

## **Grid Code Review Panel**

### **Grid Code Requirement for Electronic Communication Facilities between NGET and BM Participants**

#### **Summary**

1. This paper provides an update to the work carried out by the C/10 Working Group.
2. C/10 was presented to the GCRP in May 2010 (pp10/11) where it was agreed for a Working Group to be formed. An update was presented to the September 2010 GCRP detailing the discussions that had taken place at the first Working Group meeting on 20<sup>th</sup> August 2010.
3. Following the above Working Group meeting, National Grid was tasked with determining the impact new requirements would have on users and the associated costs. This work has now been carried out and is detailed in the proposed solution section of this paper.

#### **Background**

4. The principal means in which NGET access balancing services is via Electronic Despatch Logging (EDL). EDL is the means by which instructions are issued by NGET and certain data submitted by Generators. It is known in the Grid Code as an 'automatic logging device'. Control Telephony is used as a backup in the event of failure of EDL.
5. C/10 was presented to the GCRP in May 2010 to address a discrepancy within the Grid Code regarding the requirement to install an automatic logging device. Under the current Grid Code drafting, if a user does not wish to participate in the Balancing Mechanism (BM) they are not required to install an automatic logging device. This contradicts BC2.6.1(a) which states that all ancillary service instructions shall be given by automatic logging device, and the Balancing Codes which state that automatic logging device is required for mandatory ancillary services. The mandatory services are Frequency Response and Reactive Power, and National Grid requires EDL for both of these services.
6. This contradiction results in no clear requirement under the Grid Code Connection Conditions to install an automatic logging device, which could impact NGET's ability to instruct load changes and ancillary services in the Balancing Mechanism (BM) in an efficient and co-ordinated manner.
7. It should be clarified that C/10 is not going to change the obligation on users to participate in the BM, it is up to users if they wish to participate.

#### **Proposed Solution**

8. The original paper presented to the May 2010 GCRP outlined a proposed solution to create a mandatory requirement to install an automatic logging device between NGET and Control Points where the combined Registered Capacity managed from a single Control Point equals or exceeds 100 MW.

9. For providers of mandatory ancillary services from power stations of less than 100 MW capacity, it was proposed to determine the requirement (and periodically review this requirement) to install an automatic logging device on a case-by-case basis following discussions with the connectee.
10. The Working Group raised concerns that this arbitrary limit could create a situation in which multiple control points would be created by a user to avoid ever breaching the 100MW limit and being obligated to install an automatic logging device. The group stated that it might be worthwhile to have clearer guidelines regarding the circumstances in which an automatic logging device must be installed. Rather than an arbitrary limit at the Control Point it was suggested that the station connected to the Control Point should be looked at.
11. Through debate, the Working Group determined that if a generator meets the following requirements they would be required to install an automatic logging device:
  - Is considered 'Large' in their respective areas:
    - NGET  $\geq$ 100MW
    - SPT  $\geq$  30MW
    - SSE  $\geq$  10MW
  - Has a requirement to provide one or more Part 1 System Ancillary Services:
    - Frequency Response
    - Reactive Power
12. Based on the above criteria, National Grid was asked to conduct analysis to determine:
  - How many generators would be impacted by the proposed criteria?

The analysis carried out by National Grid indicates that if we require EDL & Control Telephony for all generators that are required to provide a mandatory service we may need to retrofit EDL to 6 Control Points and may have to install EDL to about 26 further Control Points for generators in the period up to 2019.
  - What would the cost be to implement to criteria?

The costs associated with installing EDL and Control Telephony will be approximately £30,000 - £40,000 to deliver per site and Opex is approximately £7,000 per site.
13. The above analysis has only looked at Scotland to get an idea of the scale of the impact. It is unlikely that 26 Control Points are going to require EDL installation as projects may not materialise. In addition, there would likely be some degree of consolidation of Control Points rather than a number of separate Control Points.
14. The Working Group discussed the implementation strategy regarding any changes. It was noted that a station currently being built could be adversely impacted if new rules were enforced mid-construction. The group thought that putting a requirement on a control point should not impact a new build too much although it may be prudent to attach an implementation timeline around commissioning or define an 'effective from' date.

15. The issue of retrospectivity was also discussed and it was determined that any changes would apply to future sites only. Based on this, total EDL and Control Telephony installation costs could be approximately £780,000 - £1,040,000 in the unlikely event that 26 separate Control Points materialise.

### **Out of Scope Issues**

16. The Working Group notes that it would be worthwhile to acknowledge areas that, whilst not part of this amendment, could be useful to investigate further in another amendment.
17. The issue of generators not being able to communicate the availability of multi-shaft units through EDL was discussed and it was agreed that this is an area that needs development before the new BM system comes into use.

Currently being looked at through the BM Replacement work being carried out.

18. The bid volume issue for wind farms was also noted as an area for possible future development. Due to the nominal availability of wind generation and the inability to determine the potential available energy that a wind farm could utilise, there is difficulty in calculating the bid volume for wind generation.

Currently being looked at through the work carried out in the BM Unit Data from Intermittent Generation.

### **Next Steps**

- Subsequent issue regarding Medium Power Stations in England & Wales has been identified. These stations have a requirement under CC8.1 to provide Reactive Power. This issue needs to be discussed within the Working Group. Teleconference/meeting to be arranged for late February/early March.
- Confirm and approve draft legal drafting.
- Produce a draft Working Group Report for submission to the May 2011 GCRP.

### **Recommendation**

- GCRP to approve the next steps.