

Grid Code Gas Insulated Switchgear (GIS) Working Group

Meeting Name	Grid Code Gas Insulated Switchgear (GIS) Working Group
Meeting No.	7
Date of Meeting	13 th August 2009
Time	10:00am – 3:00pm
Venue	Conference Room G2, National Grid Offices, Warwick

This note outlines the key points from the seventh meeting of the Grid Code (GIS) Working Group.

Members Present:

David Smith	DS	Chairman
Richard Dunn	RD	Technical Secretary
Tom Ireland	TI	National Grid
John Norbury	JN	RWE Trading
Keith Hodson	KH	Central Networks
John Morris	JM	British Energy
Bill d'Albertanson	BDA	EdF Energy Networks
Alan Creighton	AC	CE Electric UK
Jeff Norfolk	JNo	RWE Trading
Bridget Morgan	BM	Ofgem

Apologies:

Claire Maxim	CM	E.on UK Ltd
Chris Holdsworth	CH	CE Electric UK
Daniel Cassidy	DC	Scottish Power
Fraser Ainslie	FA	Scottish Power
Lionel Mackay	LM	EdF Energy Networks

1. Introductions and Apologies

128. Apologies for absence were received from Claire Maxim, Chris Holdsworth, Lionel Mackay, Daniel Cassidy and Fraser Ainslie. Bill D'albertanson was attending on behalf of Lionel MacKay and Alan Creighton was attending on behalf of Chris Holdsworth.

2. Draft Notes and Actions of the Meeting held on 29th June 2009

129. The draft notes of the sixth meeting held on 29th June 2009 were agreed subject to amendments suggested by BM and AC. RD would amend the minutes accordingly and publish the final version on the website.

Action: National Grid (RD)

Review of Actions from the 29th June 2009 meeting

130. Actions were the subject of agenda items apart from the following:

- Item 98 – clarify the site specific nature of Use of System Charges – see minutes 131-138 below - action complete.

Charging Arrangements (general discussion)

131. TI explained that for wider transmission assets Users were charged through TNUoS which included the cost of a maintenance level determined for the Price Control period and was constant for all GB sites. Connection charges included a transmission running cost factor that was equivalent to 1.45% of GAV and was based on the asset value of the connection asset. There was also a site specific maintenance charge again calculated as 0.42% of the GAV

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and was based on the direct costs of maintaining the assets. Charges were levied on a year by year basis. JN commented that that it should not involve a significant change to the charging methodology to introduce an extra charge for GIS based on the GAV. DS and TI noted that such a change would require to be progressed through the Transmission Charging Methodology Forum (TCMF).

132. TI noted that in the Scotland Power Transmission Owner region the boundary between the TO and the Generator was typically at the “substation fence” so it was common for generator circuit assets to be owned by the TO and for site circuits to be classified as connection assets.
133. DS noted that, should the Group decide to recommend option 1 in its report to the Panel, the implications for the changes to the Charging Methodology would need to be considered in more detail in the report. TI explained that he had deliberately not progressed this area of the report until the outcome of the debate at this meeting.
134. BM reminded the Group that, at the previous Group meeting, she had raised the issue of whether a breakdown of licensed/unlicensed costs of GIS work was available and the options for discovering manufacturing costs of GIS. TI agreed to look further at how the costs were apportioned at present and whether a generic apportionment methodology would be useful here. AC confirmed that the DNOs would also be interested in this breakdown of costs.
Action: National Grid (TI)
135. JN agreed that there was a strong need to make these costs more transparent. A new methodology for GIS would not be wholly accurate but would be far more transparent than the current arrangements where the process had to be re-run each time for a new development which was highly inefficient. Even a pro-rated approach would be preferable to the current regime.
136. AC noted that deeming all GIS assets as licensed business would create a natural check on the costs of GIS through National Grid’s licence requirements to ensure the efficient, co-ordinated and economic development of the network.
137. DS noted that the EU Competition Authorities’ investigation into GIS had found that there were anti-competitive practices. In due course it would be important to try to develop a regime that took into account the efficiency and advantages of GIS from the Generator’s standpoint as well as that of National Grid.
138. In response to a question from JN, TI confirmed that the Working Group’s report would detail the number of current projects where GIS was currently planned, including sites where GIS was a replacement for AIS.

Action: National Grid (TI)

3. Overview and Summary of Previous Options Considered

139. DS explained that the Group had agreed at the previous meeting that it should revisit the six options considered previously to make sure that the previous decisions to narrow the options down to 1 and 6 were still valid in the light of the subsequent developments in the Group’s thinking and knowledge. It was also important to ensure that consideration of the options took fully into account the implications for DNOs, TOs in Scotland and as far as possible OFTOs as the Offshore regime developed.
140. For Offshore GIS projects, TI agreed that National Grid would analyse transitional Offshore projects and check how the ownership allocation was being made. In response to a question from BM, TI indicated that there had been very few non-standard connections until comparatively recently and none where National Grid owned the generator connection circuits. In Scotland in order to continue pre-BETTA ownership arrangements some generators have requested a non-standard ownership boundary which has associated charging implications, as discussed earlier in the meeting. TI agreed to investigate whether the principle had been established in England and Wales to any extent.
141. For Offshore, TI confirmed that the GIS bays at the OFTO (Offshore Transmission Owner) –

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TO interface would be allocated to infrastructure and thus the costs recovered by TNUoS charges based on the existing 73/27% allocation to DNOs and generators respectively. JN thanked TI for this helpful confirmation and suggested that the generators therefore need not be over-concerned with the disaggregation of generator bay costs as part of the overall GIS substation costs for Offshore projects.

142. TI explained that he had re-considered the 6 options in the context of how they met the concerns that Users had raised with GIS. These concerns could be summarised under 8 headings:

1. Are the licensed/unlicensed construction issues removed?
2. Are the maintenance issues simplified/clarified?
3. Are there economies of scale created by the construction arrangements?
4. Is there an adverse impact on the SQSS requirements i.e. single circuit risk?
5. Is there consistency with AIS arrangements?
6. Does it ensure consistency across sites and types of GIS?
7. Does it create a clear ownership boundary?
8. Does the generator control synchronisation via the circuit breaker?

143. It was noted that none of the options could adequately address all the issues currently raised by GIS although Options 1 and 6 successfully addressed more of the issues than options 2-5. JN believed that under option 1 the generator circuit breaker when owned by National Grid would actually reduce the requirement for synchronisation at the grid operational voltage. He did not therefore see this as a disadvantage of option 1 but rather an advantage. The Group agreed and TI agreed to amend this section of the options analysis accordingly.

144. TI explained that he had researched the issue of whether other parties at GIS sites had tendered for the maintenance in GIS projects. For all existing sites (both GIS and AIS) where Users had elected to tender in competition with National Grid, around half the competition was thought to be at GIS installations. JN was surprised at how high this figure was since he understood that RWE, E.On and British Energy had decided not to contest maintenance for GIS projects precisely due to the difficulty of establishing the breakdown of GIS costs in order to prepare a competitive tender. TI suggested that it would be worthwhile contacting the Companies who had tendered to discuss their reasoning for submitting a tender. During discussion, it was noted that option 1 might simplify maintenance options but as a consequence reduced the prospects for competitive tendering - an unintended consequence.

145. Other points made in discussion about the advantages and disadvantages of the various options included the following:

- on option 2 it should be clarified that offering a non-standard connection was National Grid's interpretation of the current CUSC definition of the ownership boundary in the context of GIS
- the lack of competition arising in construction and maintenance when GIS was preferred to AIS were two separate issues but hitherto the Group had attempted to solve both at the same time. It was however noted that it should not be assumed that there were significant costs reductions to be gained from improving contestability in both construction and maintenance. It may be more a case of seeking to simplify the operational and commercial interfaces between the various parties that were currently made more complex by the decision to install GIS rather than expect large cost savings
- National Grid agreed to undertake a consultation with Users about the maintenance arrangements in place at sites where GIS had been installed to establish the existing spectrum of practices on the ground.
- One of the underlying reasons that RWE had put forward the option that National Grid should own all the GIS equipment (including the generator circuits) and that this should be part of the licensed business was that this would give greater comfort to Users that GIS equipment would be procured, installed and maintained in accordance with the transmission licence requirements

4. Discussion Paper focussing on Implications for DNOs

146. AC explained that this paper attempted to summarise and highlight the concerns that DNOs had articulated with the direction of the debate on GIS hitherto in the Working Group and which had begun to be captured in the analysis of the 6 options. For example, the paper noted that the option 1 solution where National Grid owned all the GIS assets would not necessarily work for the DNOs as they would often require ownership of the circuit breakers that connected their assets to the transmission system.
147. Consequently the paper looked at two possible approaches to a solution to the problems raised by GIS:
1. Focus on a solution that met the needs of Generators and consider a solution that could apply separately to DNOs later; or
 2. Continue to develop a solution that could apply to equally to Generators and DNOs
148. In practice the DNOs believed that that they could probably support option 2 (retain the status quo) but with additional guidance and clarification for those tasked with putting contractual arrangements in place for GIS projects in order to spread best practice and prevent the proliferation of different ad hoc arrangements that had characterised GIS projects to date.
149. JN commented that he would like to understand more fully the DNOs position which differed markedly from that taken by the majority of generators. For example, did DNOs' believe that they had more in-house capability to undertake maintenance for GIS assets compared to the generators? AC commented that the reason for the differences was probably not related to an assessment of in-house capability but may well have its origins in the fact that DNOs had established strong, local working links with National Grid over many years which helped the two sides to work through the sometimes complex issues created by the decision to install GIS. Nevertheless, he confirmed that despite these well established links the DNOs were also concerned about the issues of lack of contestability associated with GIS. However, this concern tended to be expressed in the context of inadequate indemnities and equipment specifications rather than the desire for example to increase competition in the construction of GIS assets. Thus, from their standpoint, DNOs believed that the issues could be resolved through greater transparency and clarification of the existing process rather than the introduction of an entirely new approach.
150. BM requested an explanation why National Grid believed that GIS works should be undertaken by the unlicensed part of its business as this was not immediately obvious. DS acknowledged that there was a need to define more clearly what was and what was not contestable in the context of maintenance for GIS assets and that more transparency was required to enable Users to assess whether to opt for self-build or not. One example would be to ask manufacturers to provide a price for the generation bay to be included as part of the GIS installation at the time of procurement.
151. The Group then re-considered the options slides discussed earlier in terms of the impact on DNOs. During discussion it was noted that the slides did not fully reflect the DNO position that had been articulated at this meeting and TI agreed to update the slides accordingly.

5. Further Working Group Discussions

152. DS summarised the outcome of the further analysis of options 1-6 and the discussions on the paper by the DNOs. He proposed that it was now clear that options 1, 2 and 6 merited further debate and analysis whilst options 3, 4 and 5 could be discarded. The Group agreed with this assessment. It was also agreed that a simplified approach to the options could be employed in future which ignored type A GIS switchgear as this was not being manufactured any more and concentrate on type B switchgear.
153. It was also agreed that no further work should be undertaken on considering retrospective application of any solution. It was clear that there was a significant divergence between the Generators and the DNOs regarding the preferred solution which suggested that should the group decide to adopt a "one-size fits all" solution that it would need to be flexible enough to

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maximise different choices for different Users. National Grid also agreed to take an action to progress these issues and also address the point raised by BM earlier as to why GIS should automatically be classified as unlicensed business and the points raised in connection with differences with the position on GIS vis a vis England and Wales and Scotland.

6. Next Steps

154. It was agreed that the priority actions arising from the meeting were:

- undertake a consultation on maintenance arrangements at current GIS and AIS sites and Working Group Members to comment on the consultation before it was despatched
- Continue development of the Working Group report
- Review the TORs from the Grid Code and CUSC Panels
- Ensure all DNOs are up to speed on developments in the GIS debate

Action: National Grid

155. TI informed the group that he had given the CUSC Panel a presentation about the issues raised by GIS at the CUSC Panel meeting held on 31st July 2009.

7. Date of Next Meeting/Any Other Business

156. It was agreed that the next meeting should be held on Thursday 8th or Friday 16th October (the Secretary subsequently informed the Working Group that the next meeting would be held on Friday 16th October).