

## Market advice of Out Of Merit Dispatch

There has been discussion at recent MAC meetings regarding System Managements ability to notify participants when they are going to be dispatched Out Of Merit. An action item was created for System Management to investigate ways in which it may provide more information about potential Out of Merit dispatch to the Market closer to real time.

Information regarding likely dispatch is currently provided to the market by the IMO in the form of forecast load levels, estimated Non-Scheduled Generation, Dispatch Advisories and a Balancing Merit Order. In most circumstances the Balancing Merit Order becomes effectively fixed at the point of gate closure which is currently 2 hours prior to the dispatch interval. Load and non-scheduled generation forecasts are issued on a half hourly basis, so at 30 minutes prior to the dispatch interval it is still generally clear to participants how their facilities will be dispatched.

The above are theoretical constructs that could explain likely dispatch. Once these are overlaid onto the real-time some changes may occur. In the period before dispatch there are several things that can affect dispatch outcomes such as;

- Significant load and non-scheduled generation changes that cannot be accommodated by load following
- Unexpected facility outages or inability to meet dispatch instructions
- Network interruptions
- Network constraints
- Other failures of facilities to meet dispatch requirements.

Dispatch decisions are made on a 10 minute basis and System Management has the necessary tools to assist in making adjustments to dispatch decisions in real time, but does not currently have the ability to communicate specific information about which dispatches are potentially Out Of Merit to the market.

In instances where System Management knows before gate closure that facilities may be dispatched out of merit it will generally be because of a known System issues such as the current Muja transformer incident or other network constraint problems such as the Goldfields and the North West. In these cases System Management will issue general Market Advisories notifying all participants that Out Of Merit generation may be required. The marginal unit/s will be generally affected in these cases.

---

### Connecting people with electricity

System Management's Real-Time Dispatch Engine short-term planning horizon covers 5 intervals, that is 2.5 hours. Given this context System Management believes the following are viable options to improve the notification of Out Of Merit dispatch information.

1. System Management may provide 2 hour ahead forecast dispatch output from its Real Time Dispatch Engine directly to the IMO for analysis and communication with market participants. This will require changes to SM's Dispatch engine and changes to the IMO and SM's data transfers.

This option is in line with the current operational practices for advising the market of important real time information and is in line with current co-operative approach taken by SM and the IMO in these matters.

2. The IMO can analyse the real-time End of Interval SCADA readings provided by SM to determine where facilities are in relation to their expected generation output. This will indicate instances where facilities are likely to be dispatched outside of their forecast balancing position when other participants are not aligned with their dispatch instructions. The IMO may then provide some advisories to those participants who are likely to be affected.

This option is relatively simple to implement but will only cover some instances of Out of Merit Dispatch

3. System Management can implement changes to its real time dispatch engine to indicate instances where dispatch instructions to non-Synergy facilities are out of merit based on the forecast load at the time. As Facilities are only officially deemed to be out of merit after actual dispatch has occurred this will provide potential OOM dispatch information only.

This option would require significant changes to the System Control interface and Real Time Dispatch Engine but a relatively simple addition to the actual dispatch notices issued in the form of a potential OOM check box.

The network issue resulting from failure of the two Muja Bus-tie Transformers has caused long-term OOM dispatch of Muja A/B units. The quantity of OOM has displaced the forecast BMO by the same quantity. One option available to the IMO to align the forecast BMO with the actual dispatch is to consider the OOM quantity and take it out of the merit order.

System Management is willing to work with Market Participants and the IMO to provide a solution required by the market, given the costs and benefits involved.