CUSC Panel

13 December 2019

Faraday House, Gallows Hill, Warwick

WebEx details

Meeting link (copy into web browser):

https://uknationalgrid.webex.com/uknationalgrid/j.php?MTID=mc5fc721f94ea619c204d789bee97373f

Audio connection:

Telephone: 020 7108 6317

Access code: 591 773 488

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Welcome

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Housekeeping

- Fire alarms
- Facilities
- Red Lanyards

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Introductions / Apologies for Absence

Apologies

Alternate

Observers

- Damian Clough
- Robert Longden

Review of Actions within Actions Log

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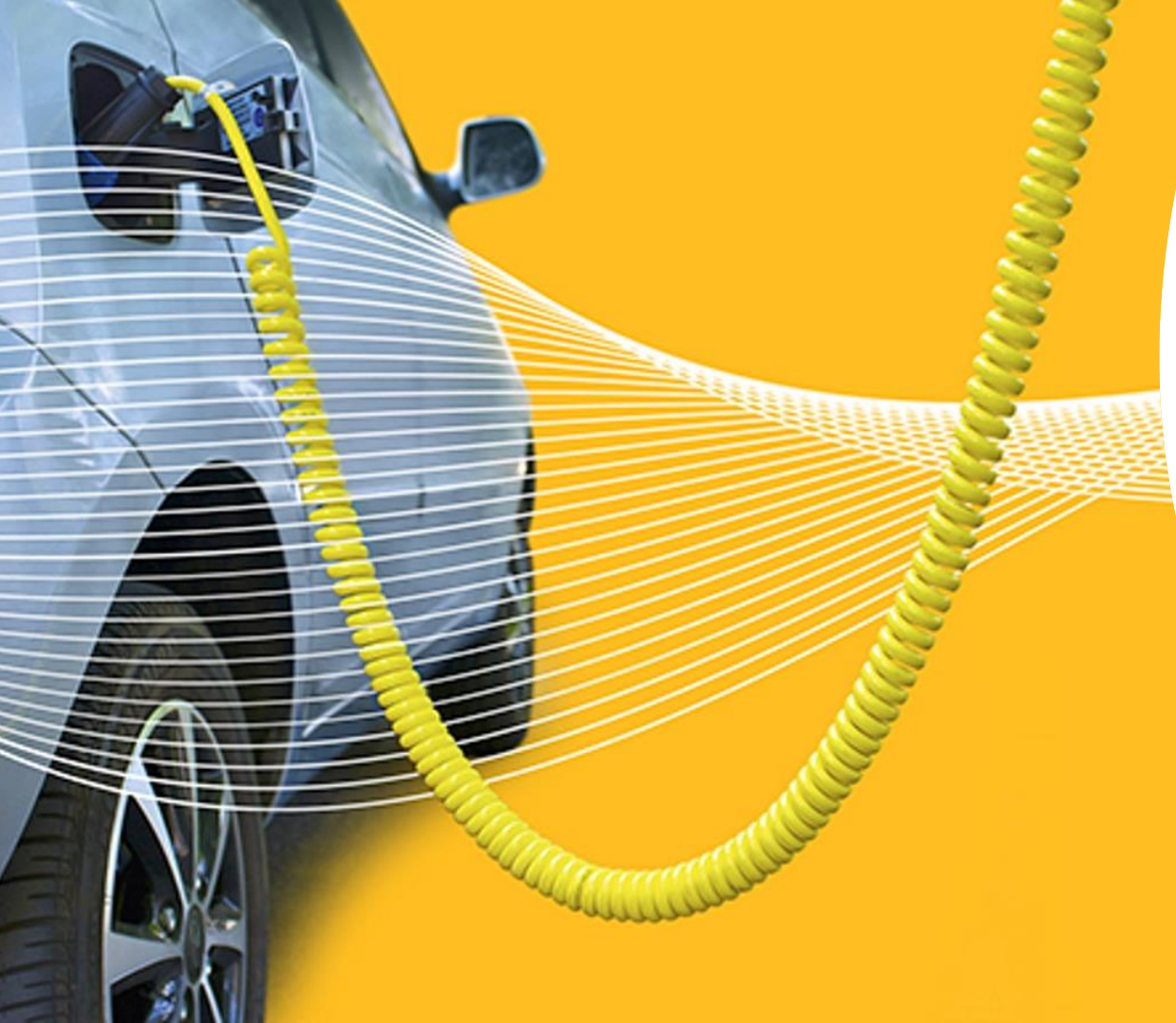

Authority Decisions

- CMP292
- CMP280/281
- CMP319
- CMP303
- CMP306
- CMP327/CMP317 Urgency
- CMP327/CMP317 Amalgamation

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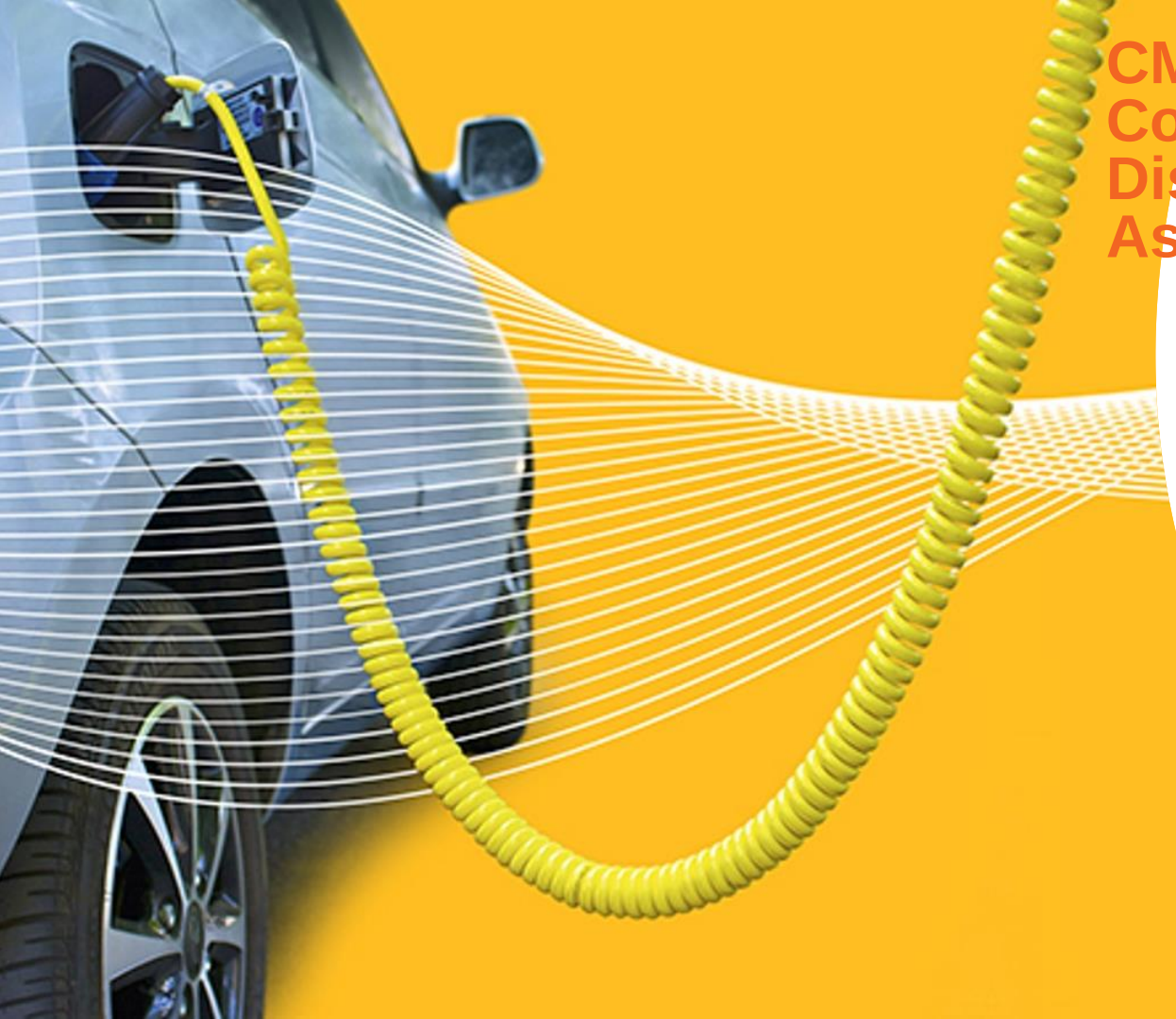

CMP328 - Connections Triggering Distribution Impact Assessment

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Critical Friend Feedback: CMP328

Code Administrator comments	Amendments made by the Proposer
Definition of acronyms to be added	All amendments accepted by Proposer

CUSC Modification Proposal

CMP328

Connections Triggering Distribution Impact Assessment

Scottish & Southern Electricity Networks

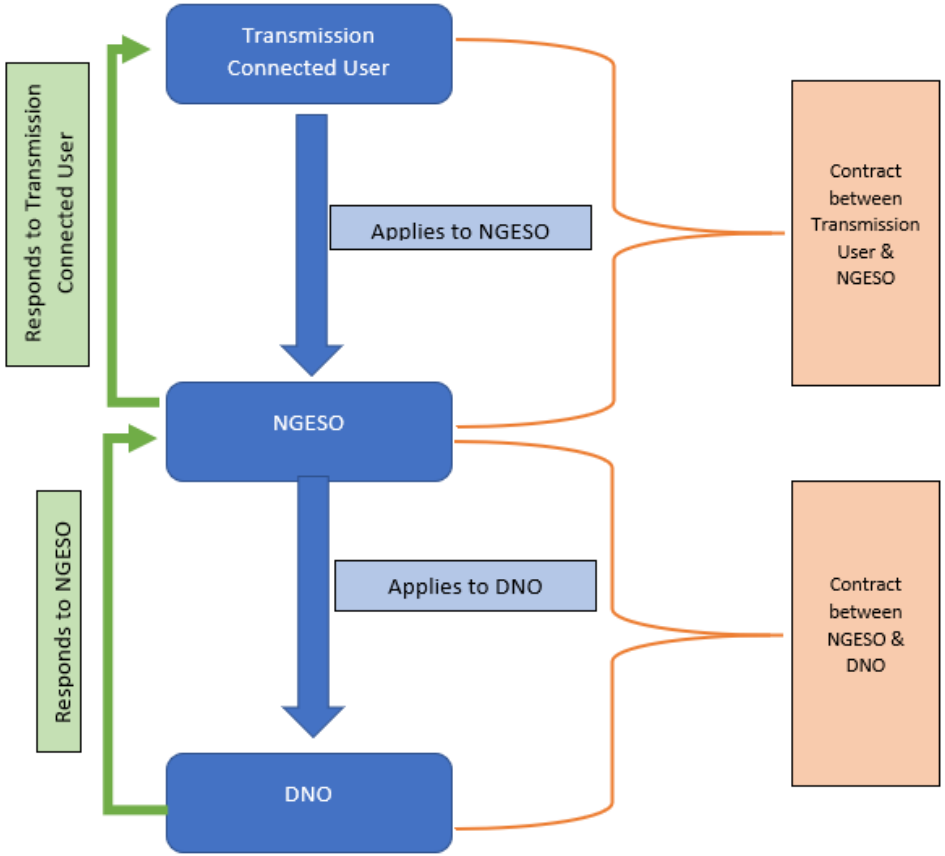
Background

- NGESO asked for comments on Tertiary Windings Connections during 2018.
- There followed a Tertiary Windings Connections workshop with all DNOs in early 2019 which identified a number of areas to address.
- However before these were addressed a number of offers to connect were made by NGESO and accepted by Transmission connectors.
- There followed an off shoot meeting from the ENA Electricity Networks and Futures Group (ENFG) with all DNOs and NGESO represented.
- NGESO had proposed utilising the Third Party Works process to facilitate these connections, however The Third Party Works process is not fit for this purpose.
- Currently within the CUSC there is no mechanism or specific process covering arrangements for Transmission connections such as these that could have an impact on the Distribution system.
- The consensus of the ENFG off shoot meeting was that a CUSC modification to address this concern would be required.

Defect: What, Why and How?

- The defect identified, is the lack of a robust process to be used when a transmission connection triggers a distribution impact assessment.
- What: The relevant section(s) of CUSC to be amended so as to provide an appropriate process for such connections, ensuring DNO obligations are ratified through enduring contractual bilateral relationships.
- Why: Third Party Works process is suitable for facilitating one-off tasks. It does not allow for a timescale for the Distribution impact assessment to be undertaken, the recovery of the costs associated with the assessment, or provide for the enduring contractualisation of conditions identified as necessary resulting from the assessment.
- How: Initial thoughts are to amend sections 2.16 Third Party Works, 6.9.3 Modifications Proposed by The Company and 11.3 of Interpretation and Definitions of the CUSC to define “Distribution Impact Assessment”.
- We would ask that the Workgroup develop the solution and legal text.

High level Process for Enduring Contractual Relationship



Thank You

Scottish & Southern Electricity Networks

Proposer Recommended Governance Route

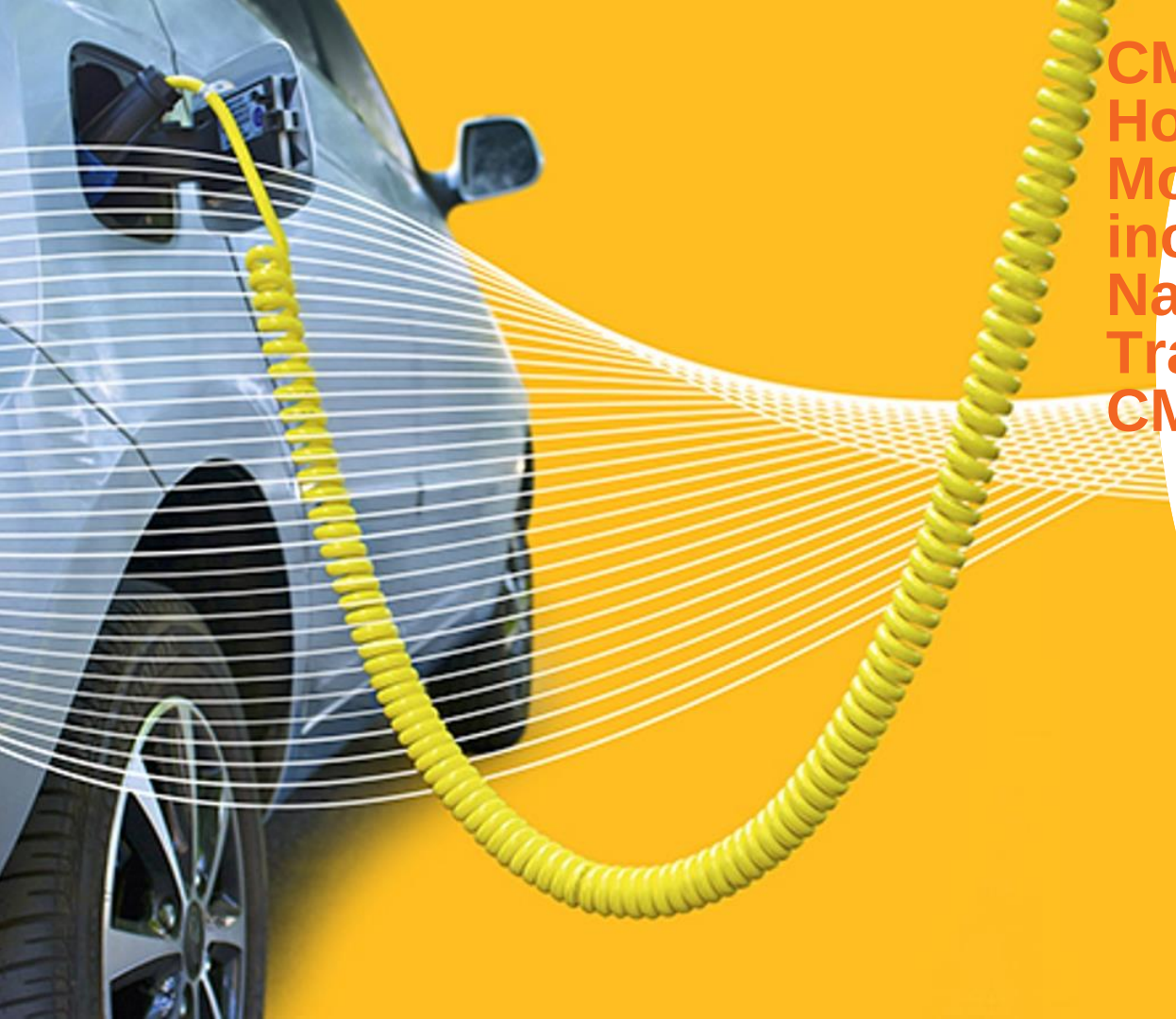
The Proposer recommends that this modification follows the standard governance route and proceed to workgroup.

Timeline will be agreed at 1st workgroup meeting.

Panel Decision

Does the Panel agree that:

- This is a standard governance modification; and
- This modification should proceed to Workgroup.



CMP329 - Housekeeping Modification to amend incorrect references to National Grid Electricity Transmission in the CMP295 legal text

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Critical Friend Feedback: CMP329

Code Administrator comments	Amendments made by the Proposer
• Minor typographical changes • Inclusion of wording to justify why the defect isn't wider and is limited to changes required to the CMP295 implementation	• All amendments accepted by Proposer

Purpose of Modification

This Modification seeks to amend incorrect references to National Grid Electricity Transmission Plc to National Grid Electricity System Operator in the CMP295 legal text.

Defect

On 22 November 2019, the Authority approved CUSC Modification CMP295 ‘Contractual Arrangements for Virtual Lead Parties (Project TERRE)’ It has been identified within the approved legal text that there are references to National Grid Electricity Transmission plc, which should be replaced with National Grid Electricity System Operator.

Why

The contractual arrangements should be between National Grid Electricity System Operator and the Virtual Lead Party.

How

It is proposed that a Fast Track Self-Governance Modification is raised to amend references to National Grid Electricity Transmission plc within the CMP295 legal text to National Grid Electricity System Operator.

Justification for Fast Track Self-Governance

The Proposer recommends that this Modification follows the Fast Track Self-Governance procedure as the changes meet the required criteria as the Modification is required as a result of factual change, including but not limited to:

iv) Updating out of date references to other documents or paragraphs.

The Self-Governance criteria is met as the modification is unlikely to discriminate between different classes of CUSC Parties and is unlikely to have a material effect on:

-Existing or future electricity customers;

-Competition in the generation, distribution, or supply of electricity or any commercial activities connected with the generation, distribution or supply of electricity,

-The operation of the National Electricity Transmission System

-Matters relating to sustainable development, safety or security of supply, or the management of market or network emergencies

The CUSC's governance procedures or the CUSC's modification procedures

For information, Fast Track Self-Governance – Guidance

-Rectify internal inconsistences

-Remove outdated (or redundant) information;

-Correct typographical errors in the CUSC; or

-Further development / detail existing processes or code arrangements (without introducing new requirements upon code parties which significantly impact business practices or systems).

Applicable CUSC Objectives

The Proposer believes that this change will better facilitate relevant objective (d).

Impact of the modification on the Applicable CUSC Objectives (Standard):	
Relevant Objective	**Identified impact**
(a) The efficient discharge by the Licensee of the obligations imposed on it by the Act and the Transmission Licence;	None
(b) Facilitating effective competition in the generation and supply of electricity, and (so far as consistent therewith) facilitating such competition in the sale, distribution and purchase of electricity;	None
(c) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency *; and	None
(d) Promoting efficiency in the implementation and administration of the CUSC arrangements.	Positive

The Proposer believes that this change will better facilitate relevant objective (d).

Timetable

It is proposed that the CMP329 Fast Track Self-Governance Proposal is implemented 1 working day after the appeals window closes, providing no objections have been raised.

The proposed implementation date is 10 January 2020.

The Code Administrator recommends the following timetable:	
Draft Fast Track Self- Governance Report issued to the CUSC Panel	5 December 2019
Draft Fast Track Self-Governance Report presented to Panel	13 December 2019
Modification Panel decision	13 December 2019
Appeals Window closes (15 Working Days)	9 January 2020
Decision implemented in CUSC	10 January 2020

Panel Decision

Does the Panel agree that:

- Fast Track Self-Governance procedures should apply; and
- This Fast Track Proposal should be implemented.

CMP330 'Removing the Generator Residual from TNUoS Charges'

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Critical Friend Feedback: CMP330

Code Administrator comments	Amendments made by the Proposer
• Proposed new title - needs to state that the Modification is seeking to allow parties to build connection assets >2km • Added contact details and dates • Identified Transmission Owners as an impacted party • Sought clarification as to whether this also applies to parties who have current Construction Agreements but have not yet connected • Proposed that an STC change may be needed	• All amendments/clarifications made by Proposer including adding a comment that whether or not an STC change is required will be part of the Workgroup's Terms of Reference

CMP330:
Allowing new Transmission Connected parties to build Connection Assets greater than 2km in length

Energy Potential

Allowing new Transmission Connected parties to build Connection Assets greater than 2km in length - Defect

Defect Identified:

- *CUSC definition of connection assets set down in 14.2.6:*

  14.2.6 Connection assets are defined as all those single user assets which:

  a) for Double Busbar type connections, are those single user assets connecting the User's assets and the first transmission licensee owned substation, up to and including the Double Busbar Bay;

  b) for teed or mesh connections, are those single user assets from the User's assets up to, but not including, the HV disconnector or the equivalent point of isolation;

  c) for cable and overhead lines at a transmission voltage, are those single user connection circuits connected at a transmission voltage equal to or less than 2km in length that are not potentially shareable.

- Part c) prevents a third party from constructing cable and overhead lines at transmission voltages that are over 2km
- The 2km constraint can lead to more expensive connections and a longer connection time

Energy Potential

Allowing new Transmission Connected parties to build Connection Assets greater than 2km in length – Proposed Solution

Proposed solution:

- *To amend the definition of connection assets as follows:*

14.2.6 Connection assets are defined as all those single user assets which:

a) for Double Busbar type connections, are those single user assets connecting the User's assets and the first transmission licensee owned substation, up to and including the Double Busbar Bay;

b) for teed or mesh connections, are those single user assets from the User's assets up to, but not including, the HV disconnector or the equivalent point of isolation;

c) for cable and overhead lines at a transmission voltage, are those single user connection circuits connected at a transmission voltage ~~equal to or less than 2km in length that~~ which are not potentially shareable and:

(i) equal to or less than 2km in length, unless

(ii) the relevant Transmission Owner, The Company and the User all agree that this limit should be revised, and that the asset specified should be defined as a Connection asset. Such agreement should not be unreasonably withheld.

Energy Potential

Allowing new Transmission Connected parties to build Connection Assets greater than 2km in length – Impact

Impact:

- This mod introduces more contestability into the construction of connection assets.
- The impact is more efficient connections which are potentially completed more quickly and/or at potentially lower cost
  - The proposer has identified that they can construct a cable to connect their windfarm that will enable energisation **four** years earlier than if the asset is constructed by the transmission owner.
  - The proposer also highlights that the asset they would like to construct is at 132kV and would be considered as contestable in England & Wales as a non-transmission voltage. However, they are unable to undertake this work in Scotland
  - Intent is for the asset to be constructed by a third party then adopted by the transmission company
- No direct impact on consumers or other generators. However, enabling transmission connected generation to connect more quickly and cheaply should benefit GB as a whole.

Energy Potential

Proposer Recommended Governance Route

The Proposer recommends that this modification follows the standard governance route and proceed to workgroup.

Timeline will be agreed at 1st workgroup meeting.

Panel Decision

Does the Panel agree that:

- This is a standard governance modification; and
- This modification should proceed to Workgroup.

CMP331 'Removing the Generator Residual from TNUoS Charges'

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Critical Friend Feedback: CMP331

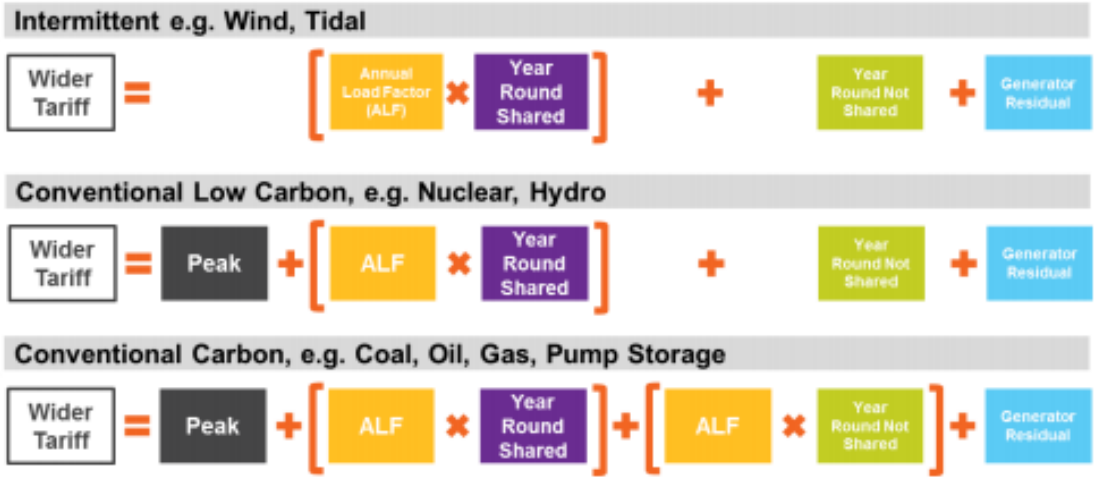
Code Administrator comments	Amendments made by the Proposer
• Proposed new title - needs to remove reference to intermittent generators. • Added contact details and dates. • Sought clarification on which types of generator were impacted – is it all new generators or intermittent only as the title suggests or are existing impacted as well?	• All amendments/clarifications made by Proposer including removal of reference to intermittent generators in the title and identifying a low impact for existing generators.

CMP331:
Option to replace generic Annual Load Factors (ALFs) with site specific ALFs

Background –Annual Load Factors (ALFs)

Annual Load Factors (ALFs) are used to determine a transmission connected generators wider TNUoS charge

ALFs are used to allocate TNUoS costs that are incurred throughout the year (i.e. those costs that are not driven by peak demand)



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Background – Generic ALF Calculation

Generic ALFs are based on an average of three years of historical ALF data (extracted from a data set of up to five years where the highest and lowest years are discarded or the lowest discarded if only four years of data is available)

Power Station	Technology	Yearly Load Factor Source					Yearly Load Factor Value					Specific ALF
		2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	
ACHRUACH	Onshore_Wind	Generic	Generic	Partial	Actual	Actual	0.0000%	0.0000%	33.6464%	36.7140%	44.3464%	38.2356%
AFTON	Onshore_Wind	Generic	Generic	Generic	Generic	Partial	0.0000%	0.0000%	0.0000%	0.0000%	34.8738%	37.2641%
AIKENGALL II	Onshore_Wind	Generic	Generic	Generic	Generic	Partial	0.0000%	0.0000%	0.0000%	0.0000%	33.5082%	36.8089%
AN SUIDHE	Onshore_Wind	Actual	Actual	Actual	Actual	Actual	41.5843%	36.9422%	35.4900%	34.0938%	41.2323%	37.8882%
ARECLEOCH	Onshore_Wind	Actual	Actual	Actual	Actual	Actual	33.8296%	29.7298%	36.8612%	19.7246%	35.1728%	32.9108%
BEINNEUN	Onshore_Wind	Generic	Generic	Generic	Partial	Actual	0.0000%	0.0000%	0.0000%	30.9623%	25.8214%	31.7476%
BHLARAIDH	Onshore_Wind	Generic	Generic	Generic	Partial	Actual	0.0000%	0.0000%	0.0000%	33.4339%	46.3209%	39.4047%
BLACK LAW	Onshore_Wind	Actual	Actual	Actual	Actual	Actual	31.9648%	26.7881%	26.9035%	23.4623%	21.2137%	25.7180%
BLACKCRAIG WINDFARM	Onshore_Wind	Generic	Generic	Generic	Generic	Partial	0.0000%	0.0000%	0.0000%	0.0000%	36.0208%	37.6465%
BLACKLAW EXTENSION	Onshore_Wind	Generic	Generic	Partial	Actual	Actual	0.0000%	0.0000%	33.4635%	13.1095%	30.4870%	25.6867%
CARRAIG GHEAL	Onshore_Wind	Actual	Actual	Actual	Actual	Actual	45.2760%	48.9277%	45.6254%	40.4211%	45.5371%	45.4795%
CLYDE (NORTH)	Onshore_Wind	Actual	Actual	Actual	Actual	Actual	42.6598%	36.8882%	41.4120%	26.8858%	39.2619%	39.1873%
CLYDE (SOUTH)	Onshore_Wind	Actual	Actual	Actual	Actual	Actual	39.8941%	29.4115%	39.9615%	34.8751%	39.1634%	37.9775%
CORRIEGARTH	Onshore_Wind	Generic	Generic	Generic	Partial	Actual	0.0000%	0.0000%	0.0000%	22.5645%	41.2013%	34.0750%
CORRIEMOILLIE	Onshore_Wind	Generic	Generic	Generic	Partial	Actual	0.0000%	0.0000%	0.0000%	32.2316%	30.4210%	33.7040%

Fuel Type
Biomass
Coal
Gas
Hydro
Nuclear (by reactor type)
Oil & OCGTs
Pumped Storage
Onshore Wind
Offshore Wind
CHP

Defect – Issue with Generic ALF

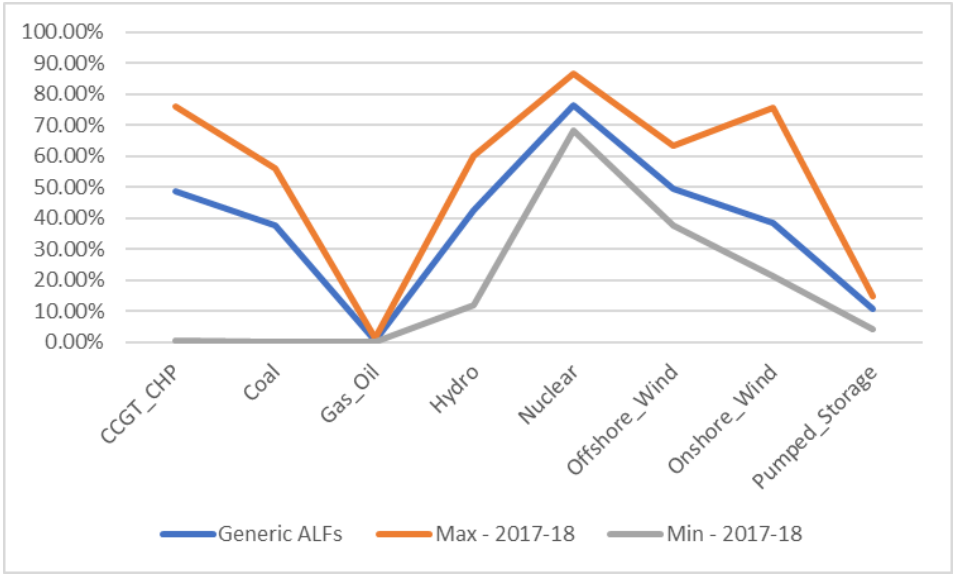
Generic ALFs can be very different to actual load factors for a generation type.

This can lead to a generator over or under paying for TNUoS:

ALF < generic ALF: Generators pays too much TNUoS

ALF > generic ALF: Generators pays insufficient TNUoS

Range of ALFs can be large as illustrated in the graph (e.g. onshore wind varied between 25.7% and 52.0% for 2019-20 values)



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Proposed Solution

The proposed solution is to allow the Generic ALFs to be replaced with a site specific ALF where:

Forecast of the site specific ALF as determined by an independent third party

Investors require these reports for financing purposes.

Proposed criteria for a report to be valid is that it is “bankable”

As actual data becomes available this overwrites the site-specific ALF as it would with a generic ALF

Proposer envisages that site-specific ALFs are more applicable to intermittent generation that cannot export on demand. However, mod should not be discriminatory, so non-intermittent generators should be able to put forward a case why their site should be eligible for a site specific ALF (e.g. where a new generator has a STOR contract)

Working Group may need to consider if plant with site specific ALF are excluded from the generic ALF calculation

Impact

This solution enables new generators to pay TNUoS based on their expected use of the transmission of the network

More closely aligns the initial TNUoS charge with the enduring charge.

More closely aligns initial TNUoS charge with expected wholesale market revenue:

A high load factor power station would have greater wholesale income which offsets a higher TNUoS charge

A lower load factor power station would have lower wholesale income which offsets a lower TNUoS charge

Any change in TNUoS revenue would primarily be recovered from other transmission connected generators.

Proposer Recommended Governance Route

The Proposer recommends that this modification follows the standard governance route and proceed to workgroup.

Timeline will be agreed at 1st workgroup meeting.

Panel Decision

Does the Panel agree that:

- This is a standard governance modification; and
- This modification should proceed to Workgroup.

Break

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In Flight Modification Updates

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Dashboard – CUSC (as at 5 December 2019)

Category	Jul	Aug	Sep	Oct	Nov	Dec
New Modifications	2	0	4	2	1	4
In-flight Modifications (includes those on hold)	30	29	29	33	35	38
Modifications issued for workgroup consultation	0	0	1 *(CMP320)*	1 *(CMP311)*	0	0
Modifications issued for Code Administrator Consultation	4 *(CMP 280/1, 292,295, 319)*	0	2 *(CMP303 and CMP306)*	2 *(CMP281 and CMP322)*	0	0
Workgroups held	6	2	5	5	5	2
Authority Decisions	1 *(CMP285)*	1 *(CMP314)*	0	0	2 *(CMP295 and CMP318)*	0
Implementations	1 *(CMP285)*	1 *(CMP313)*	0	0	1 *(CMP321)*	0
Modifications on Hold	6	6	6	6	6	6
Workgroups postponed due to quoracy issues	1 *(CMP300)*	1 *(CMP300)*	0	0	0	1 *(CMP326)*

CUSC Workgroups for next 3 months (as at 5 December 2019)

Completed	Booked in	To be arranged	No further Workgroups needed	New Mods
CUSC	**December**	**January**	**February**	**Additional Comments**
CMP327/CMP317	x	x	x	CMP327 to be worked on jointly with CMP317. Formally sought amalgamation from Ofgem.
CMP324 / CMP325	19/12/2019	x	x	
CMP308		x?		Consider if can be run alongside new TCR BSUoS Mod or run separately?
CMP311	10/12/2019	x		January Workgroup Vote w/c 6 or w/c 13 January or at 10 December meeting
CMP326		x		Meeting on 11 December 2019 cancelled
CMP316				Proposed Next Workgroup - March 2020 (unless can be fitted in earlier around TCR Modification Workgroups)
CMP320	05/12/2019			Meeting 5 December to carry out workgroup vote
CMP304	16/12/2019			Workgroups post 16 December 2019 to be advised
CMP315				TO analysis needed and will not be available until Q1 2020 - need to consider re-priortising. Proposed Next Workgroup - March 2020
CMP288/289	02/12/2019			Proposed Next Workgroup - March 2020
CMP291				Proposed Next Workgroup - March 2020
CMP286/ CMP287				Proposed Next Workgroup - March 2020
CMP298				Meeting 9 December postponed; next meeting to be advised following receipt of comments from Workgroup on documents issued 25 October 2019
CMP300				Workgroup report to be presented to January Panel
CMP328				To be raised at December Panel - workgroup needed
CMP329				Consequential housekeeping Mod as a resullt of CMP295 decision - No Workgroup proposed
CMP330				To be raised at December Panel - workgroup needed
CMP331				To be raised at December Panel - workgroup needed

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Grid Code Workgroups for next 3 months (as at 5 December 2019)

Completed	Booked in	To be arranged	No further Workgroups needed	New Mods
GRID CODE	**December**	**January**	**February**	**Additional Comments**
GC0132	10/12/2019			
GC0131	17/12/2019	x?		January Workgroup to hold Workgroup Vote
GC0130		14/1/2020		Workgroup 14 January 2020 to discuss Workgroup Consultation responses (Workgroup Consultation open to 23 December 2019)
GC0109		x?		Workgroup Consultation due out imminently (awaiting updates from Proposer which we have requested but not yet received) Workgroups needed post January to be confirmed
GC0134		x?		Workgroup is quorate - looking at 1st Workgroup meeting 7 or 8 January 2020
GC107/113				Workgroup Vote carried out on 27 November.
GC0117				Proposed Next Workgroup - March 2020
GC0103				Proposed Next Workgroup - March 2020
GC0136				Housekeeping Mod to be raised at December 2019 Panel: To be confirmed at December Panel if Workgroup needed - proposing to go to Code Administrator Consultation
GC0137				VSM Mod to be raised for December 2019 Panel: To be confirmed at December Panel if Workgroup needed. Likely to go to Workgroup

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Discussions on Prioritisation

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Workgroup Report

CMP320 - Island MITS Radial Link Security Factor

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CMP320 Background

- CMP320 was raised by SSE Generation Limited and was submitted to the CUSC Panel for their consideration in July 2019.
  - The CUSC Panel decided that this modification should follow the standard route by forming a Workgroup and the modification being submitted to the Authority for decision
  - On 5 August 2019, Proposer sought Urgency and although this was recommended (by majority) by Panel, Ofgem did not agree.

- CMP320 seeks to amend Section 14 of the CUSC to apply a Security Factor of 1.0 (rather than 1.8) where a MITS node is located on an island which, in turn, is connected to the mainland on a single radial circuit.

- 4 Workgroup Meetings held:
- Workgroup Consultation ran from 6 to 27 September 2019 and 11 responses were received with most respondents supportive of the Original Proposal. However,
  - Some respondents believed a better option would be to redefine what a MITS node is in terms of remote islands connected by a single circuit and reclassify them as “local circuits”. This became a Workgroup Alternative Code Modification (WACM1); and
  - Some respondents believed the scope should be extended to all connections with the same characteristics. This became WACM2.
  - Note there was challenge from 2 Workgroup members (including the Proposer) as to whether these WACMs were valid as in their view they were addressing a different defect. However, after considered debate the workgroup voted by majority that these were valid alternatives.

CMP320 Background – Workgroup Vote

- Workgroup Vote took place 5 December 2019
  - Workgroup concluded unanimously that the Original better facilitated the Applicable CUSC Objectives than the baseline;
  - The Workgroup by majority concluded that both WACM1 and WACM2 better facilitated the Applicable CUSC Objectives than the baseline. 2 Workgroup members abstained from this vote as they did not consider these to be valid alternatives;
  - The Workgroup by majority that both WACM1 (5 out of 8 votes) and WACM2 (5 out of 8 votes) better facilitated the Applicable CUSC Objectives than the Original. 2 Workgroup members abstained from this vote; and
  - 4 Workgroup Members voted that WACM1 was the best option, 4 votes were also cast for WACM2 and 2 votes were cast for the Original.

CMP320 Terms of Reference

- The Workgroup conclude that they have met their Terms of Reference and the references can be located below:

Specific Area	Location in the report
a) The extent to which the MITS connection is financially firm	Section 4
b) Consider the origin of the local circuit security factor and whether those principles need to be considered within the Modification	Section 4
c) Consider impacts on and interactions with SQSS	Section 4
c) Objective criteria for pulling specific circuits out of the treatment of 1.8 security factor and whether or not it impacts on the calculation of the 1.8 security factor	Section 4
c) Ensuring proposed solution doesn't introduce undue discrimination	Section 4

Next steps

- Code Administrator Consultation to be issued
- Timetable below:

Stage gate	Date
Code Administrator Consultation	17 December 2019 to 17 January 2020
Draft Final Modification Report presented to the CUSC Panel for their Recommendation Vote	23 January 2020
CUSC Modification Panel Recommendation Vote	31 January 2020
Circulation of Final Modification Report for Panel review ahead of submission to Authority (5 working days)	4 February 2020
Final Modification Report submitted to Authority for decision	12 February 2020
Implementation date	1 April 2021

CMP320 – Asks of the Panel

The Panel is invited to:

- Consider whether the Workgroup has met its terms of reference
- Agree for CMP320 to proceed to Code Administrator Consultation

Forward Plan Update (Customer Journey)

(January, March, May, July, September, November)

- **Forward Plan Deliverables**

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Next Panel Meeting

10am on 31 January 2020 at Faraday House, Warwick, CV346DA

Modification Proposals to be submitted by 16 January 2020

Papers Day – 23 January 2020

AOB

Close and Lunch

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