

ST PASA Replacement Project

Stakeholder Workshop #1 –
Generator Recall Process

April 2022



Agenda

- Background of ST PASA Replacement Project
- Generator Recall
 - Current Process
 - Issues with the current process
 - Way forward
- New ST PASA Process
 - Rule Change
 - Proposals for new process
- Next Steps

Background



ST PASA Replacement Project

- **Objective:** To do a holistic review of the PD/ST PASA methodology and develop a system that would serve the NEM now, and into the future.
- Details and updates can be found on [ST PASA Webpage](#)

Progress to date

- Phase 1 completed
 - ✓ Initiate industry consultation
 - ✓ High level business requirements
 - ✓ High level design (HLD)
 - ✓ Proof of Concept (PoC)
- Phase 2A commenced
 - AEMC published draft rule change
 - Tasks progressing in parallel:
 - Development of detailed business requirements including stakeholder consultations
 - Further development of uncertainty margins
 - Finalisation of Request For Proposal (RFP) for the SCED engine
 - AEMC Rule change consultation

Business requirements – Stakeholder Consultation

- Detailed business requirements are now being developed
- Stakeholder workshops to work through technical concepts in detail
- Formal procedure consultation to commence once most issues have been bedded down – most likely Q3/Q4 2022. The procedures will include:
 - ST PASA Process description (*the ST PASA procedure*)
 - Reserve Level Declaration Guidelines (RLDG)
 - Reliability Standard Implementation Guidelines (RSIG)
 - Spot Market Timetable (for frequency of PASA runs)

Generator Recall

Current Process, Issues and Proposal

A decorative graphic on the right side of the slide consists of several overlapping purple rectangular blocks of varying shades and sizes, creating a stepped, abstract shape.

Current Process – Why is Generator Recall information required by AEMO?

- Ensure clear communication on generating unit recall times when an intervention event is envisaged, to establish the latest time to intervene and ensure we have a full picture of all the MWs available.
- Avoid risks of delays in obtaining the required information.
- Efficiency in providing required information to AEMO via an electronic interface.
- Automation, especially for participants who operate multiple generating units, some with aggregated units.
- Refer [SO_OP_3719 – Procedure for Submitting Recall Information of Scheduled Generator Outages](#), for details.

Current Process – When will AEMO request Generator Recall information?

- Situations leading to AEMO requiring Gen Recall Information:
 - Heightened risks to power system security or reliability of supply requiring AEMO to intervene in the market in one or more regions.
 - Example: Forecast LOR2 or LOR3 conditions
 - The situation requires AEMO to determine the latest time to intervene.
 - A market notice will be issued advising this situation.

Current Process – When will AEMO request Generator Recall information?

- AEMO may issue a request for Scheduled Generators in the region/s to provide Gen Recall Information, using the market notice type – “Recall Gen Capacity”
- Process improvements introduced recently: AEMO will consider the following information in making this decision:
 - Severity of the forecast LOR2 condition exceeds the trigger levels below and/or the existence of LOR3 condition – Trigger level is the amount of reserve required to avoid LOR2 condition in a region/s

Region	Trigger level (MW)
Queensland	100
New South Wales	150
Victoria	100
South Australia	50
Tasmania	50

Current Process – When will AEMO request Generator Recall information?

- The duration of the LOR2 or LOR3 condition longer than one hour
- Recallable generation capacity in the region/s (i.e. difference between the summated PASA Availability and Max Availability) over the period of concern is equal to or higher than the trigger levels (refer to table in slide 10)
- There is sufficient time for Generators to respond to request for Gen Recall Information – at least four hours

Current Process – What information is requested for Generator Recall?

- For each full or partial plant outage planned or currently underway in the relevant period, specify:
 - The expected time(s) to increase generation capacity and the level(s) to which it could be increased if a direction from AEMO to do so were to be issued
 - Information by hhmm hrs on dd/mm/yy via the outage recall communication system in accordance with the procedure for its use
 - Updates if this information has materially altered due to changed circumstances

Current Process – When will AEMO withdraw the Generator Recall process?

- The trigger to withdraw the Gen Recall process if the following conditions are satisfied:
 - Reserve levels have improved over the period of concern so that no LOR conditions exist (i.e. reserves above LOR1 trigger level)
 - AEMO NEM Real Time Operations is reasonably confident that the reserve levels are unlikely to reduce below LOR2 level again over the period of concern

Issues with the current process

- Once AEMO has published the request for Generator Recall Information, Scheduled Generators must use reasonable endeavours to provide the recall information within the time period specified by AEMO.
- AEMO observation is that participants respond to Gen Recall market notices promptly by making recallable generation capacity available to meet reserve requirements.
- Participants rarely submit Gen Recall Information via Gen Recall Portal
- AEMO has identified the need to obtain information on recallable generation capacity of semi-scheduled generation

Date for Gen Recall Information Request	QLD	NSW	VIC	SA	TAS
2/02/2022	Nil				
1/02/2022	Nil	1			
10/06/2021	1				
18/12/2019			Nil		
30/10/2019		2			
26/08/2019		1			
1/03/2019				Nil	
3/01/2019				2	

Issues with the current process – Participant feedback

- What are the issues with the current process?
- Any other feedback?

Generator Recall

Proposed new ST PASA Process



Rule change: PASA availability and Recall time

- Recall time to be flexible instead of fixed 24 hours
- Participants to provide PASA Availability and the associated recall time
- Range of allowable recall times to be defined in the Reliability Standard Implementation Guidelines
- AEMO to publish on an individual DUID basis:
 - Max Availability/UIGF
 - PASA Availability and associated recall time

Proposal – Range of recall time

- Allowable range for ST PASA purposes to be between 30 minutes and 36 hours
 - 30-minute recall time would reflect that the unit is available to be recalled immediately
 - Maximum recall time of 36 hours chosen as AEMO would rarely intervene any longer than 36 hours ahead
 - No differentiation for different fuel types
 - PASA availability/recall does not apply to semi-scheduled units currently
 - AEMO is currently investigating if there are any benefits for the market in having this information

Proposal – Approach to submission of recall times

- Same process/approach as currently followed for submitting PASA Availability
 - Recall time for the associated PASA Availability to be supplied for each trading interval via the normal bids
 - AEMO is expecting a practical approach to profiling PASA Availability and recall time (as is done now)
 - No requirement to profile for each trading interval within a 30–minute period
 - Update profile (e.g. when there is a delay in returning to service from an outage) as per current approach
 - Only one tranche of PASA Availability/Recall time is required
- Removal of the Generator Recall portal and associated processes

Recall time scenarios

- Scenario 1
 - 300 MW unit out for maintenance for 5 days
 - Require 30 hours' notice on Day 1
 - Require 40 hours' notice from Day 2 to 4
 - Require 5 hours' notice on Day 5

Trading Interval	Max Availability (MW)	PASA Availability (MW)	Recall Period
1 (Day 1)	0	300	30 hours
2	0	300	30 hours
...			
Day 2	0	0	N/A
...			
Day 4	0	0	N/A
...			
Day 5	0	300	5 hours
	0	300	5 hours
...			
	100	300	5 hours
...			
	200	300	5 hours
...			
	300	300	N/A

Recall time scenarios

- Scenario 2
 - 300 MW unit fully (technically) available
 - Bid lower for commercial or other reasons
 - Can return to full capacity in 30 minutes

Trading Interval	Max Availability (MW)	PASA Availability (MW)	Recall Period
1	150	300	30 minutes
2	200	300	30 minutes

Timing of bidding interface

- Bidding interface changes required for IESS project
- As much as practical, AEMO will endeavour to align the changes to the bidding interface so that participants will have to make/test system changes once only

Issues for participants

- What are the issues with the proposed approach?
 - Any issues for aggregated units?
- Any other feedback?

Next Steps



Workshop timetable

Workshop	Topic	Proposed Date
1	Generator Recall Process – current and future	Thursday 7 April 2022
2	Overview of the new process	Thursday 19 May 2022
3	PASA Run types	Thursday 23 June 2022
4	Demand Forecast, Uncertainty Margin and Confidence Levels	Thursday 21 July 2022
5	Information to be made publicly available	Thursday 11 August 2022

High level project time line

