

# GLOSSARY

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## CURRENT VERSION RELEASE DETAILS

Version	Effective Date	Summary of Changes
20.0	24 October 2021	Periodic review, added new terms. Updated to reflect rule changes relating to Wholesale Demand Response.

## NEXT REVIEW

Next Review Date	Review Type
05/03/2022	Periodic

## Important Notice

### Purpose

The purpose of this document is to provide information about common measures, acronyms, and abbreviations as at the date of publication.

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## 1. GLOSSARY OF TERMS

The electricity industry can be a complicated sector to understand for those who are new to it. To help your knowledge of industry terms, AEMO has collated this list of common measures, acronyms, and abbreviations. Many of these are used in AEMO's *power system operating procedures* and other AEMO publications. This glossary itself forms part of AEMO's *power system operating procedures* made under clause 4.10.1 of the National Electricity Rules (NER).

This document uses several terms that are defined in the NER or the National Electricity Law (NEL). Those terms are indicated *in italics*.

Unless the context otherwise requires, *AEMO's power system operating procedures* will be interpreted in accordance with Schedule 2 of the *National Electricity Law*.

Term	Definition
ACE	Area Control Error – a number calculated from frequency and time error, representing the estimated error (in MWs)
ADE	Aggregate Dispatch Error
ADL	Average daily load
AGC	Automatic Generator Control or <i>AEMO's automatic generation control system</i>
AIR	Annual Interconnector Review
ALS	Automatic load shedding
APC	<i>Administered price cap</i>
APP	<i>Administered price period</i>
ASEFS	<i>AEMO's Australian Solar Energy Forecasting System</i>
APR	<i>Annual Planning Report</i>
A/R	<i>Auto reclose</i>
<i>Auxiliary Loads /Auxiliary Supply /Auxiliaries</i>	<i>Auxiliary loads associated with generating units and substations</i>
AVC	<i>Automatic voltage control</i>
AVR	<i>Automatic voltage regulator</i>
AWEFS	<i>AEMO's Australian Wind Energy Forecasting System</i>
Basslink	<i>Tasmania/Victoria interconnector</i>
BCS	<i>Backup Control System</i>
BIS	<i>Business Information Systems</i>
BOM	<i>Bureau of Meteorology</i>
BUDS	<i>Backup Dispatch System</i>
CA	<i>Contingency analysis</i>
CBF	<i>Circuit Breaker Failure</i>
CCGT	<i>Combined Cycle Gas Turbine</i>
CIR	<i>Congestion information resource</i>
COAG	<i>Council of Australian Governments</i>

Term	Definition
CVP	<i>Constraint Violation Penalty</i> - A factor assigned to each type of <i>constraint</i> equation to ensure physically feasible <i>dispatch</i> , <i>pre-dispatch</i> and <i>PASA</i> solutions can always be achieved by allowing conflicting <i>constraint</i> equations to be violated in a pre-defined priority order based on these factors.
Continuous Operating Limit	The maximum amount of <i>power</i> that can be transmitted through a <i>transmission element</i> or group of <i>transmission elements</i> such that following the occurrence of a <i>credible contingency event</i> , the flow on the remaining <i>transmission elements</i> will remain within their Continuous Ratings. [Note that Continuous Operating Limits may be determined for a particular <i>transmission element</i> , or for a group of elements (e.g. VIC - NSW import limit).]
Continuous Rating	The maximum amount of <i>power</i> that can be transmitted continuously through a specified <i>transmission element</i> .
Co-optimising	Solving an optimisation problem taking into account two or more optimisation problems
CSC	Controlled Static Compensator
CVP	Constraint Violation Penalty
Delivery Point	As specified in each <i>SRAS</i> Agreement, usually: (a) in the case of a <i>primary restart service</i> , the auxiliary power <i>supply</i> point at a specified <i>generating unit</i> ; and (b) in the case of a <i>secondary restart service</i> , an agreed point on the <i>power system</i> (which could be the <i>connection point</i> for the <i>SRAS Provider's generating unit</i> ).
DFS	Demand Forecasting System
DI	<i>Dispatch Interval</i>
Directlink	<i>Terranora</i> is connected to the rest of the electricity network in New South Wales via the direct current (DC) link known as <i>Directlink</i> .
DNSP	<i>Distribution Network Service Provider</i>
DOF	<i>Demand Offset Facility</i>
DRSP	<i>Demand Response Service Provider</i>
DS	<i>dispatch</i>
DSA	Dynamic Security Assessment
DSM	<i>Demand-Side Management</i>
DSO	<i>Distribution System Operator</i>
DTS	AEMO's Dispatcher Training Simulator or the <i>declared transmission system</i> of Victoria (as the context requires)
EAAP	Energy Adequacy Assessment Projection
ECS	<i>Emergency Control Scheme</i>
EFCS	<i>Emergency frequency control scheme</i>
EMS	AEMO's Energy Management System
EMMS	AEMO's Electricity Market Management System
ESCOSA	<i>Essential Services Commission of South Australia</i>
ESOO	<i>Electricity Statement of Opportunities (statement of opportunities)</i>
FCAS	<i>Frequency Control Ancillary Services (a type of market ancillary service)</i>
FCSPS	<i>Frequency Control Special Protection Scheme</i>

Term	Definition
FDL	<i>Fire Danger Level</i>
FFR	<i>Fast Frequency Response</i>
FOS	<i>Frequency operating standard (determined by the Reliability Panel)</i>
FUM	<i>Forecast Uncertainty Measure</i>
Generic Constraint Equation	A constraint equation applied by AEMO to EMMS via SOMMS.
GPATS	Global Positioning and Tracking System
GPG	Gas Powered Generation
GPS	<i>Generator performance standards</i>
Heywood Interconnector	<i>Victoria/South Australia Interconnector</i>
IPART	Independent Pricing and Regulatory Tribunal (New South Wales)
IRH	Inter-Regional Hedging
IRLF	<i>Inter-regional loss factor</i>
I/S	In service
ISTAR	In-Service Trip and Auto Reclose
ITT	Invitation To Tender
ICMS	Integrated Control and Monitoring System
JPB	<i>Jurisdictional Planning Body</i> - The entity nominated by the relevant Minister of a participating jurisdiction as having transmission system planning responsibility in that participating jurisdiction.
JSSC	<i>Jurisdictional System Security Coordinator</i>
LAZ	<i>Lightning Attachment Zone (20km either side of the vulnerable double circuit transmission line.)</i>
LBSP	<i>Local black system procedures</i>
LCR	Largest Credible Risk (used in calculation of reserve levels)
LHS	Left Hand Side
Load block	<i>Amount of electrical load capable of being connected to the transmission system during a system restart</i>
LOR	<i>Lack of reserve</i>
LRC	<i>Low reserve condition</i>
LTP	<i>Likely to Proceed</i> - AEMO advising the relevant NSP that given the information at the time, AEMO would likely allow a network outage to proceed.
LTTI	<i>Latest Time To Intervene</i>
LTTW	<i>Lightning Trip Time Window</i>
LWZ	<i>Lightning Warning Zone (20 km either side of the LAZ)</i>
Market Notice	A notice issued electronically to all <i>Market Participants</i>
MASS	<i>Market ancillary service specification</i>
MCE	Ministerial Council on Energy (former name of the COAG Energy Council)
MII	Manifestly Incorrect Input
MIL	Major Industrial Load

Term	Definition
MITC	Market Impacts of Transmission Congestion
MLF	<i>Marginal Loss Factor</i> - A multiplier used to describe the marginal electrical energy loss for electricity used or transmitted.
MN [xyz]	Refers to <i>Market Notice</i> number xyz
MNSP	<i>Market Network Service Provider</i>
MPC	<i>Market price cap</i>
MT PASA	<i>Medium term PASA</i>
Murraylink	Victoria/South Australia <i>interconnector</i>
NCRR	NEM Circuit Ratings Repository
NCAS	Network Control Ancillary Service
NCS	Network Control Services
NEM	<i>National Electricity Market</i>
NEMDE	<i>AEMO's National Electricity Market Dispatch Engine</i>
NER	<i>National Electricity Rules</i>
Network Model	AEMO's computer model of the <i>national grid</i> , which supports other software used by AEMO.
Network Outage	Where an element of the <i>high voltage</i> system or an associated device or service in the <i>transmission network</i> is made unavailable for use under either planned, short notice or unplanned <i>outage</i> .
NDSC	National Dispatch and Security Centre
NEC	<i>National Electricity Code (superseded in 2005 by the NER)</i>
NEL	<i>National Electricity Law</i>
Non-Conformance	A failure to conform to a <i>dispatch instruction</i> in breach of clause 3.8.23 of the NER.
NLAS	Network Loading Ancillary Service
NMAS	<i>Non-market ancillary services</i>
NOS	AEMO's <i>Network Outage Scheduler</i> , a system used to facilitate communications between AEMO and NSPs about <i>network outages</i> .
NRM	<i>Negative Residue Management</i>
NSA	<i>Network support agreement</i>
NSCAS	<i>Network support and control ancillary services</i>
NSP	<i>Network Service Provider</i>
OA	<i>Operating agreement</i>
OCGT	<i>Open Cycle Gas Turbine</i>
OFGS	<i>Over frequency generation shedding scheme</i>
OHEW	<i>Overhead earth wire</i>
OLTC	<i>On-load tap changer</i>
ONAN	<i>Oil Natural Air Natural. ONAN is the rating at which a transformer can operate at without the fans and oil pumps running to cool it.</i>
OOS or O/S	Out of service
OPDMS	Operations Planning Data Management System

Term	Definition
OPGW	Optical Ground Wire
Participant Notice	A notice issued electronically to a <i>Market Participant</i>
PASA	<i>Projected assessment of system adequacy</i>
PD PASA	<i>Pre-dispatch PASA</i>
PIMMS	<i>Market Participants'</i> interface to the EMMS
Planned <i>Outage</i>	A <i>transmission network outage</i> reported to AEMO for the purposes of <i>ST PASA</i> prior to AEMO's final <i>outage</i> assessment for that <i>ST PASA</i> period.
PLC	Programmable logic controller
PLCC	Power Line Carrier Communication
POC	Point of <i>connection</i>
PoE	Probability of exceedance. A 50% PoE <i>load</i> forecast is one which will be exceeded 50% of the <i>time</i> . See SO_OP_3710 – <i>Load Forecasting</i>
POPS	Plant Overload Protection Scheme
PRD/PD	<i>Pre-dispatch</i>
PSPR	<i>Power System Projects Repository</i>
PTP	An instruction from AEMO granting permission to an NSP to proceed with an <i>outage</i> .
PTR	An instruction from AEMO granting permission to an NSP to restore <i>supply</i> to a <i>transmission element</i> .
PV	Photovoltaic
PWRFLOW	An algorithm within EMS that solves the real and reactive parts of the <i>power</i> flow solution simultaneously based on the Network Model.
QNI	Queensland/New South Wales <i>interconnector</i>
RAS	Remedial Action Scheme
<i>Reserve Requirement</i>	The requirement required to satisfy the <i>reliability standard</i> . The <i>Reserve Requirement</i> for each <i>region</i> can be found in SOMMS.
<i>Restart Path</i>	As specified in each SRAS Agreement, the route that <i>generation</i> from the SRAS <i>Provider's generating unit</i> will utilise to <i>supply</i> the Delivery Point.
RERT	Reliability and Emergency Reserve Trader
REZ	Renewable Energy Zone
RHS	Right Hand Side
RO or Responsible Officer	The designated officer within an organisation who is the primary contact during <i>power system</i> emergencies.
ROC or Rate of Change.	The rate at which <i>active power</i> can change (expressed as MW/minute).
RoCoF	Rate of change of frequency
RRN	<i>Regional reference node</i>
RRP	<i>Regional reference price</i>
RTCA	Real <i>Time</i> Contingency Analysis application in the EMS
RTD/DS	<i>dispatch</i>
RTNET	Real <i>Time Network</i> State Estimation application in the EMS
RTO	Real Time Operations

Term	Definition
RTSCT or Real Time Short Circuit Analysis	An application that analyses the effects of <i>short circuit faults</i> to the <i>network</i> using actual system data.
RTSENH	Real Time Security Enhancement application in the EMS
RTS	Return To Service
RTU	Remote Terminal Equipment
SC	<i>Short circuit fault</i>
SCADA	Supervisory Control and Data Acquisition System
SDL	<i>Self-dispatch level</i>
Short Notice Outage	Any <i>transmission network outage</i> advised to AEMO after AEMO's final <i>outage</i> assessment for an ST PASA period, usually 4 days before <i>dispatch</i> .
Short Term Operational Limit	The maximum amount of <i>power</i> that can be transmitted through a <i>transmission element</i> or group of <i>transmission elements</i> such that following the worst <i>credible contingency event</i> , the flow on the remaining <i>transmission elements</i> will remain within their <i>Short Term Ratings</i> .
Short Term Rating	The maximum amount of <i>power</i> that can be transmitted through a specified <i>transmission element</i> , provided that it is reduced to less than or equal to the Continuous Rating within the <i>time</i> allowable by the <i>Short Term Rating</i> . For example, if an element has a 10-minute <i>Short Term Rating</i> , this means that the maximum <i>power</i> flow through that element can reach the <i>Short Term Rating</i> for 10 minutes but must return to the Continuous Rating once that period expires.
SMIRK2	System Market Incident Reporting Kiosk 2
SRAS Agreement	Agreement for the provision of <i>system restart ancillary services</i> to AEMO.
SRAS Equipment	As specified in each SRAS Agreement
SOMMS	<i>System Outlook For Market Management Systems</i> ( <i>System Operators'</i> interface with EMMS)
ST PASA	<i>Short term PASA</i>
STCA	Study Contingency Analysis application in EMS
STNET	Study <i>Network</i> application in EMS
STSENH	Study Security Enhancement application in EMS
SVC	<i>Static VAR compensator</i>
System Normal Conditions	A situation where all <i>high voltage transmission</i> equipment, and associated services are available for service.
System Reactive Plant	Electrical equipment consisting of capacitors, reactors and SVCs capable of being <i>connected</i> to the <i>transmission network</i> and used for the purpose of managing <i>network reactive power</i>
TAR	Trip and Auto Reclose
Terranora Interconnector	Mudgeeraba in Queensland to Terranora in New South Wales Interconnector
TFB	Total Fire Ban
TI	<i>Trading interval</i>
TLA	Transfer Limit Advice
TNSP	<i>Transmission Network Service Provider</i>
TOA	<i>Temporary Operating Advice</i>
TOSAS	Transient & Oscillatory Stability Ancillary Service

Term	Definition
<i>Trip Condition</i>	<i>Sustained excessive high or low system frequency excursions and, where required by AEMO, frequency rate of change and loss of synchronisation or sustained excessive low voltage excursions</i>
<i>TTHL or Trip to house load</i>	<i>An electrical islanding scheme using generating units that can disconnect from the transmission network following a major supply disruption and continue to supply their own auxiliaries or an isolated segment of system load.</i>
UFLS	Under-frequency load shedding scheme
UIGF	Unconstrained intermittent generation forecast
Unplanned Outage	Any transmission network outage that occurs unexpectedly.
USE	Unserved energy
UVLS	Under-Voltage Load Shedding Scheme
Valid Pre-Dispatch Schedule	The most recently published pre-dispatch schedule that best approximates the condition of the power system.
VCAS	Voltage Control Ancillary Service
VDS	VAr Dispatch Scheduler
Violation Degree	The amount (in MW) by which the left-hand-side (LHS) of a constraint equation violates the right-hand-side (RHS)
VNI	Victoria New South Wales Interconnector
VoLL	Value of Lost Load (dollar amount put on the value of 1 MW of load being lost)
VRE	Variable Renewable Energy
WDR	Wholesale Demand Response

**APPENDIX A. VERSION RELEASE HISTORY**

Version	Effective Date	Summary of Changes
19.0	05 March 2019	Periodic review, added new terms.
18.0	21 January 2014	Periodic review, added new terms.
17.0	10 January 2014	Added new terms identified during TNSP OA project
16.0	04 November 2013	Replace RTSCA with RTSCT in the Glossary table
15.0	25 October 2013	Updated Glossary table
14.0	09 August 2013	Complete rewrite.
13.0	01 July 2009	Change to AEMO document. Replace VOLL with MPC.