

## **Grid Code Compliance (Technical Performance) WG**

**Paper by Mike Kay, Electricity North West, on behalf of DNOs**

**Tuesday 15 January 2008**

### **Objective**

To brief members of the WG, and via the WG the GCRP, of the difficulties faced by DNOs and Generators in complying with the current NGET interpretation of Grid and Distribution Code requirements on LEEMPS in relation to compliance and commissioning.

### **Recommendation**

It is recommended that the WG consider the issues raised in this paper and agree that the WG ToRs should include the objective of reviewing responsibilities for compliance.

### **Background**

The LEEMPS WG finished its work in 2005/6 and Grid and Distribution Code changes reflecting their work were introduced from 1 April 2006.

The key changes for LEEMPS related to the formal compliance requirements for LEEMPS in the CC and the PC being re-pointed at DNOs, with harmonized D Code drafting requiring compliance with these G Code clauses as requirement of D Code compliance.

As DNOs do not have the expertise or need to confirm the details of most Grid Code clauses in relation to LEEMPS performance, it was agreed within the WG that the LEEMPS Generator would self-certify, that the DNO would require that this self certification information was made available to National Grid, and that the DNO would facilitate any further research or tests should National Grid have cause to be dissatisfied with the certification from the Generator. This principle was held constant throughout the WG, and appendix 1 lists several places from the setup and the minutes of the WG where this principle was re-iterated.

In early 2006 National Grid via a variety of routes informed DNOs that NG's interpretation of the Grid Code was that DNOs would have to satisfy themselves that the Generator was compliant, rather than passing the self-certification through for NGET to evaluate, and confirm to NGET the DNO's satisfaction. This has been the defacto approach by NGET since that time, and is causing a significant work load on DNOs in understanding the detail of Grid Code requirements and confirming compliance with LEEMPS Generators.

### **Way forward**

The current WG is in a good position to recognize the significant difficulties the current approach is causing DNOs and to re-establish the principles that

LEEMPS was trying to implement. The WG can then review the drafting of the Grid Code and recommend changes to ensure these principles are completely clear in the drafting. It might be that to remove any possible misinterpretation, changes might be necessary to the D Code and the CUSC. The WG can identify these issues and if necessary refer them to the appropriate panels.

The WG is invited to reconfirm the LEEMPS principles

1. NGET needs to be able to ensure that there is a legally binding route to apply LEEMPS Grid Code clauses;
2. NGET needs to be able to ensure that there is a route for exploring compliance issues at any future time;
3. NGET needs to be able to ensure that there is a route to appropriate redress and correction should there be any infringement of requirements;
4. DNOs need to provide a process to enable 1-3 above;
5. DNOs should not need to ensure technical compliance by LEEMPS with G Code clauses.

In considering the above it is pertinent to consider a statement in National Grid's D/05 consultation paper, where on page 5 is the following extract:

*It was felt by the group that if the obligation sat in the D Code then it would suggest that the DNO would be responsible for testing, compliance. It was felt that this responsibility would be impracticable from both a technical and resource point of view for the DNO to discharge.*

This is almost the last public statement by NGET on the philosophy where it can be seen that it is still not thought to be appropriate for DNOs to be responsible for establishing compliance. It is now important to ensure that the legal text of all relevant documents is modified to ensure there is no further misinterpretation within the industry.

Grid Code Review Panel Paper 03/19 22 May 2003

- 9 DNOs are concerned that some of NGC's Grid Code requirements are for the purpose of NGC discharging its statutory and licence conditions for the total system, and are not required for DNOs to meet their own obligations.
10. DNOs have no history of applying such requirements to embedded Generators, and importantly they therefore have:
  - a) no legal or licence obligation to do so;
  - b) no current expertise in these particular technical specialisms;
  - c) no income to support either the technical work required, nor the liabilities and costs arising from it.
11. DNOs believe it is therefore not appropriate to transfer the existing NGC requirements wholesale for DNOs to apply and enforce through either or both of their connection agreements and the Distribution Code.

LEEMPS WG meeting 18<sup>th</sup> June 2004

OC5

We suggest a new section OC5.8 that details the procedures that apply to medium power stations without a Bilateral Agreement. In essence this is that that Network Operator will procure from the User a Compliance Statement together with evidence to NGC's satisfaction. The Network Operator will pass this onto NGC. There will then be the ability for NGC to require the Network Operator to require the Embedded Generator to carry out tests and to procure access for NGC to witness such tests.

The above note was written by Patrick Hynes of NGET – note that there is the presumption of NG's satisfaction, not the DNO's.

Notes of Third Meeting held on 1 December 2003 at NGT House, Warwick

Action 21 ongoing – PH agrees with MK that NGC needs some direct contact with the generator regarding testing and compliance and the DNO needs to agree to what is decided between NGC and the generator.

Notes of Fourth Meeting held on 12 May 2004 at Brandon Hall

1. JN wondered who is going to reimburse DNO costs for facilitating testing.
2. MK made a generic comment that he does not like the idea of DNOs taking an obligation for something they do not need, have no expertise in and no reimbursement.
3. The actual tests could be done by NGC but NGC does not have a contractual agreement with the generator. The DNOs could appoint an agent to do the testing and NGC would be that agent but there are implications and liabilities on NGC. MK suggested the Connection Agreement could have a condition that NGC would witness the tests but this does not deal with the commercial implications.

LEEMPS WG meeting 18<sup>th</sup> June 2004

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Minutes of 6th Meeting held on 26 August 2004 at NGT House, Warwick

Minute 23 With regards to who pays the DNO costs for facilitating testing, MK said that NGC held the income for doing this work and the DNO expected to be remunerated. JN pointed out that a BMU is compensated through Grid Code provisions and asked how a generator would be remunerated if testing was carried out on a LEEMPS at a time when it was expensive for them not to generate. JN also does not want generators to be exposed to more administrative costs (eg costs relating to interfacing, studies, meetings). PH advised that NGC's preference is for checking evidence rather than testing and only testing when sufficient evidence has not been provided. NGC asked the generator and distribution representatives of the WG to consider what the costs would be. MK said that DNOs do not know what the costs are and they would not want to pay out of order merit costs. The DNOs are effectively acting as a post box for NGC. MK wants a framework whereby DNOs can recover their administrative costs (eg for attending meetings). An action was placed on the generator representatives to provide details of engineering and out of merit costs for NGC to propose how such cost could be recovered.

23 PH reiterated NGC's preference for evidence rather than testing. NGC drafting of OC5 is that for every MPS, NGC would expect to see evidence. MK took an action to check that the drafting of the new section of OC5.8 which refers to LEEMPS works with his drafting.

28 JN said OC5 and DOC5 is about testing for compliance with technical conditions. JN said that commissioning tests are carried out by the generator and NGC is invited to witness. This is a process which is not covered in OC5 which needs to be addressed. MK preferred that this was not built into the DNO's Connection Agreement. The DNO representatives thought it would be better in DOC5 but JN said it should not be because it is a CUSC requirement. MK said it could be put in the Distribution Code. In JN's opinion, the DNO and NGC should say up front that they happy with the generator. An action was placed on MK to tweek [sic] the detail of the drafting so that DP7 refers to the compliance report. MK is also to add detail to the DPC to require the submission of the statement of compliance with the Grid Code from the generator.

Minutes of 7th Meeting held on 12 October 2004 at NGT House, Warwick

3 PH thought that if NGC issues BOAs for directly connected sets then it would be reasonable to do the same for embedded generation but PH was not aware that NGC could BOA directly connected sets.

JN advised that two types of testing are carried out ie commissioning tests and OC5 ongoing tests when there is a problem. PH advised that normal tests carried out between a generator and manufacturer should be sufficient for Grid Code compliance. If the generator was not Grid Code compliant then NGC and the generator would enter into discussions on remedies and hopefully would not need to do testing.

Final Report for GCRP & DCRP July 2005 (P20)

**Option 2: Grid Code >DNO >Generator**

Grid Code places obligation on DNO to ensure that generator complies (either via D Code or DNO Connection Agreement) with certain Grid Code provisions.

- Changes to D Code and Grid Code (D Code refers to Grid Code).
- Avoids unnecessary reference to CUSC (although note possible need for NGC to indemnify DNO if de-energisation of a non-compliant generator is required).

Issues

- Technical requirements and obligations in Grid Code
- DNO has requirement to comply with Grid Code in its licence
- DNO could argue they should not accept new liabilities (due to costs / expertise?)
- Could be in body of D Code or as separate Engineering Recommendation as annexe to D Code
- Does not involve other Codes / Governance (e.g. CUSC)
- NGC could remain responsible for ensuring compliance (DNO would need to facilitate – provide access for testing etc).
- Remedy for breach? – D Code (or DNO Connection Agreement) would need to provide for the DNO to disconnect a generator breaching the relevant Grid Code provisions? (NGC would need to indemnify the DNO?)

D/05 Consultation Paper

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DNO concern regarding lack of resources and expertise available to deal with compliance Process

NGC or its agent could do compliance testing; but would need a mechanism to allow this

Page 5

## Appendix A – restatements of broad principles throughout LEEMPS work

It was felt by the group that if the obligation sat in the D Code then it would suggest that the DNO would be responsible for testing, compliance. It was felt that this responsibility would be impracticable from both a technical and resource point of view for the DNO to discharge.