

CUSC Modification Proposal Form (for nationalgrid Charging Methodology Proposals) CMPXXX

Connection and Use of System Code (CUSC)

Title of the CUSC Modification Proposal

Embedded Generation Triad Avoidance Standstill proposal – Changes to the Transport and Tariff Model and billing arrangements to remove the netting of output from New Embedded Generators until Ofgem has completed its consideration of the current electricity transmission Charging Arrangements (and any review which ensues) and any resulting changes have been fully implemented.

Submission Date

17 May 2016

Description of the Issue or Defect that the CUSC Modification Proposal seeks to address

The registration of embedded generators to a Supplier BM Unit can result in a reduction in TNUoS charges payable by the supplier. The embedded generators do not pay generation transmission charges and may receive a significant benefit from the supplier whose TNUoS charges they reduce – “Triad avoidance”.

Due to increasing volume of embedded generation output and the growth in the Transmission Owner Allowed Revenues and other monies recoverable through TNUoS, the likely value of Triad avoidance for embedded generators has increased significantly, and under the current charging arrangements is forecast by National Grid Electricity Transmission (“NGET”) to continue to grow. If Triad avoidance (and the future increases) were cost-reflective in terms of the transmission reinforcement avoided by reducing flows from the transmission system to meet demand, then the current arrangements would be in the interest of consumers. However, whilst analysis¹ by NGET suggests that some transmission investment is avoided by such reductions in flows, the savings appear to be around twenty times too small to justify current Triad avoidance values. In that work, NGET determined that the average cost saving was £1.62/kW/year in 2013/14 money, whilst a current estimate² of the average value that an embedded generator would receive from Triad avoidance in 2018/19 is around £45/kW/year³. Moreover, the results from 5 out of the 18 schemes that were assessed showed cost savings of less than 50p/kW/year.

The existence of large non-cost reflective Triad 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 Triad 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.

Ofgem is currently considering these issues⁴ and implementation of any resulting changes, eg through a Significant Code Review (SCR), is likely to take some time. In the meantime, distortions to investment could take place based on the current non-cost reflective signals, in part due to Triad avoidance income received during the period of the review. This is likely to lead to inefficient investment in the generation fleet and, over time, higher costs for customers. This risk can be mitigated by suspending access to Triad avoidance for New Embedded Generators until Ofgem's consideration of the current electricity transmission Charging Arrangements (and any review which may ensue) has been completed and any resulting changes have been fully implemented.

This is a proportionate response since current indications are that Triad avoidance values exceed the cost reflective level by a factor of around 20. It follows that temporarily setting them to zero for new embedded generators is likely to be closer to the cost reflective outcome, and more likely to be efficient for consumers, than allowing the current situation to sustain pending Ofgem's consideration of the issues (including any review which may ensue) and implementation of any more comprehensive changes.

¹ National Grid, Review of the Embedded (Distributed) Generation Benefit arising from transmission charges, 20 December 2013.

² National Grid outlook January 28th 2015 (<http://www2.nationalgrid.com/UK/Industry-information/System-charges/Electricity-transmission/Approval-conditions/Condition-5/>)

³ The current value of Triad management is £30/kW/year, but this is forecast to rise by around £15/kW/year by 2018/19. This estimate excludes the three least lucrative geographical areas - the locational signal may mean that these areas are not targeted by developers.

⁴ As recently announced by DECC and highlighted in Ofgem's Forward Work Programme 2016-17 paras 2.17 to 2.19

Description of the CUSC Modification Proposal

This modification aims to limit the detriment from the continuing lack of a level playing field between new embedded generators and other generation plant, by suspending access to Triad avoidance for New Embedded Generators until Ofgem has completed its consideration of the issues (including any review which may ensue) and fully implemented any resulting changes.

New Embedded Generator is defined as any half hourly metered embedded generation unit commissioned after 30 June 2017.

Commissioned is defined as having an MPAN registered and having commenced generation.

The suspension is achieved by removing the netting of output from New Embedded Generators when calculating their demand volumes for use in the setting of tariffs for suppliers in the Transport and Tariff model and for actual billing. As the supplier would no longer benefit from netting the output from these generators there will be no "Triad avoidance" to share with the embedded generator.

It is intended that the changes to the charging methodology made by this modification will be temporary and that no enduring difference of treatment between new and existing generation will be created. Accordingly, the provisions of this modification that change the charging methodology will cease to have effect on the "disapplication date, being the date when Ofgem confirms that it has completed its consideration of the issues (and any review which may ensue) and any resulting changes have been fully implemented.

A BSC amendment would amend the metering data reports to provide the information needed in order to remove the netting for all embedded generators commissioned after 30 June 2017.

Impact on the CUSC

Changes will be required to Section 14 of the CUSC (Part 2 The Statement of the Use of System Charging Methodology) including, but not necessarily limited to the following:

Tariff Setting

Changes are required to Section 14.15 (Derivation of the Transmission Network Use of System Tariff) to ensure that total User forecast Metered Triad Demand provided by Users and used to set TNUoS tariffs does not net any output from New Embedded Generation.

Billing & Reconciliation

The basis of Demand Charges should be amended to ensure that output from any New Embedded Generators is not netted from Triad demand in the Supplier forecasts used for monthly billing or in the reconciliation process to actual outturn charges.

Do you believe the CUSC Modification Proposal will have a material impact on Greenhouse Gas Emissions? Yes / No

You can find guidance on the treatment of carbon costs and evaluation of the greenhouse gas emissions on the Ofgem's website:

<http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=196&refer=Licensing/IndCodes/Governance>

We believe that this Proposal is likely to help reduce greenhouse gas emissions. This is as a result of the creation of a level playing field between small embedded generation and larger transmission connected generation. We believe that this is likely to lead to the deployment of more efficient plant which may lead to a corresponding reduction in the emission of greenhouse gasses.

Impact on Core Industry Documentation. Please tick the relevant boxes and provide any supporting information

BSC

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.

The data used in the calculation of Triad demand and chargeable supplier demand volumes is calculated under the Balancing & Settlement Code (BSC) and changes will be required to the BSC to enable the identification of meter data from New Embedded Generators. This meter data should then be excluded when generating the data flows used for TNUoS billing. A separate BSC Issue will be raised to consider the potential changes required from this CUSC modification.

For the avoidance of doubt, metered output from embedded generators will still be netted from Supplier's demand volumes for the purposes of imbalance settlement under the BSC.

Urgency Recommended: Yes / No

No.

Justification for Urgency Recommendation

If you have answered yes above, please describe why this Modification should be treated as Urgent. An Urgent Modification Proposal should be linked to an imminent issue or a current issue that if not urgently addressed may cause:

- a) *A significant commercial impact on parties, consumers or other stakeholder(s); or*
- b) *A significant impact on the safety and security of the electricity and/or has systems;*
or
- c) *A party to be in breach of any relevant legal requirements.*

You can find the full urgency criteria on the Ofgem's website:

<http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=213&refer=Licensing/IndCodes/Governance>

Self-Governance Recommended: Yes / No

No.

Justification for Self-Governance Recommendation

If you have answered yes above, please describe why this Modification should be treated as Self-Governance.

A Modification Proposal may be considered Self-governance where it is unlikely to have a material effect on:

- *Existing or future electricity customers;*
- *Competition in generation or supply;*
- *The operation of the transmission system;*
- *Security of Supply;*
- *Governance of the CUSC*

- *And it is unlikely to discriminate against different classes of CUSC Parties.*

Should this CUSC Modification Proposal be considered exempt from any ongoing Significant Code Reviews?

Please justify whether this modification should be exempt from any Significant Code Review (SCR) undertaken by Ofgem. You can find guidance on the launch and conduct of SCRs on Ofgem's website, along with details of any current SCRs at:

<http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=197&refer=Licensing/IndCodes/Governance>. For further information on whether this Proposal may interact with any ongoing SCRs, please contact the Panel Secretary.

Yes. We are not aware of any current Significant Code Review (SCR) whose scope overlaps with the scope of this modification. If Ofgem opens an SCR which includes embedded generation Triad avoidance, this modification should be considered exempt because of its temporary/transitional nature.

Impact on Computer Systems and Processes used by CUSC Parties:

Suppliers will need to amend their internal systems to exclude the output from New Embedded Generators when preparing demand forecasts as required under S14 of the CUSC and when validating TNUoS bills received from National Grid.

Details of any Related Modification to Other Industry Codes

A BSC Modification will be required to provide the necessary data to facilitate this charging proposal. We shall raise a BSC Issue for consideration.

Justification for CUSC Modification Proposal with Reference to Applicable CUSC Objectives for Charging:

Please tick the relevant boxes and provide justification for each of the Charging Methodologies affected.

Use of System Charging Methodology

- (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 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 in accordance with the STC) incurred by transmission licensees in their transmission businesses and which are compatible with standard condition C26 (Requirements of a connect and manage

connection);

- (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.
- (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.

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).

Full justification:

Charging Objective (a)

This modification will mitigate the effects of the current lack of a level playing field between investing in embedded generators and transmission connected (and large embedded) generators during the period of Ofgem's review, thus better facilitating competition in the generation and supply of electricity.

Charging Objective (b)

Given the low levels of actual cost savings realised through the Triad management schemes, the suspensory action would ensure that, in respect of New Embedded Generators during the period of Ofgem's review, charges would better reflect costs.

Charging Objective (c)

Developments in the transmission system have led to an increase in Triad values, thus increasing the distortions created by embedded generation Triad avoidance to an unsustainable level. This modification mitigates the effect of this by temporarily removing distortion of investment decisions until Ofgem has completed its consideration of the issues (including any review which may ensue) and fully implemented any resulting changes.

Charging Objective (d)

The proposer believes that the proposal is neutral against applicable charging objective (d).

Connection Charging Methodology

- (a) that compliance with the connection charging methodology facilitates effective competition in the generation and supply of electricity and (so far as is consistent therewith) facilitates competition in the sale, distribution and purchase of electricity;
- (b) that compliance with the connection 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 in accordance with the STC) incurred by transmission licensees in their transmission businesses and which are

compatible with standard condition C26 (Requirements of a connect and manage connection);

- (c) that, so far as is consistent with sub-paragraphs (a) and (b), the connection charging methodology, as far as is reasonably practicable, properly takes account of the developments in transmission licensees' transmission businesses;
- (d) in addition, the objective, in so far as consistent with sub-paragraphs (a) above, of facilitating competition in the carrying out of works for connection to the national electricity transmission system.
- (e) 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.

Objective (e) refers specifically to European Regulation 2009/714/EC. Reference to the Agency is to the Agency for the Cooperation of Energy Regulators (ACER).

Full justification:

The Proposal does not impact on the Connection Charging Methodology

Additional details

Details of Proposer: (Organisation Name)	ScottishPower Energy Management Limited
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:	Rupert Steele Director of Regulation, ScottishPower 0141 614 2012 Rupert.Steele@ScottishPower.com
Details of Representative's Alternate: Name: Organisation: Telephone Number: Email Address:	James Anderson ScottishPower Energy Management Limited 0141 614 3006 James.Anderson@ScottishPower.com
Attachments (Yes/No): If Yes, Title and No. of pages of each Attachment:	No

Contact Us

If you have any questions or need any advice on how to fill in this form please contact the Panel Secretary:

E-mail cusc.team@nationalgrid.com

Phone: 01926 653606

For examples of recent CUSC Modifications Proposals that have been raised please visit the National Grid Website at <http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/CUSC/Modifications/Current/>

Submitting the Proposal

Once you have completed this form, please return to the Panel Secretary, either by email to jade.clarke@nationalgrid.com copied to cusc.team@nationalgrid.com, or by post to:

Jade Clarke
CUSC Modifications Panel Secretary, TNS
National Grid Electricity Transmission plc
National Grid House
Warwick Technology Park
Gallows Hill
Warwick
CV34 6DA

If no more information is required, we will contact you with a Modification Proposal number and the date the Proposal will be considered by the Panel. If, in the opinion of the Panel Secretary, the form fails to provide the information required in the CUSC, the Proposal can be rejected. You will be informed of the rejection and the Panel will discuss the issue at the next meeting. The Panel can reverse the Panel Secretary's decision and if this happens the Panel Secretary will inform you.