

Code Administrator Meeting Summary

GSR029: Review of Demand Connection Criteria to Align with EREC P2/7 Workgroup 6

Date: 12 December 2022

Contact Details

Chair: Milly Lewis, National Grid ESO milly.lewis@nationalgrideso.com
Proposer: Can Li, National Grid ESO can.li@nationalgrideso.com

Key areas of discussion

The Workgroup discussions are summarised according to agenda items:

Review of Actions Log

The Workgroup reviewed the Actions Log and agreed to close action 20, 21, and 22. Actions 15 and 22 were closed off during the meeting. Actions 5 and 7 are still open as they are pending on data the TO (Transmission Owner) reps need to provide. Action 14 and 16 are still open as more investigation is needed. Action 17 is still open as Dynamic Containment have not progressed on battery contracts.

Imperial College London (ICL) Report queries

PD went through slide 10 from the [presentation pack](#). These were the responses to questions regarding the Imperial College London (ICL) report for Demand security contribution – EREP 130/131. It was mentioned that Approach 3 has potential, but the points need to be taken forward. Key messages were that the methodology is considered by ICL to be suitable for assessing large power stations and energy storage (as long as the correct input is used).

However, the study did not use generators that have operational limits and there would need to be additional guidance for Balancing Mechanism (BM) connected generators. If NGET or ESO write in the code that networks operators should apply EREP 130 then that would mostly likely happen. It needs to be considered if this is actually the correct approach for National Grid. Application 1 and 2 were decided that they are not relevant for power stations.

It was considered if the demand security contribution data submission process was suitable. The TOs would run the assessment agreed in the SQSS according to the Week 24 data submission, it will be heavily dependent on the group demand data received. It should identify the gaps of demand security required for TOs and the correct input such as Persistence time, and what time of year the security contribution would be required. Profiles used would need to be gross for demand profiles and net for everything else. However, individual DNOs don't always have that information. Could be that the majority of cases can be easily implemented, with exceptions having separate data and conversations.

Presentation of updates

CL went through a flow diagram on slide 3 for the three group demand contribution options for storage assessment to see how to perfect them. To improve, it was discussed that the ESO need to provide descriptive guidance to see the impact of Battery Energy Storage Systems (BESS)s such as using Week 24 submissions. There should be consistency in the approach for assessments and possibly set up a separate workstream for detailed storage assessments from various industry parties, and to think about how it can be extended to the transmission process. Industry could tease out demand profiles over a number of years to see what the diversity is. There is a need to focus on contribution of storage and what we expect from a new connection, existing connections activity and how to manage uncertainty. There may be possible duplication with the GB Connections Reform project. There is space to perform a scoping exercise on the guidance principles to decide the level of detail, and how to calculate a reasonable impact of GSP demand that a new connection could have for planning purposes.

CL went through another flow diagram on slide 5 for the three options and the interactions between Customer A and B. There were concerns on how the diagram can be put in practice, and the thought was to initially apply 25MW at peak time to see if there was still capacity and how to utilise what was remaining. Planning assumptions at time of connections need to be considered, as well as how to endure assumptions after connection and accessing storage.

The group demand assessment proposed changes were agreed by the Workgroup.

Workgroup agreed in principle the amended legal text definition of group demand.

For the demand security contribution for storage, the ICL responses need to be expanded on by the Workgroup and define contracted and non-contracted.

CL went through the flow diagram of the demand security contributions for tertiary/ Transmission Interface Point (TIP) connections. It was discussed that more data on storage is needed. There needs to be consistency in principles for distribution and transmission. After speaking to the connections team regarding storage contribution, the Workgroup can consider a common approach.

Regarding the demand security contribution forecast, the Workgroup agreed. However, there may be a need to expand on the first point from the ICL slide 10 as it applies to connection power stations rather than a single station. The DNO guidance would need to be updated in terms of submitting their Week 24 data in future years.

The impact assessment for demand security contribution, and the demand security contribution data submission process, will be addressed via the action to run a simulation.

No issues with SQSS legal text 3.7, 3.13, 3.14 on slide 16.

For SQSS legal text 3.15 on slide 17, it was separated out in Version 2 where the DNOs are going to contribute from TIP connected customers.

AOB / Next Steps

The Chair summarised next steps as follows:

- Next meeting to be 18 January 2023

Actions Log

Number	Action	Owner	Status
5	TOs to provide feedback on the impact assessment for group demand using Method 1 and/or Method 2 (depending on the site)	TO Reps	Open
7	TOs to assess the contribution from large power stations using the methodology in in EREP 130 and compare with the current practice to understand the impact for the change.	TO Reps	Open

14	Check persistence time for the SQSS table 3.2 in GSR008	BA/ TB	Open
15	Review Imperial College Report and speak to authors for clarity	BA, AC, CL	Closed
16	Understand how battery output in the ESO POUYA model is produced. Invite connections team member to discuss the Connections Reform project at the next Workgroup. Clarify with Djaved what other work is being done and if it's applied across all TOs.	BA	Open
17	Speak to ESO Pathfinder and market services reps to see contracts the ESO have with batteries. Invite market services team member to next Workgroup.	BA	Partly closed
19	Confirm which section of the Grid Code links to GSPs/ demand contracts (Operating Code 2 or Planning Code)	BA	Open
20	Confirm if the questionnaire prepared by the connections team is being used in SPT	GV	Closed
21	Provide contact for Access SCR expert	AC/AH	Closed
22	Proposer to provide Workgroup with scenarios for Data submission	CL/BA	Closed
23	Check Elexon data to assess significance of BM actions	BA	Open
24	Run a simulation assessment, arrange a session with DNO and TO reps.	CL, LF, PS	Open
25	Circulate amended SQSS legal text regarding group demand with Workgroup	CL	Open
26	Provide an update on the group demand impact assessment at the next Workgroup	PS	Open

Participants

Attendees	Initial	Company	Position
Milly Lewis	ML	Code Administrator National Grid ESO	Chair
Jessica Rivalland	JR	Code Administrator National Grid ESO	Technical Secretary
Catia Carvalho Gomes	CCG	Code Administrator National Grid ESO	Observer
Alan Creighton	AC	Northern Powergrid	Workgroup Member
Bieshoy Awad	BA	National Grid ESO	Alternate
Can Li	CL	National Grid ESO	Proposer
Graeme Vincent	GV	SP Energy Networks	Workgroup Member
Le Fu	LF	National Grid Electricity Transmission	Workgroup Member
Matthew White	MW	UK Power Networks	Workgroup Member
Peter Stanton	PS	National Grid Electricity Transmission	Alternate
Andy Hood	AH	Western Power	Workgroup Member
Roddy Wilson	RW	Scottish & Southern Energy	Workgroup Member
Terry Baldwin	TB	National Grid ESO	Workgroup Member
Zivanayi Musanhi	ZM	UK Power Networks	Observer
Gary Louden	GL	Electricity North West	Workgroup Member
Pedrag Djapic	PD	Imperial College London	Presenter
Goran Strbac	GS	Imperial College London	Observer

For further information, please contact the Code Administrator.