

GC1039 Annex 10 - Observability Area

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Background

1. GC0106 was the Grid Code modification that implemented Articles 40-53 of the EU Regulation System Operation Guideline (SOGL)¹.
 - Article 40 relates to general roles and responsibilities.
 - Article 41 relates to structural and forecast data.
 - Article 42 relates to the real time data exchange between TSOs.
 - Article 43 relates to the structural data exchange between TSOs and DSOs.
 - Article 44 relates to the real time exchange between TSOs and DSOs.
 - Article 45 relates to the structural data exchange between TSOs and transmission connected power generating modules/HVDC System Owners/Interconnectors.
 - Article 46 relates to the scheduled data exchange between TSOs and transmission connected power generating modules.
 - Article 47 relates to the real time exchange between TSOs and operators of Type B, C and D Power Generating Modules.
 - Article 48 relates to the structural data exchange between TSOs, DSOs and distribution connected Power Generating Facilities which are SGUs and/or comprise Type B, C or D Power Generating Modules.
 - Article 49 relates to the scheduled data exchange between TSOs, DSOs and distribution connected power stations (i.e. SGU's comprising Type B, C or D Power Generating Modules).
 - Article 50 relates to the scheduled data exchange between TSOs, DSOs and distribution connected power stations (i.e. SGU's comprising Type B, C or D Power Generating Modules).
 - Article 51 relates to data exchange between TSOs, DSOs concerning significant power generating modules in accordance with the requirements of Art 48, 49 and 50
 - Article 52 relates to data exchange between TSOs and transmission connected demand facilities.
 - Article 53 relates to data exchange between TSOs and transmission connected demand facilities or third parties participating in demand side response.
2. The Grid Code GC0106 modification, approved by Ofgem, (the Original Modification) was based on an interpretation of SOGL that NESO has some flexibility in the application of some of the Articles in SOGL, as provided for in Article 40.5, including Articles 44, 47, 48, 49, 50, 51, 52 and 53. The flexibility doesn't extend to Article 43, 45 or 46.
3. The intent of GC0106 was to make only the necessary changes to comply with the specific Articles in SOGL without unnecessarily changing the information exchange with NESO.

¹ The following list, for completeness summarises all the articles referenced in GC0106. Articles 40 to 44 specifically reference observability area whilst Articles 45-53 don't.

4. The observability area as defined SOGL: means a TSO's own transmission system and the relevant parts of distribution systems and neighbouring TSOs transmission systems, on which the TSO implements real-time monitoring and modelling to maintain operational security in its control area including interconnectors.
5. In relation to Article 43 (where there is no NESO implementation flexibility), GC0139 is proposing to require structural data for the entirety of the DNOs' sub transmission systems in order to provide NESO with additional transparency; effect this is increasing the present scope of the observability area from the DNOs assets at Grid Supply Point substation (and in some cases the sub transmission system) to all of the DNO's sub transmission system (and in some cases the DNO's system operating below this voltage).

Implications for DNOs re providing real time data for assets in the observability area

6. There is the question as to whether, under Article 44 (real time data exchange between TSOs and DNO), there is also a need for DNOs to provide real time information in relation to assets within the observability area. Under Article 40.5, supported by the basis on which GC0106 was approved, NESO has flexibility on the extent to which it wishes to apply Article 44. GC0139 is focussed on the exchange of planning data (i.e. structural and scheduled data) rather than real time data, hence it is reasonable to conclude that there are no implications arising from SOGL in relation to the exchange of real time data, as the provision of real time data is outside the scope of GC0139, and NESO can exercise flexibility under Article 40.5. In the future NESO may seek to obtain real time data from assets within the observability area, but that would be the subject of another Grid Code Modification Proposal.

Implications for distribution connected power generation modules data for assets connected in the observability area

7. There is also the question as to whether, under Article 48-50 (structural, scheduled and real time data exchange between TSOs and DNO and distribution connected power generating modules), there is also a need for DNOs and power generating modules owners to provide structural, scheduled real time information in relation to assets. However, these articles make no reference to the observability area, hence extending the observability area in GC0139 does not have any implications for the interpretation of these articles. In the future NESO may seek to obtain real time data from assets, but that would be the subject of another Grid Code Modification Proposal.

Summary

8. The workgroup considered whether there were any implications, specifically relating to the provision of real time data, arising from Articles 40-52 of the EU Regulation System Operation Guideline (SOGL). The implementation of these Articles was addressed by GC0106 - Data exchange requirements in accordance with Regulation (EU) 2017/1485 (SOGL).
9. In relation to DNO networks, there are three key Articles: 40, 43 and 44 which relate to data exchange within the observability area. Article 40.5 sets out that NESO has some flexibility in the interpretation of some Articles including Article 44 but not Article 43. Article 43 relates to structural data; GC0139 is seeking to extend the scope of a DNOs network where planning data needs to be exchanged, and this could be interpreted as expanding the observability area. However, Article 44, which relates to real time data, is an Article where NESO has flexibility in terms of its interpretation. GC0139 is focussed on the exchange of planning data (i.e. structural and scheduled data) rather than real time data, hence it is reasonable to conclude that there are no implications arising from SOGL in relation to the exchange of real time data.

10. In relation to power generating modules connected to DNO networks, there are four key Article: 40, 48, 49 and 50 which relate to data exchange. However, these articles make no reference to the observability area, hence extending the observability area in GC0139 does not have any implications for the interpretation of these articles.
11. Hence the workgroup believe that there are no unintended SOGL related consequences associated with GC0139, and if NESO require further information for assets in the observability area that would be the subject of a future Grid Code Modification Proposal.