

DCUSA Request For Information (RFI)

DCP 350

Creation of Embedded Capacity Registers

Date raised: 10 July 2019

Proposer Name: Alessandra De Zottis (represented by Lisa Waters)




Company Name: UK Power Reserve (On behalf of the BEIS' Panel of Technical Experts (PTE))






Company Category: Supplier

Purpose of this Request For Information:

The change seeks to require each DNO and IDNO to create a public register of all sites that use their networks and influence the operation of the GB power market. The Register would contain details of each connected site and would be kept up to date by each DNO and IDNO.

This document is a Request for Information issued to DNOs in accordance with Clause 11.14 of the DCUSA.

	<p>The Workgroup recommends that this Change Proposal should:</p> <ul style="list-style-type: none"> • proceed to Request for Information <p>Parties are invited to consider the questions set in section 5 and submit comments using the form attached as Attachment 1 to dcusa@electralink.co.uk by 02 April 2020.</p> <p>The Working Group will consider the RFI responses and determine the appropriate next steps for the progression of the Change Proposal (CP).</p>
	<p>Impacted Parties: DNOs, IDNOs and CVA Registrants</p>
	<p>Impacted Clauses: A new schedule [31] defining the contents of the Embedded Capacity Register and the obligations on the DNOs to keep the registers correct, up to date and publicly available (location to be determined).</p>

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1. Summary

What?

- 1.1. While it is possible to see the generators/ and interconnectors connected to, or using, the GB transmission networks via registers held by the ESO, it is not possible to see the embedded power plants/customers/storage, unless they are active Balancing Mechanism Units (BMUs). With increasing use of embedded generation/Demand Side Response (DSR)/storage for energy balancing and system management it is important that this market becomes more transparent. While some of these assets can be found on industry registers, such as the Capacity Market Register, there is no national repository for information on all of these sites. This proposal will therefore require DNOs (including when acting outside of their distribution service area) and IDNOs to publish and maintain a register of connected distributed energy resource with a capacity greater than 1MW. Distributed energy resource includes generators, demand sites (that have a contract to provide the DNO or IDNO with DSR/DSM) and storage sites.
- 1.2. While the proposer believes that a national register will offer greatest value to the market, they recognise that this will in effect be comprised of regional registers, maintained by each DNO and IDNO, which would have identical data fields and which would allow for easy aggregation to create a GB wide view of the applicable embedded sites.

Why?

- 1.3. This CP has been proposed to address ongoing concerns of the BEIS Panel of Technical Experts (“PTE”), whose role is to impartially scrutinise and quality assure the analysis carried out by National Grid Electricity System Operator (ESO) for the purposes of informing the policy decisions for the Capacity Market (CM). In fulfilment of this role, the PTE have scrutinised the ESO’s Electricity Capacity Reports (ECRs) across number of years and believe that the lack of reliable data on embedded generation available to the ESO is impacting the ESO’s ability to accurately forecast. Without the necessary data to assess system security, the PTE believe that neither the Government nor the regulator can be sure that their policies are as robust as they could be.
- 1.4. The market needs to rely on information to economically and efficiently plan and operate their businesses, e.g. for the ESO to forecast and balance, to ensure that each DNO and IDNO knows what is on their networks, to facilitate effective competition (across the various energy markets), to inform investors and asset operators, to ensure that the industry as a whole will meet the needs of customers for secure supplies at lowest cost. The Government’s Data Task Force (DTF) is looking at the how the UK as a whole can make better use of data, and this proposal is aiming to gather and presented data in a manner very much in line with the Ofgem/BEIS Energy Data Task Force’s (EDTF’s) goals¹.

¹ EDTF report in June 2019 – five recommendations: digitalisation of the Energy system; maximising the value of data; visibility of data; co-ordination of asset registration; and visibility of Infrastructure and assets.

1.5. The proposer suggests that the level of competition, and thus efficiency, within a market is driven by transparency, with all actors have access to additional information about the users of the system the market efficiency will increase delivering benefits to customers. The provision of transparent, robust, data that this change would deliver will facilitate:

- Generators/DSR sites/customers/storage owners being able to identify other system users in their local region which may influence operations and investments, in some instances increasing competition, in others collaboration and trading;
- Wholesale market players will be able to identify which sites may be influencing the wholesale prices and the volume of capacity that could move between the various parts of the market (such as BM, ancillary services, etc.);
- Investors, including customers, would be able to more easily see how the market is developing, identify gaps in the market, and consider options for future investments in technology and location;
- New build and existing embedded sites may also be able to better understand who their projects are interacting with for connection capacity and may be able to trade rights (depending on Ofgem's charging review) or swap locations, etc. to get the most efficient outcome for their investments;
- Suppliers may be able to improve their forecasting with a better understanding of how the market may operate, such as being able to see changes in say solar capacity on a monthly basis (as proposed in this consultation) rather than via annual updates;
- The ESO in undertaking its market wide forecasts, such as the FES, NOA and Capacity Market Report, would have access to much more robust data on actual installed capacity of different types of resources, their de-ratings, location, etc.; and Government, Ofgem and their advisers will also be able to far more easily see how well policies are working, having better data to monitor policies such as the roll out and output of renewable or new technologies, or identify if trading capacity would be practical, etc.

How?

1.6. With the growth in embedded generation, to inform the market and help with market forecasts done by the ESO, a register of embedded generation would be created. This proposal seeks to introduce a standardised register, containing specific details pertaining to embedded generation, customers (including) DSR, storage sites and other technologies as they develop, that are connected or are planning to connect to each DNOs and IDNOs network. Obligations will be placed on each DNO and IDNO to populate the data items contained in the register for each site, and to then update and maintain the information on an ongoing basis. It was proposed that the registers are aggregated into a national register to be made publicly available. As a location for a national register is yet to be decided, the proposal is that regional registers will be produced by each DNO and IDNO publishing their register on their individual websites and in the standardised format such that they may be easily amalgamated together.

2. Governance

Requested Next Steps

- 2.1 Following a review of the RFI responses, the Working Group will work to agree the detail of the solution for DCP 350 and progress to the Change Report phase.

3. Proposed Embedded Capacity Register

- 3.1 The DCUSA Panel established a Working Group to assess DCP 350. This Working Group consists of representatives from DNOs, Suppliers, IDNOs and National Grid Electricity System Operator (NGESO) as well as observers from Ofgem and BEIS. Meetings were held in open session and the minutes and papers of each meeting are available on the DCUSA website – www.dcusa.co.uk.

- 3.2 It is suggested that the Embedded Capacity Register will include the following items:

General Data

- **MPAN:** The core meter point administration number, a 13-digit reference used in MPAS to identify the relevant Metering Point
- **Customer Name:** Name of party that is connected or contracted to connect.
- **Customer Site:** Name of customer site/project name.
- **Address Line 1:** Site location
- **Address Line 2:** Site location
- **Town/City:** Site location
- **Country:** Site location
- **Postcode:** Site location
- **Location (X-coordinate): Eastings (where data is held):** X coordinates for development site in British National Grid
- **Location (Y-coordinate): Northings (where data is held):** X coordinates for development site in British National Grid
- **Grid Supply Point:** the point of delivery from the transmission system to a distribution system that is linked with the Customer Site
- **Bulk Supply Point:** the supply point on the DNO system (representing an EHV/EHV transformation level) linked with the Customer Site
- **Primary:** the relevant primary substation on the DNO system linked with the Customer Site.

- **Licence Area:** Licence area customer site is connected within
 - **Primary Resource Type:** Meaning any of the below resource types used by technology in the production of electricity:
 - Gas, Gas oil, Diesel, Marine, Wind, Solar, Biomass, Hydro, Pumped storage ((including duration - i.e 30 mins, 1 hour, 2 hour, other), Storage (including duration - i.e 30 mins, 1 hour, 2 hour, other), Non-biodegradable Waste
 - **Primary Technology / Plant Type:** Meaning any of the below types technologies that export electricity onto a distribution network:
 - Advanced Conversion Technologies, Anaerobic Digestion, Biomass (co-firing), Biomass (dedicated), Combined Cycle Gas Turbine (CCGT), Combined Heat and Power (CHP), Compressed Air Storage (CAS), Diesel Generator, Flow-state batteries, Flywheels, Fuel Cell (Hydrogen), Gas oil / kerosene Generator, Gas Reciprocating, Hot Dry Rocks (HDR), Landfill Gas, Large Scale Hydro, Liquid Air Energy Storage, Oil & AGT Generator, Open Cycle Gas Turbine (OCGT), Photovoltaic Array, Pumped Storage Hydroelectricity, Sewage Sludge Digestion, Shoreline Wave, Small Scale Hydro, Solid-state batteries, Supercapacitors, Tidal Barrage, Tidal Stream, Waste Incineration, Wind Offshore, Wind Onshore"
 - **Primary Resource Type - Installed Capacity (MW):** This is the installed capacity of the "Primary Resource Type" expressed in MM.
 - **Primary Resource Type - Installed Capacity (MVA):** This is the installed capacity of the "Primary Resource Type" expressed in MVA.
 - **Resource Type 2:** Where there is more than one plant type at a site, the ""Resource Type 2"" and ""Resource Type 3"" fields would be used to show the resource types additional to the ""Primary Resource Type"".
- Meaning any of the below resource types used by technology in the production of electricity:
- Gas, Gas oil, Diesel, Marine, Wind, Solar, Biomass, Hydro, Pumped storage, Storage, Non-biodegradable Waste"
- **Technology / Plant Type 2:** (Defined as above for "Primary Technology / Plant Type")
 - **Resource Type 2 - Installed Capacity (MW):** This is the installed capacity of the "Resource Type 2" expressed in MW.
 - **Resource Type 2 - Installed Capacity (MVA):** This is the installed capacity of the "Resource Type 2" expressed in MVA.
 - **Resource Type 3:** (Defined as above for "Resource Type 2")
 - **Technology / Plant Type 3:** (Defined as above for "Primary Technology / Plant Type")

- **Resource Type 3 - Installed Capacity (MW):** This is the installed capacity of the "Resource Type 3" expressed in MW.
- **Resource Type 3 - Installed Capacity (MVA):** This is the installed capacity of the "Resource Type 3" expressed in MVA.
- **ANM Connection:** Is the connection contingent on an Active Network Management (ANM) arrangement (including timed connections)?
- **Connection Status:** "Connected" or "Accepted to Connect"?
- **Last Updated:** Date on which item was last updated in the register.

Already Connected

- **Installed Generation Capacity (MVA):** This is the total generation connected at the site expressed in MVA.
- **Export Capacity (MW):** This is the total MW export capacity permitted as per the connection agreement.
- **Export Capacity (MVA):** This is the total MVA export capacity permitted as per the connection agreement.
- **Import Capacity (MW):** This is the total MW import capacity permitted as per the connection agreement.
- **Import Capacity (MVA):** This is the total MVA export capacity permitted as per the connection agreement.
- **Date Connected:** Date Project connected to network and energised.

Accepted to Connect

- **Accepted to Connect Generation Capacity (MVA):** This is the total additional generation that is accepted to connect at the site expressed in MVA.
- **Export Capacity (MW):** This is the total additional MW export capacity permitted as per the connection agreement.
- **Export Capacity (MVA):** This is the total additional MVA export capacity permitted as per the connection agreement.
- **Import Capacity (MW):** This is the total additional MW import capacity permitted as per the connection agreement.

- **Import Capacity (MVA):** This is the total additional MVA import capacity permitted as per the connection agreement.
- **Date Accepted:** Date customer contracted with GBSO/DNO/IDNO.
- **Target Energisation Date:** Estimated date of energisation. This date is likely to change to reflect the latest date notified by customers.

Providing Services

- **Field Tag:** Field Descriptor
- **Distribution Service Provider (Y/N):** Does the resource provide services to a DNO?
- **Transmission Service Provider (Y/N):** Does the resource provide services to the ESO or a TO?
- **Reference:** A unique reference to link to the Providing Services tab.

Accepted to Connect

- **Connection Queue Management Position:** Queue position of customer in relation to the linked reinforcement works.
- **Distribution Reinforcement Reference:** Unique reference to relevant distribution reinforcement required for connection.
- **Transmission Reinforcement Reference:** Unique reference to relevant transmission reinforcement required for connection.

- 3.2 The Working Group notes that there are currently SWRRs that already publishes some of the data items stated above. Where this is the case the definitions have been aligned. Attachment 1 provides a spreadsheet of the data items to be included in the ECR, indicating which items are aligned with the data already provided within the SWRRs and which items are new, arising from DCP 350.
- 3.3 The Working Group are keen to understand what the costs will be associated to providing the data items included within the ECR that are above and beyond what is currently provided within the SWRR. Therefore, this RFI is issued to all DNOs and IDNOs with the intent of gathering the following Information:

1. Please provide details of the associated costs that will be incurred for each of the data items within the ECR that are not currently provided within the SWRR. Please break these costs down to demonstrate the initial costs of providing the data fields and any ongoing costs for maintaining the additional ECR items on a monthly basis.

4. RFI Request

4.1 Responses, or any part thereof, can be provided in confidence. Parties are asked to clearly indicate any parts of a response that are to be treated confidentially.

Attachments

- Attachment 1 - Proposed Embedded Capacity Register Items and Definitions and SWRR Comparison