

Scottish Hydro Electric Power Distribution Pre-application Consultation Report Carradale - Arran Submarine Cable



Inveralmond House, 200 Dunkeld Road, Perth PH1 3AQ 😈 ssen.co.uk



Scottish Hydro Electric Power Distribution Applies to Distribution Transmission **Pre-application Consultation Report** 39522055 **Carradale - Arran Submarine Cable Revision: FINAL** Classification: Public Issue Date: July 2021 **Review Date: July 2024**

	Name	Title
Author	Chris Hodge	Subsea Project Liaison Manager
Checked by	Mel Chisholm	Lead Project Manager
Approved by	Kevin Galbraith	Head of Subsea Cable Project Delivery

Contents

1	Introduction	on4
2	Proposed I	icensable marine activity5
3	Applicant I	Details5
4	Proposed I	icensee Details6
5	Pre-Applic	ation Consultation (PAC) Events6
6	Pre-Applic	ation Consultation Stakeholder/Consultee Meetings8
7	Informatio	n received by prospective applicant at Pre-Application Consultation Events10
8		ns to the application following comments and/or objections received at attion Consultation events
9	•	n of approach taken where, following comment and/or objection, nt amendment has been made16
10	Certification	on19
<u>Ar</u>	pendix A: F	Pre-application event notices20
	1.	Statutory Public Notices
Ar	pendix B: P	re-application event promotion22
	1.	Additional Newspaper Advertisement
	2.	Newspaper Demographics
	3.	Additional Radio Advertisement
	4.	Direct Mailing Invite
	5.	Website Article and Statistics
	6.	Social Media Posts and Statistics

	Scottish Hydro Electric Power Distribution		Applies to	
39522055 Pre-application Consultation Report Carradale - Arran Submarine Cable		Consultation Report	Distribution	Transmission
		✓		
Revision: FINAL	Classification: Public Issue Date: July 2021		Review Da	te: July 2024

<u>Append</u>	<u>ix C</u> : <u>P</u>	re-application Consultation Event
	1.	Online PAC Event Video
<u>Append</u>	<u>ix D</u> : <u>P</u>	re-application Consultation Feedback
	1. 2.	Feedback Form Stakeholder/Consultee Feedback
<u>Append</u>	<u>ix E</u> : <u>P</u>	re-application Consultation Presentation
	1.	Pre-Application Consultation Event Presentation
	2.	Pre-Application Consultation Stakeholder Engagement
	3.	Pre-Application Consultation Stakeholder Presentations

	Scottish Hydro Electric Power Distribution		Applies to	
39522055	Pre-application Consultation Report		Distribution	Transmission
	Carradale - Arran Submarine Cable		✓	
Revision: FINAL	Classification: Public Issue Date: July 2021		Review Da	te: July 2024

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 In August 2017, the two 33kV (kilovolt) submarine cables providing electricity to the isle of Arran were routinely inspected using a Remote Operated Vehicle (ROV). The inspection revealed the north cable which runs from Port Crannaich in Carradale to Balliekine in Arran was in poor condition with significant damage to the protective armour probably caused by an aggressive intertidal and shore end environment.
- 1.3 The cable to the south showed that the protective armour was intact, and no further action was therefore deemed necessary at this time. Repairing the north cable would be challenging and costly due to its deep-water location and the extent of the damage observed by the ROV.
- 1.4 According to Scottish and Southern Electricity Network's (SSEN) Vulnerability Mapping tool, Arran is within the highest quartile for Fuel Poverty in Scotland. The island has an estimated 160 households on the Priority Service Register (PSR). Around a quarter of the population is in low income employment. Arran also has a Social Isolation score of 6.1 (out of 10) and is ranked in the highest decile for Combined Distance to Services and Access to Health Services.
- 1.5 The cable 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.
- 1.6 This Pre-application Consultation Report has been prepared to accompany an application for a proposed licensable marine activity in accordance with section 24 of the Marine (Scotland) Act 2010.
- 1.7 As part of the marine licencing process, 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.
- 1.8 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.



	Scottish Hydro Electric Power Distribution		Applies to	
39522055	Pre-application Consultation Report		Distribution	Transmission
Carradale - Arran Submarine Cable		✓		
Revision: FINAL	Classification: Public Issue Date: July 2021		Review Da	te: July 2024

- 1.9 This document should be read in conjunction with the:
 - Marine Licence Application Form
 - Project Description
 - Marine Environmental Appraisal
 - Fishing Liaison and Mitigation Action Plan (covering all legitimate sea users)
 - Construction Environment Management Plan
 - Operation, Inspection, Maintenance and Decommissioning Strategy
 - Cost Benefit Analysis

2 Proposed licensable marine activity

- 2.1 Scottish Hydro Electric Power Distribution plc (SHEPD) proposes to install a replacement 33kV submarine electricity cable between Port Crannaich in Carradale and Balliekine on Arran. This replacement submarine electricity cable is essential in securing power supplies to for customers and communities on the island of Arran.
- 2.2 The application for the Marine Licence is being submitted to permit the cable to be installed within a 500m wide corridor. A summary of the proposal is provided in Table 1: Cable installation, burial and protection, but more detail can be found in the Project Description.

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

Tel: 01738 341 888 Mob: 07584 313584

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.

5 Pre-Application Consultation (PAC) Event

5.1 Due to the COVID-19 pandemic and the current physical distancing and travel guidance in place, regulations for a pre-application consultation event to be held at suitably accessible venue were amended under the Marine Licensing (Pre-application Consultation) (Scotland) Regulations 2013 ("the 2013 PAC Regulations"). Provisions have been amended by The Marine Works and Marine Licensing (Miscellaneous Temporary Modifications) (Coronavirus) (Scotland) Regulations 2020, which came into force on the 20 May 2020. Under these amending regulations, where a pre-application consultation event must be held, this this was now to be held online.

SHEPD therefore went to great efforts to identify the most robust of formats through which to best deliver the event. The consultation was to be held through a series of 50-minute long sessions and advertised as a public notice six weeks in advance of the event, as required by Marine Scotland. A copy of the PAC event notice can be found in Appendix A: Pre-application Consultation Notice.

- 5.2 The PAC event notice was published:
 - In a series of local newspapers¹, including:
 - Argyllshire Advertiser
 - Arran Banner
 - Campbeltown Courier
 - on the project website (https://www.ssen.co.uk/subseacables/)

In order to promote the online PAC event to a wider audience the consultation was promoted to a wider audience, using other print and broadcast advertising platforms:

- run of paper adverts (ROP) ² were published on 5th March in the following titles:
 - Argyllshire Advertiser
 - Arran Banner
 - Campbeltown Courier

² Copies of the ROP Newspaper Adverts can be found in *Appendix A Section 2*.



¹ Copies of the PAC Public Notices can be found in *Appendix A Section 1*.

	Scottish Hydro Electric Power Distribution		Applies to	
39522055	Pre-application Consultation Report		Distribution	Transmission
	Carradale - Arran Submarine Cable		✓	
Revision: FINAL	Classification: Public Issue Date: July 2021		Review Da	te: July 2024

- a radio adverts were broadcast on two radio stations³ between 4th and 17th of March
 - West FM (4th -10th March)
 - Argyll FM (4th 17th March)

Direct mailings⁴ were sent to around forty local community councils and key stakeholders including fisheries representatives, local authority planning and consultees. The email contained a reply button which made registration for the event a single click. The event was also publicised through the specialist pages of our website⁵. Working closely with colleagues in our Digital Media team numerous social media posts were also issued across Facebook, Twitter and LinkedIn. These posts and their corresponding statistics can be viewed in *Appendix B: Pre-application event promotion*⁶.

- 5.3 The Pre-application events took the format of an online presentation. The Learning Tree platform had been identified as the best resource for engagement. The platform offered the following features:
 - Clear presentation area
 - Chat box for ongoing engagement throughout
 - Potential for Break Out Rooms to better discuss key issues eg. Fisheries,
 Environment etc
 - Live video Question and Answer sessions
 - Chime In button to identify request to ask questions/raise points during presentation
 - Support button allowing participants to have technical issues addressed by Learning Tree team
 - Recording of the full meeting for potential future use⁷
- 5.4 The main presentation element was followed by a question and answer session, with the presentation slides covering the following areas:
 - location of the existing cable to be replaced
 - the corridor in which it is proposed to lay the replacement cable
 - methods of cable installation and protection suited to the cable location



³ Copies of the Radio Adverts can be found in *Appendix B Section 3*.

⁴ Copies of Direct Mailing invites can be found in *Appendix B Section 4*.

⁵ Copy of Website article *Appendix B Section 5*.

⁶ Copy of Social Media posts and analytics Appendix B Section 6.

	Scottish Hydro Electric Power Distribution		Applies to	
39522055	Pre-application Consultation Report		Distribution	Transmission
	Carradale - Arran Submarine Cable		✓	
Revision: FINAL	Classification: Public Issue Date: July 2021		Review Da	te: July 2024

- Environmental and Marine Environment considerations
- how stakeholders could provide comments and the date for final submission
- how the Cost Benefit Analysis model works and how it will form part of the evidence to be used in the licence application to balance stakeholder views and inform the cable installation and protection designs

6 Pre-Application Consultation Stakeholder/Consultee Meetings

6.1 A series of stakeholder events has been held in parallel with the planning and delivery of the online PAC event, as detailed in Table 1: Stakeholder Project Consultation Events.

These online 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. Due to current Covid-19 restrictions, meetings were held online utilising the Microsoft Teams platform.

6.2 Table 1: Stakeholder Project Consultation Events

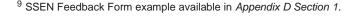
Date	Organisation	Attendees	Minutes ⁸
21/06/21	Historic Environment Scotland	Alison Baisden	https://imscs16/otcs/llisapi.dll/link/39534323
21/06/21	NatureScot	lan Cornforth	https://imscs16/otcs/llisapi.dll/Overview/3940 4557
27/05/21	Crown Estates Scotland	Darren Hirst	https://imscs16/otcs/llisapi.dll/link/39136425
21/04/21	SEPA	Alex Candlish	https://imscs16/otcs/llisapi.dll/link/38544473
19/04/21	SFF	Malcolm Morrison	https://imscs16/otcs/llisapi.dll/link/38553979
09/04/21	CFA	Elaine Whyte	https://imscs16/otcs/llisapi.dll/link/38442474
	WIFA	Duncan Macinnes	
31/03/21	RSSLA	Neil Robertson	https://imscs16/otcs/llisapi.dll/link/38373667
	SWFPA	Femke De Boer	



⁸ Minutes of meetings available on request.

08/04/21	MCA	Thomas Bulpit	https://imscs16/otcs/llisapi.dll/link/38403008
	NLB	Gillian Burns	
00/04/04		Erica Knott	
08/04/21	NatureScot	Kirstie Dearing	https://imscs16/otcs/llisapi.dll/link/38411121
		Ian Cornforth	
25/02/21	Crown Estates Scotland	Darren Hirst	https://imscs16/otcs/llisapi.dll/link/38277205
22/04/24		Allan Finlay	
22/01/21	Argyll and Bute Council	Stewart Clark	https://imscs16/otcs/llisapi.dll/link/37997132
		Julian Green	
08/12/20	North Ayrshire Council	Neil McAteer	https://imscs16/otcs/llisapi.dll/link/37868472
		Thom Ledingham	

- 6.3 Following these meetings consultees were issued with specially designed Feedback Forms⁹ to allow them to more easily provide their views and opinions on the project. Minutes of these meetings were also recorded and distributed to the participant organisations along with a copy of the presentation. This was in order to allow them to better distribute the messaging with their colleagues/members.
- 6.4 Our online Pre-application consultation Stakeholder/Consultee meetings used a standard slide deck to enable relevant information to be shared with delegates. *Table 1:*Stakeholder/Consultee Project Engagement Meetings provides information on those organisations directly engaged regarding the project, the meeting participant(s), date of meeting and links to associated minutes should they be required. The table outlines the breadth of consultation undertaken above and beyond the online community engagement event held on Thursday 18th of March 2021.





	Scottish Hydro Electric Power Distribution		Applies to	
39522055	Pre-application Consultation Report		Distribution	Transmission
	Carradale - Arran Submarine Cable		✓	
Revision: FINAL	Classification: Public Issue Date: July 2021		Review Da	te: July 2024

7 Information received by prospective applicant at Pre-Application Consultation Events

7.1 Information received across all the Pre-application Consultation events is summarised below:

7.2 Health and Safety

- Clyde Fishermen's Association (CFA) asked whether post-burial would be possible.
- CFA asked about other stabilization and protection means.
- In order to better inform the project design, CFA agreed to provide high-level information on known fishing activity in the area, with SSEN adhering to strict GDPR principals.
- SSEN advised Northern Lighthouse Board (NLB) that the new cable would be in a
 different position at the Carradale side, however the landing point for Arran would
 remain the same. NLB requested that SSEN include this in the marine licence
 submission.

7.3 Socio-economic

- CFA requested information on potential disruption to fishermen.
- SSEN outlined that the project should be delivered at the start of 2022. This was welcomed by CFA because it was out with the prime fishing period of April/May.
- Scottish Fishermen's Federation advised that so long as SSEN had engaged with Clyde Fishermen's Association, that they had no further comment to make on the project. SSEN committed to providing further updates as the project develops.
- Scottish White Fish Producers Association requested fisheries compensation details.



7.4 Environmental

- NatureScot (NS) asked location of the Carradale HDD punch out point and whether there would be any marine noise as a result of the drilling activity.
- NS requested further information on the project timeline.
- NS asked for further information on the use of rock bags and rock mattresses, and who ultimately made the decision on their installation.
- SEPA thanked SSEN for the early engagement and commented that many of the key points of interest had already been identified and addressed within the presentation and discussions.
- During consultation, SEPA requested that SSEN provide further information on Arran burn crossing mitigation proposals.
- SEPA requested information on whether there was a requirement of the project to construct access roads or install hard standing.

7.5 Wider engineering and economic

- CFA asked whether the Horizontal Directional Drilling (HDD) element of the project would be included on other such projects.
- CFA asked about potential use of local fishermen as observers and local vessels as guard ships. CFA requested the opportunity to seek outline quotes from members to provide to contractor.
- NLB requested that a new AtoN be installed due to the Horizontal Directional Drilling (HDD).
- NLB asked for further information on the HDD element of the project.



	Scottish Hydro Electric Power Distribution		Applies to	
39522055	Pre-application Consultation Report		Distribution	Transmission
	Carradale - Arran Submarine Cable		✓	
Revision: FINAL	Classification: Public Issue Date: July 2021		Review Da	te: July 2024

- NLB requested that SSEN keep them advised on additional marker boards etc.
- Argyll and Bute Council (A&BC) advised on importance of consulting with Roads
 Department from very start of project and appreciated the early engagement
 opportunity presented.
- North Ayrshire Council (NAC) requested that SSEN keep them adequately informed in advance of construction and movement of vehicles to allow community engagement.
- NAC requested information on whether cable would provide increased capacity.
- Crown Estates Scotland (CES) advised it would be helpful to provide shapefiles/RPLs
 of existing cables at the same time as issuing the proposed new cable routes when
 seeking wayleave agreements. This would allow timely conflict checks to be
 undertaken.
- CES also advised that while it is preferable that wayleaves are granted in advance of the works, it recognizes that this is not always possible, particularly in areas where installation challenges may mean the final route differs from the proposed.
 Retrospective corrections to wayleaves post-installation are therefore still acceptable.

7.6 Decommissioning

 NS asked whether the existing cables would be removed following completion of the new cable installation project.



	Scottish Hydro Elec	ctric Power Distribution	Арр	lies to
39522055	Pre-application	Consultation Report	Distribution	Transmission
	Carradale - Arra	an Submarine Cable	✓	
Revision: FINAL	Classification: Public	Issue Date: July 2021	Review Da	te: July 2024

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

8.1 The following amendments have been made following comments received at Pre-application Consultation Events (PAC Events):

8.2 Health & Safety

- SSEN advised CFA that further data from recently completed survey work would be necessary in order to more accurately identify what level of post-burial would be possible. SSEN outlined that the cable route was also dependent on a number of factors including network connections and wayleaves. SSEN to keep CFA updated through further engagement.
- Further to CFA stabilisation/protection enquiry, SSEN advised that the effects of the new cable would be comparable to the existing cable, which has been in situ for 28 years.
- SSEN still awaiting high-level information on known fishing activity in the area from CFA.

8.3 Socio-economic

- SSEN advised CFA (and other fisheries bodies) that every effort would be made to keep disruption to a minimum, and that in advance of the project start, plenty of engagement would take place. SSEN also advised that a Notice to Mariners (NtM) would be issued with plenty of advance warning. SSEN outlined that it would continue to keep CFA updated through a series of regular meetings.
- SSEN provided SWFPA with <u>website link</u>¹⁰ to claims procedure information and form.
 Will continue to keep fisheries updated with such information in advance of project.

https://tinyurl.com/5xv9t93t





8.4 Environmental

- SSEN informed NS that there would be no noise impact on the marine environment as a result of HDD project elements.
- SSEN outlined indicative project timeline, providing current project dates. SSEN will
 continue to keep NS fully informed on the project in the months ahead.
- SSEN advised NS that the use of rock bags and rock mattresses was a collaborative design decision between SSEN and contractor.
- SSEN has provided SEPA with Arran burn crossing mitigation proposals.
- SSEN provided SEPA with details on the Carradale Arran submarine cable replacement project and explained that there was no requirement of the project to construct access roads or install hard standing.

8.5 Wider economic and engineering

- SSEN informed CFA that the HDD process was an engineering response to the challenging topography of the Carradale landfall (cliff face) and shore-end access at Carradale.
- SSEN advised that under the current Covid environment, testing regime and isolation it
 would be particularly difficult to have external observers onboard vessels. SSEN advised
 that the employment of guard vessel sub-contractors was out with our control and was
 the responsibility of the contractor undertaken to complete the project, however SSEN
 will discuss this with the contractor when appropriate.
- SSEN also outlined that health and safety was of paramount importance, and therefore
 any such externally employed guard vessels would need full insurances and the crew
 would also require all necessary qualifications.
- SSEN informed NLB that it would be putting in a new sanction for AtoN due to the Horizontal Directional Drilling (HDD).



	Scottish Hydro Elec	ctric Power Distribution	Арр	lies to
39522055	Pre-application	Consultation Report	Distribution	Transmission
	Carradale - Arra	an Submarine Cable	✓	
Revision: FINAL	Classification: Public	Issue Date: July 2021	Review Da	te: July 2024

- SSEN advised NLB that the HDD was necessary due to the topography of the Carradale landing position, and that there was no viable landing position because of the cliffs etc.
 SSEN informed NLB that this made the installation methodology very difficult otherwise.
- SSEN will continue to keep NLB updated on additional marker boards etc as part of ongoing engagement calendar.
- SSEN advised A&BC that it would complete a pre-condition drive-in survey for each location ahead of works.
- SSEN to provide clear communication with North Ayrshire Council (NAC), adequately in advance of construction and movement of vehicles to allow community engagement.
- SSEN to provide NAC information on whether cable provides increased capacity.
- SSEN has provided CES with shapefiles/RPLs of existing cables as part of ongoing engagement meetings.
- SSEN will continue working with CES to provide wayleave information in advance of works where possible, and to provide adequate response time when available.

8.6 Decommissioning

• SSEN advised NS that the removal of redundant cables is considered on a project-byproject basis. Ongoing discussion regarding long-term decommissioning will continue.



	Scottish Hydro Elec	tric Power Distribution	Арр	lies to
39522055	Pre-application	Consultation Report	Distribution	Transmission
	Carradale - Arran Submarine Cable		✓	
Revision: FINAL	Classification: Public	Issue Date: July 2021	Review Da	te: July 2024

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 Methodology¹¹ 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 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.

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 Carradale-Arran cable was recorded using AIS data from Marine Scotland and individual scouting surveys in preparation of the works.

¹¹ Which we define as best balancing the health and safety, environmental, socio-economic, widerengineering and economic considerations whilst meeting regulatory obligation.



Scottish Hydro Electric Power Distribution Pre-application Consultation Report Carradale - Arran Submarine Cable Revision: FINAL Classification: Public Scottish Hydro Electric Power Distribution Consultation Report Final Classification: Public Classification:

It is for those reasons that the replacement cable will broadly follow the route of the existing cable which feedback suggested was generally acceptable

- 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 not demonstrated to be 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.

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-routeing to avoid key features of conservation interest.
- The Marine Environmental Appraisal and Construction environment management plan and 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 proposed Carradale cable landfall will require an HDD element due to the topography of the site. Other landfall positions were reviewed and discounted due to a number of factors.
- From site investigations and historic inspections of the Arran cable shore end it has been confirmed that split pipe protection will be required, for multiple installation scenarios. This will provide additional protection in the inshore area and minimise damage from abrasion. Additionally, this will increase cable stability.
- Given that the existing surface-laid cable has survived 28 years it is reasonable to
 assume that a new cable with more mechanical protection laid in a similar area would
 have an extended life expectancy, especially considering the HDD protection of the



Carradale landfall and split piping protection of the Arran shore end. Typically, the shore end of a cable is where most damage is incurred due to abrasion. These assumptions have been considered when concluding the recommendation from the CBA.

- The CBA model considers the societal value of different installation methods for the Carradale-Arran 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 replacement 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 can be found elsewhere within this submission

9.6 Decommissioning

With the high costs associated with a cable recovery and disposal operation, the overall project costs would increase and be passed on to SHEPD distribution customers. This cost increase will impact on fuel poverty and this affect has been modelled in the Cost Benefit Analysis.

Instead, the *Operation, Inspection, Maintenance and Decommissioning Strategy* commits to continuing to inspect the existing cable within the marine environment and at shore landfall locations in accordance with inspection requirements for the proposed cable.

The existing cable has been identified for replacement based on asset integrity inspection and full end to end replacement has been identified as the best option. The existing cable was installed in 1993 and was most recently inspected in 2017, following which it was identified for replacement due to its poor physical condition.

Notwithstanding the above, at the time of application the existing cable is operational and has potential therefore to be used as a spare installed asset should a fault develop on either the Carradale – Arran South cable or the Carradale – Arran North replacement cable. This scenario has previously arisen on another part of the SHEPD network where re-energisation of a previously de-energised subsea circuit enabled full network capacity to be restored following a fault on another subsea circuit.



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



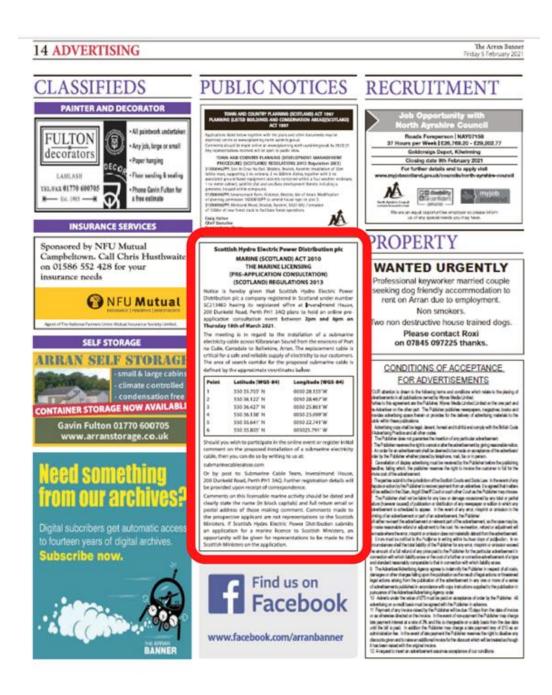
10.4 Date: 13th July 2021



	Scottish Hydro Elec	ctric Power Distribution	Арр	lies to
39522055	Pre-application	Consultation Report	Distribution	Transmission
	Carradale - Arra	an Submarine Cable	✓	
Revision: FINAL	Classification: Public	Issue Date: July 2021	Review Da	te: July 2024

Appendix A Pre-application event notices

1. Statutory Public Notices





39522055

Revision: FINAL

Scottish Hydro Electric Power Distribution

Pre-application Consultation Report

Carradale - Arran Submarine Cable

Classification: Public

Distribution

Transmission



Review Date: July 2024

Applies to

Campbeltown Courier & Argyllshire Advertiser Friday 5 February 2021

PUBLIC NOTICES/CLASSIFIED 21

PUBLIC NOTICES

Issue Date: July 2021



Scottish Hydro Electric Power Distribution plc MARINE (SCOTLAND) ACT 2010 THE MARINE LICENSING (PRE-APPLICATION CONSULTATION) (SCOTLAND) REGULATIONS 2013

eby given that Scottch Hydro Electro

Point	Latitude (WES-84)	Longitude (WES
5	550 35,703° N	0480.26.135°W
2	\$50.36.122° N	0050.36.46FW
1.	\$50.36.427 N	0450 25 867 W
	550 36.738° N	D450-23.099°W
	550 35.641' N	0680 22,741 W
	\$50 35 300° N	008025.79/1°W

orrenant on the proposed installation of a skills, then you can do so by writing to us at

PUBLIC NOTICES PUBLIC NOTICES ADVERTISER ADVERTISER

Argyll and Butc Council

PLANNING



CLASSIFIED









Applies to Scottish Hydro Electric Power Distribution Distribution Transmission 39522055 **Pre-application Consultation Report Carradale - Arran Submarine Cable** Classification: Public **Revision: FINAL** Issue Date: July 2021 **Review Date: July 2024**

Appendix B **Pre-application event promotion**

1. Additional Newspaper Advertisement

The Argyllshare Advertiser Friday 5 March 2021 12 NEWS

The Softer Crofter



Biblical rain and porcine playing ire days now we've been harging off the odage of the words, the bosses holding tight to the white strewn cray behind. Clade force white and behinder an embryon greater than the rest of the word and without a matter and with the word and white woord and the word white properties of rath have battered in their think little woord and the word with partial per that of a more possible of the map. The MacCormaig lists and back, marky with the word state think little woord and the word with the map. The MacCormaig lists and withered kale. The writed was the with care and whithered kale and withered kale. The widdliftle and the wild was the behind and the wild was the with care and who the of Scotland, but it motivates to see the hard and subject to one to the calves. The MacCormaig lists and withered kale. The writed fine and the wild was their motivation of the map. The MacCormaig lists and withered kale. The wild file and the wild was the with care and stream or stoping their company for an exposing their company for a more content to see the behalf as a portane Partich thatis. The wild file and the wild was the wild are and stoping and the collection of the motive content the motive on the craining buckets to see the troes, catching buckets to see the troes, catching them as and from a melting buckets to see the troes, catching them as and from a melting buckets to see the troes, catching the was the wild are and withered kale. The wild file and the wild was the wise the care and stroping list and crooping their company for a more of them have of could and street on the troes of the wild was the wind the wild was a the with care and withered kale. The wild file and the wild was the wind the wild was the wind the wild was the wind the wind was the wind the wild was the win the wind the wind the wild was the wind the wind the wild was t

Online Consultation Event

perhaps, nourtab the indoor inhabitants with more fruits of our labours.

The harsh weather and the healthy appetition of our reddent dear mans norms form of protection is needed if with year. It lock just a quick marfol the with a couple of morths ago to come up with our answer. The good partishoners of Northmarvine in Shelland Struggle with even harber climes than us Anyyll folk. Their commanity cline procarbously to a skinny tuthmus promounded on one side by the Atlantic and on the other byte Atlantic and on the other byte North Sec.

While Shellanders can get their Giff of the lary day thanks to their thriving aquaculars.

their fill of fish any day thanks to their thriving aquaculture industry, spetting your grooms ocally tim't so easy. This fact, and a wee bit of orned-up thinking, led the Northmavine folk to come

thinking, led ne folk to co



'Our scrappy wee fruit trees were lashed

up with a storming idea: a Polycrub - a gale-proof gram-house/polytunnel hybrid that repurposes defunct fish farm gear that would otherwise be

but all human visitors will be wilcome post-Covid. Just bring your own trowel and maybe a wee dram to keep out the cold.



Carradale - Arran Subsea Cable Installation Scottish and Southern Electricity Networks (SSEN) Distribution is seeking your views on the planned installation of a 33 kilovolt (kV) cable which will run from Port na Cuile, Carradale to In order to gather your views, SSEN is holding an online Pre-

Application Consultation event during the following times:

() 2pm - 6pm

Thursday 18 March 2021

As well as seeking views on this project, we are also looking for your comments and opinions on our 2023 - 2028 investment programme. More information can be found on our project page: en.co.uk/SubmarineCables/Carradale-Arran



39522055

Revision: FINAL

Scottish Hydro Electric Power Distribution

Pre-application Consultation Report

Carradale - Arran Submarine Cable

Distribution

Transmission



Review Date: July 2024

Applies to

2 NEWS

The Arran Banner

Seven days a week working to get Arran ferry finished

Classification: Public

Continued from page one. 25 young peopole - a record number in a single year. Mr Hair said: This level of bustness change in a single year is hardly ever attempted and, while there remains significant work to complete around the improvement of systems and processes, a bage amount has been achteved. We are confi-dent, despite many chalkenges, 2021 will be a protal year in securing the long-term future of the shippard.

We must do everything estible to deliver the dual fuel forty programme, improve eroductivity, socure contracts forty programme, improve productivity, socure contracts 120 jobs is another key mile. The MV Glen Sannox leavit of future vessels and protect stone in building a successful dry dock in Greenock last year. Prospain Manifolium.

Online Consultation Event



Carradale - Arran Subsea

Cash in budget to help with schooling costs



Council tax is set to be frozen in North Ayrahire from April for the year shead according to budget proposals, as reported in the Arran Banner last

Issue Date: July 2021

month.

Councillors were due to vote on the £365 million budget yesterday (Thursday), which recommended £490,000 proposed new cuts to balance the

A £500,000 new pot of mone A 1500,000 new pot of money has been proposed to make the school day cheaper for families struggling financially. And an-struggling financially. And an-to go towards renewable energy plans.

plans.

Council service fees and charges are to be kept at last year's levels - with no price

year's levels - wow increases.

At a briefing earlier this work the press were told how the public local government pursue is under strain from Govid and not enough government.

and not enough government funding.
Head of finance at the council Mark Boyd said-'R has been and will continue to be a chalkenging situation for local government and arms length organisations to manage theough this difficult time.
The council expects to get £563.8 million from the Scottish government for the 12 months ahead. Holymoid is



Head of finance Mark Boyd.

allocating the local authority £2.18 million to maintain a council tax freeze for this up-coming financial year. Based on the freeze, the council expects to bring in about £58.6-million from the charge over the next £2 months.

million from the charge over the next 12 months.

A total of £690,000 cuts have also been laid out by finance bosses for 2021 to 2022.

They include £200,000 am savings in nursery parenting cap programmes, £100,000 on day care and child minding and redesign of communities more beadquarters support to save £100,000.

Amother £00,000 is expected to be achieved through new ways of working through digital tochnology.

number of other, already oved, cuts are also to be approved, rolled out.

New projects for potential in-vestment in the revenue budget triclude £500,000 towards school days costs, including uniforms, computer access and food.

Speaking about the proposed fund, council leader joe Cullinane suid: There is the opportunity for us to put some

Cullinane stafe. There is the opportunity for us to put some money into reducing the cost of the school day and there will be three strands to that.

The will be about food provision and food with dignity, one to address general costs such as uniforms and there will also be a digital strand. We have learned through the pandernic, the challenges of young people having access to digital devices and being able to connect to the internet, particularly during borne learning for schools, be added.

Meanwhile, finance bosses at North Ayrshire Council plan to spend 1377 million on buildings and infrastructure over the next docade in their capital investment programme announced to 2530.

The capital budget includes more than 168 million for the Ayrshire Growth Deal plans including a great harbour at Irvite and the building of an International Martine Science and Environment. Centre at Ardrossan.



your comments and opinions on our 2023 - 2028 investment programme. More information can be found on our project page: ssen.co.uk/SubmarineCables/Carradale-Arran



Drivers urged to report potholes

North Ayrshire and Arran drivers are being urged to report potholes to the local authority.

The request came from West Scotland MSP Jamie Groene who says be has had a mastere in crease in communication with road users about potholes affecting the area's roads.

Recent but weather has only served to make the pothole situation across North Ayrshire and Arran worse with online reporting tool Fts. My Street showing certain areas with minime clusters.

My Street showing certain areas with minime clusters.

Commenting, Mr Greene said: 'In recent months the number of constituents contacting me about probles has increased dramatical on the North Ayrshire council website air wew, north ayrshire.gow.uk/roads-and-trave/report-road faults cam be reported for the property of the prop

Scottish & Southern

Electricity Networks

39522055

Revision: FINAL

Scottish Hydro Electric Power Distribution

Pre-application Consultation Report

Carradale - Arran Submarine Cable

Distribution

Transmission



Review Date: July 2024

Applies to

12 NEWS

The Campbeltown Courier Friday 5 March 2021

FROM OUR FI

Classification: Public

TEN YEARS AGO Friday March 42011

New rural schools proposals unveiled by local authority

save money. If we want children and families to come to the area we need to keep the school

save money, if we want standard and assumes to come to the area we need to keep the school open, he said.

Angyll and Bute Council met yesterday (Thursday) whos members were saided to agree to hold informal pre-consultation moretage with representatives from 12 communities that may be affected by the school estate review.

The council was also asked to agree to review the school estate 'on an ongoing basis' and reducing the future scale of any changes which would be considered at any one time. Now the proposal is for Rhumahaorine to go into Gleenbarr and Clachan and Schpoess to go into Garbert, Saint Kierar's goes into Caseloid in Campbellows. This is a paper exercise as Saint Kierar's goes into Caseloid.

Last week saw the wheel of fortune spin again for primary schools and now Argyll and Bute Council says Southend and Glembarr are safe from closure.

But parents from Clachan, which was safe last time round, taking in pupils from Glenbarr, Rhonahaorine and Skipores, have been left sheeked after the school now finds it faces clearure with its children sent to Tarbert.

Chairman of Clachan Primary School's parent council Owen Pukiey said they wanted to know why the achool was originally seen as a receiving school to the first place.

The school is an impertant part of this community and I am not convinced its closure will making and I am not convinced its closure will service to the company.



TWENTY-FIVE YEARS AGO Friday March 1 1996 New post office to open

Issue Date: July 2021

post office in the early summer

Past Office Counters plans to open a commu-nity post office in Rabina Road in late May or sarly June.

early some. Past Office Counters has already secured premises for the office which will be open for around 20 hours a week but the chairwoman of Campbeltown Community Council, Mrs Nancy Smith, said she would prefer a new post office in

Since the main post office moved from Longrow to the Co-op supermarket last sum-

Since the main post edite mewed from Longrow to the Co-up supermarket last summer, the town centre has not had a post edite. Mrs Smith sadd: 'I'm pleased there is going to a care it's only going to be sainther outlet for people, but unless people have got a care it's only going to be sainthle for people in the Anadows scheme.'

She added: 'The community council has about a did on a post editie in the centre of the town, not only became it's convenient, but also to help the commercial centre of the town.'

FIFTY YEARS AGO Thursday March 4 1971 Campbeltown choir on radio

Campbeltown Goelic Choir was taped at a concert in the Town Hall on Tuesday evening. The choir will be heard on BBC radio later this

int closer win, when the month, and the mean month.

B3C men recorded a half-hour programme of all-Gadic sougs, which were introduced by Mr Hector McNeill.

The cheir was conducted by Charles Senar. Soloists were Duncan McPhee, Morres Leckie, lashel Mitchell and Jsabel MacDanald.

email us at editor@campbeltown.courer.co.uk telephone 01586 554646 Various aboir members entertained the audience during a pre-recording 'warming up'

source curring a pre-recoving warming up-period. Unfortunately for members of the choix, they won't be able to hear themselves on radio when the programme is broadcart. They will be singing at a grand concert in aid of local RNLI funds.

Well done Campbell

Mr Campbell McIlchers, who last week offered to post foreign-bound mail when he went to Rouen in France, has told us be has 250 letters to Rouen in France, has told us he has 250 letters to post. These are going to 54 different countries. We wish him a good journey and thank him on behalf of those people he has helped. I dishor's note. Britain was in the midst of its first national postal strike, which non-from January to March.

ONE HUNDRED YEARS AGO Saturday March 5 1921 Town Council meets to discuss

telegraph wires and gas repairs

telegraph wires and gas repairs. The meethly meeting of the Teven Council of Campbeltown was held on Meenday night. Provoot Colville presided and the other members present were: Ballis Campbell, Ballise Managachan, Dean of Guld Marther, Hoo treasure: Stewart, councillors M*Pherson, MacCirory, Wareham, Roose, D. Smith, Hutcheon, Watson, Mactaggart, J. Smith, J. Robertson, W. Reid and Fisher.

A minute of meeting of the streets committee here that an application had been received from the Postmaster General for permission to lay undergound telegraph wires in the burgh and the committee recommended that the request be granted subject to the interests of the hungh drainings, gas and water services being safeguarded.

The finance committee were appointed, with powers, to meet with the County Clerk and the Chief Constable with reference to the framing of a new appearant with the County Council for the policing of the burgh and the changes for the same.

same.

The gas committee reported that offers have been received from four local tradeamen for the repair of the ammoniacal liquor tank at the gasworks and that the offer of Mr John Martin.

Glebe Street, amounting to £243.18 shillings being the cheapest was accepted.

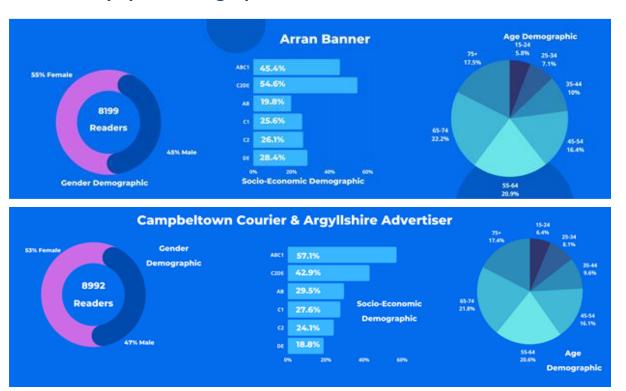
Online Consultation Event Carradale - Arran Subsea Cable Installation Scottish and Southern Electricity Networks (SSEN) Distribution is seeking your views on the planned installation of a 33 kilovolt (kV) cable which will run from Port na Cuile, Carradale to Balliekine, Arran. In order to gather your views, SSEN is holding an online Pre-Application Consultation event during the following times: 2pm - 6pm Thursday 18 March 2021 As well as seeking views on this project, we are also looking for your comments and opinions on our 2023 - 2028 investment programme. More information can be found on our project page:





	Scottish Hydro Elec	ctric Power Distribution	Арр	lies to
39522055	Pre-application	Consultation Report	Distribution	Transmission
	Carradale - Arra	an Submarine Cable	✓	
Revision: FINAL	Classification: Public	Issue Date: July 2021	Review Da	te: July 2024

2. Newspaper Demographics



3. Additional Radio Advertisement



Please click on the image above to listen to our advert. Alternatively visit:

https://vimeo.com/539182030/e0ef3a8884



Scottish Hydro Electric Power Distribution

Pre-application Consultation Report
Carradale - Arran Submarine Cable

Revision: FINAL

Classification: Public

Scottish Hydro Electric Power Distribution
Distribution

Transmission

Final

Review Date: July 2024

4. Direct Mailing Invite



Kintyre and Arran communities encouraged to have their say

Good morning,

Scottish and Southern Electricity Networks (SSEN) Distribution is hosting an online consultation event on the planned replacement of the 33kV North submarine electricity cable which runs between Port na Cuile, Carradale and Balliekine, Arran.

As part of that development, the project team is looking to engage with local customers, communities and stakeholders to seek their views as they finalise the details and prepare the necessary applications process.

A representative from our RIIO-ED2 team will also be present to capture views on our 2023 to 2028 investment programme.

A series of four, 50-minute long online consultation events are being planned for the following date:

Time: 2pm to 6pm

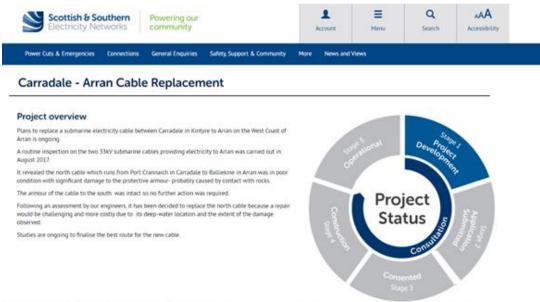
Date: Thursday 18 March

Should you be interested in participating, then please register by emailing submarinecables@sse.com or clicking on the button below:

Click here to register for event



5. Website Article and Statistics



Carradale - Arran: Installation of 33kV electricity cable

We will shortly begin the replacement of the 33kV North submarine electricity cable which runs between Port na Cuile, Carradale and Balliekine, Arran.

As part of the development of this subsea cable installation project, we are seeking the views of local

In order to gather opinions and answer any questions, the Submarine Cable team will be holding a series of four hourly online engagement events. The sessions will be held between the following times:

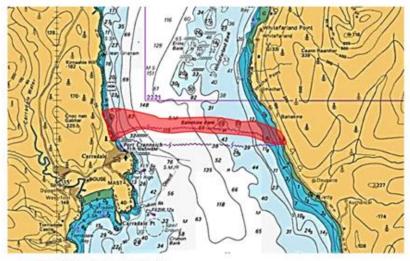
Time: 2pm to 6pm

Date: Thursday 18th of March

In order to register for the event, please email the address below:

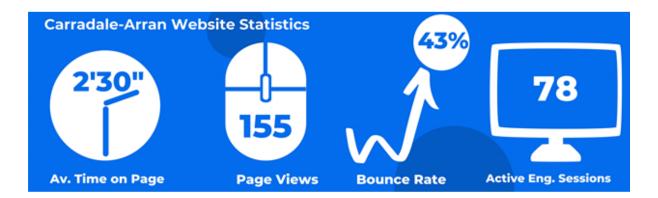
submarinecables@sse.com

Carradale-Arran Proposed Cable Route



Proposed submarine electricity

	Scottish Hydro Elec	ctric Power Distribution	Арр	lies to
39522055	Pre-application	Consultation Report	Distribution	Transmission
	Carradale - Arran Submarine Cable		✓	
Revision: FINAL	Classification: Public	Issue Date: July 2021	Review Da	te: July 2024



	Scottish Hydro Elec	ctric Power Distribution	Арр	lies to
39522055	Pre-application	Consultation Report	Distribution	Transmission
	Carradale - Arra	an Submarine Cable	✓	
Revision: FINAL	Classification: Public	Issue Date: July 2021	Review Da	te: July 2024

6. Social Media Posts and Statistics















	Scottish Hydro Elec	tric Power Distribution	Арр	lies to
39522055	Pre-application	Consultation Report	Distribution	Transmission
	Carradale - Arra	an Submarine Cable	✓	
Revision: FINAL	Classification: Public	Issue Date: July 2021	Review Da	te: July 2024

Appendix C: Pre-application Consultation Event

1. Online PAC Event Video



Please click on the image above to view our Carradale-Arran Online Project Consultation Event video. Alternatively visit: https://anyware3.learningtree.com/p408k92q74jv



	Scottish Hydro Elec	ctric Power Distribution	Арр	lies to
39522055	Pre-application	Consultation Report	Distribution	Transmission
	Carradale - Arra	an Submarine Cable	✓	
Revision: FINAL	Classification: Public	Issue Date: July 2021	Review Da	te: July 2024

Appendix D: Pre-application Consultation Feedback

1. Feedback Form

To help us record your complete this short qu		narine electricity cable pro	posals, please	take a moment to
Consultation ev	vents			
Did you attend one of	our consultation ever	nts, if so how did you find	out about it?	
Local newspaper		SSEN website		
Local website		Word of mouth		
Letter		Poster		
Other				
The routing, installation	THE RESERVE OF THE PERSON NAMED IN COLUMN TO SERVE OF THE	thods proposed for repla	cing this cable	are acceptable. Strongly agree
Replacing the of the routing, installation Strongly disagree	on and protection me Disagree			
The routing, installation Strongly disagree Please include any furt Our proposal Do you support or obj	Disagree ther comments here:	Not sure	Agree	Strongly agree
The routing, installation	Disagree ther comments here:	Not sure	Agree	Strongly agree



	Scottish Hydro Elec	ctric Power Distribution	Арр	lies to
39522055	Pre-application	Consultation Report	Distribution	Transmission
	Carradale - Arran Submarine Cable		✓	
Revision: FINAL	Classification: Public	Issue Date: July 2021	Review Da	te: July 2024

2. Stakeholder/Consultee Feedback

Stakeholder/Organisation Feedback

North Ayrshire Council: Neil McAteer, Planning Officer

Contact: nmcateer@north-ayrshire.gov.uk

Have your say

Please use the space below for additional comments about our proposals or if you would like specific information that isn't available at the information event.

Please include any further comments here: Relates to required upgrading of existing connector line.

Required pre-notification was given to us as the LPA to assess the visual and environmental effects. No significant issues found.

NatureScot: Erica Knott, Marine Sustainability Manager

Contact: erica.knott@nature.scot

Have your say

Please use the space below for additional comments about our proposals or if you would like specific information that isn't available at the information event.

Please include any further comments here: We very much welcome the early dialogue with us and the ability to understand the engineering requirements as well as the environmental constraints. We hope our input has been helpful. We also welcome the ability for both our marine and terrestrial teams to have input into the planning of this project.



Scottish Hydro Electric Power Distribution Applies to Distribution Transmission **Pre-application Consultation Report** 39522055 **Carradale - Arran Submarine Cable Revision: FINAL** Classification: Public Issue Date: July 2021 **Review Date: July 2024**

thern Lighthouse Boa	rd: Gillian Burns, Nav	vigation Officer		
itact: <u>gillian.burns@nl</u>	b.org.uk			
Replacing the c	able			
The routing, installation	n and protection met	hods proposed for rep	placing this cable	are acceptable.
Strongly disagree	Disagree	Not sure	Agree	Strongly agree
		Ш		
Please include any furt	her comments here: N	orthern Lighthouse Bo	oard (NLB) are sta	tutory consultees
regarding safe navigati		_		
the sites and will respo				
consultation requiring	that Notice to Mariner	rs and Radio Navigatio	n Warnings are is	sued advising the
mariners prior to, durir	ng and on completion	of the works. The 'as-l	aid' survey data f	or each of the cables
should be forwarded to	the UK Hydrographic	Office to ensure char	t updates are com	npleted. This also
applies to any Cable M	arker Boards (CMB) if	they are installed/ rep	laced/ moved or	removed. The
Statutory Sanction of t	ne NLB is required to i	nstall a new CMB or su	ubstantially alter a	an existing CMB (i.e.
moving position), and S	Sanction is also require	ed if a CMB is permane	ently removed. Pl	ease contact us on
navigation@nlb.org.uk	to discuss. Please revi	ew the navigation cha	rts and if noted t	hat there is a
discrepancy regarding	the installed CMB plea	se bring this to the at	tention of both N	LB and UKHO.

	Scottish Hydro Electric Power Distribution Pre-application Consultation Report Carradale - Arran Submarine Cable		Applies to	
39522055			Distribution	Transmission
			✓	
Revision: FINAL	Classification: Public	Issue Date: July 2021	Review Da	te: July 2024

Appendix E: Pre-application Consultation Presentation

1. Pre-Application Consultation Event Presentation







39522055

Scottish Hydro Electric Power Distribution Pre-application Consultation Report

Carradale - Arran Submarine Cable

Distribution

Transmission

Revision: FINAL Classification: Public Issue Date: July 2021 **Review Date: July 2024**

Making sure everyone's voice is heard



Applies to









To avoid bandwidth issues, please only use video during **Q&A sessions**

Please stay on mute whilst presentations are delivered

Please participate freely in the discussions, using the chat box at any time

If you have any technical queries let us know through the chat function

Todays Agenda



Time	Торіс	Presenter
5 mins	Welcome, Introduction, Housekeeping	Chris
20 mins	Carradale – Arran Presentation	Chris & Matt
10 mins	Shaping Our Future Network – RIIO ED2 Presentation	ED2 Team
15 mins	Your Questions and Conclusions	All
-	Close	

39522055

Scottish Hydro Electric Power Distribution Pre-application Consultation Report

Distribution

Transmission

Carradale - Arran Submarine Cable

Revision: FINAL Classification: Public Issue Date: July 2021

Purpose of today's event



Review Date: July 2024

Applies to

In today's event, we want to:

- 1. Share your views on the planned subsea cable replacement project
- 2. Discuss how SSEN Distribution can better engage with your community
- 3. Understand your wider priorities to help shape our next business plan for RIIO-ED2, which starts in 2023.





Who we are

We are your Distribution Network Operator or DNO, responsible for delivering electricity at a local level.

Our electricity distribution networks carry electricity to over 3.8 million homes and businesses across the north of Scotland and central southern England.

We don't supply or generate electricity. Although part of the same SSE group, we are separate to SSEN Transmission, who own and manage the electricity transmission network in the north of Scotland.

As a natural monopoly, our investments and activities are regulated by the energy regulator, Ofgem through our network licence.





650,000+ vulnerable customers identified on our Priority Services



over 3,500 employees across the country



130,000km of overhead lines and underground cables



106,000 substations



100+ subsea cables powering island communities



Scottish & Southern

Scottish Hydro Electric Power Distribution

Pre-application Consultation Report

Carradale - Arran Submarine Cable

Applies to Distribution

Transmission

Revision: FINAL Classification: Public Issue Date: July 2021 **Review Date: July 2024**

What we do - our role as a DNO











Keep the power flowing

Manage and invest in our assets

Rapid fault response









Enable the smart system transition

Provide leading customer service

Our Work



The RIIO model



A link to the video is available here: https://vimeo.com/241188747

Revision: FINAL

Scottish Hydro Electric Power Distribution Pre-application Consultation Report

Carradale - Arran Submarine Cable

Distribution

Transmission

Classification: Public Issue Date: July 2021 **Review Date: July 2024**

Proactive replacement programme



Applies to

- We have replaced around 84km of cable during this price control period based on inspection programmes, risk assessments, and faults.
- We plan to proactively replace a further 52km of cable in the remainder of the period.

Replaced to date:

	Current Length (km)	Project Status
Lerwick - Bressay	0.50	Replaced
Rousay - Westray	10.45	Replaced
Harris - Scalpay	0.77	Replaced
Bute - Cumbrae	4.92	Replaced
Mossbank - Yell	3.88	Replaced
Yell - Unst 1	2.13	Replaced
Yell - Unst 2	1.77	Replaced
Shapinsay - Stronsay	14.77	Replaced
Mainland - Jura	8.09	Replaced
Mainland - Pentland Firth East	37	Replaced
10 cables	84.02km	

Proactive future programme to 2022:

	Current Length (km)	Project Status
Mainland Orkney - Hoy (centre)	4.66	Replacement 21/22
Mainland Orkney - Hoy (north)	4.42	Replacement 21/22
Mull - Coll	15.31	Replacement 21/22
Carradale - Arran (north)	6.10	Replacement 21/22

Our Regulators





Scottish Hydro Electric Power Distribution Pre-application Consultation Report

Carradale - Arran Submarine Cable

Distribution

Transmission



Revision: FINAL Classification: Public Issue Date: July 2021 **Review Date: July 2024**

Our Consultees



Applies to

Consultees



















Why we consult... By collecting our customers views and opinions... ...our engineers design and deliver better projects... ...meeting the needs of our regulators, and... ...switching on long-term benefits for our customers. Scottish & Southern Electricity Networks

Revision: FINAL

Scottish Hydro Electric Power Distribution Pre-application Consultation Report

Carradale - Arran Submarine Cable

Classification: Public Issue Date: July 2021 **Applies to**

Distribution

Transmission



Review Date: July 2024

How we inform you...



- **Public Notice Advertising**
- **Run of Press Advertising**



Invites directly emailed to stakeholders



Radio Advertising on Argyll FM & West FM



Social media posts on:

- **Facebook**
- **Twitter**
- LinkedIn



Website articles ssen.co.uk/subseacables



Supporting our customers...



Revision: FINAL

Scottish Hydro Electric Power Distribution Pre-application Consultation Report

Applies to

Distribution Tra

Transmission

✓

Carradale - Arran Submarine Cable

Issue Date: July 2021

Review Date: July 2024

Cost Business Analysis

Classification: Public





Consents Timeline





Scottish Hydro Electric Power Distribution Pre-application Consultation Report

Carradale - Arran Submarine Cable

Distribution

Transmission

Revision: FINAL Classification: Public Issue Date: July 2021 **Review Date: July 2024**

Cable Replacement



Applies to

The two 33kV submarine cables providing electricity to Arran were routinely inspected using a Remote Operated Vehicle (ROV) in August 2017

Inspection revealed north cable which runs from Port Crannaich in Carradale to Balliekine in Arran was in poor condition with damage to the protective armour







	Scottish Hydro Electric Power Distribution		Applies to	
39522055	Pre-application Consultation Report		Distribution	Transmission
	Carradale - Arra	an Submarine Cable	✓	
Revision: FINAL	Classification: Public	Issue Date: July 2021	Review Date: July 2024	

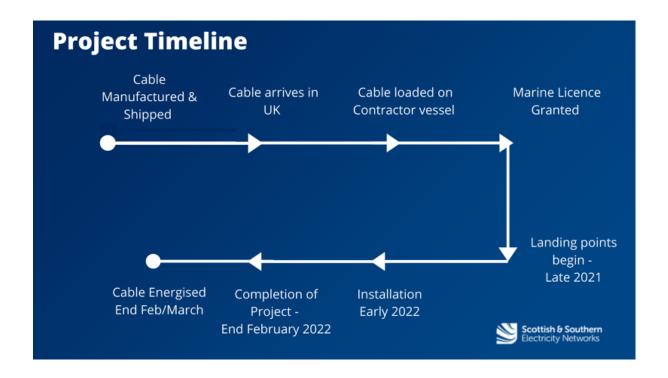
Project Overview

- · Two existing 33kV power cables connecting Mull of Kintyre at Carradale with the Isle of Arran
- · One has been identified as requiring replacement
- Replacement of this cable is essential to securing power supplies to the island of Arran

Project Operations Include

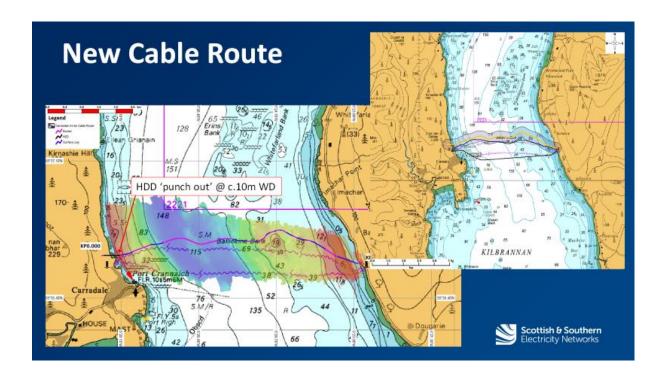
- Pre-Installation Surveys to identify most effective cable lay route
- · Landfall establishment to create an onshore work site at each end of the cable route
- 2 x HDD installation at Carradale (1x operational & 1x spare) will allow the subsea to be protected onshore in the location of steep cliff face
- Cable Installation cable lay operations from cable lay vessel
- Cable Protection Post-Installation Surveys installation rock bags/concrete mattresses for cable protection and record location of cable
- · Landfall re-instatement return the work sites to original or agreed state





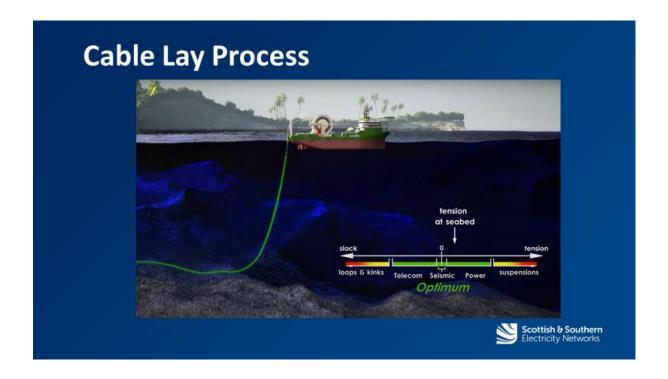


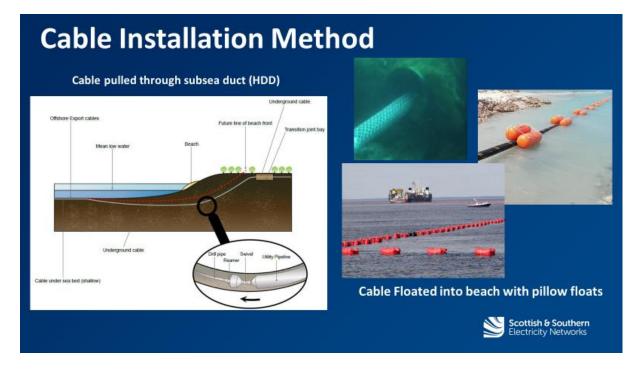
	Scottish Hydro Electric Power Distribution		Applies to	
39522055	Pre-application Consultation Report		Distribution	Transmission
	Carradale - Arra	an Submarine Cable	✓	
Revision: FINAL	Classification: Public	Issue Date: July 2021	Review Date: July 2024	

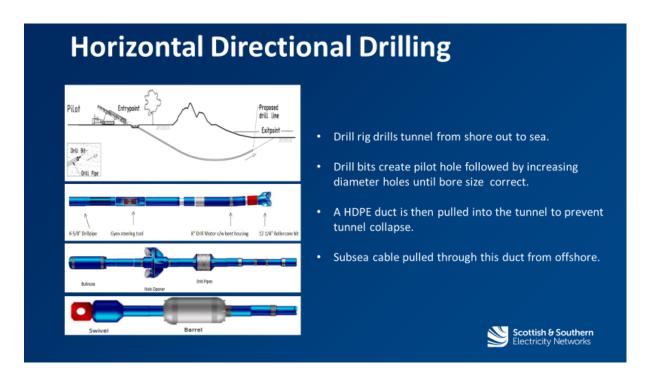














Revision: FINAL

Scottish Hydro Electric Power Distribution

Pre-application Consultation Report

Carradale - Arran Submarine Cable

Issue Date: July 2021

Classification: Public

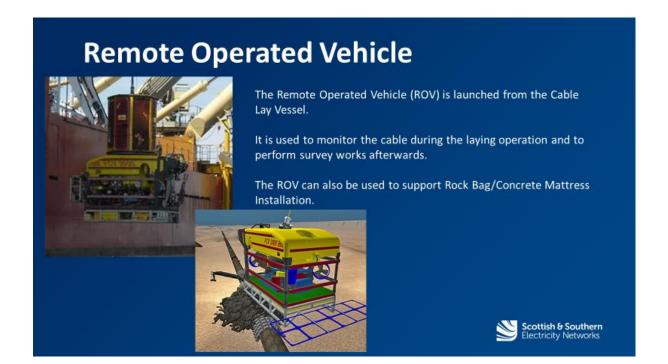
Applies to

Distribution Tra

Transmission

 \checkmark

Review Date: July 2024





Revision: FINAL

Scottish Hydro Electric Power Distribution Pre-application Consultation Report

Issue Date: July 2021

Carradale - Arran Submarine Cable

Classification: Public

Distribution

Transmission

Review Date: July 2024

Applies to







- Vegetation surveys
- **Ecological walkover surveys**
- Archaeological walkover surveys
- **Bat surveys**
- Breeding bird surveys (March-September)
- Pre-condition and Post-condition surveys for landfall sites



Revision: FINAL

Scottish Hydro Electric Power Distribution Pre-application Consultation Report

Applies to

Distribution

Transmission

✓

Carradale - Arran Submarine Cable

Issue Date: July 2021

Review Date: July 2024

Protecting Our Marine Environment

Classification: Public





Designated Sites
Physical environment (water quality and sediments)
Marine Megafauna
Benthic and Intertidal Ecology
Ornithology
Marine Archaeology
Fish and Shellfish
Commercial Fisheries
Shipping and Navigation
UXO and existing utilities



Revision: FINAL

Scottish Hydro Electric Power Distribution

Pre-application Consultation Report

Carradale - Arran Submarine Cable

Issue Date: July 2021

Applies to Distribution

Transmission

Review Date: July 2024

Onshore Works and Equipment

Tracked Excavator

Classification: Public



Tracked Winch for beach pull









Articulated Pipe Protection at near shore and beach areas

TJB (Transition Joint Bay) between offshore and onshore cable sections







Scottish & Southern

Electricity Networks

Revision: FINAL

Scottish Hydro Electric Power Distribution

Pre-application Consultation Report

Carradale - Arran Submarine Cable

Issue Date: July 2021

Classification: Public

Transmission

 \checkmark

Distribution

Review Date: July 2024

Applies to

Communications





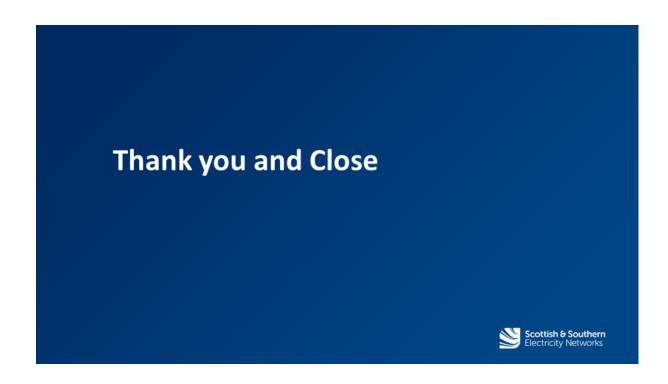
Stakeholder Questions and Discussion





- What are your views on the project and the considerations made?
- Did the presentation provide you with relevant information?
- · Is there anything else we should consider?
- Have you found this event useful?





	Scottish Hydro Electric Power Distribution		Applies to	
39522055	Pre-application Consultation Report Carradale - Arran Submarine Cable		Distribution	Transmission
			✓	
Revision: FINAL	Classification: Public	Issue Date: July 2021	Review Date: July 2024	

2. Pre-Application Consultation Stakeholder Engagement

Carradale-Arran Stakeholder Project Consultation Presentation as delivered to the following recipients on the dates recorded below:

Date	Organisation	Attendees
08/12/2020	North Ayrshire Council (Planning)	Neil McAteer Thom Ledingham
22/01/2021	Argyll & Bute Council (Planning & Transport Departments)	Allan Finlay Stewart Clark Julian Green
	The Scottish White Fish Producers Association Ltd	Femke De Boer
31/03/2021	Western Isles Fisherman's Association	Duncan Macinnes
	Ross, Sutherland, Skye & Lochalsh Fisherman's Association	Neil Robertson
08/04/2021	NatureScot	Erica Knott Kirstie Dearing Ian Cornforth
08/04/2021	Northern Lighthouse Board	Gillian Burns
	Maritime & Coastguard Agency	Thomas Bulpit
09/04/2021	Clyde Fisheries Association	Elaine Whyte
19/04/2021	Scottish Fishermen's Federation	Malcolm Morrison
21/04/2021	Scottish Environment Protection Agency	Alex Candlish
27/05/2021	Crown Estates Scotland	Darren Hirst
21/06/2021	NatureScot	Ian Cornforth
21/06/2021	Historic Environment Scotland	Alison Baisden



	Scottish Hydro Electric Power Distribution		Applies to	
39522055	Pre-application Consultation Report		Distribution	Transmission
Carradale - Arran Submarine Cable		✓		
Revision: FINAL	Classification: Public	Issue Date: July 2021	Review Date: July 2024	

3. Pre-Application Consultation Stakeholder Presentations

Carradale-Arran Secottish & Southern Electricity Networks

Cable Replacement



The two 33kV submarine cables providing electricity to Arran were routinely inspected using a Remote Operated Vehicle (ROV) in August 2017

Inspection revealed north cable which runs from Port Crannaich in Carradale to Balliekine in Arran was in poor condition with damage to the protective armour







Project Overview

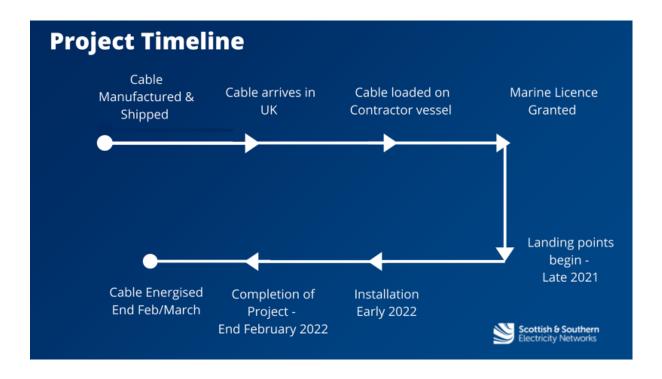
- · Two existing 33kV power cables connecting Mull of Kintyre at Carradale with the Isle of Arran
- · One has been identified as requiring replacement
- · Replacement of this cable is essential to securing power supplies to the island of Arran

Project Operations Include

- Pre-Installation Surveys to identify most effective cable lay route
- Landfall establishment to create an onshore work site at each end of the cable route
- 2 x HDD installation at Carradale (1x operational & 1x spare) will allow the subsea to be protected
 onshore in the location of steep cliff face
- Cable Installation cable lay operations from cable lay vessel
- Cable Protection Post-Installation Surveys installation rock bags/concrete mattresses for cable protection and record location of cable
- · Landfall re-instatement return the work sites to original or agreed state

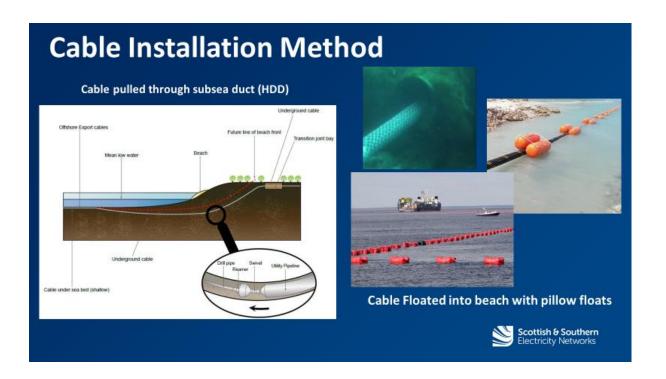


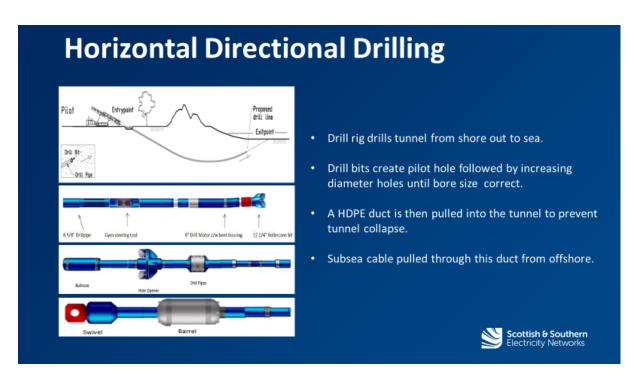












Scottish Hydro Electric Power Distribution Pre-application Consultation Report Carradale - Arran Submarine Cable

Distribution

Transmission

✓

Revision: FINAL

Classification: Public

Issue Date: July 2021

Review Date: July 2024

Applies to



	Scottish Hydro Electric Power Distribution		Applies to	
39522055	Pre-application Consultation Report		Distribution	Transmission
	Carradale - Arra	an Submarine Cable	✓	
Revision: FINAL	Classification: Public Issue Date: July 2021 Review Date: Ju		te: July 2024	



