CUSC Modification Proposal Form	At what stage is this document in the process?
# CMP291: The open, transparent, non discriminatory and timely publication of the harmonised rules for grid connection (in accordance with the RfG, DCC and HVDC) and the harmonised rules on system operation (in accordance with the SOGL) set out within the Bilateral Agreement(s) exhibited in the CUSC.	01 **Proposal Form** 02 Workgroup Consultation 03 Workgroup Report 04 Code Administrator Consultation 05 Draft CUSC Modification Report 06 Final CUSC Modification Report

Purpose of Modification

This modification will set out within the CUSC the obligations in the EU Connection Network Codes and System Operation Guideline as they relate to the harmonised rules for connection and system operation in GB.

	**The Proposer recommends that this modification should be** assessed by a Workgroup. This modification was raised 15 February 2018 and will be presented by the Proposer to the Panel on 23 February 2018**.** The Panel will consider the Proposer's recommendation and determine the appropriate route.
	**High Impact**:
	**Medium Impact:** Transmission Owners (including OFTOs and Interconnectors), Distribution Network Operators, Transmission System Users, System Operator, Generators, Demand customers and providers of services.
	**Low Impact**

Contents

Timetable

The Code Administrator recommends the following timetable:

Initial consideration by Workgroup	March – August 2018
Workgroup Consultation issued to the Industry	September 2018
Modification concluded by Workgroup	January 2019
Workgroup Report presented to Panel	February 2019
Code Administration Consultation Report issued to the Industry	March 2019
Draft Final Modification Report presented to Panel	April 2019
Modification Panel decision	April 2019
Final Modification Report issued the Authority	May 2019
Decision implemented in CUSC	June 2019

Any questions?

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Proposer Details

Details of Proposer:	SSE

(Organisation Name)	
Capacity in which the CUSC Modification Proposal is being proposed: (i.e. CUSC Party, BSC Party or "National Consumer Council")	CUSC Party
Details of Proposer's Representative: Name: Organisation: Telephone Number: Email Address:	 Garth Graham SSE 01738 456000 garth.graham@sse.com
Details of Representative's Alternate: Name: Organisation: Telephone Number: Email Address:	 John Tindal SSE 01738 456000 John.tindal@sse.com
Attachments (Yes/No):No **If Yes, Title and No. of pages of each Attachment:**	

Impact on Core Industry Documentation.

Please mark the relevant boxes with an "x" and provide any supporting information

BSC	
Grid Code	
STC	
Other	

1 Summary

Defect

The Bilateral Agreements, which are Exhibits to the CUSC, do not reflect the new EU requirements of (i) the RfG, DCC and HVDC Network Codes (with respect to grid connection) or (ii) the System Operation Guideline (with respect to system operation).

What

The CUSC will need to be amended to set out within the Bilateral Agreements, which are Exhibits to the CUSC, the harmonised rules that parties will have to sign up to (i) as 'new'[1] connecting parties (or existing connected parties where a new connection agreement is required[2]) and (ii) as new and existing parties[3] with respect to system operation.

Why

Guidance from BEIS and Ofgem was to apply the new EU requirements within the existing GB regulatory frameworks. This would provide accessibility and familiarity to GB parties, as well as putting in place a robust governance route to apply the new requirements in a transparent and proportionate way.

How

With the support of the industry, we will use this modification to finalise the harmonised contractual structure(s) and rules to apply the new requirements arising from the three EU Connection Network Codes and System Operation Guideline, before consulting with the wider industry and submitting to Ofgem for a decision.

2 Governance

Justification for Normal Procedures

We expect this proposal to follow the Normal CUSC procedure as it is neither 'Self Governance' of 'Fast-Track'.

We note that the System Operator will be expected to provide newly connecting generator parties (or existing parties require a new connection agreement) with the amended Bilateral Agreement(s) from mid May 2018 (and newly connecting demand and HVDC parties from September 2018) and that the System Operator will be expected to provide new and existing parties with the contractual arrangements reflecting the system operational aspects from September 2018 onwards. Accordingly we believe that this proposal, whilst following the Normal procedure, should be treated in an accelerated way in order that the amended Bilateral Agreement Exhibits in the CUSC are available to the applicable parties in time for them to meet the new EU requirements.

[1] As defined in the RfG, DCC and HVDC respectively.
[2] In accordance with the RfG, DCC and HVDC respectively.
[3] As defined in SOGL, with reference to the RFG, DCC and HVDC.

Requested Next Steps

This modification should:

- be assessed, in an accelerated manner, by a Workgroup.

3 Why Change?

This Proposal is one of a number of Proposals which seek to implement relevant provisions of a number of new EU Network Codes/Guidelines which have been introduced in order to enable progress towards a competitive and efficient internal market in electricity.

As noted in the 'Summary' above, guidance from BEIS and Ofgem was to apply the new EU requirements within the existing GB regulatory frameworks. This would provide accessibility and familiarity to GB parties, as well as putting in place a robust governance route to apply the new requirements in a transparent and proportionate way.

The legal text for the Grid Code changes to apply the new EU requirements; such as for GC0100[4], GC0101[5] and GC0102[6] due to be submitted to Ofgem[7]; have identified that certain new EU requirements will be set out in the Bilateral Agreement(s).

The Grid Code defines '**Bilateral Agreement**' as "Has the meaning set out in the **CUSC**"

The CUSC relevant definition, in Section 11, is:

> ***"Bilateral Agreement"*** *in relation to a* ***User****, a* ***Bilateral Connection Agreement*** *or a* ***Bilateral Embedded Generation Agreement****, or a* ***BELLA*** *between* ***The Company*** *and the* ***User***

The CUSC also sets out, in Section 1, that:

> "*1.3.1 (d) Exhibits 1, 2 and 5 in Schedule 2 to the* ***CUSC*** *contain the forms of* ***Bilateral Agreements*** *contemplated to be entered into pursuant to this Paragraph 1.3, being:*
>
> *(i) Exhibit 1 –* ***Bilateral Connection Agreement****: direct connection to the* ***GB Transmission System*** *(****Power Station*** *directly connected to the* ***GB Transmission System****,* ***Distribution System*** *directly connected to the* ***GB Transmission System****,* ***Non-Embedded Customer Site*** *and/or* ***Interconnector****);*
>
> *(ii) Exhibit 2 –* ***Bilateral Embedded Generation Agreement****: embedded use of system (****Embedded Power Station*** *(except those which are the subject of a* ***BELLA****) and/or in relation to a* ***Small Power Station Trading Party*** *and/or* ***Distribution Interconnector****);*

[4] https://www.nationalgrid.com/uk/electricity/codes/grid-code/modifications/eu-connection-codes-gb-implementation-mod-1
[5] https://www.nationalgrid.com/uk/electricity/codes/grid-code/modifications/eu-connection-codes-gb-implementation-mod-2
[6] https://www.nationalgrid.com/uk/electricity/codes/grid-code/modifications/eu-connection-codes-gb-implementation-mod-3
[7] This is due to occur imminently following the Special GCRP meeting on 8th February 2018.

(iii) *Exhibit 5 – **BELLA**: provisions associated with such **Embedded Exemptable Large Power Stations** who have no rights and obligations under Section 3 of the **CUSC**.*"

Therefore changes to the CUSC Bilateral Agreement(s), which are Exhibits to the CUSC, will be needed to reflect these new EU requirements.

In undertaking these changes it will be necessary to ensure conformance with the relevant EU Network Codes for connection (namely RfG, DCC and HVDC) and the System Operation Guideline.

In respect of connection consideration will need to be given, for example, to Recital (3) of the RfG[8], which sets out that:

> *"Harmonised rules for grid connection for power-generating modules 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"* [emphasis added]

Similar wording is used in Recital (3)[9] of the DCC[10] and Recital (3)[11] of the HVDC[12], which will also need to be considered.

Consideration will also need to be given to Recital (15) of the RfG, which sets out that:

> *"The requirements [of the RfG] should be based on the principles of non-discrimination and transparency as well as on the principle of optimisation between the highest overall efficiency and lowest total cost for all involved parties. Therefore those requirements should reflect the differences in the treatment of generation technologies with different inherent characteristics, and avoid unnecessary investments in some geographical areas in order to take into account their respective regional specificities."*

Similar opening wording is used in Recital (9)[13] of the DCC, which will also need to be considered.

Consideration will also need to be given to Recital (13)[14] of the HVDC which sets out the related aspects from that Network Code.

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[8] 'Requirement for Generator' Network Code – Regulation 2016/631: http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R0631&from=EN

[9] "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"

[10] 'Demand Connection' Network Code – Regulation 2016/631: http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R1388&from=EN

[11] " Harmonised rules for grid connection for HVDC systems and DC-connected power park modules 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"

[12] 'High Voltage Direct Current' systems and direct current-connected power park modules grid connection Network Code – Regulation 2016/1447: http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R1447&from=EN

[13] "The requirements should be based on the principles of non-discrimination and transparency as well as on the principle of optimisation between the highest overall efficiency and lowest total cost for all involved parties."

[14] "The regulatory authorities, Member States and system operators should ensure that, in the process of developing and approving the requirements for network connection, they are harmonised to the extent possible, in order to ensure full market integration"

In respect of system operation consideration will need to be given, for example, to Recital (3) of the SOGL[15], which sets out that:

> "*Harmonised rules on system operation for transmission system operators ('TSOs'), distribution system operators ('DSOs') and significant grid users ('SGUs') should be set out in order to provide a clear legal framework for system operation, facilitate Union-wide trade in electricity, ensure system security, ensure the availability and exchange of necessary data and information between TSOs and between TSOs and all other stakeholders, facilitate the integration of renewable energy sources, allow more efficient use of the network and increase competition for the benefit of consumers*." [emphasis added]

Consideration will also need to be given to Recital (4) of SOGL, which sets out that:

> "*To ensure the operational security of the interconnected transmission system, it is essential to define a common set of minimum requirements for Union-wide system operation, for the cross-border cooperation between the TSOs and for utilising the relevant characteristics of the connected DSOs and SGUs*."

Consideration will also need to be given to Recital (5) of SOGL, which sets out that:

> "*All TSOs should comply with the common minimum requirements on procedures necessary to prepare real-time operation, to develop individual and deliver common grid models, to facilitate the efficient and coordinated use of remedial actions which are necessary for real-time operation in order to maintain the operational security, quality and stability of the interconnected transmission system, and to support the efficient functioning of the European internal electricity market and facilitate the integration of renewable energy sources ('RES')*"

In addition, in regards to frequency and reserves, consideration will also need to be given to Recitals (13) and (14) of SOGL, which sets out that:

> "[13]*The provisions on LFC and reserves, aim at setting out clear, objective and harmonised requirements for TSOs, reserve connecting DSOs, providers' power generating modules and providers' demand facilities in order to ensure system security and to contribute to non-discrimination, effective competition and the efficient functioning of the internal electricity market. The provisions on LFC and reserves provide the technical framework necessary for the development of cross-border balancing markets.*"
>
> "[14] *In order to ensure the quality of the common system frequency, it is essential that a common set of minimum requirements and principles for Union-wide LFC and reserves are defined as a basis for both the cross-border cooperation between the TSOs and, where relevant, for utilising characteristics of the connected generation, consumption and distribution systems. To that end, this Regulation addresses the LFC structure and operational rules, the quality criteria and targets, the reserve dimensioning, the reserve exchange, sharing and distribution and the monitoring related to LFC*"

This modification needs to be undertaken in timely manner to ensure impacted users are aware of their contractual obligations - particularly in relation to the procurement of (and connection of) their plant & apparatus / facility / system etc., together with the associated conformance testing and operational requirements. This modification is also therefore, needed to

[15] 'System Operation' Guideline on electricity transmission – Regulation 2017/1485 http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R1485&from=EN

facilitate/demonstrate Member State conformance to the three EU Network Codes and the System Operation Guideline.

The production of, ongoing maintenance of and application of the harmonised transparent contractual arrangements; as set out in the Exhibits of the CUSC; that would arise with this modification, will allow (i) new parties (or existing parties, as applicable) seeking to connect in GB and (ii) new and existing parties seeking to operate within the GB system (as well as manufacturers of plant and apparatus, due to be connected to and / or operated within the GB system) to clearly see and understand what the applicable contractual requirements are in GB.

4 Code Specific Matters

Technical Skillsets

- Understanding of the GB regulatory frameworks (particularly Grid Code)
- High level understanding of the EU Network Codes/ Guidelines and their potential impact
- Operational/technical understanding of equipment / facilities / systems etc., which are bound by these codes
- Where appropriate, knowledge of the obligations and operational processes of GB Network Operators and the GB National Electricity Transmission System Operator

Reference Documents

The CUSC, the RfG Network Code, the DCC Network Code, the HVDC Network Code, the System Operation Guideline, the Grid Code and, potentially, the Distribution Code, the SO/TO Code and the SQSS.

5 Solution

With this proposal, the Bilateral Agreement (Bilateral Connection Agreement, Bilateral Embedded Generation Agreement and BELLA) shall be set out; in the Exhibits to the CUSC; in four distinct Parts. Some or all of the four distinct Parts maybe applicable to the User and the Company depending on the circumstances.

Part 1 will be the Harmonised Connection Arrangements ('HCA').

Part 2 will be the User Agreed Arrangements ('UAA').

Part 3 will be the Harmonised Operational Arrangements ('HOA').

Part 4 will be the National (non EU harmonised) Connection Arrangements ('NCA').

At this stage we envisage that as a result of this proposal there could be up to ten versions of the applicable Exhibits (1, 2 and 5) which, respectively, will be for:

(i) Type A power station;

(ii) Type B power station;
(iii) Type C power station;
(iv) Type D power station;
(v) HVDC connected power part module;
(vi) Distribution System;
(vii) Non-Embedded Customer Site;
(viii) Interconnector;
(ix) Demand Side Response provider to the TSO; and
(x) Provider of re-dispatch of power generating modules or demand facilities.

In respect of Part 1 (HCA) and Part 2 (UAA) the specific technical requirements will be those publically specified by, or agreed with, the designated TSO (as assigned by Ofgem for the relevant Network Code(s)/Guideline(s)).

Where, with Part 1 (HCA), Ofgem has stated that a specific technical requirement will be specified by a designated TSO then the relevant CUSC Exhibit(s) will show the applicable value, of that specific technical requirement, as {X} for England and Wales, {X} for southern Scotland {X} for northern Scotland and {X} for OFTO[16] (as applicable) so that any party seeking to connect at a certain geographic area will be able to clearly see what contractual requirement(s) their plant & apparatus / facility / system etc., will need to comply with.

For the avoidance of doubt, the requirement(s) of {X} specified by the applicable TSO will be hard coded into the CUSC Exhibit. This will, as BEIS and Ofgem have noted, provide accessibility and familiarity to GB parties, as well as putting in place a robust governance route to apply the new requirements in a transparent and proportionate way.

Where Ofgem has stated that a specific technical requirement will be specified by a single TSO (namely the 'SO' and not the 'TO'(s)) then the CUSC Exhibit(s) will show the applicable requirement for GB, as a whole, as {X} and this specific technical requirement will be hard coded[17] into the CUSC Exhibit(s).

Part 1 (HCA) will be applicable to all 'New' connecting parties as defined in the RfG, DCC and HVDC respectively. It will set out the harmonised rules and requirements that Users shall comply with.

No variation to these rules and requirements will be permitted to be to be agreed by either the User or The Company except by way of the Derogation procedure established for that purpose in the RfG, DCC and HVDC respectively; which takes account of local circumstances, such as, jeopardising the stability of the local network or the safe operation of the generator, demand facility etc., distribution system or HVDC system etc..

For the avoidance of doubt, this Part 1 (HCA) will also apply to any party that is currently an 'Existing'[18] party who; in accordance with the RfG, DCC and HVDC respectively, by virtue of a change in circumstances (such as by undertaking the modernisation of their plant or replacement of equipment) which necessitates a new connection agreement; is no long to be treated as 'Existing'.

In that case their new connection agreement will be the same as for a 'New' party: namely, Part 1 (HCA), Part 2 (UAA), Part 3 (HOA) and Part 4 (NCA).

[16] OFTO specific.
[17] For the similar reasons noted previously, namely: 'This will, as BEIS and Ofgem have noted, provide accessibility and familiarity to GB parties, as well as putting in place a robust governance route to apply the new requirements in a transparent and proportionate way.'
[18] As per the RfG, DCC and HVDC respectively.

Part 2 (UAA) will only set out those specific requirements that, according to the RfG or DCC or HVDC respectively, are to be agreed with the User in coordination with the relevant network operator and / or TSO (as applicable).

Part 3 (HOA) will apply to all New and Existing Significant Grid Users, in accordance with the RfG, DCC, HVDC and SOGL respectively. It will set out the harmonised rules and requirements on system operation for TSOs, DSOs and SGUs that Users shall comply with. No variation to these harmonised rules and requirements will be permitted to be to be agreed by either the User or The Company.

Part 4 (NCA) will apply to all Existing Users and may apply to New Users.

In simple terms Part 4 (NCA) will, for Existing Users, be their existing Bilateral Agreement, except that those aspects of that existing Bilateral Agreement which relates to Part 3 (HOA) shall no longer be applicable to the User or The Company (as they will be superseded by what is in Part 3).

If an Existing User falls within the scope of the RfG, DCC or HVDC respectively[19], then those aspects of their existing Bilateral Agreement which relate to Part 1 (HCA) or Part 2 (UAA) shall no longer be applicable to the User or The Company (as they will be superseded by what is in Part 1 and Part 2).

For New Users, Part 4 (NCA) will cover the established technical standards aspects of their connection that are not encompassed within Part 1 or Part 2 or Part 3, if applicable.

For the avoidance of doubt, nothing in Part 2 (UAA) or Part 4 (NCA) or any other agreement, undertaking, contract etc.; that might be entered into by The Company and the User; can replace, amend, alter, overwrite or dis-apply etc., anything set out in either Part 1 (HCA) (which can only be replaced, amended, altered, overwritten or dis-applied etc., by way of an RfG or DCC or HVDC granted Derogation) or Part 3 (HOA).

6 Impacts & Other Considerations

Who

This proposal will impact the following:

(i) Type A power stations;
(ii) Type B power stations;
(iii) Type C power stations;
(iv) Type D power stations;
(v) HVDC connected power part modules;
(vi) Distribution Systems;
(vii) Non-Embedded Customer Sites;
(viii) Interconnectors;
(ix) Demand Side Response providers to the TSO; and
(x) Providers of re-dispatch of power generating modules or demand facilities.

[19] Such as by virtue of undertaking the modernisation of their plant or replacement of equipment etc., which necessitates a new connection agreement.

Which processes are impacted

The processes for offering, accepting and operating within the Bilateral Agreement will be impacted by this proposal.

Systems

Given that the systems for offering, accepting and operating within the Bilateral Agreement already exist, the system impacts are, at this stage, believed to be minimal given the need to conform with the new EU requirements.

Does this modification impact a Significant Code Review (SCR) or other significant industry change projects, if so, how?

The EU Network Codes/ Guidelines implementation is being undertaken as a substantial programme of work within the GB industry. However, this modification does not impact on any on-going SCR.

Consumer Impacts

This modification facilitates the implementation of harmonised rules for connection and system operation which maximises the social welfare across the Union for all consumers by enabling progress towards a competitive and efficient internal market in electricity

7 Relevant Objectives

Impact of the modification on the Applicable CUSC Objectives (Standard):	
Relevant Objective	Identified impact
(a) The efficient discharge by the Licensee of the obligations imposed on it by the Act and the Transmission Licence;	Positive
(b) Facilitating effective competition in the generation and supply of electricity, and (so far as consistent therewith) facilitating such competition in the sale, distribution and purchase of electricity;	Positive
(c) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency *; and	Positive
(d) Promoting efficiency in the implementation and administration of the CUSC arrangements.	Positive
*Objective (c) refers specifically to European Regulation 2009/714/EC. Reference to the Agency is to the Agency for the Cooperation of Energy Regulators (ACER).	

The EU Connection Codes derive from the Third Energy Package legislation which is focused on delivering security of supply; supporting the connection of new renewable plant; and increasing competition to lower end consumer costs. It therefore positively supports the first two and the last CUSC objectives ((a), (b) and (d)).

Furthermore, this modification is to ensure GB compliance with EU legislation in a timely manner, which positively supports the third CUSC applicable objective (c).

8 Implementation

This modification must be in place to ensure the contractual requirements of the EU Connection Codes and System Operation Guideline are set out in the GB codes in a timely manner for all concerned.

9 Legal Text

As with similar proposals at this stage in the process, the legal text has not yet been developed or agreed. This will be done, in due course, collaboratively with the Workgroup.

10 Recommendations

Proposer's Recommendation to Panel

Panel is asked to:

Refer this proposal to a Workgroup for assessment in an accelerated manner.

