

Grid Code Gas Insulated Switchgear (GIS) Working Group

Meeting Name	Grid Code Gas Insulated Switchgear (GIS) Working Group
Meeting No.	4
Date of Meeting	27 th January 2009
Time	10:00am – 3:00pm
Venue	Room B2.3, National Grid Offices, Warwick

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

Members Present:

David Smith	DS	Chairman
Richard Dunn	RD	Technical Secretary
Emma Carr	EC	National Grid
Rod Richardson	RR	National Grid
John Norbury	JN	RWE Trading
Jeff Norfolk	JNo	RWE Trading
Claire Maxim	CM	E.On UK Ltd
John Morris	JM	British Energy
Paul Dyer	PD	EdF Energy Networks
Daniel Cassidy	DC	Scottish Power (via teleconference)
Keith Hodson	KH	Central Networks
Chris Holdsworth	CH	CE Electric UK Ltd
Bridget Morgan	BM	Ofgem

Apologies:

Fraser Ainslie	FA	Scottish Power
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1. Introductions and Apologies

68. Apologies for absence were received from Fraser Ainslie. DS introduced himself as Duncan Burt's successor and confirmed that he would chair the Working Group in future. DS apologised that the previous two meetings of the Group had been postponed largely due to group illness and the ability to achieve a quorum.

2. Draft Notes and Actions of the Meeting held on 4th September 2008

69. The draft notes of the meeting held on 4th September 2008 were agreed. RD would publish the final version on the website.

Action: RD

70. Review of Actions from the 4th September 2008 meeting

- Item 42 – BV to update meeting notes – completed.
- Item 47 – EC indicated that she had provided a response to Alan Creighton on self build issues but had received no further feedback. EC agreed to forward the response to CH who agreed to pursue the issue.

Action: CH

- Item 48 – EC and RR to provide options specific to the DNOs at the next meeting – incorporated into presentation under item 3 – complete.
- Item 48 – EC to continue to develop the GIS Issues Output table – now incorporated into presentation for item 3 – complete.
- Item 50 – EC to provide a draft Working Group Report to the next meeting – provided for agenda item 4 – complete.
- Item 55 – EC to investigate the position with regard to maintenance in existing contracts –

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incorporated into presentation for item 3 – complete.

- Item 64 – EC to amend the slides presented to the meeting on 4th September 2008 to take into account comments by Working Group Members and re-issue – incorporated into presentation for item 3 – complete.
- Item 66 – KH, EC, JN and DC to consider the issues highlighted with Option 1 & 6 at the 4th September meeting – to be considered by the whole Group at this meeting – complete.
- Item 67 – RD to arrange next WG meeting – complete.

3. Development of Working Group options for GIS including DNOs

71. EC gave the meeting a presentation which would be available on the National Grid website in due course and circulated with these notes.
 - EC explained that National Grid had concluded that only options 1 & 6 of the options previously considered by the Working Group would work for DNOs. This was essentially the same conclusion that the Working Group had arrived at when considering application of options 1-6 for the Generators. National Grid had therefore concentrated on an analysis of the benefits, Impacts and issues associated with options 1 & 6 for both types of connection, generation and DNO.
72. In keeping with the principle that the majority owner at the GIS site builds the GIS assets, for option 1 RR explained that National Grid had concluded that it could own generator circuits and remain compliant with the SQSS provided the generation capacity did not exceed normal infeed loss risk (currently 1000MW). There was a need to review the 1000MW figure in the SQSS and there might be a need for a derogation. EC asked if there were any issues from the DNOs' point of view with National Grid owning the equivalent DNO circuits? CH and KH were not aware of any but agreed to check the position.

Action: CH & KH

73. It was noted that a major advantage of option 1 was that the current confusion over what element of the build was licensed and what element unlicensed would disappear as all works would be on a licensed basis. EC indicated that National Grid accepted that there had been issues regarding the transparency of unlicensed costs for GIS work in the past but National Grid was addressing this issue. The generator would have the option of a capital contribution or annualised payments under option 1 as per existing connection assets. EC also indicated that National Grid had concluded that there was no requirement for a change to the charging methodology under option 1. JN queried this conclusion. He indicated that Generators were keen for National Grid to obtain more exposure to the market with a view to exerting downward pressure on the generator element of GIS equipment costs and this could be achieved through changes to the charging methodology, for example by introducing a schedule detailing the charges for GIS substation equipment. EC disagreed that pressure could be exerted on the manufacturers in this way since the UK market for GIS equipment was a small fraction of the world market and there is no international standard for GIS. EC stated for that reason a standard schedule of costs would not be possible but she would provide the group with some worked examples of charges, i.e. what proportion would be allocated to the generator as connection assets.

Action: EC

74. The Group discussed the question of whether the charging methodology should be changed to ensure GIS connections were required to make a capital contribution rather than an annualised payment to ensure consistency with AIS. For AIS connections such assets would be procured by generators and DNOs and there are usually no transmission connection assets due to the shallow charging methodology introduced by PLUGS. Therefore AIS connections are provided to paid for their assets upfront rather than an annualised payment.. During this discussion, BM noted that there would need to be a strong justification for any difference in the charging methodology for GIS connections compared to AIS connections.
75. The Group discussed the implications of transferring Capex and Opex costs under option 1

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from Generators and DNOs at NGET GIS substations to NGET and from NGET to DNOs at DNO GIS substations. It was noted that currently NGET and DNO price control periods did not align which would be an added complication for any transfer arrangements. On the issue of retrospection, National Grid did not favour this as it would be extremely complex to unravel historical contractual undertakings. JN proposed that the rule of thumb for retrospection could be up until the site was operational but EC indicated that contracts would have been in place a long time before the site became operational. JN indicated that GIS offers were currently being made now for connections which would not be energised for another 6 or more years hence the need for a clearer regime for GIS was pressing. He believed retrospection was a crucial area of the Group's work.

76. EC requested that all Members give further thought to the issue of retrospection in the light of the discussion for further consideration at the next meeting and noted that there could be a need for some transitional arrangements.

Action: All Members

77. Where the switchgear owned by NGET was operated by the DNO or the Generator, it was agreed that the switching arrangements should be detailed in the BCA and the Site Responsibility Schedule (SRS). EC and JN agreed to discuss appropriate wording for this.

Action: EC & JN

78. The Group discussed the issues and impacts associated with liabilities, maintenance and outages for option 1 including whether the current Unplanned Interruption Payment regime introduced by CAP048 should apply to the GIS generator circuits given that this would effectively be single circuit connection. JN indicated that, rather than focus on compensation payments, Generators were more concerned to identify and ensure that there were incentives on National Grid to procure good quality equipment and institute a thorough and efficient maintenance regime. One option could be to include a schedule of site routine inspections in the BCA. It was agreed that this option should be developed further.

79. The Group discussed the issues and impacts associated with secondary systems such as protection and control equipment for option 1. EC indicated that National Grid had come to the conclusion that the party with the need for such secondary systems should own and install such equipment and this would be the majority owner in the overwhelming majority of cases. This could be confirmed in the SRS. BM noted that the SRS may be different in Scotland, the group agreed that this will need to be considered further

80. The Group discussed issues associated with liability and access to the gas zone under option 6. EC suggested that the liability issues could be dealt with through the BCA whilst certain access principles could be developed for maintenance. This was predominantly for access to the circuit breakers but there could also be a need rarely for access to the busbars in the gas zone.

81. The Group discussed the asset transfer issues raised by option 6 and noted that many of these issues had already arisen in the context of customer self-build which could form the basis of any contractual terms for a GIS solution. EC would share this with the group as soon as the generic contract has been developed and signed off internally.

Action: EC

82. The Group noted that an enduring issue with option 6 would be that there was no visible boundary between the majority busbar owner and the User and the User was unable to physically remove the bus selector disconnectors. The Group also noted that the issues associated with secondary systems were similar to those discussed for option 1.

4. Working Group Report to the Grid Code and CUSC Panels

83. EC indicated that experience suggested that it was beneficial to draft the Working Group Report in parallel with the Group's discussions. She would populate section 3 of the Report further following the Group's discussions at this meeting particularly in relation to options 1 & 6. She would also add a further section on Implementation issues in due course. A realistic target for submission of the Working Group report to the Grid Code Review and CUSC

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Panels was now May 2009. Meanwhile Members were encouraged to provide EC with any comments on the draft Working Group report thus far.

Action: All Members

5. Next Steps

84. EC agreed to capture where the Group was to date, include the views of Members and begin identifying the impacts of option 1 & 6 in the Working Group Report. The two options would be referred to as options A & B in future to avoid confusion.
85. EC also agreed to identify areas of the CUSC that would require changes for options A & B. This was expected to be limited to section 2.12 and BCA. The changes required to the Grid Code are likely to be minimal and probably no more than a new definition for GIS. She agreed to develop this drafting in consultation with JN. EC would also continue to consider any need for changes to the charging methodology statement and whether any reference to the relevant Electrical Standards was required.

Action: EC

86. It was agreed that a verbal update would be provided to the Grid Code Review Panel on 5th February on progress with the Group's work and a request for amendment of the Group's Terms of Reference to report to the May Panel meeting. A verbal report would be provided to the March CUSC Panel on the Group's work and request their input into when the CUSC Amendment should be raised. There would then be a need for National Grid to pursue the issue through its own internal governance structure.

Action: EC

6. Date of Next Meeting

87. It was agreed that the next meeting of the Working Group would be arranged for Tuesday 31st March at NGH to discuss draft legal text and implementation issues for both options A and B.

Action: RD

7. Any Other Business

88. JNo reported that a recent suggestion for a design at a 400kV GIS substation had reinforced his view that when defining the boundary for option A the Group would need to ensure that the definition was suitably robust in order to exclude unacceptable engineering interface designs. The Group noted JNo's views.