Although not as influential as the other customer engagement literature this supplementary information was considered to provide an opportunity to improve the credibility and trust associated with participation and was recommended as part of the suite of measures to successfully recruit and engage with customers.

6.3.4 FAQ

The ECP assisted in the development of a FAQ document by suggesting key questions that customers may have concerning the CLASS Project or specifically regarding the surveys that take place before and during the Trials.

Impact Research drafted a list of questions and responses in preparation for the final meeting where the ECP was asked to assess the document.

The FAQ was evaluated as being very useful and will be employed as a key document in recruiting survey participants. The ECP were able to add some additional questions for consideration in the final version of the FAQ, including:

- Will there be a specific time that you will call me for the telephone interviews?
- Is there a cut-off point for taking part in each survey if I am not available the first time you contact me e.g. within 48 hours?
- Will I still get paid if you have tried to contact me but I've been away (e.g. on holiday)?
- Can I opt-out of taking part in the customer survey(s) at any time?

6.3.5 Keeping customers informed

The ECP was an engaged and educated panel of customers who expressed a genuine interest in the CLASS Project and wished to be kept informed regarding its progression throughout the Trial.

In addition to the general awareness information leaflet, it was agreed that Project dissemination material would be available to customers on the website and a regular newsletter would be sent electronically (and by post if required) to ECP and survey participants, and to any other customer specifically expressing an interest in being kept informed. A process has also been embedded to ensure that the CLASS Project team records any specific concern or enquiry relating to the Trials via its traditional reporting mechanisms. Any such enquiries will be addressed on an individual basis.

The ECP debated the most appropriate and cost effective means for Electricity North West to notify survey participants that they may be contacted to take part in a seasonal survey, within a few days of receiving the message. The ECP agreed that Short Message Service (SMS) text notifications would be a suitable means of communicating this information.

6.3.6 Conclusions

The learnings from the ECP were effectively utilised to optimise survey recruitment materials such as the FAQ and consent form. ECP feedback helped steer and better explain the benefits of taking part in the customer survey and provide customers with greater reassurance about how personal data will be handled. It also introduced a mechanism to ensure that interested customers can stay informed about the progression of the Project.

The following actions were taken as a direct result of the learning generated from the final ECP meeting:

- Question wording and placement in both the domestic and I&C survey instruments was optimised to ensure the survey is clear, straightforward and easy to complete;
- Interviewers will be given specific briefing instructions, that have been developed based on ECP feedback, to identify the most appropriate person in an I&C organisation to complete the customer survey;
- Documentation (interviewer identification, consent form, FAQ, endorsement letter), access to a freephone information number and verbal reassurances will be provided to assure participants of the security of their personal and sensitive data.

7 LESSONS LEARNED FOR FUTURE INNOVATION PROJECTS

This section of the report seeks to disseminate the lessons learned from conducting the CLASS ECP. The lessons learned are specifically focused on describing how Electricity North West and other stakeholders can make use of the learning from this process to support future challenges that might be faced in similar types of customer engagement. The lessons learned are as follows:

7.1 The ECP is an effective forum for testing survey instruments

An ECP is not a conventional method for piloting a survey instrument; however, the technique proved to be an effective means of optimising the survey before it was used on a much larger scale to test the CLASS hypothesis.

The conversational nature of focus groups meant that participants could share their understanding and sensitivity towards the questions with each other and debate possible improvements, for example changing the order and wording of some questions and refining the answer codes in others.

The ECP proved influential in the development of a customer survey FAQ, designed to assist in recruiting customers to take part in the survey by answering common questions including, but not limited to, the frequency, duration, subject matter and incentivisation of surveys.

Piloting the quantitative survey instrument with the ECP provided valuable learning and is recommended for future innovation Projects where applicable. It is advisable for this method to be employed in parallel with piloting the survey via the intended data collection method e.g. administering the survey over the phone.

7.2 Obtain participants' explicit consent for the use of audio/visual soundbites in dissemination activities

Some time after the completion of the ECP sessions, videos/ sound bites were created with a selection of ECP members who were invited to comment on their experience of participating in the forum. The videos were an engaging means of demonstrating the outcomes and intrinsic value of the ECP and were presented at CLASS dissemination events.

Participation in the videos/sound bites was an additional (non-research related) activity which required the explicit permission of customers taking part for their audio/visual data to be used for specific dissemination purposes.

In future innovation Projects, interviews of this nature with selected participants could be scheduled to take place at the focus group venue following the final ECP meeting. Planning for this output proactively and acquiring participants' consent as part of the recruitment process would be the most cost effective and efficient means of facilitating the activity.

8 CONCLUSIONS

Qualitative Research amongst domestic and I&C customers identified that, with an appropriate level of education, customers generally do understand the CLASS concept.

As learned in previous LCN Fund projects, the CLASS ECP reiterated the importance that any customer communications must initially explain the role of the DNO within the energy sector, its relationship with the customer, and specifically how this differs to that of electricity Suppliers. This must be presented in a clear and succinct way before customer can fully comprehend the complexities of an innovation Project such a CLASS. It also demonstrated the level of scepticism among customers that exists around the problem statement i.e. that electricity demand is anticipated to double by 2050.

The CLASS video was an especially effective communication tool, as was the kettle analogy, which explained how a small change in voltage could alter the time taken to boil a kettle. A FAQ document was developed to address the concerns or misconceptions aired by the ECP, and aid the recruitment of survey participants.

Customer communications materials and the survey instrument were refined as a direct result of constructive feedback from the ECP, obtained over a series of meetings. The resulting materials were clear, informative and engaging. Furthermore, they were pitched at the correct level to inform customers on Trial circuits about the likely impact of the Method if any, on them. They also effectively explained how and why customers should register their interest to participate in the survey.

There were some subtle differences in customers' perception of CLASS compared to previous LCN Fund Projects such as C₂C. Customers exhibited a greater appetite for information concerning the CLASS Method and recommended omitting advisory information concerning what to do in the event of a supply interruption, considering this would dilute or contradict the message that CLASS was likely to be indiscernible to customers. This serves as a reminder that the intricacies of Trials are subjective, can be different in each innovation Project and therefore require communicating in a bespoke manner to customers.

9 NEXT STEPS

The customer leaflet was distributed to 485,000 properties in the CLASS Trial areas in February 2014 a part of Electricity North West's commitment to launch a targeted awareness campaign.

A copy of the leaflet and Project briefing notes were issued to Electricity North West's CCC prior to distribution, as part of a training session, in anticipation of any customer enquiries. In addition, a process was embedded to monitor and promptly address any enquiries or complaints generated by the CLASS awareness campaign. This strategy will ensure enquiries received in the Trial and survey phase of the Project are captured.. Any such enquiries will be investigated and used as a means of measuring if there has been any evidence of a discernible impact on power supply quality.

The quantitative surveys represent a significant proportion of the customer engagement activity associated with the CLASS Project, and will commence with a baseline survey amongst a target of 500 Domestic and 200 I&C customers on Trial circuits in April 2014. This panel of approximately 700 customers, will be subsequently contacted to participate in seasonal monitoring surveys, which will elicit customers' perceptions of any impact the Trials on their power quality (summer 2014 - summer 2015). The result of the customer survey analysis will be published and made available to stakeholders on the CLASS website in September 2015.

There will be on-going learning and dissemination as the Project progresses and the key learnings will be reviewed on an on-going basis to reflect customer feedback.

All outputs and learning acquired from customer engagement activities will be made available to stakeholders on the [CLASS website](#) and shared at CLASS learning events, through trade magazines and in other appropriate forums, in line with the vision of the LCN Fund.

10 APPENDIX

10.1 Project materials

Customer leaflets used in ECP meeting one



CLASS customer
leaflet 3 page A.pdf



CLASS customer
leaflet 3 page B.pdf



CLASS customer
leaflet 2 page.pdf

Final customer leaflet



Final CLASS
customer leaflet.pdf

10.2 Appendix A: Project Replication

The ECP research was conducted by Impact Research, an independent market research agency, on behalf of Electricity North West.

Impact Research was responsible for the day to day management of the ECP, booking of venues and associated arrangements, moderating group discussions and conducting in-depth interviews and the provision of analysis, findings and report writing.

The list of physical components required to replicate this activity is shown below:

- 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 possible solutions to the problem and an analogy of the 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 profile 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 (30 customers taking part in four phases of focus groups across two different locations) - £50k
- Incentivisation – £11k
- Designing a leaflet - £0.35k
- Printing and mailing a leaflet to 485,000 customers - £144k.