

Shetland

Enabling Connections and Reinforcing the Needs Case

23rd May 2018



Scottish & Southern
Electricity Networks

Agenda

0930 - Welcome and introduction

0935 - Shetland New Energy Solution (Euan Norrington, Lead Commercial Contract Manager)

0945 - Project update (Daryn Lucas, Lead Project Manager)

1000 - Needs Case Overview (Sharron Gordon, Regulation)

10:15 - Alternative Approach (Michael Rieley, Commercial Policy)

10:30 - Q&A

10:45 – Break

1100 - Round table

1200 – Feedback and conclusion

1230 - Close

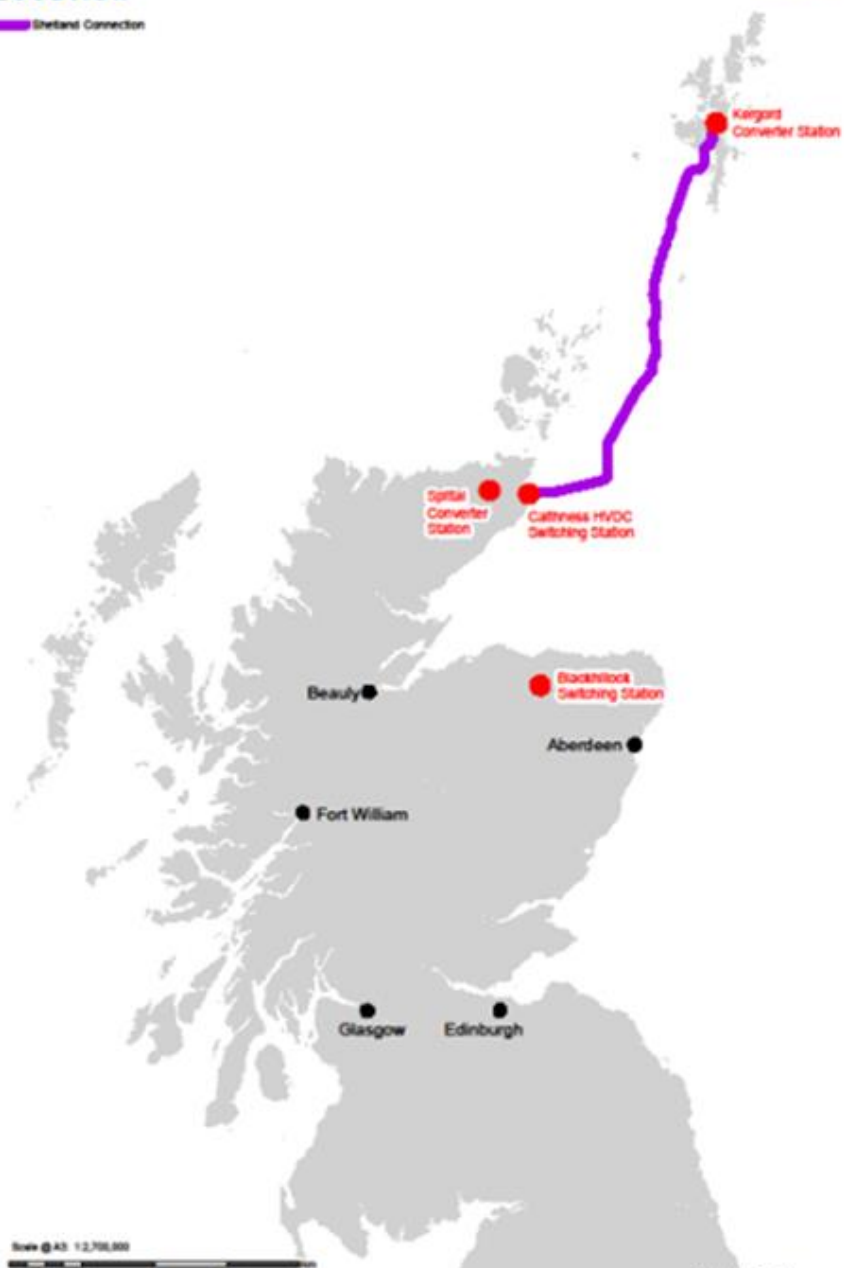
New Energy Solution Process

- Ofgem rejected the costs of proposal by National Grid Shetland Link Ltd and Aggreko to build a subsea electricity distribution link
- Existing supply arrangements extended to 2025 – the extension could enable potential savings to consumers from a joined-up transmission solution
- SHEPD remains responsible for identifying enduring solution for Shetland Distribution system needs
- SHEPD could request a connection to the transmission development – currently exploring whether joined-up approach represents best option

Shetland HVDC Connection: Location

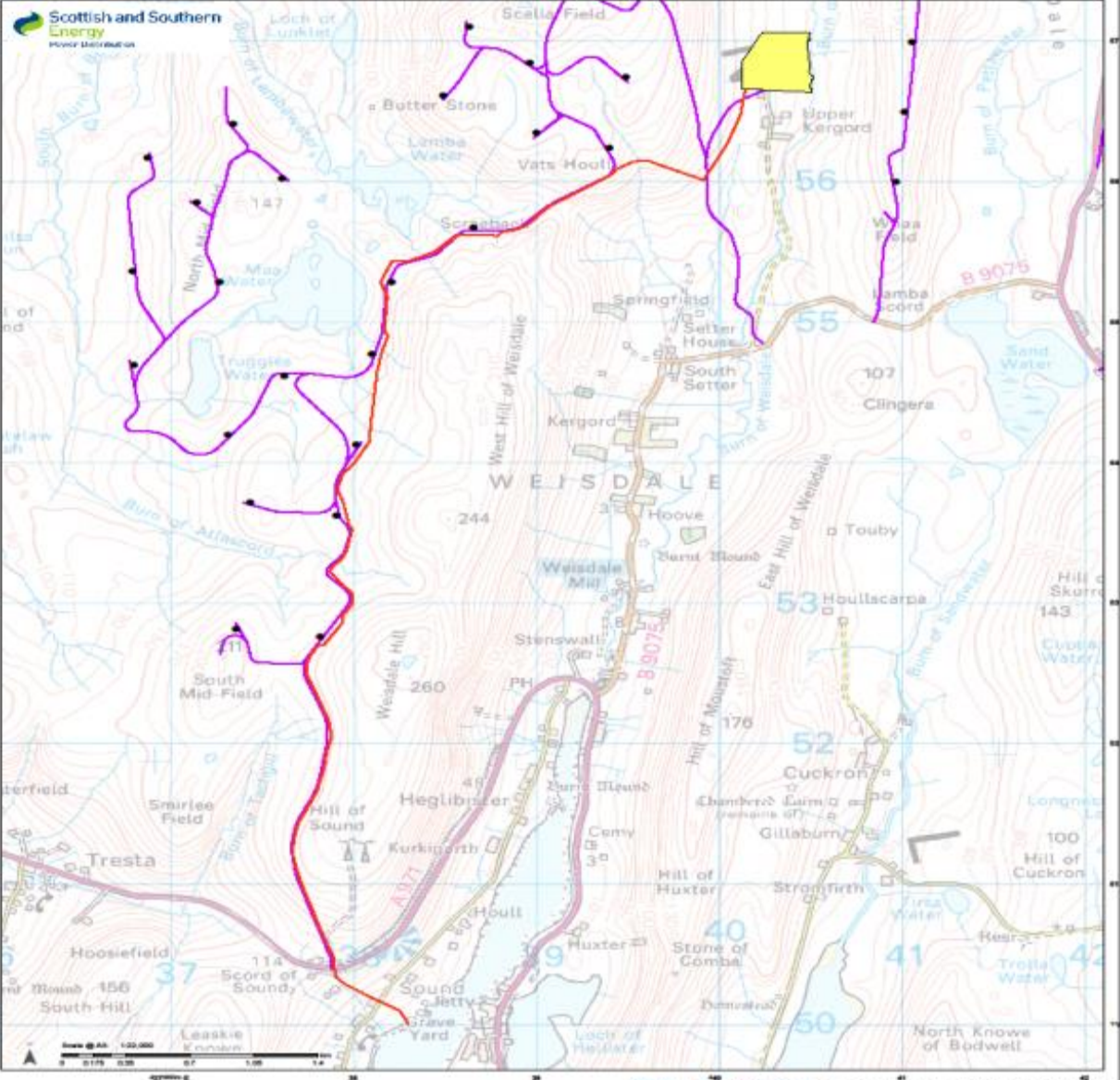


Shetland Connection



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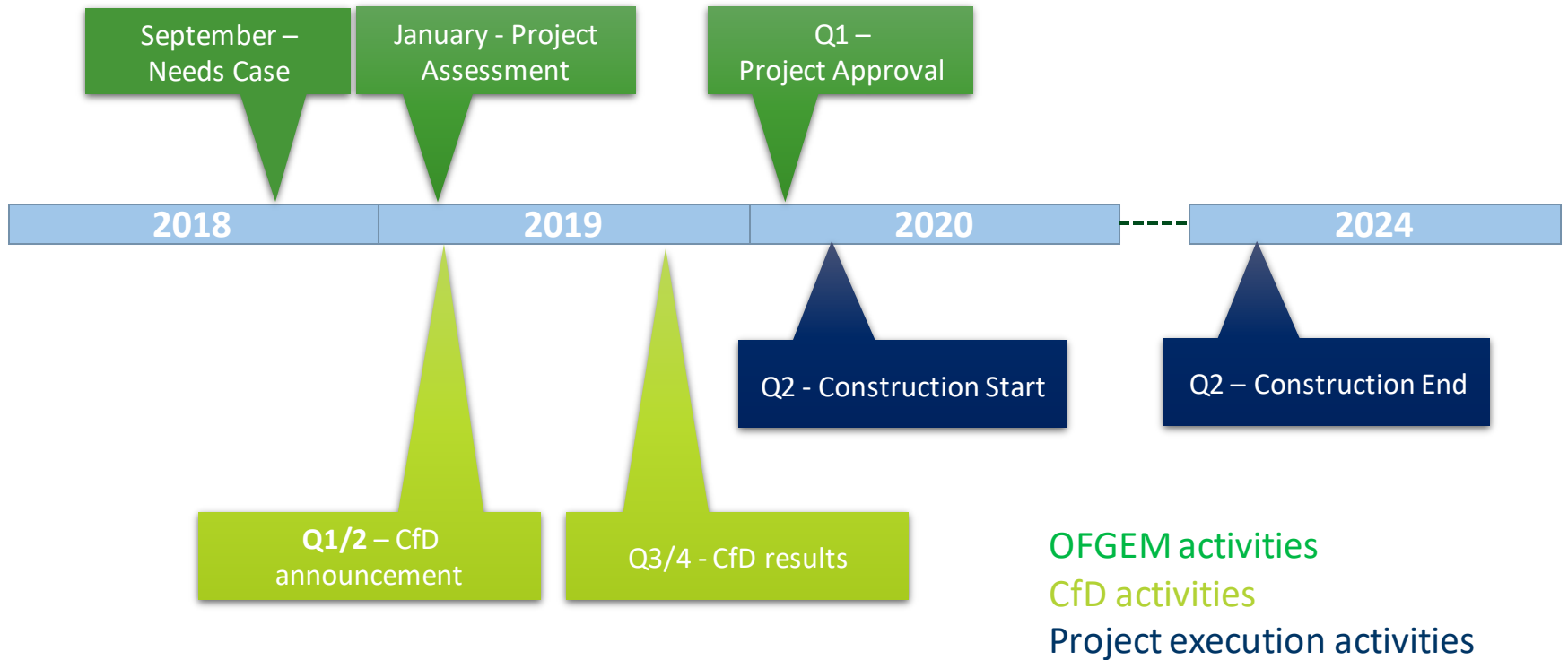
- Kergord Substation Boundary
- Cable Route
- Turbines
- Proposed Access Routes



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Project No:	LT000009
Project:	Shetland HVDC
Title:	Kergord Cable Route
Drawn by:	BS
Date:	05/05/2015
Drawing:	LT000009_WAY_001_20150505



Shetland Connection - timeline



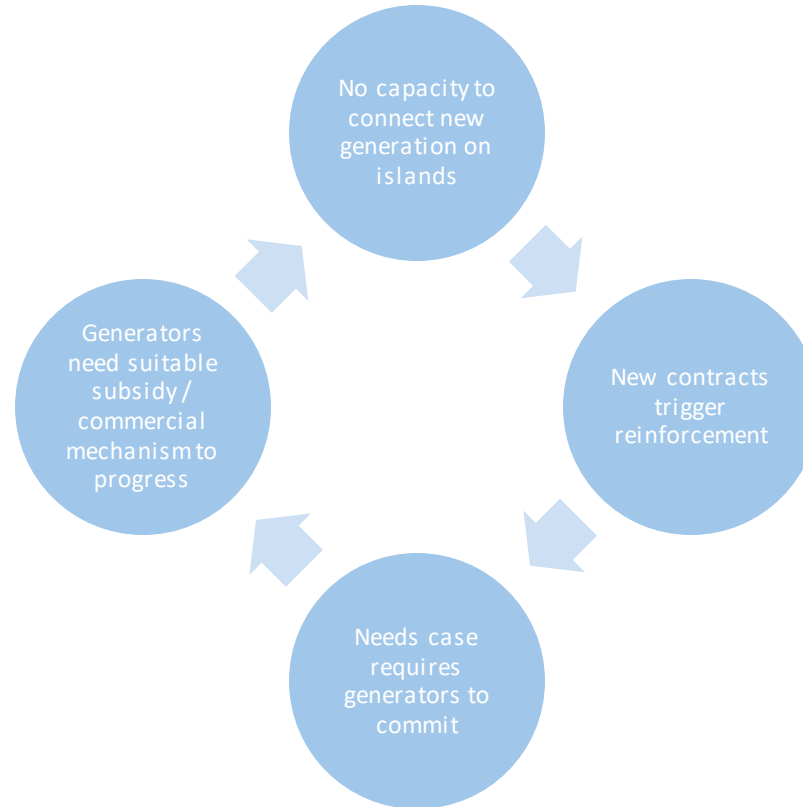
Needs Case

- Sets out the need for transmission connection
- Informed by applications for connections from generators
- Includes a review of the options considered and process to reach a proposed technical solution
- Includes an in-depth Cost Benefit Analysis (undertaken by National Grid)
- Considers socio-economic impacts for the local area
- Must be presented with a solution that is advanced enough to meet contracted connection dates – planning consents, design, wayleaves, etc.

Alternative approach

What is driving the problem?

Connections to the islands have been subject to a unique range of political, regulatory and commercial challenges stretching over a decade. This has led to a prolonged history of engagement and assessment of options, with no successful solution having been identified to date



Alternative approach

SSEN will engage customers on Shetland to achieve the following:

- 1. Build on experience in Orkney:** The alternative approach developed in Orkney can also add value for SSEN in connecting the Westerns Isles and Shetland
- 2. Create an opportunity for those who are ready to connect:** consistent with our licence obligation to provide a reasonable date for connection we aim to provide the opportunity for those who are ready.
- 3. Plan our network economically and efficiently:** adopting an SSEN approach to maximise the utilisation of existing assets and ensuring the timely investment of reinforcement
- 4. Future proof the network:** managing customers' readiness against progression milestones by providing clear criteria and rules will enable the most efficient projects to support the need for connection and ensure the optimal use of connection assets once constructed.

Revised approach

Revised approach

Needs case for
HVDC solution

Current contracted capacity would leave option for future connections on Shetland with no certainty that customers will connect. .

Revised approach

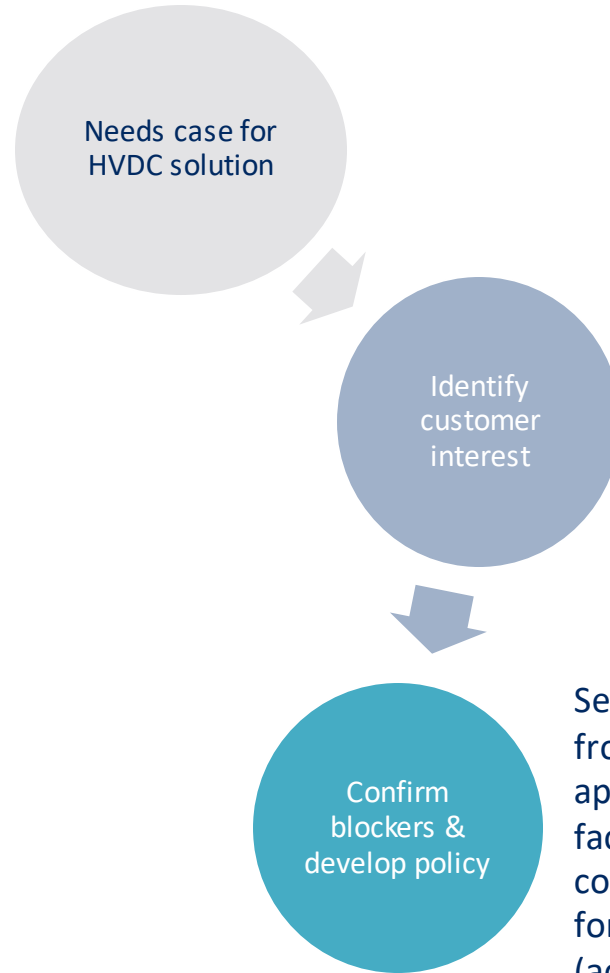
Needs case for HVDC solution



Identify customer interest

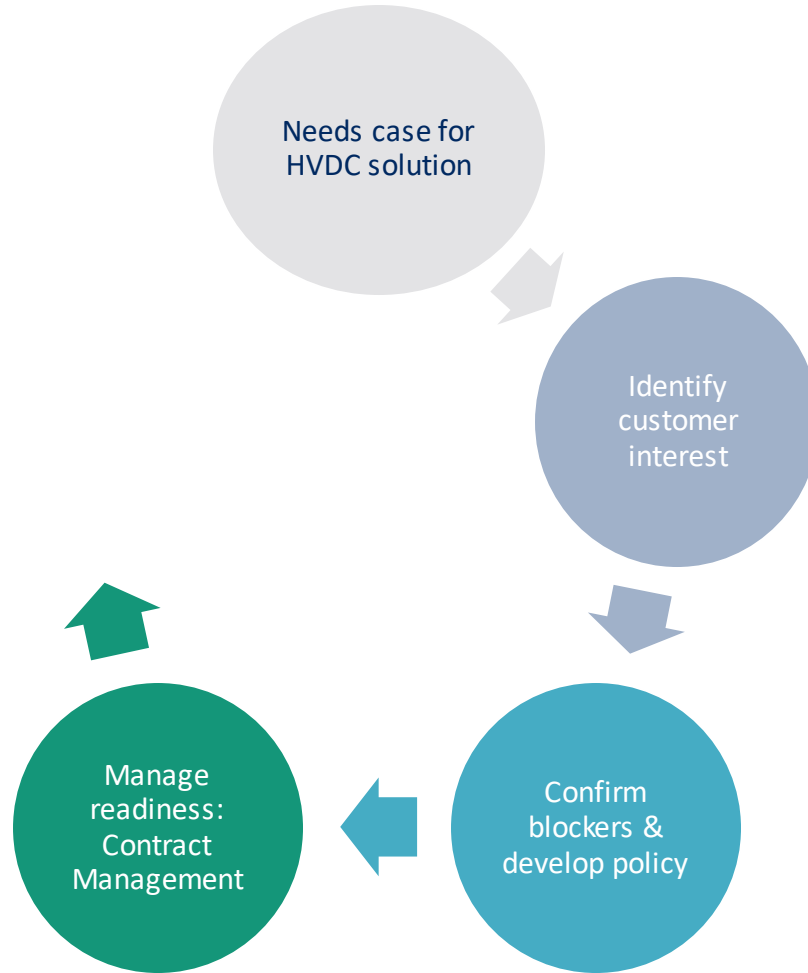
First, we will confirm the level of interest in new connections on Shetland across transmission and distribution. Feeding this information into the needs case.

Revised approach



Secondly, applying lessons learned from the Orkney 'alternative approach' we will confirm the blockers faced by developers and use the commercial policy solutions developed for Orkney to relieve these issues (adapting where appropriate)

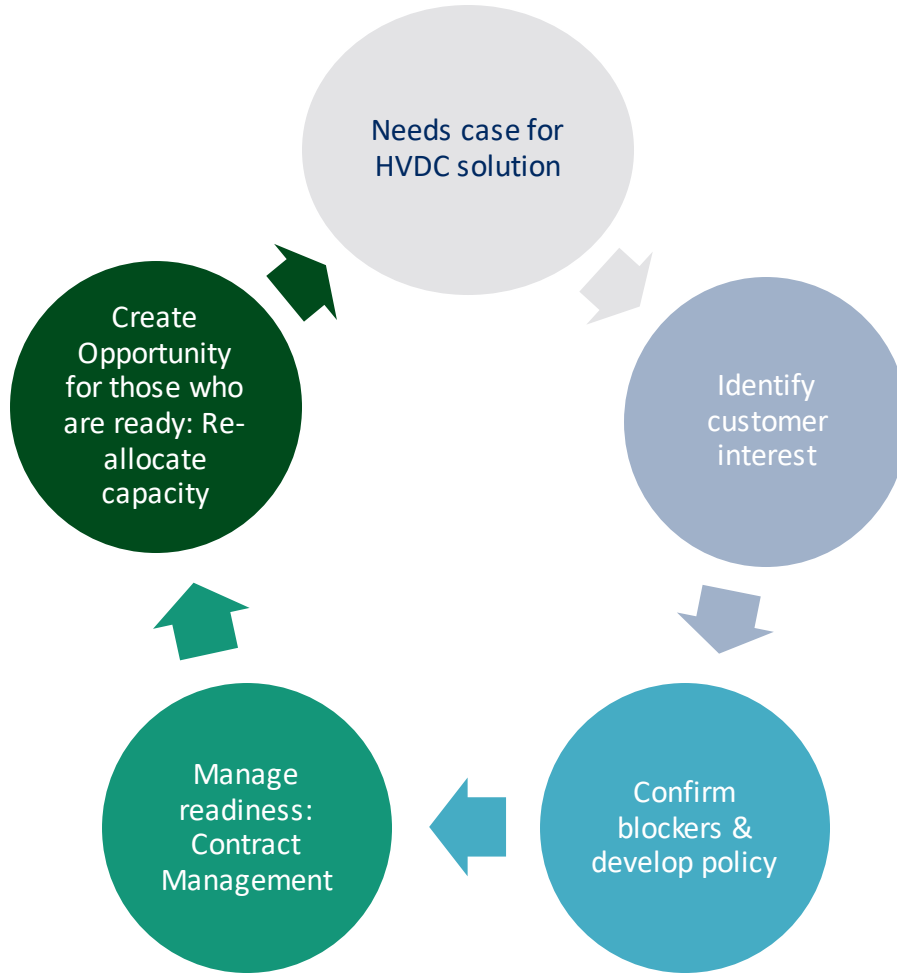
Revised approach



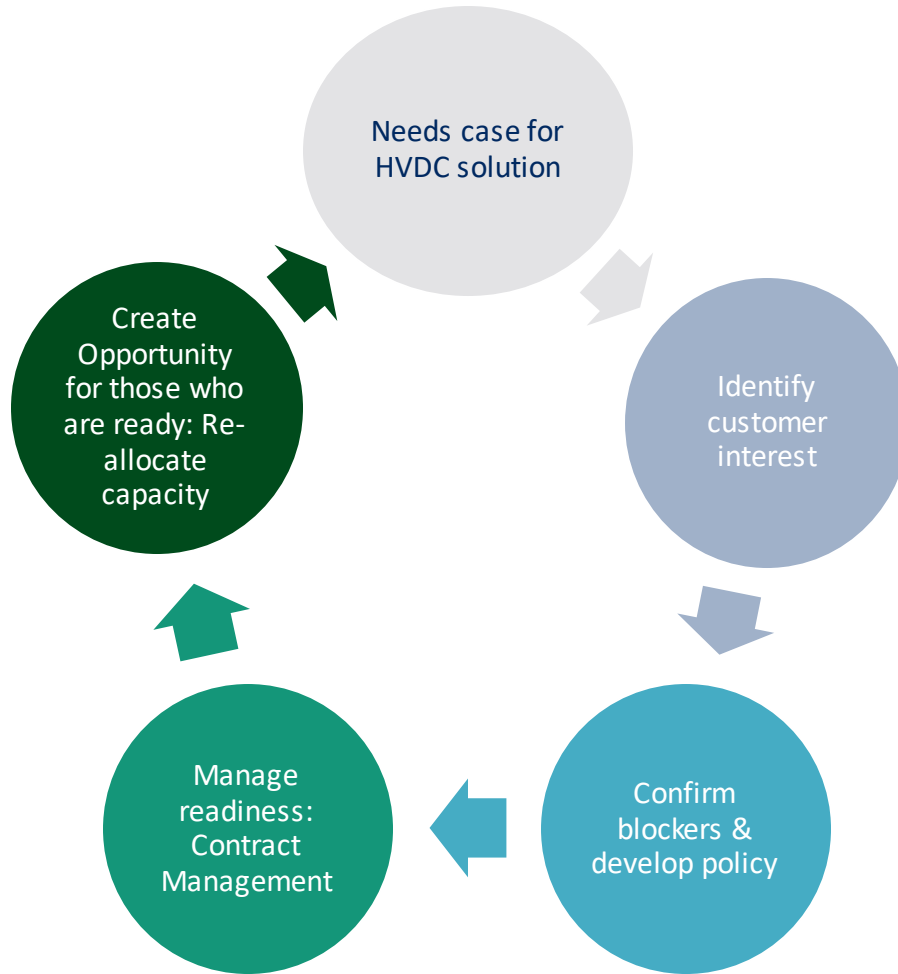
Thirdly, contract management will be reinforced by using progression milestones-agreed between both parties

Revised approach

Where milestones are not met, capacity shall be made available to those who are ready. Creating an opportunity for connection.



Revised approach



This approach will be used to demonstrate to Ofgem that;

1. Demand for connection exists beyond currently contracted parties
2. Additional capacity created through Shetland HVDC connections can be utilised by projects that are ready to connect and that there is a level playing field for all developers in these regions to access the connection
3. A process is in place to manage capacity against agreed milestones

Next Steps

- Confirm 'notice of interest'
- Confirm blockers and consider policy solutions
- Engagement with regulator
- Further stakeholder engagement
- Needs case submission

Round table discussions

- Table 1: Alternative approach
- Table 2: Notice of interest/DSO

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