

## EirGrid Grid Code Compliance Update v0.2 November 2007

In accordance with Section OC10.6 of the Grid Code, in February 2007 EirGrid completed an investigation in respect of the performance of all conventional generation plant on the Transmission System.

Under this investigation, EirGrid assessed compliance against the Grid Code Connection Conditions listed below. EirGrid was of the opinion that the conditions that were considered in this investigation were the most appropriate to begin with. At a later date EirGrid will examine the performance of the conventional plant in relation to other conditions

CC.7.3.1.1 (k) Minimum Load:	not greater than 50% of <b>Registered Capacity</b> for <b>CCGTs</b> and not greater than 35% of <b>Registered Capacity</b> for all other <b>Generating Units</b> .
CC.7.3.1.1 (l) Ramp up capability:	not less than 1.5% of <b>Registered Capacity</b> per minute when the <b>Unit</b> is in the <b>Normal Dispatch Condition</b> .
CC.7.3.1.1 (m) Ramp down capability:	not less than 1.5% of <b>Registered Capacity</b> per minute when the <b>Unit</b> is in the <b>Normal Dispatch Condition</b> .
CC.7.3.1.1 (o) Minimum up time:	not greater than 4 hours for <b>Thermal Units</b> .
CC.7.3.1.1 (p) Minimum down time:	not greater than 4 hours for <b>Thermal Units</b> .
CC.7.3.1.1 (s) Time to Synchronise (from instruction)	hot: not greater than 3 hours. warm: not greater than 8 hours. cold: not greater than 12 hours.

Two data sources were used to determine whether units were compliant:

- Data Source 1: OCID<sup>1</sup> data files from January – December 2006.
- Data Source 2: Minimum capacity values in MWs were taken from typical declared and contracted EDIL<sup>2</sup> values from June 2006 – December 2006.

This investigation took into account any derogations granted or those formally applied for and in the derogations process.

EirGrid issued letters to each of the 17 non-compliant power plants representing 29 generation units and, in accordance with clause OC10.7.5 of the Grid Code, required each non compliance to be promptly remedied and sought formal confirmation, within 10 business days, that the appropriate remedies had been implemented.

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<sup>1</sup> OCID: Generating Unit Operating Characteristics File

<sup>2</sup> EDIL: Electronic Dispatch Instruction Logger

Many of the non-compliant power stations requested that EirGrid provide them with the raw data which was used in the investigations and they also requested additional time to review the non compliances.

Please see below a table which provides a summary of current status of the non compliances which were identified in the investigation.

	Data source	Non-compliances identified	Remedied	New temporary derogation application received as a result of the investigation
<b>Minimum Load</b>	OCID only	2	1	1
	EDIL only	7	6	1
	both OCID and EDIL	16 <sup>3</sup>	2	12
<b>Ramp Up</b>	OCID only	13	1	12
	EDIL only	0	0	0
	both OCID and EDIL	0	0	0
<b>Ramp Down</b>	OCID only	10	1	9
	EDIL only	0	0	0
	both OCID and EDIL	0	0	0
<b>Minimum Up Time</b>	OCID only	6	2	4
	EDIL only	0	0	0
	both OCID and EDIL	0	0	0
<b>Minimum Down Time</b>	OCID only	1	1	0
	EDIL only	0	0	0
	both OCID and EDIL	0	0	0
<b>Time to Synchronise from cold</b>	OCID only	5	3	2
	EDIL only	0	0	0
	both OCID and EDIL	0	0	0
<b>Time to Synchronise from warm</b>	OCID only	2	0	2
	EDIL only	0	0	0
	both OCID and EDIL	0	0	0
<b>Time to Synchronise from hot</b>	OCID only	2	0	2
	EDIL only	0	0	0
	both OCID and EDIL	0	0	0
<b>Totals</b>		64 <sup>3</sup>	17	45

<sup>3</sup> Two of the non-compliances identified were not either remedied nor a temporary derogation received for those units as the non-compliance is currently under discussion with both the Commission and the generator.

EirGrid is currently engaged in a number of activities, some of which are described below, in an effort to improve the level of compliance of plant on the transmission system:

1. EirGrid is currently working very closely with ESB Power Generation in relation to the numerous legacy plant derogations applied for in 2001.
  - § 35 % of these derogation applications were recommended for approval by EirGrid and subsequently granted by the Commission.
  - § 14 % were withdrawn prior to January 2005.
  - § Since January 2005, a further 21 % have been withdrawn. We currently expect to issue derogation assessments for a further 8 % to the Commission by end November 2007, reducing the number of legacy derogations to only 22 % of the original number applied for.

In order to reduce the number of derogations required, EirGrid engaged with ESB Power Generation in exploring means to remedying the non-compliances. EirGrid also worked closely with ESB Power Generation to obtain clarity on the plant's limitations prior to submitting the derogation assessments to the Commission. However, given the age of the plant and the absence of test data, etc. it is particularly difficult, and consequently quite time consuming, to determine achievable levels of compliance, hence the length of time it has taken to reduce the number of legacy derogations to 22 % of the original number applied for.

2. To increase developer awareness of the Grid Code and to ensure parties give the Grid Code due consideration as early as possible when designing new plant, EirGrid now requires that a 'Grid Code Acknowledgement/Compliance Declaration'<sup>4</sup> be signed by applicants prior to a connection application being deemed complete by EirGrid.
3. EirGrid is now endeavouring to meet with the developers of thermal generation Committed Projects<sup>5</sup> to discuss the Grid Code obligations and explore possible performance capabilities over and above what is in the Grid Code, during the design stage of their projects.
4. Upon receipt of a derogation application, EirGrid engages with the applicant to explore possible remedies, to get clarity on the plant's limitations and reasons thereof and facilitates further testing of the facility where appropriate. EirGrid proactively works with the developer prior to submitting its derogation assessment to the Commission.

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<sup>4</sup> <http://www.eirgrid.com/EirgridPortal/uploads/Customer%20Relations/Grid%20Code%20Compliance%20Declaration.doc>

<sup>5</sup> Committed Projects are those that have executed connection agreements with EirGrid