At what stage is this Stage 03 Draft CUSC Modification Report document in the process? Initial Written CMP301: Clarification on 01 Assessment Code Administrator 02 Consultation the treatment of project costs Draft CUSC 03 associated with HVDC and subsea Modification Report circuits **Final CUSC** 04 Modification Report Purpose of Modification: CMP213 introduced specific expansion factors for HVDC and subsea circuits however the existing legal text is open to interpretation - this proposal would cement the interpretation made by The Company to ensure consistency with onshore circuits This Draft Final Modification Report has been prepared in accordance with the terms of the CUSC. An electronic version of this document and all other CMP301 related documentation can be found on the National Grid website via the following link: https://www.nationalgrid.com/uk/electricity/codes/connection-and-use-system-codecusc/modifications/clarification-treatment The purpose of this document is to assist the CUSC Panel in making its recommendation on whether to implement CMP301. CUSC Parties who are subject to TNUoS charges The Code Administrator Consultation concluded: All respondents concluded that the Original proposal facilitates the Applicable CUSC Objectives better than the baseline. No potential Workgroup Alternative Consultation Modifications (WACMs) were proposed.

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Timetable		National Grid Representative:
The Code Administrator recommends the following timetable:		Harriet Harmon
Draft Final Modification Report presented to Panel	24 July 2018	
Modification Panel decision	27 July 2018	
Final Modification Report issued to Authority (25 WD)	01 August 2018	
Indicative Decision Date	05 September 2018	
Decision implemented in CUSC (2WD after determination)	01 April 2019	

1 About this document

CMP301 was proposed by National Grid and was submitted to the CUSC Modifications Panel for its consideration on 29 June 2018. The Panel decided to send the Proposal to a Code Administrator Consultation.

In terms of the aims of CMP301, CMP213 introduced specific expansion factors for HVDC and subsea circuits however the existing legal text is open to interpretation – this proposal would cement the interpretation made by The Company to ensure consistency with onshore circuits

Code Administrator Consultation Responses

3 responses were received to the Code Administrator Consultation. A summary of the responses can be found in Section 6 of this document. All respondents agreed that the proposal better facilitates the applicable CUSC objectives.

This Draft Final Modification Report has been prepared in accordance with the terms of the CUSC. An electronic copy can be found on the National Grid Website:

https://www.nationalgrid.com/uk/electricity/codes/connection-and-use-system-codecusc/modifications/clarification-treatment

2 Original Proposal

Defect

The CUSC currently includes, in its consideration of expansion factors, different elements depending on whether the circuit is subsea, HVDC, onshore or offshore. The differing costs mean that AC subsea and HVDC circuits are not treated consistently with onshore circuits, to which they are most similar.

What

Currently the CUSC states:

- 14.15.75 AC sub-sea cable and HVDC circuit expansion factors are calculated on a case by case basis using actual project costs (Specific Circuit Expansion Factors).
- 14.15.76 For HVDC circuit expansion factors both the cost of the converters and the cost of the cable are included in the calculation.
- 14.15.80 Offshore expansion factors (£/MWkm) are derived from information provided by Offshore Transmission Owners for each offshore circuit. Offshore expansion factors are Offshore Transmission Owner and circuit specific. Each Offshore Transmission Owner will periodically provide, via the STC, information to derive an annual circuit revenue requirement. The offshore circuit revenue shall include revenues associated with the Offshore Transmission Owner's reactive compensation equipment, harmonic filtering equipment, asset spares and HVDC converter stations.

We propose to alter 14.15.76 such that it is clear that the elements listed in 14.15.80 as being included in

the offshore circuit revenue are not included in the expansion factors for HVDC or AC subsea circuits.

Why

We believe that the existing wording is open to interpretation and does not provide appropriate clarity to Users in relation to the calculation of expansion factors. We further consider it appropriate to align the treatment of expansion factors for HVDC and AC subsea circuits to that of onshore circuits, on the basis that these circuits connect to onshore rather than offshore assets.

How

A legal text change to S14 to illustrate the limit of the components used in the expansion factor calculation.

3 Proposer's solution

Section 3 (Proposer's solution) are sourced directly from the Proposer and any statements or assertions have not been altered or substantiated/supported or refuted by the Workgroup. Section 7 of the Workgroup contains the discussion by the Workgroup on the Proposal and the potential solution.

- 14.15.75 AC sub-sea cable and HVDC circuit expansion factors are calculated on a case by case basis using actual project costs (Specific Circuit Expansion Factors).
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We propose to alter 14.15.76 such that it is clear that the elements listed in 14.15.80 as being included in

the offshore circuit revenue are not included in the expansion factors for HVDC or AC subsea circuits.

Legal text drafting is appended to this Proposal form.

No cross-code implications are foreseen by the Proposer, nor do we consider there to be any risks to any existing pieces of work, including the Targeted Charging Review.

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

Whilst this Proposal relates to the locational signal, which is being considered under the Access & Forward-Looking Charges work stream in Ofgem's TCR, we do not believe that this change directly affects or inhibits any development in that area.

Consumer Impacts

Tariff impact is to the locational element payable by Suppliers – it is not anticipated that this Proposal will have a material effect on that element, or on consumers.

4 **CMP301: 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 – a level playing field in terms of knowledge & understanding of the components of expansion factors supports competition
(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);	None
 (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; 	None
 (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 	None
(e) Promoting efficiency in the implementation and administration of the CUSC arrangements.	None
*Objective (d) refers specifically to European Regulation 2009/7	14/EC. Reference to the

Agency is to the Agency for the Cooperation of Energy Regulators (ACER).

5 Implementation

Should be on 1 April 2019

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The Code Administrator Consultation was issued on 02 July 2018 for 15 Working Days and closed 23 July 2018.

3 responses were received to the Code Administrator Consultation and are detailed in the table below

Respondent	Do you believe that CMP282 better facilitates the Applicable CUSC objectives?	Do you support the proposed implementation approach?	Do you have any other comments?
Simon Swiatek, Forsa Energy	Yes. We would agree that the present wording in the CUSC is open to interpretation. We believe that the proposed text provides clarification on what specific costs shall be included in the HVDC and AC subsea circuit expansion factors. Our view is that this modification will facilitate in achieving the relevant CUSC objectives. The revised wording will align the treatment of expansion factors for HVDC and AC subsea circuits with that used for onshore circuits. We consider that competition will be supported by this modification. The modification will ensure consistency with treatment of onshore circuits.	Yes	No
Guy Nicholson, Element Power	We agree that the proposed modification provides clarity on an existing policy and should be welcomed by the industry as a whole. We understand that the Expansion Factor (£/MW·km) is intended to include only those factors which are dependent on both power and distance (such as ac overhead lines, ac underground cables and associated switchgear), and as such reactive compensation equipment, harmonic filtering equipment and asset spares (where these asset spares are related to the reactive	Yes	No

	compensation equipment, harmonic filtering etc.) should not be included in the Expansion Factor. This change supports applicable CUSC objectives a) because it creates a more level playing field between different technologies and different users and c) because it addresses the practical and detailed aspects of the recent and new developments of HVDC assets in the GB onshore transmission network and e) because it reduces ambiguity in the CUSC.		
Paul Mott, EDF Energy	Yes. The existing wording in the CUSC about to the calculation of expansion factors is open to interpretation, lacking clarity. The best way to add clarity is to state clearly that the calculation of expansion factors for HVDC and AC subsea circuits connecting onshore (even if on- island) assets, should be comparable to other onshore local circuits. The proposed legal text achieves this, and if implemented, the mod would better facilitate CUSC charging objective (a), supporting competition, by creating a clear and level playing field in terms of the components of local circuit expansion factors for different transmission circuit technologies. The effect is also positive against CUSC charging objective (c), properly taking account of the developments in transmission licensees' transmission businesses (HVDC transmission circuits haven't existed before in Britain, nor have high capacity AC transmission circuits to islands); and the mod would have a positive effect against CUSC charging objective (as ambiguity is not efficient, and cannot be readily administered by way of charge calculation).	Yes, relevant circuits don't exist yet.	No

7 Legal Text

Appended

8 Impacts

This section is only used for stage 5 and stage 6

Costs

Code administration costs	
Resource costs	£0 - 0 Workgroup meetings
	£0 - Catering
Total Code Administrator costs	£0

Industry costs (Standard CMP)		
Resource costs	£0 - 0 Workgroup meetings	
	£2723 – 1 Consultations	
	0 Workgroup meetings	
	O Workgroup members	
	• 1.5 man days effort per meeting	
	1.5 man days effort per consultation	
	response	
	3 consultation respondents	
Total Code Administrator costs	£0.00	
Total Industry Costs	£2723.00	

Annex 1 – Code Administrator Consultation Responses

Annex 2 – Legal Text