CUSC Modification Proposal Form	At what stage is this document in the process?
# CMP316: ## TNUoS Arrangements for Co-located Generation Sites	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: Generation sites which comprise multiple technology types within one Power Station are termed “co-located”. This modification will develop a cost-reflective methodology to allow the CUSC charging arrangements to accommodate the growing number of such sites.

The Proposer recommends that this modification should be:

- assessed by a Workgroup and determined by the Authority

This modification was raised 16 April 2019 and will be presented by the Proposer to the Panel on 26 April 2019**.** The Panel will consider the Proposer’s recommendation and determine the appropriate route.

High Impact: None

Medium Impact: Co-located Generators

Low Impact: NGESO

Contents

Timetable

The Code Administrator will update the timetable following prioritisation and the first WG meeting.

The Code Administrator recommends the following timetable:	
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)	National Grid ESO
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:	 Eleanor Horn National Grid ESO 07966 186088 Eleanor.horn@nationalgrideso.com
Details of Representative's Alternate: Name: Organisation: Telephone Number: Email Address:	 Grahame Neale National Grid ESO 07787 261242 Grahame.Neale@nationalgrideso.com
Attachments (Yes/No): No	

Impact on Core Industry Documentation.

Please mark the relevant boxes with an "x" 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.

1 Summary

Defect

Generation sites which comprise multiple technology types within one Power Station are termed “co-located”. The TNUoS methodology does not adequately accommodate co-located generation sites. This is especially true for sites which have a mixture of technologies that fall into different charging categories (e.g. Conventional vs. Intermittent). Section 14 needs a methodology by which such sites can be recognised and charged consistently with the cost-reflective principles underpinning the broader TNUoS (Generator) Charging Methodology

To avoid overlap with the scope of on-going Access and Forward Looking Charges SCR this CMP does not aim to introduce a new access product nor to modify an existing access product for shared access sites (e.g. two Generator Users sharing one point of connection).

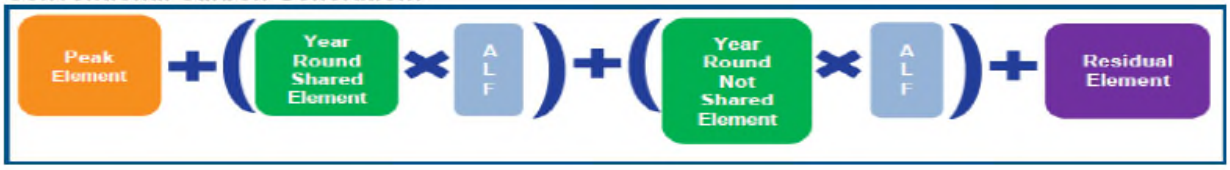
What

We propose adding a new formula to the TNUoS methodology to calculate wider locational charges proportionally by technology type to the Power Station’s Transmission Entry Capacity (TEC).

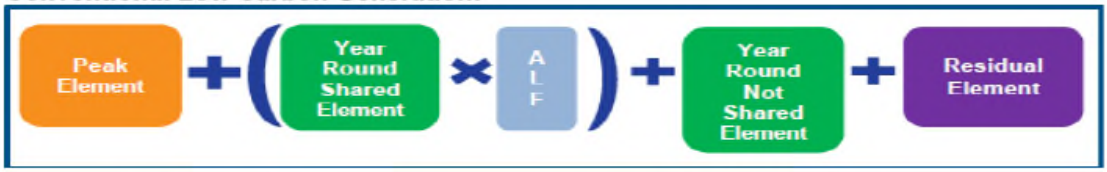
Why

Currently, the TNUoS methodology assesses Power Station technology type and the ‘controllability’ of said technology type. Depending on the outcome, one of the following three formulas forms the basis for the wider TNUoS tariff calculation for that site (per 14.18.7 of CUSC)

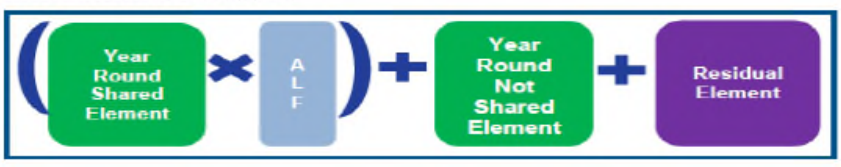
Conventional Carbon Generation:



Conventional Low Carbon Generation:



Intermittent Generation



For co-located sites, especially those which combine technologies in different charging categories i.e. intermittent generation or conventional low carbon, the current methodology can not produce cost-reflective wider tariffs.

A pro rata approach will provide greater cost-reflectivity to the charging arrangements for co-located sites – the Proposer believes this approach could be sufficiently generic to map onto other future changes in the network charging arena such that any broader developments resultant of (inter alia) Ofgem's SCR into Access & Forward-Looking Charges would not be precluded by, or preclude, this CMP.

How

It is proposed that revisions are made to CUSC section 14 to introduce a new formula which calculates the appropriate TNUoS charge per technology type for the Power Station.

2 Governance

Justification for Normal Procedures

As this CMP has a (potentially material) effect on Generator Users' TNUoS charges, it is not proposed that this CMP should be subject to Self-Governance and Authority approval is specifically requested. A Workgroup should be established to ensure that a wider range of views are captured and consulted on as appropriate.

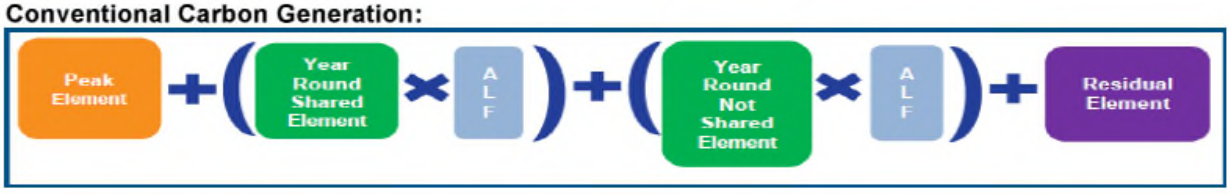
Requested Next Steps

This modification should be assessed by a Workgroup

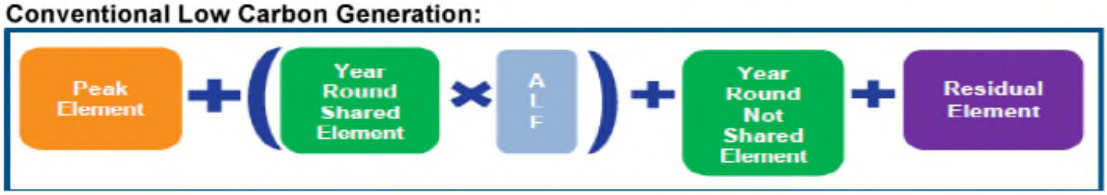
3 Why Change?

Currently, the TNUoS methodology assesses Power Station technology type and the 'controllability' of said technology type. Depending on the outcome, one of the following three formulas forms the basis for the wider TNUoS tariff calculation for that site (per 14.18.7 of CUSC)

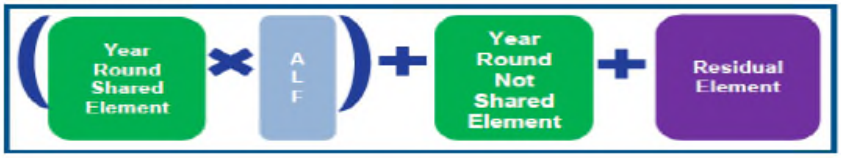
Conventional Carbon Generation:



Conventional Low Carbon Generation:



Intermittent Generation



For co-located sites, especially those which combine technologies in different charging categories i.e. intermittent generation or conventional low carbon, the current methodology cannot produce cost-reflective wider tariffs.

A pro rata approach will provide greater cost-reflectivity to the charging arrangements for co-located sites – the Proposer believes this approach could be sufficiently generic to map onto other future changes in the network charging arena such that any broader developments resultant of (inter alia) Ofgem's SCR into Access & Forward-Looking Charges would not be precluded by, or preclude, this CMP.

4 Code Specific Matters

Technical Skillsets

Working knowledge of Section 14 to the extent it pertains to Generator TNUoS charging arrangements, and an understanding of the (potential) configurations of a co-located site.

5 Solution

If the solution depends on pro rating TEC, the below should be used as the methodology by which TEC is apportioned. The Proposed solution otherwise is to:

- Through a Section 11 CMP introduce the following definition to the CUSC: "Multi-Fuel Site - A single Power Station which is comprised of multiple Generating Units, Power Park Modules or Power Generating Modules which are not of the same technology type, or which utilise different fuels to produce electricity".

- For Multi-Fuel Sites, include a formula into CUSC Section 14.15 by which the Power Station's TEC is allocated across the different technology types, specifically;

$$MFSSTECis = \frac{CAP_i}{\sum_{i=1}^{n} CAP_i} \times TEC_s$$

Where;

MFSTECis = Multi-Fuel Sites' TEC for technology i at station s

CAPi = Capacity for technology i

TECs = TEC of Power Station as defined in the Connection Agreement

n = number of different technologies on site

- Determine the data sharing required so that Annual Load Factors can be calculated by technology type. If this is not possible because metered data is not sufficiently granular, the predominant ALF will be used for all elements.
- If the Multi-Fuel Site is in negative TNUoS zones, the output should be considered separately for each technology type. If this is not possible then the Power Station MWh output will be used instead of TEC in the MFSTEC formula (consistent with approach in 14.18.13)

6 Impacts & Other Considerations

There is not expected to be any cross-code impacts of this proposal

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

Whilst this modification impacts upon TNUoS and splitting TEC across technology types, it does not propose to redefine or change the scope of these and so there is no expected SCR impact.

The Proposer does not intend to introduce a new access product or modify an existing one. The scope of this CMP explicitly doesn't include shared access connections as these are within the scope of the Access and Forward looking charges SCR.

Consumer Impacts

All other things being equal, this should have no consumer TNUoS impact as the value recovered via TNUoS would be unchanged, just how this value is allocated across the generation community.

7 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 consistent therewith) facilitates competition in the sale, distribution and purchase of electricity;	Positive
(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	N/A
(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).	

This CMP is expected to remove potential distortions in TNUoS for generators and so help facilitate competition in the generation sector.

The CMP will ensure multi-fuel sites are charged more cost-reflectively based on their technology type and network usage; they will be charged consistently with the principles underpinning generator TNUoS charging.

The number of multi-fuel sites is expected to increase and accounting for this in Section 14 ensures the network charging methodology reflects developments in the wider industry.

8 Implementation

Assuming that an Authority decision is received by June 2020, 1 April 2021.

9 Legal Text

Whilst definitive legal text isn't proposed here, it is considered that TEC should be pro rated in accordance with the below, and then linked into the calculations in 14.18.7 such that the 'Chargeable Capacity' therein is based, for co-located sites, on the MFSTECis.

For Multi-Fuel Sites (which will be defined through a separate S11 CMP), include a formula into CUSC Section 14.15 by which the Power Station's TEC is allocated across the different technology types, specifically;

$$MFSSTECis = \frac{CAP_i}{\sum_{i=1}^{n} CAP_i} \times TEC_s$$

Where;

MFSTECis = Multi-Fuel Sites' TEC for technology i at station s

CAPi = Capacity for technology i

TECs = TEC of Power Station as defined in the Connection Agreement

n = number of different technologies on site

- Determine the data sharing required so that Annual Load Factors can be calculated by technology type. If this is not possible because metered data is not sufficiently granular, the predominant ALF will be used for all elements.
- If the Multi-Fuel Site is in negative TNUoS zones, the output should be considered separately for each technology type. If this is not possible then the Power Station MWh output will be used instead of TEC in the MFSTEC formula.

10 Recommendations

Proposer's Recommendation to Panel

Panel is asked to:

- Agree that Normal governance procedures should apply
- Refer this proposal to a Workgroup for assessment.

