
Agenda item 5h:

Wholesale Electricity Market Pre Rule Change Discussion Paper

Change Proposal No: PRC_2010_08
Received date:

Change requested by:

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Date submitted:	TBA
Urgency:	2-medium
Change proposal title:	Removal of DDAP uplift when less than facility min gen
Market Rule(s) affected:	Clause 6.17

Details of the proposed Market Rule Change

1. Describe the concern with the existing Market Rules that is to be addressed by the proposed Market Rule change:

Under the Market Rules the calculation of DDAP presently applies uniformly to all instances where a scheduled generator deviates downwards from its Resource Plan in real-time. DDAP is an MCAP multiplier applied to facilities that produce less than their scheduled Resource Plan. Its purpose is two-fold. Firstly, it incentivises scheduled generators to nominate achievable Resource Plans and to operate and maintain their facilities in a manner that will enable Resource Plans to be achieved. Secondly, it acts as a deterrent to Market Generators that might seek to deviate downwards from their Resource Plan in real time to take advantage of a potential situation where MCAP is lower than their marginal cost of production.

Facility registration data in WEMS acknowledges limitations of facilities, such as the minimum stable generation of a facility. Below the minimum stable generation, a facility cannot reliably produce output to a pre-determined schedule.

A facility will only be operating below its registered minimum generation under a Resource Plan when ramping up to a level above the minimum, ramping down to zero; or when under a forced outage affecting its entire capacity. Imposing DDAP in instances where a facility is ramping up (or down) according to a Resource Plan, in the intervals when the Resource Plan is less than the facility's registered minimum generation, imposes an additional cost on the scheduled generator above the MCAP price levied on the difference between the Resource Plan and the actual generation. In other words, the DDAP penalty is an attempt to incentivise an outcome which the generator is unlikely to be able to control. Applying DDAP to a facility that has experienced a complete forced outage imposes an additional cost on the scheduled generator above the MCAP price as well as the cost of capacity refunds – which act as the specific market incentive to maintain available capacity. In other words, the DDAP penalty in this instance is superfluous.

While it is acknowledged that there is a potential for the MCAP price to be set marginally higher due to a scheduled generator's downward deviation (if that downward deviation caused a marginally more expensive generator to set the MCAP price), this is a function of the inherent deficiencies in most generation technologies and will not be impacted by the application of a DDAP penalty to a downward deviation below the minimum stable generation (and it is unlikely a generator will purposely deviate downwards if the impact of doing so is to raise the price of MCAP – to which it will be exposed). It is also one of the reasons why settling positions in the balancing market is more risky than in the STEM.

The ramp-up profile in Figure 1 provides an example of how this rule would be applied during a downward deviation during ramp up and ramp down. Figure 2 provides an example of how it would be applied to forced outages:

Figure 1.

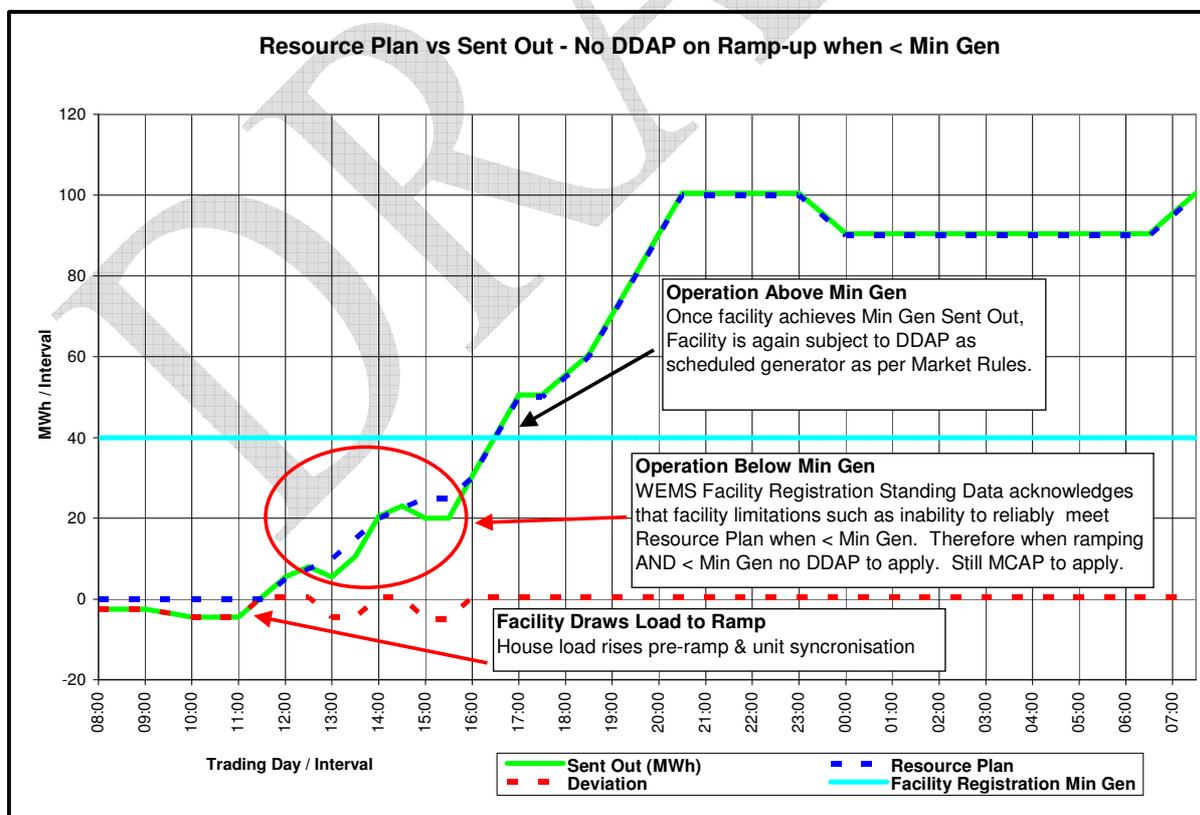
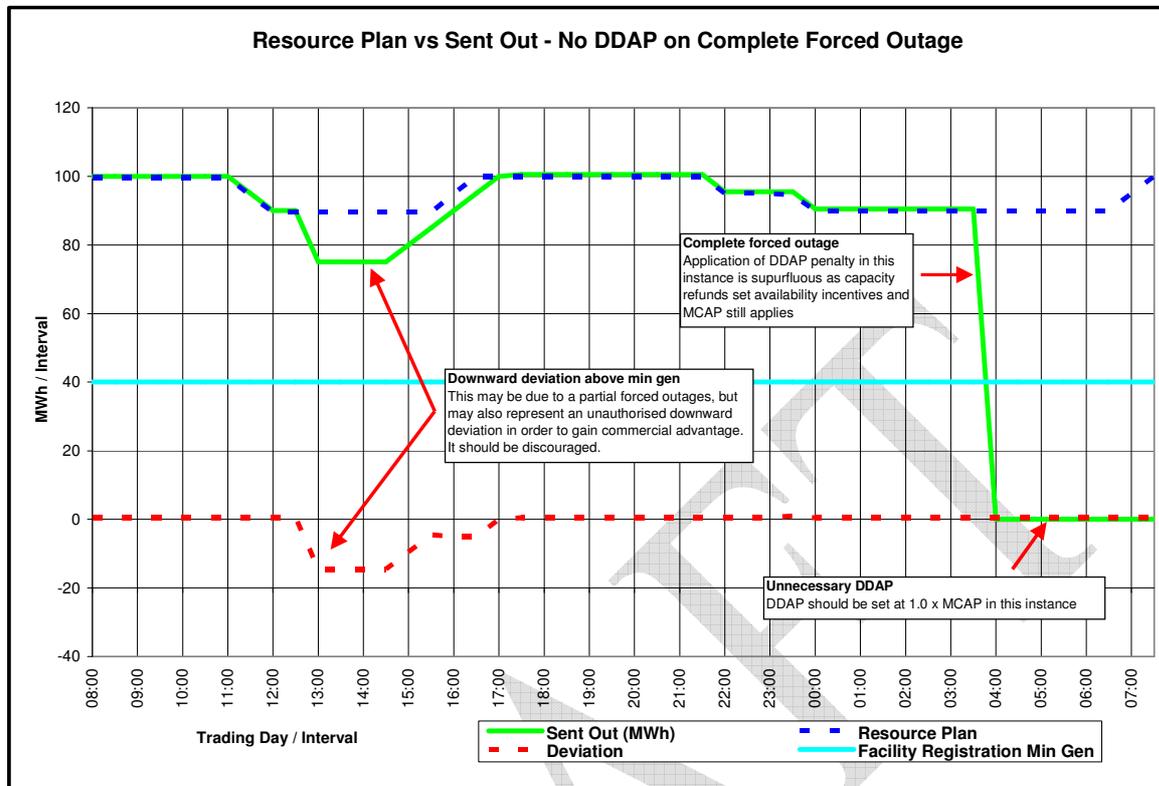


Figure 2.



2. Explain the reason for the degree of urgency:

It is intended that this rule change progress via the standard rule change process – though it is acknowledged that scheduled generators are currently being penalised for known and unavoidable facility limitations.

3. Provide any proposed specific changes to particular Rules: (for clarity, please use the current wording of the Rules and place a ~~strikethrough~~ where words are deleted and underline words added)

6.17.4. The Downward Unauthorised Deviation Quantity, DUDQ(p,d,t), for Market Participant p and Trading Interval t of Trading Day d equals the sum over all that Market Participant's Registered Facilities, for intervals where the Facility Dispatch Schedule of each Facility is above that Facility's registered minimum generation capacity, as indicated in Standing Data, other than those to which clauses 3.21A.14 or 4.25.10 apply, of the lesser of:

(a) The quantity that is:

- i. the Facility's Metered Schedule for Trading Interval t; less
- ii. the Facility's Metered Schedule for Trading Interval t; and

(b) Zero.

4. Describe how the proposed Market Rule change would allow the Market Rules to better address the Wholesale Market Objectives:

This proposed Rule Change would allow the Market Rules to better address the Wholesale Market Objective:

- a) to promote the economically efficient, safe and reliable production and supply of electricity and electricity related services in the South West interconnected system;

A penalty levied to incentivise an action that cannot be properly controlled, or is accounted for by another mechanism in the market, provides little additional benefit to the market. The penalty is an inefficient cost (or wealth transfer).

- c) to avoid discrimination in the market against particular energy options and technologies, including sustainable energy options and technologies such as those that make use of renewable resources or that reduce overall greenhouse gas emissions.

Certain types of generation facilities have limitations that are acknowledged in Facility Registration Standing Data, such as the minimum stable generation of a facility. This proposed rule change will mean that certain types of technologies are not discriminated against through penalties levied against these known limitations.

- d) to minimise the long-term cost of electricity supplied to customers from the South West interconnected system;

By the removal of inefficient costs (or wealth transfers) in the market, the long run benefit should be lower costs for electricity supply.

5. Provide any identifiable costs and benefits of the change:

Costs:

- Changes to SM Resource Plan Deviation calculations; and
 - Changes to IMO Settlement calculations.
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