

## Grid Code Working Group: Intermittent Generation Data

|                 |   |
|-----------------|---|
| Meeting Name    | BM Unit Data from Intermittent Generation               |
| Meeting No.     | 2   |
| Date of Meeting | 2 <sup>nd</sup> July 2009                               |
| Time            | 10:30am – 14.00pm                                       |
| Venue           | Conference Dining Room, St Catherine's Lodge, Wokingham |

This note outlines the key points from the 2<sup>nd</sup> meeting of the Grid Code Working Group on BM Unit data from Intermittent Generation.

### Members Present:

|                       |     |                                     |
|-----------------------|-----|-------------------------------------|
| Brian Taylor          | BT  | Chairman (National Grid)            |
| Thomas Coleman        | TC  | Technical Secretary (National Grid) |
| Bridget Morgan        | BM  | OFGEM (via Teleconference)          |
| Campbell McDonald     | CMD | Scottish and Southern               |
| Christopher Proudfoot | CP  | Centrica                            |
| David Lenaghan        | DL  | National Grid                       |
| Ivan Kileff           | IK  | National Grid                       |
| John Norbury          | JN  | RWE                                 |

### Apologies:

|              |    |     |
|--------------|----|-----|
| Claire Maxim | CM | Eon |
|--------------|----|-----|

### 1. Apologies

1. Apologies as above.

---

### Agree Minutes from Previous Meeting

Item 3.3: It should be made clear that the review of the obligations on intermittent generators to submit data under BC1 and BC2 will include the process by which the data is submitted in addition to the data itself.

Item 3.5 It would be useful for the panel to understand how Demand side PNs are used although the obligation to provide this data is outside the Terms of Reference.

### Actions from Previous Meeting

Action 3.3 NGET to provide more detailed information on the effects of intermittency on operating the system. This is covered under item 2.2 of this meeting

Action 3.5 NGET to explain to how Demand Side PNs are used. This will be covered potentially outside of this meeting.

Action 3.6 NGET to explain the assumptions made when using the OC2, BC1 and BC2 provided by Generators for wind powered generation.

Action 3.7 Working Group to consider proposals for alternative arrangements for providing BM data for intermittent generation and bring these to the next meeting.

### Agree the Terms of Reference

It was agreed that Demand Side BMUs should not be in the scope of this Working Group. This is to be taken out of the Terms of Reference.

**Action: TC**

### 2. Minutes

#### 2. National Grid presentation on managing Intermittent Generation:

The presentation was in three parts. An explanation of the basics of wind power forecasting, some of the challenges faced by National Grid in the area of wind power and a description of some of the operational processes that are in place to manage wind power connected to National Grid.

#### **Main points raised.**

Predicting wind power output in operational timescales is a difficult task if high levels of accuracy are required. The main source of inaccuracy is inaccurate weather forecasts. Further accuracy improvement would be possible by taking into account the interaction between the wind and the terrain surrounding the wind farm.

It was pointed out that wind forecasting was undertaken by National Grid to mitigate risks on the electricity transmission system. At the early stages of wind generation being connected the generators' estimates of future output were considered to be of insufficient accuracy for the operational systems. Now that accuracy of submitted estimates has improved there is a need to consider which should be used within National Grid for operational purposes.

NGET tabled a paper identifying the assumptions made when using data provided under OC2, B1 and BC2 for wind powered generation.

The term "optimum wind speed" was used in the paper to define the wind conditions at which National Grid believe the Output Useable may be determined. The Working Group acknowledged that this is a useful addition to the Grid Code definition but consideration should be given to devising a term which could be applied to all types of generation. NGET to respond at the next meeting

**Action NGET**

Under OC2 output useable is provided on a Genset basis. The Working Group questioned whether this is the same as a BMU basis. The Grid Code makes no connection between Gensets and BMUs. For wind powered generation an Onshore Power Park Module, being a collection of turbines with a single point of entry to the relevant system, would constitute a Genset. In most cases a Power Park Module and BMU are synonymous but there are cases where Power Park Modules have been aggregated into a single BMU. NGET to verify whether the data is provided on BMU or Genset basis in these situations

The paper implies that Generators would update MEL or PN continuously to reflect changes in prevailing and forecast wind speeds. The Working Group were concerned that this would be too onerous a task and the expected frequency of generation forecast updates needs to be defined

**Action: ALL**

It was noted that, in addition to the obligation in BC1 to submit PNs prepared in accordance with Good Industry Practice, there is also a similar obligation in BC2 for the BMU to follow its PN. It was considered that the applicability of the obligation to follow PNs by intermittent generation (i.e. potentially reduce output) would need consideration.

#### 3. Potential Model for Providing BM Data

The main features of a proposal considered by the Working Group are:-

- i. Possible output submitted as a range, with a Central Forecast and confidence levels.
- ii. Real Time Forecast allows changes to expected output to be notified post gate closure
- iii. BOA's would be based on Real Time Forecast, and would give fixed MW points and an Indicative BOA Energy Volume
- iv. During BOA Period - Power Available (calculated from more anemometers?) records lost opportunity
- v. At end of BOA Period – Difference between BOA instruction points and Power Available used to calculate Final BOA Energy Volume

## Grid Code Working Group: Intermittent Generation Data

Some members of the group were concerned about the effort required to develop a process based statistically based forecasts and felt that the effort would be better used on producing accurate central forecasts. The Group agreed to review the proposal and bring comments to the next meeting. NGET asked members of the Group to bring alternative proposals to the next meeting

**Action: ALL**

4. Actions above required by the next meeting, 9<sup>th</sup> September 2009.

### **3. Date of Next Meeting**

5. 10:00 – 15:00 Wednesday 9<sup>th</sup> September 2009, National Grid ENCC, St Catherine's Lodge, Wokingham.

### **4. Any Other Business**

6. None