

APPROVED

MINUTES OF THE SONI GRID CODE REVIEW PANEL MEETING

Held at the Radisson Blu Hotel Belfast

On 23rd February 2012 at 10:30

Present:

Members/Alternates	Representing	
Dick Lewis	SONI	Chairman
Karen Creighton	SONI	As an advisor for SONI
Conor O'Doherty	SONI	As an advisor for SONI
Raymond Skillen	SONI	As an advisor for SONI
Bronagh McKeown	SONI	As an advisor for SONI
Ian Stevenson	SONI	As an advisor for SONI
Donald Murray	AES Kilroot	Generator
Jim Cooke	Coolkeragh ESB	Generator
David Macartney	NIE Energy PPB	Observer
Angela Blair	NIE Energy PPB	Observer
Denis McBride	AES Ballylumford	Generator
Cathal Martin	SSER	Generator
Kevin Hannafin	Energia	Generator
Brian Mulhern	NIAUR	Regulator
Ewan Powrie	Secretary of the SONI GCRP	

1. Chairman's Introduction to the Meeting

- The Chairman welcomed the Panel Members and gave an overview of the agenda.

2. Apologies for absence

- The Chairman noted that apologies had been received from Leslie Bryans (NIE), Stephen Hemphill and Mick McGuckin (Mutual Energy), and Alan Kennedy (SONI).

3. Minutes of the Grid Code Review Panel Meeting held on 8th June 2011

- The minutes were approved by the Panel without comments. The Chairman informed the meeting that all actions arising out of the previous Minutes have either been settled

already or are addressed in the agenda for the current meeting. Any other items will be addressed when the meeting considers AOB.

4. **Points arising from Minutes (not otherwise included in Agenda)**

- There were no other points arising from the minutes.

5. **Grid Code Changes**

5.1 Interconnector changes

- The Chairman opened the topic of Intra-Day Trading and the concept of 'Gate Closure' as defined in the Grid Code, and noted that several of the GCRP members present are participating in the ongoing discussions and consultations.
- The Chairman pointed out to the Panel that the Intra-Day modification would be discussed at the JGCRP and therefore, with the Panel's permission, this matter will be dealt with as a joint matter and as such will not be considered at this GCRP.

5.2 WFPS – Ramp Rate Break Point

- The Chairman explained the background to this matter, and the recent history, namely that this is a joint issue for both ROI and NI and has been discussed and consulted on in both jurisdictions. The Chairman informed the Panel that in the ROI, EirGrid have now removed their modification proposal.
- Cathal Martin noted to the Panel that he was unsure what exactly had happened to cause EirGrid to remove the modification proposal, and explained that in the event a wind farm is curtailed to 0MW and then requested to generate, there is a possibility that there will be a delay of several minutes before the wind farm is online. The concern here is that this is not compliant with the Grid Code's ramping requirements.
- Karen Creighton confirmed that the EirGrid modification proposal had been removed due to design changes, and that EirGrid did not want to set targets that may ultimately discourage compliance with 'normal' ramping rates.
- **ACTION: SONI to place consultation process on hold and confer with EirGrid and the JGCRP. If EirGrid is definitely not proceeding with the modification proposal, then SONI shall request SSE to withdraw its modification request.**

5.3 DSU Update

- The Chairman confirmed that there were no responses to the consultation issued on 1 November 2011. NIAUR have now formally approved the Grid Code amendments and the updated Grid Code has been placed on the SONI website.
- The effect of the amendments means that a DSU is no longer limited in its export capability if it has agreed a MEC with the TSO or DSO. The Chairman noted that SONI is as yet unaware of any party who intends to make use of this mechanism in NI.

6. **WFPS Testing Document – Consultation / Update**

- The Chairman explained that the proposed WFPS Testing Document is a large piece of work, and the intention is that this replaces the current Wind Farm Setting Schedule in the Grid Code. The process for compiling the draft of the Testing Document is nearly complete and it is hoped

that it will be put out for consultation and, following consultation, put forward to NIAUR for approval.

- Cathal Martin informed the Panel of Joe Duddy's concern that that working group has only met once so far, and that more developer input is required. He also noted that it may be useful to establish a separate working group for developers (preferably prior to commencing the consultation). The Chairman noted these concerns and suggestions and requested that the Panel consider them after hearing a presentation on the subject from Conor O'Doherty.
- Conor O'Doherty proceeded to guide the Panel through a presentation on the proposed Testing Document. He explained that the purpose of the document is to clarify both Grid Code and Distribution Code connection conditions, to lay out the steps required to achieve compliance, and to identify all required data submissions and timelines as stipulated in the Grid Code and the Distribution Code.
- Conor O'Doherty provided an overview of the key points for the document, namely concerning the modelling requirements and the establishment of the User Data Library, and information relating to expected Frequency Control, Voltage Control and additional signals. He also talked the Panel through an example response graph to expand on the preceding information.
- David Macartney raised a point regarding Voltage Control, stating that there is a need to ensure alignment with any forthcoming changes at the European level. Conor O'Doherty and the Chairman confirmed that SONI have closely followed the requirements of ENTSO-E.
- Cathal Martin noted that any issues that Panel Members have with the proposed Testing Document should be developed through a working group rather than discussed at the GCRP, and stated that an optimum timeline for approval of the Testing Document should run as follows: (1) working group meeting, (2) consultation issued, (3) responses to consultation reviewed, (4) further working group meeting and any necessary amendments made, (5) report to NIAUR.
- **ACTION: SONI to send invitation to all relevant wind farm parties asking for interest in joining a working group or the Testing Document.**
- Jim Cooke asked whether the proposed Testing Document deals with existing fault ride-through capability for existing wind farms. The Chairman confirmed that this is being considered and that SONI is writing to all wind farm generators to assess their fault ride-through situation and requirements. The Chairman also noted that this issue is being addressed through the DS3 process, and that joint working groups have been established to address the issue.
- Cathal Martin confirmed that he is participating in the DS3 process and hopes to report back to the Panel with updates shortly. The Chairman informed the Panel that a scoping document has been issued to the DS3 working group, and will be issued to all generators in due course. The Chairman also requested that Denis McBride seeks comments from other non-wind generators.

7. Any Other Business

7.1 Reactive Power Requirements

- Raymond Skillen led a presentation on this issue for the Panel. He emphasised that this is a real issue and the aim of the presentation is to demonstrate why reactive power is so important to the TSO. The presentation began with a description of voltage stability and that fact that the main factor causing voltage stability is the inability of the power system to meet the demand for reactive power.

- Without sufficient reactive power sources in the right locations, the voltage stability of the All Island Power System deteriorates with increasing wind power. Mitigation measures involve ensuring that WFPS comply with the current Grid Code requirements for reactive power capability and power factor for different operation points; placement of additional reactive power sources at strategic locations; and definition of conventional generation units in appropriate regions of the All Island Power System that cannot go offline ('must run units'). However the net effect of these measures is to further displace wind generation.
- Proposed Grid Code clarifications are intended to ensure that WFPS are capable of moving from Power Factor Control to Voltage Control and vice versa, and will require generators to provide Generator Performance Charts.
- Following the presentation, Cathal Martin pointed out that the current reactive power requirement definition in the Grid Code is insufficient. It defines a minimum requirement but does not clearly show what the requirement is for different levels of Active Power. This needs to be clarified. Cathal Martin also challenged SONI on their current interpretation of the Grid Code which is that WFPS generators have to provide their full reactive power capability. Cathal Martin stated that the Grid Code is a set of minimum requirements that a generator must meet. Cathal Martin noted that there is already an ancillary services structure in place which allows a generator to contract with SONI for more than the minimum requirement if the generator wishes to do so and SONI have the need for this additional Reactive Power where that generator is connected to the network. The Chairman agreed with the point that Cathal Martin made and confirmed that the intention in the Grid Code is to set a defined minimum reactive capability.
- The Chairman emphasised two key issues: firstly that there is a rapidly changing mix of generation on the system, and secondly that there is a corresponding change in the location of generation. It is fully accepted that the Grid Code must set a minimum standard, and any further developments beyond the standard should be dealt with through ancillary service arrangements. Raymond Skillen stated that, following discussions with turbine manufacturers, there are no issues of operability; Cathal Martin disagreed with this statement mentioning that SONI don't have visibility of IPP's commercial contracts with OEMs and don't fully understand how this could affect an IPP's warranty and reliability agreements.
- The Chairman confirmed that all these issues would be covered in the WFPS Setting Schedule, and that any further discussions can be taken forward in the relevant working group. It was formally noted that this conversation helped to raise the concerns of Cathal Martin.

7.2 Fail to Sync

- Denis McBride raised this issue for the Panel, and the Chairman confirmed that this would be discussed in detail at the JGCRP. There will be a presentation and an opportunity for all Panel Members to raise any issues they may have. Any concerns can then be addressed through the ensuing joint consultation process.

7.3 ROCOF / Enhanced Droop Response

- The Chairman confirmed that it is likely that these issues will be addressed through Grid Code modifications, and noted that costs are an important consideration. Cathal Martin noted that whilst ROCOF is a major issue for conventional generation, Active Power Recovery is a major issue for wind farm generators.

8. Arrangements for next meeting

- The Chairman informed the Panel of the following proposed dates for the next GCRPs and JGCRPs:
 - 24 May 2012 (Dublin)
 - 27 September 2012 (Belfast)
 - 29 November 2012 (Dublin)