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Meeting summary

Grid Code Development Forum – 2 August 2023

Date:	02/08/2023	Location:	MS Teams
Start:	09:00	End:	10:40

Participants

Attendee	Company	Attendee	Company
Jamie Webb	National Grid ESO (Chair)	Rob Selbie	Zenobe
David Halford	National Grid ESO (Tech Sec)	Nicola Barberis Negra	Orsted
Bernie Dolan	National Grid ESO (Presenter)	Lisa Waters	Waters Wye
Yichen Liu	National Grid ESO (Presenter)	Oluwabukola Daniel	EDF Renewables
Jeno Abraham-Kodmon	National Grid ESO (Presenter)	Nosa Oronsaye	EDF Renewables
Karen Kelly	National Grid ESO	Ruth Kemsley	EDF Renewables
Stephen Baker	National Grid ESO	Harry Burns	EDF Renewables
Deborah Spencer	National Grid ESO	Faiva Wadawasina	Renantis
Usman Farooq	National Grid ESO	Julie Richmond	Scottish Power
Lizzie Timmins	National Grid ESO	Graeme Vincent	SP Energy Networks
Terry Baldwin	National Grid ESO	Mark Ajal	SSE
Natasha Bayler	National Grid ESO	Garth Graham	SSE
Alan Creighton	Northern Powergrid	Andrew Colley	SSE
Sreedhar Desabhatla	GE Vernova	Jacqueline Wilkie	SSE
Harry Hutchinson	Gresham House	Tom Robinson	Our Footprints
Alex Aristodemou	National Grid	Salehi Parsa	Axpo Solar
Steve Quinn	National Grid	Paul Youngman	Drax

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Agenda and slides

A link to the Agenda and Presentations from the August GCDF can be found here.

GCDF

Please note: These notes are produced as an accompaniment to the slide pack presented and provide highlights only of discussion themes and possible next steps.

Meeting Opening – Jamie Webb (GCDF Chair) & David Halford (GCDF Tech Sec), NGESO

The meeting was opened, with an overview of the agenda items that will be covered.

Grid Code Review Panel – Pending Authority Decision Updates

It was noted that an update had been shared by the Authority at the July Grid Code Review Panel in respect of a revised expected decision date for Grid Code Modification – GC0148 - Implementation of EU Emergency and Restoration Code Phase II. The expected decision date is now the 18th August 2023 (previously 19th July 2023)

Presentation: Parameters for Storage BM Units – Bernie Dolan, NGESO

A presentation was shared documenting options in relation to defining new parameters for Storage BM Units to enable more accurate data to be provided to the ESO.

Discussion themes / Feedback

A question was asked in relation to stacking of services, and the assumption is that the ESO would need to consider the level of charge that would need to be sterilised for contracted plant providing restoration services?

Yes, we agree that this would need to be considered.

Is there a potential that we are over complicating this and all that the ESO would require would be how much energy a unit can either give or absorb? Why do you think it's useful for the ESO to be doing state of charge modelling? It feels like this could be very complex without the amount of current and future storage providers.

This is part of the debate that has been taking place within the storage forums. There is obviously a view that would keep things very simple, but there is also a view that in order for the ESO to understand the unit in the longer term, and therefore using them later on rather than using them immediately, information such as state of charge is something we would need.

One of the main problems that battery and storage providers tell us is that a conventional unit may have a longer minimum non-zero time and if we instruct it now, it's price may not be very good later on, but we cannot bring on the storage units. With more sophisticated modelling we can make a different decision as we know the battery will be available later on rather than, as the issue the Control Room sees from time to time are storage units disappearing from the plan due to other circumstances.

The presentation today is about presenting the options which have been considered by the storage forum community at this time.

There were some concerns raised in relation to what the actual 'problem statement' was. Is it that there is a view that the ESO isn't taking assets when it should be or not instructing them in a way which is meaningful? It was noted that further work should be completed in terms of the actual problem statement.

It was mentioned that Grid Code Modification – GC0139, is looking at data sharing from Network Operators which ESO use for demand forecasting, and does the Demand Forecasting Group which has been set-up have any further information that they can share?

This is something the ESO can take away and discuss with the Demand Forecasting Group. There is also the opportunity to get involved and join these groups. We can also look to share information via these forums.

Presentation: Increase in the number of instructions to BMUs – Bernie Dolan, NGESO

An overview was provided in relation to the ESOs new Bulk Dispatch Optimiser which is due for release in December 2023, and an increase in the number of instructions sent to some BMUs as a result of this release.

Discussion themes / Feedback

It was asked what the definition of the 'Small BMU Zone' was?

This is an action that the ESO will take away and come back to the group with an answer.

It was asked why the 15th December has been chosen as a go-live data as we will be in the middle of winter. Could there be risks around launching this new capability at this time of the year?

There is driver to get this new tool in place as soon as is practically possible, especially during winter periods, with the 15th December being the earliest date.

The tool will be available to Control Engineers as and when is required and will not be running automatically. We will be ensuring that additional support is available over the Christmas period, but we do recognise that this will be close to code freeze periods.

Why is this tool only being limited to two parts of the market (Small BMU Zone and Battery Zone)?

Additional IT capability is required for multi zone despatch, and we expect this option to be available in the next release of the tool current scheduled for March 2024. The Control Room will of course still be able to instruct other BMUs which tend to be larger BMUs in other zones, so we don't see any distortion in the market prior to the multi zone despatch capability being available.

There have been some concerns raised from small plants that they have no dynamic parameter for them to say to the ESO that should not be started, and the concern is that this new tool has the potential to continually 'Stop and Start' the small unit in an unmanaged fashion. Is there anything a small unit could do apart from price to stop them being instructed? Do we need other parameters to reflect the technical capabilities of the plant as otherwise we could see some high process during the winter period?

We are aware that this issue has been discussed at industry events and we are currently in the process of getting some policy advice. We are currently discussing this within the ESO in order to provide a definitive answer.

It was asked that in light of the go-live of the tool on the 15th December, it was asked if Industry could be made aware of the outcome of any 'Go No/Go' decision at the Operational Transparency Forum (OTF) in December (ideally the OTF on the 6th December), and if the release is delayed then what would be revised date of go-live?

The ESO will take these comments on board to ensure Industry are kept up to speed in terms of confirming the release is on track and also what any revised go-live dates would be in the event of any delays.

How does the future number of instructions that could be sent compare to the current system?

The current system is a manual process, with each Control Engineer taking around 30 seconds to create an instruction, with three engineers normally creating those instructions. With this in mind, you can see the order of magnitude in terms of future capability, with for example an engineer being able to create 20 instructions with a simple press of a button.

We have been working with Elexon as we are aware that it won't just be the rate of instructions that will be increasing but also reporting and settlement systems that will need to be able to accommodate these higher numbers.

Although the ESO will be reaching out to known software providers to make them aware of this new tool, we would appreciate if could make your software providers aware of this and feedback any questions that may arise.

The ESO will evaluate based on feedback, if some BMUs should be removed from this process and still instructed manually and we will also be sharing test results via our Optimisation Stakeholder Forum in order to give stakeholders a feel for the capabilities of the tool in terms of numbers. This forum was set-up to make Industry aware of the details of the Bulk Despatch Optimizer and explain how the tool works and provide documentation in relation to it.

Presentation: Data collection from Dynamic System Monitoring (DSM) Systems– Yichen Liu, NGESO

A presentation was shared in relation to potential options for future data collection from Dynamic System Monitoring (DSM) systems prior to questionnaire which will be sent to Industry to capture feedback.

Discussion themes / Feedback

It was asked if this project is only in relation to TO connected parties or will it also include DNO connected parties with some Grid Code requirements?

This will be for TO connected parties only, but we would be looking to make any systems future proof to be capable of collecting data from DNO Connected parties.

Will this be all connections to the TO system such as Interconnectors and STATCOMs?

Yes, this will apply to all Grid Code Users connected to the TO network.

In terms of the DSM equipment itself, can the ESO confirm that this is owned by the Generator, Interconnector, STATCOM operator itself, or this owned by National Grid or the ESO?

The DSM is owned by the Grid Code User as part of the Grid Code requirements.

Would any changes required need to be applied retrospectively to DSM equipment that customers already have, as potentially the ESO might not have the information required to understand why a fault has occurred if retrospectivity was not applied?

This would depend on the final solution as we are investigating how this would be applicable to new connections as well as existing DSM units on the network. We need to ensure that the solution can connect to different OEM providers from a legacy perspective.

It was noted that this initiative is welcomed as it can be very difficult currently in terms of how Users give access to DSMs to ESO as there appears to be different approaches from different Users and consistency would be welcomed.

Has the ESO considered the number of future connections and how they will be engaged with these potential changes if for example they aren't due to connect until 2027? In terms of a system that could be running across the whole of GB supporting huge numbers of remote connections, how will these be managed by the ESO as it could be a very onerous process to manage? How often would the ESO actually need immediate access to each Grid Code Users DMS system?

Looking forward, the ESO believe that this data will be very important as we see an increase in events taking place on the network which requires analysis of DSM data. As part of the DSM data collection, we are investigating some automatic solutions where the data is analysed through the system and as with a fault recorder, gives an indication of where the system issue has occurred. So, while the volumes of data received could be very large, we would be looking for this data to be automatically analysed through an analytical platform.

Would the data only be uploaded to the system in the rare events where a fault occurs, and would this remove any obligations for other parties to hold the data?

There is already a 28-day requirement for the DSM unit to able to store the data, but our plan is that the system could hold this data for longer.

One option is that if an event occurs, we will request the data to be uploaded to a portal within 20 days of the event taking place. This would require less investment from an IT perspective. Once the data has been uploaded, the ESO would be able to hold this data for a longer period of time for analysis.

The second option is more robust and require data to be continuously flowing into the system which could be constantly analysed.

It was asked if the same thoughts around this new system would also be applied to Ancillary Service Monitoring (ASM) Data?

ASM is not being considered as part of this new system at this time.

It was noted that the DSM specifications are currently documented within An ESO Electrical Standard document and not part of the Grid Code. Does that mean the ESO can seek comments and opinions, but in theory the ESO has the ability to amend as they see fit?

We don't believe that to be the case as the Electrical Standard document details the technical specification for the DSM unit, with this project looking at the system which could be used to collect and analyse this data. There are different options that the ESO needs to consider which would involve varying degrees of complexity. We are now starting to see new IT solutions being developed by universities and other institutions using open platforms for dynamic data collections and analysis which could enable to the ESO to respond to situations and implement solutions to protect Users on the network.

There were substantial discussions in relation to data and data ownership, sharing of data with other parties, and possible scenarios where the User may have to potentially purchase the analysis from the data that they have supplied. It was suggested that a Grid Code change could be made to codify these arrangements.

This is certainly an area that the ESO understands is a concern for Users and something that we will take way and consider.

We invite Users to respond to the forthcoming questionnaire that will be issued.

It was asked if the ESO could return back to a future GCDF with an update once the questionnaire has closed and feedback on the next steps, and also ensure the questionnaire is publicised at a future Operational Transparency Forum once it has been issued?

Yes, that will be arranged.

AOB

Attendees were reminded that the GCDF can be used by any industry party to present potential Grid Code changes and future agenda items are welcomed.

The Chair thanked the attendees and presenters for their contributions and closed the meeting.

The next GCDF will be held on the 6th September 2023 with the 30th August being the deadline for agenda items and presentations.

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Action Item Log

Action items: In progress and completed since last meeting

ID	Agenda Item	Description	Owner	Notes	Target Date	Status
2309	Bulk Despatch Optimiser	What is the definition of a 'Small BMU Zone'?	Bernie Dolan		September	In Progress