



Pentland Firth East Subsea Cable Installation

Scottish Hydro Electric Power Distribution

Summary of Pre-Application Stakeholder Engagement

November 2022





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Scottish Hydro Electric Power Distribution

Pre-application Consultation Report

Pentland Firth East Cable Replacement

Applies to

Distribution

Transmission



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41910668

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Distribution Transmission



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CONTENTS

1 Introduction.....	4
2 Proposed licensable marine activity	7
3 Applicant Details.....	7
4 Proposed Licensee Details.....	7
5 Pre-Application Consultation (PAC) Events	8
6 Pre-Application Consultation Stakeholder/Consultee Meetings	6
7 Information received by prospective applicant at Pre-Application Consultation Events	15
8 Clarifications to the application following comments and/or objections received at Pre-Application Consultation events	16
9 Explanation of approach taken where, following comment and/or objection, no relevant amendment has been made.....	18
10 Certification	21



41910668

Scottish Hydro Electric Power Distribution

Pre-application Consultation Report

Pentland Firth East Cable Replacement

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1 Introduction

- 1.1 Scottish Hydro Electric Power Distribution plc (SHEPD) holds a licence under the Electricity Act 1989 for the distribution of electricity in the north of Scotland including the Islands. It has a statutory duty to provide an economic and efficient system for the distribution of electricity and to ensure its assets are maintained so as to ensure a safe, secure, reliable supply to customers.
- 1.2 Two cables (Pentland Firth East and Pentland Firth West) connect Orkney to the Scottish mainland via the island of Hoy. Both cables make landfall at Murkle Bay on the Scottish Mainland and Rackwick Bay on Hoy. The Pentland Firth East (1) cable was identified as being in critical condition and replaced in 2020, however, a fault has since developed on the 2020 replacement cable, and it has been determined a new cable will be required to ensure security of supply. The cables will help to support SSEN's ambition of a transition to net zero carbon emissions and will play an active role in delivering the UK and Scottish Governments' respective 2050 and 2045 targets.
- 1.3 At present the previously de-energised Pentland Firth East (1) cable has been reconnected pending installation of the new Pentland Firth East (3) cable. It is proposed that the Pentland Firth East (2) cable installed in 2020 will be decommissioned in as far as this is required in order to facilitate installation of the new Pentland Firth East (3) cable.
- 1.4 The new cable route will be contained within the marine corridor for installation that was consented in 2020 for the Pentland Firth East (2) cable. Along the proposed route, this corridor varies in width between 530m and 780m. The status of the current cable and its planned future are discussed further in the Decommissioning Plan.
- 1.5 According to SSEN's vulnerability mapping tool, the Orkney Islands (Regions 1-6) have a total of 985 properties on the Priority Service Register (PSR). The community has a high average resilience score of 1.2 and a 6.0 average social isolation score. It is within the highest quartile for fuel poverty and is ranked within the highest decile for Distance to Health Services and Combined Distance to Services. More than a quarter of residents (av. 28%) are over the age of 65, while just over a quarter (27.5%) of the combined Orkney Islands community is in low-income employment. See Table 1 below.
- 1.6 As SHEPD has previously carried out a licensable activity at the same location Scottish Ministers (MS-LOT) have confirmed that SHEPD is exempt from the requirements of Section 23 of the Marine (Scotland) Act 2010 as provided for in Section 22 of the same act. As part of the marine licencing process,



41910668

Scottish Hydro Electric Power Distribution

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Pentland Firth East Cable Replacement

Applies to

Distribution

Transmission



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Issue Date: November 2022

Review Date: November 2025

SHEPD has undertaken engagement with the general public and all interested stakeholders. This report demonstrates how all views have been considered and influenced this application.

1.7 The output of the Cost Benefit Analysis (CBA) model helps to demonstrate to stakeholders that the method(s) proposed for installing this submarine electricity cable justifies the expenditure and provides best value. We define best value as the method(s) of installation which satisfy all current legislation and provides a sustainable balance of economic, safety and wider social and economic impacts.

1.8 This document should be read in conjunction with the:

- *Marine licence application covering letter*
- *Marine Licence Application Form*
- *Project Description*
- *Environmental Supporting Information*
- *Navigation Risk Assessment*
- *Fishing Liaison and Mitigation Action Plan (covering all legitimate sea users)*
- *Construction Environment Management Plan*
- *Operation, Inspection, Maintenance and Decommissioning Strategy*
- *Cost Benefit Analysis*



41910668

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Scottish Hydro Electric Power Distribution

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Pentland Firth East Cable Replacement

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Issue Date: November 2022

Applies to

Distribution

Transmission



Review Date: November 2025

Table 1: Social Indicator Data





41910668

Scottish Hydro Electric Power Distribution

Pre-application Consultation Report

Pentland Firth East Cable Replacement

Applies to

Distribution

Transmission



Revision: Final

Classification: Public

Issue Date: November 2022

Review Date: November 2025

2 Proposed licensable marine activity

- 2.1 Scottish Hydro Electric Power Distribution plc (SHEPD) proposes to install a 33kV submarine electricity cable across Pentland Firth, between Rackwick Bay and Murkle Bay as replacement for the faulted 2020 cable. This replacement submarine electricity cable is an essential in connecting Orkney to the Scottish mainland via Hoy.
- 2.2 The application for the Marine Licence is being submitted to permit the cable to be installed within the marine corridor that was consented in 2020 for the Pentland Firth East (2) cable.

3 Applicant Details

- 3.1 Scottish Hydro Electric Power Distribution plc

Kevin Galbraith

Head of Subsea Cable Project Delivery

Inveralmond House

200 Dunkeld Road

Perth

PH1 3AQ



Email: submarinecables@sse.com

- 3.2 Scottish Hydro Electric Power Distribution plc a company registered in Scotland under number SC213460.

4 Proposed Licensee Details

- 4.1 As per applicant details.



41910668

Scottish Hydro Electric Power Distribution

Pre-application Consultation Report

Pentland Firth East Cable Replacement

Applies to

Distribution

Transmission



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5 Pre-Application Consultation (PAC) Events

- 5.1 SHEPD previously went to great lengths to deliver a robust consultation including consultees and other key stakeholders including the local community. Details of these Pre-Application events and their outcomes are defined in the original Pre-Application Consultation (PAC) Report.

6 Pre-Application Consultation Stakeholder/Consultee Meetings

- 6.1 Through a series of regular Stakeholder Engagement meetings, SHEPD has continued to keep our stakeholders updated on progress of the cable replacement programme. These meetings and their resulting commentary are listed below in Table 2: *Stakeholder Project Consultation Events*.
- 6.2 These online and face-to-face meetings were held to enable interested organisations, particularly consultees, to comment on our proposed cable replacement programme. Meetings were targeted at statutory consultees, legitimate sea user organisations, environmental organisations, marine bodies, and non-governmental organisations.
- 6.3 Minutes of these meetings were recorded and distributed to the participant organisations and where applicable, a copy of the project presentation. This was in order to allow them to better distribute the messaging with their colleagues/members.



41910668

Scottish Hydro Electric Power Distribution

Pre-application Consultation Report

Pentland Firth East Cable Replacement

Applies to

Distribution

Transmission



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Review Date: November 2025

Table 2: Stakeholder Project Consultation Events

Organisation	Meeting Date	CS16 Link	Minutes
Northern Lighthouse Board (NLB)	131022	41787368	<ul style="list-style-type: none"> SSEN provided NLB with update on PFE replacement, timings and next steps, with installation planned for Summer 2023
Marine Scotland (MS-LOT)	071022	41722867	<ul style="list-style-type: none"> SSEN advised MS-LOT that it was their intention to install the replacement Pentland Firth East (PFE) cable in June 2023 SSEN informed MS-LOT it would look to issue marine licence submission in November 2022 SSEN updated MS-LOT on meeting with SFF, SWFPA and OFA in Aberdeen. Advised that SWFPA was currently reviewing PFE (2) Cable Burial Risk Assessment in order to inform their view on cable decommissioning. MS-LOT informed SSEN that PFE (3) will not require a PAC. MS-LOT to provide a confirmation e-mail on this to SSEN.
Orkney Islands Council (OIC)	101022	41747153	<ul style="list-style-type: none"> SEN provided update on progress of PFE3 programme SSEN informed that they would be putting in fresh consents for PFE3; with the Marine Licence application due to be submitted in November.
Scottish Fishermen's Federation (SFF) Scottish White Fish Producers Association (SWFPA) Orkney Fisheries Association (OFA)	160922	41635330	<ul style="list-style-type: none"> SSEN delivered a presentation on the proposed Pentland Firth East (3) cable replacement project. SSEN explained that the PFE(2) cable faulted a few months after it was installed in January 2020. Following investigations which resulted in ~500 metres of cable being exposed by Mass Flow Excavator and recovered, it was determined that the cable should be replaced rather than repaired. SSEN advised that the old cable (PFE1) had been reconnected and continued to operate. Reconnection with the land network had included re-installing some lengths of overhead line. SSEN took an action to supply attendees with cable fault cut and recover report.



41910668

Scottish Hydro Electric Power Distribution

Pre-application Consultation Report

Pentland Firth East Cable Replacement

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Distribution

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			<ul style="list-style-type: none">• SWFPA asked why mattresses had been used on the original PFE (2) cable rather rock bags or rock placement for cable crossings? And, had the fishing industry representative from SFF not picked this up originally. SSEN advised that concrete mattresses were the standard method for cable crossings used by SSEN. SSEN also advised that they would typically use mattresses in shallow water (sub 15metres). MCA places a licence condition that generally requires water depth not to be reduced by any more than 5%. In shallow water areas this can preclude the use of rock bags.• SWFPA commented that there was perhaps not any mobile fishing in this area.• SWFPA asked whether the Cable Burial Risk Assessment (CBRA) for the PFE (2) cable could be shared. SSEN has taken action to do so.• SWFPA stated that the safety of the fishermen was the utmost importance. They will provide further comment once CBRA document has been reviewed.• SSEN advised that the CBRA highlights that the route already lies between two existing cables. Historical telegraph cables also lie in this area.• SWFPA asked about the criteria for free span. SSEN responded that they understood the criteria used was the same as for pipeline projects. SSEN committed to transmit over previous report from PFE (2) cable lay regarding the navigational risk of the as-installed cable.• SWFPA asked where these free spans were on the route. SSEN advised that these were detailed in the navigational risk report and the as-laid event listing. SSEN committed to issuing the as laid listings to SFF/SWFPA/ OFA• SWFPA asked if SSEN used WGS co-ordinates. SSEN responded that both WGS84 and UTM coordinates were used in the event listings.• SWFPA asked what tool had been used for the burial of the PFE (2) cable. SSEN answered that a jet trencher had been utilized.
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			<ul style="list-style-type: none">• SWFPA asked whether SSEN used Carbon Trust methodology for the CBRA. SSEN responded that they understood this was the case• PFE (3) Proposal• SSEN moved on to PFE(3) scope, with installation forecast for summer 2023.• SSEN advised that it intended submitting a marine licence application by the end of 2022 for the replacement cable. This would include a refreshed NRA. There is no need for a further Pre-Application Consultation process.• SSEN advised that the route corridor would be the same for PFE(3) as it had been for PFE(2) with final design of PFE(3) route expected in March 2023• SSEN explained that the number of rock bags being proposed for the project would be significantly less than those originally consented for PFE (2). 1375 consented/378 installed/ 856 to be included in PFE (3) consent application. For concrete mattresses 84 were consented for PFE (2) and the same would be included in the PFE (3) Marine Licence application. Only 8 were installed for PFE(2). The allowance of up to 84 is to cater for any potential stabilization in shallow water locations or for any additional cable crossings.• SSEN advised that it was planning to use the same cable crossings for PFE(3)• SSEN informed attendees that the proposed contractor was comfortable that the new PFE(3) cable could be installed next to the faulted PFE(2) cable, however in some locations this was quite tight• SWFPA asked if the continuous cable would be more rigid than that with factory joints. SSEN advised that this was not the case• SWFPA asked how long it would take to install and bury the new cable. SSEN responded that this was essentially two different operations and that ideally that burial would follow closely on from cable lay, however that was not something that could be confirmed at this early stage. In the case of the previous cable PFE(2), the trenching vessel left Aberdeen as the cable
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Distribution

Transmission

Pentland Firth East Cable Replacement



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Review Date: November 2025

			<p>lay was being completed and that this had been a matter of days</p> <ul style="list-style-type: none"> • SWFPA asked what the likely duration would be from the start of cable lay until fishing activity could resume. SSEN advised that this would likely be 4 to 6 weeks for completion of the full operation • SWFPA requested that this was fully discussed with OFA to identify optimum time to deliver the project and thus minimise potential disruption. OFA took an action to discuss this with members. They advised that there was a lot of activity in the area presently • SSEN advised that they could not be too prescriptive with the cable lay window as the contractor would require flexibility to manage the installation.
Maritime and Coast-guard Agency (MCA)	090822	41405541	<ul style="list-style-type: none"> • SSEN provided MCA with latest information on Pentland Firth East cable replacement programme. SSEN propose to leave the faulted cable in-situ and install the new cable within the same corridor as previously licenced in 2020. • SSEN advised that the above would be subject to a new marine licence application (based on the previous corridor) which will be submitted to MS-LOT October 2022, with installation likely to take place in 2023. • SSEN asked if MCA would be consulted by Marine Scotland on the decommissioning plan, which will be submitted in support of the above. MCA considered that it would be likely to be the case.
Orkney Islands Council (OIC)	080822	41402132	<ul style="list-style-type: none"> • SSEN advised that this cable route would be subject to end-to-end replacement and require submission of a new Marine Licence application this Autumn, following the same route corridor as before. • SSEN advised that consultation would be undertaken on a decommissioning plan for the faulted cable, which will accompany the Marine Licence application above. • OIC asked for confirmation that the temporary overhead line will be removed. SSEN confirmed that this will be carried out on completion of the subsea cable installation, which should be within the period of validity of the current permission (as extended).



41910668

Scottish Hydro Electric Power Distribution

Pre-application Consultation Report

Pentland Firth East Cable Replacement

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Distribution

Transmission



Revision: Final

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Issue Date: November 2022

Review Date: November 2025

			<ul style="list-style-type: none"> OIC asked if plans to replace PFE could be impacted by OFGEM's ED2 determination process. SSEN advised that the replacement of the PFE cable would not be impacted by the OFGEM ED2 process.
Historic Environment Scotland (HES)	040822	41356411	<ul style="list-style-type: none"> SSEN provided HES with latest information on Pentland Firth East cable replacement programme. SSEN propose to leave the faulted cable in-situ and install the new cable within the same corridor as previously licenced in 2020. SSEN advised that the above would be subject to a new marine licence application (based on the previous corridor) which will be submitted to MS-LOT October 2022, with installation likely to take place in 2023.
OFA	270722	41331298	<ul style="list-style-type: none"> SSEN provided update on Pentland Firth East cable replacement project. It is intended to apply for a Marine Licence to install a replacement cable in Autumn 2022 with replacement works being undertaken in 2023. The SSEN to email OFA seeking availability for meeting regards PFE
SFF	270722	41334715	<ul style="list-style-type: none"> SSEN provided SFF with latest information on Pentland Firth East cable replacement programme. SSEN propose to leave the faulted cable in-situ and install the new cable within the same corridor as previously licenced in 2020. SFF keen to discuss decommissioning aspects further SSEN to arrange meeting in Aberdeen and via Teams for late August/early September
Highland Council	250722	41332382	<ul style="list-style-type: none"> SSEN updated THC on progress with Pentland Firth East replacement project following fault of new cable 3 months into operational service It is proposed that a new cable will be installed during 2023 that follows a very similar route to the faulted cable. A Marine Licence application for this is anticipated to be submitted later in 2022. SSEN advised that they would keep THC regularly updated as project progressed
Marine Scotland	220722	41309161	<ul style="list-style-type: none"> SSEN provided update on PFE3project SSEN advised MS-LOT that some additional survey works may be required



41910668

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Review Date: November 2025

			<ul style="list-style-type: none"> Forecast that MS-LOT should receive Marine Licence application in October SSEN advised that contractors would be constrained to previous corridor SSEN advised that decommissioning approach would be contained with marine licence submission
Royal Society for the Protection of Birds (RSPB) Scotland	130522	41056029	<ul style="list-style-type: none"> SSEN provided RSPB with latest information on Pentland Firth East cable
OIC	110422	40920234	<ul style="list-style-type: none"> SSEN updated OIC on ED1 projects, Pentland Firth East, Inspections, Corran Narrows, Aultbea-Ullapool and ED2 programme including proposed Hoy-Flotta and Mainland-Shapinsay projects OIC advised on Simplified Notification for Region's works at Rackwick Bay – linked to temporary OHL works, main impact will be on NSA, OIC could see no reason why this wouldn't be approved.
NatureScot	170322	40874999	<ul style="list-style-type: none"> SSEN and NatureScot regular stakeholder engagement meetings. Updates on forthcoming ED1 projects, Islay-Jura, Aultbea-Ullapool, inspections, fault repairs and ED2, as well as other miscellaneous subjects.



41910668

Scottish Hydro Electric Power Distribution

Pre-application Consultation Report

Pentland Firth East Cable Replacement

Applies to

Distribution

Transmission



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7 Pre-Application Consultation Meetings

7.1 Information received across all specific Stakeholder Consultation events and regular Stakeholder Engagement is summarised below:

7.2 Health and Safety

- In a meeting with SFF/SWFPA and OFA on 16th September 2022, Scottish White Fish Producers Association (SWFPA) asked why mattresses had been used on the original PFE (2) cable rather rock bags or rock placement for cable crossings? And, had the fishing industry representative from SFF not picked this up originally
- In the same meeting, SWFPA asked whether the Cable Burial Risk Assessment (CBRA) for the PFE (2) cable could be shared
- SWFPA stated that the safety of the fishermen was the utmost importance. They will provide further comment once CBRA document has been reviewed
- SWFPA further asked about the criteria for free span on the planned cable
- In this same meeting, SWFPA then asked where these free spans were on the route.
- In the meeting of Friday 16th September, SWFPA also asked how long it would take to install and bury the new cable

7.3 Socio-economic

- In the meeting of Friday 16th September, SWFPA advised that there was perhaps not any mobile fishing in this area
- In regard to the issuing of coordinates, SWFPA asked if SSEN used WGS coordinates
- SWFPA asked what the likely duration would be from the start of cable lay until fishing activity could resume
- During the above meeting, SWFPA requested that the timing of the project was fully discussed with OFA to best identify optimum time to deliver the project and thus minimise potential disruption
- Following this, OFA took an action to discuss this with members. They advised that there was a lot of activity in the area presently
- OIC, in a meeting held on Monday 8th August 2022 asked if plans to replace PFE could be impacted by OFGEM's ED2 determination process



41910668	Scottish Hydro Electric Power Distribution		Applies to	
	Pre-application Consultation Report		Distribution	Transmission
	Pentland Firth East Cable Replacement		✓	
Revision: Final	Classification: Public	Issue Date: November 2022	Review Date: November 2025	

7.4 Environmental

- In a meeting held on Monday 10th October, SSEN informed OIC that they would shortly be applying for fresh consents for the PFE (3) cable
- During the previous meeting of Monday 8th August, OIC requested confirmation that the associated temporary overhead line would also be removed

7.5 Wider engineering and economic

- During the meeting of 16th September 2022, SSEN took an action to provide SFF, SWFPA and OFA copies of the PFE (2) cable fault cut and recover report
- During the above meeting, SWFPA asked what tool had been used for the burial of the PFE (2) cable
- SWFPA also asked whether SSEN used Carbon Trust methodology for the Cable Burial Risk Assessment (CBRA)
- In the above meeting, SWFPA asked how long it would take to install and bury the new cable

7.6 Decommissioning

- In a meeting with MCA on Tuesday 9th August 2022, SSEN asked MCA if they would be consulted by Marine Scotland on the decommissioning plan
- Further to SFF's request to discuss decommissioning as of the Wednesday 27th July 2022 meeting, SSEN established the face-to-face meeting with SFF and SWFPA in Aberdeen on Friday 16th September. OFA were only available to join by Teams call.
- As part of its meeting with MS-LOT on 22nd July 2022, SSEN advised that the decommissioning approach for the cable would be contained within its marine licence submission

8 Clarifications to the application following comments and/or objections received at Pre-Application Consultation

8.1 The following amendments have been made following comments received during regular Stakeholder Engagement meetings and at Pre-application Consultation Events (PAC Events):

8.2 Health & Safety

- In response to a question from SWFPA on 16th September 2022, SSEN advised that concrete mattresses were the standard method for cable crossings used by SSEN. SSEN also advised that they would typically use mattresses in shallow water (sub 15metres). MCA places a licence condition that generally requires water depth not to be reduced by any more than 5%. In shallow water areas this can preclude the use of rock bags.



41910668	Scottish Hydro Electric Power Distribution		Applies to	
	Pre-application Consultation Report		Distribution	Transmission
	Pentland Firth East Cable Replacement		✓	
Revision: Final	Classification: Public	Issue Date: November 2022	Review Date: November 2025	

- Further to SWFPA’s request to share the Cable Burial Risk Assessment (CBRA) for the PFE(2), SSEN has now provided this documentation
- Further to SWFPA’s question in regard to free span, SSEN responded that they understood the criteria used was the same as for pipeline projects. SSEN committed to transmit over previous report from PFE(2) cable lay regarding the navigational risk of the as-installed cable.
- In response to SWFPA’s question about the location of free spans on the route, SSEN advised that these were detailed in the navigational risk report and the as-laid event listing. SSEN committed to issuing the as laid listings to SFF, SWFPA and OFA
- In response to SWFPA’s question on duration of cable installation and burial, SSEN advised that this was essentially two different operations and that ideally that burial would follow closely on from cable lay, however that was not something that could be confirmed at this early stage. However, in the case of the previous cable PFE(2), the trenching vessel left Aberdeen as the cable lay was being completed and that this had been a matter of days

8.3 Socio-economic

- In response to SWFPA’s question about the use of WGS coordinates on Friday 16th September, SSEN advised that both WGS84 and UTM coordinates were used in the event listings
- Further to SWFPA’s question about the likely duration from start of cable lay until resumption of fishing activity, SSEN advised that this would likely be 4 to 6 weeks for completion of the full operation
- Following SWFPA request of Friday 16th September that project timing be discussed with OFA and its members, SSEN responded that ultimately this was the responsibility of the chosen contractor and that they could not be too prescriptive with the cable lay window as the contractor would require flexibility to manage the installation
- In response to OIC’s question (8th August 2022) of whether OFGEM’s ED2 determination process would impact PFE(2) replacement plans, SSEN advised that that the replacement of the PFE cable would not be impacted by the OFGEM ED2 process

8.4 Environmental

- In response to OIC’s request for confirmation that the associated temporary overhead line would also be removed, SSEN confirmed that this will be carried out on completion of the subsea cable installation, which should be within the period of validity of the current permission (as extended)
- During meeting of Monday 11th April 2022, OIC advised on Simplified Notification for Region’s works at Rackwick Bay – linked to temporary OHL works, main impact will be on NSA, OIC could see no reason why this wouldn’t be approved

8.5 Wider economic and engineering

- Further to SWFPA question of Friday 16th September 2022 meeting regarding what tool had been used for the burial of the PFE (2) cable, SSEN responded that a jet trencher had been utilised



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Scottish Hydro Electric Power Distribution

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Distribution

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- Responding to SWFPA's question about the use of Carbon Trust methodology for the CBRA during the above meeting, SSEN advised that they understood this was indeed the case
- As part of the Friday 16th September meeting, SSEN outlined to SFF, SWFPA and OFA that it was its intention to significantly reduce the number of rock bags being proposed for the project than had been originally consented for in PFE(2). SSEN also advised that the volume of concrete mattresses consented for PFE (2) would be the same as for the PFE(3) Marine Licence application.
- During this meeting, SSEN also advised that it planned to use the same cable crossing for PFE(3)
- In the above meeting, SSEN responded to SWFPA question about the length of installation and burial project, by saying that this was essentially two different operations and that ideally that burial would follow closely on from cable lay, however that was not something that could be confirmed at this early stage

8.6 Decommissioning

- In a meeting of Friday 7th November, SSEN advised MS-LOT that SWFPA were currently reviewing PFE(2) Cable Burial Risk Assessment in order to inform their view on cable decommissioning
- In response to SSEN's question of Tuesday 9th August 2022, whether they would be consulted on the decommissioning plan by MS-LOT, MCA advised that this would likely be the case
- Further to SFF's request for a meeting on decommissioning of Wednesday 27th July 2022, SSEN set up a meeting with SFF, SWFPA and OFA for Friday 16th of September

9 Explanation of approach taken where, following comment and/or objection, no relevant amendment has been made

9.1 The output of SHEPD's Cost Benefit Analysis Methodology¹ helps to demonstrate to stakeholders that the method(s) proposed for installing this submarine electricity cable justifies the expenditure and provides best value. We define best value as the method(s) of installation which satisfy all current legislation and provides a sustainable balance of economic, safety and wider social and economic impacts. The CBA model supports our marine license application by illustrating how we consider the cumulative impact of our engineering design.

9.2 Health & Safety

- The Cost Benefit Analysis methodology, used to model the impact of this cable, provides an overview of how SHEPD measure the impact of their cables on health and safety (human life). Based on

¹ Which we define as best balancing the health and safety, environmental, socio-economic, wider-engineering and economic considerations whilst meeting regulatory obligation.



41910668

Scottish Hydro Electric Power Distribution

Pre-application Consultation Report

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Applies to

Distribution

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the current Marine Accident Investigation Board evidence the rate of incidences is low; but the risk remains and so it is included within the Cost Benefit Analysis model as an impact. This means that SHEPD has considered the less serious, but probably more frequent, interactions with our cables and the socio-economic impact that this has for marine users.

- No works that reduce chart datum by greater than 5% will be undertaken without express agreement of Marine Scotland and Maritime Coastguard Agency.
- The *Operation, Inspection, Maintenance and Decommissioning Strategy* commits to providing Route Position Lists (RPLs) of cables and landfall locations to the UK Hydrographic Office (UKHO) and Kingfisher Information Service Offshore Renewables and Cables Awareness (KIS-ORCA) in order that relevant charts are updated after cable inspections. Where our inspection programme identifies that the cable has become a danger to navigation or protection of legitimate users of the sea, we will immediately inform Marine Scotland, Maritime and Coastguard Agency, UKHO, Northern Lighthouse Board and the KIS-ORCA to communicate the hazard to the maritime community.
- More extensive details of the CBA recommendations in this regard can be found elsewhere within this submission

9.3 Socio-economic

- The *Fishing Liaison Mitigation Action Plan* summary assessment of potential interactions with legitimate sea users showed low levels of activity for recreational sailing in the proximity of the cable.
- A volume of shipping activity around the Pentland Firth East cable was recorded using AIS data from Marine Scotland and individual scouting surveys in preparation of the works. This has been of significant consideration in the routing of this cable, with feedback confirming that it is broadly acceptable to all parties.
- It is proposed that the contractor will carry out a post-lay inspection within a period of six months after the completion of the planned installation to firstly ensure the installation meets the expectations of SHEPD internal standards and specifications and those of Marine Scotland but also to ensure the safety of navigation for legitimate users of the sea
- Ofgem, as SHEPD's economic regulator, has the primary responsibility to ensure that SHEPD utilise bill payers' funds in an economic and efficient way. SHEPD continues to work with Ofgem to identify the best value solution that will balance the needs of all stakeholders, including marine users and our customer so that any investment in the distribution network is economic and efficient
- SHEPD's approach to protection is to follow the Cables 2 policy of Scotland's National Marine Plan. Where burial is demonstrated to be not feasible, we will consider all other practicable protection solutions and compare them through our cost benefit analysis model to identify the one which delivers best value.



41910668	Scottish Hydro Electric Power Distribution		Applies to	
	Pre-application Consultation Report		Distribution	Transmission
	Pentland Firth East Cable Replacement		✓	
Revision: Final	Classification: Public	Issue Date: November 2022	Review Date: November 2025	

- More extensive details of the CBA recommendations in this regard can be found elsewhere within this submission

9.4 Environmental

- Ecological protected sites and marine archaeological sites as well as priority marine features and receptors have been considered in this application
- Potential impacts of benthic and intertidal ecology have been minimised through very small area of impact through cable installation methodology. A corridor 500m wide applied for within the *Marine Licence Application* will enable micro-routing to avoid key features of conservation interest
- The *Marine Environmental Appraisal* and *Construction Environmental Management Plan* the *Cost Benefit Analysis model* consider the project with respect to the policies from the National Marine Plan

9.5 Wider economic and engineering

- The CBA model considers the societal value of different installation methods for Pentland Firth East submarine electricity cable. It is understood that other externalities not modelled need to be considered. These include marine planning policy, final engineering design requirements including any requirements for shore end protection and the cumulative impact of our submarine electricity cables on other legitimate marine users
- The preferred option has the highest value to society against all other modelled options and includes for shore end protection. The shore end protection has been determined to be essential for the mechanical protection of the cable in prolonging cable life. This solution also takes into consideration views of stakeholders
- The new submarine electricity cable will also contain embedded fibre optics within its construction which assists with network management and monitoring of the cable condition. There is additional fibre optic capacity in our cables due to the number and type of fibre optics within our cable. A “Network Provider” can request access to infrastructure under the Communications (Access to Infrastructure) Regulations 2016 to any “Infrastructure Operator” in this case the proposed SHEPD cable.
- More extensive details of the CBA recommendations in this regard can be found elsewhere within this submission



41910668

Scottish Hydro Electric Power Distribution

Pre-application Consultation Report

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9.6 Decommissioning

- Final Recommendation for the 33kV submarine electricity cable across Pentland Firth, between Rackwick Bay and Murkle Bay is that it is decommissioned at the end of its economic life

10 Certification

10.1 Kevin Galbraith

Head of Subsea Cable Project Delivery

Scottish Hydro Electric Power Distribution plc

Inveralmond House

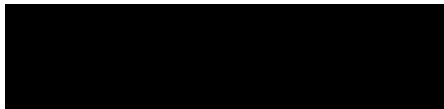
200 Dunkeld Road

Perth

PH1 3AQ

10.2 I certify that I have complied with the legislative requirements relating to pre-application consultation and that the pre-application consultation has been undertaken in accordance with statutory requirements.

10.3 Signature



10.4 Date: 25th November 2022



CONTACT

CHRIS HODGE
SUBSEA PROJECTS LIAISON MANAGER



Scottish & Southern
Electricity Networks