CUSC Modification Proposal Form	At what stage is this document in the process?
# CMP307: Expanding the BSUoS charging base to include embedded generation.	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: The modification will change the current collection of BSUoS from suppliers and embedded Exemptible generation to a methodology where BSUoS is charged on a gross basis to suppliers and BSUoS is charged on exports from embedded Exemptible generation.

The Proposer recommends that this modification should be:

Assessed by a Workgroup

This modification was raised *20 September 2018* and will be presented by the Proposer to the Panel on *28 September 2018*. The Panel will consider the Proposer's recommendation and determine the appropriate route.

High Impact: This proposal will have a high impact on embedded generation and a moderate impact (reduction) on all others who are currently subject to BSUoS.

Guidance on the use of this Template: *Please complete all sections unless specifically marked for the Code* ***Administrator.*** *Green italic text is provided as guidance and should be removed before submission. Contact us:* ***The Code Administrator is available to help and support the drafting of any modifications, including guidance on completion of this template and the wider modification process. If you have any questions or need any advice on how to fill in this form please contact the Panel Secretary: e-mail: heena.chauhan@nationalgrid.com or cusc.team@nationalgrid.com ; phone: 01926654028***

Contents

Timetable

The Code Administrator will present the timetable to CUSC Panel.

The Code Administrator recommends the following timetable:
(amend as appropriate)

Initial consideration by Workgroup	dd month year
Workgroup Consultation issued to the Industry	dd month year
Modification concluded by Workgroup	dd month year
Workgroup Report presented to Panel	dd month year
Code Administration Consultation Report issued to the Industry	dd month year
Draft Final Modification Report presented to Panel	dd month year
Modification Panel decision	dd month year
Final Modification Report issued the Authority	dd month year
Decision implemented in CUSC	dd month year

Any questions?

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Proposer Details

Details of Proposer: (Organisation Name)	First Hydro Company
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:	Simon Lord Engie 07980 793692 Simon.lord@engie.com
Details of Representative's Alternate: Name: Organisation: Telephone Number: Email Address:	Libby Glazebrook Engie 07970-767221 libby.glazebrook@engie.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	x
Grid Code	
STC	
Other	

(Please specify)

This is an optional section. You should select any Codes or state Industry Documents which may be affected by this Proposal and, where possible, how they will be affected.

1 Summary

Mandatory for the Proposer to complete *Please provide a summary of the modification proposed – i.e.* ***what*** *is the identified defect/change in the existing code that needs to be rectified,* ***why*** *this change needs to be made, and* ***how****.*

Defect

BSUoS costs include services that are needed by all consumers and all generators whether they are transmission or distribution connected. These are required to ensure system stability (reserve, response and voltage cost) as well as system security services such as black start.

The registration of embedded generators to a Supplier BM Unit can result in a reduction in BSUoS charges payable by the supplier. This is because BSUoS is charged on a basis that is net of any generation. Embedded generators do not pay BSUoS charges and may receive a significant benefit from the supplier whose BSUoS they reduce – "BSUoS avoidance". Embedded Exemptible generation is not currently subject to a BSUoS export charge instead a payment is made to this class of generation.

The current system leads to several defects:

1. Charging of BSUoS to suppliers and embedded Exemptible generation on a net Trading Unit basis results in a non-cost reflective benefit being gained by embedded generation. This is in the form of reduced BSUoS charges to a supplier registering the export meters, or a BSUoS payment to an embedded Exemptible generator who registers the export metering themselves.
2. Embedded generation does not make a fair contribution to the costs of system balancing and other system costs that are required to support the overall power system, leading to higher costs for others.
3. The BSUoS embedded benefit results in inefficient dispatch across the system, artificially reducing the marginal cost of energy from embedded generation by around £5 /MWh.
4. The current arrangements cause more efficient investments which do not benefit from BSUoS avoidance to be abandoned or deferred while less effective ones, which do so benefit, go ahead. This will increase total system costs, which is likely to lead to higher costs for consumers

Why

Fair apportionment of costs and investment decisions

BSUoS costs includes services that are needed by all consumers and all generators whether they are transmission or distribution connected. These are required to ensure system stability (reserve, response and voltage cost) as well as system security services such as black start.

Currently generation BSUoS is recovered from transmission connected generation and net transmission connected demand. Around 10-15% of all generation is now being supplied from embedded sources who do not, in general, pay BSUoS. With an increasing amount of embedded generation the current BSUoS charging arrangement, where only transmission connected generation pays for generation BSUoS cost, is not cost reflective or sustainable. To ensure equity and fairness, all generation should be subject to the BSUoS charge.

The current arrangements incentivise more efficient investments which do not benefit from BSUoS avoidance to be abandoned or deferred while less effective ones, which do so benefit, go ahead. This will increase total system costs, which is likely to lead to higher costs for consumers.

Indicative data provided through BSC modification P315 Suppliers Metered Volume and MPAN Accounts indicates that widening the BSUoS charging base to also capture embedded generation would lead to a reduction in the £/MWh charge faced by all customers, driven by the increase in the charging base by around 10-15%.

Benefit to consumers

The indicative benefit to consumers is up to £230m/year [1]. This is made up of the removal of the current BSUoS embedded benefit of ~ £115m (collected from demand customers) which will be replaced by a charge of £115m on embedded generation. This charge places all generation on the same charging base, which reduces the generation BSUoS charging rate. The lower BSUoS charge on generation will feed through to lower power prices which delivers half of the overall consumer benefit.

Inefficient dispatch of transmission and embedded generation.

As well as avoiding BSUoS, embedded generators may also receive a share of BSUoS as a credit from their supplier due to the netting arrangements. The combination of BSUoS embedded benefit and the current approach to BSUoS cost recovery results in inefficient dispatch across the system, artificially reducing the marginal cost of energy from embedded generation by around £5 /MWh.

Other benefits

The move from Net to Gross collection will facilitate the developments needed to collect BSUoS from end consumption (i.e. gross demand excluding storage demand and demand used by generation) for SVA sites and the proposed solution should be mindful of developments in this area .

Whilst this modification does not propose changes to the underlying 50/50 split of BSUoS between demand and generation or splitting out of separate element of BSUoS, the proposed solution should be mindful of developments being progressed as part of

[1] Estimated from P315 (Publication of Gross Supplier Market Share Data) for 2017 for illustration only.

the Targeted Charging Review (TCR) and Charging Futures Forum (CFF) as well as developments as to the charging of BSUoS to end consumption only.

How

BSUoS will be charged on a gross basis to suppliers with separate charges for demand embedded export (supplier), and export from embedded Exemptible generation.

2 Governance

Justification for [Normal, Urgent, Self-Governance or Fast Track Self-Governance] Procedures

Requested Next Steps

This modification should:

- be assessed by a Workgroup

This should be completed within 12 months with a target implementation date of April 2021.

Whilst urgency has not been requested at this time, we expect that given the materiality of this issue, the modification should be dealt with in a timely fashion with a report to the Authority within 12 months. We propose that an external independent Chair be sought from Elexon or the National Grid Electricity Transmission business given the cross-code governance issues and to avoid any conflicts with the potential SO lead review of other elements of BSUoS.

It is expected that following the initial working group, a BSC modification will be raised dealing with metering and RCRC issues.

3 Why Change?

The registration of embedded generators to a Supplier BM Unit can result in a reduction in BSUoS charges payable by the supplier. Embedded generators do not pay BSUoS charges and may receive a benefit from the supplier whose BSUoS they reduce – “BSUoS avoidance”. Embedded Exemptible generation in a net Trading Unit are not subject an export BSUoS charge. These two issues lead to a non-cost reflective benefit being gained by embedded generation.

Driven by the increasing volume of embedded generation output this issue now needs to be addressed.

Fair apportionment of costs and investment decisions

The BSUoS cost includes services that are needed by all consumers and all generators, whether they are transmission or distribution connected. These are required to ensure system stability (reserve, response and voltage cost) as well as system security services such as black start.

Currently generation BSUoS is recovered from transmission connected generation and net transmission connected demand. Around 10-15% of all generation is now being supplied from embedded sources who do not, in general, pay BSUoS. With an increasing amount of embedded generation, the current BSUoS charging arrangement where only transmission connected generation pays for generation BSUoS cost is not cost reflective or sustainable. To ensure equity and fairness, all generation should be subject to the BSUoS charge.

Indicative data provided through BSC modification P315 Suppliers Metered Volume and MPAN Accounts indicates that widening the BSUoS charging base to also capture embedded generation would lead to a reduction in the £/MWh charge faced by all customers, driven by the increase in the charging base.

The existence of large non-cost reflective BSUoS avoidance values is likely to distort investment decisions by favouring small generation units over large ones that may be more efficient. This will incentivise more efficient investments which do not benefit from BSUoS avoidance to be abandoned or deferred while less effective ones, which do so benefit, go ahead. This would increase total system costs, which is likely to lead to higher costs for consumers. Cost reflective charges would lead to better investment decisions and lower costs for consumers.

Inefficient dispatch of transmission and embedded generation.

As well as avoiding BSUoS, embedded generators may also receive a share of BSUoS as a credit from their supplier due to the netting arrangements. The combination of BSUoS embedded benefit and the current approach to BSUoS cost recovery results in inefficient dispatch across the system artificially reducing the marginal cost energy from embedded generation by around £5 /MWh.

4 Code Specific Matters

Mandatory for the Proposer to complete. *Please provide any specialist information (that is Code-specific), such as technical skillsets required and any reference documents.*

Technical Skillsets

Knowledge of the charging of BSUoS

Reference Documents

Insert text here *Provide any reference documents that need to be considered.*

5 Solution

Insert text here. ***Mandatory for the Proposer to complete.***

See section 1

Impacts & Other Considerations

i. *The CUSC and BSC are impacted*

ii. *National Grid and Supplier systems will be impacted*

iii. *Systems impacted*

It is expected that a BSC modification will be raised to: -

Ensure that the residual payment/collection (RCRC) is applied to the same charging base as the BSUoS collection and to deal with any other issues.

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

Whilst the scope of this proposal is not covered by an SCR, Ofgem have indicated that they may consider including this in the SCR

Consumer Impacts

The indicative benefit to consumers is up to £230m/year [2] this is made up of the removal of the current BSUoS embedded benefit of ~ £115m (collected from demand customers) which will be replaced by a charge of £115m on embedded generation. This charge places all generation on the same charging base which reduces the generation BSUoS charging rate. The lower BSUoS charge on generation will feed through to lower power prices which delivers half of the overall consumer benefit.

6 Relevant Objectives

Impact of the modification on the Applicable CUSC Objectives (Charging):

Relevant Objective	Identified impact
(a) That compliance with the use of system charging methodology facilitates effective competition in the generation and supply of electricity and (so far as is	Positive

[2] Estimated from P315 (Publication of Gross Supplier Market Share Data) for 2017 for illustration only.

consistent therewith) facilitates competition in the sale, distribution and purchase of electricity;	
(b) That compliance with the use of system charging methodology results in charges which reflect, as far as is reasonably practicable, the costs (excluding any payments between transmission licensees which are made under and accordance with the STC) incurred by transmission licensees in their transmission businesses and which are compatible with standard licence condition C26 requirements of a connect and manage connection);	Positive
(c) That, so far as is consistent with sub-paragraphs (a) and (b), the use of system charging methodology, as far as is reasonably practicable, properly takes account of the developments in transmission licensees' transmission businesses;	Positive
(d) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency. These are defined within the National Grid Electricity Transmission Plc Licence under Standard Condition C10, paragraph 1 *; and	Neutral
(e) Promoting efficiency in the implementation and administration of the CUSC arrangements.	Neutral
*Objective (d) refers specifically to European Regulation 2009/714/EC. Reference to the Agency is to the Agency for the Cooperation of Energy Regulators (ACER).	

Insert text here. ***This section is mandatory for the Proposer to complete.***

Objective (a) (b) and (c) are better facilitated through the following attributes

Gross charging

The BSUoS charge includes services that are needed by all consumers and all generators. They are required to ensure system stability including reserve, response and voltage cost as well as system security services such as black start. Around 10-15% of all generation is now being supplied from embedded sources who do not pay BSUoS. With an increasing amount of embedded generation, the current BSUoS charging arrangement where it is only transmission connected generation that pays for generation BSUoS cost is not sustainable. To ensure equity and fairness, all generation should be subject to the generation BSUoS charge.

The existence of large non-cost reflective BSUoS avoidance values is likely to distort investment decisions by favouring small generation units over large ones that may be more efficient. This could cause more efficient investments which do not benefit from BSUoS avoidance to be abandoned or deferred while less effective ones, which do so benefit, go ahead. This would increase total system costs, which is likely to lead to

higher costs for consumers. Cost reflective charges would lead to better investment decisions and lower costs for consumers.

More efficient dispatch

The current BSUoS embedded benefit results inefficient dispatch across the system artificially reducing the marginal of cost energy from embedded generation by on average £5MWh.

Lower cost to consumers

The change would reduce the charge that consumers pays as currently has an implicit additional premium (created by the netting arrangement) that is charged to consumers to fund the embedded benefit. Indicative data provided by BSC modification P315 indicates that widening the BSUoS charging base to also capture embedded generation would lead to a customer saving of 10-15% in BSUoS costs per annum.

7 Implementation

The assessment and development phase of the proposal should be completed within 12 months with a target implementation date of April 2021.

8 Legal Text

The Proposer is welcome to put forward suggested legal text. If this is a proposed Fast Track Self-Governance modification, then legal text and commentary must be provided. Otherwise the legal text will be provided in conjunction with the Workgroup Report to the CUSC Panel before progressing to the Code Administrator Consultation.

9 Recommendations

Proposer's Recommendation to Panel

Panel is asked to:

Refer this proposal to a Workgroup for assessment be mindful of the proposer's request to that an external independent Chair be sought from Elexon or the National Grid Electricity Transmission business given the cross-code governance issues and to avoid and any potential conflicts with the potential SO lead review of other elements of BSUoS.

