

CUSC Modification Proposal Form	At what stage is this document in the process?
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CMP337:

Mod Title: Impact of DNO Contributions on Actual Project Costs and Expansion Factors



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:

On 17 December 2019 the Authority approved the principle of a licenced Distribution Network Operator (DNO) making a contribution to a licenced Transmission Owner (TO) towards the cost of a transmission asset, which recognises the value to the DNO (and its customers) of the transmission asset provided by that TO. The Authority also confirmed it would approve the specific contribution by SHEPD towards the costs of SHE Transmission’s (SHET) Shetland transmission link upon approval of the Needs Case for that link, which is expected in summer 2020. In its decision the Authority instructed SHEPD to progress a CUSC change to enable implementation of the decision, in order that the contributions can be made in a timely manner and consumer benefits (c.£140m), which are the focus of the Authority determination, are realised.

This purpose of this CUSC modification is to make simple, minor and mechanistic changes to sections 14.15.75 and 14.15.76 of the CUSC, already agreed in principle by the Authority as reflecting the policy intent of its decision, in order to clarify and remove ambiguity associated with interpretation of the application of the contributions in relation to “actual project costs”. The changes will make clear that a DNO contribution would be applied to reduce the total costs of the new transmission asset to the TO, and would be netted off from the TO’s “actual project costs” in a way which changes no aspect of transmission charging and maintains the exact pro-rating of costs between local and wider TNUoS charge elements as is currently in place.

This modification should be considered in conjunction with the associated new definition of “Cost Adjustment” in the accompanying CUSC mod CMP338- both CUSC modifications should be progressed and approved simultaneously.

	<p>The Proposer recommends that this modification should:</p> <ul style="list-style-type: none"> following review of Legal Text by NGESO, proceed to Code Administrator Consultation, further to the Authority’s 17 December 2019 decision on SHEPD’s Recommendation on island transmission link contributions; and progress to approval by the Authority. <p>This modification was raised 16 January 2020 and will be presented by the Proposer to the Panel on 31 January 2020. The Panel will consider the Proposer’s recommendation and determine the appropriate route.</p>
	<p>Low Impact – NGESO, all Users who pay Generation TNUoS</p> <p>Medium Impact – Distribution Network Operators, Transmission Owners, Remote Island Generators (Shetland, Western Isles and Orkney)</p>

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Timetable		
The Code Administrator recommends the following timetable:		
Code Administrator Consultation issued to the Industry	14 February 2020	Contact: Code Administrator: Paul Mullen
Code Administrator Consultation closes	6 March 2020	 paul.j.mullen@nation algrideso.com
Draft Final Modification Report presented to Panel	19 March 2020	 07794537028
Modification Panel decision	27 March 2020	Proposer: Rachel Kettles
Final Modification Report issued to the Authority	7 April 2020	 rachel.kettles@sse.c om
Decision implemented in CUSC	1 April 2024	 01738 512023
		National Grid ESO Representative: Jon Wisdom
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Proposer Details

Details of Proposer: (Organisation Name)	Rachel Kettles, SHEPD
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:	Rachel Kettles SSEN (SHEPD) 01738 512023 rachel.kettles@sse.com
Details of Representative's Alternate: Name: Organisation: Telephone Number: Email Address:	Michael Ferguson SSEN michael.ferguson@sse.com
Attachments (Yes/No): Yes	
If Yes, Title and No. of pages of each Attachment: SHEPD CUSC Modification Proposal 2 - Impact of DNO Contributions on Actual Project Costs and Expansion Factors - Definition Change; SHEPD CUSC Modification Proposals 1 and 2 - Impact of DNO Contributions on Actual Project Costs and Expansion Factors - Appendix - TCMF queries; Authority Decision on Scottish Hydro Electric Power Distribution's proposals to contribute towards proposed electricity transmission links to Shetland Western Isles and Orkney , specifically Authority Contribution Decision , SHEPD Shetland DSO Recommendation – December 2019 Addendum	

Impact on Core Industry Documentation.

Please mark the relevant boxes with an "x" and provide any supporting information

BSC	<input type="checkbox"/>
Grid Code	<input type="checkbox"/>
STC	<input checked="" type="checkbox"/>
Other	<input type="checkbox"/>

(Please specify)

A definition clarification similar to that proposed within this modification proposal may be required within the STC.

1 Summary

Defect

In its decision of 17 December 2019 the Authority approved the principle of a licenced DNO making a contribution to a licenced TO, which recognises the value to the DNO (and its customers) of a new transmission asset provided by that TO.¹ Under this arrangement, the total cost of the transmission asset is not affected, but the cost is split between the customers of the relevant DNO and the TO (TNUoS) as users of the asset, according to the value that the asset brings to the DNO as a user of the asset, approved separately by the Authority.

The Authority decision highlights that the CUSC is currently ambiguous as to whether the Transmission Owner costs referred to at 14.15.75 ("actual project costs") may be a value which is, in certain cases, net of a DNO contribution. "Actual project costs" are used to calculate AC subsea cable and HVDC circuit expansion factors. As "actual project costs" is undefined it is not explicitly clear, and open to interpretation, i) whether "actual project costs" may, in certain circumstances, be a value from which a contribution has been netted off, and ii) whether an "actual project costs" value which is net of a contribution is recovered through local and wider TNUoS charges on exactly the same pro-rated basis as is currently applied to allocate those costs to the local and wider TNUoS charge elements.

The minor, simple and mechanistic CUSC modification proposed by SHEPD, already agreed in principle by the Authority as set out in its decision, is required to only to make it clear that "actual project costs" may be a value net of a contribution, and to ensure that there is no impact upon the existing pro-rating of costs across local and wider TNUoS charge elements.

What

¹ [Decision on Scottish Hydro Electric Power Distribution's proposals to contribute towards proposed electricity transmission links to Shetland, Western Isles and Orkney](#), 17 December 2019

The Authority has determined that distribution consumers may contribute towards transmission links where this is of value to distribution consumers (the value of the contribution or “Cost Adjustment” being a value determined separately by the Authority). As the total cost is shared with distribution customers, the “Cost Adjustment” is applied to the total cost of the asset.

The defect is that the CUSC is ambiguous as to whether it allows “actual project costs” to be defined as a value from which a contribution has been netted off, to reflect the fact that distribution customers are paying for the contribution, as determined by the Authority; and also an “actual project costs” value net of a contribution is attributed to local and wider TNUoS charge elements in exactly the same way as an “actual project costs” value from which a contribution has not been netted off.

In the Authority decision of 17 December 2019, a CUSC modification is determined to be required simply in order to clarify: i) the definition of “actual project costs” at paragraph 14.15.75 of the CUSC, to reflect that where there is a relevant Authority decision to allow a contribution from a separate licensee to be made towards another licensee’s transmission link costs, “actual project costs” will be net of the value of this contribution; and ii) that an “actual project costs” value which is net of the value of a contribution is recovered through local and wider TNUoS charges on exactly the same pro-rated basis as is currently applied to allocate those costs to the local and wider TNUoS charge elements, via a modification of paragraph 14.15.76 of the CUSC.

These proposed modifications have therefore been set out to clarify that “actual project costs” may be net of a contribution (which would be calculated, and made, in line with that Authority decision).

The Authority’s 17 December 2019 decision sets out agreement:

- i. with the principle of a licensee contribution towards another licensee’s project, and SHEPD’s contribution towards the cost of the Shetland transmission link specifically; and
- ii. that SHEPD’s proposed modification to the CUSC reflects the policy intent of its decision, SHEPD’s proposal being:
 - a. that it is clarified that “actual project costs” of the transmission licensee may be a value from which a contribution has been netted off, via a minor modification of the CUSC at 14.15.75, and
 - b. that an “actual project costs” value which is net of a contribution is pro-rated and recovered through local TNUoS charges and wider charges on exactly the same pro-rated basis as is currently applied to allocate those costs to the local and wider TNUoS charge elements, via a minor modification of the CUSC at 14.15.76, meaning that it is clear that the value of the contribution would be reflected pro-rata in local and wider TNUoS charges.

This modification proposal implements the Authority decision through the modification of clauses 14.15.75 and 14.15.76 of the CUSC in order to make it clear that AC cable and HVDC circuit expansion factors are calculated on a case by case basis using “actual project costs” (Specific Circuit Expansion Factors) net of any payment by a DNO (the “Cost Adjustment”), should such a contribution be determined by the Authority.

An “actual project costs” value which is net of a contribution would flow mechanistically through to the calculation of TNUoS charges for the shared transmission asset exactly as an “actual project costs” value to which no contribution has been applied – there is no change to TNUoS charging methodology or mechanism. The allowed revenue value which is applied as the “actual project costs” value is determined separately by the Authority, as it is under

existing processes (e.g. price control or Strategic Wider Works determinations), according to all associated standard regulatory and consultative processes. It is understood and approved as part of the Authority decision that the specific transmission link costs impacted by the proposals, and therefore the specific local and wider TNUoS charges which result from those costs, are reduced by the contributions.

The Authority has also confirmed approval of the particular case of such a contribution towards the new transmission link to Shetland proposed by SHE Transmission when the associated Final Needs Case is approved (expected mid-2020), and expects to consult on recommended contributions towards transmission links to Orkney and the Western Isles in early 2020.

SHEPD has proposed that a contribution is defined as a “Cost Adjustment” in the CUSC modification. As the CUSC does not currently have a definition of “Cost Adjustment” this is addressed in the accompanying CUSC modification proposal CMP338.

Why

The defect is that the CUSC is ambiguous as to whether it recognises that “actual project costs” may be a value from which a DNO contribution has been netted off, to reflect the fact that distribution customers are making a contribution with the effect of sharing cost between two licensees as determined separately by the Authority. This contribution or “Cost Adjustment” would have the effect that customers paying TNUoS pay for the *net* cost of the asset. The modification seeks to provide clarity and certainty that the “actual project costs” value would, where a contribution has been approved by the Authority, be a *net* cost value. As the CUSC does not currently include the term or definition of “Cost Adjustment”, this is addressed in the associated CUSC modification proposal CMP338.

Currently the CUSC states that AC subsea cable and HVDC circuit expansion factors are calculated using “actual project costs” (Specific Circuit Expansion Factors). As currently drafted, in the absence of a definition, it is not clear whether the “actual project costs” value may be a value from which a contribution made by a licensed DNO (as approved by the Authority) towards the cost of a transmission link (constructed and operated by a Transmission Owner) has been netted off, and consequently whether such a netted-off value would affect the pro-rating of the project costs between local TNUoS charges paid by users of that asset (as it must to avoid over recovery) and the wider TNUoS charges, in the context of CUSC 14.15.75 and 14.15.76. If this change to the CUSC is not made, ambiguity will remain in determining the application and effect of SHEPD’s contributions towards relevant transmission asset project costs (such contributions being approved by the Authority on a case by case basis), and this could lead to mis-implementation of the contribution proposals. For example, it is possible that the total cost of the asset could be recovered from users of the transmission network, and the contribution or “Cost Adjustment” could also be recovered from users of the distribution network, creating duplication of cost, and potentially duplication of recovered costs by a transmission licensee. If the proposed changes to 14.15.76 are not made it is possible that this could lead to the application of the entire contribution towards local TNUoS charges, rather than being applied to costs attributed to both local and wider charges. The modification prevents a distortive effect on locational charging, as it ensures that any “actual project costs” value which is net of a contribution is pro-rated across both local and wider TNUoS according to the existing pro-rating of those costs across the charge elements.

How

The Authority has determined that a contribution should be applied towards the total cost of a transmission project, as set out at CUSC 14.15.75, in order that the cost is shared between users of that asset with the consequence, as a function of existing TNUoS methodology, that both local generator and wider TNUoS charges are reduced, and that these should be reduced proportionally to the percentage of the cost of an asset local generators and the wider customer base pay for. The December 2019 Authority decision sets out agreement:

- i. with the principle of a licensee contribution towards another licensee’s project, and SHEPD’s contribution towards the cost of the Shetland transmission link specifically²; and
- ii. that SHEPD’s proposed modification to the CUSC reflects the policy intent of its decision, SHEPD’s proposal being:
 - a. that it is clarified that “actual project costs” of the transmission licensee may be a value from which a contribution has been netted off, via a minor modification of the CUSC at 14.15.75, and
 - b. that an “actual project costs” value which is net of a contribution is pro-rated and recovered through local TNUoS charges and wider charges on exactly the same pro-rated basis as is currently applied to allocate those costs to the local and wider TNUoS charge elements, via a minor modification of the CUSC at 14.15.76, meaning that it is clear that the value of the contribution would be reflected pro-rata in local and wider TNUoS charges.

A hypothetical worked example of the application of a contribution or “Cost Adjustment” further to the methodology approved in the decision is set out below.

Diagram 1 – Indicative effect of contribution on “actual project costs” value

“Actual project costs”:	£100m	
“Actual project costs” included in HVDC circuit expansion factors, and AC sub-sea circuit expansion factors (CUSC 14.15.76):	£75m	(75% of actual project costs)
DNO contribution (“Cost Adjustment”):	£10m	Determined by Authority
Net “actual project costs” (14.15.75):	£90m	(£100m - £10m)
Net “actual project costs” included in HVDC circuit expansion factors, and AC sub-sea circuit expansion factors (CUSC 14.15.76):	£67.5m	(£75m - 75% of £10m Cost Adjustment)

Detail has been shared with the Authority and NGENSO on these aspects. As set out in the Authority decision, as the SHEPD contribution is calculated based upon the total cost of the link, the value of the contribution should be allocated between the project costs that are covered by local TNUoS charges and those that are covered by wider TNUoS charges on exactly the same pro-rated basis as currently attributes project costs to local and wider

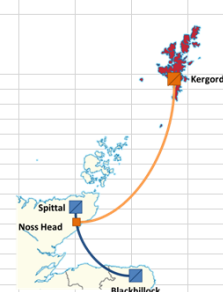
² To be approved when the Shetland link Needs Case is approved.

TNUoS charge elements. This is proposed to be clarified via a modification of CUSC paragraph 14.15.76. Any other approach would be unfair and would be inconsistent with the principle that only part of the costs of an asset are charged to generators. The modification therefore prevents a distortive effect on locational charging, as it ensures that the contribution is applied to reduce costs attributed to local and wider TNUoS according to the existing pro-rating of those costs.

SHEPD has also tested the contribution effect on TNUoS charges within the TNUoS charging calculator used and provided by NGESO, whereby the net “actual project costs” value is applied and pro-rated between local and wider TNUoS charge elements according to the existing pro-rating within TNUoS methodology, and the resultant effects upon local and wider tariffs are indicated. We note that i) SHEPD utilised indicative and public domain values as assumptions within the calculator, and ii) NGESO did not wish to provide a confirmed view of the effect of the contribution on TNUoS charges ahead of an Authority decision, though NGESO did confirm the correct *functionality* of the calculator, and iii) NGESO may now be in a position to do so in order to facilitate the efficient progress of the modification. We also emphasise again that the **only change in determining the changes to TNUoS charges is the change to the starting capital costs value** – there is no further change to TNUoS methodology.

Diagram 2 – NGESO HVDC Local TNUoS calculator - indicative effect of net project costs value on local TNUoS charges (redacted)

Shetland Link (in 2023/24 price) Taking Account of Contribution											
Expansion constant (2018/19) £/MWkm	14.08310011	Annual Inflation (RPI)			3%	Capex Base year			2019	Connection Year	2024
HVDC Element		600MW HVDC (Tied into Caithness-Moray to Shetland)									
		Caithness-Moray	+20%	+10%	+5%	Core	-5%	-10%	-20%		
Net Capital costs after deduction of Contribution and relevant components (cable & converter stations) (£m in 2018/19 prices, as provided by SSE in June 2019)	X										
Capacity (MW)			600	600	600	600	600	600	600		
Length			261	261	261	261	261	261	261		
Security Factor			1.0	1.0	1.0	1.0	1.0	1.0	1.0		
Cable Unit Capital Cost (£/MWkm) in 2024 price base			X	X	X	X	X	X	X		
* Caithness-Moray project cost was treated as per TCMF outcome, to reflect its impact on Shetland local circuit tariff. For detail please see the C_Link tab											
Security Factor	1		1	1	1	1	1	1	1		
Depreciation (years)	50		50	50	50	50	50	50	50		
Rate (%)	5.39%		5.39%	5.39%	5.39%	5.39%	5.39%	5.39%	5.39%		
Annuity			5.81%	5.81%	5.81%	5.81%	5.81%	5.81%	5.81%		
Overhead	1.80%		1.80%	1.80%	1.80%	1.80%	1.80%	1.80%	1.80%		
Annualised Cost (£/mwkm/annum)			X	X	X	X	X	X	X		
Indicative Tariff Element first leg (£/kW)			7.17	X	X	X	X	X	X		
Expansion Factor*											
Indicative Local Circuit Tariff (£/kW) - HVDC circuit including three legs			X	X	X	X	X	X	X	Caithness-Moray plus Shetland HVDC	
* Approximate figure, as wider system impact is not included here - need to run the full GB model to determine											



It is proposed to address the defect by amending clauses 14.15.75 and 14.15.76 (in conjunction with a supporting modification to define “Cost Adjustment” – see CMP338 as set out in Section 9, Legal Text, below.

2 Governance

Justification for Proposed Procedures

The modification to the CUSC is required to codify the Authority decision made on 17 December 2019. As the Authority has already determined that: a contribution may offset the costs of a transmission link and that those costs should be shared between a DNO and TO; that, for Shetland, has approved the specific contribution value; has agreed the requirement for a CUSC modification to implement the contribution proposals; and agrees that the specific changes proposed herein by SHEPD reflect the policy intent of that decision (the Authority has already set out, consulted upon and supports the

implementation route proposed by SHEPD and the changes set out within this CUSC modification proposal); and as the effects upon TNUoS charges have been indicatively considered within NGESO's HVDC local TNUoS charge calculator by SHEPD and are able to be formally confirmed quickly by NGESO; SHEPD therefore proposes that a workgroup assessment and consultation are not required. SHEPD recommends that the Legal Text is reviewed and agreed with NGESO, and that the CUSC modification proposal then progresses immediately to Code Administrator Consultation. Reflecting on the Authority's determination on SHEPD's associated contribution recommendations on 17 December 2019, we consider that self-governance is not an appropriate route. Review by NGESO of the Legal Text is the only area of work required to precede the Code Administrator Consultation, which we propose should take place immediately following the first Panel meeting. NGESO's review will be sufficient to produce a clear, effective and efficient CUSC modification for consultation in the Code Administrator Consultation phase which fully implements the Authority determination.

The request for the specific proposed procedures is also driven by a timing requirement. In its decision, the Authority sets out the interaction between the contribution and the Shetland Needs Case, noting:

"We would approve a contribution if:

- we approve the Final Needs Case for the proposed Shetland transmission project; and
- the contribution proposal is implemented appropriately".

In its [October 2019 updates on the island links Final Needs Cases](#), the Authority has indicated that in order for it to approve the transmission links to Shetland and the Western Isles, robust evidence is expected to demonstrate that the generation underpinning any Final Needs Case submissions is likely to go ahead. SHEPD understands from SHET that the evidence to demonstrate that the generation underpinning the Needs Case will go ahead, is FID. The developer has [publicly committed](#) to progressing with its project if the SHEPD contribution is approved. Therefore, as the Authority's final approval of the contribution is dependent on the proposal being implemented appropriately, the finalisation of this change to the CUSC would be needed prior to generator commitments (FID) being made. SHEPD understand from SHET that 12 May 2020 is the point at which the SSE governance process commences to finalise developer commitment, in order to meet the date of the required Authority Needs Case decision, being June 2020. If the CUSC modifications are not finalised before this point the generator is expected to be unable to reach Final Investment Decision (FID). If developer commitment cannot be confirmed because the CUSC modifications remain uncertain, the Authority's requirement for SHET to demonstrate developer commitment as part of the Needs Case will remain unmet, and the Authority can be expected to be unable to make its decision to approve the Shetland link Needs Case. If the Authority does not approve the Shetland link Needs Case by June 2020, SHET is anticipated to risk its programme for delivery by April 2024, as any further delay will trigger programme delay which in turn will drive delays to the planned energisation date which will negatively impact Shetland developers. These impacts are critical to SHEPD, because risk to the progression of the wind development and the transmission link risk the security of supply solution and associated savings of c.£140m for its distribution network customers which have been approved by the Authority as the basis and driver for the contribution arrangements.

The ramifications of this delay are expected to be material and far-reaching. SHET is anticipated to materially risk its programme for delivery by April 2024 if there is a delay beyond summer 2020. These impacts are critical to SHEPD, because risk to the progression of the wind development and the transmission link risk the security of supply solution and associated savings of c.£140m for its distribution network customers which have been approved by the Authority as the basis and driver for the contribution arrangements (being the savings compared to the lowest cost alternative solution identified in the market).

It would be unreasonable for a such a simple change to the CUSC to delay or prevent the completion of such significant renewable energy projects which, for Shetland specifically, are integral to the realisation of c.£140m savings compared with alternative solutions.

The implementation timescales are therefore that this modification is completed by May 2020, in order to finalise with expediency the implementation of the Authority determination set out in its 17 December 2019 decision. This period will allow for the modifications to be reviewed, consulted upon, and subsequently made in order to provide assurance for generators and other customers, enabling them to demonstrate their commitment to the transmission link, as required by the Authority as a prerequisite to the approval of the Needs Case (expected summer 2020). SHE Transmission submitted the revised Needs Case on 24 January 2020, and the Authority has committed to “consider any such revised submission as soon as possible”.

The proposed approval process for this simple change would also prevent undue delay to the many modifications to the CUSC which are understood to be in process, some of which may not have an associated Authority determination.

We highlight that SHEPD voluntarily attended the January 9 2020 TCMF meeting in order to provide industry with an indication of the CUSC modifications which we are now proposing to raise – please see the associated Appendix which sets out the queries raised by those at that meeting, and SHEPD’s responses to these.

Requested Next Steps

This modification should:

- be progressed alongside CMP338:
- be reviewed by NGESO (specifically the Legal Text); then
- be progressed to Code Administrator Consultation; and finally
- be progressed to the Authority for approval, by 12 May 2020.

3 Why Change?

On 17 December 2019 the Authority approved SHEPD’s contributions as a general principle, and confirmed it will approve the SHEPD contribution towards the cost of a new transmission link to Shetland upon its approval of the associated transmission Needs Case. The Authority also confirmed it intends to consult upon recommended contributions towards transmission links to Orkney and the Western Isles in early 2020. This change is required to clarify how the contribution(s) will affect the “actual project costs value”, and consequently the charging for users of such an asset. The defect, as the Authority decision of 17 December 2019 highlights, is that the CUSC is currently ambiguous as to the impact of a DNO contribution on the Transmission Operator costs at 14.15.75 (“actual project

costs”) which are used to calculate AC subsea cable and HVDC circuit expansion factors. It is not explicitly clear, and open to interpretation, i) whether “actual project costs” may, in certain circumstances, be a value from which a contribution has been netted off, and ii) whether an “actual project costs” value which is net of the value of a contribution is recovered through local and wider TNUoS charges on exactly the same pro-rated basis as is currently applied to allocate those costs to the local and wider TNUoS charge elements, via a modification of paragraph 14.15.76 of the CUSC, thus maintaining the existing pro-rating of costs across local and wider TNUoS charge elements. This simple and mechanistic CUSC modification has been agreed in principle by the Authority and is required to remove this ambiguity in order to implement the Authority decision, such that it is clear that a contribution would reduce the total costs of the new transmission asset to the TO, and would therefore be reflected in the TO’s “actual project costs” and consequently within TNUoS charges exactly according to existing TNUoS charging methodology. In its decision the Authority instructs SHEPD to progress the CUSC change to ensure that the implementation associated with the contribution proposals is finalised, in order that the contributions can be made in a timely manner and that consumer benefits, which are the focus of the Authority in its determination, are realised.

4 Code Specific Matters

Technical Skillsets

None.

Reference Documents

Please refer to the Authority [Decision on Scottish Hydro Electric Power Distribution’s proposals to contribute towards proposed electricity transmission links to Shetland, Western Isles and Orkney](#) dated 17 December 2019, specifically [SHEPD Contribution Decision](#) (13 pages), [SHEPD Shetland DSO Recommendation – December 2019 Addendum](#) (16 pages).

5 Solution

That sections 14.15.75 and 14.15.76 of the CUSC are modified in line with the contents of Section 9, Legal Text.

Supporting CUSC modification proposal CMP338 includes the definition of “Cost Adjustment” – both CUSC modifications should be progressed and approved simultaneously.

6 Impacts & Other Considerations

The impacts of this change have already been considered by the Authority (including through a consultation) and are described in the Authority decision dated 17 December 2019. The modifications proposed are minor clarifications as to the meaning of “actual project costs” of the TO, which put into effect the decision the Authority has made to

permit a DNO to contribute towards the costs of a transmission asset, and for the TO to accept the contribution(s) and offset it from its costs which are recovered via transmission charging. This change is simply clarifying the “actual project costs” definition, and is not changing any other aspect of the CUSC. The application of a contribution may drive resulting changes to TNUoS charges, but this is simply a consequence of the existing TNUoS methodologies and mechanisms, as occurs currently with any change approved by the Authority to transmission allowed revenue / actual project costs.

The DNO contribution value and its consequent effect on transmission costs and TNUoS charges via CUSC 14.15.75 and 14.15.76, while not immaterial, are not relevant for consideration by the CUSC process, because this is effectively a price control decision on allowed revenue between two licensees which the Authority has determined. We understand that the impact of an Authority revision to an allowed revenue value would not normally be a subject for CUSC consideration.

The Authority has considered and consulted upon the distributional impact of the contributions. Where a contribution is approved, it is approved on the basis that the Authority has determined that it is beneficial for consumers; in the case of Shetland the arrangement is anticipated to deliver savings to consumers of c.£140m.

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

None.

Consumer Impacts

Positive, as detailed in the Authority decision dated 17 December 2019. The impacts of not progressing the mod in a timely way risk consumer savings of £140m, as set out in Sections 2 and 8.

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 - We consider that the arrangement whereby a DNO makes an approved contribution towards the cost of a transmission asset is a more cost-reflective arrangement, better enabling objective (a) in more effectively facilitating competition in the generation and supply of electricity.
(b) That compliance with the use of system charging methodology results in charges which reflect, as far as is reasonably practicable, the	Positive - The proposals better facilitate objective (b) as they will ensure that the charges will

<p>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);</p>	<p>reflect the net costs incurred by transmission licensees, after any DNO contribution has been netted off; and that the existing pro-rating of costs between local and wider charge elements will be maintained.</p>
<p>(c) That, so far as is consistent with subparagraphs (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;</p>	<p>Positive – the modification proposal implements the Authority's 17 December 2019 decision to approve a contribution by a DNO towards the costs of a transmission licensee's project; and also aligns with "whole system" principles which are being established in licence by Ofgem.³</p>
<p>(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</p>	<p>Neutral</p>
<p>(e) Promoting efficiency in the implementation and administration of the CUSC arrangements.</p>	<p>Positive – to the extent that this CUSC modification proposal removes ambiguity in the interpretation of 14.15.75 and 14.15.76 with regard specifically to the impact of DNO contributions upon a transmission licensee's "actual project costs", this will avoid future requirements for the CUSC administrative process to revisit this question. The detail of the Authority's 17 December 2019 decision and associated historical consultation also allows for efficiencies to be realised in the specific process for this CUSC modification proposal, permitting a prompt progression to NGESO review and Code Administrator</p>

³ <https://www.ofgem.gov.uk/publications-and-updates/consultation-licence-conditions-and-guidance-network-operators-support-efficient-coordinated-and-economical-whole-system>

	Consultation (particularly in the context of a currently crowded CUSC modification proposal landscape).
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*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).

8 Implementation

A decision on this CUSC modification is required by 12 May 2020, in order to meet the regulatory pre-requisites detailed particularly within this section below, and Section 2. The modifications must be in effect by 1 April of TNUoS charging year 2024/25, which is expected to be the point at which the Shetland link is made available to users. This is expected to be the first island transmission link in place to which these arrangements apply. As such, this will also be the point in time at which impacted TNUoS charges will be levied on island developers.

It is critical that the modification is made in timely manner in order to ensure that consumer savings and benefits are realised, which in the case of Shetland is anticipated to deliver savings to consumers of c.£140m. Finalisation of this CUSC modification is a pre-requisite for developer commitment to the Shetland transmission link, which a pre-requisite for its approval.

The request for the specific proposed procedures is driven by a timing requirement. In its decision, the Authority sets out the interaction between the contribution and the Shetland Needs Case, noting:

“We would approve a contribution if:

- we approve the Final Needs Case for the proposed Shetland transmission project; and
- the contribution proposal is implemented appropriately”.

SHEPD understands from SHET that 12 May 2020 is the point at which the SSE governance process commences to finalise developer commitment, in order to meet the date of the required Authority Needs Case decision, being June 2020. If the CUSC modifications are not finalised before this point the generator is expected to be unable to reach Final Investment Decision (FID). If developer commitment cannot be confirmed because the CUSC modifications remain uncertain, the Authority’s requirement for SHET to demonstrate developer commitment as part of the Needs Case⁴ will remain unmet, and the Authority can be expected to be unable to make its decision to approve the Shetland link Needs Case. If the Authority does not approve the Shetland link Needs Case by June

⁴ In its [October 2019 updates on the island links Final Needs Cases](#), the Authority has indicated that in order for it to approve the transmission links to Shetland and the Western Isles, robust evidence is expected to demonstrate that the generation underpinning any Final Needs Case submissions is likely to go ahead. The developer has [publicly committed](#) to progressing with its project if the SHEPD contribution is approved.

2020, SHET is anticipated to risk its programme for delivery by April 2024, as any further delay will trigger programme delay which in turn will drive delays to the planned energisation date which will negatively impact Shetland developers. These impacts are critical to SHEPD, because risk to the progression of the wind development and the transmission link risk the security of supply solution and associated savings of c.£140m for its distribution network customers which have been approved by the Authority as the basis and driver for the contribution arrangements.

The ramifications of this delay are expected to be material and far-reaching. SHET is anticipated to materially risk its programme for delivery by April 2024 if there is a delay beyond summer 2020. These impacts are critical to SHEPD, because risk to the progression of the wind development and the transmission link risk the security of supply solution and associated savings of c.£140m for its distribution network customers which have been approved by the Authority as the basis and driver for the contribution arrangements (being the savings compared to the lowest cost alternative solution identified in the market).

It would be unreasonable for a such a simple change to the CUSC to delay or prevent the completion of such significant renewable energy projects which, for Shetland specifically, are integral to the realisation of c.£140m savings compared with alternative solutions.

The implementation timescales are therefore that this modification is completed by May 2020, in order to finalise with expediency the implementation of the Authority determination set out in its 17 December 2019 decision. This period will allow for the modifications to be reviewed, consulted upon, and subsequently made in order to provide assurance for generators and other customers, enabling them to demonstrate their commitment to the transmission link, as required by the Authority as a prerequisite to the approval of the Needs Case (expected summer 2020). SHE Transmission submitted the revised Needs Case on 24 January 2020, and the Authority has committed to “consider any such revised submission as soon as possible”.

The proposed approval process for this simple change would also prevent undue delay to the many modifications to the CUSC which are understood to be in process, some of which may not have an associated Authority determination.

Considering wider implementation, the calculation, value and impact of the contributions from the contributing licensee to the recipient licensee on their respective allowed revenue and regulated asset bases, as well as the making of the contribution, will be carried out according to that decision and will be governed by the Authority. Therefore, they are not for consideration under this modification. The DNO contribution value and its consequent effect on transmission costs and TNUoS charges via CUSC 14.15.75 and 14.15.76, while not immaterial, are not relevant for consideration by the CUSC process, because this is effectively a price control decision on allowed revenue between two licensees which the Authority has determined. We understand that the impact of an Authority revision to an allowed revenue value would not normally be a subject for CUSC consideration.

The costs of the contributions will be recovered by the DNO from distribution customers in a way to be determined by the Authority. The revised allowed revenue for the TO net of a contribution amount will be determined by the Authority, as will associated licence and regulatory mechanisms to protect against over- or under-recovery of costs by either the DNO or the TO in association with the arrangements. These aspects will be consulted upon by the Authority separately.

The Authority will approve the particular example of such a contribution for a new transmission link to Shetland upon approval of the Shetland transmission link Needs Case (Authority decision expected mid-2020) and intends to consult upon recommended contributions towards transmission links to Orkney and the Western Isles in early 2020.

9 Legal Text

Proposed revised legal text (as previously modified by CMP301):

- Add new definition (this is covered by the separate supporting modification proposal, CMP338):

"Cost Adjustment": a payment whose value and timing has been approved by the Authority and which is made by a Licensed Distribution Network Operator as a contribution to the cost of an infrastructure investment made by a different Licensed Distribution Network Operator or Licensed Transmission Owner [that recognises the shared value to the different parties].

- Modify elements of CUSC Section 14 (new drafting underlined):

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) net of any Cost Adjustment.

14.15.76 For Calculation of HVDC circuit expansion factors, and AC sub-sea circuit expansion factors, shall include only: the cost of the converters (where applicable); and the cost of the cable; and a percentage of the total overhead project costs, defined as the combined costs of the cables and converters (as relevant) divided by the total capital cost of the project minus a percentage of the Cost Adjustment, defined as the combined costs of the cables, converters (as relevant) and appropriate overhead costs, as calculated above, all divided by the total capital cost of the project.

Text Commentary

This wording implements the worked example of the charging approved by the Authority in its 17 December 2019 decision. Currently the expansion factors are calculated from:

Cost of Converters (CC) + Cost of the Cables, if applicable (CCb) + X% of Total Overhead Costs where X% equals (CC + CCb)/ total project costs.

The contribution is to be applied as minus Y% of the Cost Adjustment where Y% = (CC + CCb + X% of Total Overheads)/ total project costs.

10 Recommendations

Proposer's Recommendation to Panel

Panel is asked to:

Agree that the proposed governance procedures apply, being the review and agreement of Legal Text with NGESO, then Code Administrator Consultation, followed by Authority approval, with the expectation that the modification would be approved by the Authority by 12 May 2020 and fully implemented by 1 April 2024.