**SPECIFICATION OF DOMESTIC AND SME CUSTOMER DATA**

**FROM THE CUSTOMER-LED NETWORK REVOLUTION PROJECT**

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# Part A: Availability of data from customer trials

Availability of data from customer trials is described in the table below.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test Cell** | **Description** | **Customer Type** | **Low Carbon Technology or tariff** | **Approximate Customer Numbers** |
| TC1a | Basic profiling of domestic smart meter customers | Domestic | None | 8798 |
| TC1b | Basic profiling of small and medium sized enterprise (SME) customers | SME | None | 1783 |
| TC2a | Enhanced profiling of domestic smart meter customers | Domestic | None | 199 |
| TC3 | Enhanced profiling of domestic customers with air source heat pumps | Domestic | Heat Pump | 89 |
| TC5 | Enhanced profiling of domestic customers with solar photovoltaics (PV) | Domestic | PV | 155 |
| TC6 | Enhanced profiling of domestic customers with Electric Vehicles (EVs) | Domestic | Electric Vehicle | 144 |
| TC9a | Domestic smart meter customers on time of use tariffs | Domestic | Time of use tariff | 665 |
| TC20 Auto | Domestic solar PV customers with automatic in-premises balancing for hot water charging | Domestic | PV | 98 |
| TC20 IHD | Domestic solar PV customers using in-home displays for manual in-premises balancing | Domestic | PV | 147 |

# Part B: Data description

## **Trial Monitoring Data**

This data is available for all test cells described in Part A.

|  |
| --- |
| **Trial Monitoring Data** |
| **Field Name (spread sheet column)** | **Comments** |
| Location ID | Unique and anonymous ID of the location. |
| Measurement Description | - e.g. ‘Electricity supply meter’, ‘solar PV In line monitor’, ‘consumption in period [kWh]’, ‘whole home power import’, ‘heat pump power consumption’. |
| Parameter Type and Units | - e.g. ‘Average power [kW]’, ‘Consumption in period [kWh]’. |
| Date and Time of capture | In form ‘DD/MM/YYYY hh:mm:ss’ |
| Parameter | Typically a single value or a set of columns for each parameter period during the day, parameter type or measurement description.Values will be given in decimal notation, typically with 2 or 3 decimal places.  |

## **Customer Test Cell Definition Table**

The customer test cell definition table is the defining table for trial participants and is available for all test cells except test cell 6: enhanced profiling of domestic customers with Electric Vehicles (EVs).

|  |
| --- |
| **Customer Test Cell Definition Table** |
| **Field Name (spread sheet column)** | **Type** | **Values** | **Comments & Restrictions** |
| Location ID | Numeric string  | Any | Uniquely identifies the location.  |
| Customer Type | string | “RES”“SME” | The test cell ID may not unambiguously indicate which test cells are residential or SME so the customer type field will indicate this. |
| Test Cell ID | string | Alphanumeric descriptor | This identifies the test cell of which the location is a member. A location can be a member of more than one test cell. |
| Sub Group | unit | As defined in the test cell protocols | TC1b only. This indicates the demographic sub-group of which the location is a member.* Tariff type (flat or peak-rate)
* No of employees
* Sector (Office, industrial etc.)
* Single or Multi-site
 |
| Extended Sub Group | unit | As defined in the test cell protocols | Where relevant the equivalent TC1 sub-group number (1-144) for comparative studies.  |
| In/Out Region | unit | 0 = not defined1 = in-region2 = out | This indicates whether a customer is in or out of Northern Powergrid’s region. For some test cells this is not important and the value may be left as zero (undefined). |
| Data Valid Start Date | Date | Any between 2011 and 2014 | This is date of the first day’s data that can be used for analysis.This allows for the fact that customer joining and leaving dates may not coincide directly with the trial monitoring data. |
| Data Valid End Date | Date | Any between 2011 and 2014; and >= value in field 7 | This is date of the last day’s data that can be used for analysis. (See ‘Data valid start date’). |
| Tariff Type | string | Describes tariff type of the customer | Tariff type for each customer. |
| Mosaic Class | text | Any valid Mosaic class | Any non-valid type will be an error |

## **Low Carbon Technology Metering Attribute Table**

This table describes attributes of per-customer LCTs and is available for test cells 5 and 20IHD.

|  |
| --- |
| **Metering Attributes** |
| **Field Name (spread sheet column)** | **Type** | **Values** | **Notes** |
| Location ID | string | any | Uniquely identifies the location |
| Measurement Description |  |  | As “Trial Monitoring Data” table |
| PropertiesTC5, 20IHD | Solar: kW rating | 0.0-4.0 | Required to be able to produce a non-dimensional assessment of PV. Array size should not be greater than 4.0kW which is the G83/1 limit. |

## **Temperature Data**

Temperature data is available for test cell 3:enhanced profiling of domestic customers with air source heat pumps.

|  |
| --- |
| **Temperature Data: Test cell 3 heat pump temperature data** |
| **Field Name (spread sheet column)** | **Comments** |
| Location ID | Unique and anonymous ID of the location. |
| Measurement Description | There are two types of measurements: ‘External temperature’ and ‘Zone 1 temperature’. |
| Parameter Type and Units | All values are ‘Temperature [degrees Celsius]’. |
| Date and Time of capture | In form ‘DD/MM/YYYY hh:mm:ss’ |
| Parameter | Single value, with up to 3 decimal places. |

## **SubGroups Data**

Sub-group data is available for test cell 1b: Basic profiling of small and medium sized enterprise (SME) customers.

|  |
| --- |
| **Sub-group Data: SME** |
| **Field Name (spread sheet column)** | **Comments** |
| Sub Group | This indicates the demographic sub-group of which the location is a member. There are 28 SME customer groups varying in single vs. multi-site, tariff, size and sector.  |
| Test Cell ID | All customers belong to TC1b. The locations are defined independently in this mapping and so membership of a multi-site organisation is not indicated in any of the data.  |
| Extended Sub Group | Not applicable to this test cell.  |
| In/Out region | This indicates whether a customer is in or out of Northern Powergrid’s region. ‘1’ indicates in-region and ‘2’ indicates out-region. For some test cells this is not important and the value may be left as zero (undefined).  |
| Data Valid Start Date | This is date of the first day’s data that can be used for analysis. This allows for the fact that customers joining and leaving dates may not coincide directly with the trial monitoring data.  |