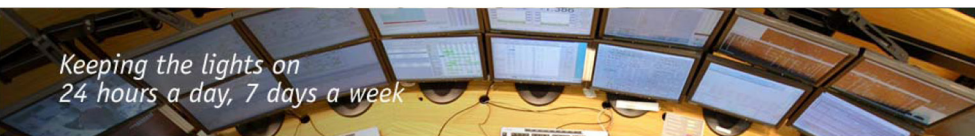


Asset Capability Information Overview

Guideline

Version: 4.1
Revised Oct 2010



*Keeping the lights on
24 hours a day, 7 days a week*

SYSTEM OPERATOR

Keeping the energy flowing

TRANSPower



IMPORTANT

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Version Control

#	Date:	Comment	Effect on Asset Owner Obligations
<i>Draft</i>	November 2002	Initial Draft	CQO only
<i>V.2.0</i>	December 2003	Updated for EGR requirements, and to incorporate <ul style="list-style-type: none">▪ Significance test for Class B Generating stations,▪ Deletion of appendices▪ New title and document attributes	May require greater or lesser obligations on Asset Owners.
<i>V.2.1</i>	May 2004	Semantic changes to significance test to clarify the thresholds for Class B generating stations. Addition of a Generator Class decision diagram for easier understanding of Generator classes.	None
<i>V.3.1</i>	Dec 2008	Revised for EGR Test Data and change to assessment process and tools.	
<i>V3.2</i>	July 09	Section 3 updated, Generation ACS data is now submitted using the Generator ACS Database.	New way of submitting Generator ACS data to System Operator
<i>V4.1</i>	Oct 2010	Code references replace EGR references	None

1. GLOSSARY OF TERMS¹

Asset	Means equipment or plant which is connected to or forms part of the grid and in the case of part 7 and 8 of the 'Code' also includes equipment or plant which is intended to become connected to the grid , and equipment or plant of embedded generators ;
Asset owner	Means a participant who owns assets used for the generation or conveyance of electricity and includes persons who operate such assets if the owner is not a participant , and for the purpose of part 7 and 8 of the 'Code' includes consumers with a point of connection to the grid
Asset owner performance obligations and "AOPO"	Means a performance obligation specified in subpart 2, of Part 8 of the 'Code', with which asset owners must comply for the system operator to plan to comply and comply with its principal performance obligations .
System Operator Principal performance obligations and PPOs	Means the system operator obligations set in Part 7 of the 'Code'.
System operator	Means the service provider for the time being who is appointed as system operator pursuant to the regulations.

¹ As defined in Part 1 of the 'Code'



2. OVERVIEW

What is the purpose of this document?

This document defines the requirements of Asset Capability Information required by Transpower as System Operator under the Electricity Industry Participation Codes (the 'Code'). It should be read with reference to these rules.

The purpose of this document is to define the requirements for provision of accurate and up to date Asset Capability Statements by Asset Owners (including generators, grid owners, distributors and directly connected consumers) to the System Operator.

Policy

Under the 'Code' the System Operator requires Asset Owners to provide asset capability information at the following stages of a new or modified connection

- Planning
- pre-commissioning
- final
- after routine testing of certain assets
- change to assets

This information is used by the System Operator:

- a) To assess compliance of the Asset Owner of its Performance Obligations and support of the Principle Performance Obligations of the System Operator.
- b) To confirm with the Asset Owner that in specific areas (for example - protection, voltage) they have met the requirements of the 'Code'.
- c) To maintain an accurate and up to date model of the power system.

Related Documents

The Asset Capability Information Overview forms part of the Asset Owner documentation provided by Transpower as System Operator. Other documents in this series include:

- The System Operator's Policy Statement - The high level description of how the System Operator intends to meet the obligations contained in Parts 7 and 8 of the 'Code'
 - Test Plan - offers guidelines to a selection of tests that must to be undertaken by Asset Owners for new or modified dispatches.
 - Connecting and Dispatch Guides - Detailing the high level process, obligations, procedures and studies for new connections prior to commissioning of assets for each Asset Owner.
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3. ASSET CAPABILITY STATEMENT OVERVIEW

What is an Asset Capability Statement (ACS)?	An Asset Capability Statement (ACS) means a statement of capability and operational limitations that applies to specific assets during the normal and abnormal conditions which may arise on the grid, provided to the system operator in accordance with technical code A of schedule 8.3 of Part 8 of the 'Code'.
Who has to provide an ACS?	The System Operator maintains separate asset capability information requirements for: <ul style="list-style-type: none">▪ Generators▪ The Grid Owner, and▪ Distributors (including directly connected consumers).
In what format should the ACS be maintained and provided?	Generator ACS data is entered into the ACS Database . All other ACS data is sent to the System Operator using the spreadsheet templates that are available on the SO website .
Confidentiality	It is in the interests of the new connection applicant to sign a confidentiality agreement with Transpower to cover the exchange of ACS information between them up until a Connections Contract is signed.

4. STAGES OF ASSET CAPABILITY STATEMENT

Planning	<p>At the planning stage of any new dispatch or modification of assets for dispatch, an Asset Owner is required to submit a preliminary Asset Capability Statement (ACS) to the System Operator.</p> <p>Provisional data is given at this stage of the ACS to allow the System Operator to determine compliance by way of assets meeting AOPO's and that the System Operator can meet it's PPO's. The static and dynamic data supplied is sufficient to perform the studies required to assess these requirements.</p>
Pre-Commissioning	<p>Once an Asset Owner has confirmed plant requirements then an updated Asset Capability Statement is provided to the System Operator.</p> <p>From this point on, any subsequent variations to the confirmed design and/or intended operational capability of any asset must be confirmed to the System Operator by way of an updated Asset Capability Statement.</p>
Final	<p>Following the final commissioning of the asset, the Asset Owner will provide a final ACS. This final ACS will contain commissioning documentation and test results in order for the System Operator to confirm prior assessments and the validating of system models.</p>



Provision of Routine Test Results

Required for:

- Routine testing of assets as required by Appendix B of Schedule 8.3 Technical Code A of Part 8 of the 'Code', or
 - When asset dynamic response has been significantly changed (for instance with equipment upgrade), or
 - For any assets
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Dispensation and Equivalence

Any requests for Dispensation or Equivalence should be accompanied by an updated Asset Capability Statement at the Planning Stage of the dispatch process. Further detail on Dispensation and Equivalence Procedure can be found in the Schedule 8.1 of Part 8 of the 'Code'.

5. TEST-DATA REQUIREMENTS

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Purpose

Test data is required to verify that the models submitted within an ACS with their associated parameters and settings correctly represent the Asset Owner's equipment.

Types of Testing

Legislated requirements are listed in Appendix B of Schedule 8.3 Technical Code A of Part 8 of the 'Code'. This covers actual tests required and frequency of testing.

Full testing is required for new assets or assets that may have their response significantly changed due to upgraded componentry.

Routine testing of assets is required to ensure dynamic performance has not significantly changed since the last set of tests were carried out

6. ACS DATA REQUIREMENTS

Overview

Details as to what an AO is required to provide to the SO are given in Schedule 8.3 Technical Code A of Part 8 of the 'Code'.

Excluded generating stations

An excluded generating station as defined in Clause 8.21 of subpart 2 in Part 8 of the 'Code' is a station that exports < 30 MW to the grid or local network. This type of station is exempt from providing certain information required in Schedule 8.3 Technical code A of the 'Code'. The SO may require the AO to provide additional information to meet its PPO's.



Connection type	The information required and AOPO's on AO plant may differ depending on whether they are "grid-connected", have a "point of connection" to the grid, or are connected to a "local network". The definitions of these are given in Part 1 of the 'Code'.
System Impact	<p>As mentioned above, the SO may request for additional information and AOPO's on plant based on the impact that the station has on the system and therefore the ability for the SO to meet it's PPO's. This assessment is performed under the planning stage of the ACS by the SO.</p> <p>System impact can relate to the following:</p> <ul style="list-style-type: none"> ▪ Effect on Fault levels ▪ Frequency Performance ▪ Frequency Control ▪ Voltage Control ▪ Security of Supply
Indications and Measurements	Any generating station which is not excluded as per Clause 8.21 of subpart 2 in Part 8 of the 'Code' must provide Indications and Measurements as detailed in Schedule 8.3 Technical Code C of Part 8 of the 'Code'. Clause 8.21 of subpart 2 in Part 8 of the Code describes how generating stations below this output may be required to provide some or all of the Indications and Measurements to the System Operator
Distributors	N/A
Grid Owner	N/A