

Wright H (Hamish)

From: Wood, Kirstine <kirstine.wood@sse.com>
Sent: 18 December 2019 09:15
To: Rose M (Malcolm) (MARLAB)
Cc: Versiani Holt J (Jack); Makela A (Anni); MS Marine Licensing
Subject: FW: Jura Cable replacement

Hi Malcolm

Thank you for your email.

Our clarification of the points you raise is as follows:

1. Plans for post lay burial once the weather improves, including mitigation for the surface laid cable prior to then e.g. use of guard boats.

SHEPD propose to consider burying sections of the route where feasible. This has not been stated within the project description because the information gathered during the 2018 cable inspection did not provide the actual depth of sediment present on the seabed. This means the data is not currently available to say if burial is feasible.

SHEPD are currently carrying out offshore surveys along the route to fill this data gap. The multibeam, side scan sonar and the sub-bottom data gathered will inform us of the potential for offshore burial of the cable.

However, due to the:

- existing marine use within Carsaig Bay at the mainland shore end
- narrow nature of Lealt Bay at the Jura shore end

it has not been operationally possible to tow the sub-bottom profiler and side scan sonar equipment safely from the survey vessel. Therefore, depth of sediment in these areas will be ascertained by divers using measuring sticks, during the post lay survey.

We are supportive of making our survey data available for scrutiny by stakeholders. Additionally, we commit to re-running the CBA model when we know the depth of sediment along the cable route. This will show where burial is feasible in accordance with the considerations applied within the cost benefit analysis.

From an engineering and operational perspective the following parameters (applied within the cost benefit analysis modelling following agreement with stakeholders) identify that burial is achievable by:

- **Jetting or Mass Flow Excavation** where there is a minimum sediment depth of 1.5 metres from mean seabed level, for at least 50 linear metres along the seabed
- **Ploughing** where there is a minimum sediment depth of 2.0 metres from mean seabed level, for at least 500 linear metres along the seabed

Some stakeholders may remember that the faulted cable had the following levels of protection:

- 57 concrete mattresses and 124 rock filter bags installed
SHEPD's current application allows for 100 rock filter bags and 100 concrete mattresses.
- Shallow water depths limited safe access; and cobbled compacted sediment meant that burial to a depth of 300 mm and for only 360 linear metres at Carsaig; and 120 linear metres of burial was achieved at Lealt Bay
This would not be accepted as burial by stakeholders who were involved in agreeing the cost benefit analysis model development. This is because the depth of sediment is less than 1.5 metres.
- Mass Flow Excavation was also carried out where possible to a depth of 0.8-1.3m
This would not be accepted as burial by stakeholders who were involved in agreeing the cost benefit analysis model development. This is because the depth of sediment is less than 1.5 metres.

In terms of the use of guard vessels until weather permits us to install protection or achieve burial, we do not feel that this is a necessary measure. As we will be complying with all aspects stated in:

- FLMAP Argyll Jura-Islay Finalised 080818
- FLMAP Delivery Programme Mainland-Jura Fault
- How SHEPD co-exists with other marine users

Additionally, we will inform MS-LOT, MCA, UKHO, NLB, KIS-ORCA and UK International Cable Protection Committees of the as-laid co-ordinates to ensure the location of the cable is known and that updates to nautical publications can be made.

2. The chosen options from the CBA as the Main-Jura CBA summary appears to contain references to different options

You are correct, there were some transposition errors. These have corrected in transmittal which will follow this email. We also include the text above to explain why burial is not explored in more detail.

3. We note from the 2014 casefile SHEPD were quoting £1 million to surface lay the cable and £6 million to protect the cable end to end, why are the 2019 costs significantly higher?

The CBA model incorporates mobilisation, travel time, and decommissioning costs associated with installation, repairs, and decommissioning. The updated model has the functionality to have different set up costs for different methods of cable protection. However, these costs are likely to be subject to availability of the specialist vessels and labour, weather and competition from other sectors. As such, it is challenging to know the extent to which the CBA model under-or over-estimates the actual costs associated with these activities.

The updated setup costs within the CBA model were supplied by SHEPD and are based on the new information from the framework contractors.

- Table 26 of <http://news.ssen.co.uk/media/266365/SSEN-CBA-Method-Paper-120pp-22336-WEB.pdf> sets out estimated installation cost data (2014/15 prices)
- Table 27 of <http://news.ssen.co.uk/media/266365/SSEN-CBA-Method-Paper-120pp-22336-WEB.pdf> sets out mobilisation, demobilisation costs (2014/15 prices)
- Table 28 <http://news.ssen.co.uk/media/266365/SSEN-CBA-Method-Paper-120pp-22336-WEB.pdf> sets out subsea cable cost per unit length (2014/15 prices)
- Figure 21. <http://news.ssen.co.uk/media/266365/SSEN-CBA-Method-Paper-120pp-22336-WEB.pdf> shows the impact pathway for the increased cost of maintenance surveys associated with protection

Kind regards,
Kirstine



Kirstine Wood

Lead Engagement and Submarine Policy Manager

T: 01738 453695

M: 07880 178981

E: kirstine.wood@sse.com

Inveralmond House, 200 Dunkeld Road, Perth, PH1 3AQ

www.ssen.co.uk



From: Malcolm.Rose@gov.scot <Malcolm.Rose@gov.scot>
Sent: 17 December 2019 13:00
To: Wood, Kirstine <kirstine.wood@sse.com>
Cc: Jack.Versianiholt@gov.scot; Anni Makela <anni.makela@gov.scot>
Subject: [EXTERNAL] Jura Cable replacement

WARNING: this email has originated from outside of the SSE Group. Please treat any links or attachments with caution.

Dear Kirstine

Further to our conversation yesterday I can confirm Marine Scotland have requested clarification on the following

- Plans for post lay burial once the weather improves, including mitigation for the surface laid cable prior to then eg use of guard boats.
- The chosen options from the CBA as the Main-Jura CBA summary appears to contain references to different options
- We note from the 2014 casefile SHEPD were quoting £1 million to surface lay the cable and £6 million to protect the cable end to end, why are the 2019 costs significantly higher?

We look forward to your correspondence on these matters, as always any questions please don't hesitate to get in touch.

Kind regards

Malcolm

Malcolm Rose
Marine Licensing Group Leader
Marine Scotland - Marine Planning & Policy

Scottish Government | Marine Scotland | 375 Victoria Road | Aberdeen | AB11 9DB

Direct Line: +44 (0)131 244 3297
General Queries: 0300 244 5046
Email: malcolm.rose@gov.scot
Website: <http://www.gov.scot/marinescotland>



This e-mail (and any files or other attachments transmitted with it) is intended solely for the

attention of the addressee(s). Unauthorised use, disclosure, storage, copying or distribution of any part of this e-mail is not permitted. If you are not the intended recipient please destroy the email, remove any copies from your system and inform the sender immediately by return. Communications with the Scottish Government may be monitored or recorded in order to secure the effective operation of the system and for other lawful purposes. The views or opinions contained within this e-mail may not necessarily reflect those of the Scottish Government.

The information in this E-Mail is confidential and may be legally privileged. It may not represent the views of the SSE Group. It is intended solely for the addressees. Access to this E-Mail by anyone else is unauthorised. If you are not the intended recipient, any disclosure, copying, distribution or any action taken or omitted to be taken in reliance on it, is prohibited and may be unlawful. Any unauthorised recipient should advise the sender immediately of the error in transmission. Unless specifically stated otherwise, this email (or any attachments to it) is not an offer capable of acceptance or acceptance of an offer and it does not form part of a binding contractual agreement.

Scottish and Southern Electricity Networks is a trading name of: Scottish and Southern Energy Power Distribution Limited Registered in Scotland No. SC213459; Scottish Hydro Electric Transmission plc Registered in Scotland No. SC213461; Scottish Hydro Electric Power Distribution plc Registered in Scotland No. SC213460; (all having their Registered Offices at Inveralmond House, 200 Dunkeld Road, Perth, PH1 3AQ); and Southern Electric Power Distribution plc Registered in England & Wales No. 04094290 having its Registered Office at No.1 Forbury Place, 43 Forbury Road, Reading, Berkshire, RG1 3JH, which are members of the SSE Group

www.ssen.co.uk

This email has been scanned by the Symantec Email Security.cloud service.
For more information please visit <http://www.symanteccloud.com>
