

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

Viking Energy Wind Farm LLP Written Response (July 2019)

---

## Executive Summary

Viking Energy Wind Farm LLP, (VEWF) is a partnership between SSE plc and the Shetland community as represented by Viking Energy Shetland LLP (VES). The proposed Viking wind farm is located in Shetland and will comprise 103 turbines with a total installed capacity of up to 457MW.

This document responds to the consultation issued by Ofgem on Scottish Hydro Electric Power Distribution's (SHEPD) proposals to contribute towards the proposed transmission links to Shetland, Western Isles and Orkney. The transmission link to Shetland is a 260km High Voltage Direct Current (HVDC) subsea cable running between a switching station in Noss Head (Caithness) and a proposed substation at Kergord (Shetland). The Viking project is the "anchor" project for the transmission link currently taking 457MW of the total 600MW proposed capacity. The remaining capacity is taken by other developers building wind farms on Shetland, and at the time of writing it is understood by VEWF that the 600MW capacity is currently over-subscribed by approximately 80MW. VEWF has a grid connection agreement with National Grid (NGET) under which the transmission link to Shetland will be operational from March 2024. Currently the timescales for the CfD round and Ofgem's activities are not aligned which poses a significant risk for VEWF ahead of a Final Investment Decision (FID).

With reference to the consultation, VEWF's points of note in response to the questions posed by Ofgem summarise as follows:

- VEWF strongly supports the principle of DNO contributions to transmission projects generally, and specifically a contribution by SHEPD to the Shetland transmission link
  - VEWF largely agrees with the robustness of the methodology used to derive the value of the contribution to the Shetland transmission link but noting that:
    - the transmission link has to exist in order for the contribution methodology to be valid, and if the transmission link fails to materialise, demand consumers will be exposed to the future market cost of meeting Shetland demand (which is in the range £394m up to £620m depending on the solution used to meet Shetland demand post 2025)
    - a cap on the contribution should be set at the value of the avoided costs in total to prevent any confusion about the total cost of meeting Shetland demand (as the current proposed figure of £394m appears to be for a distribution link without backup plant)
    - it is not entirely clear how the value of £376m (corrected to £394m by SHEPD) was derived as the point of indifference between a distribution connection and a transmission connection
    - operational costs do not appear to have been included in the total costs for the transmission link (so consequently the Capacity Support element of the contribution is potentially incorrect, being too low)
    - the contribution value is in no way risk adjusted to account for the impact on consumers were Viking as the anchor project not to proceed (which follows on from the contribution methodology being based on the assumption that the transmission link infrastructure already exists)
-

- VEFW considers Ofgem already have the powers to implement the proposed contribution methodology without the need for changes to industry codes or licences
- VEFW considers it necessary for the contribution methodology to be confirmed before the bidding window for AR3 opens

On balance VEFW welcomes the proposed contribution methodology and notes that there is potentially a considerable benefit to demand consumers if implemented, reducing the potential exposure to costs associated with meeting Shetland's demand post 2025 from somewhere in the range of £394m up to £620m down to only £251m. VEFW considers minor clarifications are required to confirm the provisional contribution value at £251m appropriately accounts for the operational costs of the transmission link, and that Ofgem consider the value to be fully reflective of all the benefits the link to Shetland will realise, including the avoidance of higher costs falling on demand consumers at some point in the future. Importantly, the consultation has provided VEFW with a basis on which to estimate the TNUoS charge that will potentially apply to the Viking wind farm, and accordingly VEFW intends to place a reliance on the contribution methodology when it submits its CfD bids.

Our detailed considerations with regard to the summary points presented above are provided below in response to the questions posed in the consultation document.

VEFW would like to thank Ofgem for consulting stakeholders on Scottish Hydro Electric Power Distribution's proposals to contribute towards the proposed electricity transmission links to Shetland, the Western Isles and Orkney and confirm our consultation response is not confidential.

Viking Energy Wind Farm LLP

E: [info@vikingenergy.co.uk](mailto:info@vikingenergy.co.uk), [aaron.priest@vikingenergy.co.uk](mailto:aaron.priest@vikingenergy.co.uk)

T: 01595 744930

**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**

The views of VEFW are as follows.

- 1.1 VEFW strongly supports Ofgem's position of agreement on the principle of a licensee contributing towards another licensee's project, where this is shown to benefit consumers. VEFW agrees with SHEPD and its consultants that based on the work completed the principle of a fair contribution from electricity distribution customers, towards the cost of the proposed Shetland transmission link, represents best value for demand consumers out of the options considered to provide long-term security of supply to Shetland.
- 1.2 VEFW supports Ofgem's position that there will be circumstances where parties can deliver a more beneficial solution, with greater benefits for consumers, by contributing efficient costs to reflect the benefits they receive. The Baringa documentation concludes that the proposed Shetland transmission link is the "cheapest option for meeting Shetland's electricity needs under all modelled scenarios." VEFW welcomes this view and contends that it would be contrary to the interests of GB consumers and Shetland consumers to pursue any of the demonstrably more expensive (and recently market-tested) alternative options to provide security of supply for Shetland.
- 1.3 VEFW limits this response to a proposed contribution from SHEPD to the Shetland transmission link and is neutral in its position on SHEPD contributions to the Orkney and Western Isles projects. However, VEFW very much welcomes the principle of implementing the contribution methodology on a pan-island basis to facilitate opportunities across all the remote islands which deliver the best value for consumers while realising the excellent renewables resource the islands have available.

**Question 1 Response: Wider Narrative**

The SHEPD proposal is the only route, amongst the options, to underpin long-term security of supply for Shetland in a way which also contributes towards the diversification of Shetland's economy. The recently halted Shetland New Energy Solution (SNES) provides substantial, up to date evidence that a holistic approach to remote island wind, island transmission connections and long-term island security of supply represents the best overall value for GB consumers. In VEFW's view such an approach provides the most cost-effective and joined-up delivery of both UK and Scottish Government policies as well as wider EU targets, obligations and policies. It is the best means to unlock the substantial economic, industrial, social and environmental benefits that electricity transmission investment, and the development of Shetland's abundant renewable energy resources, can bring to the UK, EU and to the islands. VEFW agrees with SHEPD's recommendation to Ofgem that "Shetland's enduring demand needs can be met through sharing use of, and contributing towards the cost of, the proposed Shetland transmission link"<sup>1</sup>.

Shetland is home to what is statistically the UK's best onshore wind energy resource. Shetland is currently unconnected to the GB national electricity transmission network. The islands distribution

---

<sup>1</sup> <http://news.ssen.co.uk/news/all-articles/2019/april/shetland-whole-system-opportunity/>

network is entirely isolated, with no ability to accommodate new unconstrained wind generation connections. This position represents a technical and economic barrier to entry. Without network reinforcement, to be provided by the proposed transmission link, Shetland cannot meaningfully develop its substantial renewable energy resource, which is considered to be the best onshore wind resource in the UK and, in the absence of a transmission link, will have little or no further renewable energy development or research and development activity. In the meantime, the incentives provided by the UK Government's long-established policy positions on the RO, CfD and FiT mechanisms have, until now, largely passed the remote islands by. Large-scale Shetland onshore wind projects are the only existing trigger for the transmission link (to Shetland) that would alleviate these barriers to entry. It is also worth noting that Shetland Islands Council's view, representing Shetland as a whole, is that the Viking wind farm and the related transmission link are "of paramount economic importance to Shetland, the project will provide substantial intergenerational economic and social benefits".<sup>2</sup>

As the key contracted and consented anchor project which commercially underpins the Shetland transmission link, VEFW strongly supports the proposal submitted by SHEPD to contribute towards the cost of the proposed electricity transmission link in a way which clearly represents best value to demand consumers. The link will connect Shetland to the GB mainland national electricity grid for the first time and the SHEPD proposal would provide a positive contribution to an asset of long-term strategic importance to the United Kingdom. For example, VEFW understands that the Oil & Gas Authority is seeking to ensure that a strategic electricity connection to Shetland features within plans to develop the UK's West of Shetland oil and gas frontier and diversify the Sullom Voe oil terminal in Shetland.

---

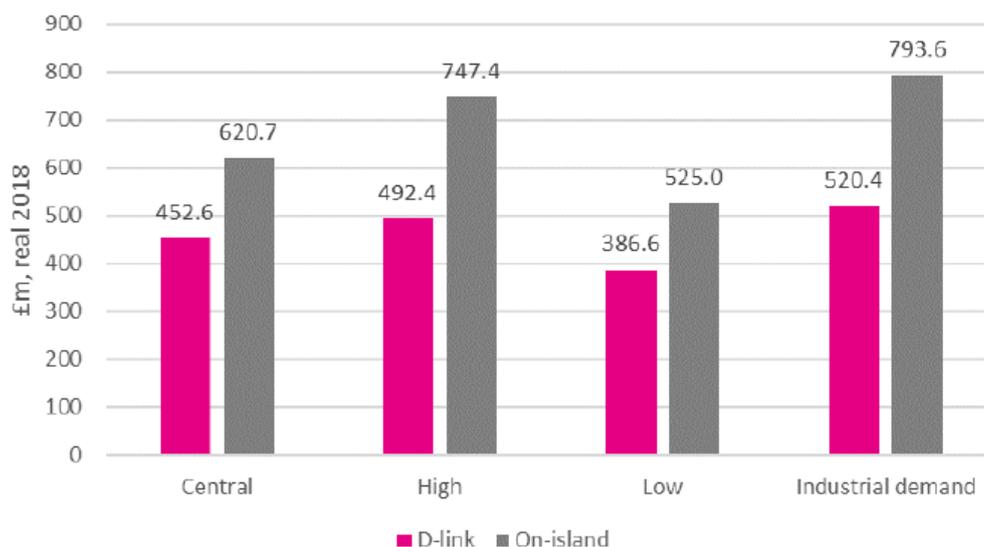
<sup>2</sup> <http://www.shetland.gov.uk/coins/viewSelectedDocument.asp?c=e%97%9Dc%8En%7B%8D>

**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?**

The views of VEFW are as follows.

- 2.1 VEFW is aligned with Ofgem’s view that “the methodology calculates a contribution value that may appropriately reflect the value of the transmission link to demand consumers”, and with the view to “support the principle of setting a ‘cap’ on the level of contribution to protect SHEPD’s distribution customers” (noting that a view on the appropriate level of that cap has not been reached). However, VEFW has some specific views on the methodology and the cap, with due consideration for Annex 2, as outlined in the following sections.
- 2.2 VEFW notes the methodology is not premised on the principle of avoided cost but the calculation of a contribution that may appropriately reflect the value of the transmission link to demand consumers. Accordingly, the transmission link has to exist in order for the contribution methodology to be valid, and conversely if the transmission link fails to materialise, demand consumers will be exposed to the future market cost of meeting Shetland demand. The current benchmark for this is confirmed in the SHEPD DSO recommendation as figure 5 (referenced in paragraph 5.3.5), and in the Baringa report as figure 1. For ease of reference the figure, which is the same in both cases, is pasted below.

**Figure 5: Comparison of the distribution link and on-island plant options (NPV of total cost)**



This graph confirms the benchmark cost for meeting Shetland demand for 20 years from 2023 (on a central case) is either £452.6m using a distribution link, or £620.7m using an on-island fossil-fuel based solution. Notably SHEPD confirm in paragraph 5.3.4 of their recommendation that if a 25 year refurbishment is undertaken on the distribution link extending its operational life to 45 years, then the benchmark cost for the distribution link would fall to £394m (from £452.6m). Ofgem (in Annex 2) suggest SHEPD propose this figure of £394m as a cap on the

contribution value but this proposal does not appear in the SHEPD documentation. Additionally, Baringa suggest in their report that the cost of the transmission link is cheaper up to the point where the DSO contribution reaches £376m (for contribution values greater than £376m the distribution link is cheaper). This is confirmed in the SHEPD recommendation document in paragraph 5.4.7 but is then adjusted to £394m, as per table 3 attached to paragraph 5.4.12. VEWf considers it has interpreted the consultation documentation correctly, but for the avoidance of any doubt it would be helpful to have this confirmed, and if possible for more detail to be provided to explain how the £376m point of indifference was derived. However, the principle of the avoided cost being a cap on the contribution amount is a principle that VEWf supports, but noting the number appears to lie somewhere in the range of £394m up to £620m depending on the assumed life of the distribution link, whether or not the backup plant is included, and if a fossil-fuel solution were to be adopted.

2.3 Moving to the methodology that calculates a contribution value that may appropriately reflect the value of the transmission link to demand consumers, VEWf notes it is made up of the three components as follows (with a total value of £251m and with component values as noted below consistent with the SHEPD addendum document, not Annex 2 of the Ofgem document):

- Control support (£117.5m)
- Capacity (or peak demand) support (£123.0m)
- Losses reduction (£10.2m)

#### **Control Support (£117.5m)**

2.4 The Ofgem document confirms the value is based on services required to maintain system stability and that these have been valued by “assuming the HVDC link would bring the island into line with mainland GB on carbon intensity”, where the reference island solution is “a new conventional thermal generator”. Similar to Ofgem (and as noted in Annex 2), VEWf questions whether this is an appropriate way to value this component of the contribution as carbon emissions and system stability are arguably not directly related. Notably, and as recorded in Annex 2, Ofgem queried SHEPD on why a new conventional thermal generator should be used as the reference plant for the island when a distribution link was the successful bidder in the 2016 SNES competition. As SHEPD advised Ofgem, to assume the distribution link as the reference plant would logically imply that the contribution value should be the full cost of the distribution link (£394m). VEWf agree entirely with SHEPD on this point as it links back to the fundamental issue of whether the contribution is based on ‘avoided costs’ or ‘a value that appropriately reflects the value of the transmission link to demand consumers assuming the infrastructure required exists to realise that value’.

#### **Capacity (or Peak Demand) Support (£123.0m)**

2.5 The Ofgem document confirms the value is based on Shetland being dependent on the link for security of supply for 17.4% of the time, and accordingly demand consumers paying 17.4% of the total cost of the link, advised as £709m. VEWf agrees with the logic of this methodology but questions the cost assumption for the transmission link, as it does not appear to make any consideration for operational costs in any way. VEWf therefore kindly requests clarity from Ofgem on whether or not SHEPD will, on the same basis, make a similar 17.4% contribution to the operational costs of the transmission link, as this is not clear from the documentation provided.

2.6 VEWf notes the sensitivities presented in Annex 2 of the Ofgem document with regard to the risk of demand consumers making an over-contribution. VEWf agrees with the SHEPD that the balance of evidence shows a reduction of demand to be very unlikely, particularly given the need to decarbonise the existing oil and gas facilities at Sullom Voe and the TOTAL gas plant. The risk that generation on Shetland exceeds SHEPD’s assumed production curves and capacity factors

is advised by SHEPD as small, which VEWf would agree with given the reference data has been in existence for some time, and the complexity of forecasting for an island the size of Shetland is arguably relatively low.

- 2.7 Ofgem consider that SHEPDs proposal mitigates the risk for consumers by only setting the Capacity Support element following Ofgem’s Project Assessment for the transmission link, which is provisionally confirmed as mid-2020. VEWf would like to note that conversely a lack of certainty around the contribution due to the Capacity Support element only being confirmed by mid-2020, and not prior to the CfD bidding window (which could be as early as the 19th July 2019, or as late as 9th October 2019 as now confirmed by the EMR Delivery Body)<sup>3</sup> does not mitigate the risk for consumers as the transmission link may not materialise. Under these circumstances demand consumers would be exposed to the future market cost of meeting Shetland demand (£394m as the current estimate plus the cost of the required backup plant). It is for this reason that VEWf considers it necessary for Ofgem to reach a decision on the contribution methodology no later than the announcement of successful CfD bids, and for VEWf to place a reliance on the principle of the contribution methodology when it submits CfD bids.

#### **Losses reduction (£10.2m)**

- 2.8 The Ofgem document confirms the value is based on the transmission link operating at a higher voltage compared to a distribution link with consequently lower electrical losses. VEWf consider this technical benefit should be recognised and therefore agrees with the valuation based on forecast wholesale prices.

#### **Contribution Cap**

- 2.9 With reference to Annex 2, Ofgem also considers the proposed cap on the contribution under the contribution methodology. As noted in paragraph 2.2 above, VEWf agrees with the principle of a cap but considers more detail is required (including around the 17.4% operational cost contribution noted in paragraph 2.5 above) to provide greater clarity on the value of the cap and its relation to avoided costs.

### **Question 2 Response: Wider Narrative**

The contribution methodology does not appear to account for value of the investment in the Caithness Moray infrastructure attributable to the planned development of the Shetland transmission link. Under the grid connection agreement VEWf have with NGET it is understood that approximately 9% of the Transmission Use of System (TNUoS) charges relate to use of the Caithness Moray connection which, in accordance with coordinated grid development in the north of Scotland, was sized to accommodate the Shetland transmission link. VEWf believe the value of this investment should be accounted for in the contribution methodology as it is a cost of approximately £100m which will be payable by consumers if the Shetland transmission link is not constructed.

The potential to lose the Caithness Moray investment arguably points towards risk adjustment to be part of the contribution methodology. The cost to demand consumers were Viking not to trigger the transmission link is in the range of £143m up to £370m (derived as £394m minus the provisional contribution value of £251m for the lower figure based on a distribution link excluding backup plant, and £620m minus £251m for the upper figure based on the cost of a fossil-fuel power station). If the Caithness Moray related investment is included, these figures increase by £100m taking the range from between £243m up to £470m. Any project investment faced with a risk exposure of that magnitude should in VEWfs view adopt a risk adjustment factor in its investment considerations.

---

<sup>3</sup> <https://www.cfdallocationround.uk/announcements/ar3-timeline-updated>

**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?**

The views of VEFW are as follows.

3.1 VEFW note Ofgem's view that they do not have enough clarity on how the SHEPD proposals could most appropriately be implemented through industry codes and licences to be able to approve the proposals. Whilst VEFW agrees that it needs to be ensured that the proposed methods for implementing the SHEPD proposals are robust and transparent, VEFW is of the opinion that implementation is a secondary consideration and perceived difficulties or challenges should not be allowed to prevent the implementation of the contribution methodology if it is concluded to be the right overall solution and which is the most beneficial for demand consumers. It would be particularly disappointing and frustrating for stakeholders if changes to industry codes or licences were to be cited as the reason for a failure to implement the methodology in a timely manner, when the solution in principle has been agreed and the fundamental need for a solution to Shetland's security of supply has been under consideration since July 2013 (as noted in Annex 1 of the Ofgem documentation).

**Changes to Industry Codes**

3.2 VEFW notes the fundamental inherent link between the implementation of SHEPD's contribution proposal and considerations at the core of CMP303. However, while the Connection Use of System Code (CUSC) underpins the contractual framework for connection to, and use of the National Electricity Transmission System, the value of SHEPD's contribution is a matter of a stand-alone process in relation to setting allowed revenues for a respective TO. Therefore, while changes to the CUSC would follow a positive CMP303 decision by Ofgem, it is VEFW's view that no amendments to the code are needed to reflect an exact adjustment value of the TO revenues on the back of the SHEPD's contribution which feeds through to the 'Allowed Revenue' for the purposes of TNUoS charging.<sup>4</sup>

**Changes to Licences**

3.3 VEFW's understanding is that Ofgem already has the power to determine a capital allowance to the TO for the Shetland transmission link and can instruct that the SHEPD contribution is recovered via a transfer of funds under licence arrangements between SHEPD and the TO. Ultimately, what matters to all parties is that the final TNUoS charge to generation in Shetland reflects the value net of the SHEPD contribution. This should be achieved as an integral part of Ofgem setting the allowed revenues as part of standard process to finance and deliver the transmission link. While generators are ultimately neutral as to the mechanics of how this is achieved, VEFW's view is that the reconciliation of funds between the TO, the DSO and GB consumers should fall under the auspices of licensing arrangements, rather than the CUSC. This should allow Ofgem to streamline the decision-making process. In line with the applicable requirements of European law (see Appendix 1 for further details).

---

<sup>4</sup> Noting it is TNUoS charging aspects, rather than the 'Allowed Revenue', which concerns the CMP303 proposals.

### **Considerations of Regulatory and Legal Requirements**

- 3.4 VEWF welcome Ofgem's stated position that the contribution proposals do not unlawfully distort competition. Accordingly, as to re-confirm as noted in paragraph 2.7 herein, VEWF will be placing a reliance on the principle of the contribution methodology when it submits its CfD bids.

### **Timing of the Contribution**

- 3.5 VEWF notes the four options considered by SHEPD covering the timing and structure of any payments to be made in association with the contribution, as detailed in Annex 2 of the Ofgem documentation. VEWF is neutral on the timing of the contribution payments provided any differences between arrangements do not erode the value of the contribution methodology (e.g. negative impact through the time value of money, or administrative overheads associated with any of the parties involved).
- 3.6 With reference to the alternative approach developed by SHEPD (as outlined in Annex 2), VEWF is comfortable with this approach subject to the contribution value and process being clarified with regard to how SHEPD will contribute to the operational costs of the transmission link (as outlined in paragraph 2.5 above). To confirm, VEWF will adopt the SHEPD approach as outlined when considering the impact the contribution methodology will have on the TNUoS charge for the Viking wind farm.

### **Question 3 Response: Wider Narrative**

VEWF requests that this response is read in conjunction with its response to the recent consultation on the Final Needs Case and Delivery Model for the Shetland link<sup>5</sup>. In particular, we would repeat that whilst VEWF agrees that Ofgem's assessment against the criteria for competition is technically correct in two respects; i.e. the Shetland transmission link is a new and relatively high value project; VEWF is not convinced about its separability, given that it constitutes a part of a relatively complex multi-terminal HVDC system, the first such system to be deployed in GB. Also, having reviewed a similar consultation on the final needs case for the Orkney transmission project and the industry responses, Viking shares some of the concerns already expressed by the industry on any proposed competition approach for delivery of islands connection links. VEWF believes that Ofgem should rely on the relevant benchmark cost data from the Caithness Moray HVDC link, to enable it to assess the right level of capital costs for the Shetland transmission link. By the time the Shetland transmission link enters service, the RIIO-T2 price control will be in force, and this will incorporate the benefits of a market-tested WACC and operational cost benchmarks.

As stated above, VEWF shares some of the concerns already expressed by the industry<sup>6</sup> in relation to the Competition Proxy Model (CPM) approach. As a prospective generator in Shetland, VEWF is keen to ensure that the construction of the Shetland transmission link is delivered economically and without any delays. However, VEWF is also concerned about the cash flow impact of the proposed 25 year operational period under the CPM, compared to the existing 50 year asset life approach under the Strategic Wider Works (SWW) model. The shorter period suggests that generators connecting to the Shetland transmission link early would pick up a relatively high proportion of TNUoS charges compared to generators connecting via the same link at a later stage of the operational life of the link. Furthermore, it is not clear how any wind generation replanting opportunities and future generation investments are being accounted for in a proposed shorter life span of the Shetland transmission link.

---

<sup>5</sup> <https://www.ofgem.gov.uk/publications-and-updates/shetland-transmission-project-consultation-final-needs-case-and-delivery-model>

<sup>6</sup> <https://www.ofgem.gov.uk/publications-and-updates/orkney-transmission-project-consultation-final-needs-case-and-potential-delivery-models>

**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?**

The views of VEFW are as follows.

4.1 VEFW notes Ofgem's view that "it may not be appropriate, or even necessary, to place any reliance on a provisional contribution value at this stage". VEFW fundamentally disagrees with this view for the reasons outlined in paragraph 2.7 herein. VEFW is of the view that it makes no sense to ignore the potential impact of a contribution methodology when the potential benefit to demand consumers is so significant, and when the methodology is agreed in principle. Accordingly, and as noted in paragraph 2.7 herein, VEFW will be placing a reliance on the principle of the contribution methodology when it submits its CfD bids. What remains uncertain for VEFW is the contribution value to assume given the issues raised in our response to Question 2 herein. With reference to Ofgem documentation, VEFW addresses the specific issues raised by Ofgem in the following sections.

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

4.2 For the reason noted above, VEFW considers it is entirely appropriate from the perspective of demand consumers to place a reliance on the contribution methodology, but not necessarily the provisional contribution value as currently stated. For the reasons outlined in our response to Question 2 herein some minor clarifications are considered necessary. Firstly, whether or not operational costs associated with the transmission link have been included, and secondly, whether the value of the contribution will be risk adjusted to account for the difference between the provisional contribution value for the scenario where VEFW triggers the transmission link, and for the scenario where it does not. The difference in cost to demand consumers is in the range of £243m up to £470m (derived as outlined in our wider narrative in response to Question 2 herein).

4.3 VEFW has long argued that remote islands (Shetland and the Western Isles) are disadvantaged only by the cost of connecting them to the GB mainland grid network (distribution or transmission). This disadvantage is driven solely by the physical location of the islands and the advised costs of providing the grid connection infrastructure. It is further compounded by the fact that the islands connect, as an unavoidable consequence of their location, to the mainland infrastructure in the north of Scotland where the locational charging regime results in the highest generator TNUoS charge across the whole of GB. VEFW very much welcomes the attention Ofgem is giving to the cost of the remote island grid connections and the cost reductions that may deliver, but equally VEFW cannot let the opportunity of the CfD round go by. For this reason, and with due consideration for the grid costs as currently advised and the CfD bidding timescales, VEFW considers it must place a reliance of the contribution methodology when bidding, noting that the contribution methodology is a positive benefit and reflects the value the transmission link will bring to demand consumers by solving the long-standing issue of how to meet Shetland's demand sustainably into the future.

#### **Whether it is appropriate to place reliance on a provisional contribution value**

- 4.4 We note Ofgem's view that there is not enough clarity or certainty on how the SHEPD proposals could most appropriately be implemented through industry codes and licences to be able to approve the proposals at this stage. VEWFs view on this is detailed in our response to Question 3 herein.
- 4.5 We also note Ofgem's view that the contribution methodology for Shetland includes a parameter that varies the final contribution value in line with Ofgem's final determination of the capital cost allowance for the transmission link, which is not expected to be decided upon until mid-2020 at the earliest. VEWFs view on this is detailed in paragraph 2.7 herein.

#### **Question 4 Response: Wider Narrative**

In accordance with the latest CfD timetable issued by the EMR Delivery Body<sup>7</sup>, VEWF will be required to sign a CfD contract within approximately one month following notification of a successful bid, which itself follows approximately one month after the 5 day CfD bidding window. The current LCCC timetable for the 2019 auction anticipates the earliest announcement of successful bids to be during August 2019 and the latest announcement to be during November 2019. Therefore, CfD contracts may need to be signed as early as September 2019 or no later than December 2019. This timing is compatible with the Viking programme which is aiming to reach Final Investment Decision (FID) no later than March 2020 before the securities for the grid connection increase up to approximately £86m in April 2020 (from around £1.3m currently). However, the indication by Ofgem that the final capital cost allowances for the Shetland, Western Isles and Orkney projects are unlikely to be decided until mid-2020, following Project Assessment, is not compatible with Viking's programme and actually poses a significant programme risk for VEWF given the increase in the grid securities, and also the need to commence civil construction works no later than November 2019 in order to provide SHET with site access by March 2020 in accordance with obligations under the grid connection agreement. Accordingly, VEWF respectfully urges Ofgem to consider if the Project Assessment decisions could be brought forward to fall in line with the CfD timeline, preferably no later than the announcement of successful CfD bids. This would minimise the risk of programme incompatibility leading to Viking not triggering the transmission link due to unmanageable levels of financial risk and uncertainty.

---

<sup>7</sup> <https://www.cfdallocationround.uk/announcements/ar3-timeline-updated>

**Question 5: What are your views on any wider implications that should be considered? How can any wider implications best be managed?**

The views of VEFW are as follows.

- 5.1 VEFW consider the implementation programme in relation to SHEPD's contribution needs to align with the 2019 CfD allocation round, such that the contribution methodology and the final contribution value are confirmed no later than the announcement of the successful CfD bids.
- 5.2 VEFW's view is that there is an express and explicit requirement on both the UK Government and Ofgem to take exceptional account of, and to encourage/prioritise, island transmission connections. The UK could be considered to be non-compliant with the letter and spirit of European law. The text in Appendix 1 is extracted from the EU Renewable Energy Directive (2009/28/EC), which for the avoidance of doubt according to the European Union (Withdrawal) Act 2018, will continue to apply post-Brexit. In regard to the two legal obligations contained in Appendix 1 VEFW are of the view that in the case of the transmission link to Shetland (as well as to the Western Isles and Orkney) these involve "in particular electricity from renewable energy sources produced in peripheral regions, such as island regions, and in regions of low population density".
- 5.3 Finally, one other matter of concern to VEFW is that island transmission connections, which will have a recognised function in underpinning security of supply to the islands at demonstrably best value to wider electricity customers, will require to connect to a Grid Supply Point (GSP). In the event that another on-island transmission circuit is also developed then a situation may arise where the configuration meets the CUSC definition for a MITS node. In theory, this could mean that an otherwise non-compliant island connection, via a radial single circuit connection to the mainland GB transmission network, could be deemed to constitute an on-island MITS point with a security factor of 1.8 applied (rather than the 1.0 applied via the Project TransmiT/CMP213 approved solution for a single circuit situation) and consequent eligibility for constraint payments. The downside is that a resultant 80% uplift in TNUoS charges would render remote island wind uneconomic. This matter has been brought to the attention of NGESO and VEFW is in the process of developing a CUSC modification to address this issue. VEFW considers it would be helpful if Ofgem could support this CUSC modification to address what stakeholders agree to be an anomaly/oversight in the CUSC as currently written.

## Appendix 1

Applicable European law, extracted from: EU Renewable Energy Directive (2009/28/EC)

“3. Member States shall require transmission system operators and distribution system operators to set up and make public their standard rules relating to the bearing and sharing of costs of technical adaptations, such as grid connections and grid reinforcements, improved operation of the grid and rules on the non-discriminatory implementation of the grid codes, which are necessary in order to integrate new producers feeding electricity produced from renewable energy sources into the interconnected grid.

Those rules shall be based on objective, transparent and non-discriminatory criteria taking particular account of all the costs and benefits associated with the connection of those producers to the grid and of the particular circumstances of producers located in peripheral regions and in regions of low population density. Those rules may provide for different types of connection.”

“7. Member States shall ensure that the charging of transmission and distribution tariffs does not discriminate against electricity from renewable energy sources, including in particular electricity from renewable energy sources produced in peripheral regions, such as island regions, and in regions of low population density.”