

# Code Administrator Meeting Summary

## Meeting name: GRS030 - Offshore DC Connections

---

Date: 07/03/2023

---

### Contact Details

Chair: Teri Puddefoot, National Grid ESO [Terri.Puddefoot@nationalgrideso.com](mailto:Terri.Puddefoot@nationalgrideso.com)

Proposer: Bieshoy Awad, National Grid ESO [Bieshoy.Awad@nationalgrideso.com](mailto:Bieshoy.Awad@nationalgrideso.com)

---

### Key areas of discussion

The purpose of this Workgroup was to go through the feedback the Workgroup members submitted in advance of the meeting. GSR030 aims to review the restrictions on the loss of power infeed risk allowed for offshore DC converters.

### Timeline review

An updated Timeline was presented and there was no dispute from the Workgroup.

### Feedback discussion

The feedback provided in advance of the meeting was discussed and expanded on with various possibilities and changes suggested.

One main concern was the proposed 'DC Converter' text and lack of clarification. The Proposer stated their preference is to keep it high level view to make it uncomplicated, however the Workgroup were concerned it would be incorrectly interpreted by those not as familiar with the subject. There is a need to carefully consider any unintended consequences.

The Workgroup talked through the 'DC high speed switch' diagram and text which needs further revision to make clear. Reflections for future impacts was discussed around risks of anchor drag and generation loss when more than one circuit is lost. The 'Offshore Cable Circuits Sharing a High Risk Route' definition was questioned. FW shared the [link](#) to the academic paper relating to anchor drag risk (P21 section 4.2.4).

BA talked through the fault statistics probability data for comparison with anchor drag risk. It was suggested that the numbers and methodology will need to be carefully considered.

---

The Workgroup provided feedback and it was decided that the wording was sufficient for the N-1-1 criteria to be robust enough to ensure faults on metallic returns are addressed.

The change of text to the infeed loss was discussed and the HND costings re landing points data was referred to. The Proposer explained the data in more detail. It was queried if this is a realistic way to compare the prices as capacity does not drive the costs but rather the HVDC links' configuration. May need to look at the costs in more detail and focus on finite benchmarks.

### Next Steps

Workgroup to take away actions for next meeting.

The next Workgroup meeting is to take place on 31 March 2023 where the Proposer will go through the FRCR frequency response costings.

### Actions

Action number	Workgroup Raised	Owner	Action	Due by	Status
1	WG1	MB	Share report with WG showing cable risk	WG2	Closed
2	WG1	All	Review Legal Text wording and provide feedback	WG2	Closed
3	WG1	All	Reflect on future impact, unintended consequence and risk, proposal and definitions	WG2	Closed
4	WG1	All	Consider current industry data and share with WG	WG2	Closed
5	WG2	BA/BM/ MG	Review definitions and compare with current available wording	WG3	Open
6	WG2	LJ	Share full document of risk definitions	WG3	Open
7	WG2	BA/FW	Share the academic paper relating to risk	WG3	Closed
8	WG2	BA/BM/ MG	Consider retrospective risk/unintended consequences for current windfarms	WG3	Open
9	WG2	MG	Provide detail on Bipole/ rigid bipole faults	WG3	Open
10	WG2	BA/CM	Review pricing details	WG3	Open
11	WG2	TP	Send invite for next Workgroup meeting	ASAP	Open

## Attendees

Name	Initial	Company	Role
Teri Puddefoot	TP	National Grid ESO	Chair
Jessica Rivalland	JR	National Grid ESO	Technical secretary
Bieshoy Awad	BA	National Grid ESO	Proposer
Fiona Williams	FW	National Grid ESO	Proposer
Benjamin Marshall	BM	The National HVDC Centre	Workgroup member
Colin Foote	CF	The National HVDC Centre	Workgroup member
Calum Mackenzie	CM	National Grid ESO	
Lewis Johnson	LJ	BP	Alternate Workgroup member
Marko Grizelj	MG	Siemens Energy	Workgroup member
Morris Bray	MB	The Crown Estate	Workgroup member
Nicola Barberis Negra	NBN	Orsted	Workgroup member
Noel McGoldrick	NM	National Grid Electricity Transmission	Workgroup member
Roddy Wilson	RW	SSEN Transmission	Workgroup member
Xioa-Ping Zhang	XPZ	Academia	Workgroup member
Usman Farooq	UF	National Grid ESO	Observer