

# A Guide to the Suggested Modifications to the EirGrid Grid Code as a result of SEM

31 August 2007

## Introduction

This document is a guide to the changes to the Grid Code modification proposals that went to consultation from June 19<sup>th</sup> to July 10<sup>th</sup> 2007 (Grid Code Version 2.1). The suggested changes are based on feedback from Grid Code users and the Regulatory Authorities from both Northern Ireland and Ireland. The two TSOs, EirGrid and SONI, working together, have carefully considered the comments received and have made the resultant changes, where appropriate. Where it has been reasonable to do so, both TSOs have made other proposed changes to their respective codes.

This guide will cover those changes affecting the Grid Code used in Ireland only. Another paper covering those Sections Under Common Governance (SDC1 and SDC2) is available from the EirGrid website. It is assumed that all sections of the Grid Code will be subject to further consideration and may be amended based on feedback from the Regulatory Authorities.

The version of the Grid Code that contains these proposed changes to the modifications is available on the EirGrid website and is version number 2.2. The changes from the previous version are highlighted in yellow.

## Main Changes

	Section	Change
1	General	As the definition for Demand Side Unit now includes DSU Aggregators all instance of Demand Side Unit Aggregators and Aggregated Demand Side Units have been removed.
2	GC.6.1	A new line (a) has been inserted to keep in line with the functions of the GCRP.
3	GC6.1(c) now GC.6.2	This has been separated out of the list of JGCRP functions as it shall be a TSO function.
4	GC.7.1	“they will” has been replaced with “it shall”
5	GC.7.3	Following discussion with the RAs, this clause has been changed to reflect the process that will be followed.
6	GC.7.4	“on the island” has been modified to “on the island of Ireland”.
7	GC9.1 Derogations	Final sentence has been amended as follows; Where the TSO is aware or should reasonably be aware that a

	(EirGrid)	non-compliance may have an impact on the Other Transmission System or on the operation of the SEM, the TSO <b>shall</b> provide details of the non-compliance to the Other TSO.
8	PC.3 (a)	This figure has reverted to the existing 10 MW pending further discussions with the RAs.
9	PC3(e) (EirGrid)	The phrase “with Registered Capacity greater than 4 MW” has been deleted. The term Registered Capacity has been replaced by Demand Reduction, but is unnecessary in any event because the definitions of Dispatchable Demand Customer and Demand Side Unit already make reference to the 4MW threshold.
10	PC.1(d)	Northern Ireland (NI) System has been changed to NI System as this is a defined term and does not need to be spelt out here.
11	PC.2 (c)	The reference to NI System has been changed to Other Transmission System.
12	PC.5.1	The reference to NI System has been changed to Other Transmission System.
13	PC.5.2(b)	The reference to NI System has been changed to Other Transmission System.
14	PC.5.3	The first line has been changed from “In planning for the development of the Transmission System,” to “ In the planning and development of the Transmission System and, where appropriate, in the co-ordinated planning and development of both the Transmission System and the Other Transmission System,”
15	PC.6.3.2	“or Other TSO” has been inserted after “TSO” in the second line
16	PC.6.4.1	The reference to NI System has been changed to Other Transmission System.  After Transmission System in line 7 “or Other Transmission System” has been added.
17	PC.6.4.1(d)	The reference to NI system has been changed to Other Transmission System.
18	PC.6.7	The reference to NI System has been changed to Other Transmission System.
19	PC.7.1	At the end of the clause “and where appropriate when participating in the co-ordinated planning and development of both the Transmission System and the Other Transmission System.” has been inserted.
20	PC.7.3 (b), PC.7.4 (b) and PC7.4 (c)	At the end of the line “or the Other Transmission System” has been inserted.
21	PC.8.1	After TSO, “(or in its opinion following referral with the

		Other TSO)” has been inserted.
22	PC.8.2	After “maintains”, “(or maintains following referral with the Other TSO)”
23	PCA.4.13	An additional line is required after point (ii) to distinguish what is required from only the Generator Aggregator and what is required for each site that he represents.
24	PC.A4.13 and PC.A5	The requirements for individual DSUs and DSUs representing more than one site have been separated out for clarity.
25	CC.7.3.1.5	A new section has been added with the requirements for DSUs with on-site generation.
26	CC12.2(g)	“and” has been deleted.
27	CC12.2(h)	“and” has been added at the end of the paragraph and the font size has been changed to align with the rest of the text.
28	CC12.2 (l), (m) and (n)	These clauses have been tidied up slightly and (o), (p), (q) and (r) have been added to differentiate the requirements from a DSU which consists of more than one site.
26	CC12.6	A new clause has been added dealing with the method of specification of the method of aggregation from multiple sites.
	OC2.2	The reference to <b>Demand Reduction</b> has been changed to <b>Demand Reduction Capability</b> .
27	OC2.3 (a)	The minimum generator registered capacity to which this code applies can revert to 5 MW.
28	OC2.4.3	The following line has been added to the clause after part (c):  In the case of <b>Aggregated Generating Units</b> and <b>Demand Side Units</b> which consist of <b>Aggregated Demand Sites</b> the <b>Generator Aggregator</b> or <b>Dispatchable Demand Customer</b> shall provide the aggregated <b>Outages</b> , and upon request from the <b>TSO</b> the <b>Generator Aggregator</b> or <b>Dispatchable Demand Customer</b> shall provide the <b>Outage</b> for each individual site in a reasonable time period.
29	OC2.4.7(d)	The words “transmission” and “load” have been put into bold font and capitalised.
30	OC2.6.2.1 & OC2.6.3.1	After Demand Side Unit the following text “or an <b>Individual Demand Site</b> which constitutes the <b>Demand Side Unit</b> ” has been added.
31	OC5.1.1	As an overall security standard has been developed for the Island of Ireland the following has been added at the end of the clause:  “The Demand Control arrangements may also apply where there are insufficient Generating Plant or transfers to meet Demand in all or any part of the Other Transmission System and/or in the event of problems on the Other Transmission System in circumstances where the TSO chooses to assist the Other TSO and where doing so would not have a detrimental effect on the security of the Transmission System.”

32	OC5.2.1	The following has been added after Transmission System: “and subject to the circumstances set out in OC5.1.1, the Other Transmission System” as an overall security standard has been developed for the Island of Ireland.
33	OC7	Title has been changed from “INFORMATION EXCHNAGE” to “INFORMATION EXCHANGE”
34	OC7.2.4.3.6	The reference to “and Ancillary Service capability” has been deleted as this was a typo as DSUs shall not be providing Ancillary Services.
35	OC7.2.4.3.3 (second instance)	Incorrect numbering has been changed to OC7.2.4.3.7 and the section has been tidied up generally to reflect the latest DSU requirements.
36	OC7.2.4.5.1	The reference in the first clause should refer to OC7.2.4.5 and had been changed.
37	OC8.3 (a)	The minimum generator registered capacity to which this code applies can revert to 5 MW.
38	OC8.7.3	After Ancillary Service Capability “where applicable” has been added. After the two instances on “Generation Unit”, “or Demand Side Unit” has been added.
39	OC9.3	Dispatchable Demand Customers have been included in the scope.
40	OC10.4.5.2	(a) In (i) the word “Signal” has been unbolded and de-capitalised (b) Bold and capitalise the word Generator and add “or Generators” after it. (c) A new line (iv) has been added (iv) For <b>Demand Side Units</b> which are not <b>Dispatched</b> but have been declared <b>Available</b> in an <b>Availability Notice</b> , the <b>Demand Side Unit</b> shall be deemed to be compliant with its declared <b>Demand Profile</b> if the difference between the <b>Demand Profile</b> and the metered <b>Demand</b> is within 5%.
41	OC10.7.1.8	The words “..and hence the SEM Trading and Settlement Code” have been deleted from the end of this clause as this was incorrect. The following text has, however, been added to the end of the clause “In such cases the <b>TSO</b> may set the <b>Demand Side Unit’s Availability</b> to zero until <b>Testing</b> is completed on compliance with <b>Dispatch Instructions</b> .”
42	OC10.7.2.4, OC10.7.3.3, OC10.7.4.2	References to “SEM Trading and Settlement Code” have been changed to “Trading and Settlement Code” as the definition for “Trading and Settlement Code” now includes a reference to SEM.
43	OC4.3.4.6 (a)	As there is only one part to this clause the use of the numbering (a) is superfluous so this has been removed
44	OC4.3.6.3	The references within this clause have been amended to reflect the new numbering of this clause.
45	OC4.3.6.6	The references within this clause have been amended to reflect the new numbering of this clause.
46	OC7.1.1.1	The introduction has been changed to include scope for informing the other TSO of significant system events.

47	OC7.1.9	This section has been changed to provide for informing the other TSO of significant system events.
48	OC10.4.5.2 (iii)	A DSU may be operating more than one generator so this is reflected here.
49	OC10.7.4 and OC10.7.4.2	The word declared should start with a capital letter as Declared is a defined term.
50	Acronyms	It is necessary to add the following acronyms to the Acronyms section: CER DWFPS GCRP HVDC JGCRP MO NCDGU NIAUR SEM SONI TSC
51	Definitions-Declaration	“Generator” has been changed to “User” and “Generation Unit” to “User’s Plant” as there are not only generators making declarations now.
52	Definitions- Outage	The definition has been modified to the following to include DSUs’ Outages:  In relation to a <b>Generation Unit</b> , a total or partial reduction in <b>Availability</b> such that the <b>Generation Unit</b> is unavailable to achieve its full <b>Registered Capacity</b> in accordance with its <b>Registered Operating Characteristics</b> . In relation to a <b>Demand Side Unit</b> , a total or partial reduction in <b>Availability</b> such that the <b>Demand Side Unit</b> is unavailable to achieve its full <b>Demand Reduction Capability</b> in accordance with its submitted <b>Technical Parameters</b> .
53	Definitions	Common Sections has been changed to Sections Under Common Governance
54	Definitions	A new Definition is required for Substitute Reserve. This is to be defined as follows: The additional MW output (and/or reduction in <b>Demand</b> ) required compared to the pre-incident output (or <b>Demand</b> ) which is fully available and sustainable over the period from 4 hours to 24 hours following an <b>Event</b> .
55	Definitions	Re-declaration: The reference to SDC1.4.4.6 has been changed to SDC1.4.5 as the numbering in SDC1 has changed.
56	Definitions	Availability: This definition needs to refer to DSUs so the following has been added to the end: In terms of a <b>Demand Side Unit</b> the measure at any given time of the <b>Demand Reduction</b> the <b>Demand Side Unit</b> is capable of delivering to the <b>Connection Point</b> .

57	Definitions	Regulatory Authority has now been defined as  The authority appointed under legislation to regulate the electricity industry in the respective jurisdiction. In the Republic of Ireland it is the <b>Commission</b> and in Northern Ireland it is NIAUR (Northern Ireland Authority for Utility Regulation).
58	Definitions	Grid Code Review Panel The reference to GC1.8 in this clause was incorrect and has been changed to GC.5
59	Definitions	Joint Grid Code Review Panel This has now been defined as: The panel as set out in GC.6 of the General Conditions
60	Definitions	Definitions relating to the SDCs that have changed are contained in a separate document. Please see the redline version against the June 19 <sup>th</sup> version.