



Celsius Data Privacy Statement

30 June 2016



Celsius

CONTENTS

1	EXECUTIVE SUMMARY	5
2	THE CELSIUS PROJECT	6
3	DATA BEING COLLECTED FOR THE CELSIUS PROJECT	10
4	HOW PERSONAL DATA WILL BE USED IN CELSIUS	14
5	OBTAINING CONSENT FOR THE USE OF PERSONAL DATA	15
6	INFORMATION PROVIDED TO THE CUSTOMER PRIOR TO CONSENT BEING SOUGHT	15
7	VULNERABLE CUSTOMERS	15
8	OWNERSHIP OF PERSONAL DATA	16
9	RETAINING PERSONAL DATA	16
10	MANAGING PERSONAL DATA BASED ON THE PRIVACY BY DESIGN APPROACH	17
11	APPENDICES	18
	APPENDIX A: CUSTOMER ENGAGEMENT CONSENT FORM	18
	APPENDIX B: CUSTOMER SURVEY CONSENT FORM	20
	APPENDIX C: DATA BEING PROCESSED FOR THE CELSIUS PROJECT	22
	APPENDIX D: ELECTRICITY NORTH WEST'S DATA PROTECTION POLICY	23

VERSION HISTORY

Version	Date	Author	Status	Comments
0.1	26 May 2016	Impact research	Draft	
0.2	7 June 2016	K Quigley / T Kennelly	Review	
1.0	29 June 2016	K Quigley / T Kennelly	First issue	

APPROVAL

Name	Role	Signature and date
Paul Turner	Innovation Delivery Manager	
Kate Quigley	Future Networks Customer Delivery Manager	

GLOSSARY

Abbreviation	Term
CCC	Customer contact centre
DNO	Distribution network operator
DPA	Data Protection Act
ECP	Engaged customer panel
GB	Great Britain
ICO	Information Commissioner's Office
LCT	Low carbon technology
MPAN	Meter point administration number
NIC	Network Innovation Competition
Ofgem	Office of Gas and Electricity Markets
PSR	Priority services register
RIIO-ED1	Electricity distribution price control 2015 to 2023
RIIO-ED2	Electricity distribution price control 2023 and beyond

FOREWORD

This report is part of the Electricity North West Celsius project, funded via the Office of Gas and Electricity Market's (Ofgem's) Network Innovation Competition (NIC).

Formal notification of selection for funding for the project was received on 30 November 2015 and the project is due for completion by 31 March 2020.

Celsius explores new ways of monitoring and managing the thermal capacity of assets at distribution substations so that capacity can be maximised and reinforcement costs minimised. The approach can be used by distribution network operators (DNOs) to prepare their networks to meet new requirements arising from the expected increase in the adoption of low carbon technologies (LCTs).

This document sets out how Electricity North West will manage the collection, transfer, storage and usage of data during the project and forms part of the project's dissemination.

1 EXECUTIVE SUMMARY

The Celsius project is funded via Ofgem's NIC which replaced the Second Tier Low Carbon Networks Fund in the RIIO-ED1 funding mechanism.

Celsius is an innovative, cost-effective approach to managing potentially excessive temperatures at distribution substations, which may constrain the connection of LCTs. It will be the first application of a co-ordinated approach to managing the temperature of electrical assets in distribution substations across Great Britain (GB).

The Celsius approach will involve a two-step intervention:

- Installation of temperature and load monitoring equipment at 520 distribution substations across the Electricity North West network, representative of 80% of the GB substation population, enabling data to be collected across a range of environmental, load and seasonal factors
- The release of additional capacity through a range of retrofit cooling techniques, applied on 100 of the monitored distribution substations.

A range of data will be collected during the life of the project to enable robust analysis and assessment of the impacts and viability of the Celsius interventions. The majority of data collected for Celsius will be technical in nature and will be collected at network level.

Some personal data will be collected as part of the customer surveys that will assess whether customers find the interventions acceptable. This data privacy statement describes how this personal data will be managed and summarises the steps that will be taken to comply with the Data Protection Act (DPA) 1998. This document also addresses the specific points set out by Ofgem in paragraph 8.15 of the [Electricity NIC Governance Document version 2.1](#).

The key points of the Celsius data privacy statement are outlined below.

- Electricity North West has a robust data protection policy that integrates a 'privacy by design' approach as advocated by the Information Commissioner's Office (ICO). This policy outlines the standards and procedures required for the processing and protection of personal data contained within manual files and on computerised systems to comply with the DPA 1998. All personal data collected or used in the Celsius project will be managed in accordance with this policy.
- Some personal and other customer data (names, addresses, profile classifications, meter point administration numbers (MPANs) and substations), which is already held

by Electricity North West, will be used to identify and recruit customers to participate in engaged customer panels (ECPs) and customer surveys. This personal data is held as part of day-to-day operations in the customer contact centre (CCC) to help identify customers and provide 'business as usual' services such as fault management, proactive updates and informing customers about planned supply interruptions. All such personal data held by Electricity North West is stored in a secure, confidential and appropriate manner.

- Impact Research, the Celsius market research project partner, will use this data to identify customers to participate in the ECPs and customer surveys. In doing so, Impact Research will comply with all requirements of Electricity North West's data protection policy, as described above.
- The results from the analysis of the ECP group discussions and customer surveys will be included in Electricity North West's dissemination of information about Celsius. All responses will be shown in an aggregated manner eg by customer segments. Therefore no personal data will be accessible in reports containing the survey results.
- Customers taking part in the surveys will be informed that survey results will only be shown in an aggregated manner. The scope, objectives and importance of the project will be explained to them.

Explicit consent for use of customers' personal data for the purpose of this project will be obtained as part of the ECP and survey recruitment process (see **Error! Reference source not found.** and

- APPENDIX B).
- Electricity North West maintains a priority services register (PSR) of customers who are vulnerable or who may be reliant on electricity for medical reasons. This is classified as 'sensitive data' by Electricity North West and access to this data is restricted.
- The Celsius project is not expected to have any adverse impact on vulnerable customers. However, all customers participating in Celsius customer research, including those registered on the PSR, will be provided with contact details for the project team. The various methods of contacting the team are set out in the Celsius customer engagement plan which forms the framework for all customer communications throughout the life of the project.

2 THE CELSIUS PROJECT

2.1 Background and context

[The Carbon Plan](#), published by the UK Government in 2011, describes the importance of moving to a low carbon economy and sets out how legally binding targets for the reduction of greenhouse gas emissions will be achieved. Over the course of RIIO-ED1 and RIIO-ED2 increasing numbers of customers will access the benefits that can be obtained through the electrification of heating and transport.

The anticipated adoption of LCTs will increase electricity demand on the network. Network capacity limits will be reached first at the distribution substation level where load diversity is lowest. Thermal constraints will therefore occur at some distribution substations sooner than others due to regional and socio-economic clustering of LCTs. Network assets have a manufacturer-assigned capacity, expressed in amps, which indicates the maximum amount of current the asset can carry without damage or deterioration. These ratings ensure that networks can be operated safely. However, these do not take account of other factors that can contribute to the heating of the asset such as seasonal variation and environmental conditions, which means that the equipment may not be used to its full thermal capacity.

DNOs have historically adopted a 'fit and forget' approach to managing electricity networks. However, if electrical load increases, so does the passage of current and the heat generated within network assets. When this exceeds the thermal capacity rating of the asset, the traditional approach is to replace it with new, higher capacity equipment. This entails significant capital investment, which customers pay for through their electricity bills.

The predicted increase in demand resulting from the adoption of LCTs means that the way assets are currently managed needs to be reviewed to ensure cost efficiency and capacity optimisation.

The project is being delivered by Electricity North West in partnership with key industrial and academic partners and suppliers, namely Ricardo-AEA, Ash Wireless Electronics, Impact Research, UK Power Networks and the University of Southampton.

2.2 Celsius method

Celsius will develop an understanding of the operating temperatures of distribution substation assets, including transformers and cables, within a range of substation environments. The project will also deliver alternative, innovative ways to optimise thermal capacity leading to faster, cheaper response to increasing demand from LCTs.

Retrofit thermal monitoring

Temperature and load measurements will be recorded at 520 distribution substations. These sites will be selected to be representative of the majority of the GB distribution substations. The measurements will be utilised to evaluate the available capacity margins at each site. More detailed measurements, including internal temperature, will be taken from a subset of 21 distribution substations.

Measurements will be taken for a period of 12 months across a wide range of load profiles and types to ensure all seasonal variations, such as wind cooling, shade and sun glare, are captured. The data gathered will be analysed to explore the relationship between asset temperature, load and the surrounding environment. The outcome of the analysis will be an understanding of the capacity that is available at each substation without further intervention.

Once this methodology is understood, it will be incorporated into a Thermal Ratings Tool which will improve network and asset management by optimising thermal capacity.

This activity will also inform a functional specification for a low cost monitoring solution which could be deployed at scale.

Retrofit cooling

The second stage of the Celsius trial involves the selection and demonstration of a range of retrofit cooling techniques that will be deployed at 100 of the monitored sites, to further release thermal capacity. Evaluation of retrofit cooling techniques for cables and transformers will result in a 'buy order' of cooling interventions for network operators to select.

A shortlist of potential techniques and technologies to cool or thermally manage assets will be identified and evaluated by the project team. These will include passive and active techniques such as painting transformers with heat reflective paint, new backfill material for cables and installing fans or extra fins on transformers.

Each cooling intervention (selected during a collaborative workshop with DNOs) will be installed at multiple sites, to provide a robust understanding of the applicability of each technology and its performance under different conditions and environments.

Once the cooling interventions are installed, the benefits will be quantified via an extended period of monitoring (12 months) allowing thermal behaviour to be compared with the baseline measurements taken in the initial monitoring phase of the trial. The output from this activity will be utilised to enhance the Thermal Ratings Tool which will calculate the capacity gains arising from the application of each technique in different environments and operating conditions.

A more comprehensive description of the retrofit technology selection criteria, initial screening, substation classification, technology type and any associated physical constraints will be documented later in the project, in a separate site selection methodology statement.

Celsius will test the following hypotheses:

- Thermal characteristics of 520 substations can be used to build a reliable Thermal Ratings Tool for distribution substation assets across GB (trials and analysis workstream)
- Low cost sensors, attached to the exterior of an electrical asset, can be used to reliably establish the internal operating temperature and enable a Thermal Ratings Tool (trials and analysis workstream)
- Capacity can be released quickly and cheaply by understanding the thermal performance of the distribution substation (trials and analysis workstream)
- Further capacity gains can be achieved through low cost, retrofit cooling interventions (trials and analysis workstream)
- Celsius does not have a detrimental impact on asset health (trials and analysis workstream)
- Customers within the Celsius trial areas will find the implementation of innovative retrofit cooling techniques as acceptable as traditional reinforcement (customer workstream)
- Customers who are educated on the need for, and benefits of, Celsius are significantly more likely to find it acceptable (customer workstream).

Customer engagement

Customer surveys will ascertain whether retrofit cooling techniques have an impact on customers and if the application of these techniques is as acceptable as traditional reinforcement. A level of acceptability will be established for each type of retrofit cooling technique which will make it possible to differentiate between the various interventions based on customer feedback. Half the customers surveyed will be educated about the need for Celsius and its benefits before the survey. This will enable the project team to quantify the impact of sensitising customers to the changes.

2.3 The solution which will be enabled by solving the problem

Celsius will deliver:

- Reports detailing the enhanced understanding of asset temperature and its relationship with load and environmental factors
- Recommendations and tools for the implementation of Celsius to business as usual.

These recommendations and tools are expected to include:

- A functional specification for a reliable, low cost monitoring sensor pack for distribution substation assets, including cables and transformers.
- A Thermal Ratings Tool that will calculate the capacity of an asset based on measured external temperature values. This will allow a network operator to better understand the operating temperature of assets and when to deploy an intervention
- A range of retrofit cooling techniques to apply when the Thermal Ratings Tool indicates an intervention is required
- Studies to prove that the retrofit cooling techniques are acceptable to customers
- Proposed changes to *Engineering Recommendation P15 Transformer Loading Guide* and *Engineering Recommendation P17 Current Rating Guide for Distribution Cables*.

It is expected that Celsius will have positive implications for the design and operation of distribution networks in future years. The results of the project will potentially drive change in the following areas:

- Greater accuracy on the forecasts of interventions for load-related capital expenditure through utilisation of the Thermal Ratings Tool
- Reduced capital programme costs for load-related expenditure from a proven suite of retrofit cooling interventions
- New substation design standards for optimal thermal performance to reduce whole-life costs.

In summary, Celsius will enable network operators to release thermal capacity at a fraction of the cost of traditional reinforcement, reducing the overall costs of accommodating increased load on the distribution network. This will enable DNOs to respond more quickly to potential constraints arising from the connection of clusters of LCTs.

Following successful completion of the trial and incorporation of the method into business as usual protocol, Celsius will maximise the value of the smart meter programme by using smart meter data, aggregated at a substation level, to indicate where to deploy the Celsius method.

2.4 The role of data in the Celsius project

A range of data will be collected during the life of the project to enable robust analysis and assessment of the impacts and viability of the Celsius interventions.

The majority of the data collected will be technical in nature and assessed at a network level eg asset operating temperature and load monitoring at distribution substations.

The data gathered from the monitored distribution substations will be analysed to explore the relationship between asset temperature, load characteristics and the surrounding environment. This analysis will include data from a number of different sources:

- Data collected from monitoring implemented as part of Celsius
- Site information and characteristics recorded during the installation process
- Historical and other recorded data kept by Electricity North West
- Weather data for the local area.

Some personal data will be collected as part of the customer surveys that will assess whether customers find the interventions acceptable.

The following steps will be taken:

- Existing Electricity North West customer data will be utilised to contact and recruit customers to take part in the ECP and customer surveys
- New data will be collected during the administration of the customer survey when answers to the classification, perception and attitude-based questions are recorded.

The project methodology requires only minimal use of, and need for, personal data.

The types of data that are relevant to Celsius are described in greater detail in the subsequent sections.

2.5 The time period over which data will be collected in the Celsius project

The Celsius project will take place between January 2016 and March 2020.

The initial stage of the Celsius trial will involve the selection of suitable sites, feasibility studies and screening. This will be followed by the installation of monitoring equipment at 51 pole-mounted and 469 ground-mounted distribution substations between October 2016 and March 2017.

This equipment will robustly capture load, temperature, environmental data and other characteristics that may impact the thermal behaviour of assets. To ensure that the full load curve and seasonal effects are captured, the retrofit thermal monitoring trial (step 1) will continue for a period of 12 months post-installation and will be conducted between October 2016 and March 2018.

An evaluation of retrofit cooling technologies will be carried out during step 2 of the trial. Selected technologies will be installed at 100 of the trial sites between January 2018 and June 2018. Monitoring data will be collected for a minimum period of 12 months following the deployment of retrofit cooling techniques. Evaluation of these techniques is due to take place between January 2018 and June 2019.

Celsius will include a programme of customer surveys before (baseline) and after (test) the various cooling solutions are installed and made operational during the trials. Data will be collected as part of the baseline surveys between September and October 2017. Data will be collected as part of the test surveys between January 2018 and June 2019.

3 DATA BEING COLLECTED FOR THE CELSIUS PROJECT

3.1 What is 'personal data'?

The following definitions are taken from the DPA 1998.

'Personal data' is defined as any information which is capable of being used to identify a living individual.

In addition to name, address and contact details, this could include individual preferences, transaction history, records of activities or travel, profiles or credit scores.

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

3.2 What personal data is Electricity North West processing for Celsius?

Electricity North West holds relevant personal data about its customers such as names, addresses and details on connection, equipment and consumption. The company also maintains a PSR of elderly and other vulnerable customers. In the majority of cases, only data that is relevant to the customer's electricity supply is held. The only sensitive personal data held is in relation to customers who are registered as reliant on electricity for a medical need. (Electricity North West is registered on the ICO data protection public register ref Z5419068.)

Activities to be undertaken during the Celsius project that may involve measurement and/or collection of personal data are outlined below:

Engaged customer panel

The ECP will comprise a small but representative group of customers, convened to test the general perception of the Celsius project and initial reactions to the retrofit cooling techniques. The ECP will help determine the communication materials required to educate customers during the customer survey and agree how this information is presented. It is envisaged that ECP members will be recruited by telephone using customer data provided by Electricity North West.

Electricity North West will provide Impact Research with a limited amount of personal data (addresses, contact details and customer profile classification) derived from the MPAN database to facilitate ECP recruitment. Impact Research will keep a log of customers who do not wish to be re-contacted in the future for market research purposes and will share this log with Electricity North West.

After convening the ECP, no further personal data will be collected. Any personal data stored as part of this engagement activity (customer names and contact details) will not be shared with any organisations outside Electricity North West. Feedback from the interviews will be anonymised.

ECP participants will be informed of the objectives and method of the research, what data will be collected from them and how it will be used and stored. They will be required to provide written consent to their information being used for the stated purpose before their participation. This includes consent to the group discussion or interview being recorded by video and/or an audio recording device or by means of electronic notes. Consent for use of customers' personal data will be obtained as part of the recruitment process (refer to **Error! Reference source not found.**).

Customer surveys

A small number of pilot surveys will be conducted to ensure that the customer survey instrument and associated communication materials are robust, clear and can be easily understood by customers.

Baseline and test surveys will assess customer acceptability of Celsius retrofit cooling interventions. Personal data (addresses, contact details and customer profile classification) of customers within Electricity North West's operating region and specifically those located on Celsius trial networks, will be passed to Impact Research to enable them to recruit participants and conduct these customer surveys. This information will be derived from the customer MPAN database in Electricity North West's operating region.

No further personal data will be collected during the surveys. Impact Research will keep a log of customers who do not wish to be re-contacted in the future for market research purposes and will share this log with Electricity North West.

The surveys will seek to assess customer perceptions of the acceptability of retrofit cooling techniques installed at nearby distribution substations. Impact Research will collect data from survey participants about any specific classifications of vulnerability, such as reliance on medical equipment, in order to assess acceptability of the interventions for customers who have such individual requirements. Customers will be given the opportunity to opt out of providing sensitive data of this nature if they prefer. This sensitive data will not be shared with any organisations outside Electricity North West and all survey results will be anonymised.

The majority of the quantitative surveys will be administered face-to-face by a professional interviewer at the customer's premises. Customers may opt to take part in a computer aided telephone interview at a convenient time. Participants who are interviewed at their own premises will be asked to sign a consent form and, by doing so, will consent to providing access to a professional interviewer and agree to their information being used for the stated purpose. Consent for use of customers' personal data and entering a customer's premises will be obtained as part of the recruitment process (see

APPENDIX B).

Any customer data will be treated in confidence in accordance with the Code of Conduct of the Market Research Society. This means that all of the information collected will be used for research purposes only and it will not be possible to identify any particular individual or address in the results. Impact Research is registered as a data controller with the Information Commissioner under the DPA 1998, registration number is Z2226132.

PSR customers

Electricity North West maintains a PSR of customers who have special requirements or who may be vulnerable during a power outage. This register enables the company to provide extra services to vulnerable customers along with assistance and support if required.

The Celsius project is not expected to have any adverse impact on vulnerable customers. Vulnerable customers already registered on the PSR will not be targeted specifically for participation in the ECP or customer surveys. However, all customers, including those registered on the PSR, participating in Celsius customer research, will be able to contact the project team using the methods outlined in Section **Error! Reference source not found.** of the customer engagement plan.

Names, addresses and PSR marker of customers within Electricity North West’s operating region will be extracted from Electricity North West’s existing customer database and used to identify vulnerable customers who will be affected by planned supply interruption associated with the installation of Celsius technology. These customers will be notified well in advance of the standard notification period.

No ‘sensitive’ personal data will be passed to organisations outside Electricity North West.

Vulnerable customers

The Celsius project is not expected to have any adverse impacts on vulnerable customers.

Questions will be included in the survey to assess whether any vulnerable customers reside at the property. This question set will help the project team to understand any potential differences in perceptions held by this group compared to other customer segments.

If a vulnerable customer agrees to participate in the customer survey, any information regarding their vulnerability will be provided on a voluntary basis. Any such information gathered during the customer survey will only be used at an aggregated level for analysis and will not be passed to organisations outside Electricity North West.

Other vulnerable customers, not currently registered on the PSR, may be identified during Celsius customer research as a result of information supplied voluntarily. These customers will be provided with information about the PSR and details of how to register via Electricity North West or their electricity supplier, if they wish to do so and consider they are eligible.

No ‘sensitive’ personal data will be passed to organisations outside Electricity North West. Impact Research, which is a company partner of the [Market Research Society](#), will abide by the guidelines shown in Figure 3.1 when recruiting customers to take part in engagement activities.

Figure 3.1: Market Research Society guidelines and the Celsius customer engagement process

Market Research Society guidelines	Celsius customer engagement process
Members must ensure that participants give their informed consent where personal data are collected directly from them	Customers will be briefed on what personal data is required, why it is required and how it will be stored. Customers will then be

Market Research Society guidelines	Celsius customer engagement process
	asked to manually or digitally sign a consent form to confirm their acceptance
Members must ensure that they have a fair and lawful basis for the collection and processing of personal data from sources other than the data subject themselves	Impact Research will process personal data supplied by Electricity North West in the form of an MPAN customer database. Data will be handled fairly and lawfully in line with the DPA 1998 and customers will be given the opportunity to opt out of future communications relating to market research
Members must ensure that participants are provided with sufficient information to allow informed consent to be given. This includes: <ul style="list-style-type: none"> a. The name of the organisation or individual responsible for data collection b. The general subject of the data collection c. The purpose of the data collection d. Whether the data collection is to be recorded and/or observed e. Who is likely to have access to live or recorded information f. The likely length in minutes of the data collection, if asked g. Any costs likely to be incurred by the participant h. An assurance that the activity is being conducted in accordance with the MRS Code of Conduct 	Customers will be provided with a consent form that provides sufficient information, drafts of which are included in Appendices A and B
Members must ensure that the anonymity of participants is preserved unless participants have given their informed consent for their details to be revealed or for attributable comments to be passed on	Impact Research supports and enforces ISO 2052 quality standards and the guidelines in the Market Research Society Code of Conduct in all of its customer engagement. Following these protocols will ensure that there is documented evidence that the anonymity of participants has been protected, unless informed consent has been acquired
Members must take reasonable steps to ensure that anonymisation is effective, with reference to developments in technology and to the data environment into which data are released	Audio and video recordings created at ECP meetings will not be used for any purpose other than the project, such as promotion or direct sales activities. They will be dated and deleted at the latest two years after the research is completed. In exceptional cases the audio recording will be heard/the transcription read by employees at Electricity North West working on this project. Short video clips may also be viewed by the project team or used in dissemination events, but only with informed consent (Appendix A). In these circumstances, the project team will go through the recordings first to delete any references to an individual's name or

Market Research Society guidelines	Celsius customer engagement process
	anything else that could identify them
If participants have given consent for data to be passed on in a form which allows them to be personally identified, members must: <ul style="list-style-type: none"> a. Demonstrate that they have taken all reasonable steps to ensure that the data will only be used for the purpose for which the data was collected b. Inform participants as to what will be revealed, to whom and for what purpose 	Draft consent forms are included in Appendices A and B. These inform participants about what will be revealed, to whom and for what purpose. Electricity North West is committed to using the data only for the agreed purpose of contacting customers (where informed consent has been obtained) to engage them further about the Celsius project
Members must ensure that a participant's right to withdraw from a project at any stage is respected	Impact Research will give all customers with whom it engages the opportunity to opt out of engagement and/or future communication regarding the Celsius project. In doing so it will keep a log of customers who have opted out and share this with Electricity North West
Members must take reasonable steps to ensure that the following activities do not take place before 9am Monday to Saturday, 10am Sunday or after 9pm any day, unless by prior agreement: <ul style="list-style-type: none"> a. In-person visits to private homes b. Calls to household landline telephone numbers c. Calls to mobile telephone numbers d. Messages via SMS or other direct message facilities to mobile telephones 	Impact Research follows the guidelines suggested by the Market Research Society, with the exception that it has a lower threshold of no engagement taking place beyond 8pm. Engagement relates to: <ul style="list-style-type: none"> a. In-person visits to private homes b. Calls to household landline telephone numbers c. Calls to mobile telephone numbers d. Messages via SMS or other direct message facilities to mobile telephones

A list of data items being processed in connection with the Celsius project is detailed in APPENDIX C.

Thermal monitoring data

The majority of data collected during the Celsius project will be thermal monitoring data collected from the 520 individual distribution substations in the trial. The data collected by the thermal monitoring equipment will be used by Electricity North West and project partners to evaluate the available capacity margins at each site. More detailed measurements, including internal transformer temperature, will be taken from a subset of 21 distribution substations. No personal data will be collected, used or shared, or is in any way relevant to this process.

To release further thermal capacity, retrofit cooling techniques for cables and transformers will be deployed and evaluated at 100 substations, selected from the 520 sites with thermal monitoring. Once the cooling interventions are installed, the benefits will be quantified via an extended period of monitoring, allowing thermal behaviour to be compared with measurements taken in the initial monitoring trial. No personal data will be collected, used or shared, or is in any way relevant to this process.

Measurement of asset health

The project will assess whether the Celsius techniques have any detrimental impact on an asset's health and consequently its operational life. Celsius will release the maximum capacity from existing assets without degrading their health or reliability. This evaluation will be supported by the project's technical consultancy partner Ricardo-AEA and will be

conducted by the University of Southampton, in their capacity as the project's academic supplier. No personal data will be collected, used or shared during this process.

4 HOW PERSONAL DATA WILL BE USED IN CELSIUS

The project will utilise names, addresses, profile classifications and MPANs from the existing Electricity North West customer database to contact a sample of customers to participate in the Celsius ECP and/or customer surveys.

Electricity North West will not pass names, addresses or any other personal customer data to third parties other than to those partners who have a specific need for this information as part of the project. All project partners are committed to adhere to the Data Protection Act as part of their contractual obligations.

The customer's location will be provided by reference to a substation name and number, MPAN and premises address.

Aggregated data and the results of the research will be shared with interested parties, including other DNOs, key stakeholders such as Ofgem, the Department of Energy and Climate Change (DECC) and electricity suppliers at the end of the project, and as part of disseminating the learning and outcomes. There will be no personal data included in any information shared with these parties or published for general readership. No personal data will be provided to any third parties for marketing or any other activity. Electricity North West will not use this project data or any information collected in connection with the project to market any products or services to customers.

5 OBTAINING CONSENT FOR THE USE OF PERSONAL DATA

Participation of customers will be via agreement to take part in an ECP or customer survey. Customers who agree to participate in any of these activities will be fully informed by the market research provider (Impact Research) about how their data will be used and shared before signing up. Customers will be asked to manually or digitally sign a consent form and, by doing so, will agree to their information being used for a pre-defined purpose. Drafts of the relevant consent forms are included in **Error! Reference source not found.** and

6 INFORMATION PROVIDED TO THE CUSTOMER PRIOR TO CONSENT BEING SOUGHT

A sample of Electricity North West customers will be approached and asked if they wish to participate in the ECP or customer survey. In previous innovation projects, all customers taking part in research were informed of the scope and objectives of the project. In Celsius, the ECP will receive this information; however, only a proportion of survey participants will be provided with detailed project information as a non-educated customer group are required to test the secondary hypothesis (that education affects the acceptability of retrofit cooling interventions).

Customers who agree to participate in the ECP or surveys will be fully informed about how their data will be used before signing up and completing a consent form.

Impact Research will also inform the ECP and survey participants that their personal data will not be included or shown (in a disaggregated manner) in any customer survey analysis.

7 VULNERABLE CUSTOMERS

There is a possibility that customers on certain Celsius trial networks may experience planned supply interruptions associated with the installation of essential monitoring equipment or cooling interventions. Electricity North West will take all practicable steps to install Celsius enabling technologies without the temporary isolation of customers' supplies and will consider whether it is possible to apply a backfeed from an adjacent substation or attach a generator for the duration of installation activities.

However, where this is unavoidable, these impacts will be managed through 'business as usual' processes and all impacted customers will receive standard written notification before the planned supply interruptions, in accordance with [Guaranteed Standards of Performance](#).

The maximum impact of these interruptions will not be in excess of eight hours and the number of customers affected will be minimal. In the case of internal monitoring, installations will occur at 21 substations. The retrofit cooling trials will be demonstrated at 100 substations but only a subset of these may require an interruption.

The Celsius project does not involve any technical or operational interventions or techniques at customers' premises. Consequently, there are no plans to contact PSR customers regarding power quality or reliability other than as described above.

Questions will be included in the customer survey to assess whether any vulnerable customers reside at the property. Vulnerable customers who consent to participate in the ECP and/or customer surveys will simply be asked to provide feedback about their acceptance of Celsius interventions in the context of their unique and specific requirements. Any such information gathered during the customer survey will only be used at an aggregated level for analysis and will not be passed to organisations outside Electricity North West.

The Celsius project is not expected to have any adverse impact on vulnerable customers. However, all customers, including those registered on the PSR, participating in Celsius customer research, will be provided with contact details of the project team. The team are contactable via a range of methods as outlined in the Celsius customer engagement plan, which forms the framework for all customer communications during the project.

No sensitive personal data will be passed to organisations outside Electricity North West.

8 OWNERSHIP OF PERSONAL DATA

Personal data collected by, or on behalf of, Electricity North West will be owned by the individual to whom it relates and held by Electricity North West.

Personal data provided by third parties will be owned by the individual to whom it relates and held by third parties and Electricity North West.

9 RETAINING PERSONAL DATA

Electricity North West will retain its existing database of customers' names, contact details and PSR status, as this is held for normal business purposes to provide electricity distribution services to customers. Data is stored in a secure, confidential and appropriate manner. It will only be retained while relevant and only disclosed to third parties where appropriate or with explicit consent.

More detailed information on the storage and retention of data is included in APPENDIX D.

Electricity North West will not retain any other personal data collected during Celsius beyond the life of the project.

Anonymised technical data will be retained; this will not contain any personal data.

Impact Research will collect data from various customer groups through a mixture of qualitative recruitment screening questions, ECP forums and quantitative customer surveys. This data will be used to develop education materials and undertake analysis to assess participants' perceptions of Celsius interventions. Customers who participate in any customer engagement with Impact Research will be fully informed about how their data will be used when they sign up. All data will be stored in a secure, confidential and appropriate manner and will be accessible only to the Celsius project team for the duration of the project. All data relating to the project will be retained until completion of the project when it will be destroyed or anonymised.

10 MANAGING PERSONAL DATA BASED ON THE PRIVACY BY DESIGN APPROACH

Electricity North West will continue to manage its existing database of customers' names, contact details and PSR status in accordance with the ICO data protection public register.

Electricity North West's IT systems are secure and managed in line with the principles of ISO27001. Data is managed according to its IT security policies. The policies are reviewed annually and employees are regularly reminded of their responsibilities.

This project complies with Electricity North West's existing data protection policy which is based on the DPA. This is based on the DPA's eight Principles of Information Handling. Electricity North West is registered with the ICO for the use of personal customer data.

The Celsius project has taken account of the principles of Privacy by Design and the DPA as follows:

- The potential impact of the project on the privacy of individuals has been assessed to ensure that data privacy is integral to the design of the Celsius methodology and to minimise the risks to privacy as a result of processing personal data. One of the main objectives has been to minimise the requirement to collect, process or show personal data in connection with the project.

- Personal data about individuals involved in the project will be processed in accordance with existing systems and business practices.
- The project will respect the interests of customers by providing appropriate information about required data as part of the project, with whom the data will be shared and for what purpose it will be used.
- The project approach recognises the need for privacy of customers' data in addition to the need to understand acceptance of Celsius interventions by customer segment now and in the future.
- When data collected is shared with partner organisations in connection with the project, it will only contain customer names, addresses and other data that are specifically required for the execution of their project roles. Data will be shared using secure means such as secure file transfer and file encryption. Its use, retention, security and confidentiality will be restricted in written contracts.
- Any personal data collected during the project will be securely retained or destroyed. Electricity North West has appropriate security and organisational procedures in place, which will ensure the robustness of data collection and storage systems.
- Personal data will not be passed to third parties for marketing purposes.

11 APPENDICES

APPENDIX A: CUSTOMER ENGAGEMENT CONSENT FORM

You may find the following questions and answers helpful in understanding what data will be collected from you and how it will be used. **Please read this information and indicate your consent at the bottom of the form.**

Who is Impact Research?

Impact Research is an independent market research agency whose registered address is 3 The Quintet, Churchfield Road, Walton on Thames, Surrey, KT12 2TZ.

What is the purpose of market research?

Market research attempts to generate understanding and knowledge about customer behaviour within it, by gaining information (data) from specific samples of customers and extrapolating results to the population as a whole.

Market research is scientifically-conducted research where the identity of respondents, and all personal data they give to the researchers, are kept fully confidential, and cannot be disclosed or used, for any non-research purpose.

Market research is not a commercial communication or a selling opportunity. Market research has no interest in the individual identity of respondents.

What data will you collect from me?

You will be asked to provide Impact Research with your contact details so that we are able to confirm your attendance at the focus group meetings.

You will also be asked to take part in two group discussions and share your perception, attitudes and behaviour with respect to the electricity supply at your property.

How will data be collected and stored?

The group discussion or interview you take part in will be:

- Audio recorded
- Video recorded
- Observed by people in the room/from another room/location.

Will data be shared with third parties?

The Data Protection Act requires that Impact Research collects and uses the information you provide to it in a manner that respects and protects your confidentiality. Your personal details (name, address, phone number) will not be disclosed to any other third parties without your permission.

In most cases the audio and video recordings will be heard/watched and the transcription read **only by the transcriber and researchers from Impact Research** for research purposes. Excerpts from the transcripts or tapes may be used to illustrate the research findings. This will always be done in a way to protect your identity (eg comments will not be attributed to you personally).

The tapes will not be used for non-research purposes, such as direct sales activities. The tapes will be dated and deleted, at the latest, two years after the research is completed.

In exceptional cases the audio tape will be listened to/the transcription read/the video tape watched by employees at Electricity North West working on this project. Anyone from Electricity North West who reads the transcript or listens to/watches the audio/video tape will sign an undertaking that they will respect the anonymity of those taking part. Any other

material or information generated by you, such as ideas written down on paper, will be subject to the same strict controls.

We would like to ask your permission to use soundbites and/or video footage from the group discussions at industry learning events about this project. This may range from anonymised sounds bites of what people at the groups were saying to actual clips from the video recording.

You will not be identified by name or by the name of the company you work for. It will not be possible to protect the anonymity of those who can be seen or heard in the video footage eg by blurring out people’s faces.

The tapes will not be used for commercial purposes, such as promotion or direct sales activities. Are you happy for us to use:

Audio clips of your comments	Yes	No
Video clips of your comments	Yes	No

I am happy to have the feedback I give through participating attributed to me so that Electricity North West are aware that I have taken part in this market research.

Please circle: YES/NO

I am happy for Impact Research to get in touch with me again in the future to discuss the service I receive from Electricity North West for market research purposes.

Please circle: YES/NO

I am happy for my data to be passed to Electricity North West in order that they can discuss with me any aspect of my electricity supply in the future.

Please circle: YES/NO

I agree that after the above explanation, I was given the option not to take part in the engaged customer panel, if I had any reservations.

Name Signed

Date.....

APPENDIX B: CUSTOMER SURVEY CONSENT FORM

You may find the following questions and answers helpful in understanding what data will be collected from you and how it will be used. **Please read this information and indicate your consent at the bottom of the form.**

Who is Impact Research?

Impact Research is an independent market research agency whose registered address is 3 The Quintet, Churchfield Road, Walton on Thames, Surrey, KT12 2TZ.

What is the purpose of market research?

Market research attempts to generate understanding and knowledge about customer behaviour within it, by gaining information (data) from specific samples of customers and extrapolating results to the population as a whole.

Market research is scientifically-conducted research where the identity of respondents, and all personal data they give to the researchers, are kept fully confidential, and cannot be disclosed or used, for any non-research purpose.

Market research is not a commercial communication or a selling opportunity. Market research has no interest in the individual identity of respondents.

What data will you collect from me?

You will be asked to provide Impact Research with your contact details so that we are able to re-contact you. We will only ever re-contact you for specific purpose(s), should you agree to them at the end of this form.

You will also be asked to provide us with details about your household, such as the number of people living in your household. Any answer you give will be treated in confidence in accordance with the Code of Conduct of the Market Research Society. This means that all of the information we collect will be used for research purposes only.

You will also be asked if you, or anyone in your household have a disability, medical equipment in your household, mobility problems, are seriously ill or have visual or hearing impairment. This sensitive personal data is asked to understand if customers falling into any of these categories have different dependency or perceptions regarding their electricity supply. You will have the opportunity to opt out of answering questions of this nature.

Should you, or anyone in your household, have a disability, medical equipment, mobility problems or are seriously ill or have visual or hearing impairment, we shall, with your permission, record this in our database, but we will not require you to disclose specific details such as the type of illness, medical equipment or medical history.

How will data be collected and stored?

Data will be collected via a customer survey, administered by a professional interviewer, using an electronic device. The data will be stored in a secure restricted access database and not locally on the device.

Will data be shared with third parties?

The Data Protection Act requires that Impact Research collects and uses the information you provide to it in a manner that respects and protects your confidentiality.

Your personal data (such as name, address, phone number) will not be disclosed to any other third parties without your permission. Research data will not be personally attributed to individuals and shared with third parties without their explicit permission to do so.

Informed consent

I am happy to have the feedback I give through participating attributed to me so that Electricity North West are aware that I have taken part in this market research.

Please circle: YES/NO

I am happy for Impact Research to get in touch with me again in the future to discuss the service I receive from Electricity North West for market research purposes.

Please circle: YES/NO

I am happy for my data to be passed to Electricity North West in order that they can discuss with me any aspect of my electricity supply in the future.

Please circle: YES/NO

I agree that after the above explanation, I was given the option not to take part in the customer survey, if I had any reservations. I also agree that I authorised an interviewer to conduct the interview in my own property.

Name Signed

Date.....

APPENDIX C: DATA BEING PROCESSED FOR THE CELSIUS PROJECT

Data item	Source of data	Is this personal data?	What is the purpose of processing this personal data	Is this being passed to a third party outside Electricity North West?
MPAN	Electricity North West customer database or provided by third parties*	Yes	To serve as a unique identifier and prevent duplication	Yes (to Impact Research)
Customer name	Electricity North West customer database or provided by third parties*	Yes	Customer engagement	Yes (to Impact Research)
Customer contact details including address	Electricity North West Customer database or provided by third parties*	Yes	Customer engagement	Yes (to Impact Research)
Distribution substation location	Electricity North West Ellipse Application	No	n/a	Yes (project partners, project suppliers and project supporters)
Customer profile classification	Electricity North West customer database or provided by third parties*	No	n/a	Yes (to Impact Research)
PSR marker	Electricity North West customer database or provided by third parties*	Yes	Customer engagement for the purpose of planned supply interruptions	No (to Impact Research)
Temperature, load measurements and asset health data at distribution substation	Equipment installed on Electricity North West network	No	n/a	Yes (project partners, project suppliers and project supporters)

* Customer data has generally been provided to Electricity North West by electricity suppliers. This personal data is held as part of day-to-day operations in the CCC to help identify customers and provide 'business as usual' services such as fault management, proactive updates and informing customers about planned supply interruptions. Other personal data may have been provided directly by customers eg PSR information or by third parties representing customers ie G83/2, G83/1-1 and G59/2 requirements to register the connection of distributed generation.

APPENDIX D: ELECTRICITY NORTH WEST'S DATA PROTECTION POLICY

Purpose

The intention of this policy is to define the responsibilities of both you and the company in adhering to legislation regarding data protection and to offer reassurances to you regarding the secure processing of your own and other individuals' personal data.

The policy outlines the standards and procedures for the processing and protection of personal data contained within manual files and on computerised systems, in order to comply with the Data Protection Act 1998. The Act regulates the use of personal data and gives effect in UK law to the European Directive on Data Protection. Failure to comply can ultimately lead to a criminal offence being committed, a fine to Electricity North West and consequential damage to the company's reputation.

Electricity North West holds two main types of personal data:

- Relating to workers and potential workers
- Relating to customers.

Scope

All computerised and manual records concerning current, former, permanent and temporary employees of Electricity North West and its associated businesses, and customers and the general public. In terms of recruitment and selection it also applies to all successful and unsuccessful applicants.

Policy statement

Electricity North West will process personal data in a manner that complies with the principles of good practice in the Data Protection Act.

Data will be stored in a secure, confidential and appropriate manner. It will only be retained while relevant and will only be disclosed to third parties where appropriate or with explicit consent.

All information held within company computer systems are subject to the information technology security policies. Copies of these policies are available from the Volt.

Failure to process personal data appropriately could result in disciplinary action and in some cases criminal prosecution if information is inappropriately processed or used in a manner for which it was not intended.

Definition of data

The 1998 Act defines **data** as: information which is processed automatically, recorded for this purpose, recorded as part of a relevant filing system and/or forming part of an accessible record. The definition includes both computer and structured paper files. Data is categorised as:

- **Personal data:** Relates to a living person who can be identified from that data and includes any expression of opinion or intention in respect of an individual. Personal data can include: name, date of birth, salary, next of kin details, address and telephone numbers, personnel and development information, health information, bank account details and can be found in a variety of documents or records, for example emails regarding an individual and notes regarding an individual. This also includes customer call notes if they relate to an identifiable individual
- **Sensitive data:** Is personal data relating to race and ethnic origin, political or religious belief, trades union membership, physical or mental health, sexual orientation, criminal offences or sentences. This also includes priority services register (PSR) customers where the customer is reliant on electricity for a medical need

- **Data subject:** The individual of which data is being disclosed or held.

Complying with data protection principles

Everyone who processes personal data (meaning the obtaining, holding, accessing, viewing, recording or carrying out any activity such as amending, altering or deleting) must ensure that they comply with the eight principles set out in the Act as part of their job.

Personal data:

- Must be processed fairly and lawfully and not processed unless certain conditions are met
- Should be obtained for specified and lawful purposes only and not used in any way which is incompatible with those purposes
- Should be adequate, relevant and not excessive in relation to the purpose
- Should be accurate and kept up-to-date
- Shall not be kept for longer than is necessary for the specified purpose
- Shall be processed in accordance with your rights
- Shall be held in a secure manner to prevent unauthorised processing, loss, destruction of or damage to the data
- Shall not be transferred to certain non-EU countries unless suitable protection for your rights is ensured.

Disclosure and processing of personal information

Before any **personal data** can be processed at least one of the conditions set out in the act must be met. These include:

- Consent has been given to the processing
- The processing is necessary for the performance or setting up of a contract or other contract to which the data subject is party
- Processing is necessary for non-contractual legal obligations (eg Health and Safety)
- Processing is necessary to protect the data subject's vital interests
- Processing is necessary for the administration of justice or functions of a public nature
- Processing is necessary for the user's or recipient's legitimate interests and there is no unwarranted prejudice to the individual.

In addition, at least one of the following further set of conditions must be met before processing **sensitive personal data**. These include:

- Explicit consent has been given to the processing
- Processing is for legal requirements or rights in connection with employment
- Processing is necessary to protect the data subject's or another person's vital interests
- Processing is necessary in connection with legal advice or proceedings
- Processing is necessary for administration of justice or exercise of crown functions
- Processing is necessary for medical purposes and is undertaken by a health professional.

Responsibility

Under the Act any data subject has certain rights. Subject to making a formal request in writing, these include:

- The right to be told of data held relating to them
- The right to receive a copy of that data
- The right to seek correction of any incorrect data.

Once requested in writing and the data subject's identity has been verified, the company has a legal obligation to respond to the request with 40 calendar days, although where possible

we endeavour to respond within 10 working days. While we are eligible to levy a £10 administration charge for the completion of this process, in normal circumstances such a charge will not be made.

The data compliance procedures for the disclosing and processing of personal information are available from HR.

Electricity North West is committed to fulfilling its obligations in respect of the Data Protection Act 1998 and ensuring that it, and any third parties with access to personal data (eg recruitment agencies), have processes which are compliant with the legislation.

It is the duty of all company employees to conform to the policy and procedures and to accept and carry out company responsibilities in accordance with the Data Protection Act 1998. Failure to do so could amount to gross misconduct and lead to disciplinary action. You are required to familiarise yourself with the requirements under the Act.

Personal data must be treated with due care and respect of the person it concerns. Unnecessary data must not be collected or held for longer than is absolutely necessary. Any data held should be accurate and up-to-date.

All those persons referred to within the scope of this policy are required to adhere to its terms and conditions.

Individual managers are responsible for ensuring that this policy is applied within their own area. Any queries on the application or interpretation of this policy may be discussed with HR prior to any action being taken.

The HR department has the responsibility for ensuring the maintenance, regular review and updating of this policy. The HR director will approve amendments to the policy.

List of associated documents

This policy is underpinned by and linked to other HR and IS policies including:

- Discipline policy
- Information technology security policies including email and internet policies
- Employee monitoring.