ESO

Code Administrator Meeting Summary

Meeting name: GC0166 Workgroup Meeting 5

Date: 10/06/2024

Contact Details

Chair: **Milly Lewis (ESO)** milly.lewis@nationalgrideso.com

Proposer: **Steve Baker (ESO)** stephen.baker@nationalgrideso.com

Key areas of discussion

The Workgroup meeting focused on Actions updates including Slides from SME Bernie Dolan on Open Actions 11, 15 and 16, and Slides Presented by Chris Mcleod (Habitat Energy) regarding Technical vs Commercial considerations. The Proposer also ran through key points raised from the subgroup on the 4th o June. Legal Text changes were also reviewed.

Review Actions Log

The Chair led a review of the action log, with the Workgroup agreeing to close Actions 15,16,17 and 18.

- Action 11: Proposer ran through summary Discussion points from subgroup. ESO are seeking legal guidance and to raise discussions with Ofgem.

Action 15 Workgroup Discussion

There was feedback from the Sub-group that there is a need to verify when a party is able to redeclare MDO/MDB.
The ESO confirmed that their view is that this is only after a BOA or due to plant failure (after Gate Closure) but before that redeclaration can happen as often as a party wishes.
The most difficult scenario is in Case 4, when a Unit has a response contract.
When there is a large frequency deviation, batteries can run out of volume to deliver their response for following periods and so the argument is that a BMU would need to also redeclare their MDO/MDB inside Gate.

Further to previous discussion in early Workgroup meeting CM talked through the slides on Technical and Commercial natures and with regard to MDO/B for limited duration assets keeping in mind Ofgem's Open Letter on the treatment of Dynamic parameters.

The Workgroup discussed the scenarios within the slides which proposed the reasons for modifying / netting from a purely technical parameter, and the Workgroup were in broad agreement.

Where the BM Unit has an obligation to ring fence some reserved energy it was suggested that providers should not be encouraged to model expected DFR throughput as part of calculating MDO/MDB, but instead net the Contracted Energy requirement and periodically update based upon actual response delivery at a reasonable cadence or agreed trigger threshold.

It was the view of some Workgroup Members that battery storage providing frequency response will need to redeclare periodically.

The Workgroup agreed that in order to understand the differing impacts to providers (e.g. those who have a DRC Dynamic Response Contract) that 'A Day in the Life' would be useful as part of the Workgroup Consultation.

Legal Text

The Proposer talked through the updates that they had made to the legal text based on feedback from the Workgroup in previous meetings.

Grid Code Section	Code Requirements	Details
Glossary & Definitions	**Future State of Energy (FSoE)**	The volume of energy (MWh) under which an Electricity Storage Module would be depleted to zero.
	Maximum Delivery Offer (MDO)	As defined in BC1. A.1.5 Dynamic Parameters
	Maximum Delivery Bid (MDB)	As defined in BC1. A.1.5 Dynamic Parameters
	Data Validation, Consistency and Defaulting Rules	The rules relating to validity and consistency of data, and default data to be applied, in relation to data submitted under the Balancing Codes, to be applied by The Company under the Grid Code as set out in the document "Data Validation, Consistency and Defaulting Rules" - Issue 8, dated 25th January 2012. The document is available on the National Grid website or upon request from The Company.

Grid Code Section	Code Requirements	Details
Balancing Code 1	APPENDIX 1 - BM UNIT DATA BC1. A.1.5 Dynamic Parameters Delete Maximum Delivery Volume (MDV),	~~•Maximum Delivery Volume (MDV), expressed in MWh, being the maximum number of MWh of Offer (or Bid if MDV is negative) that a particular BM Unit may deliver within the associated Maximum Delivery Period (MDP), expressed in minutes, being the maximum period over which the MDV applies.~~
		•Maximum Delivery Offer (MDO), being the maximum volume of an Offer by a BM Unit, which can be instructed by The Company through Bid Offer Acceptance (BOA) instructions to the BM Unit, the volume excludes energy required to satisfy System Ancillary Services and/or Commercial Ancillary Services such as response and reserve commitments.

	APPENDIX 1 - BM UNIT DATA BC1. A.1.5 Dynamic Parameters Insert new Parameters for Short Duration assets	•Maximum Delivery Bid (MDB), being the maximum volume of a Bid by the BM Unit, which can be instructed by The Company through Bid Offer Acceptance (BOA) instructions to the BM Unit, the volume excludes energy required to satisfy System Ancillary Services and/or Commercial Ancillary Services such as response and reserve commitments.
	APPENDIX 1 - BM UNIT DATA Add BC1.A.11 section on Battery SoE Modelling	BC1.A.11 **Electricity Storage Module Future State of Energy (FSoE)** Modelling BC1.A.11.1 **Generators** in respect of **Electricity Storage Modules** must provide relevant data to allow for modelling of **Future State of Energy (FSoE)** and the limits of operation of an **Electricity Storage Module** must obey. BC1.A.11.2 As a minimum **Generators** in respect of **Electricity Storage Modules** must provide Import and Export efficiency and **Electricity Storage Module Future State of Energy** limits resulting from commercial contracts and other technical limitations. Whenever **Future State of Energy** limits change, **Generators** in respect of **Electricity Storage Modules** must supply future limits for the ensuing 24 hours. BC1.A.11.3 [means of communication to be inserted/ defined].

The Workgroup discussed the requirement for a FSoE and new definitions and requested the ESO provides “day in the life of” modelling to understand it properly, including the scheduling phase.
The Proposer confirmed that FSoE is for when in scheduling phase need to know energy that can be drawn on in future time as MDO and MDB on their own don't give enough clarity.
A Workgroup Member queried if the Proposer could look to have a MDO & MDB definition which makes it storage specific in the wording. The Proposer confirmed that the ESO view is that everyone should send in new parameters but where appropriate use large default values (which are yet to be defined).

The Workgroup queried what ‘means of communication to be inserted/defined’ meant, the Proposer stated that they were looking into this and would come back to the Workgroup with potential options.

The Workgroup discussed whether there is a need to reference future pumped storage in the Legal text, the Proposer reaffirmed that their intent was for the solution to be technology neutral and avoid calling out specific technologies and thus providing some future proofing.

Review Timeline

The Workgroup agreed to extend the length of the next Workgroup meeting to ensure there was time to finalise the Workgroup Consultation.

Any Other Business

None

Actions

Action number	Workgroup Raised	Owner	Action	Comment	Due by	Status
4	WG2	SB	Expectation and scope of GC0166 in relation to newly built or yet to be built Pump Storage not covered by the existing Pump Storage Grid Code defined term and any potential unfair treatment this may cause,		WG5	Open
7	WG3	ML	Clarify which Company business areas Workgroup members are representing.		WG5	Open
14	WG4	BD/SB	BC11 Definitions: Consider removing ‘to The Company’		WG5	Closed
19	WG4	SB	To review BC1 Definitions for MDO/MDB: consider expressions 'deliver' and 'receive’.		WG5	Closed
20	WG4	SD	To confirm with BSC Panel what stage of approval they require ahead of starting the BSC modification		WG5	Open
21	WG5	SB/BD	To Provide ‘Day in the Life’ examples so workgroup members have more of an understanding of certain fuels. This will also give better understanding FSoE and new definitions		WG6	Open
22	WG5	SB/BD	To Provide ‘Day in the Life’ examples so Workgroup members have more of an understanding of technology types.		WG6	Open

Attendees

Name	Initial	Company	Role
Milly Lewis	ML	Code Administrator, ESO	Chair
Sean Nugent	SN	Code Administrator, ESO	Tech sec
Steve Baker	SB	ESO	Proposer
Chris McLeod	CM	Habitat Energy	Workgroup Member
Damian Jackman	DJ	Field Energy	Workgroup Member

Eli Treuherz	ET	Arenko	Workgroup Member
Graz Macdonald	GM	Waters Wye & Associates	Workgroup Member
Jasper Vermandere	JV	YUSO	Workgroup Member
Kamila Nugumanova	KN	Drax Group	Workgroup Member
Lauren Jauss	JL	RWE Supply & Trading GmbH	Workgroup Member
Maria Popova	MP	Centrica	Workgroup Member
Peter Errington	PE	Flexitricity Ltd	Workgroup Member
Richard Devenport	RD	Shell	Workgroup Member
Robert Longden	RL	Cornwall Insight/Eneco Energy Trade BV	Workgroup Member
Mark Steger	MS	EDF Energy (UK)	Workgroup Member
Shantanu Jha	SJ	Zenobe	Workgroup Member
Simon Lord	SL	Engie	Workgroup Member
Stephen Knight	SK	SSE	Workgroup Member
Andrei Bejan	AB	ESO	Observer
David Graves	DG	Quorum Development	Observer
Olly Frankland	OF	Electricity Storage Network/Regen	Observer
Pete Noyce	PN	KrakenFlex	Observer
Shivam Malhotra	SM	LCP Delta	Observer
Steve Dale	SD	ESO	Observer
Sushanth Kolluru	SK	Krakenflex	Observer
Richard Devenport	RD	LCP Delta	Observer
Daniel Moore-Oats	DM	Arenko	Observer