CM085: To Clarify OFTO reactive power requirements at <20% output

6 June 2023

Online Meeting via Teams – addressing the Ofgem send-back

Agenda

#	Topics to be discussed	Lead
1.	Welcome and Introductions	Chair
2.	Send Back Process	Chair
3.	Objectives and Timeline	Chair
4.	Review Terms of Reference	All
5.	Proposer Presentation and Discussion	Proposer
6.	Any Other Business	Chair
7.	Next Steps	Chair


WELCOME

Send Back Process

Jonathan Whitaker – ESO Code Administrator

CM085 – Governance Rules for Send-Backs and Panel Asks

7.2.5.15 If the Authority determines that the STC Modification Report is such that the Authority cannot properly form an opinion on the STC Modification Proposal and any Alternative STC Modification(s), it may issue a direction to the STC Modification Panel:

(a) specifying the additional steps (including drafting or amending existing drafting associated with the STC Modification Proposal and any Alternative STC Modification(s)), revision (including revision to the timetable), analysis or information that it requires in order to form such an opinion; and

(b) requiring the STC Modification Report to be revised and to be re-submitted

and in the event of the Authority making such a direction STCP 25-2 shall apply.

April 2023 Panel agreed next steps following send-back on 31 March 2023:

They **NOTED** that Ofgem are asking for the Final Modification Report to be revised and resubmitted.

They **AGREED** that a Workgroup needs to discuss Ofgem's reasons for send-back prior to this being re-presented for recommendation vote.

May 2023 Panel **AGREED** the Terms of Reference.

Objectives and Timeline

Jonathan Whitaker – ESO Code Administrator

Timeline for CM085 as at 06/06/2023

Milestone	Date	Milestone	Date
Workgroup 1 – agree timeline, review terms of reference, proposer presentation, discussion of Ofgem's reason for send back.	6 June 2023	Final Modification Report issued to Ofgem	7 August 2023
Provisional Workgroup 2 – finalise discussion of Ofgem's reason for send back	6 July 2023	Ofgem decision	TBC
Draft Final Modification Report (DFMR) issued to Panel	19 July 2023	Implementation Date	TBC
Panel undertake DFMR recommendation vote	26 July 2023		
Final Modification Report issued to Panel to check votes recorded correctly (5 working days)	28 July 2023 – 4 August 2023		

Terms of Reference

Jonathan Whitaker – ESO Code Administrator

CM085 - Terms of Reference for Send Back

Workgroup Term of Reference

a) Address concerns raised by OFTOs regarding the regular utilisation of their reactive power equipment in sufficient detail to allow Ofgem to understand the impacts on OFTOs

b) Discuss and document why existing processes cannot be used to access the reactive capability at windfarm outputs below 20%, as suggested in STC Section C Clause 3.3.2/STC Section C Clause 4.14 and STCP 11.4

c) Confirm the process through which each OFTO system's capabilities would be calculated and confirm that each OFTOs reactive power compensation equipment would have been tested to this level as part of the commissioning process

d) Advise what the cost benefits to consumers will be by implementing this modification:

- The amount of reactive power capability that would be unlocked by the proposals that can be relied upon by NGESO in discharging their operational obligations and relevant TOs in discharging their obligations under the SQSS.
- The cost that NGESO would expect to incur to procure the reactive power that could otherwise be unlocked through this modification.
- The additional operation and maintenance costs that would be incurred by the OFTO in providing this service and any consequential impact on an OFTOs tender revenue stream.

e) Revise the FMR (final Modification Report) with documented details showing that Terms of Reference have been met. Resubmit to the STC Panel for review before sending back to Ofgem for a decision.

Proposer Presentation and Discussion

Terry Baldwin – National Grid ESO

Consider why existing processes cannot be used to access the reactive capability at windfarm outputs below 20% taking into consideration:

1. STC Section C Clause 3.3.2 that allows the ESO to propose modifications to the minimum OFTO's Services Capability Specification;
2. STC Section C Clause 4.14 that requires TOs to respond to ESO requests for provision of temporary Transmission Services in excess of their Normal Capability Limits and allows for the TO to notify ESO of any conditions that apply to the use of such temporary Transmission Services at technical limits above their Normal Capability Limits; and
3. STCP 11.4 through which Enhanced Operational Capability Limits can be accessed

ESO Response

It is not proposed to modify the SCS. ESO simply want to have confidence that the capability which is contained within the current SCS, which may exceed the minimum specified in the STCs, is available for the ESO to use so that the capacity can be included in studies, models and systems. This will enable efficient planning for the system by reducing the need to install additional reactive equipment where we are unsure if the capability exists.

Consider the process through which each OFTO system's capabilities would be calculated and confirm that each OFTOs reactive power compensation equipment would have been tested to this level as part of the commissioning process.

Consider cost benefits to the consumer, including:

a) The amount of reactive power capability that would be unlocked by the proposals that can be relied upon by ESO in discharging their operational obligations and relevant TOs in discharging their obligations under the SQSS.
b) The cost that ESO would expect to incur to procure the reactive power that could otherwise be unlocked through CM085; and
c) The additional operation and maintenance costs that would be incurred by the OFTO in providing this service and any consequential impact on an OFTOs tender revenue stream.

ESO Response

It is not proposed to operate the asset outside of its stated capability, therefore there is no requirement to recommission the asset.

The alternative is for ESO to procure additional reactive power, which has to be procured locationally making direct cost comparisons difficult.

It is expected that OFTOs would be running their reactive power assets whilst the wind farm is outputting lower than 20% of its rated MW due to the reactive gain of the cables and the requirement to maintain unity power factor (+/- 5%) therefore additional costs should be minimal.

Within the OFTO transmission licence the formula for IAT allows the OFTO to recover costs from a circumstance as a result of an STC change. Therefore if there were an increase in maintenance costs that could be evidenced to be as a consequence of this modification it could be recovered by this method which would be financially neutral to the OFTO. Future tenders should factor this into the bid and so would be a level playing field.

Any Other Business

Jonathan Whitaker - ESO Code Administrator

Next Steps

Jonathan Whitaker - ESO Code Administrator