

GC0106 update

National Grid

17th September 2018

Background

- Data exchange modification driven by Title II of SOGL Article 40 – 53
- In June, the GCRP instructed the WG to workup the assessment and impact of WACM2 for submission to the panel in September and to the Authority in October 2018 on the proposer's assumption that legal text already exists.
 - WACM2 legal text assumed to exist, with only thresholds to be determined
 - No legal text for WACM1 as it is a legal question but must allow time in the timeline in case the Authority send it back requesting full legal text ahead of the compliance deadline
 - Action to submit WG report and letter to Authority outlining panels decision as per GR21.5

GC0106 Proposals

1. Original Proposal
 - Minimum necessary change and cost
 - Maintain existing GB frameworks
2. WAGCM1
 - Interpretation of SOGL Article 40.5
3. WAGCM2
 - Parity of data treatment for all Generators in GB
4. WAGCM3
 - Combination of WAGCM1 and WAGCM2

Progress with WAGCM2 Pre GRCP August Panel Meeting

-
- Part G Code legal text started, D Code implications uncertain, but would have significant retrospective costs for embedded generators
 - Real time data ECC.6.4.4 text circulated but data transfer mechanism needed to be discussed and agreed
 - Structural data PC3.3 text circulated – but detailed consideration of DDRC v DRC not yet started
 - Scheduled data OC2 and BC1/2 changes are more complex and require consideration
 - Challenges determining GB harmonised threshold
 - WG agreed 10MW as an assumption
 - 10MW (SHETL) threshold results in high implementation costs compared to 50MW (E&W)
 - WG agreed 10MW appropriate considering impact on system operation
 - Commonalities with GC0117

Questions Raised at the August GCRP Panel

-
- National Grid and the DNOs do not believe it is economic or efficient to address WACM2 and GC0117 in isolation and would recommend that this issue is addressed through GC0117 to give industry the best opportunity to discuss and understand the implications of these changes
 - The Workgroup acknowledge that it will be difficult to implement the GC0106 work in the timescales required. If this timescale is not met there is the risk of the UK being non-compliant with EU law.

Outcome of the August GCRP Panel

-
- It was agreed at the Panel that the Proposer of GC0106 WACM2 (SSE) should prepare the draft legal drafting with further discussions to be held.
 - In response, a webex was arranged on 28th August. Prior to this, the proposer of GC0106 WACM2 had prepared comments (but not complete legal text) in relation to the Structural and Real Time Data but nothing in respect of the Scheduled data.

GC0106 WACM2 Meeting – 28th August

-
- At the Webex held on 28th August between National Grid and the proposer, the background was discussed and it was agreed that the GC0106 WACM2 proposal should only apply to Transmission Connected SGU's
 - This makes the process much simpler as any party who is directly connected (irrespective of size) will need to sign the CUSC and satisfy the applicable requirements of the Grid Code in addition to satisfying the requirements of the BSC (ie party to the wholesale market) which is an important element of the Scheduled data.
 - It was noted that there would still be a difference between the data requirements for Embedded Power Stations connected in different Transmission areas. It was noted that this issue could more easily be addressed through changing the terms of Reference for GC0117.
 - SOGL does allow flexibility in selecting the data required from SGUs at a National level.
 - For Transmission connected SGUs, checks would need to be made that the data supplied by Generators in respect of Transmission connected Small, Medium and Large Power Stations are the same – see subsequent slides.

Data Requirements in respect of Transmission Connected Small, Medium and Large Power Stations

- Under SOGL the data to be covered includes
 - Structural Data
 - Scheduled Data
 - Real Time Data
- A review of the Grid Code reveals there are some differences in the data between Transmission Connected Small, Medium and Large Power Stations but these are relatively minor
- The principle changes relate to structural data and scheduled data with very limited impact on real time data

DRC Structural and Scheduled data differences – Transmission Connected nationalgrid

Small, Medium and Large Power Stations (1)

DRC Schedule	Transmission Connected Small	Transmission Connected Medium	Transmission Connected Large
Schedule 1 – Power Generating Module and HVDC Data	•	•	•
Schedule 2 – Generating Planning Parameters		• (Part)	•
Schedule 3 – Large Power Station Outage Programmes, Output Useable and Flexibility Information			•
Schedule 4 – Large Power Station Droop and Response Data			•
Schedule 5 – Users System Data	•	•	•
Schedule 6 – Users Outage Information	•	•	•
Schedule 7 – Load Characteristics at Grid Supply Points			
Schedule 8 – Data supplied by BM Participants	•	•	•
Schedule 9 – Data supplied by The Company to User's	•	•	•

DRC Structural and Scheduled data differences – Transmission Connected nationalgrid

Small, Medium and Large Power Stations (2)

DRC Schedule	Transmission Connected Small	Transmission Connected Medium	Transmission Connected Large
Schedule 10 – Demand Profiles and Active Energy Data			
Schedule 11 – Connection Point Data			
Schedule 12 – Demand Control			
Schedule 13 – Fault Infeed Data			
Schedule 14 – Fault Infeed Data (Generators)	•	•	•
Schedule 15 – Mothballed Generating and HVDC Data	•	•	•
Schedule 16 – Black Start Information			•
Schedule 17 – Access Period Data			
Schedule 18 – Offshore Transmission System Data			
Schedule 19 – User Data File Structure Data	•	•	•

-
- The main differences relate to the structural and scheduled data in Schedules 2, 3 and 4
 - Schedule 2 – Generation Planning Parameters – Changes may be required to the Planning Code and OC2 but these are likely to be minimal due to inclusion of the term Genset (which includes direct connections) but some house keeping may be required
 - Schedule 3 - Large Power Station Outage Programmes, Output Useable and Flexibility Information – Some changes are likely to OC.2.4.1.2.1, OC2.4.1.2.2, Planning Code and general housekeeping
 - Schedule 4 – Large Power Station Droop and Response Data – would require changes to PC.A.5.5
 - General updates would be required to the Data Registration Code in respect of the above consequential changes

-
- There are some differences to the Structural and Scheduled data requirements for directly connected Large, Medium and Small Power Stations
 - There is no real difference between the real time data requirements for directly connected Small, Medium and Large Power Stations.
 - For existing generation, schedule 4 data will generally be left blank as Small Power Stations and Power Park Modules less than 50MW do not need to provide frequency response
 - Although these changes are small it would result in marginally increased costs for Generators – some of which would need to supply more data than they currently do which would have a small but minor cost
 - For Embedded Generation there will always be a discrepancy between Transmission Areas as a result of the regional differences but, it is considered that parity is best achieved through GC0117 in that it has the ability to globally change the definition of Large, Medium and Small in respect of all aspects other than just data