Demand Side Response Installation Documents – Explanatory note.

For DNO contracted DSR, the Demand Response Unit Document and the Installation Document are one and the same document.

DSR 1 is for both individual **Customers** or for **Demand Services Providers** who are aggregating the demand services from individual **Customers** (ie aggregators).

DSR 2 should be completed for each **Demand Unit** reported under DSR 1 – either on a site by site basis or once only as a type test certification, the details of which can be quoted on DSR 1.

It is the **Demand Service Provider**’s (DSP) responsibility to ensure **Distribution Cod**e compliance for each **Demand Unit** included within their DSR 2 submission.

DSR 3 – Demand Unit Decommissioning form.

The following definitions are used in these forms:

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| **Demand Facility** | An installation under the control of a **Customer** where electrical energy is consumed and is connected at one or more **Connection Points** to the **DNO’s Distribution System**. |
| **Demand Services Provider** | A party who contracts with the **DNO** to provide a demand side service. The party might be a **Customer** contracting bilaterally with the **DNO** for the provision of services, or may be a third party providing an aggregated service from many individual **Customer**s. In the latter case there will be a specific contract for the provision of the services to the **DNO** and will include compliance by that third party with the requirements of DPC9 in relation to each **Demand** **Unit** included in the aggregated service. |
| **Demand Unit** | An appliance or a device whose **Active Power Demand** or **Reactive Power** production or consumption is being actively controlled by the **Customer** in whose **Demand Facility** it is installed and which has been commissioned on or after 18 August 2019 in pursuance of a contract to this end with the DNO. Such an appliance or device commissioned before this date, but which has been materially altered will also be included in this definition.**Demand Units** of **Customers** where the **Customer** has concluded a final and binding contract for the purchase of a **Demand** **Unit** before 07 September 2018 are not included the scope of DPC9. The **Customer** must have notified the **DNO** of the conclusion of this final and binding contract by 07 March 2019. |
| **Fully Type Tested** | A **Demand Unit** which has been tested to ensure that the design meets the relevant technical and compliance requirements of DPC9, and for which its manufacturer has declared that all similar **Demand Units** supplied will be constructed to the same standards and will have the same performance.  |
| **Type Tested** | A product which has been tested to ensure that the design meets the relevant requirements of DPC9, and for which the manufacturer has declared that all similar products supplied will be constructed to the same standards and will have the same performance. The declaration will define clearly the extent of the equipment that is subject to the tests and declaration.  |

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| **DSR 1 – Installation Document** Please complete this document and provide information for every **Demand Facility.**Part 1 should be completed with the **Demand Service Provider’s** details.Part 2 should be completed to list each **Demand Unit** forming part of the contract with the **DNO**. |
| **DSR 1 - Part 1 DSP Provider’s Details** |
| Contract Reference: |
| To ABC electricity distribution **DNO**99 West St, Imaginary Town, ZZ99 9AA abced@wxyz.com |
| **DSR Provider Details:** |
| Name |  |
| Address |  |
| Post Code |  |
| Contact person  |  |
| Telephone number |  |
| E-mail address |  |
| Signature |  |
| **Summary details of Demand Units**. |
| Number of **Demand Units** |  | Number |
| Aggregate modulated Active Demand |  | MW |
| Aggregate modulated Reactive Demand |  | MVAr |
| **Commissioning Checks** |
| **Description** | **Confirmation** |
| Confirmation that all the **Demand Units** associated with the **DNO** contract responds to the **DNO**’s command signal within the time specified by the **DNO** (or by the default in DPC9 of the **Distribution** **Code** if not specified by the **DNO**) and that the response is held for the duration of the signal (not less than five minutes) and that unmodulated behaviour resumes when the signal is removed. | Yes / No\* |
| Operational monitoring provides the appropriate data to the DNO. | Yes / No\* |
| If “No” is selected the **DSP** is deemed to have failed the commissioning tests and the failed **Demand Units** shall not be put in service for contract purposes (although they can continue to be used normally) until the defect has been remedied. |
| Declaration – to be completed by the **Demand Service Provider** |
| I declare that for all the **Demand Units** associated with this contract:1. Compliance with the requirements of the Distribution Code is achieved. 2. The commissioning checks have been successfully completed. |
| Name:  |
| Signature:  | Date:  |
| Company Name (if fapplicable): |
| Position (if applicable): |
| Declaration – to be completed by **DNO** Witnessing Representative if applicable.  |
| I confirm that I have witnessed the commissioning checks in this document on behalf of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and that the results are an accurate record of the checks |
| Name:  |
| Signature: | Date: |
| Company Name: |

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| **DSR 1 - Part 2 Demand Facility MPANs and Demand Unit** |
| **List of Demand Units associated with this DSR contract.** |
| MPAN | Connection Voltage | Manufacturer / Reference | Date of commissioning | Technology Type egAir ConditioningRefrigerationHeatingEV / Battery ChargingDemand reduction via DG operation | Manufacturers Ref No. (Product ID) or other identification | **Demand Unit** Rated Capacity in kW | Modulation Capacity (kW) | Modulation Capacity (kVAr) |
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| DSR 2 - Compliance Verification Report for Demand UnitsThis form should be used by the **Manufacturer** to demonstrate and declare compliance with the requirements of the **Distribution Code**. The form can be used in a variety of ways as detailed below:* + - 1. To obtain **Fully Type Tested** status

The **Manufacturer** can use this form to obtain **Fully Type Tested** status for a **Demand Unit** by registering this completed form with the Energy Networks Association (ENA) Type Test Verification Report Register. * + - 1. To obtain **Type Tested** status for a product

This form can be used by the **Manufacturer** to obtain **Type Tested** status for a productwhich is used in a **Demand Unit** by registering this form with the relevant parts completed with the Energy Networks Association (ENA) Type Test Verification Report Register.* + - 1. One-off Installation

This form can be used by the **Manufacturer** or **Installer** to confirm that the **Demand Unit** has been tested to satisfy all or part of the requirements of the **Distribution Code**. This form must be submitted to the **DNO** as part of the compliance assessment.A combination of (2) and (3) can be used as required.Note:If the **Demand Unit** is **Fully** **Type Tested** and registered with the Energy Networks Association (ENA) Type Test Verification Report Register, the InstallationDocument (Form DSR 1) should include the **Manufacturer’s** reference number (the Product ID), and this form does not need to be submitted. Where the **Demand Unit** is not registered with the ENA Type Test Verification Report Register or is not **Fully Type Tested** this form (all or in parts as applicable) needs to be completed and provided to the **DNO**, to confirm that the **Demand Unit** has been tested to satisfy all or part of the requirements of this **Distribution Code**.  |
| **Demand Unit Type/Description** |  |
| **Manufacturer** name |  |
| Address |  |
| Tel |  | Web site |  |
| E:mail |  |
| Capacity of modulated active power. | kW |
| Capacity of modulated reactive power. | kVAr |
| Maximum ramp rate(s) (if applicable) | kW and/or kVAr per second |
| Minimum ramp rate(s) (if applicable) | kW and/or kVAr per second |
| There are four options for Testing: (1) **Fully Type Tested**, (2) Partially **Type Tested**, (3) one-off installation, (4) tested on site at time of commissioning. The check box below indicates which tests in this Form have been completed for each of the options. With the exception of **Fully Type Tested** **Demand Units** tests marked with \* may be carried out at the time of commissioning.  |
| **Tested option:** | **1. Fully Type Tested** | **2. Partially Type Tested** | **3. One-Off Man. Info.** | **4. Tested on Site at time of Commission-ing** |
| 0. **Fully Type Tested** - all tests detailed below completed and evidence attached to this submission |  | **N/A** | **N/A** | **N/A** |
| 1. Operating Range |  |  |  |  |
| 2. Demand modulation tests\* |  |  |  |  |
| \* may be carried out at the time of commissioning. Document reference for **Manufacturers’ Information** including the ENA Type Test Verification Report Register Product ID number where applicable: |
| **Manufacturer** compliance declaration. - I certify that all products supplied by the company with the above **Type Tested** **Manufacturer’s** reference number will be manufactured and tested to ensure that they perform as stated in this document, prior to shipment to site and that no site **Modifications** are required to ensure that the product meets all the requirements of the **Distribution Code** |
| Signed |  | On behalf of |  |
| Name |  |  |
| Note that testing can be done by the **Manufacturer** of an individual component or by an external test house.Where parts of the testing are carried out by persons or organisations other than the **Manufacturer** then that person or organisation shall keep copies of all test records and results supplied to them to verify that the testing has been carried out by people with sufficient technical competency to carry out the tests. |

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| **DSR 2 - Compliance Verification Report –Tests for Demand Units** |
| **1. Operating Range:** Eight tests should be carried out; four with the **Demand Unit** operating at **Rated Capacity**, and four operating at maximum modulation. Frequency, voltage and **Active and Reactive Power** measurements at the output terminals of the **Demand Unit** shall be recorded every second. The tests will verify that the **Demand Unit** can operate within the required ranges for the specified period of time. Note – if the **Demand Unit** contains no components which are appropriately sensitive to voltage or frequency, and there is no possibility of the **Demand** **Unit** either disconnecting or failing for voltage and frequency variations within the ranges of these tests, the manufacturer or **Customer** can indicate so by ticking here [ ] and waiving the operating range tests. |
|  | Rated Capacity | Fully modulated |
| Test 1Voltage = 90% of nominal ((207.0 V),Frequency = 47 Hz,Period of test 20 s |  |  |
| Test 2Voltage = 90% of nominal (207.0 V),Frequency = 47.5 Hz,Period of test 90 minutes |  |  |
| Test 3Voltage = 110% of nominal (253 V),Frequency = 51.5 Hz,Period of test 90 minutes |  |  |
| Test 4Voltage = 110% of nominal (253 V),Frequency = 52.0 Hz,Period of test 15 minutes |  |  |
| **2 Modulation**  |
| Confirmation that the **Demand Unit** responds to the **DNO**’s command signal within the time specified by the **DNO** (or by the default in DPC9 of the **Distribution** **Code** if not specified by the **DNO**) and that the response is held for the duration of the signal (not less than five minutes) and that unmodulated behaviour resumes when the signal is removed. | Yes / No |
| Additional comments  |
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DSR 3 –Decommissioning Confirmation

Confirmation of the decommissioning of the demand service capability of a **Demand Unit**

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| **Form DSR 3 - Decommissioning Confirmation****Demand Facility Details** |
| Demand Facility Address (inc post code) |  |
| Telephone number |  |
| MPAN(s) |  |
| **Distribution Network Operator (DNO)** |  |
| **Demand Unit Details** |
| **Demand Unit Type/Description** |  |
| **Manufacturer** name |  |
| **Other identification information** |  |
| **Voltage of Connection** | **Modulated Active Power (kW)** | **Modulated Reactive Power (kVA)** |
|  |  |  |