

Code Administrator Meeting Summary

Meeting name: GSR030 - Offshore DC Connections

Date: 18/05/2023

Contact Details

Chair: Teri Puddefoot, National Grid ESO Terri.Puddefoot@nationalgrideso.com

Proposer: Bieshoy Awad, National Grid ESO Bieshoy.Awad@nationalgrideso.com

Key areas of discussion

GSR030 Workgroup 3 set out to discuss SQSS infeed loss risk change proposal and scoping for cost benefit and Impact assessment.

Timeline review and Workgroup Objective

The workgroup agreed that the timeline requires updating due to additional work being required. Two further workgroups are expected before the workgroup consultation.

Carbon Trust methodology

JG gave a verbal presentation to the workgroup on the Carbon Trust Methodology. Details can be found following the link below:

[Cable Burial Risk Assessment \(CBRA\) Guidance and Application Guide | The Carbon Trust Microsoft Word - Guidance on Cable Burial Risk Assessment SP \(26-2-2015\) \(windows.net\)](#)

[Guidance for Preparation of Cable Burial Specification \(windows.net\)](#)

JG also stated this methodology is recommended practice, a suitable method and widely accepted.

Workgroup asked if this methodology could be used and amended to risk access multiple cables running in parallel. JARG shared that he thought this would be possible but further discussion and analysis may be required. Workgroup discussed how far cables should be separated before requiring a risk assessment and when cables are running in parallel, what is the length when this becomes a risk.

Workgroup members queried where certain measurements had originated in the proposal. BA clarified that the figure of 250 meters for the distance between two or more cable offshore transmission circuits was the conclusion from [GSR013](#). BA also clarified that the 1km

distance when cables are running within the 250 meters proximity distance has been personally derived.

BM shared his thoughts around being mindful of what requires mandatory requirements and what can be guidance and stated that risk needs to be known and flexibility on implementation allowed.

HND costings re landing points, FRCR costings and Work in Progress

FW presented on the revised definitions.

The workgroup agreed the DC converter and the DC high speed switch definitions.

BA will update the Onshore circuit definition.

Workgroup agreed that 7.8.2 to be left as is, but agreed that a sentence should be added to an existing guidance note to ensure faults on metallic returns are addressed.

FW shared spreadsheet HND FUE cost parameters. MC commented on the reality of the supply chain and the size of converters.

XZ also stated that construction delivery time is another factor whether you will have two landing points or one landing point?

MC on the supply issues if you used a 2GW converter and limited to 1.8GW you would be unable to recover this extra cost.

BA asked for this issue to be feedback through the HND and not through the SQSS.

FRCR

YB presented slides on FRCR costing and assumptions.

MC commented that it would be interesting to see the same data with an increase in the infrequent loss infeed risk applied. After discussion the Workgroup agreed not to look at this.

Workgroup agreed increase loss of infeed limit on a single line to 1800mw

AOB

A member of the New Infrastructure team (NGET) emailed the workgroup prior to workgroup 3 regarding determining an appropriate subsea cable separation distance to avoid a “double strike”, NGET proposes that this group commissions some independent work to come to a common position on behalf of all parties. Such work could then underpin the recommendation on amending the SQSS. NGET would be happy to facilitate a sub-group of companies to form a scope of work and manage to conclusion. The workgroup agreed to proceed with this suggested approach in parallel with ongoing workgroup work.

Next Steps

Review available data and establish if further research is required.

Actions

For the full action log, [click here](#).

Action number	Workgroup Raised	Owner	Action	Comment	Due by	Status
5	WG2	BA/BM/MG	Review definitions and compare with current available wording	Reviewed and agreed at WG3	WG3	Closed
6	WG2	LJ	Share full document of risk definitions	Completed in WG2	WG3	Closed
8	WG2	BA	Consider retrospective risk/unintended consequences for current windfarms	This has been completed.	WG3	Closed
9	WG2	MG	Provide detail on bipole / rigid bipole faults		WG4	Open
10	WG2	BA/CM	Review pricing details	Details shared in WG3	WG3	Closed
11	WG2	TP	Amend timeline		WG3	Open
12	WG3	TP	Send invite for next Workgroup meetings		WG3	New
13	WG3	BA	A sentence should be added to an appropriate existing guidance note to ensure faults on metallic returns are addressed. Suggested sentence and suggested guidance note where this will sit to be provided,		WG4	New
14	WG3	DB/BA	Determining an appropriate subsea cable separation distance to avoid a "double strike". Commissions some independent work to come to a common position on behalf of all parties		WG3	New

Attendees

Name	Initial	Company	Role
Teri Puddefoot	TP	Code Administrator, ESO	Chair
Andrew Hemus	AH	Code Administrator, ESO	Tech Sec
Bieshoy Awad	BA	ESO	Proposer
Fiona Williams	FW	ESO	Proposer
José Antonio Reyna Gutiérrez	JG	Orsted	Presenter
Yuankai Bian	YB	ESO	Presenter
Benjamin Marshall	BM	The National HVDC Centre	Workgroup member
Colin Foote	CF	The National HVDC Centre	Workgroup member

Lewis Johnson	LJ	BP	Alternate Workgroup member
Marko Grizelj	MG	Siemens Energy	Workgroup member
Nicola Barberis Negra	NN	Orsted	Workgroup member
Wuxing Liang	WL	The Crown Estate	Alternate Workgroup member
Xioa-Ping Zhang	XZ	Academia	Workgroup member
Calum Mackenzie	CM	ESO	Workgroup member
Claire Hynes	CH	RWE Renewables	Observer
Gideon Miti	GM	ESO	Observer
Richard Proctor	RP	ESO	Observer
Mick Chowns	MC	RWE Renewables	Observer
Usman Farooq	UF	ESO	Observer