Scottish & Southern Electricity Networks

POWER CUT? CALL 105
North of Scotland 0800 300 999
Central Southern England 0800 072 7282

James Norman
Ofgem - New Transmission Investment
10 South Colonnade
Canary Wharf
London E14 4PU
Email: NTIMailbox@ofgem.gov.uk

10 July 2019

Dear James,

Consultation on Scottish Hydro Electric Power Distribution's proposals to contribute towards proposed electricity transmission links to Shetland, Western Isles and Orkney

We set out in this document our response to the positions reflected and questions raised by Ofgem in their consultation. We have presented our overarching views in the sections below, and responses to the specific questions in Appendix 2. Our response is not confidential.

Executive summary

Scottish Hydro Electric Power Distribution (SHEPD) welcomes Ofgem's consultation on SHEPD's proposals to contribute towards the Western Isles, Orkney and Shetland transmission links. The consultation is the culmination around 18 months of work by SHEPD and its consultants, in engagement with Ofgem and stakeholders, to bring forward pioneering arrangements under the Whole System framework. SHEPD has recommended contributions of £251m for Shetland[1], £15m for the Western Isles[2], and £15m for Orkney[3], commensurate with the value that we have determined those links represent to the respective island distribution systems, SHEPD and GB consumers, on the basis of the fair value of services, and the fair value of avoided future investment.

There is a limited window of opportunity to realise the benefits that the transmission links will bring to the island distribution systems. The ability of Remote Island Wind developers to compete in the confirmed Contracts For Difference process has, as recognised by Ofgem in its 2017 decision to reject the Shetland New Energy Solution recommendation made by SHEPD, reignited the requirement for island transmission links and the "potential [for] further savings to consumers from a joined-up solution", "potentially reducing overall costs to consumers through an integrated solution".[4] In addition to the core value and benefits identified through

[1] A Whole System Opportunity – Securing Shetland's Energy Supply, SHEPD's Recommendation, Addendum and Baringa's *Shetland DSO Feasibility study*
[2] A Whole System Opportunity - Realising Whole System Benefits for Orkney
[3] A Whole System Opportunity - Realising Whole System Benefits for the Western Isles
[4] Ofgem *Decision on Shetland New Energy Solution*, November 2017, p.11

the distinct transmission Strategic Wider Works processes, the links will, for Shetland, offer the opportunity to meet the islands' long-term security of supply needs at around £140m lower cost than the next best alternative and, for the Western Isles and Orkney, the opportunity to reduce reliance on fossil fuel generation as a minimum. If progress is not positive in both the contribution policy approach and, closely interrelated, the CfD process, the benefits and significant savings identified are likely to be lost.

For this reason and with this sense of urgency, our response encourages Ofgem to make a positive decision now, in order to maximise the chance to realise outcomes which are in the interests of consumers, addressing the following key aspects.

i) **A policy decision must come first, and drive implementation**

Ofgem should prioritise its decision on the policy of the contribution proposals – methodologies, values, effect on transmission costs - over implementation considerations. Implementation should not drive or change the policy decision – it should be mechanistic where a policy decision requires this in order for value and benefit to be realised. Ofgem has the power to direct implementation to follow its decision.

ii) **The implementation route is understood, and Ofgem has the remit and power to direct this**

There are two viable implementation routes which have been discussed with NGESO and Ofgem, and which are both in Ofgem's power to direct.

iii) **The Western Isles and Orkney contribution proposals should be progressed**

Detailed analysis on the Western Isles and Orkney methodologies and contribution values has been provided to Ofgem, and we look forward to concluding discussions with Ofgem on this to reach clarity in the near-term.

iv) **A decision is required now**

SHEPD emphasises the need for Ofgem to make a decision now, before the CfD bidding process begins, in order to use the window of opportunity which has been presented for the island systems, and realise the value to consumers which has been identified. In particular, we must not find ourselves in a position of regret as a consequence of the loss of the opportunity to realise significant savings in securing a long-term, link-based security of supply solution for Shetland, and the value identified to be brought by the Western Isles and Orkney links. SHEPD believes that a decision must be taken now in order to give developers sufficient confidence to reflect the impact of island contributions within their bids in the upcoming CfD auction (specifically the TNUoS impact), in the knowledge that the details of implementation will be worked out mechanistically in the intervening period.

We look forward to continuing to work collaboratively with Ofgem and stakeholders to move forward with a positive decision for the island distribution systems, SHEPD distribution

customers, and GB consumers. SHEPD firmly believes this unique opportunity to solve the long-standing Shetland security of supply need, and to realise benefits for the Western Isles and Orkney, should not be lost as a consequence of the failure to make a timely decision.

Yours sincerely,

Dale Cargill

Director of Customer Operations

Scottish Hydro Electric Power Distribution

A Whole System approach

Policy support for whole system approaches has been developing at pace. In July 2017, BEIS published *Upgrading Our Energy System*, confirming its view that "In performing their respective roles, the SO, DSOs, and the transmission owners (TOs) will all need to work together much more to deliver the best outcomes for the system as a whole […] for example on whether an investment at a transmission or a distribution level is in the best interests of consumers."[5] In December 2018, Ofgem published its consultation on whole system licence conditions and guidance, confirming that "in their network activities, licensees should give due consideration to Whole System outcomes and coordinate and engage with other Distribution Licensees, Transmission Licensees and Stakeholders to identify efficient solutions, pursuing opportunities to deliver benefits through wider coordination".[6] Also in December, Ofgem published its RIIO-2 Sector Specific Methodology.[7] In a section dedicated to enabling whole system solutions, Ofgem noted that "Enabling whole system solutions has the potential to deliver benefits for network consumers", and in its decision identified that "co-ordinated action between networks could…increasingly deliver much lower whole system costs to consumers."[8] However, while whole system policy is moving forward, the detail of the framework and associated methodologies and processes which could facilitate such beneficial arrangements is lagging behind. This risks the loss of opportunities to progress solutions which are in the best interests of consumers.

Optimum whole system solutions for the Scottish islands

SHEPD's proposals identify, for Shetland, a contribution of £251m[9], which secures all of the benefits for its distribution customers which could be provided by the best alternative solutions identified in the market, but at around £100-£150m lower cost.[10] We have identified contributions of £15m for the Western Isles and £15m for Orkney[11], based upon the costs which SHEPD may avoid through reliance upon the transmission links proposed for those island groups. Use of the transmission links represent optimised solutions for the respective island groups. They will provide reliable sources of power and stability for the distribution systems, reduce reliance on fossil-fuel generation and enable greater export from

[5] *Upgrading Our Energy System: Smart Systems and Flexibility Plan*, p.18-19

[6] *Consultation on licence conditions and guidance for network operators to support an efficient, coordinated, and economical Whole System*, p.9

[7] *RIIO-2 sector specific methodology consultation*

[8] *RIIO-2 Sector Specific Methodology Decision: Summary document*, p.3

[9] Subject to the final cost of the transmission link.

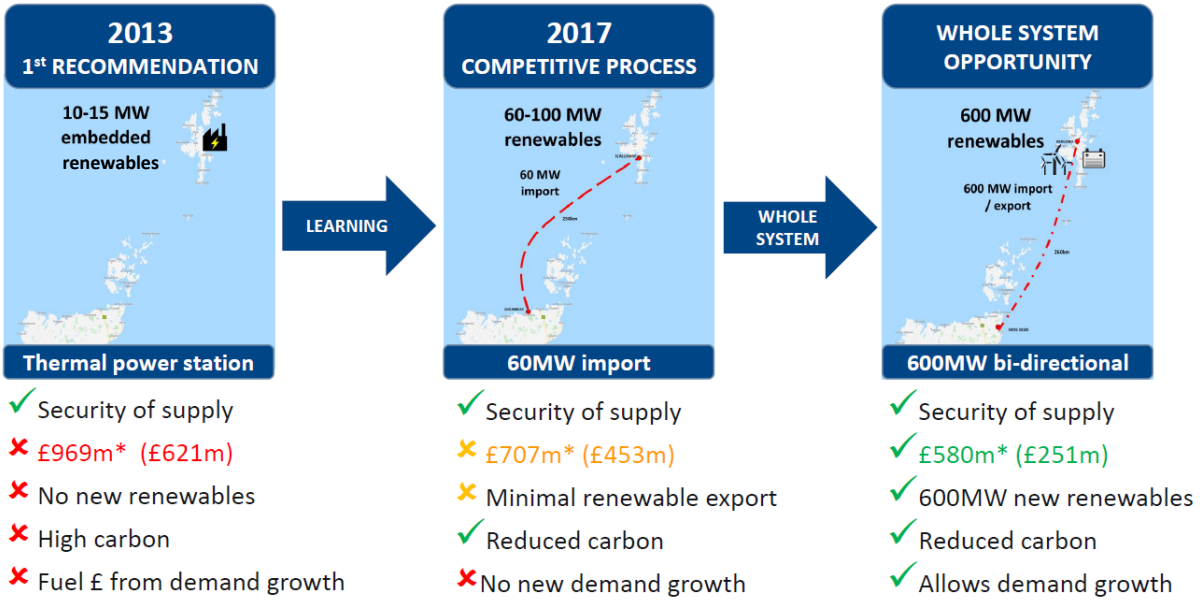
[10] More detail is set out in Ofgem's consultation document, SHEPD's Recommendation and Addendum, Baringa's *Shetland DSO Feasibility study* and SHEPD's April 2019 publication *A Whole System Opportunity – Securing Shetland's Energy Supply*.

[11] See SHEPD's July 2019 publications, *A Whole System Opportunity - Realising Whole System Benefits for Orkney* and *A Whole System Opportunity - Realising Whole System Benefits for the Western Isles*

embedded renewable generation. This is before consideration of the core and wider benefits of the links, as enablers for significant additional renewable generation, which will contribute towards decarbonising the GB energy mix, and benefits to the local island and GB economies.

For Shetland specifically, services from the transmission link have been confirmed to be best value on the basis of meeting Shetland's needs (security of supply) and also to wider consumers on the basis of cost: the solution represents a £100-150m saving for consumers against the costs identified through the 2017 Shetland New Energy Solution competitive process, and the anticipated lowest cost outcome of a future competitive process, taking viable solutions into account (see Figure 1). The pan-island contribution methodology is designed to protect consumers, through inclusion of an adjustment mechanism which reflects changes in the cost of the links, and by SHEPD making the contributions only when the successful integration of the transmission links with the island distribution systems is demonstrated.

Figure 1 – Comparison of costs and benefits of historical and current Shetland solutions



Ofgem has confirmed that it welcomes that SHEPD has put forward the contribution proposals, agrees the principle of DNO contributions towards a transmission link, and considers there may be circumstances in which Ofgem would approve SHEPD making a contribution, where this is shown to benefit consumers.[12]

[12] *Consultation on SHEPD proposal to contribute to proposed transmission links to Shetland, Western Isles and Orkney*, p.4.

An opportunity of its time

SHEPD has confirmed its view that a decision is required now in order to provide certainty for island developers on the impact of the contribution values on TNUoS before bidding beings in the 2019 CfD round. We note the reasons Ofgem sets out in its consultation with regards to the need to and appropriateness of placing reliance on a provisional contribution value. SHEPD's response to this position is that there is a decision on principle and policy which should be taken first, and which should be Ofgem's primary consideration, in line with its duties: **are SHEPD's whole system proposals in the best interests of consumers and, if so, should Ofgem take steps to ensure the proposals and associated solutions are realised?**

It is important to understand the mechanics and effects of implementation. However the mechanics of implementation must not be allowed to prevent whole system arrangements and associated efficiencies from being realised, and certainly should not change the policy decision and quantum - implementation around such decisions should be mechanistic. During the course of the consultation period SHEPD has responded to Ofgem's concerns on implementation, and the Western Isles and Orkney contribution proposals, which were the two key aspects identified as outstanding in the consultation. On implementation, we have had further engagement with NGESO and have identified two routes by which the contribution would be applied to TNUoS charges, one of which NGESO supports, and both of which we believe are within Ofgem's remit and power to direct now as part of a policy decision on the contribution value and methodology. With regard to the Western Isles and Orkney proposals, SHEPD has provided Ofgem with detailed justification and cost analysis on the contribution values, and we will be moving these discussions on through bilateral engagement in the short-term.

SHEPD's position is that Ofgem has the evidence, remit and powers required to make a decision on the proposals now, and that a policy decision is required now to maximise the opportunity, as far as is possible in the competitive environment of the CfD process, for the identified benefits and savings to be realised. Without such a decision now, we believe the opportunity for the islands to benefit from the proposed transmission links will be materially impaired. In the following sections we address the key positions set out by Ofgem in its consultation document.

Ofgem's policy decision, and the role of implementation

Ofgem notes that more clarity is needed on how SHEPD's proposals could most appropriately be implemented through industry codes and licences to be able to approve the proposals, making specific reference to changes to industry codes, and changes to licences. We address implementation in more detail in the following section. In general, the consultation document appears to place significant emphasis on implementation as a potential barrier to approval, and may go as far as to suggest that the implementation route could impact the derivation and assessment of the right and fair contribution values. In our reading of the

document, we hope that Ofgem means that implementation would evolve further to and following a policy decision on the contributions, and not that the consideration of implementation routes changes the policy decision, the contribution values, or the valuation methodology. If we are wrong in this assumption, that would place Ofgem's policy decision in an unusual place – where the process of implementation is driving the policy intent. Specifically with reference to Question 3 - *"Would it be more appropriate for the SHEPD proposals to be formally considered through standard industry code governance arrangements?"* – it may be necessary for Ofgem to clarify in its decision document that there is a distinction between Ofgem's decision on the approach and contribution values and the best outcome for consumers, and the implementation that follows this. Ofgem notes that the methodology calculates a contribution value that *may* appropriately reflect the value of the transmission link to demand consumers, and that it has not reached a view on the appropriate level of the cap. Again, we anticipate that in highlighting this point Ofgem is seeking views on the applicability of the methodology proposed by SHEPD (an appropriate consideration for consultation), and not that further review of the implementation routes could alter its view on the appropriateness of the valuation proposed.

As we note above, SHEPD's position is that Ofgem has the information, remit and powers required to make a decision on the proposals now. While it is important to understand implementation arrangements and to ensure that associated impacts are fair and proportionate, if there are clear benefits to consumers associated with specific proposals then a policy decision should be taken in favour of such proposals and implementation should, to a certain extent, be mechanistic.[13]

Implementation of a whole system approach

In December 2018 SHEPD provided Ofgem with an implementation overview, setting out principal steps of implementation, beginning with Ofgem's directions on relevant DNO and TO costs and allowances, moving through DNO and TO Regulated Asset Value (RAV) impacts, associated Price Control Financial Model (PCFM) and Regulatory Instructions and Guidance (RIGs) impacts, interactions between the DNO charging arrangements and the Hydro Benefit Replacement Scheme (assuming future recovery of SHEPD Shetland costs through this mechanism), and SHEPD's views on both the effect of the contribution proposals on the TNUoS charging methodology and the requirement for CUSC modifications.[14]

Since then, SHEPD has developed its thinking with regards to the scope and detail of code, licence and associated process and document changes that implementation may require. In

[13] NGESO has echoed the view in recent bilateral engagement that implementation may be mechanistic, specifically with reference to NGESO's preferred implementation route in which Ofgem would direct a CUSC modification to implement the contribution arrangements, further to a policy decision approving the contribution methodology and value.
[14] *SHEPD Shetland DSO Recommendation: response to Ofgem SQ1*, 20 December 2018

June 2019 SHEPD shared a further implementation overview with Ofgem, mapping out key touchpoints of the contribution proposals, as far as SHEPD has currently identified these, with licence, RIGs, PCFM, PCFH, and NGESO TNUoS models and methodologies.[15] SHEPD also shared illustrative licence drafting setting out its own approach to reflecting the contribution arrangements within SHEPD's DNO-specific licence conditions (the Charge Restriction Conditions or CRCs).[16] SHEPD's feedback on key aspects are set out in more detail in the following sections. In summary, we believe that identifying where appropriate changes are required should be sufficient to allow a policy position to be agreed, with the detailed changes being developed through further discussion over the period from 2019 to energisation.

- ***Changes to industry codes***[17]

SHEPD has, with its consultants, identified a range of proposals around contribution implementation routes since mid-2018, shared with Ofgem in our original Recommendation, and has engaged with NGESO on these on a number of occasions from late 2018. We have shared views and associated feedback from NGESO on these options with Ofgem throughout the development of the contribution methodology.[18] Specifically, SHEPD has confirmed to Ofgem:

- SHEPD's preference is to provide clarity and assurance on the proposed contribution value before bidding begins in the 2019 CfD auction.[19,20]
- SHEPD's preference is for simplicity in an implementation method – this will best facilitate an effective contribution solution in a timescale that is of benefit to stakeholders. Other than for reasons of speed and simplicity, and that value and benefit to consumers are preserved through the implementation process, we are ambivalent as to which method is taken forward.
- SHEPD's own interpretation and perspective is that, having considered the steps which would be taken from determination of costs, allowances and TNUoS charge recovery,

[15] *2019-05-30 SHEPD contributions - implementation overview*

[16] *2019-06-02 Contribution - licence changes*

[17] In reviewing this section we refer Ofgem to historical discussions on this aspect, specifically SHEPD's response to SQ 26, *Additional SQ - DSO proposals and CMP 303* and information shared on 11 April 2019, *SHEPD - Shetland DSO workstream - implementation*.

[18] SHEPD's feedback on NGESO's position in our engagement with Ofgem and in this document is limited to SHEPD's interpretation of those discussions, and we do not assume to speak for NGESO on these matters.

[19] According to the updated timeline published on the Allocation Round 3 Resource Portal on 5 July, the earliest date the sealed bid window could commence is 19 July 2019; however if any non-qualifying applicant appeals, this could be delayed up to 9 October 2019.

[20] If there is delay to this decision, generators may not reflect the potential effect of a contribution and consequently fail to secure a CfD, or may secure a CfD by taking account of a contribution value which does not materialise as expected – in this case, they would likely need to decline the CfD which would involve penalties and prevent the project from future bidding round(s).

all key decisions and determinations to implement the contribution effect sit within the remit of the Authority, not the CUSC, and therefore no CUSC change appears to be required.

- We understand NGESO is uncomfortable because they interpret ambiguity may arise in the interpretation and application of "actual project costs" and "total capital cost" within clauses 14.15.75 and 14.15.76 of Section 14 the CUSC[21] if part of these costs are paid by another party, and in the consequent effect of applying these values within TNUoS charging, in the absence of a policy decision by the Authority to permit the netting off of a contribution from the DNO/DSO.

Based on SHEPD's interpretation we consider that the Authority has the remit and ability to direct a project cost value to SHE Transmission (SHE-T) which has netted off any contribution, and which SHE-T can confirm to NGESO, and to direct that NGESO may apply this value as within the CUSC methodology with no required changes. SHEPD believes a decision by the Authority that confirms SHE-T's project cost value net of a contribution would allow NGESO to apply the current charging methodology for local circuits. Absent this, NGESO has said that a CUSC mod proposal and process is preferred to address this.

To illustrate the rationale for our perspective, we have set out in Table 1 the steps which we consider would need to be taken to arrive at and utilise the "netted off" transmission link cost within the existing TNUoS charging model. These steps apply regardless of the implementation route.

Table 1 – Implementation steps (all implementation route options)

Proposed steps	Licence / Code change	Approver
1. Authority direction to approve a contribution by SHEPD towards the capital costs of the Shetland link (approval is in relation to contribution value methodology and amount).	Licence change to SHEPD CRCs further to approval of contribution (subject to consultations).	Authority
2. Authority reviews and approves total capital costs of the Shetland link – project assessment.	Normal SWW process	Authority consults as part of the SWW process
3. Authority amends Shetland SWW direction to net off the SHEPD contribution. This sets the "actual project cost" value which SHE-T can recover from NGESO and which NGESO then recovers through TNUoS – Authority directs that	"Netting off" reflected in DNO CRCs and DNO / TO RIGs; TO "actual project cost" and allowance value reflected in TO SWW (subject to consultations).	Authority

[21] CUSC version further to the approval of CMP301.

Proposed steps	Licence / Code change	Approver
this value be notified to NGESO and applied within TNUoS charging process as "actual project cost" value.		
4. TO cost value is notified to NGESO as "Base Circuit Capital Cost" / "actual project costs".	Existing process - no explicit change identified.	N/A (no change)
5. a) NGESO applies TO cost value directed by the Authority as "actual project costs" to calculate local circuit expansion factors and TNUoS charges. b) Value is split for recovery, and recovered, across HVDC and wider TNUoS charge elements according to the HVDC / wider cost split designation by the TO and NGESO.	Existing process – no explicit change identified.	N/A (no change)

Based on our own analysis and NGESO's feedback there does not appear to be a *clear and explicit* need for a CUSC change. All of the determinations required to provide the "netted off" value to NGESO may be made by Ofgem utilising existing powers and processes – they will happen anyway. Our view is that as it is currently constituted the CUSC charging methodology would deliver the required TNUoS reduction effect.

Since the publication of Ofgem's consultation SHEPD and NGESO have had further engagement to look for a clear route forward. The options which remain under discussion are set out in Table 2 and have been shared with Ofgem.[22] From SHEPD's perspective, both of the options:

- are within the power of the Authority to determine, and
- subject to an Authority decision on contribution policy, and direction on implementation before bidding begins in the 2019 CfD auction, provide a good level of clarity and certainty for island developers.

[22] *2019-07-01 SHEPD contribution proposals - CUSC implementation update*

Table 2 – Overview of current implementation options

Implementation route	SHEPD perspective	NGESO perspective
1. Determination that no CUSC change is required, or that minor clarification is adequate	All changes required are within the Authority's remit - for the Authority to determine whether it agrees and is comfortable with this.	NGESO uncomfortable about ambiguity in the interpretation and application of "actual project costs" and "total capital cost" within Section 14 the CUSC where another party has paid for part of a project, and consequent effect within TNUoS charging. *SHEPD has noted its view that the Authority would determine the netting off effect, and direct the netted off value to SHE-T which SHE-T would provide to NGESO, with no interpretation required.*
2. Raising of CUSC Mod post-policy decision / "open letter" Ofgem direction	To the extent that the Authority directs implementation through CUSC mod, the direction is made before the CfD bid window opens, and the policy decision on effect, value and benefit is preserved, SHEPD can support this option.	NGESO supports the raising of a CUSC mod directed by the Authority further to a positive policy decision. If directed by the Authority, the mod proposal would likely be managed by NGESO.

Under Option 1, the CUSC drafting at 14.15.75 and 14.15.76 (and implied at 14.15.78) is confirmed to not disallow offsetting (or carve out) of cost as it stands, with no CUSC drafting change required now or in future. Application of any contribution is determined entirely by Ofgem and deemed external to CUSC. The steps which would be followed are set out in Table 1.

SHEPD has shared a worked example with NGESO of its interpretation of how the contribution would be applied to the base project costs and the local and wider costs calculations within the existing cost proforma currently used by NGESO and TOs. We hope this example will demonstrate clearly that the Authority will determine all the relevant values, and that a CUSC modification is not required. We hope that, if agreed with Ofgem and NGESO, this will provide the clarity and certainty needed and may be suitable for publication by Ofgem in its decision following the consultation. This example is subject to further discussion between the parties.

Under Option 2,

- Ofgem consults and makes decision upon policy: contribution principle, fair value methodology, final contribution value and ultimate TNUoS effect. SHEPD considers that the current open letter consultation asks these questions and can produce this decision.
- Ofgem directs the making of a CUSC Modification Proposal to implement the policy decision
- there is a full Mod process: Working Group, consultation, recommendation and decision stages
- the policy decision is preserved through the Mod process, and is implemented in order to deliver the required end effect.

NGESO has confirmed to SHEPD that it is most comfortable with this option as it would represent the straightforward implementation of a policy decision made by Ofgem. The policy decision could be preserved through the process; therefore while implementation may take some time, confirmation of this implementation route prior to the 2019 CfD round could - subject to the specific content of Ofgem's direction - provide adequate certainty to developers to allow them to take account of the contribution effect within their bids.

Further to SHEPD's interpretation that both of these options are within Ofgem's remit and power to determine, we would welcome a clear decision from Ofgem on which of the routes it will progress following its policy decision on the contribution proposals. We have invited NGESO to confirm more detail on its position with regards to SHEPD's proposals approach and proposed solutions, and this dialogue is ongoing[23] - engagement is also ongoing with Ofgem on this aspect, and we will facilitate further engagement with both parties to identify the optimum way forward which both satisfies the requirement for comprehensive consideration of impacts and permits a policy decision to have the required effect, made in a timely way. The key requirement at this stage is for clarity to be provided on the contribution values, and their associated effects on TNUoS charges. We propose that a useful immediate step would be the provision by NGESO of an indicative view of the impact of the contributions on TNUoS, caveated as necessary as illustrative, subject to Ofgem's decision, provided on a "non-reliance" basis, and dependent upon the particular assumptions applied by NGESO.

SHEPD's contribution methodology determines that the contribution value varies with changes in the cost of the link, illustrated in Appendix 1. The effect of the contribution on generator TNUoS is explained in Section 14 of the CUSC, including as modified by CMP301. In addition to this mechanism, SHEPD has proposed that the contribution would be applied to reduce both the HVDC expansion factors and AC sub-sea circuit expansion factors, and that this reduction is applied in proportion of their respective fractions of the total project cost – a hypothetical example of this being that for an HVDC link which had a total project cost of

[23] NGESO has recently provided SHEPD with more detail on its position, which SHEPD will now take forward, involving Ofgem as required.

£100m, where the cost of the converters, the cable, and a percentage of the total overhead project cost was £80m in total, then 80% of the contribution would be applied to reduce the expansion factors.

- ***Changes to licences***

SHEPD has now shared licence drafting with Ofgem which identifies the potential requirement for a new charge restriction condition (CRC) which would articulate the characteristics of contribution, its definition, and the formula for the calculation of the contribution value. We have also included drafting which deals with the anticipated Shetland standby costs, mirroring the treatment determined by Ofgem through the 2017 New Energy Solution process and associated consultations. We have highlighted the need for associated RIGs changes to record receipt of the contribution as a capital contribution towards the relevant project for the TO, and to record the capital contribution paid by SHEPD. Dialogue is underway with Ofgem on its consideration of the draft changes, and we would welcome direction from Ofgem on how it wishes to progress these. We recognise that consultation will be required on specific licence changes, but this should not prevent the determination of a policy decision at this stage.

We highlight that there is a distinction between the consideration of the effect of the contribution upon link costs and the associated effect on TNUoS, which has been our focus to date, and the cost recovery arrangements (allowed revenue, allowance profiling etc) for SHE-T and SHEPD, which are to an extent consequent arrangements. We have highlighted these separate workstreams within the implementation overview shared with Ofgem, and will work with Ofgem to fully map out the latter.

Western Isles and Orkney contribution proposals

Since the inception of the proposals to make contributions towards the island transmission links, we have confirmed that we believe the approach should also be applied for the Western Isles and Orkney. We have shared this view and our thinking as it developed with Ofgem and island stakeholders since late 2018.[24] We shared overviews with Western Isles and Orkney stakeholders in visits to the islands in early 2019[25], and we went on to publish an update on the pan-island approach within our news release *A Whole System Opportunity – Securing Shetland's Energy Supply*.[26]

From our earliest engagement on the pan-island approach with Ofgem and stakeholders, we have highlighted the necessity of considering the benefits of the transmission links on a case by case basis. Our view is that, as with any investment, analysis of the costs, benefits and

[24] Proposals shared with Ofgem on the pan-island approach include *2019-02-07 Shetland DSO pan-island approach summary* and *2019-04-04 SHEPD contribution range - further analysis for Ofgem*.
[25] We shared the presentation *SHEPD DSO Stakeholder Presentation_final_210119*.
[26] http://news.ssen.co.uk/news/all-articles/2019/april/shetland-whole-system-opportunity/

value of a specific potential solution should be assessed, in order to realise appropriate and fair outcomes. We have also emphasised the expectation that, because of existing network arrangements which meet the island distribution systems' needs, including mainland links in both cases, it is expected that the benefits brought by the proposed transmission links would be materially less for the Western Isles and Orkney when compared with Shetland, and consequently that the contribution values assessed for those islands would be materially lower.

In assessing the fair value of the transmission links to the Western Isles and Orkney we have considered two methodologies: i) fair value avoided costs, taking into account the costs SHEPD may avoid in future on the island distribution systems as a result of relying on a new transmission link, and ii) fair value services, valuing the specific services that a transmission link will bring to the island distribution system over its life, based on the services of reliance on the link for capacity when island transmission-connected wind is not able to meet peak demand, benefiting from a shift to lower carbon intensity of supply, and reduced losses (the services identified and valued under the Shetland contribution methodology).[27]

The determination of future investment in or services required by the island distribution systems is based upon a detailed assessment of existing network arrangements, embedded demand and generation, and specifically the security of supply standards that are currently in place and the arrangements that they will necessitate in future. SHEPD has now completed this assessment for the Western Isles and Orkney. This analysis has confirmed that there is no significant network investment that may be avoided on either island as a result of transmission link development, as almost all of the existing assets which fulfil this function will require to be kept and / or replaced in order to maintain security of supply; but SHEPD considers that island standby generation plant will be run significantly less, meaning that savings will arise through reduced operating costs. Consequently we have proposed to make contributions of £15m towards each island transmission link. On 5 July 2019, SHEPD published overviews of its contribution proposals for the Western Isles and Orkney. We have provided the detail of the security of supply assessments, and fair value service and fair value avoided costs analysis, to Ofgem.[28]

A key consideration with regard to these contributions is the associated licence and cost recovery arrangements. As SHEPD has no specific licence obligation and mechanism by which solutions may be proposed for the Western Isles and Orkney, as it does for Shetland, we have proposed that the contributions form part of SHEPD's RIIO-ED2 business plan and that our allowances are determined accordingly under that price control. However we still require Ofgem's decision on the contribution principle now, in order to provide SHEPD with the confidence to confirm contributions towards the Western Isles and Orkney transmission links before the CfD auction begins.

[27] SHEPD Recommendation, Section 6.2
[28] *2019-07-08 SHEPD pan-island contribution analysis*

We therefore look forward to working closely with Ofgem over the coming weeks in order to progress the Western Isles and Orkney proposals towards a conclusion before the 2019 CfD auction begins.

Timing for confirming the contribution

- ***Whether it is necessary and appropriate to place reliance on a provisional contribution value***

With reference to the analysis carried out by SHEPD (p.5), Ofgem notes that it is not clear whether island generators would in all cases require a contribution to be successful. We highlight that, within the confines of the limited analysis that was undertaken, our interpretation is that it is only in very few and the most unlikely of scenarios, that Shetland generators would be successful without a contribution. We note that many articles are currently appearing in the trade press emphasising the competitiveness of the 2019 CfD round, and that the capacity of offshore wind entering the auction is much larger, and at a lower cost, than our analysis anticipated. We consider that this supports and enhances our view of the RIW projects.

Ofgem's cost benchmarks highlight the view that Shetland link costs could be in the region of 50% lower than SHE-T's current indicative cost estimate. While we note the substantial distance between the values, SHEPD cannot comment on the merit of the analysis; but we consider it would be unlikely that developers would be sufficiently bullish to include a speculative halving of transmission capital costs in a fixed price tender. In noting this situation Ofgem seems to consider it feasible that developers place reliance, and risk their business model, on wildly different and uncertain link capital cost values, and at the same time question whether it is appropriate to place reliance on a provisional contribution value which has been recommended, further to an extended period of detailed analysis, and which SHEPD has proposed varies only to the extent that the cost of the link varies. SHEPD proposes that some clarity is better than no clarity, in the current landscape for island developers, and the approval of the methodology (while the actual link cost value remains subject to change) would allow developers to understand their exposure to link cost variations and take a view on how to represent this in their bidding strategies. We have included an illustrative view of the effect of changes in link costs on the Shetland contribution value at Appendix 1. This is, of course, intertwined with the need for confirmation of the associated TNUoS impact, which is ultimately the most significant metric for developers.

We consider that Ofgem has adequate information and clarity on implementation arrangements and the pan-island approach to make a policy decision, and that a policy decision on the contribution principle, methodology and value should be made now.

Process timeline

Ofgem's consultation highlights the significant uncertainty on networks costs (links and contributions) borne by island generators as the CfD bid window approaches. We think it would be very helpful for Ofgem to include a timeline in the near term showing its decision-making process on the contribution proposals.

Appendix 1 – Illustrative view of effect of changes in link cost on SHEPD contribution value (Shetland)

Scenario	Link cost	DSO contribution
SHE-T Baseline Cost	£709m[29]	£251.1m
SHE-T Baseline Cost +5%	£744.5m	£257.2m
SHE-T Baseline Cost +10%	£779.9m	£263.4m
SHE-T Baseline Cost +15%	£815.4m	£269.6m
SHE-T Baseline Cost +20%	£850.8m	£275.7m
SHE-T Baseline Cost +30%	£921.7m	£288.1m
SHE-T Baseline Cost -5%	£673.6m	£244.9m
SHE-T Baseline Cost -10%	£638.1m	£238.7m
SHE-T Baseline Cost -15%	£602.7m	£232.6m
SHE-T Baseline Cost -20%	£567.2m	£226.4m
SHE-T Baseline Cost -30%	£496.3m	£214.1m

[29] Ofgem's April consultation *Shetland transmission project: Consultation on Final Needs Case and Delivery Model* (p.4) confirmed that at that time SHE-T estimated the capital costs of the Shetland link as £709m.

Appendix 2 – Responses to Ofgem's questions

SHEPD's specific responses to Ofgem's questions below are intended to be read in conjunction with the feedback in the main body of this response document.

Question 1: What are your views on the principle of DNO contributions to transmission projects generally, and contributions by SHEPD to the Shetland, Orkney and Western Isles transmission projects specifically?

We recognise that there is not a current framework under charging regimes which allows DNOs to contribute towards transmission infrastructure in particular. It is clear that for island systems this type of arrangement could be of notable benefit, allowing customers with complementary needs to share costs. SHEPD supports and has proposed the principle, as a logical application of the whole system framework to secure benefits for island distribution systems in a cost-efficient and synergistic way.

Since the inception of the proposals to make contributions towards the island transmission links, we have confirmed that we believe the approach should be applied for Shetland, the Western Isles and Orkney. SHEPD has recommended bespoke contributions towards the island links, commensurate with the value that we have determined those links represent to the respective island distribution systems, SHEPD and GB consumers, on the basis of the fair value of services, and the fair value of avoided future investment.

Please also refer to the views we set out on the principle of DNO contributions in pages 1 to 6 of this response.

Question 2: What are your views on the robustness of the methodology to determine the need for and value of the contribution?

- Do you agree with our views on the methodology proposed for Shetland and Western Isles/Orkney, as set out in Annex 2?

SHEPD's proposals represent first-of-a-kind arrangements progressed under Ofgem's whole system framework. The methodologies which we have developed, with support from industry consultants, are new and bespoke. We welcome Ofgem's consultation and associated stakeholder engagement. We believe the methodologies are robust in their identification of value and benefit to SHEPD distribution system customers, and GB consumers.

We have identified proposals which we believe will bring benefits to distribution island customers in addition to the benefits arising through the connection of large renewable generation projects. In the case of Shetland, SHEPD's proposal offers material savings compared to the market-tested next best solution; for the Western Isles and Orkney

utilisation of the links will, among other benefits, displace reliance on fossil fuel-powered generation. We consider this is the most significant consideration for Ofgem.

In noting its views in Annex 2, Ofgem highlights the requirement for more information and clarity on justification for the Western Isles and Orkney contribution proposals. Please refer to our detailed feedback in the section *Western Isles and Orkney contribution proposals* (p.13).

Question 3: What are your views on how the methodology could be most appropriately implemented?

- Do you agree that more detail is required on the proposed implementation of the contribution in SHEPD's licence and industry codes before we can approve any proposal?

- Would it be more appropriate for the SHEPD proposals to be formally considered through standard industry code governance arrangements?

SHEPD has, with its consultants, identified a range of proposals around contribution implementation routes since mid-2018, shared with Ofgem in our original Recommendation, and has engaged with NGESO on these on a number of occasions from late 2018. We have also provided Ofgem with an implementation overview, setting out principal steps of implementation (including Ofgem's directions on relevant DNO and TO costs and allowances, DNO and TO Regulated Asset Value (RAV) impacts, associated Price Control Financial Model (PCFM) and Regulatory Instructions and Guidance (RIGs) impacts, interactions between the DNO charging arrangements and the Hydro Benefit Replacement Scheme (assuming future recovery of SHEPD Shetland costs through this mechanism), and SHEPD's views on both the effect of the contribution proposals on the TNUoS charging methodology and the requirement for CUSC modifications). We appreciate that this is not specifically reflected in SHEPD's Recommendation or Ofgem's consultation. We consider that identifying where appropriate changes are required should be sufficient to allow a policy position to be agreed, with detailed changes being developed through further discussion over the period from 2019 to energisation.

SHEPD has maintained that simplicity and speed of implementation is favourable. The implementation proposals identified by SHEPD include CUSC modification and non-modification routes, both of which are within Ofgem's power to direct and which have their own standard industry governance and oversight. Any licence changes will be subject to public consultation. However Ofgem should prioritise making a policy decision now (on contribution value methodology and values themselves), and direct implementation to follow this. Any policy decision made by Ofgem should be directed to be preserved through the implementation process so that the contributions and TNUoS effects remain consistent with that decision.

Please refer to our detailed comments on implementation provided in the sections *Ofgem's policy decision, and the role of implementation* (p.6) and *Implementation of a whole system approach* (starting p.7).

Question 4: What are your views on timing for confirming the contribution?

- Are there other areas of uncertainty within the proposals or wider frameworks that we have not considered and which would impact the effectiveness of the SHEPD proposals?

We note our position that the contributions should be confirmed now and that, further, the TNUoS effect requires to be confirmed.

If the contributions are not confirmed now, before bidding in the CfD process begins, the effect of the contributions are not likely to be reflected in TNUoS charges, and the opportunity to realise the benefits identified for the islands through the transmission links will be materially impacted (if not lost). We have suggested in our response that NGESO may be able to provide an indicative, caveated view of the effect of the contributions on TNUoS for illustrative purposes.

Please also refer to the points noted in the earlier sections *Timing for confirming the contribution* (p.15), *Process timeline* (p.15), the executive summary, and associated references throughout our response.

Question 5: What are your views on any wider implications that should be considered?

How can any wider implications best be managed?

SHEPD does not consider that there are material wider implications that have not already been addressed in our proposals and / or associated engagement with Ofgem and stakeholders.

Please refer to our detailed comments on implementation provided in the sections *Ofgem's policy decision, and the role of implementation* (p.6) and *Implementation of a whole system approach* (starting p.7).