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All interested parties

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Date: 16 September 2019

Dear stakeholder

Decision: conditional approval of the SWW Final Needs Case for the Orkney electricity transmission project

This letter outlines our conditional decision to approve the Final Needs Case for Scottish Hydro Electric Transmission's (SHE-T) proposed project to build an electricity transmission link between Orkney and mainland Scotland.[1] The decision to approve the Final Needs Case is subject to certain specific conditions being met which we set out below. Our decision has been reached further to consideration of the responses to our December 2018 consultation and further analysis[2].

Context

The Orkney project is SHE-T's proposed technical solution for connecting the Orkney Islands to the transmission network on mainland Great Britain (GB). SHE-T is contracted to connect some local generators on Orkney in 2023.

In March 2018 SHE-T submitted to us its Final Needs Case for a c.£260m 220MW transmission link between mainland GB and Orkney, to be delivered by 2023. Following our assessment of SHE-T's proposals and underlying cost-benefit analysis (CBA), we consulted on our minded-to position in December 2018. In that consultation we outlined that we considered there to be a technical and economic need for the Orkney project (dependent on volume of generation which comes forward), and that we would approve the Needs Case if we could be confident that GB consumers were appropriately protected from the risks and costs associated with building an underutilised transmission link to Orkney. In our December consultation we said that we were minded-to approve the Final Needs Case for Orkney project subject to the following conditions:

For Ofgem to approve the Final Needs Case for the proposed 220MW Orkney transmission connection, SHE-T must demonstrate, by no later than December 2019, that a total of at least 135MW of new generation on Orkney has either:

A. been awarded a Contract for Difference (CfD) in the 2019 CfD Allocation Round; or

B. secured planning consent and secured finance to construct its generation project.

Our consultation also outlined a minded-to position to apply the Competition Proxy Model (CPM) to SHE-T's delivery of the Orkney transmission project. We will confirm our decision on the delivery model for the project at the point at which the conditions of approval are met. The delivery model for the project is not addressed in this letter.

[1] Herein referred to as 'the Orkney project'.
[2] https://www.ofgem.gov.uk/publications-and-updates/orkney-transmission-project-consultation-final-needs-case-and-potential-delivery-models

Overview of consultation responses on the Final Needs Case

We provide below a brief overview of the responses received to our consultation. This overview is limited to responses regarding the Final Needs Case. We will consider the responses received regarding the delivery model separately. A more detailed summary of the responses concerning the Final Needs Case can be found in Annex 1. We received 22 responses to the consultation which addressed the Final Needs Case. These came from a mixture of developers, Orkney residents, local bodies, politicians and renewable energy associations.

Most of the respondents agreed that the generation scenarios presented by SHE-T in its Final Needs Case submission[3] represent a reasonable range of potential generation outcomes on Orkney. In particular, those respondents contended that there is a significant potential appetite and capability to develop wind projects on Orkney, helped by high load factors and public acceptance of wind farms. A small number of respondents argued that the generation scenarios underestimate the amount of wind generation likely to be developed on Orkney. A small number of other respondents raised concerns that planning restrictions may hinder the future development of wind generation on Orkney. Most respondents commented that the generation scenarios used in the CBA do not appear to be implausible with regards to tidal generation, but accepted that development of tidal generation would need to be supported by new government policy.

The majority of respondents disagreed with our concerns regarding the use of a constraints-based[4] CBA methodology[5] to assess the 'need' for the Orkney link, contending that using such a methodology is an established industry approach. However, other respondents acknowledged the validity of our concerns with the methodology. Over half of respondents argued that Ofgem had been unfairly selective when considering which costs/benefits to include in the 'Additional CBA', which was developed by Ofgem, the Electricity System Operator (ESO) and SHE-T as an additional means of assessing whether building the Orkney transmission project would benefit GB consumers.

Most respondents argued that the threshold of 135MW of generation that Ofgem proposed for approval of the Final Needs Case was "arbitrary" and "un-justified", arguing that the 70MW of generation threshold proposed by SHE-T had been derived through an "industry standard methodology" which should be adhered to. Respondents opposed to the 135MW threshold also argued that it was not a threshold that could feasibly be met by our proposed date of December 2019, arguing that the date should be pushed back to either April or December 2020.

Most respondents argued that Ofgem would be unfairly discriminating against Orkney generators by requiring that conditions are met before it approves the need for a link, whilst asserting that generators in the rest of GB generally only require a grid connection offer and paid securities to obtain grid access. The responses focussed, in particular, on the "secured finance" element of the proposed conditions for approval, arguing that it was unreasonable and unrealistic for Ofgem to expect a wind farm to have "secured finance" three or four years prior to commissioning, when it would not yet be certain that a link would be built.

More generally, several respondents argued that there has been insufficient investment in Orkney's electricity network since the second distribution cable was installed in 1998, which resulted in generation on Orkney first being constrained in 2003 and a moratorium on new

[3] These can be found on page 15 of our Final Needs Case consultation: https://www.ofgem.gov.uk/system/files/docs/2018/12/orkney_final_needs_case_consultation.pdf

[4] Constraint costs are payments made to generators by the ESO to stop generators producing electricity. It will make these payments when the electricity transmission network in a particular area does not have the capacity to safely transport all of the electricity that is being produced in that area.

[5] This methodology offsets the construction and operational costs of various different transmission project options against the constraint costs that each of these options relieve under a variety of generation scenarios.

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grid connections on Orkney since September 2012. Those respondents argued that this context, combined with the view that generators elsewhere in GB have not faced equivalent obstacles to generate in the same period, should encourage Ofgem to approve the Orkney project.

Our view

Since our consultation closed we have carefully considered the consultation responses, and engaged with SHE-T and the ESO to update the analysis underpinning the Final Needs Case submission. This includes requiring SHE-T to work with the ESO to update the constraints-based CBA underpinning its Final Needs Case submission in order to take account of more contemporary data since the original submission. We summarise this analysis and our views on each of the key areas of the Final Needs Case below.

Generation background

The consultation responses were supportive of our view that the network on Orkney would need reinforcing to accommodate new generation. Our view on that has not changed.

We consider that most of the responses regarding wind generation on Orkney demonstrate that there is a community of developers that are serious about developing their generation projects, and that the development of renewable technologies, including wind, appears to be generally supported by the Orkney Islands Council. This was also demonstrated when we visited the Orkney Islands to meet stakeholders during the consultation period.

However, we also received responses to the consultation which highlight the significant planning challenges that new windfarms on Orkney will need to overcome if they are to progress. As we highlighted in our consultation, this was demonstrated, for example, by the Orkney Island Council's rejection of the planning applications for the Costa Head and Hesta Head windfarms in late summer 2018, and by no new wind farms having applied for planning consent on Orkney since then. We note however that the planning rejections for Costa Head and Hesta Head have since been overturned by Scottish Government.[6] We consider that whilst it is clear that there is a community of developers aiming to develop windfarms on Orkney, there remains some uncertainty regarding the likelihood of these windfarms receiving planning consent. This is a matter for the planning authorities, including the Orkney Islands Council.[7]

Over half of the consultation responses did not share our concerns regarding the financial viability of prospective Orkney wind generation projects that do not secure Contracts for Difference (CfD) in the current, or any future, allocation rounds. These responses argued that the high wind load factors on Orkney should ensure that projects are profitable and that they could secure a corporate Power Purchase Agreement (PPA). Nevertheless, there were a small number of responses which agreed with our concerns in this area. Overall, having considered the consultation responses, we remain of the view that it remains uncertain as to whether prospective generation projects on Orkney would be financially viable if they did not secure CfDs, particularly given potential changes to the charging regime, which we highlighted in a letter published at the same time as our consultation.[8]

As regards tidal generation, the consultation responses supported our expectation that for tidal to progress to anywhere near the scale outlined in SHE-T's generation scenarios, some

[6] Costa Head: https://www.dpea.scotland.gov.uk/CaseDetails.aspx?ID=119960
Hesta Head: https://www.dpea.scotland.gov.uk/CaseDetails.aspx?ID=119961
[7] We note that the Orkney Islands Council has recently outlined an intention to give "meaningful weight" to wind farms which would contribute towards the needs case for a transmission link when considering planning applications – see page 6 of this document: http://www.orkney.gov.uk/Files/Committees-and-Agendas/Council-Meetings/GM2019/GM02-07-2019/I13_Draft_Minute_Special_Dev_Infra_25_June_2019.pdf
[8] https://www.ofgem.gov.uk/publications-and-updates/open-letter-about-ongoing-reviews-charging-arrangements

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form of additional government support would likely be required. We note that a project making up 150MW of the 310MW of prospective tidal generation identified by SHE-T in its Final Needs Case submission was cancelled last summer.[9] Overall, having considered the consultation responses, we remain of the view that, whilst it is clear that the tidal resource exists and that there is expertise on Orkney working to harness that resource, for reasons beyond the direct control of Orkney developers (i.e. need for subsidy support), it appears highly uncertain that significant levels of tidal generation will come forward on/around Orkney in the next 10 years (the period considered by the generation scenarios).

The updated generation scenarios used by SHE-T in its most recent CBA for the Orkney project are detailed in Annex 3. These reflect reduced expectations regarding the progression of tidal generation on Orkney and broadly unchanged expectations with regards to Orkney wind generation.

The need for making our approval conditional

In our consultation we proposed imposing conditions on our approval of the Orkney project in order to protect GB consumers from the risks and costs associated with building a transmission link to Orkney, in circumstances where there remains significant uncertainty regarding the amount of generation that would ultimately make use of the link. We continue to consider that it is appropriate to place conditions, which go beyond the requirements for securing grid access in some other parts of GB, on our approval of the Orkney link.

The Strategic Wider Works (SWW) mechanism under which we are considering the need for the Orkney link is intended to ensure that consumers pay efficient costs for high value electricity transmission projects where it can be demonstrated that these projects are needed. Projects can be brought forward by the Transmission Owners (TOs) under SWW if they meet certain cost thresholds. The TOs proposed their own cost thresholds before the start of the current RIIO-T1 price control. Delivery of the Orkney project would represent a significant cost to GB consumers. We consider it is important that the needs case is well justified and represents value for money, with consumers only paying for the investment if the link will be used by at least a certain amount of generation. As set out earlier, we are concerned that Orkney's generators may struggle to be financially viable given their potentially high use of system charges and the fact that very few GB wind farms have progressed without subsidies to-date.

SHE-T's Final Needs Case submission acknowledged the need for some conditions around the approval of the Orkney transmission project. It proposed that Ofgem approve the link if 70MW of generation signed up to Scottish Hydro Electric Power Distribution's[10] 'Alternative Approach'[11], though as outlined in our consultation and this document, we do not consider that those conditions would do enough to protect GB consumers.

In accordance with the SWW condition in SHE-T's licence, and consistent with our approach to previous SWW projects during RIIO-T1, we have considered whether the needs case, technical scope and timing of delivery of the proposed Orkney project are sufficiently well justified and represent long term value for money for existing and future consumers. As for all previous SWW projects, in coming to our Decision on the Orkney Final Needs Case, we have considered a constraints-based CBA as well as all other relevant considerations.

[9] OpenHydro had been developing a 150MW tidal project in Orkney's waters before its liquidation last summer: https://renewablesnow.com/news/naval-energies-exits-tidal-energy-openhydro-seeks-liquidation-621462/
[10] Scottish Hydro Electric Power Distribution (SHEPD) is a wholly owned subsidiary of SSEN, which also owns SHE-T, and is the Distribution Network Operator (DNO) for the north of Scotland.
[11] To streamline the process for future generation connecting on Orkney, SHEPD has proposed an 'Alternative Approach' to managing the generation queue on the Orkney islands. Our decision on that proposal can be found here: https://www.ofgem.gov.uk/publications-and-updates/decision-derogation-request-scottish-hydro-electric-power-distribution-plc-shepd-implement-proposed-trial-their-alternative-approach-orkney

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Where we have approved the Final Needs Cases for previous SWW projects without conditions, the generation background driving the need for the reinforcements was significantly more certain[12] than the generation background which currently exists on Orkney.

We consider that because of the relatively long lead time for construction of a transmission link (compared to generation), it would not be appropriate to wait until all relevant potential generation driving the need for a link is certain. In the case of Orkney, that would mean waiting until c.200MW of generation is ready to connect. The conditions for approval we have specified for Orkney are designed to provide an enabling regulatory framework that takes this into account, whilst ensuring an appropriate balance of risk between local generators and GB consumers.

Having reviewed consultation responses and an updated CBA, and having considered all other relevant considerations, we remain of the view that, subject to our proposed conditions (which are intended to ensure that GB consumers are appropriately protected from the risks of funding a stranded or underutilised asset), the Final Needs Case for the Orkney project is well justified and represents value for money. We consider it is in the interests of existing and future consumers to approve the Final Needs Case subject to the following conditions being fulfilled.

The conditions for approval[13]

Minimum threshold of generation

We consider that the constraints-based CBA methodology used for previous SWW projects and for Orkney is effective at weighing up the merits of different connection options (eg different-sized links). This was addressed by the ESO, which carried out the CBA modelling, in its consultation response:

> *"The Strategic Wider Works (SWW) [constraints-based CBA] methodology is not intended to evaluate the consumer cost/benefit [of] any network reinforcement. Once a need is identified for increased network capacity, given an increase in future generator capacity, the purpose of the SWW CBA is to select the best reinforcement option to support the transfer of power in an area of the network. A constraints based CBA is considered the best approach to evaluating the relative merit benefit of each option due to their ability to relieve network congestion costs."*

As outlined in our consultation, we are concerned that a constraints-based CBA on a link such as Orkney, which is a radial extension to the existing transmission network, is likely to overstate the consumer detriment of not building a link. The constraints being considered in the Orkney CBA do not exist currently, and will not exist unless the link is built – hence it cannot be argued that a need to relieve constraints is driving the need for the link.

As set out in our consultation and under 'The need for making our approval conditional' above, given the uncertain generation background on Orkney, we think it is necessary to set a minimum threshold of generation, below which we will not approve the Final Needs Case for the project.

Having considered the consultation responses and our further analysis, we still have concerns about using a constraints-based CBA to determine mechanistically an absolute minimum threshold of generation for approving a radial extension to the transmission

[12] i.e. there was a significant background of generation in development in the local area which was consented, contracted and often already under construction.
[13] The conditions we consulted on in December 2018 and those which we are setting today are both detailed in Annex 4 to highlight how the conditions have been amended subject to consultation.

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network. The 70MW value put forward by SHE-T in its Final Needs Case submission, and supported by most consultation respondents, represents the 'break-even' point identified by the original constraints-based CBA (ie. the point at which the constraints relieved by the link are equal to the cost of constructing it).

It is not, as has been asserted by some respondents to the consultation, 'industry-standard' to approve investments based on this 'break-even' point. We have never approved a large new transmission investment which was shown to only 'break-even' by the CBA. Setting the threshold at the 'break even' point would risk consumers paying for a project which might not represent value for money if even a small amount of generation fell away, or if the results of the CBA had been driven by an input which proved to be inaccurate[14]. As such we do not consider that approving the Needs Case based on the 'break even' threshold of generation coming forward would appropriately protect consumers from the risk of funding a significantly underutilised asset.

The point at which the original CBA showed the proposed 220MW link to be the most beneficial outcome for consumers, relative to a smaller 132MW link, is 199MW. We refer to this as the 'tipping point'. We considered, prior to consulting, whether the generation threshold should be set at the level of the tipping point. Setting the generation threshold at the tipping point would protect GB consumers from the risk of funding an underutilised link. However, the CBA shows that this tipping point value only needs to be reached by 2030, and it may be unreasonable to expect all of that generation to come forward before approving the Final Needs Case.

We therefore continue to consider that a threshold of generation for approving the link, which is the midpoint (135MW in the CBA provided with SHE-T's Final Needs Case submission) between the 'break-even' point and the 'tipping point' (70MW and 199MW respectively), would provide a reasonable level of confidence that the tipping point of generation is likely to come forward on Orkney by 2030. It provides an enabling framework for network investment that allows headroom for additional generation to connect in future and use the link, whilst ensuring that GB consumers are protected from the risks of funding a stranded or significantly underutilised asset.

As referred to earlier, in July 2019 the ESO ran an updated CBA for the Orkney project. This updated CBA used updated generation backgrounds (referred to earlier), updated capital costs for links (provided by SHE-T), and updated future wholesale market prices (provided by the ESO). After reviewing the results of the updated CBA, which support our position, we continue to consider that the 135MW figure referred to above remains appropriate. The updated CBA is discussed further in Annex 3.

Additional Cost Benefit Analysis (CBA)

The 'Additional CBA' is a separate CBA methodology, referred to in our minded-to consultation, which was developed by Ofgem, alongside the ESO and SHE-T, which seeks to compare the consumer benefits of a wholesale price reduction as a result of additional wind generation connecting to the system against the various other costs to consumers associated with an investment.

As stated in our December consultation, we used the Additional CBA in order to sense check our proposed 135MW generation threshold. Several respondents to the consultation seemed to have concluded that we had used the Additional CBA as the primary decision-making tool for setting the value of the generation threshold but this was not the case.

[14] The CBA makes a wide range of assumptions regarding the future energy market, eg future wholesale market prices

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For completeness, as suggested in various consultation responses, we have considered the effect on the Additional CBA of including several additional parameters. The results of and detail behind the Additional CBA are shown in Annex 5.

Having considered consultation responses and following further analysis (explained further in Annex 5), we do not consider that it would be appropriate to place any weight on the results of the Additional CBA, even as a tool to sense check the minimum threshold of generation for approving the link. This is because of concerns with how the results of that CBA fluctuate with even slight changes to the input assumptions.

Certainty that prospective generation projects will progress

In order to manage uncertainty around the generation background, we set out in our consultation that in order for a prospective generation project on Orkney to count towards the minimum threshold of generation necessary for approval of the link, we would need to have sufficient certainty that the generation project would proceed. We set out that in order to provide us with sufficient certainty that it would proceed, a project would need to either:

- A. have been awarded a CfD in the 2019 CfD Allocation Round (we refer to this below as 'limb A'); or
- B. have secured planning consent and secured finance (we refer to this below as 'limb B').

Limb A

As referred to above, almost all respondents agreed that a prospective generation project obtaining a CfD could provide Ofgem with a good level of confidence that the project will progress.

We continue, therefore, to consider that Limb A is an appropriate test for whether prospective generation projects are likely to proceed.

Limb B

As set out earlier, various respondents to our consultation asserted that projects on Orkney could proceed without a CfD. Given that this argument has consistently been put forward by project developers and other interested parties on Orkney, we consider that it is reasonable to provide a route for projects to demonstrate this. As such we consider that it remains appropriate to retain a limb B to the conditions of approval that gives prospective generators an opportunity to seek to demonstrate that they are likely to proceed despite not being awarded a CfD.

Having considered the consultation responses, and following further policy development (discussed further below), we have reflected on what evidence we would need to see in order to expect to be satisfied that a generation project on Orkney would be likely to proceed. In summary, we consider that this should include a combination of evidence that covers both the **stage of development of the project** and the **business case and financial viability of that project**.

With regards the **stage of development of the project**, we intend to retain the requirement, referred to in our consultation, that the projects have secured planning consent. We consider that evidence that planning consent has been obtained demonstrates that a project has overcome a material hurdle in its development. We require that Orkney generation projects also secure a relevant grid connection agreement. We consider that for the Orkney project, in order to protect consumers, evidence of a signed grid connection agreement can provide confidence that a generation project has met the minimum

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requirements to connect to the grid, that it has paid the required fees, and that it has committed to pay relevant securities and liabilities in the event that it is not built.

We acknowledge that the financial liability arrangements under a connection agreement can provide some limited comfort that a project will progress to commissioning. However, we consider that the standard financial liability arrangements would not adequately protect consumers from the risk of funding a link that is significantly oversized relative to the levels of generation with a connection agreement. Standard financial liability arrangements tie the size of the liabilities faced by local generators to their share of the costs of the reinforcement, where their share is determined based on the capacity specified within the generator's connection agreement. As such, under those arrangements, any costs associated with capacity for the link that is not covered by connection agreements, will be recovered more broadly from other users of the system (i.e. socialised) rather than from local generators.

We therefore consider that some additional evidence is required on **the business case and financial viability of an Orkney generation project** in order to provide sufficient confidence that a project is ultimately likely to be built, particularly given potential changes to the charging regime referred to earlier.

Our consultation proposed that we would expect 'securing finance' to satisfy us of this, and we still consider securing finance would be a very strong and robust means for demonstrating a strong business case and financial viability for a project. However, we note respondents' views that because of the shorter timescales for building generation projects than transmission projects, it is likely that generation which may not have secured financing in time for our conditions of approval could still secure financing and commission by the time the transmission link is built.

We have therefore considered whether there is an alternative robust and objective mechanism by which a generation project could demonstrate that it has a sufficiently strong business case and is financially viable. We consider that evidence in this area could be determined through an audit process. **As such, under limb B we will require an independent audit (carried out in accordance with any requirements specified by Ofgem) to confirm that a project has secured planning consent and a grid connection agreement, and is financially viable**.

The independent auditor, to be appointed by Ofgem, will consider the business case of each generation project seeking to count towards meeting the threshold for generation under limb B. Specifically, this will mean each generation project providing sufficiently robust information / documentation to the auditor against each area specified by Ofgem (indicative areas are set out in Annex 2)[15]. This is expected to include evidence of the robustness of the business case of each generation project across a number of areas, especially focussing on financial information such as the project's financial model, development budget, heads of terms with lenders and details regarding offtake arrangements. It will also include evidence of connection agreement and planning.

In summary, the audit structure is expected to be put in place and then operate as follows:

- We will appoint an independent auditor (expected to occur when it is clear that Orkney generators have started submitting their planning applications) to assess information provided by the developers of Orkney generation projects seeking to count towards meeting the threshold for generation under limb B.
- The auditor will assess the business case and financial viability of the generation project, as well as its connection agreement and planning consents. Once we have appointed the auditor we will confirm the formal process of assessment and

[15] We expect to publish further detailed guidance on the audit process once we have appointed an auditor, which we would expect to do when it is clear that Orkney generators have started submitting their planning applications.

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requirements. Annex 2 provides an overall indication of the information likely to be required.

- Each Orkney generation project wanting to count towards the threshold under limb B will have to:
    - submit its information to the auditor sufficiently in advance of December 2021, to allow the auditor time to review the information and report to Ofgem on its findings by the end of December 2021; and
    - pay for the external auditor to review its information.

The output of this audit will be a report to Ofgem, which will set out whether or not the independent auditor considers each relevant generation project on Orkney has met the relevant requirements across each area considered by the audit.

Date by which the conditions for approval need to be met

The December 2019 date, specified in our consultation as the date by which the conditions for approval should be met, was driven by our understanding of when SHE-T needed to begin construction of the Orkney link to meet the contracted connection date. We have subsequently been informed by SHE-T that the contracted connection date has moved back to April 2023. As such, in line with a number of consultation responses, we agree that a December 2019 date for meeting the conditions for approval is no longer appropriate.

SHE-T has confirmed to us that moving the date for meeting the conditions for approval to April 2020 would enable it to meet its new contracted connection date. SHE-T has however told to us that if approval of the link was granted significantly later than April 2020, it would not be able to meet the contracted connection date of April 2023 that it has with some generators[16].

However, April 2020 may not allow enough time for generation to meet the conditions for approval. As referred to above, some consultation respondents suggested that we should set December 2020 as the date for the conditions to be met because this would allow more time for prospective generators on Orkney to meet the conditions for approval. Following discussions with SHE-T, most prospective generators on Orkney, Orkney Islands Council and Scottish Government, we are intending that December 2021 be the date by which the conditions for approval should be met. The reasons provided are that December 2020 did not provide sufficient time to meet all the conditions for approval, particularly in the context of timings for decisions on potential changes to network charging (referred to earlier).

On balance, we consider that setting a date of December 2021 by when the conditions should be met, is appropriate because:

- A December 2021 deadline provides generators with a clear and manageable deadline (c.27 months from the publication of this decision) to meet the conditions for approval, including obtaining planning consent. This appears a reasonable period over which to expect local generators to come forward without being so long a period that it risks undermining the robustness of the CBA. Based on our review of the original and updated CBAs, we have a reasonable level of confidence that both CBAs (and therefore the conditions for approval) will remain robust until December 2021 and would not need to be updated. This is because of the localised nature of generation driving the need for the link, and the fact that the link will only be approved when 135MW of generation is likely to be using it.
- Although a December 2021 date would likely lead to a delay to the currently contracted April 2023 date, that may still represent a preferable outcome for local generators compared to an outcome where Ofgem set an earlier deadline which 135MW of generation were not able to meet (resulting in the rejection of the Final Needs Case for the link).

[16] Because of construction timelines.

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If the conditions of approval are not met by December 2021, we would expect to be open to considering a resubmitted Final Needs Case proposal at a later date. For the avoidance of doubt, under that scenario we would need to fully scrutinise any resubmitted Final Needs Case proposal in order to determine the most appropriate outcome for consumers at the time, ie we would not necessarily extend the deadline for the conditions for approval specified in this decision.

Our decision

Based on our assessment of SHE-T's Final Needs Case for the Orkney project and following consideration of all relevant considerations including the responses to our consultation and further analysis, we consider that there is a technical need for a reinforcement to the Orkney network if new generation is to connect there. We agree that a 220MW transmission link is likely to be the most efficient means of doing that. However, to ensure that existing and future consumers are protected from the risks associated with funding a significantly underutilised link, and to ensure the needs case is well justified and represents value for money, our approval of the Final Needs Case for the Orkney project is made subject to the following conditions:

For Ofgem to approve the Final Needs Case for the proposed 220MW Orkney transmission project, Ofgem must be satisfied, by no later than December 2021, that new generation projects totalling at least 135MW of generation on Orkney:

a. have been awarded a CfD; or
b. are likely to go ahead despite not being awarded a CfD.

Ofgem would expect to be satisfied that a project is likely to go ahead despite not being awarded a CfD if Ofgem is provided with the results of an independent audit carried out in a manner and fulfilling such other requirements as specified by Ofgem in relation to whether the project:

1) is financially viable;
2) has signed a relevant grid connection agreement; and
3) has been granted planning permission.

Ofgem will provide further information on how the audit should be carried out and the evidence it expects to be provided to show that the project satisfies criteria 1-3 set out above.

Next steps

The deadline for complying with the conditions above is 31 December 2021. We would be happy to consider information submitted at an earlier date. As referred to above, we expect to appoint an independent auditor relevant to limb b of the conditions when it is clear that Orkney generators have started submitting their planning applications.

We would be happy to discuss the content of this letter. Please contact us at NTIMailbox@ofgem.gov.uk.

Yours sincerely,

Cathryn Scott
Director, Wholesale Markets & Commercial

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Annex 1 - Summary of consultation responses

All of the non-confidential responses to our consultation have been published on our website.[17] We received 23 consultation responses in total, 22 of which responded to our questions regarding the Final Needs Case.

Question 1: *Do you agree that the current network on Orkney needs reinforcing in order to connect additional generation?*

Almost all respondents agreed that the network on Orkney needs reinforcing to accommodate new generation – most respondents particularly stressed how long Orkney had been waiting for a new transmission link and that this has been holding up the development of renewable projects. Some respondents argued that there has been insufficient investment in Orkney's electricity network since the second distribution cable was installed in 1998, which resulted in generation on Orkney first being constrained in 2003 and a moratorium on new grid connections on Orkney since September 2012. Those respondents argued that this context, combined with the view that generators elsewhere in GB have not faced equivalent obstacles to generate in the same period, should encourage Ofgem to approve the Orkney project.

One respondent argued that connecting Orkney generation wouldn't be a good use of taxpayer money due to the high cost of link.

Question 2: *What are your views on the generation scenarios developed by SHE-T? We are particularly interested in views on the likelihood of wind generation progressing without subsidy support and the likelihood of tidal generation around Orkney developing to the levels predicted by SHE-T's scenarios.*

Most respondents asserted that there is a significant potential, appetite and capability to develop wind projects on Orkney, underlined by the historical association between Orkney and renewable technologies. Orkney's high load factors and local acceptance of the visual impact of wind farms were cited as reasons for this. A small number of respondents argued that the generation scenarios underestimate the amount of wind generation likely to be developed on Orkney. However, other respondents raised concerns that planning restrictions may limit the future development of wind generation on Orkney.

Most respondents asserted that the high load factors on Orkney may enable wind generators to progress projects without a subsidy (e.g. CfD), most likely through a Corporate Power Purchase Agreement. Several respondents highlighted that the potential changes to distribution charging as a result of Ofgem's Access reform consultation[18] may impact the viability of 'subsidy-free' wind.

The majority of respondents flagged that Orkney is a centre for developing tidal and marine generation technologies and that significant progress has been made in recent years on that front. Most respondents argued that the generation scenarios presented in relation to tidal generation are not implausible, though some acknowledged the importance of government support for tidal if the generation identified in those scenarios is to be achieved.

Question 3: *What are your views on the technical design and costs of the proposed Orkney link?*

[17] https://www.ofgem.gov.uk/publications-and-updates/orkney-transmission-project-consultation-final-needs-case-and-potential-delivery-models
[18] https://www.ofgem.gov.uk/publications-and-updates/electricity-network-access-and-forward-looking-charging-review-significant-code-review-launch-and-wider-decision

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Almost all respondents either did not provide specific comment on this question, or agreed that the technical design proposed by SHE-T is appropriate.

One respondent highlighted concerns with the process that SHE-T has gone through to reach its preferred connection option, particularly stressing concerns around SHE-T providing inadequate information during the development process and not considering stakeholder views.

A few respondents flagged concerns around the interaction between SHE-T and SHEPD, arguing that the two should work better in tandem to develop an efficient network system on Orkney.

A small number of respondents were concerned that Ofgem's assessment processes were not transparent enough, particularly with regards to redacted cost information and not publishing a copy of the 'Needs Case' submitted by SHE-T.

Question 4: *Do you agree with our concerns that a constraints-based CBA may not robustly demonstrate the true consumer cost/benefit of a radial extension to the transmission network?*

The majority of respondents highlighted that the constraints-based CBA used by SHE-T is an established industry best practice used to assess similar transmission investments across GB and said that there is no reason that Orkney should be treated differently. Most of these respondents did not agree with our concerns.

Five respondents acknowledged the validity of our concern regarding the ability of a constraints-based CBA to demonstrate consumer benefit in building a link.

Question 5: *What are your views on the 'additional CBA', outlined in this chapter, which has been used to sense check the results of the original constraints-based CBA?*

A large majority of the respondents who provided a view on this question argued that Ofgem had been unfairly selective when considering which costs/benefits to include in the 'Additional CBA':

- CfD costs – Respondents flagged that Ofgem should not assume that all Orkney generators receive a CfD because Orkney's generators do not necessarily intend to enter the CfD allocation round.
- Carbon savings – Respondents noted that it was not fair for Ofgem to exclude the carbon savings delivered by connecting wind generation but include the CfD cost which is intended to pay for that benefit.
- Security of supply/avoided replacement costs – Respondents highlighted that, even though the impact of this benefit would be far less than on Shetland, it should be considered by this CBA because there will be some impact on the existing distribution cables and power station.
- TNUoS paid by generation – Respondents argued that Ofgem should offset some or all of the cost of the link by reflecting that some/all generators using the link may cover some/all of its cost through TNUoS charges.
- Socio-economic benefits – Respondents outlined that Ofgem should include the socio-economic benefits that a transmission link would deliver to Orkney specifically, and the benefits to wider society of enabling the development of tidal technologies.
- Balancing Mechanism costs – One respondent argued that the additional costs of connecting additional generation in a congested area of the GB network should be reflected.

Several respondents contended that Ofgem was seeking more certainty regarding the consumer value in the link that it has done for links on the mainland.

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Question 6: *What are your views on our proposed conditions of approval? Specifically:* ***i)*** *Do you agree with our view that the information available does not demonstrate that building a 220MW connection to Orkney would be beneficial for GB consumers if only 70MW of generation came forward to use the link? Do you agree with our proposal to set a minimum-generation threshold of 135MW?*

Two respondents agreed that there is unlikely to be consumer value in building a 220MW link to connect only 70MW of generation and that the 135MW threshold looked appropriate.

Several other respondents to this question argued that the 135MW threshold was "arbitrary", "un-justified" or "punitive", contending that the 70MW threshold had been derived using an industry-standard methodology, which should be adhered to.

Respondents opposed to the 135MW threshold also stated that it was not a threshold which could feasibly be met by the proposed date of December 2019, arguing that the date should be pushed back to either April or December 2020 because the connection date for the link had also moved back.

Question 6: *What are your views on our proposed conditions of approval? Specifically:* ***ii)*** *Do you agree that the fact of a generator signing up to SHE-T's 'Alternative Approach' does not provide an adequate level of certainty that the generator will progress to full commissioning?*

The majority of respondents argued that generators signing up to SHEPD's 'Alternative Approach' (AA) should provide Ofgem with a good level of confidence regarding the likely progress of the relevant generation projects because, the respondents said, generators would be subject to high liabilities and securities as soon as they signed-up to the AA and risk losing their place in the queue if they did not meet certain milestones.

One respondent agreed that the AA does not provide Ofgem with enough certainty.

Almost all respondents agreed that the AA would be vital for facilitating the progress of Orkney generators.

Question 6: *What are your views on our proposed conditions of approval? Specifically:* ***iii)*** *Do you agree that the award of a CfD to a generator would provide an adequate level of certainty that the generator will progress to full commissioning?*

Almost all respondents agreed that a CfD would be a good indicator that a generation project would be likely to progress, but the majority of these respondents argued that securing a CfD should not be the only condition used by Ofgem, because, the respondents said, most Orkney generators did not intend to bid into the 2019 or future CfD rounds. These respondents argued that Orkney wind projects can be financially viable without CfDs because of the high loads factors on the Islands.

Question 6: *What are your views on our proposed conditions of approval? Specifically:* ***iv)*** *Do you agree that, in the absence of a CfD, a generator securing planning consent and finance to construct a project is a good indicator of a project's likelihood of progressing to commissioning?*

Numerous respondents argued that Ofgem's proposed conditions are inconsistent with the rest of GB, where, the respondents said, a grid connection offer and paid securities are what is required for grid access.

Regarding planning consent:

- Over half of the respondents said that applying for planning consent represents a significant risk to Orkney generators (£125k per application, >£80k for associated bird

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studies) without certainty that the link will be built. Most of those respondents added that this risk had been the main driver of their hesitance in progressing planning applications up until now.
- Respondents agreed that planning consent would be a good indicator of likely project progress, but many felt that it wouldn't be achievable by December 2019.
- About half of respondents argued that the uncertainty and associated consumer risk around planning consent is already captured by the higher generator liabilities/securities that are due if a project does not yet have planning consent.
- A few respondents highlighted that there are significant planning hurdles to overcome on Orkney and that it may be unlikely that there is 135MW of capacity that could be consented on Orkney.

Regarding 'secured finance':
- Almost all respondents to this question argued that it would be unreasonable and unrealistic to expect projects to have 'secured finance' 3 or 4 years ahead of commissioning.
- One respondent said that generators should be able to demonstrate that they have secured a viable route-to-market to give Ofgem confidence regarding their likelihood of progression.

Question 6: *What are your views on our proposed conditions of approval? Specifically:*
v) *If you answered no to questions (iii) and (iv) above, can you propose any alternative ways to assess, to an adequate level of certainty, whether a generation project will progress to commissioning?*

Most respondents said that the 70MW threshold, proposed by SHETL in its Final Needs Case submission, should be used as the minimum generation threshold and that the only condition to assess the likelihood of generators proceeding should be that they are signed-up to the AA. Most respondents also said that the backstop date should be moved from December 2019 to either April or December 2020, especially if planning consent is included in the conditions.

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Annex 2 – Indicative description of process for prospective generation projects to seek to satisfy Ofgem that they are likely to go ahead despite not being awarded a CfD

An independent auditor will be appointed by Ofgem to consider the business case and financial viability of each generation project (which doesn't secure a CfD) seeking to count towards meeting the threshold for generation stipulated in the conditions for approval of the Orkney project.

Table A2.1 below provides an indicative list of the areas in which each prospective generator will need to provide to the auditor sufficiently robust information / documentation.

Table A2.2 below provides an indicative breakdown of roles and responsibilities

Table A2.1 – Indicative evidence required

Requirement	**Evidence**
Planning and land rights	Signed documents from relevant authorities
Relevant grid connection agreement	Signed documents from relevant authorities
Details on overall project economics (including robustness to potential changes to network charges)	Details of financing strategy, including financial model, development budget, heads of terms with lenders
Details of offtake arrangements	An example of an offer of or a signed Power Purchase Agreement, or equivalent
Progress towards Final Investment Decision, e.g. timing and processes	Report from internal board covering all of these areas
Progress of supply chain engagement and framework agreements, e.g. process on tender rounds, quotations for work etc	
Corporate structure and details on which entity will operate the project, e.g. explaining set up of the project SPV/and how it will be funded	
Detail on project risks and mitigations	

Table A2.2 – Indicative roles and responsibilities

Who	**What**
Ofgem	• Appoints the independent auditor. • Determines formal process and requirements for the audit. • Considers the results of the audit in determining whether the conditions for approval have been met. For the avoidance of doubt, in reaching its determination Ofgem may seek additional information from the independent auditor or other relevant parties where necessary.
Each generator	• Compiles information/documentation required under audit and submits it to the independent auditor. • Pays for the audit of their information/documentation.
Independent auditor	• Assesses whether the information/documentation submitted by each generator meets the necessary requirements. • Submits a report to Ofgem which sets out whether or not it considers each relevant generation project on Orkney has met the relevant requirements across each area considered by the audit.

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Annex 3 – Inputs and results of the constraints-based CBA

To update the original CBA that was referenced in our consultation for contemporary information, we requested that the ESO re-run its CBA analysis. The updated analysis, and the updated results, are detailed below.

Generation scenarios

Table A3.1 below shows the generation scenarios that were used in the original CBA (submitted by SHE-T in March 2018)[19], and table A3.2 shows the updated generation scenarios used in the updated CBA presented to Ofgem in July 2019.[20]

Technology	**SS**	**S1**	**S2**	**CP**	**S3**	**SP**	**TD**	**S4**	**S5**
Wind	0	125.9	149.9	0	177.2	190	190	195.5	195.5
Tidal	0	46.4	146.9	310	224.4	310	310	302.9	302.9
Other	0	1.9	1.9	0	1.9	0	0	1.9	1.9
Total	*0*	*174.2*	*298.7*	*310*	*403.5*	*500*	*500*	*500.4*	*500.4*

Table A3.1: Orkney generation by 2032 in original CBA

Technology	**S1**	**S2**	**S3**	**S4**	**S5**
Wind	127.8	164.6	190.8	198.8	198.8
Tidal	10	20	70	160	160
Other	0.6	1	1.9	1.9	1.9
Total	*138.4*	*185.6*	*262.7*	*360.7*	*360.7*

Table A3.2: Orkney generation by 2032 in updated CBA

Costs

Table A3.3 shows the capital costs (in 2018 prices) that were used in both the original and updated CBAs for the 132MW and 220MW options.

Link Option	**Present Value of capital costs**
132MW	£201m
220MW	£262m

Table A3.3

We note that as part of the process of the ESO rerunning its CBA in July 2019, SHE-T provided different cost figures to those that it provided for the ESO's previous CBA. SHE-T's more recent cost figures narrowed the cost gap between the 132MW and 220MW options from £61m to £36m. SHE-T has not, however, provided us with an adequate explanation of why its cost figures have changed, despite us providing an opportunity to do so. As such, we have only presented the updated CBA results derived using the costs shown above. We note that using SHE-T's updated costs did not fundamentally change the CBA results, though it did create a range of 'tipping points' of between 145MW – 270MW, depending on whether SHE-T's original or updated costs are used. This is discussed further below.

CBA results

The methodology used in the ESO's CBA is consistent with that which has been used on previous SWW projects and with that which is used each year when the ESO undertakes

[19] The Two Degrees (TD), Slow Progression (SP), Steady State (SS) and Consumer Power (CP) generation scenarios were all taken from the 2017 Future Energy Scenarios, produced by the ESO. Scenarios S1-S5 were developed by GHD, SHE-T's consultants.
[20] The updated CBA doesn't consider the FES because the updated FES all sit within the range of generation scenarios covered by the GHD scenarios, so wouldn't have a material impact on the CBA results.

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the Network Options Assessment (NOA). This methodology offsets the construction and operational costs of various different transmission project options against the constraint costs[21] that each of these options relieve under a variety of generation scenarios (in this case, the scenarios presented in Table A3.1 or A3.2) to determine a Net Present Value (NPV) of the link. The ESO's CBA determines the preferred option based on a Least Worst Regret (LWR) approach. The regret of each option is determined by the difference between its NPV and the option with the highest NPV value. The option with the smallest regret across all generation scenarios is then determined as the option with the LWR.

Table A3.4 below shows the results of the CBA originally undertaken by the ESO. This CBA considered a wide range of options, including options 3a and 3b, which expand on option 2 by delivering a second 220MW link at some stage in the future. Whilst option 3b is the LWR, as shown below, SHE-T is currently only progressing Option 2, a single 220MW link, because the second cable is only required if tidal generation develops at a large scale on Orkney.

Option	TD	SP	SS	CP	S1	S2	S3	S4	S5	Worst Regret
1. 132MW HVAC (2022)	1046	1074	0	786	0	171	386	1156	1039	**1156**
2. 220MW HVAC (2022[22])	360	377	61	221	38	0	0	391	342	**391**
3a. 2x220MW HVAC (2022)	0	0	241	0	218	168	116	0	0	**241**
3b. 2x220MW HVAC (2022, 2028)	131	139	218	57	225	174	134	124	114	**225**
4. 300MW HVDC (2022)	172	172	416	175	393	343	292	171	172	**416**
5. 600MW HVDC (2022)	235	235	476	235	453	403	352	235	235	**476**

Table A3.4: Original LWR results (£m)

The updated CBA presented to Ofgem in July 2019 focussed on Options 1 and 2, as these were the only two options that appeared to be viable in the original CBA. This update also:

- Used the updated generation scenarios shown in table A3.2;
- updated delivery dates to April 2023, to align with updates to SHE-T's planned connection date; and
- used only GHD's generation scenarios and not the FES 2019.[23]

The results of this updated CBA run are shown below. These show that the 220MW option is still optimal for consumers relative to the 132MW option, though the result is closer than it was previously as a result of the changes to the generation scenarios referred to in table A3.2.

Option	S1	S2	S3	S4	S5	Worst Regret
1. 132MW - HVAC (2023)	0	0	4	205	193	**205**
2. 220MW - HVAC (2023)	26	13	0	0	0	**26**

Table A3.5: Updated LWR results (£m)

Based on the results of the updated CBA, we remain confident that a 220MW transmission link to Orkney is likely to be optimal for consumers if the conditions for approval of the needs case are met.

Tipping point

[21] Constraint costs are payments made to generators by the ESO to stop generators producing electricity. It will make these payments when the electricity transmission network in a particular area does not have the capacity to safely transport all of the electricity that is being produced in that area.
[22] We note that the SHE-T's contracted connection dates on Orkney have now moved back to 2023.
[23] This is because the generation scenarios within updated FES2019 all sit within the range of the GHD generation scenarios, so including them in the CBA run wouldn't have changed the results.

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As explained in the main body of this document, we have used the 'tipping point'[24] produced by the original CBA, in combination with the 'break-even'[25] point, to set the threshold of generation at which we would approve the Orkney transmission link.

We have not seen any evidence to suggest that the 'break-even' point of the 220MW link is materially different in the updated CBA. In the original CBA, the tipping point was 199MW. In the updated CBA, the tipping point is between 145MW and 270MW, depending on whether SHE-T's updated costs are used or the costs that SHE-T submitted originally are used (as referenced above, we do not consider SHE-T's updated costs have been adequately justified). Given the uncertainty regarding SHE-T's updated costs (and hence the validity of the new tipping points), and the fact that 199MW sits comfortably between the values produced in the updated CBA, we do not propose to change the tipping point used in setting the generation threshold.

[24] The tipping point is the point at which the CBA shows the proposed 220MW link to be the most beneficial outcome for consumers, relative to a smaller 132MW link.
[25] The break-even point is the point at which point the constraints relieved by the link are equal to the cost of constructing it.

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Annex 4 – Conditions of approval

Listed below are the conditions of approval we consulted on in December 2018 and the conditions we are setting now.

December 2018

For Ofgem to approve the Final Needs Case for the proposed 220MW Orkney transmission connection, SHE-T must demonstrate, by no later than December 2019, that a total of at least 135MW of new generation on Orkney has either:

A. been awarded a Contract for Difference (CfD) in the 2019 CfD Allocation Round; or

B. secured planning consent and secured finance to construct its generation project.

September 2019

For Ofgem to approve the Final Needs Case for the proposed 220MW Orkney transmission project, Ofgem must be satisfied, by no later than December 2021, that new generation projects totalling at least 135MW of generation on Orkney:

a. have been awarded a CfD; or,

b. are likely to go ahead despite not being awarded a CfD.

Ofgem would expect to be satisfied that a project is likely to go ahead despite not being awarded a CfD if Ofgem is provided with the results of an independent audit carried out in a manner and fulfilling such other requirements as specified by Ofgem in relation to whether the project:

1) is financially viable;

2) has signed a relevant grid connection agreement; and

3) has been granted planning permission.

Ofgem will provide further information on how the audit should be carried out and the evidence it expects to be provided to show that the project satisfies criteria 1-3 set out above.

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Annex 5 – Updates to the 'Additional CBA'

As suggested in various consultation responses, we have considered the effect on the Additional CBA of including several additional parameters (see parameters discussed further below).

The table below shows that the wholesale price reduction benefit values produced in the ESO's updated analysis are significantly lower than those that were included in our December consultation. This is because the updated Future Energy Scenarios (FES) 2018 used in this updated analysis contain significantly higher levels of wind generation across GB than the FES 2017, which had been used for the previous analysis. This reduces the impact on the wholesale price of adding additional (e.g. Orkney) wind generation. We consider that the significant shift in the results over time from one analysis to another reaffirms, and strengthens, our view, outlined in the consultation, that the Additional CBA "is highly sensitive to differing input assumptions." We do not consider that it would be robust to place any weight on the results of the Additional CBA, even as a tool to sense check the minimum threshold of generation for approving the link.

For the avoidance of doubt, **we are not using this CBA as the primary decision-making tool for setting the value of the generation threshold, nor are we using it as a sense check of our analysis for the purposes of setting the generation threshold required**.

In the table below we provide more detail on the updated results of the Additional CBA. Below the table we provide more detail on what inputs were included in the Additional CBA to generate the results in the table.

Orkney wind generation by 2032	A) Reduction in wholesale price (£m)	B) CO2 avoided (£m)	C) Network efficiencies (£m)	CfD strike price (£/MWh)	D) CfD cost (£m)	E) Link cost (capex+opex) (£m)	(A + B + C) - D - E = Net consumer impact (£m)
70MW (FES 2017)	238	73	15	53 - assumed 40MW secure CfDs	-10	293	43
135MW (FES 2017)	400	141	15		-10	293	273
70MW (FES 2018)	126	73	15		-10	293	-69
135MW (FES 2018)	260	141	15		-10	293	133
70MW (FES 2017)	238	73	15	82 - assumed 40MW secure CfDs	37	293	-4
135MW (FES 2017)	400	141	15		37	293	226
70MW (FES 2018)	126	73	15		37	293	-116
135MW (FES 2018)	260	141	15		37	293	86

The Additional CBA, the updated results of which are presented above, now includes the following parameters:[26]

- **Reduction to the wholesale price of electricity.** This is calculated by the ESO and reflects the impact on the wholesale price of electricity of connecting additional wind generation onto the GB energy network.
- **Avoided carbon emissions.** Assumes that Orkney wind initially wholly displaces gas fired generation and this falls to 10% displacement over the life of the link as the UK economy decarbonises.

[26] The inclusion or exclusion of the parameters in this Annex in the Additional CBA should not be read as an implicit or explicit acceptance or rejection of those parameters as a means of justifying investment in the network, or of the methodologies that have been used to calculate the parameters. This table has been provided for illustrative purposes only.

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- **Network efficiencies.** This has been calculated by SHEPD and SHE-T, and assumes reduced reliance on the existing network and power station on Orkney, resulting in reduced associated costs.[27]
- **CfD cost.** This considers the likely CfD cost of 40MW of generation[28] receiving a CfD at strike prices of either £53 or £82/MWh (the 2019 CfD administrative strike prices for offshore wind and remote island wind), using a forecast of wholesale prices.
- **Link Cost.** SHE-T's forecast NPV of the project's capital and operational costs.

We have not included the following parameters, which were suggested in consultation responses:

- **Reduction to consumer costs resulting from TNUoS payments.** This is because:
  - It is uncertain how many generators on Orkney will pay TNUoS, both because of uncertainty regarding how many generators will connect at transmission level and because of potential changes to distribution level charging[29].
  - The impact of the current €2.50/MW average cap on generator charges[30] could result in consumers bearing the bulk of the cost of any transmission reinforcements.
- **Potential for additional 'balancing costs'.** This is because, whilst the ESO highlighted that these would be likely, it also acknowledged that they would be very difficult to robustly quantify.
- **Any Orkney-specific socio-economic benefits.** This is because in coming to decisions we seek to protect the interests of existing and future electricity consumers across GB, in accordance with our Principal Objective and in line with our wider duties.

[27] The inclusion of this value in the Additional CBA should not be read as an implicit or explicit acceptance of SHEPD's proposal to contribute towards the cost of SHE-T's transmission link. Nor should it be read as an acceptance of the methodology used to calculate the value of the proposed contribution. Our views on SHEPD's proposal can be found here: https://www.ofgem.gov.uk/publications-and-updates/consultation-shepd-proposal-contribute-proposed-transmission-links-shetland-western-isles-and-orkney

[28] This is the level of proposed new generation on Orkney that has secured planning consent and is therefore able to participate in the 2019 CfD allocation round.

[29] As part of our proposed review of access and forward-looking charges, we are considering whether to review how distribution connected generation is charged for the electricity transmission system. This work is relevant to generators on Orkney because the review is proposing to consider aligning the transmission charges for distribution-connected generators that are below 100MW with that of larger generators. This would ensure that all generators receive the same transmission forward-looking charging signals.

[30] There is currently a €2.50/MWh EU cap on average TNUoS charges on generators in each EU country. This means that areas with more expensive network infrastructure will pay higher charges than other areas to ensure that the average TNUoS paid by generators doesn't exceed the cap. The result of this is that the majority of costs relating to new network infrastructure are paid by consumers.

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