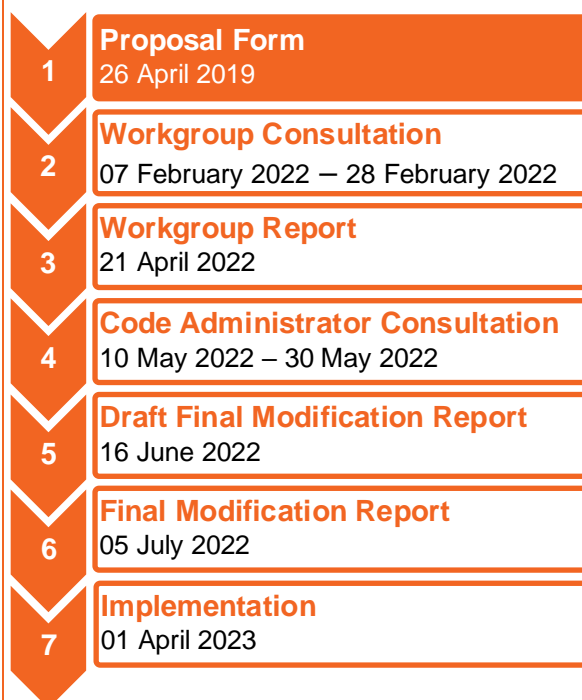


## CUSC Modification Proposal Form

# CMP316: TNUoS Arrangements for Co-located Generation Sites

**Overview:** 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.

## Modification process & timetable



**Status summary:** The Proposer has raised a modification and is seeking a decision from the Panel on the governance route to be taken.

**This modification is expected to have a:**

**Medium impact:** Co-located generators

**Low impact:** NGESO

|  |   |   |
|--|---|---|
| <b>Proposer's recommendation of governance route</b> | Standard governance modification assessed by a Workgroup and determined by the Authority.   |   |
| <b>Who can I talk to about the change?</b>           | <b>Proposer:</b> Nicola White<br>National Grid ESO<br><br><a href="mailto:Nicola.White@nationalgrideso.com">Nicola.White@nationalgrideso.com</a><br><br>Phone: 07977 021708 | <b>Code Administrator Chair:</b> Jennifer Groome<br><br><a href="mailto:Jennifer.Groome@nationalgrideso.com">Jennifer.Groome@nationalgrideso.com</a><br><br>Phone: 07966 130854 |

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## What is the issue?

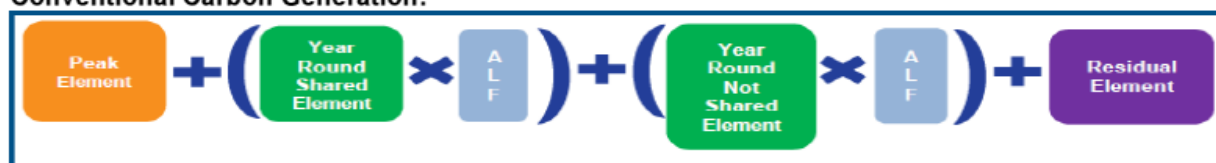
Generation sites which comprise multiple technology types within one Power Station are termed “co-located”. The TNUoS methodology does not adequately accommodate co-located generation sites. This is especially true for sites which have a mixture of technologies that fall into different charging categories (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).

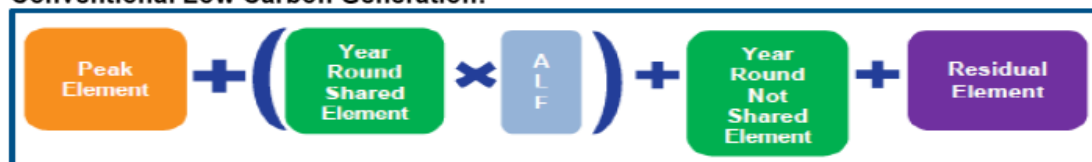
## Why change?

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.

## What is the proposer’s solution?

### Proposer’s solution

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

- 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;

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

Where;

MFSTEC<sub>is</sub> = Multi-Fuel Sites' TEC for technology i at station s

CAP<sub>i</sub> = Capacity for technology i

TEC<sub>s</sub> = 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 fuel/technology type.
- If the Multi-Fuel Site is in negative TNUoS zones, the output should be considered separately for each fuel/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)

### **Draft legal text**

Whilst definitive legal text isn't proposed here, it is considered that TEC should be prorated 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 MFSTEC<sub>is</sub>.

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 fuel/technology types, specifically;

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

Where;

MFSTEC<sub>is</sub> = Multi-Fuel Sites' TEC for technology i at station s

CAP<sub>i</sub> = Capacity for technology i

TEC<sub>s</sub> = 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 fuel/technology type. If this is not possible then the Power Station MWh output will be used instead of TEC in the MFSTEC formula.

## What is the impact of this change?

### Proposer's assessment against CUSC Charging Objectives

| 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;   | <b>Positive</b>   |
| (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); | <b>Positive</b>   |
| (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;   | <b>Positive</b>   |
| (d) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency *; and   | <b>N/A</b>        |
| (e) Promoting efficiency in the implementation and administration of the system charging methodology.  | <b>Neutral</b>    |
| *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).   |                   |

CMP316 is expected to remove potential distortions in TNUoS for generators and so help facilitate competition in the generation sector.

CMP316 will ensure multi-fuel sites are charged more cost-reflectively based on their fuel/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.

### **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.

### **When will this change take place?**

Implementation date 1 April 2023

#### **Date decision required by**

1 October 2022

#### **Implementation approach**

NGESO Billing system and NGESO Tariff Setting and Charging processes would need to be updated

#### **Proposer's justification for governance route**

Standard Governance modification with assessment by a Workgroup and determined by the Authority.

As CMP316 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.

### **Interactions**

- |  |  |   |                                |
|--|--|---|--------------------------------|
| <input type="checkbox"/> Grid Code                 | <input type="checkbox"/> BSC                                 | <input type="checkbox"/> STC                    | <input type="checkbox"/> SQSS  |
| <input type="checkbox"/> European<br>Network Codes | <input type="checkbox"/> EBR Article 18<br>T&Cs <sup>1</sup> | <input type="checkbox"/> Other<br>modifications | <input type="checkbox"/> Other |

<sup>1</sup> If your modification amends any of the clauses mapped out in Exhibit Y to the CUSC, it will change the Terms & Conditions relating to Balancing Service Providers. The modification will need to follow the process set out in Article 18 of the Electricity Balancing Guideline (EBR – EU Regulation 2017/2195) – the main aspect of this is that the modification will need to be consulted on for 1 month in the Code Administrator Consultation phase. N.B. This will also satisfy the requirements of the NCER process.

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 impact on Significant Code Reviews.

The Proposer does not intend to introduce a new access product or modify an existing one. The scope of CMP316 explicitly doesn't include shared access connections as these are within the scope of the Access and Forward-looking charges SCR.

### Acronyms, key terms and reference material

| Acronym / key term | Meaning                                   |
|--------------------|---|
| BSC                | Balancing and Settlement Code             |
| CMP                | CUSC Modification Proposal                |
| CUSC               | Connection and Use of System Code         |
| EBGL               | Electricity Balancing Guideline           |
| STC                | System Operator Transmission Owner Code   |
| SQSS               | Security and Quality of Supply Standards  |
| T&Cs               | Terms and Conditions                      |
| TNUoS              | Transmission Network Use of System        |
| NGESO              | National Grid Electricity System Operator |
| ESO                | Electricity System Operator               |
| SCR                | Significant Code Review                   |

### Reference material

- None.