

DGD

[the following new definitions to be added to the DGD section of the D Code]

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 **Customers**. 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**.

Where there is more than one **Demand Unit** in a **Demand Facility**, these **Demand Units** shall together be considered as one **Demand Unit** if they cannot be operated independently from each other.

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.

Any **Demand Unit** including storage, with the exception of a pumped storage **Power Generating Module**, as a component part is also excluded from the requirements of DPC9.

Manufacturers' Information

Information in suitable form provided by a manufacturer in order to demonstrate compliance with one or more of the requirements of the Distribution Code. Where equipment certificate(s) as defined in EU 2016/631, or 2016/1388 cover all or part of the relevant compliance points, the equipment certificate(s) demonstrate compliance without need for further evidence for those aspects within the scope of the equipment certificate

[A new stand-alone section of the Distribution Code]

DISTRIBUTION PLANNING AND CONNECTION CODE 9

DPC9 DEMAND SIDE SERVICES

DPC9.1 Scope

DPC9.1.1 This DPC9 applies to **Demand Service Providers** and **Customers** (both in their own right and acting as **Demand Service Providers**) in relation to the **Demand Units** that are providing any of the demand side services defined in DPC9.2. For the avoidance of doubt it does not apply to **Customers'** installations and **Equipment** in general.

DPC9.2 Demand Side Service Definitions

DPC9.2.1 **Active Power** control – a service where a **Demand Service Provider** makes available the modulation by the **DNO** of **Demand** within one or more **Customers' Demand Facilities**.

DPC9.2.2 **Reactive Power** control – a service where a **Demand Service Provider** makes available the modulation by the **DNO** of one or more **Customers'** reactive power production or consumption within one or more **Customers' Demand Facilities**.

DPC9.3 Technical Requirements

DPC9.3.1 Voltage Ranges

DPC9.3.1.1 Any **Demand Unit** must be able to remain connected and operating normally when the supply voltage is within the range of 0.90pu to 1.10pu of nominal declared voltage.

DPC9.3.2 Frequency Ranges

DPC9.3.2.1 The **System Frequency** could rise to 52Hz or fall to 47Hz in exceptional circumstances. Any **Demand Unit** must be able to remain connected and operating normally in accordance with the following table:

<u>Frequency Range</u>	<u>Requirement</u>
47Hz - 47.5Hz	Operation for a period of at least 20 seconds is required each time the Frequency is below 47.5Hz.
47.5Hz - 49.0Hz	Operation for a period of at least 90 minutes is required each time the Frequency is below 49.0Hz.
49.0Hz - 51Hz	Continuous operation is required

51Hz - 51.5Hz	Operation for a period of at least 90 minutes is required each time the Frequency is above 51Hz.
51.5Hz - 52Hz	Operation for a period of at least 15 minutes is required each time the Frequency is above 51.5Hz.

DPC9.3.2.2 **Demand Units** must remain connected and operating normally for rates of change of frequency up to 1 Hzs^{-1} measured over 500 ms.

DPC9.3.3 Modulation

DPC9.3.3.1 A **Demand Unit** or **Demand Units** must be capable controlling its **Demand** or **Reactive Power** production or consumption over the range specified in any contract with the **DNO**.

DPC9.3.3.2 **Demand Units** must be equipped to receive modulation instructions either directly, or indirectly via a **Demand Service Provider**, from the **DNO**.

- a) **DNOs** currently are developing active network management approaches and there is no common standard for communication protocols.
- b) The **DNO** will provide details of the method to be employed between the **DNO** and the **Demand Service Provider**. Protocols currently in use between **DNOs** and **Demand Service Providers** include simple current loop; DNP3; IEC 61850.
- c) The **DNO** will agree with the **Demand Service Provider** the protocol to be used.
- d) By default if nothing is specified by the **DNO** then the interface will take the form of a simple binary output that can be operated by a simple switch or contactor. When the switch is closed the **Demand Unit** or **Demand Facility** can operate normally. When the switch is opened the **Demand Unit** will modulate its **Demand** (**Active Power** consumption or **Reactive Power** production or consumption) as required by the contract. The signal from the **Demand Unit** that is being switched can be either AC (maximum value 240 V) or DC (maximum value 110 V).

DPC9.3.3.3 The **DNO** will publish the standard response times it expects for the services it wishes to contract for. Having received the signal or command from the **DNO** the **Demand Unit** will modulate its behaviour to the full extent of the contract within the standard response time, unless agreed otherwise with the **DNO**. In the absence of a specific published **DNO** requirement the response time will be 5 minutes.

DPC9.3.3.4 The modulated behaviour will be maintained for the duration of the signal to do so from the **DNO** unless otherwise agreed with the **DNO**.

DPC9.3.3.5 If the modulation, or any part of it, ceases to be fully available for operation at any time, either temporarily or permanently, unless otherwise agreed with the **DNO** the **Demand Service Provider** will notify the **DNO** without delay, and no more than 12 hours after the modulation ceases to be fully available.

DPC9.3.3.6 The **DNO** will advise the **Demand Service Provider** what operational monitoring and/or metering is required. For **Demand Facilities** connected at **HV** the **DNO** in some cases will install the **DNO's** own telemetry which can form part of the necessary operational monitoring.

DPC9.4 Operational Notification

DPC9.4.1 As part of the contractual arrangements for the provision of demand side services to the **DNO**, the **Demand Service Provider** must provide the following information one month, or other such time as agreed with **DNO**, in advance of the commencement of the contracted demand side services:

- a) Full contact details of the **Demand Service Provider**;
- b) Full contact details of the **Demand Facility** owner (if different from (a));
- c) The exact address and location of the **Demand Facility**;
- d) The capacity of the modulated behaviour of the **Demand Unit** expressed in kW or kVAr (including production or consumption) as appropriate;
- e) Confirmation that the **Demand Unit** complies with the technical and modulation requirements of DPC9.3;
- f) The above information must be submitted for each and every **Demand Unit**.

DPC9.4.2 Unless agreed otherwise with the **DNO** the above information, together with the statement of compliance required by DPC9.5.4 below shall be submitted by the **Demand Services Provider** on the proforma provided by the **DNO** for that purpose.

DPC9.4.3 Unless agreed otherwise with the **DNO** The **Demand Services Provider** must notify the **DNO** of any planned change or modification to the capabilities of the **Demand Unit** at least one month in advance..

DPC9.4.4 Unless otherwise agreed with the **DNO** the **Demand Services Provider** must notify the **DNO** of any unplanned incident or failure of a **Demand Unit** immediately, which means within the same day.

DPC9.4.5 In the case of an aggregated service, any unplanned incident or failure of the contracted service should be notified to the **DNO** immediately, which means within the same day.

DPC9.4.6 For any **Demand Facility** connected at **HV**, the demand side services cannot be called upon until the **DNO** has issued a final operational notice to the **Customer** responsible for the **Demand Facility**. The **DNO** will issue the final operational notice to the customer on receipt of the complete information required in

DPC9.4.1. The **DNO** will recognize practical difficulties in completing all appropriate tests for confirmation of compliance in specific situations and will not unreasonably withhold the issuing of the final operation notification.

DPC9.5 Compliance

- DPC9.5.1 The **Demand Service Provider** is wholly responsible for the compliance of the **Customer's Demand Units** with the requirements of this DPC9 and for the conduct of any tests necessary to demonstrate compliance.
- DPC9.5.2 The **Demand Service Provider** must demonstrate the modulation of behaviour of the **Demand Units** on receipt of the appropriate signal (or simulated sign) from the **DNO**. Where appropriate such tests can be undertaken off site, for example by the manufacturer.
- DPC9.5.3 To the extent that the **Demand Service Provider** requires the **DNO** to assist or participate in compliance testing the **DNO** will co-operate to achieve an agreed timetable.
- DPC9.5.4 The **Demand Service Provider** will supply to the **DNO** a statement of compliance detailing how compliance with the relevant parts of DPC9 has been demonstrated. The statement can include **Manufacturer's Information** to support the demonstration of compliance.
- DPC9.5.5 The **DNO** may require the **Demand Service Provider** to repeat compliance tests in accordance with a plan, or following any modification or failure of the **Demand Unit** to perform as required.

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.

However there are two versions of this document:

DSR 1 for is for **Demand Services Providers** who are individual **Customers**.

DSR 2 is for **Demand Services Providers** who are aggregating the demand services from individual **Customers** (ie aggregators).

DSR 3 should be completed for each **Demand Unit** reported under DSR 1 or DSR 2 – 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 aggregator's responsibility to ensure **Distribution Code** compliance for each **Demand Unit** included within their DSR 2 submission.

DSR 4 – Demand Unit Decommissioning form.

The following definitions are used in these forms:

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 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.

DSR 1 - Demand Unit - Installation Document

Please complete and provide this document for every **Demand Facility** (ie each premise)

Part 1 should be completed for the **Demand Facility**.

Part 2 should be completed for each **Demand Unit(s)** being commissioned. Where the installation is phased the form should be completed and returned to the **DNO** as each phase of the installation is commissioned.

DSR 1 - Part 1 Demand Facility

To ABC electricity distribution **DNO**
 99 West St, Imaginary Town, ZZ99 9AA abcd@wxyz.com

Customer Details:

Customer (name)	
Address	
Post Code	
Contact person (if different from Customer)	
Telephone number	
E-mail address	
MPAN(s)	
Customer signature	

Installation details

Address	
Post code	

Summary details of Demand Units - where one or more Demand Units will exist within one Demand Facility						
Manufacturer / Reference	Date of commissioning	Technology Type eg Air Conditioning Refrigeration Heating EV / Battery Charging Demand reduction via DG operation	Manufacturers Ref No. (Product ID) or other identification	Demand Unit Rated Capacity in kW	Modulation Capacity (kW)	Modulation Capacity (kVAr)
Commissioning Checks						
Description				Confirmation		
Operational monitoring provides the appropriate data to the DNO .				Yes / No*		
DSR3 Compliance Verification Report completed for each Demand Unit				Yes / No*		

DSR 1 - Part 2 Demand Unit	
Demand Unit Type/Description	
Manufacturer name	
Other identification information	
Commissioning Checks	
Operational monitoring provides the appropriate data to the DNO.	Yes / No*
*Circle as appropriate. If "No" is selected the Demand Unit is deemed to have failed the commissioning tests and the Demand Unit shall not be put in service for contractual purposes (although it can continue to be used normally).	
Additional comments / observations:	
Declaration – to be completed by Customer or the Customer's Appointed Technical Representative	
I declare that for the Demand Unit :	
1. Compliance with the requirements of the Distribution Code is achieved.	
2. The commissioning checks have been successfully completed.	
Name:	
Signature:	Date:
Company Name:	
Position:	
Declaration – to be completed by DNO Witnessing Representative if applicable. Delete if not witnessed by the DNO .	
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:	

DSR 2 – Aggregator’s Compliance Document

Please complete and provide this document for every **Demand Facility**.

Part 1 should be completed for the Aggregator’s details.

Part 2 should be completed to list each **Demand Unit** forming part of the contract with the **DNO**.

DSR 2 - Part 1 Aggregator’s Details

Contract Reference:

To ABC electricity distribution **DNO**
 99 West St, Imaginary Town, ZZ99 9AA abcd@wxyz.com

Aggregator Details:

Aggregator
(name)

Address

Post Code

Contact person

Telephone number

E-mail address

Aggregator
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

Yes / No*

the signal (not less than five minutes) and that unmodulated behaviour resumes when the signal is removed.	
Operational monitoring provides the appropriate data to the DNO.	Yes / No*
If “No” is selected the aggregator is deemed to have failed the commissioning tests and the Demand Units included in the contract shall not be put in service for contract purposes (although they can continue to be used normally).	
Declaration – to be completed by Customer or the Customer’s Appointed Technical Representative/ Aggregator	
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:	
Position:	
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:	

DSR 3 - Compliance Verification Report for Demand Units

This 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.

2. To obtain **Type Tested** status for a product

This form can be used by the **Manufacturer** to obtain **Type Tested** status for a product which 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.

3. 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 Installation Document (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 Commissioning
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.

DSR 3 - 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 1 Voltage = 90% of nominal ((207.0 V), Frequency = 47 Hz, Period of test 20 s		
Test 2 Voltage = 90% of nominal (207.0 V), Frequency = 47.5 Hz, Period of test 90 minutes		
Test 3 Voltage = 110% of nominal (253 V), Frequency = 51.5 Hz, Period of test 90 minutes		
Test 4 Voltage = 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 4 –Decommissioning Confirmation

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

Form DSR 4 - 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)

Respondent	<i>Alan Creighton</i>
Company Name	<i>Northern Powergrid</i>
No. of DCode Stakeholders Represented	
Stakeholders represented	
Role of Respondent	<i>Distributor</i>
We intend to publish the consultation responses on the DCode website. Do you agree to this response being published on the DCode website? [Y/N]	Yes

	Question	Response	DNOs' response
Q1	Do you have any preference for either the original structure of DPC9 (as consulted on in March – appendices 2 and 3) or the alternative structure (appendices 4 and 5)? Please explain your preference.	Our preference is for the alternative structure as it appears to be simpler and easier to understand	Noted and agreed.
Q2	Do you have any comments on the draft pro-formas (appendix 6)? In particular do you agree that they are compatible with both structures of DPC9?	We agree that the pro formas are compatible with both structures and have no further comments to make	Noted
Q3	Do you agree with the amendments to the DSR3 form (appendix 6) to allow customers and/or manufacturers to self-certify voltage and frequency compliance?	Yes	Noted
Q4	Do you have any other comments on these proposals?	No	Noted

Respondent	<i>Nigel Turvey</i>
Company Name	Western Power Distribution
No. of DCode Stakeholders Represented	1
Stakeholders represented	<i>Western Power Distribution</i>
Role of Respondent	<i>DNO</i>
We intend to publish the consultation responses on the DCode website. Do you agree to this response being published on the DCode website? [Y/N]	Yes

	Question	Response	DNOs' response
Q1	Do you have any preference for either the original structure of DPC9 (as consulted on in March – appendices 2 and 3) or the alternative structure (appendices 4 and 5)? Please explain your preference.	WPD's preference is for the alternative structure. This shortens and simplifies the wording as well as treating aggregators and individual customers equally.	Noted and agreed.
Q2	Do you have any comments on the draft pro-formas (appendix 6)? In particular do you agree that they are compatible with both structures of DPC9?	WPD would suggest merging DSR 1 and 2 within the pro-forma to create a single set of requirements for Demand Services Providers. This aligns with the aim of the alternative	The amalgamation of DSR1 and 2 is a good idea and we can try this in the next few weeks and promote it if we believe it works and is not confusing.

		<p>structure, but would also be compatible with the original structure.</p> <p>One specific wording comment would to swap the usage of Demand Response Provider to Demand Service Provider in order to align with the DCode terminology.</p>	<p>Demand Response Provider now changed to Demand Services Provider.</p>
Q3	<p>Do you agree with the amendments to the DSR3 form (appendix 6) to allow customers and/or manufacturers to self-certify voltage and frequency compliance?</p>	<p>WPD agrees in principle to the principle of self-certification. However stricter definitions and guidance will be required to make very clear what can and can't be self-certified. Experiences from various LCT connection processes have shown the potential confusions and abuses of self-certified or self-governed processes.</p>	<p>Noted. We would expect developments in the certification etc of generating plant under the RfG to be extended to demand units.</p>
Q4	<p>Do you have any other comments on these proposals?</p>	<p>N/A</p>	

ADE

No direct comment on D Code text – but some of the comments re aggregators probably need reflecting in D Code approach.

Electricity North West

Question	Answer	D Code response
<p>Do you agree that DNOs should only implement the Demand Response requirements relating to Demand Response Active Power Control and Demand Response Reactive Power Control, recognizing that the other DSR services in Article 27 are services for the Transmission System Operator?</p>	<p>No, agreed that DNOs do not manage frequency (b)(i) demand response system frequency control should be excluded. There is a presumption that very fast active power control is solely to manage frequency, is that definitely the case or are there other potential ? Also under a whole system approach couldn't DNOs/ DSOs procure services for transmission constraint management. These proposals should not prevent such developments if they are in the best interests of consumers.</p>	<p>Very fast active power control is defined in Article 2(21) as being in response to a frequency deviation. So for DCC compliance (ie in the immediate short term) it seems safe to assume this is not a DNO service. However there is nothing to stop such a service being developed in the future. If a DNO was procuring services on behalf of the TSO then the DSO would be acting as an aggregator and presumably would be able to either work under same regime as other aggregators contracted to the TSO, or possibly able to do this under its own DCC legal powers – but in this case it might be appropriate to modify the D Code and other distribution documentation to specifically cover this possibility.</p>
<p>Do you have any comments on the approach taken with the Installation Document pro-forma proposed for Demand Response services contracted to DNOs? Do you agree that there is no distinction necessary here for HV or LV customers?</p>	<p>Yes, we do not agree with the proposed approach. The pro-forma document seems to request information that is not specified in Article 32(6). Implementation should focus on doing the minimum to ensure compliance not adding additional regulatory burdens.</p>	<p>Electricity North West provided a number of detailed comments on the proformas, particularly suggesting that the information went beyond what was required by the DCC. Whilst one or two items included in the form (such as MPAN) are not DCC requirements, this information is believed to be helpful and might well be required as terms of any contract.</p> <p>The documentation has been designed to be flexible and can easily be changed if some</p>

		aspect is found to be inappropriate based on experience.
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Flexitricity

Question	Answer	D Code response
Are the rights and obligations of aggregators appropriately allowed for in the drafting of ECC and DPC9? If not, what additional provisions would you suggest?	<p>The default response time specified in DPC9.3.3.3 is in the frequency response range, rather than active or reactive power DSR range. A default of something along the lines of 5-10 minutes would make more sense.</p> <p>The data specified in DPC9.4.1 being specified one month in advance is fine, but must be implemented correctly for aggregated groups. If new units are added to a group, this should not bar the rest of that group from operation for example.</p> <p>The references to other pieces of EU legislation (EU 2016/631 etc) in the definition of 'Manufacture's information' in DPC9 should be more explicit so that providers are not being made to wade through EU legislation. The paperwork required from providers should be described clearly by the DNO procuring the service in the service contract, rather than sending the provider needing to be versed in EU legislation.</p> <p>There is no mention of aggregators or aggregation in the ECC that I could see, so if there are any, they are difficult to find.</p>	<p>Agree that 5s is too short a default. Suggest we set the default to 5 minutes.</p> <p>Agree with the intent. The phrase "or such other time as agreed" has been introduced where default timings are stated.</p> <p>This is a read across from the RfG into the DCC. It does envisage a regime where manufacturers are part of a certification programme – it is not yet anywhere near a working implementation for generation – let alone demand. However we believe we need to lay down a path for it.</p>
Do you have any comments on the approach taken with the Installation Document pro-forma proposed for Demand Response services contracted to DNOs? Do you agree that there is	<p>There is no distinction necessary for HV and LV customers.</p> <p>Where is 'fully type tested' defined?</p>	Noted with thanks.

no distinction necessary here for HV or LV customers?	<p>The obligations in DSR3 are either excessively complex or poorly expressed. Who will be carrying out these tests for individual sites, how will it be verified?</p> <p>How much manufacturer involvement does ENA actually expect to have in this process? Will there be any incentive for manufacturers to participate, especially considering that DNO DSR is currently rare and made up mostly of short term contracts.</p>	<p>See comments above – it is a read across again from the RfG and possibly important for future compliance streamlining</p> <p>As above for now.</p>
Do you have any views on how to tailor the compliance process, and documentation, to accommodate both individual Demand Response Service Providers and those Demand Response Service Providers who are aggregators?	<p>The easiest way to do this is to have the compliance and documentation process be on a site by site or unit by unit basis, and then have a secondary process for assigning compliant, documented units or sites to aggregated groups. If the units are not tested and documented individually, the other units in an aggregated portfolio would be forced out of the market every time a new unit joins, or has a temporary outage.</p>	<p>Yes – in fact this is what were attempting to do: DSR3 needs to be completed for every unit – and these would be aggregated on DSR2. But happy to talk through this to use your experience to improve our approach.</p>

SPEN – no specific D Code comments

Northern Powergrid

Question	Answer	D Code response
Legal Text Issues		
	<p>Connection Point, Reactive Power, Demand Facility, Customer are all defined terms and should be capitalized and bold where used.</p>	<p>Agree. Corrected.</p>
	<p>Definition of Demand Unit - Would it be clearer to say what is in the scope of DPC9 ie all Demand Units, where there is a contract to provide demand side services (Is an appliance / device</p>	<p>The Scope statement DPC9.1.1. does this.</p>

	<p>only a Demand Unit when its contracted to provide Demand service)</p> <p>Do the dates relate to the procurement of the Demand Unit, or agreement of contracts to use that Demand Unit to provide a Demand service These dates don't look right 7 and 9 September</p>	<p>The DCC is clear that the critical date is the date the DU was connected to the network (or the contract for it was signed). Typo. Corrected.</p>
	DPC9.1.1 - ... in general or to any appliance or devices that are not Demand Units	Not obvious quite what distinction is being sought or made here.
	DPC 9.3.1.2 - Don't quite see why for LV at least these wouldn't be 0.9 to 1.1 pu	Agree – the drafting was wrong. Now corrected.
	DPC 9.3.3.2(b) - didn't quite follow the 'or as will be deployed' part of this clause	It just really saying that the DNO will provide details of the communications protocols to be used – either between a single customer or to an aggregator. This might be more obvious now in the alternative version of the text.
	DPC9.4.1 Semicolons missing at end of lines	Agreed. Inserted
	DPC 9.4.3 and DPC9.4.4- ...Provider as appropriate must notify....	Agreed. Inserted
	<p>DRUD intro note - Might it be better to use the term Demand Response Providers who are not individual Customers - or define aggregators?</p> <p>In the DCode, the term used is (as an undefined term) demand side service. DCC uses Demand Response Service</p> <p>Wondered if there was a consistent term emerging from ON that we should use. I can see that the intention isn't to append this to the DCode in any way, but consistency would be good.</p>	<p>Modified for this.</p> <p>This page is not legal text - it was just included to help the consultation – It is not expected to exist as part of the suite of documentation in the future.</p>

	Is there a risk that commercial aggregators will focus only on the money so in the aggregator sentence should this say '...Distribution Code compliance (including full technical compliance)...' to stress the point.	D Code compliance is only technical – so this should not be necessary
	<p>DSR 1 Part 1 - ...each phase of the..... phased is used earlier in the sentence</p> <p>Customer signature - Not checked with the G83 forms, but is the customers signature required here</p> <p>Demand facility- not premises</p> <p>Align the tops of columns</p> <p>Capitalize defined terms</p> <p>Operational Monitoring is not a defined term – possibly add note or footnote “where required by DSR agreement” or ref DPC9.3.3.6</p>	<p>Changed</p> <p>Yes</p> <p>Changed</p> <p>Changed</p> <p>Done</p> <p>Not clear that the reference is needed – this will be a key contractual part of the arrangements. Capital M changed to lower case.</p>
	<p>DSR1 Part 2 - are separate Operational Monitoring checks required for the Demand Facility and Demand Unit?</p> <p>as above just wondered about the acronym DSR Declaration: Not checked for consistency with G83 forms, but this text wouldn't be deleted - just not completed</p>	<p>A good question. This will probably depend on case by case basis. Generally it will probably be at the facility level - more operational experience necessary to inform this.</p> <p>Changed to contractual purposes</p> <p>This is identical to G83</p>
	DSR 2 - Is there a need somewhere to define an Aggregator (GCode definition?)	It is not defined in the Grid Code. But the preamble to the proformas now explains that an aggregator is a Demand Service Provider for multiple Demand Facilities.

	<p>Is a copy of this document required for each Demand Facility.....or is there one form per Demand Service Provider / Aggregator contract with a DNO?</p> <p>Is a customer signature needed</p> <p>Operational monitoring – add reference to DPC9.3.3.6?</p> <p>Is it the Demand Units that's failed or the Demand Service Provider / Aggregator who's failed?</p> <p>I can see how to populate this table for a Demand Facility ie with an MPAN. Are we also looking to capture details of each Demand Unit as well - if so this could probably be clearer on the form.</p> <p>Didn't quite follow this N/A - couldn't Manufacturers Information be used to demonstrate compliance with the Operation Range</p>	<p>It is envisaged one per aggregator per contract - hence the contract reference box at the top of the details</p> <p>Consistent with other forms. Changed to Aggregator</p> <p>As above this will need to be done DNO by DNO, contract by contract</p> <p>Valid point – amended.</p> <p>No -just the MPAN. It should be for the aggregator to ensure compliance of each facility/unit.</p> <p>This is a mistake. Corrected.</p>
	<p>DSR 3 - In DPC9 this is 180s rather than 5. might it be worth adding a footnote to explain where this would be N/A</p>	<p>Correct – now amended to refer to DPC9</p> <p>Changed from NA to No.</p>
	<p>DSR 4 - Is this decommissioning of the DSR capability or the decommissioning of the contact to activate the DSR capability</p>	<p>Could be either – so forms cates for this.</p>

RWE – no specific D Code comments

SP Generation– no specific D Code comments

SSE

Question	Answer	D Code response
<p>Do you agree that DNOs should only implement the Demand Response requirements relating to Demand Response Active Power Control and Demand Response Reactive Power Control, recognizing that the other DSR services in Article 27 are services for the Transmission System Operator?</p>	<p>The approach to be followed by providers of demand response services should, according to the DCC, be harmonised. We see no recognition of this requirement for harmonisation by the Proposer of GC0104.</p> <p>Without this harmonisation there is a risk that DSR providers have to meet multiple requirements for the same demand modulation depending on whether it is provided to the relevant system operator or relevant TSO.</p> <p>As noted above, this lack of harmonisation in the GC0104 proposal will lead to increased costs for consumers, will not achieve the best social welfare outcome and will not be reasonable, proportionate or efficient.</p>	<p>Noted</p>
<p>Are the rights and obligations of aggregators appropriately allowed for in the drafting of ECC and DPC9? If not, what additional provisions would you suggest?</p>	<p>Given the total lack of detail in this consultation around what the 'Ancillary Services agreement' requires of aggregators; in terms of the DCC; it is difficult to say what the rights and obligations, in totality, are and, therefore, it is difficult to say if this has been suitably allowed for in the drafting of ECC and DCP9.</p>	<p>Noted</p>
<p>Do you have any comments on the approach taken with the Installation Document pro-forma proposed for Demand Response services contracted to DNOs? Do you agree that there is no distinction necessary here for HV or LV customers?</p>	<p>Given that the DCC obligations are to be harmonised then so should the documentation; i.e. it should not matter whether the service is provided to the relevant system operator or the relevant TSO, in both cases the form to be completed should be the same and should only need to be completed once.</p> <p>Notwithstanding the above, we note that the General Data Protection Regulation (GDPR) is</p>	<p>There are different requirements for some T and D services. Moving to an identical approach could subject those customers only providing services to DNOs to unnecessary requirements. However the integration and harmonization of DSR services between T and D is a substantial part of the Open Networks Project WS1, and we expect that those developments will feed through into the</p>

	due to be applicable in the near future. We notice that the draft installation document contains customer personal data – could the Proposer please confirm, in light of the GDPR obligations, that the proposed installation document is fully compliant with the GDPR obligations.	formal approaches over the next couple of years.
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Also some of the comments on the Grid Code probably need reflecting in D Code approach.

UK Power Reserve

Question	Answer	D Code response
Do you agree that DNOs should only implement the Demand Response requirements relating to Demand Response Active Power Control and Demand Response Reactive Power Control, recognizing that the other DSR services in Article 27 are services for the Transmission System Operator?	Yes, although as the DNO-DSO transition evolves, they should not be precluded from future discussions.	Note and we agree.
Do you have any comments on the approach taken with the Installation Document pro-forma proposed for Demand Response services contracted to DNOs? Do you agree that there is no distinction necessary here for HV or LV customers?	UKPR do not see any necessary distinction between LV and HV customers. At the moment, the nature of potential Demand Response services is unclear, but the proforma includes sufficient information.	Note and we agree.

WPD

Question	Answer	D Code response
Do you agree that DNOs should only implement the Demand Response requirements relating to Demand Response Active Power Control and Demand Response Reactive Power Control,	WPD broadly agrees with this distinction. However confusion may arise where a DNO implements a service on the behalf of the Transmission system operator (as will be trialled	Noted. This of course might suggest changes to the D Code drafting and approach. Given the developing nature of these services, and the Open Networks

recognizing that the other DSR services in Article 27 are services for the Transmission System Operator?	in the WPD RDP work with National Grid). This is also the case in the Power Potential project.	initiatives, it will be necessary to keep formal GB documentation under constant review – although of course the highest level and lightest touch approach will probably remain desirable.
Q6 Are the rights and obligations of aggregators appropriately allowed for in the drafting of ECC and DPC9? If not, what additional provisions would you suggest?	The current drafting explicitly allows for participation of aggregators and third parties. If anything the proposal favours third parties over direct customers as they have less onerous requirements in the pro-formas. WPD would encourage equal treatment of aggregators and direct customers.	Please see answer below to Legal Text Issues
Do you have any comments on the approach taken with the Installation Document pro-forma proposed for Demand Response services contracted to DNOs? Do you agree that there is no distinction necessary here for HV or LV customers?	WPD agrees with the pro-forma approach subject to the comment in Q6. WPD agrees that there is no distinction necessary for HV and LV customers.	Noted.
Do you have any views on how to tailor the compliance process, and documentation, to accommodate both individual Demand Response Service Providers and those Demand Response Service Providers who are aggregators?	As per question 6, WPD would encourage the maximum alignment between compliance and documentation for aggregators or direct customers. For example the current pro-formas require more information on the specific Demand Units for individual customers over aggregators (Technology types, Manufacturers reference number...) Aggregators should be expected to provide the data expected of customers. In addition WPD believes that some of the requirements should be better defined to avoid confusion (for example is the modulated output value expected to be the Maximum or Minimum response capacity?). Finally the compliance checks must be reviewed with a view to the practicality of testing required. For example the current DPC9 wording allows	As per the response on Legal Text Issues below. In addition, as stated below, the logic her was striving to force Aggregators to make/take the same checks that the DNO would do itself – but without telling the Aggregator exactly what to do. Of course, some more direct instruction to the Aggregator could be put into the contract. We don't think the drafting to date has caught the concept of maximum or minimum response capacity (ie assuming this is a response band). Our initial response to this point is that it could be whatever was defined in the contract.

	<p>significant flexibility for DNOs in terms of the manner in which modulation signals are sent and the response time. By contrast the pro forma requires customers to respond to a non-specific signal within 5 seconds</p>	<p>Agree that the 5s was a mistake. It has been changed to be either of the contract value or a default of 5 minutes.</p>
<p>Legal text issues</p>	<p>WPD has identified the following concerns around the legal text of DPC9.</p> <ul style="list-style-type: none"> - The definition of Demand Service Provider include direct customers, however these are then treated as a distinct subset. For example DPC9.1.1and DPC 9.1.2 could be merged. This unnecessary distinction is carried throughout the text (9.2.1, 9.2.2....) - The definition of a Demand Unit may cause confusion for a system made up of components and sub-components. Clarification could be provided on the limits of the definition. For example in a BMS with multiple HVAC units each comprised of fans and pumps, what is a demand unit and what isn't? - Demand units including storage are exempt from DPC9. Further clarification may be required as many systems could be considered to have storage (a HVAC unit may claim to have thermal storage). 	<p>The original drafting attempts to apply equal treatment to end customers but where an aggregator is involved, the drafting of both DPC9 and the DRUD are attempting to set a framework where the aggregator undertakes the assurance of compliance by customers and then the aggregator passes this assurance on to the DNO (in form DSR 2). That is why the distinctions were made in the original drafting. Subsequently, and following discussions with a small number of aggregators, it does seem that combining the roles of Demand Service Provider and Customer would be a sensible simplification.</p> <p>We agree that Demand Unit could be a confusing concept -but the DCC only gives limited clarity in this regard. The working assumption we have had to date is that each or all the HVAC units under the control of a single controller would form the Demand Unit.</p> <p>The DCC of course does not cover storage – but our current view is that that is irrelevant. We should just treat it as the physics dictates. Also probably worth noting our assumption that storage in EU Network Terms means electricity storage as opposed to energy storage.</p>

Grid Code Workgroup Consultation Response Proforma

GC0104 EU Connection Codes GB Implementation – Demand Connection Code

Industry parties are invited to respond to this consultation expressing their views and supplying the rationale for those views, particularly in respect of any specific questions detailed below.

Please send your responses by **5pm** on **29 March 2018** to grid.code@nationalgrid.com. Please note that any responses received after the deadline or sent to a different email address may not receive due consideration by the Workgroup.

Any queries on the content of the consultation should be addressed to Chrissie Brown at Christine.brown1@nationalgrid.com

Respondent:	<i>Rick Parfett, rick.parfett@theade.co.uk</i>
Company Name:	<i>The Association for Decentralised Energy (ADE)</i>
<p>Please express your views regarding the Workgroup Consultation, including rationale.</p> <p>(Please include any issues, suggestions or queries)</p>	<p><i>For reference, the Grid Code objectives are:</i></p> <ol style="list-style-type: none"> i. To permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity ii. To facilitate competition in the generation and supply of electricity (and without limiting the foregoing, to facilitate the national electricity transmission system being made available to persons authorised to supply or generate electricity on terms which neither prevent nor restrict competition in the supply or generation of electricity) iii. Subject to sub-paragraphs (i) and (ii), to promote the security and efficiency of the electricity generation, transmission and distribution systems in the national electricity transmission system operator area taken as a whole iv. To efficiently discharge the obligations imposed upon the licensee by this license and to comply with the Electricity Regulation and any relevant legally binding decisions of the European Commission and/or the Agency; and v. To promote efficiency in the implementation and administration of the Grid Code arrangements. <p><i>The Distribution Code objectives are:</i></p> <ol style="list-style-type: none"> i. Permit the development, maintenance, and operation of an efficient, coordinated and economical System for the distribution of electricity. ii. Facilitate competition in the generation and supply of electricity. iii. Efficiently discharge the obligations imposed upon DNOs by the Distribution Licence and comply with the

	<p>Regulation (where Regulation has the meaning defined in the Distribution Licence) and any relevant legally binding decision of the European Commission and/or Agency for the Co-operation of Energy Regulators.</p> <p>iv. Promote efficiency in the implementation and administration of the Distribution Code.</p>
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Standard Workgroup Consultation questions

Q	Question	Response
1	Do you believe that GC0104 Original proposal, or any potential alternatives for change that you wish to suggest, better facilitates the Grid Code Objectives?	<p>The ADE believes that the GC0104 Original proposal better facilitates Grid Code objective four by ensuring GB compliance with EU legislation.</p> <p>As part of the third Energy Package, the proposal has the potential to better facilitate Grid Code objectives one, two and three. In its current form, however, the proposal risks creating unnecessary barriers to entry and certification requirements for DSR providers, with consequent impacts upon competition and efficiency.</p> <p>These issues are outlined in our response to Question 10.</p>
2	Do you support the proposed implementation approach?	The ADE supports the implementation approach, noting the need for implementation by 7 September 2018, if the issues outlined are resolved.
3	Do you have any other comments?	The ADE has no comment.
4	Do you wish to raise a WG Consultation Alternative Request for the Workgroup to consider?	<p><i>If yes, please complete a WG Consultation Alternative Request form, available on National Grid's website,</i></p> <p>https://www.nationalgrid.com/uk/electricity/codes/grid-code and return to the Grid Code inbox at grid.code@nationalgrid.com</p>

Specific GC0104 questions

Q	Question	Response
5	Do you agree that DNOs should only implement the Demand Response requirements relating to Demand Response Active Power Control and Demand Response Reactive Power Control, recognizing that the	The ADE has no comment.

	other DSR services in Article 27 are services for the Transmission System Operator?	
6	Are the rights and obligations of aggregators appropriately allowed for in the drafting of ECC and DPC9? If not, what additional provisions would you suggest?	The ADE has no comment.
7	Do you have any comments on the approach taken with the Installation Document pro-forma proposed for Demand Response services contracted to DNOs? Do you agree that there is no distinction necessary here for HV or LV customers?	The ADE has no comment.
8	Do you have any views on how to tailor the compliance process, and documentation, to accommodate both individual Demand Response Service Providers and those Demand Response Service Providers who are aggregators?	The ADE has no comment.
9	Can you see any issues with treating GSPs and EU GSP's in the way set out in the Glossary and Definitions and European Connection Conditions of the solution?	The ADE has no comment.
10	Do you agree that the DRSC reflects the requirements of DCC and provides sufficient information for Demand Response Providers. If not, please state why do not believe this to be the case and what you believe would provide a better alternative.	<p>The ADE welcomes most of the contents of the DRSC. There are currently, however, several sections which contain requirements that are either too broadly defined or should only apply to providers of certain Demand Response services. These are:</p> <ol style="list-style-type: none"> 1. DRSC.5.1 requires that any plant or apparatus that provides Demand Response services must tolerate frequencies above 51.5 Hz for 15 minutes and below 47.5 Hz for 20 seconds, as well as a Rate of Change of Frequency of 1 Hz/s. Similar requirements exist for voltage tolerances. <p>While these requirements are reasonable for new transmission-connected customer sites, extending this requirement to all sites that provide demand response is unreasonable and likely to strongly deter the provision of</p>

		<p>demand response. DSR aggregators will be unable to prove that all of a customer's plant can meet the above requirements; it would be extremely onerous to collect certification for every piece of equipment on the customer site (certificates which may not exist in all cases) and testing would be extremely expensive and disruptive. Testing an entire customer site would require an aggregator to take the whole site 'off grid' and supply it all from a generator that is then modulated to the required extremes of frequency and voltage. The requirements are therefore disproportionate and impossible to implement on these sites. In addition, it is unclear how these requirements could be proven, as is required under DRSC.11.6.1.1</p> <ol style="list-style-type: none"> 2. We welcome the acknowledgement under DRSC.9.1 that operational metering requirements will vary depending upon the type of Ancillary Service. We would like to see explicit recognition, however, that, lower resolution metering is acceptable in certain cases, so long as it is allowed by the service. This is because units providing DSR services do not necessarily have standard metering equipment, in the same way that generation does, and such equipment would be prohibitively costly to install on every asset. 3. DRSC.11.4.2.3(a) contains a requirement to provide "<i>all</i> documentation and certificates" (my italics) to evidence compliance. This is too broad a piece of drafting and is therefore impossible to satisfy; the word 'all' should be replaced by the word 'relevant'. 4. DRSC.11.4.2 and 11.5 allow NGET to request extra information and testing from Providers in a broad range of scenarios. While this is completely legitimate in certain scenarios, the current drafting seems too broad. Fulfilling extra tests is costly and burdensome for a DSR provider in a way that it is not for most generation because it involves customers altering or interrupting production schedules, leading to potential loss of revenue. While this is sometimes
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		<p>unavoidable, the costs imposed mean that a limited list of specific scenarios where NGET can request extra information or testing should be included in the drafting.</p> <p>5. DRSC.11.4.2.3(c) and (d) require DSR providers to submit “steady state and dynamic models of plant and apparatus” and “study results showing the expected steady state and dynamic performance”. While this requirement is reasonable for reactive power services and dynamic frequency response, it seems unnecessary for reserve services and static frequency response.</p> <p>6. DRSC.11.8.1 requires that Demand Units providing Demand Response Very Fast Active Power Control supply a model to NGET to demonstrate technical capability. While this requirement is suitable for very fast dynamic frequency response, it is likely that test results will be sufficient to demonstrate technical capability for very fast static frequency response.</p> <p>7. We welcome the recognition in DRSC.6.1 that demand units that provide DSR services to the Grid through an aggregated pool (rather than individually) should submit information at an aggregated level, via the aggregator. This is very important, because each unit may only make a partial contribution to the overall service so being able to define, for example, the frequency range operated within at an individual level would be impossible; what matters is the aggregate outcome.</p> <p>We would appreciate clarification, however, on the subclause highlighted in bold: “For the avoidance of doubt, these requirements shall apply either individually or where it is not part of a Non-Embedded Customers System, collectively as part of a Demand aggregation scheme through a Demand Response Provider”. It is important that these subclause is not interpreted as obliging certain sites to declare information and fulfil requirements on a standalone, rather than aggregate, basis. We would therefore</p>
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		appreciate a clear statement that, for any aggregated pool of sites, the relevant range of frequency is to be delivered at an aggregate level.
11	If you do not believe the proposal sufficiently discharges DCC obligations, can you please provide examples where this is the case?	The ADE has no comment.
12	<p>Consultation question specifically for Transmission Licensees</p> <p>As a Transmission Licensee, are there any aspects of this consultation you do not agree with from a Transmission Licensees perspective? In particular do you have any comments with regard to DCC Articles 28 and 29 in particular Article 29(2)(d) where there is a requirement for the relevant TSO to consult with TSO's in the Synchronous Area.</p>	The ADE has no comment.
	Legal text comments	
	<i>If you believe there are issues in the legal text, can you please bring these to our attention by using the space provided on the response proforma. These will then be discussed at the GC0104 legal text session planned following the closure of this Consultation.</i>	The ADE has no comment.

Grid Code Workgroup Consultation Response Proforma

GC0104 EU Connection Codes GB Implementation – Demand Connection Code

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Any queries on the content of the consultation should be addressed to Chrissie Brown at Christine.brown1@nationalgrid.com

Respondent:	<i>Please insert your name and contact details (phone number or email address)</i>
Company Name:	<i>Please insert Company Name</i>
<p>Please express your views regarding the Workgroup Consultation, including rationale.</p> <p>(Please include any issues, suggestions or queries)</p>	<p><i>For reference, the Grid Code objectives are:</i></p> <ol style="list-style-type: none"> i. To permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity ii. To facilitate competition in the generation and supply of electricity (and without limiting the foregoing, to facilitate the national electricity transmission system being made available to persons authorised to supply or generate electricity on terms which neither prevent nor restrict competition in the supply or generation of electricity) iii. Subject to sub-paragraphs (i) and (ii), to promote the security and efficiency of the electricity generation, transmission and distribution systems in the national electricity transmission system operator area taken as a whole iv. To efficiently discharge the obligations imposed upon the licensee by this license and to comply with the Electricity Regulation and any relevant legally binding decisions of the European Commission and/or the Agency; and v. To promote efficiency in the implementation and administration of the Grid Code arrangements. <p><i>The Distribution Code objectives are:</i></p> <ol style="list-style-type: none"> i. Permit the development, maintenance, and operation of an efficient, coordinated and economical System for the distribution of electricity. ii. Facilitate competition in the generation and supply of electricity. iii. Efficiently discharge the obligations imposed upon DNOs

	<p>by the Distribution Licence and comply with the Regulation (where Regulation has the meaning defined in the Distribution Licence) and any relevant legally binding decision of the European Commission and/or Agency for the Co-operation of Energy Regulators.</p> <p>iv. Promote efficiency in the implementation and administration of the Distribution Code.</p>
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Standard Workgroup Consultation questions

Q	Question	Response
1	Do you believe that GC0104 Original proposal, or any potential alternatives for change that you wish to suggest, better facilitates the Grid Code Objectives?	Yes
2	Do you support the proposed implementation approach?	Yes
3	Do you have any other comments?	See responses to the specific questions
4	Do you wish to raise a WG Consultation Alternative Request for the Workgroup to consider?	<p><i>If yes, please complete a WG Consultation Alternative Request form, available on National Grid's website,</i></p> <p>https://www.nationalgrid.com/uk/electricity/codes/grid-code and return to the Grid Code inbox at grid.code@nationalgrid.com</p>

Specific GC0104 questions

Q	Question	Response
5	Do you agree that DNOs should only implement the Demand Response requirements relating to Demand Response Active Power Control and Demand Response Reactive Power Control, recognizing that the other DSR services in Article 27 are services for the Transmission System Operator?	No, agreed that DNOs do not manage frequency (b)(i) demand response system frequency control should be excluded. There is a presumption that very fast active power control is solely to manage frequency, is that definitely the case or are there other potential ? Also under a whole system approach couldn't DNOs/ DSOs procure services for transmission constraint management. These proposals should not prevent such developments if they are in the best interests of consumers.
6	Are the rights and obligations of aggregators appropriately allowed for in the drafting of ECC and DPC9? If not, what	The drafting appears satisfactory.

	additional provisions would you suggest?	
7	Do you have any comments on the approach taken with the Installation Document pro-forma proposed for Demand Response services contracted to DNOs? Do you agree that there is no distinction necessary here for HV or LV customers?	Yes, we do not agree with the proposed approach. The pro-forma document seems to request information that is not specified in Article 32(6). Implementation should focus on doing the minimum to ensure compliance not adding additional regulatory burdens.
8	Do you have any views on how to tailor the compliance process, and documentation, to accommodate both individual Demand Response Service Providers and those Demand Response Service Providers who are aggregators?	We should avoid embedding too much into codes at this stage as these services are evolving and further codification should wait until best practice has emerged.
9	Can you see any issues with treating GSPs and EU GSP's in the way set out in the Glossary and Definitions and European Connection Conditions of the solution?	None that we have identified
10	Do you agree that the DRSC reflects the requirements of DCC and provides sufficient information for Demand Response Providers. If not, please state why do not believe this to be the case and what you believe would provide a better alternative.	The drafting appears to reflect the provisions in the DCC. Should the detail referred to in APPENDIX II – DRSC.A.2 be included in the Grid Code or left to the contractual agreements. The information specified appears in excess of that required in the DCC
11	If you do not believe the proposal sufficiently discharges DCC obligations, can you please provide examples where this is the case?	It appears to include into the Grid Code the DCC requirements
12	<p>Consultation question specifically for Transmission Licensees</p> <p>As a Transmission Licensee, are there any aspects of this consultation you do not agree with from a Transmission Licensees perspective? In particular do you have any comments with regard to DCC Articles 28 and 29 in particular Article 29(2)(d) where there is a requirement for the relevant TSO to consult with TSO's in the Synchronous Area.</p>	

	Legal text comments	
	<i>If you believe there are issues in the legal text, can you please bring these to our attention by using the space provided on the response proforma. These will then be discussed at the GC0104 legal text session planned following the closure of this Consultation.</i>	Legal text not reviewed.

Grid Code Workgroup Consultation Response Proforma

GC0104 EU Connection Codes GB Implementation – Demand Connection Code

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Any queries on the content of the consultation should be addressed to Chrissie Brown at Christine.brown1@nationalgrid.com

Respondent:	<i>Please insert your name and contact details (phone number or email address)</i> Saskia Barker saskia.barker@flexitricity.com
Company Name:	<i>Flexitricity Ltd</i>
<p>Please express your views regarding the Workgroup Consultation, including rationale.</p> <p>(Please include any issues, suggestions or queries)</p>	<p><i>For reference, the Grid Code objectives are:</i></p> <ol style="list-style-type: none"> i. To permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity ii. To facilitate competition in the generation and supply of electricity (and without limiting the foregoing, to facilitate the national electricity transmission system being made available to persons authorised to supply or generate electricity on terms which neither prevent nor restrict competition in the supply or generation of electricity) iii. Subject to sub-paragraphs (i) and (ii), to promote the security and efficiency of the electricity generation, transmission and distribution systems in the national electricity transmission system operator area taken as a whole iv. To efficiently discharge the obligations imposed upon the licensee by this license and to comply with the Electricity Regulation and any relevant legally binding decisions of the European Commission and/or the Agency; and v. To promote efficiency in the implementation and administration of the Grid Code arrangements. <p><i>The Distribution Code objectives are:</i></p> <ol style="list-style-type: none"> i. Permit the development, maintenance, and operation of an efficient, coordinated and economical System for the distribution of electricity. ii. Facilitate competition in the generation and supply of electricity. iii. Efficiently discharge the obligations imposed upon DNOs

	<p>by the Distribution Licence and comply with the Regulation (where Regulation has the meaning defined in the Distribution Licence) and any relevant legally binding decision of the European Commission and/or Agency for the Co-operation of Energy Regulators.</p> <p>iv. Promote efficiency in the implementation and administration of the Distribution Code.</p>
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Standard Workgroup Consultation questions

Q	Question	Response
1	Do you believe that GC0104 Original proposal, or any potential alternatives for change that you wish to suggest, better facilitates the Grid Code Objectives?	The original proposal better facilitates Grid Code Objective (iv) because it discharges the TSOs obligations under the DCC. There are issues with the way the solution has been written that make the process of providing demand side response more confusing, and thus it is not in line with Grid Code Objective (v). But overall the proposal is better than the baseline because the alternative is non-compliance with EU legislation.
2	Do you support the proposed implementation approach?	Yes
3	Do you have any other comments?	<p>If the proposal is implemented as suggested, in that the SCTs for DSR services are only updated to point users to the new DRSC section of the Grid Code, it will create a lot of confusion in the market. National Grid and any DNOs procuring DSR services must write guidance documents to explain what the new obligations on DSR providers are. Especially since the legal text is vague in many areas, for example in asking for 'All documentation and certificates' from a DSR provider. It is unclear what documentation the TSO will require and what use it will be to the TSO. As there are many types of demand that can provide DSR services, it makes sense to draft that legal text as such, but the TSO must work with providers to understand what kind of documentation, modelling, etc is appropriate, useful to the TSO and practically available to providers.</p> <p>While National Grid have made a strong, and appreciated effort to attempt to demystify what the obligations on DSR providers will be, the decision to put the changes in the grid code rather than in the STCs for demand response mean that the changes will ultimately be confusing to DSR participants, especially those customers not going through an aggregator. This seems counter to the principals set</p>

		out in the entso-e guidelines which are supposed to remove barriers to entry, rather than create them.
4	Do you wish to raise a WG Consultation Alternative Request for the Workgroup to consider?	No

Specific GC0104 questions

Q	Question	Response
5	Do you agree that DNOs should only implement the Demand Response requirements relating to Demand Response Active Power Control and Demand Response Reactive Power Control, recognizing that the other DSR services in Article 27 are services for the Transmission System Operator?	Yes.
6	Are the rights and obligations of aggregators appropriately allowed for in the drafting of ECC and DPC9? If not, what additional provisions would you suggest?	<p>The default response time specified in DPC9.3.3.3 is in the frequency response range, rather than active or reactive power DSR range. A default of something along the lines of 5-10 minutes would make more sense.</p> <p>The data specified in DPC9.4.1 being specified one month in advance is fine, but must be implemented correctly for aggregated groups. If new units are added to a group, this should not bar the rest of that group from operation for example.</p> <p>The references to other pieces of EU legislation (EU 2016/631 etc) in the definition of 'Manufacture's information' in DPC9 should be more explicit so that providers are not being made to wade through EU legislation. The paperwork required from providers should be described clearly by the DNO procuring the service in the service contract, rather than sending the provider needing to be versed in EU legislation.</p> <p>There is no mention of aggregators or aggregation in the ECC that I could see, so if there are any, they are difficult to find.</p>
7	Do you have any comments on the approach taken with the	There is no distinction necessary for HV and LV customers.

	<p>Installation Document pro-forma proposed for Demand Response services contracted to DNOs?</p> <p>Do you agree that there is no distinction necessary here for HV or LV customers?</p>	<p>Where is 'fully type tested' defined?</p> <p>The obligations in DSR3 are either excessively complex or poorly expressed. Who will be carrying out these tests for individual sites, how will it be verified?</p> <p>How much manufacturer involvement does ENA actually expect to have in this process? Will there be any incentive for manufacturers to participate, especially considering that DNO DSR is currently rare and made up mostly of short term contracts.</p>
8	<p>Do you have any views on how to tailor the compliance process, and documentation, to accommodate both individual Demand Response Service Providers and those Demand Response Service Providers who are aggregators?</p>	<p>The easiest way to do this is to have the compliance and documentation process be on a site by site or unit by unit basis, and then have a secondary process for assigning compliant, documented units or sites to aggregated groups. If the units are not tested and documented individually, the other units in an aggregated portfolio would be forced out of the market every time a new unit joins, or has a temporary outage.</p>
9	<p>Can you see any issues with treating GSPs and EU GSP's in the way set out in the Glossary and Definitions and European Connection Conditions of the solution?</p>	<p>No opinion</p>
10	<p>Do you agree that the DRSC reflects the requirements of DCC and provides sufficient information for Demand Response Providers. If not, please state why do not believe this to be the case and what you believe would provide a better alternative.</p>	<p>No, the DRSC does not provide sufficient information for Demand Response Providers.</p> <p>There is not enough detail in the DRSC for providers to know what the obligations on them will be, so there will need to be another document, on top of the DRSC, and the SCTs for the service to explain how the two relate to each other. This is obviously not ideal as it means providers will now have 3 sets of documentation they need to comply with, rather than the one they currently need to. This could be avoided if the obligations from the DRSC are transposed into the SCTs.</p>
11	<p>If you do not believe the proposal sufficiently discharges DCC obligations, can you please provide examples where this is the case?</p>	<p>N/A</p>
12	<p>Consultation question specifically for Transmission Licensees</p> <p>As a Transmission Licensee, are</p>	<p>N/A</p>

	<p>there any aspects of this consultation you do not agree with from a Transmission Licensees perspective? In particular do you have any comments with regard to DCC Articles 28 and 29 in particular Article 29(2)(d) where there is a requirement for the relevant TSO to consult with TSO's in the Synchronous Area.</p>	
	Legal text comments	None
	<p><i>If you believe there are issues in the legal text, can you please bring these to our attention by using the space provided on the response proforma. These will then be discussed at the GC0104 legal text session planned following the closure of this Consultation.</i></p>	N/A

Grid Code Workgroup Consultation Response Proforma

GC0104 EU Connection Codes GB Implementation – Demand Connection Code

Industry parties are invited to respond to this consultation expressing their views and supplying the rationale for those views, particularly in respect of any specific questions detailed below.

Please send your responses by **5pm on 29 March 2018** to grid.code@nationalgrid.com. Please note that any responses received after the deadline or sent to a different email address may not receive due consideration by the Workgroup.

Any queries on the content of the consultation should be addressed to Chrissie Brown at Christine.brown1@nationalgrid.com

Respondent:	<i>Graeme Vincent</i> <i>graeme.vincent@spenergynetworks.co.uk</i>
Company Name:	<i>SP Energy Networks</i>
Please express your views regarding the Workgroup Consultation, including rationale. (Please include any issues, suggestions or queries)	<p><i>For reference, the Grid Code objectives are:</i></p> <ol style="list-style-type: none"> i. To permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity ii. To facilitate competition in the generation and supply of electricity (and without limiting the foregoing, to facilitate the national electricity transmission system being made available to persons authorised to supply or generate electricity on terms which neither prevent nor restrict competition in the supply or generation of electricity) iii. Subject to sub-paragraphs (i) and (ii), to promote the security and efficiency of the electricity generation, transmission and distribution systems in the national electricity transmission system operator area taken as a whole iv. To efficiently discharge the obligations imposed upon the licensee by this license and to comply with the Electricity Regulation and any relevant legally binding decisions of the European Commission and/or the Agency; and v. To promote efficiency in the implementation and administration of the Grid Code arrangements. <p><i>The Distribution Code objectives are:</i></p> <ol style="list-style-type: none"> i. Permit the development, maintenance, and operation of an efficient, coordinated and economical System for the distribution of electricity. ii. Facilitate competition in the generation and supply of electricity. iii. Efficiently discharge the obligations imposed upon DNOs

	<p>by the Distribution Licence and comply with the Regulation (where Regulation has the meaning defined in the Distribution Licence) and any relevant legally binding decision of the European Commission and/or Agency for the Co-operation of Energy Regulators.</p> <p>iv. Promote efficiency in the implementation and administration of the Distribution Code.</p>
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Standard Workgroup Consultation questions

Q	Question	Response
1	Do you believe that GC0104 Original proposal, or any potential alternatives for change that you wish to suggest, better facilitates the Grid Code Objectives?	As the proposal implements requirements arising from the Demand Connection Code we believe that this better facilitates the objectives.
2	Do you support the proposed implementation approach?	Yes
3	Do you have any other comments?	<p>SPEN believe that the working group has strived to achieve a balance between providing a sufficient level of detail in the Grid and Distribution Codes to ensure that GB can comply with the requirements of the DCC whilst still allowing the emerging DSR practices to develop and innovate appropriately without being constrained by prescriptive hard coded text.</p> <p>Whilst significant effort has been made in relation to definitions, SPEN still have concerns in relation to the interpretation and application of the EU GSP definition. We would support the provision of further clarity in this regard.</p>
4	Do you wish to raise a WG Consultation Alternative Request for the Workgroup to consider?	<i>No but are supportive of a proposed alternative being raised on behalf of the DNOs.</i>

Specific GC0104 questions

Q	Question	Response
5	Do you agree that DNOs should only implement the Demand Response requirements relating to Demand Response Active Power Control and Demand Response Reactive Power Control, recognizing that the	SPEN generally agree with the split of services as identified.

	other DSR services in Article 27 are services for the Transmission System Operator?	
6	Are the rights and obligations of aggregators appropriately allowed for in the drafting of ECC and DPC9? If not, what additional provisions would you suggest?	As the roles of aggregators is very much in its infancy and is still developing, we believe that an appropriate level of detail has been adopted within the drafting.
7	Do you have any comments on the approach taken with the Installation Document pro-forma proposed for Demand Response services contracted to DNOs? Do you agree that there is no distinction necessary here for HV or LV customers?	SPEN have no additional comments and agree that there is no distinction necessary for HV and LV customers.
8	Do you have any views on how to tailor the compliance process, and documentation, to accommodate both individual Demand Response Service Providers and those Demand Response Service Providers who are aggregators?	No
9	Can you see any issues with treating GSPs and EU GSP's in the way set out in the Glossary and Definitions and European Connection Conditions of the solution?	Yes. Further clarity on the application i.e. what constitutes a significant modification and thereby causing a GSP to become an EU GSP would be welcome.
10	Do you agree that the DRSC reflects the requirements of DCC and provides sufficient information for Demand Response Providers. If not, please state why do not believe this to be the case and what you believe would provide a better alternative.	No comment at this time.
11	If you do not believe the proposal sufficiently discharges DCC obligations, can you please provide examples where this is the case?	The proposals contained within this modification sufficiently discharge the DCC obligations.
12	Consultation question specifically for Transmission Licensees As a Transmission Licensee, are there any aspects of this consultation you do not agree	No, from an SPT perspective we have not identified any areas of disagreement, and believe it is appropriate for the relevant TSO to consult with other TSO to ensure a coordinated and consistent approach.

	<p>with from a Transmission Licensees perspective? In particular do you have any comments with regard to DCC Articles 28 and 29 in particular Article 29(2)(d) where there is a requirement for the relevant TSO to consult with TSO's in the Synchronous Area.</p>	
	<p>Legal text comments</p>	
	<p><i>If you believe there are issues in the legal text, can you please bring these to our attention by using the space provided on the response proforma. These will then be discussed at the GC0104 legal text session planned following the closure of this Consultation.</i></p>	

Grid Code Workgroup Consultation Response Proforma

GC0104 EU Connection Codes GB Implementation – Demand Connection Code

Industry parties are invited to respond to this consultation expressing their views and supplying the rationale for those views, particularly in respect of any specific questions detailed below.

Please send your responses by **5pm** on **29 March 2018** to grid.code@nationalgrid.com. Please note that any responses received after the deadline or sent to a different email address may not receive due consideration by the Workgroup.

Any queries on the content of the consultation should be addressed to Chrissie Brown at Christine.brown1@nationalgrid.com

Respondent:	Alan Creighton
Company Name:	Northern Powergrid
<p>Please express your views regarding the Workgroup Consultation, including rationale.</p> <p>(Please include any issues, suggestions or queries)</p>	<p><i>For reference, the Grid Code objectives are:</i></p> <ol style="list-style-type: none"> i. To permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity ii. To facilitate competition in the generation and supply of electricity (and without limiting the foregoing, to facilitate the national electricity transmission system being made available to persons authorised to supply or generate electricity on terms which neither prevent nor restrict competition in the supply or generation of electricity) iii. Subject to sub-paragraphs (i) and (ii), to promote the security and efficiency of the electricity generation, transmission and distribution systems in the national electricity transmission system operator area taken as a whole iv. To efficiently discharge the obligations imposed upon the licensee by this license and to comply with the Electricity Regulation and any relevant legally binding decisions of the European Commission and/or the Agency; and v. To promote efficiency in the implementation and administration of the Grid Code arrangements

Standard Workgroup Consultation questions

Q	Question	Response
1	Do you believe that GC0104 Original proposal, or any potential alternatives for change that you wish to suggest, better	Yes

	facilitates the Grid Code Objectives?	
2	Do you support the proposed implementation approach?	Yes
3	Do you have any other comments?	Demand side response services are in their infancy. The drafting of requirements into GB codes should do no more than reflect the absolute basics of the DCC, leaving as much scope as possible for technical and commercial innovation in delivering such services. The consultation drafting of the Grid and Distribution Code appears to achieve this balance, and it would inappropriate to press for more detail to be included at this time.
4	Do you wish to raise a WG Consultation Alternative Request for the Workgroup to consider?	Yes. A WG Consultation Alternative Request forms part of our consultation response.

Specific GC0104 questions

Q	Question	Response
5	Do you agree that DNOs should only implement the Demand Response requirements relating to Demand Response Active Power Control and Demand Response Reactive Power Control, recognizing that the other DSR services in Article 27 are services for the Transmission System Operator?	Yes.
6	Are the rights and obligations of aggregators appropriately allowed for in the drafting of ECC and DPC9? If not, what additional provisions would you suggest?	Given the immaturity of such services, it is inappropriate to consider creating more detailed requirements at this time, which might stifle appropriate commercial development of services.
7	Do you have any comments on the approach taken with the Installation Document pro-forma proposed for Demand Response services contracted to DNOs? Do you agree that there is no distinction necessary here for HV or LV customers?	We have no comments on the approach taken re the providers of services to DNOs and the System Operator. We agree that this is no need to distinguish between service providers connected at HV and LV.
8	Do you have any views on how	Not at this time.

	to tailor the compliance process, and documentation, to accommodate both individual Demand Response Service Providers and those Demand Response Service Providers who are aggregators?	
9	Can you see any issues with treating GSPs and EU GSP's in the way set out in the Glossary and Definitions and European Connection Conditions of the solution?	Yes. The WG Consultation Alternative Request which forms part of our consultation response seeks to address this issue.
10	Do you agree that the DRSC reflects the requirements of DCC and provides sufficient information for Demand Response Providers. If not, please state why do not believe this to be the case and what you believe would provide a better alternative.	Yes.
11	If you do not believe the proposal sufficiently discharges DCC obligations, can you please provide examples where this is the case?	The proposal seems adequate for compliance with the DCC.
12	<p>Consultation question specifically for Transmission Licensees</p> <p>As a Transmission Licensee, are there any aspects of this consultation you do not agree with from a Transmission Licensees perspective? In particular do you have any comments with regard to DCC Articles 28 and 29 in particular Article 29(2)(d) where there is a requirement for the relevant TSO to consult with TSO's in the Synchronous Area.</p>	N/A
	Legal text comments	
	<i>If you believe there are issues in the legal text, can you please bring these to our attention by using the space provided on the response proforma. These will then be discussed at the GC0104 legal text session planned following the closure of this</i>	See below:

	Consultation.	
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Marked versions of the following consultation documents containing comments on the legal text are attached as part of this consultation response:

Distribution Code

DPC9

DRUD

Grid Code

Glossary and Definitions

DRC

DRSC

DRUD

ECC

ECP

PC

Grid Code Workgroup Consultation Response Proforma

GC0104 EU Connection Codes GB Implementation – Demand Connection Code

Industry parties are invited to respond to this consultation expressing their views and supplying the rationale for those views, particularly in respect of any specific questions detailed below.

Please send your responses by **5pm** on **29 March 2018** to grid.code@nationalgrid.com. Please note that any responses received after the deadline or sent to a different email address may not receive due consideration by the Workgroup.

Any queries on the content of the consultation should be addressed to Chrissie Brown at Christine.brown1@nationalgrid.com

Respondent:	<i>Tim Ellingham Windmill Hill Swindon SN7 7LR</i>
Company Name:	<i>RWE Supply and Trading</i>
Please express your views regarding the Workgroup Consultation, including rationale. (Please include any issues, suggestions or queries)	<p><i>For reference, the Grid Code objectives are:</i></p> <ul style="list-style-type: none"> i. To permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity ii. To facilitate competition in the generation and supply of electricity (and without limiting the foregoing, to facilitate the national electricity transmission system being made available to persons authorised to supply or generate electricity on terms which neither prevent nor restrict competition in the supply or generation of electricity) iii. Subject to sub-paragraphs (i) and (ii), to promote the security and efficiency of the electricity generation, transmission and distribution systems in the national electricity transmission system operator area taken as a whole iv. To efficiently discharge the obligations imposed upon the licensee by this license and to comply with the Electricity Regulation and any relevant legally binding decisions of the European Commission and/or the Agency; and v. To promote efficiency in the implementation and administration of the Grid Code arrangements. <p><i>The Distribution Code objectives are:</i></p> <ul style="list-style-type: none"> i. Permit the development, maintenance, and operation of an efficient, coordinated and economical System for the distribution of electricity. ii. Facilitate competition in the generation and supply of

	<p>electricity.</p> <p>iii. Efficiently discharge the obligations imposed upon DNOs by the Distribution Licence and comply with the Regulation (where Regulation has the meaning defined in the Distribution Licence) and any relevant legally binding decision of the European Commission and/or Agency for the Co-operation of Energy Regulators.</p> <p>iv. Promote efficiency in the implementation and administration of the Distribution Code.</p>
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Standard Workgroup Consultation questions

Q	Question	Response
1	Do you believe that GC0104 Original proposal, or any potential alternatives for change that you wish to suggest, better facilitates the Grid Code Objectives?	Not quite depending on how storage is handled, competition may be affected. Competition would also be affected if Units in the UK are subject to more stringent rules, due to a Substantial Modification, which are not applied across the continent.
2	Do you support the proposed implementation approach?	I am broadly ok with the proposal less the points I have raised.
3	Do you have any other comments?	I am not clear on how battery storage is to be handled in respect to when it is exporting. Is it a demand site or a Power Generating Module, over a full cycle it would be a net demand unit, and not being a pump storage unit it would then be a demand site. However, how are negative demands handled? I see no mention of such a thing in the EU code or in the 104 implementation, should there be something explicit?
4	Do you wish to raise a WG Consultation Alternative Request for the Workgroup to consider?	Would more likely be a new modification <i>If yes, please complete a WG Consultation Alternative Request form, available on National Grid's website, https://www.nationalgrid.com/uk/electricity/codes/grid-code and return to the Grid Code inbox at grid.code@nationalgrid.com</i>

Specific GC0104 questions

Q	Question	Response
5	Do you agree that DNOs should only implement the Demand Response requirements relating	

	to Demand Response Active Power Control and Demand Response Reactive Power Control, recognizing that the other DSR services in Article 27 are services for the Transmission System Operator?	
6	Are the rights and obligations of aggregators appropriately allowed for in the drafting of ECC and DPC9? If not, what additional provisions would you suggest?	
7	Do you have any comments on the approach taken with the Installation Document pro-forma proposed for Demand Response services contracted to DNOs? Do you agree that there is no distinction necessary here for HV or LV customers?	
8	Do you have any views on how to tailor the compliance process, and documentation, to accommodate both individual Demand Response Service Providers and those Demand Response Service Providers who are aggregators?	
9	Can you see any issues with treating GSPs and EU GSP's in the way set out in the Glossary and Definitions and European Connection Conditions of the solution?	
10	Do you agree that the DRSC reflects the requirements of DCC and provides sufficient information for Demand Response Providers. If not, please state why do not believe this to be the case and what you believe would provide a better alternative.	
11	If you do not believe the proposal sufficiently discharges DCC obligations, can you please provide examples where this is the case?	
12	Consultation question specifically for Transmission Licensees	

	<p>As a Transmission Licensee, are there any aspects of this consultation you do not agree with from a Transmission Licensees perspective? In particular do you have any comments with regard to DCC Articles 28 and 29 in particular Article 29(2)(d) where there is a requirement for the relevant TSO to consult with TSO's in the Synchronous Area.</p>	
	<p>Legal text comments</p>	
	<p><i>If you believe there are issues in the legal text, can you please bring these to our attention by using the space provided on the response proforma. These will then be discussed at the GC0104 legal text session planned following the closure of this Consultation.</i></p>	

Definition of EU Code user, EU Grid Supply Point, Substantial Modification and Application to existing

As with the implementation of the RfG (631/2016) we find that the test applied for evaluation of a Supply Point to become an EU Code User or EU Grid Supply Point does not accurately reflect the wording in 2016/1388.

As with 2016/631 the trigger for becoming, either, an EU Code User or EU Grid Supply Point is the requirement, and approval of, a NEW connection agreement. Substantial Modification is not a term in 2016/1388. The following is the key step from 2016/1388 Article 4.1.a

- (ii) if the relevant system operator considers that the extent of the modernisation or replacement of equipment is such that a **new** connection agreement is required, the system operator shall notify the relevant regulatory authority or, where applicable, the Member State; and

EU Code User	<p>(h) A Network Operator whose total System was first connected to the Transmission System after 7 September 2010 or who had placed Purchase Contracts for its Main Plant and Apparatus after 7 September 2018 or had substantially Substantially Modified their Network Operators System after 7 September 2019.</p> <p>(i)(h) A Network Operator who's connects a new substation-entire distribution System was first connected to the Transmisison System on or after 7 September 2019 or who had placed Purchase Contracts for its Main Plant and Apparatus in respect of its entiretotal distribution System Main Plant and Apparatus after 7 September 2018, in respect of a new Substation or had substantially Substantially Modified their Transmission connected-substation after 7 September 2019. In this case, a Network Operators entire System would only have EU Grid Supply Points at each Connection Point with the National Electricity Transmission System.</p> <p>(i)(i) A Non Embedded Customer who's Main Plant and Apparatus at each EU Grid Supply Point was first connected to the Transmission System after 7 September 2019 or who had placed Purchase Contracts for its Main Plant and Apparatus at each EU Grid Supply Point on or after 7 September 2018 or is the subject of a had substantially Substantially Modificationeend their Plant and Apparatus on or after 7 September 2019.</p>
EU Generator	A Generator or OTSDUA who is also an EU Code User.
EU Grid Supply Point	<p>A point of supply from the National Electricity Transmission System to Network Operators or Non-Embedded Customers where:-</p> <p>(i) the Network Operator or Non Embedded Customer had placed Purchase Contracts for its Main Plant and Apparatus at that Grid Supply Point on or after 7 September 2018 or</p> <p>(ii) the Network Operators or Non Embedded Customers Main Plant and Apparatus at that Grid Supply Point was first connected to the Transmission System on or after 7 September 2019 or</p> <p>(iii) the Network Operator or Non Embedded Customer is the subject of a Substantial Modification at that Grid Supply Point on or after 7 September 2019.</p>

Substantial Modification in itself is poorly defined,

Substantial Modification	A Modification in relation to modernisation or replacement of the User's Main Plant and Apparatus, which, following notification by the relevant User to NGET, results in substatantial amendment to the Bilateral Agreement and which need not have a Material Effect on NGET or a User.
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What is a substantial amendment to a Bilateral Agreement? Not that it should matter as the test should be for a NEW Bilateral Agreement. If the term and process around Substantial Modification is kept then Ofgem risk incurring more referrals due to disagreements over whether the change was sunstantial or not. Having the decision based around the need for a 'NEW' Agreement will only end up referring the few occasions when a new agreement is actually required.

Grid Code Workgroup Consultation Response Proforma

GC0104 EU Connection Codes GB Implementation – Demand Connection Code

Industry parties are invited to respond to this consultation expressing their views and supplying the rationale for those views, particularly in respect of any specific questions detailed below.

Please send your responses by **5pm** on **29 March 2018** to grid.code@nationalgrid.com. Please note that any responses received after the deadline or sent to a different email address may not receive due consideration by the Workgroup.

Any queries on the content of the consultation should be addressed to Chrissie Brown at Christine.brown1@nationalgrid.com

Respondent:	Alastair Frew
Company Name:	ScottishPower Generation
<p>Please express your views regarding the Workgroup Consultation, including rationale.</p> <p>(Please include any issues, suggestions or queries)</p>	<p><i>For reference, the Grid Code objectives are:</i></p> <ol style="list-style-type: none"> i. To permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity ii. To facilitate competition in the generation and supply of electricity (and without limiting the foregoing, to facilitate the national electricity transmission system being made available to persons authorised to supply or generate electricity on terms which neither prevent nor restrict competition in the supply or generation of electricity) iii. Subject to sub-paragraphs (i) and (ii), to promote the security and efficiency of the electricity generation, transmission and distribution systems in the national electricity transmission system operator area taken as a whole iv. To efficiently discharge the obligations imposed upon the licensee by this license and to comply with the Electricity Regulation and any relevant legally binding decisions of the European Commission and/or the Agency; and v. To promote efficiency in the implementation and administration of the Grid Code arrangements. <p><i>The Distribution Code objectives are:</i></p> <ol style="list-style-type: none"> i. Permit the development, maintenance, and operation of an efficient, coordinated and economical System for the distribution of electricity. ii. Facilitate competition in the generation and supply of electricity. iii. Efficiently discharge the obligations imposed upon DNOs by the Distribution Licence and comply with the

	<p>Regulation (where Regulation has the meaning defined in the Distribution Licence) and any relevant legally binding decision of the European Commission and/or Agency for the Co-operation of Energy Regulators.</p> <p>iv. Promote efficiency in the implementation and administration of the Distribution Code.</p>
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Standard Workgroup Consultation questions

Q	Question	Response
1	Do you believe that GC0104 Original proposal, or any potential alternatives for change that you wish to suggest, better facilitates the Grid Code Objectives?	Yes
2	Do you support the proposed implementation approach?	Yes
3	Do you have any other comments?	No
4	Do you wish to raise a WG Consultation Alternative Request for the Workgroup to consider?	<p><i>If yes, please complete a WG Consultation Alternative Request form, available on National Grid's website,</i></p> <p>https://www.nationalgrid.com/uk/electricity/codes/grid-code and return to the Grid Code inbox at grid.code@nationalgrid.com</p>

Specific GC0104 questions

Q	Question	Response
5	Do you agree that DNOs should only implement the Demand Response requirements relating to Demand Response Active Power Control and Demand Response Reactive Power Control, recognizing that the other DSR services in Article 27 are services for the Transmission System Operator?	
6	Are the rights and obligations of aggregators appropriately allowed for in the drafting of ECC and DPC9? If not, what additional provisions would you suggest?	

7	<p>Do you have any comments on the approach taken with the Installation Document pro-forma proposed for Demand Response services contracted to DNOs? Do you agree that there is no distinction necessary here for HV or LV customers?</p>	<p>All DRS need to be treated the same way along with other service providers supply services via existing routes.</p>
8	<p>Do you have any views on how to tailor the compliance process, and documentation, to accommodate both individual Demand Response Service Providers and those Demand Response Service Providers who are aggregators?</p>	<p>There will also be SOGL prequalification requirements for Demand Response Service Providers which will need to be added somewhere.</p>
9	<p>Can you see any issues with treating GSPs and EU GSP's in the way set out in the Glossary and Definitions and European Connection Conditions of the solution?</p>	<p>No</p>
10	<p>Do you agree that the DRSC reflects the requirements of DCC and provides sufficient information for Demand Response Providers. If not, please state why do not believe this to be the case and what you believe would provide a better alternative.</p>	
11	<p>If you do not believe the proposal sufficiently discharges DCC obligations, can you please provide examples where this is the case?</p>	
12	<p>Consultation question specifically for Transmission Licensees</p> <p>As a Transmission Licensee, are there any aspects of this consultation you do not agree with from a Transmission Licensees perspective? In particular do you have any comments with regard to DCC Articles 28 and 29 in particular Article 29(2)(d) where there is a requirement for the relevant TSO to consult with TSO's in the Synchronous Area.</p>	

	Legal text comments	
	<p><i>If you believe there are issues in the legal text, can you please bring these to our attention by using the space provided on the response proforma. These will then be discussed at the GC0104 legal text session planned following the closure of this Consultation.</i></p>	<p>Definitions section</p> <p>Compliance Statement</p> <p>Change the following paragraph as follows “Network Operators Total System where such Network Operators Total System comprises solely of Plant and Apparatus procured after 7 September 2018 or and was connected to the National Electricity Transmission System after 7 September 2019. In this case, all connections to the National Electricity Transmission System would comprise only of EU Grid Supply Points; or”</p> <p>Demand Response Provider</p> <p>Change one paragraph as follows “A party (other than NGET) who’s Main Plant and Apparatus was first connected to the Total System on or after 7 September 2019, or and who had placed Purchase Contracts for its Main Plant and Apparatus after 7 September 2018 or is the subject of a Substantial Modification on or after 7 September 2019 and has an agreement with NGET to provide a Demand Response Service(s).</p> <p>EU Code User</p> <p>Change the following 2 paragraphs as follows “(h) A Network Operator who’s entire distribution System was first connected to the Transmission System on or after 7 September 2019 or and who had placed Purchase Contracts for its Main Plant and Apparatus in respect of its entire distribution System after 7 September 2018.”</p> <p>“(i) A Non Embedded Customer who’s Main Plant and Apparatus at each EU Grid Supply Point was first connected to the Transmission System after 7 September 2019 or and who had placed Purchase Contracts for its Main Plant and Apparatus at each EU Grid Supply Point on or after 7 September 2018”</p> <p>EU Grid Supply Point</p> <p>Definition needs to be rewritten to get the ors and ands correct as follows A point of supply from the National Electricity Transmission System to Network Operators or Non-Embedded Customers where:- the Network Operators or Non Embedded Customers Main Plant and Apparatus at that Grid Supply Point was first connected to the Transmission System on or after 7 September 2019 and had placed Purchase Contracts for its Main Plant and Apparatus at that Grid Supply Point on or after 7 September 2018, or is the subject of a Substantial Modification at that Grid Supply Point on or after 7 September 2019.</p> <p>GB Code User</p> <p>Subparagraph (d) date for substantial modification needs changed from 2018 to 2019.</p>

		<p>Substantial Modification</p> <p>To deal with various difficulties with DCC text (and RfG & HVDC) this definition may work better</p> <p>A Modification in relation to modernisation or replacement of the User's Main Plant and Apparatus, which, following notification by the relevant User to NGET, results in NGET notifying the Authority that they believe a new connection agreements is required and the Authority agreeing.</p>
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Grid Code Workgroup Consultation Response Proforma

GC0104 EU Connection Codes GB Implementation – Demand Connection Code

Industry parties are invited to respond to this consultation expressing their views and supplying the rationale for those views, particularly in respect of any specific questions detailed below.

Please send your responses by **5pm** on **29 March 2018** to grid.code@nationalgrid.com. Please note that any responses received after the deadline or sent to a different email address may not receive due consideration by the Workgroup.

Any queries on the content of the consultation should be addressed to Chrissie Brown at Christine.brown1@nationalgrid.com

Respondent:	<i>Garth Graham (garth.graham@sse.com)</i>
Company Name:	<i>SSE Generation Ltd.</i>
<p>Please express your views regarding the Workgroup Consultation, including rationale.</p> <p>(Please include any issues, suggestions or queries)</p>	<p><i>For reference, the Grid Code objectives are:</i></p> <ol style="list-style-type: none"> i. To permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity ii. To facilitate competition in the generation and supply of electricity (and without limiting the foregoing, to facilitate the national electricity transmission system being made available to persons authorised to supply or generate electricity on terms which neither prevent nor restrict competition in the supply or generation of electricity) iii. Subject to sub-paragraphs (i) and (ii), to promote the security and efficiency of the electricity generation, transmission and distribution systems in the national electricity transmission system operator area taken as a whole iv. To efficiently discharge the obligations imposed upon the licensee by this license and to comply with the Electricity Regulation and any relevant legally binding decisions of the European Commission and/or the Agency; and v. To promote efficiency in the implementation and administration of the Grid Code arrangements. <p><i>The Distribution Code objectives are:</i></p> <ol style="list-style-type: none"> i. Permit the development, maintenance, and operation of an efficient, coordinated and economical System for the distribution of electricity. ii. Facilitate competition in the generation and supply of electricity. iii. Efficiently discharge the obligations imposed upon DNOs by the Distribution Licence and comply with the

	<p>Regulation (where Regulation has the meaning defined in the Distribution Licence) and any relevant legally binding decision of the European Commission and/or Agency for the Co-operation of Energy Regulators.</p> <p>iv. Promote efficiency in the implementation and administration of the Distribution Code.</p>
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Standard Workgroup Consultation questions

Q	Question	Response
1	Do you believe that GC0104 Original proposal, or any potential alternatives for change that you wish to suggest, better facilitates the Grid Code Objectives?	Given that the proposal is currently deficient in terms of the lack of detail around the technical requirements that new Transmission-connected Demand Facilities, new Transmission-connected Distribution Facilities, new Distribution Systems and new Demand Units used by a Demand Facility or a Closed Distribution System to provide Demand Response Services to System Operators have to comply with we can't therefore say that we believe that GC0104 does better facilitate the applicable Grid Code Objectives.
2	Do you support the proposed implementation approach?	<p>We note the recent public statement of the Commission that, in accordance with the existing transparency rules (set out in Directive 2015/1535), the technical requirements associated with the European Connection Codes (RfG, DCC and HVDC) <u>are</u> required to be notified to them (the Commission) and the other Member States (as per 2015/1535) three months <u>in advance</u> of them being applied in the Member State.</p> <p>Given that the stated purpose of GC0104 is (according to proposal) to set out the technical requirements for new users this means, as the Commission has noted, that the legal obligations as set out in Directive 2015/1535 are applicable to GC0104.</p> <p>Only if the proposed GC0104 implementation approach fully accords with this (2015/1535) (i.e. includes all technical requirements <i>within the Grid Code</i> rather than specific technical requirements (parameters) being referred to within BCAs) requirement can we support it.</p>
3	Do you have any other comments?	<p>We note that the title page of this GC0104 Workgroup consultation states that:</p> <p><i>“Purpose of Modification:</i> <i><u>This modification will set out within the Grid and Distribution Codes the following compliance</u></i></p>

obligations in the European Network Code – Demand Connection Code (DCC):

1. Technical requirements for new* Transmission-connected Demand Facilities; Transmission-connected Distribution Facilities and Distribution Systems.

2. Technical requirements for Demand Units used by a Demand Facility or a Closed Distribution System to provide Demand Response Services to System Operators.” [emphasis added]

A similar point (that GC0104 was to address the technical requirements of the DCC) was made in the opening moments of the webinar / podcast held by the Proposer on 21st March 2018.

However, what is striking is the lack of detail of the complete actual technical requirements themselves (including country specific parameters) within the consultation document itself and the associated legal text.

This lack of technical detail (which is, apparently, to be provided in later documents – such as a future version of the ‘Ancillary Services agreement’) has severely limited our (and other stakeholders) ability to respond meaningfully to this consultation. It has also unduly restricted our ability to raise WG Consultation Alternative Request(s) for the Workgroup to consider as we cannot see the complete technical requirements detailed in the Original proposal (and thus determine what, if any, potential alternatives, we wish to raise).

Given that the TSO has had circa 18 months to develop the necessary complete technical requirements for the application of the DCC in GB it is disappointing that this is still not forthcoming,

In addition, the lack of detail provided on the part of the TSO would also appear to be contrary to Article 6(3) (b) of DCC as it fails to ensure transparency.

Furthermore this lack of detail points to the wider concern that harmonisation is not being applied, with the GC0104 proposal.

This lack of harmonisation in the GC0104 proposal will lead to increased costs for consumers, will not achieve the best social welfare outcome and will not be reasonable, proportionate or efficient.

		<p>We note that a key requirement of the DCC, which appears to be overlooked by the Proposer, is that</p> <p><i>“Harmonised rules for grid connection for demand facilities and distribution systems should be set out in order to provide a clear legal framework for grid connections, facilitate Union-wide trade in electricity, ensure system security, facilitate the integration of renewable electricity sources, increase competition, and allow more efficient use of the network and resources, for the benefit of consumers.”</i></p> <p>However, there appears to be a theme running through the GC0104 proposal that the TSO will agree ‘bespoke’ technical requirements and commercial terms for certain parties; such as some providers of DSR and / or some demand units and / or demand facilities; after September 2018 which dis-apply some or all of the DCC obligations¹ on those parties.</p> <p>Not only would this be discriminatory (which is contrary to Article 6(3) (a) of the DCC) it would also mean that these ‘bespoke’ technical requirements and commercial terms for certain parties would be hidden from all other stakeholders – this would be contrary to Article 6(3) (b) of DCC as it fails to ensure transparency. It would also be contrary to the requirements of harmonisation (as some providers of DSR would be obliged by the TSO to meet all the DCC requirements whilst other providers may not be equally obligated to meet all the DCC requirements, by the TSO).</p> <p>In this respect we note that the obligations on the DSR providers (as well as new connecting parties) set out in the DCC <i>override anything that they may ‘agree’ with the TSO.</i></p> <p>If this scenario (where ‘bespoke’ technical requirements and commercial terms for certain parties are ‘agreed’ with the TSO) were to arise, then the DSR provider(s) cannot rely on the fact that they have an ‘agreement’ with the TSO when considering their compliance with the DCC (which is not the same</p>
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¹ Whilst GC0104 deals with the DCC we note that the definition of SGUs within SOGL makes reference to the DCC definition – DSR providers are thus bound by the SOGL obligations both as new and existing DSR providers. Accordingly, ‘bespoke’ technical requirements and commercial terms for certain parties proffered by the TSO whereby those parties are relieved from some or all of the SOGL obligations would, for the reasons set out here, be incompatible with the SOGL in the context of harmonisation, transparency and non discrimination.

	<p>as the proposed TSO's compliance approach set out in the GC0104 proposal).</p> <p>In respect of Article 4(1) (a) (iii) we note the statement at the bottom of page 27/ top of page 28 of the Workgroup consultation that :</p> <p><i>"In terms of Article 4(1), the working group discussed the issues (eg time delays, resource requirements) associated with Ofgem reviewing and determining whether parties should be treated as "new" or "existing" in all these cases . This was considered unnecessary where the generator and system operator agreed about its status. We considered that a practical interpretation of Article 4(1) was that we reviewed and decided whether parties should be treated "new" or "existing" where there was a dispute about whether the generator should be treated as "new" or "existing"."</i></p> <p>We make two observations.</p> <p>Firstly, Article 4(1) (a) (iii) requires that:</p> <p><i><u>"the relevant regulatory authority or, where applicable, the Member State shall decide if the existing connection agreement needs to be revised or a new connection agreement is required and which requirements of this Regulation shall apply"</u></i> [emphasis added]</p> <p>We see no wording in Article 4(1), or elsewhere in the DCC, that permits (even if the parties - the TSO and connecting party / DSR provider - all agree) this requirement on the NRA to be delegated, by the NRA, to any other party (or parties, with or without them being in agreement) and only to come to the NRA in the event of a dispute. Given this it appears that the duties in Article 4(1) (a) (iii) reside with the NRA alone and must be exercised accordingly by the NRA.</p> <p>Secondly, with respect to the suggested delegation of the 4(1) (a) (iii) requirements by the NRA, we note the statement from Ofgem in the recent P362 consultation document² (which looked at the possibility of delegating the Authority's statutory duties with regard to derogations to (in the case of</p>
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² <https://www.elexon.co.uk/mod-proposal/p362/>

		<p>P362) the BSC Panel):</p> <p><i><u>“From a legal perspective my preliminary thoughts are that to permit such an approach may be unlawful on the basis that it would fetter the Authority’s discretion and/or purport to delegate the Authority’s functions to a 3rd party.</u></i></p> <p><i><u>The Authority is given statutory authority to issue and modify the transmission licence. The licence itself obligates to licence holder to create the code and tightly controls the circumstance within which those codes may be modified, with the Authority ultimately approving modifications in each case. Whilst a derogation may be time-limited, for a set period of time and directed for the benefit of one or more parties it nevertheless would modify the effect of the code for that party for the duration of the derogation. There is an argument therefore that a “derogation” is a type of modification, the delegation of which to 3rd party would be to delegate an important part of the Authority’s functions. We think that from a policy and legal perspective it is important that the Authority retains ultimate direction over the derogations process.”</u></i> [emphasis added]</p>
4	Do you wish to raise a WG Consultation Alternative Request for the Workgroup to consider?	<p><i>If yes, please complete a WG Consultation Alternative Request form, available on National Grid's website,</i></p> <p>https://www.nationalgrid.com/uk/electricity/codes/grid-code and return to the Grid Code inbox at grid.code@nationalgrid.com</p>

Specific GC0104 questions

Q	Question	Response
5	Do you agree that DNOs should only implement the Demand Response requirements relating to Demand Response Active Power Control and Demand Response Reactive Power Control, recognizing that the other DSR services in Article 27 are services for the Transmission System Operator?	<p>The approach to be followed by providers of demand response services should, according to the DCC, be harmonised. We see no recognition of this requirement for harmonisation by the Proposer of GC0104.</p> <p>Without this harmonisation there is a risk that DSR providers have to meet multiple requirements for the same demand modulation depending on whether it is provided to the relevant system operator or relevant TSO.</p> <p>As noted above, this lack of harmonisation in the GC0104 proposal will lead to increased costs for</p>

		consumers, will not achieve the best social welfare outcome and will not be reasonable, proportionate or efficient.
6	Are the rights and obligations of aggregators appropriately allowed for in the drafting of ECC and DPC9? If not, what additional provisions would you suggest?	Given the total lack of detail in this consultation around what the 'Ancillary Services agreement' requires of aggregators; in terms of the DCC; it is difficult to say what the rights and obligations, in totality, are and, therefore, it is difficult to say if this has been suitability allowed for in the drafting of ECC and DCP9.
7	Do you have any comments on the approach taken with the Installation Document pro-forma proposed for Demand Response services contracted to DNOs? Do you agree that there is no distinction necessary here for HV or LV customers?	<p>Given that the DCC obligations are to be harmonised then so should the documentation; i.e. it should not matter whether the service is provided to the relevant system operator or the relevant TSO, in both cases the form to be completed should be the same and should only need to be completed once.</p> <p>Notwithstanding the above, we note that the General Data Protection Regulation (GDPR) is due to be applicable in the near future. We notice that the draft installation document contains customer personal data – could the Proposer please confirm, in light of the GDPR obligations, that the proposed installation document is fully compliant with the GDPR obligations.</p>
8	Do you have any views on how to tailor the compliance process, and documentation, to accommodate both individual Demand Response Service Providers and those Demand Response Service Providers who are aggregators?	
9	Can you see any issues with treating GSPs and EU GSP's in the way set out in the Glossary and Definitions and European Connection Conditions of the solution?	<p>Reviewing the proposed definition in respect of 'EU Code User' it appears to have missed the scenario where a Network Operator has (i) new transmission connected distribution facilities or (ii) new distribution systems or (iii) has, according to Article 4(1) (a) (i), modernised or replaced equipment impacting the technical capabilities of an existing transmission connected distribution facility or <u>the</u> distribution system.</p> <p>In which case they would be classified as an 'EU Code User'. This does not appear to have been reflected in the treatment of GSPs and EU GSPs.</p>
10	Do you agree that the DRSC reflects the requirements of DCC and provides sufficient	We do <u>not</u> agree that the DRSC reflects the requirements of DCC and provides sufficient

	<p>information for Demand Response Providers. If not, please state why do not believe this to be the case and what you believe would provide a better alternative.</p>	<p>information for Demand Response Providers.</p> <p>The draft DSRC has multiple references to an 'Ancillary Services agreement'. However, the documentation of this 'Ancillary Services agreement', duly amended to reflect the requirements of the DCC, has not been provided as part of the Workgroup consultation. This has unduly impeded our ability to respond to this consultation (as we are, in effect, doing so whilst being 'blind' to all the technical requirements associated with DSR).</p> <p>Furthermore, from what little we have seen within the DSRC, it would seem that there has been a misunderstanding, on the part of the Proposer, around what DSR services fall within the remit of the DCC. Based on the definitions within Article 2 we can see that from the date of application of the DCC that <u>all new demand units</u> used by demand facilities that provide demand modulation to the relevant system operators or relevant TSOs will be required to comply with the DCC. It is not clear that the GC0104 proposal accepts this point.</p> <p>Furthermore, we note that Ofgem's CACoP principles do not apply to the governance of the 'Ancillary Services agreement'.</p> <p>In our view the technical requirements and associated terms and conditions for the entire DCC application in GB should be subject to open and transparent governance which is fully in accordance with CACoP including, in particular, the ability for stakeholders to propose amendments.</p> <p>However, as currently drafted within GC0104, this is not to occur - as a closed and non transparent governance approach applies to the 'Ancillary Services agreement' arrangements.</p>
11	<p>If you do not believe the proposal sufficiently discharges DCC obligations, can you please provide examples where this is the case?</p>	<p>The proposal does <u>not</u> sufficiently discharge the DCC obligations as it lacks all the necessary detail on the technical requirement that parties to whom the DCC applies will have to comply with. GC0104 should be the 'complete package' – however, it is not.</p> <p>Instead consultation respondents, the Workgroup, the GCRP and ultimately the Authority are being asked to sign, it would seem, a 'blank cheque' for the TSO to fill in (the necessary technical requirements)</p>

		<p>later.</p> <p>This is, unfortunately, a direct effect of the decision taken by the Proposer to apply a ‘policy’ approach’ rather than a ‘legal’ approach’ when it comes to implementing the European Network Codes within the GB industry codes.</p> <p>There are too many examples to list here; but suffice to say that an impartial review of the code mapping shows that the necessary actual technical detail needed by Users for many items within the DCC is still lacking in the GC0104 ‘solution’ to date.</p>
12	<p>Consultation question specifically for Transmission Licensees</p> <p>As a Transmission Licensee, are there any aspects of this consultation you do not agree with from a Transmission Licensees perspective? In particular do you have any comments with regard to DCC Articles 28 and 29 in particular Article 29(2)(d) where there is a requirement for the relevant TSO to consult with TSO’s in the Synchronous Area.</p>	N/A
	Legal text comments	
	<p><i>If you believe there are issues in the legal text, can you please bring these to our attention by using the space provided on the response proforma. These will then be discussed at the GC0104 legal text session planned following the closure of this Consultation.</i></p>	<p>In addition to all the points we noted above, which will need to be fully reflected into the legal text, we would additionally note the following:</p> <p>Why has the use of the term ‘EU Code User’ been deleted from the body of the text?</p> <p>That being the case, why has the definition of EU Code User been both retained and amended to seek to reflect the DCC?</p> <p>The definition of ‘Substantial Modification’ is incompatible with Article 4 (1) (a) (i) which requires that:</p> <p><i>“demand facility owners, DSOs, or CDSOs who intend to undertake the <u>modernisation of a plant or replacement of equipment impacting the technical capabilities</u> of the transmission-connected demand facility, the transmission-connected distribution facility, the distribution system, or the demand unit</i></p>

		<i>shall notify their plans to the relevant system operator in advance”</i>
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Grid Code Workgroup Consultation Response Proforma

GC0104 EU Connection Codes GB Implementation – Demand Connection Code

Industry parties are invited to respond to this consultation expressing their views and supplying the rationale for those views, particularly in respect of any specific questions detailed below.

Please send your responses by **5pm on 29 March 2018** to grid.code@nationalgrid.com. Please note that any responses received after the deadline or sent to a different email address may not receive due consideration by the Workgroup.

Any queries on the content of the consultation should be addressed to Chrissie Brown at Christine.brown1@nationalgrid.com

Respondent:	Grace Smith 0755 443 9689 Grace.smith@ukpowerreserve.co.uk
Company Name:	UK Power Reserve Ltd
Please express your views regarding the Workgroup Consultation, including rationale. (Please include any issues, suggestions or queries)	UKPR support this modification and believes it will better facilitate the Grid Code Objectives.

Standard Workgroup Consultation questions

Q	Question	Response
1	Do you believe that GC0104 Original proposal, or any potential alternatives for change that you wish to suggest, better facilitates the Grid Code Objectives?	Yes, UKPR believes that GC0104 better facilitates the Grid Code Objectives.
2	Do you support the proposed implementation approach?	Yes, UKPR is confident the modification has the correct implementation approach.
3	Do you have any other comments?	UKPR is concerned at the time taken to reach this stage of ensuring GB compliance to EU Regulations. There have been some process management issues that have potentially caused delays, but we are satisfied this modification will be implemented within a suitable timeframe.
4	Do you wish to raise a WG Consultation Alternative Request for the Workgroup to consider?	No, UKPR supports the modification proposal.

Specific GC0104 questions

Q	Question	Response
5	Do you agree that DNOs should only implement the Demand Response requirements relating to Demand Response Active Power Control and Demand Response Reactive Power Control, recognizing that the other DSR services in Article 27 are services for the Transmission System Operator?	Yes, although as the DNO-DSO transition evolves, they should not be precluded from future discussions.
6	Are the rights and obligations of aggregators appropriately allowed for in the drafting of ECC and DPC9? If not, what additional provisions would you suggest?	N/A
7	Do you have any comments on the approach taken with the Installation Document pro-forma proposed for Demand Response services contracted to DNOs? Do you agree that there is no distinction necessary here for HV or LV customers?	UKPR do not see any necessary distinction between LV and HV customers. At the moment, the nature of potential Demand Response services is unclear, but the proforma includes sufficient information.
8	Do you have any views on how to tailor the compliance process, and documentation, to accommodate both individual Demand Response Service Providers and those Demand Response Service Providers who are aggregators?	UKPR supports the approach taken in the Workgroup report.
9	Can you see any issues with treating GSPs and EU GSP's in the way set out in the Glossary and Definitions and European Connection Conditions of the solution?	No, UKPR believes the definitions are fit for purpose.
10	Do you agree that the DRSC reflects the requirements of DCC and provides sufficient information for Demand Response Providers. If not, please state why do not believe this to be the case and what you believe would provide a better alternative.	Yes, UKPR agrees the DRSC is fit for purpose.

11	If you do not believe the proposal sufficiently discharges DCC obligations, can you please provide examples where this is the case?	N/A
12	<p>Consultation question specifically for Transmission Licensees</p> <p>As a Transmission Licensee, are there any aspects of this consultation you do not agree with from a Transmission Licensees perspective? In particular do you have any comments with regard to DCC Articles 28 and 29 in particular Article 29(2)(d) where there is a requirement for the relevant TSO to consult with TSO's in the Synchronous Area.</p>	
	Legal text comments	
	<p><i>If you believe there are issues in the legal text, can you please bring these to our attention by using the space provided on the response proforma. These will then be discussed at the GC0104 legal text session planned following the closure of this Consultation.</i></p>	UPR has no issues to raise on the proposed legal text.

Grid Code Workgroup Consultation Response Proforma

GC0104 EU Connection Codes GB Implementation – Demand Connection Code

Industry parties are invited to respond to this consultation expressing their views and supplying the rationale for those views, particularly in respect of any specific questions detailed below.

Please send your responses by **5pm on 29 March 2018** to grid.code@nationalgrid.com. Please note that any responses received after the deadline or sent to a different email address may not receive due consideration by the Workgroup.

Any queries on the content of the consultation should be addressed to Chrissie Brown at Christine.brown1@nationalgrid.com

Respondent:	<i>Nigel Turvey, 0117 933 2435, nturvey@westernpower.co.uk</i>
Company Name:	<i>Western Power Distribution</i>
Please express your views regarding the Workgroup Consultation, including rationale. (Please include any issues, suggestions or queries)	<i>WPD supports the purpose of the consultation and the general implementation method. Some more specific comments are detailed in the questions below.</i>

Standard Workgroup Consultation questions

Q	Question	Response
1	Do you believe that GC0100 Original proposal, or any potential alternatives for change that you wish to suggest, better facilitates the Grid Code Objectives?	No
2	Do you support the proposed implementation approach?	WPD agrees that the implementation of technical requirements through codes and commercial requirements through contracts is the best of the alternatives.
3	Do you have any other comments?	WPD has concerns over the treatment of significant modifications to GSPs and the additional requirements that could be placed on networks. This concern is enhanced by the apparent difference between the Workgroup consultation document and the proposed legal text. For example Page 13, article 15 of the consultation expresses that if an existing DNO was to significantly modify their GSP (thus becoming an EU GSP) they would not be subject to Reactive Power

		requirements. However ECC 6.4.5 seems to imply the opposite.
4	Do you wish to raise a WG Consultation Alternative Request for the Workgroup to consider?	No

Specific GC0104 questions

Q	Question	Response
5	Do you agree that DNOs should only implement the Demand Response requirements relating to Demand Response Active Power Control and Demand Response Reactive Power Control, recognizing that the other DSR services in Article 27 are services for the Transmission System Operator?	WPD broadly agrees with this distinction. However confusion may arise where a DNO implements a service on the behalf of the Transmission system operator (as will be trialed in the WPD RDP work with National Grid). This is also the case in the Power Potential project.
6	Are the rights and obligations of aggregators appropriately allowed for in the drafting of ECC and DPC9? If not, what additional provisions would you suggest?	The current drafting explicitly allows for participation of aggregators and third parties. If anything the proposal favours third parties over direct customers as they have less onerous requirements in the pro-formas. WPD would encourage equal treatment of aggregators and direct customers.
7	Do you have any comments on the approach taken with the Installation Document pro-forma proposed for Demand Response services contracted to DNOs? Do you agree that there is no distinction necessary here for HV or LV customers?	WPD agrees with the pro-forma approach subject to the comment in Q6. WPD agrees that there is no distinction necessary for HV and LV customers.
8	Do you have any views on how to tailor the compliance process, and documentation, to accommodate both individual Demand Response Service Providers and those Demand Response Service Providers who are aggregators?	As per question 6, WPD would encourage the maximum alignment between compliance and documentation for aggregators or direct customers. For example the current pro-formas require more information on the specific Demand Units for individual customers over aggregators (Technology types, Manufacturers reference number...) Aggregators should be expected to provide the data expected of customers. In addition WPD believes that some of the requirements should be better defined to avoid confusion (for example is the modulated output value expected to be the Maximum or Minimum response capacity?).

		Finally the compliance checks must be reviewed with a view to the practicality of testing required. For example the current DPC9 wording allows significant flexibility for DNOs in terms of the manner in which modulation signals are sent and the response time. By contrast the pro forma requires customers to respond to a non-specific signal within 5 seconds.
9	Can you see any issues with treating GSPs and EU GSP's in the way set out in the Glossary and Definitions and European Connection Conditions of the solution?	No Comment.
10	Do you agree that the DRSC reflects the requirements of DCC and provides sufficient information for Demand Response Providers. If not, please state why do not believe this to be the case and what you believe would provide a better alternative.	No Comment.
11	If you do not believe the proposal sufficiently discharges DCC obligations, can you please provide examples where this is the case?	WPD believes the DCC obligations are discharged.
12	<p>Consultation question specifically for Transmission Licensees</p> <p>As a Transmission Licensee, are there any aspects of this consultation you do not agree with from a Transmission Licensees perspective? In particular do you have any comments with regard to DCC Articles 28 and 29 in particular Article 29(2)(d) where there is a requirement for the relevant TSO to consult with TSO's in the Synchronous Area.</p>	
	Legal text comments	
	<i>If you believe there are issues in the legal text, can you please bring these to our attention by using the space provided on the response proforma. These will then be discussed at the GC0104 legal text session planned following the closure of this Consultation.</i>	<p>WPD has identified the following concerns around the legal text of DPC9.</p> <ul style="list-style-type: none"> - The definition of Demand Service Provider include direct customers, however these are then treated as a distinct subset. For example DPC9.1.1and DPC 9.1.2 could be merged. This unnecessary distinction is carried throughout the text (9.2.1, 9.2.2....) - The definition of a Demand Unit may cause

		<p>confusion for a system made up of components and sub-components. Clarification could be provided on the limits of the definition. For example in a BMS with multiple HVAC units each comprised of fans and pumps, what is a demand unit and what isn't?</p> <ul style="list-style-type: none">- Demand units including storage are exempt from DPC9. Further clarification may be required as many systems could be considered to have storage (a HVAC unit may claim to have thermal storage).
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