

Scheduling Error Report –

26 February 2009

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Scheduling Error

In accordance with Rule 3.8.24(a)(2), a scheduling error occurs when NEMMCO declares that it failed to follow the central dispatch process set out in rule 3.8.

On Thursday, 26 February 2009, NEMMCO's Automatic Generation Control (AGC) system sent a Tasmanian generator to an incorrect target value for two dispatch intervals (DI's). NEMMCO has subsequently determined, in accordance with Rule 3.8.24(a)(2), that a scheduling error occurred over the period 12:30hrs to 12:50hrs.

Introduction

Planned changes to the Energy Management System (EMS) were implemented on Thursday, 26 February 2009 to transfer Integral Energy's power system operational data (SCADA) from an indirect channel via Transgrid directly to NEMMCO.

At 08:16hrs the AGC was transferred to the alternate control site. NEMMCO staff carried out the changes at the off-line site, which involved the loading of a new SCADA database. No changes were made to the Network Model Database or the AGC Model databases.

At 12:29hrs, on completion of the process, the AGC was transferred back to the updated site.

Following the changeover the AGC rapidly increased the generation target for Gordon Power Station in Tasmania by 125MW, which exceeded its maximum output of 348MW.

Event details

The cutover to the upgraded site was completed at 12:29hrs. At 12:35hrs, the AGC sent a generation target of 440MW to Gordon Power Station. This target exceeded both the station's availability of 335MW, and its maximum output of 348MW. The power station complied with the instruction as far as possible and delivered generation to its maximum capacity.

The next dispatch target of 236MW was issued at 12:40hrs. The power station was not dispatched for regulation FCAS in this interval, so that the instruction for Gordon was not processed by the AGC. Gordon Power Station received the correct target value for this DI.

At 12:45 hrs, Gordon was again dispatched for regulation, and the AGC dispatched the generator to an incorrect target value of 440MW, as illustrated in Figure 1. In this figure, the Initial MW refers to the Gordon station power output at the start of the dispatch interval, as measured by SCADA. The Total Cleared value is the scheduled target value for the end of the dispatch interval. This value is varied by the AGC processing in response to routine frequency variations when the station is providing regulation FCAS.

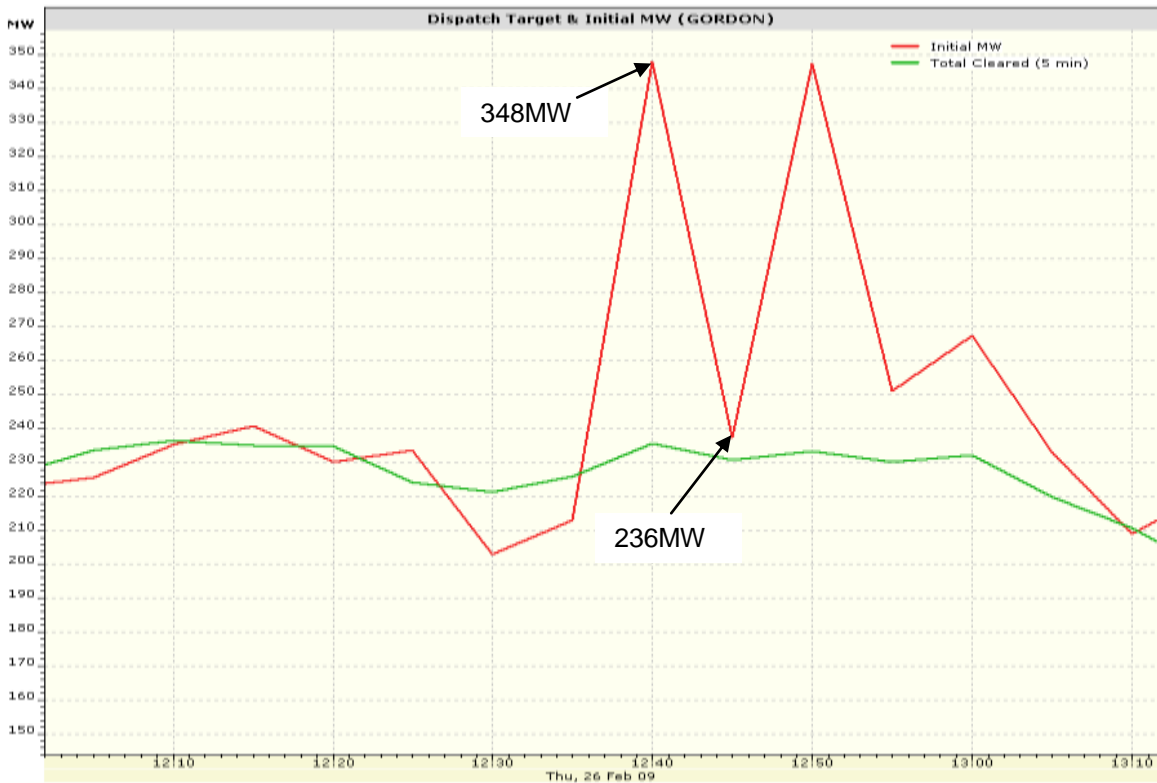
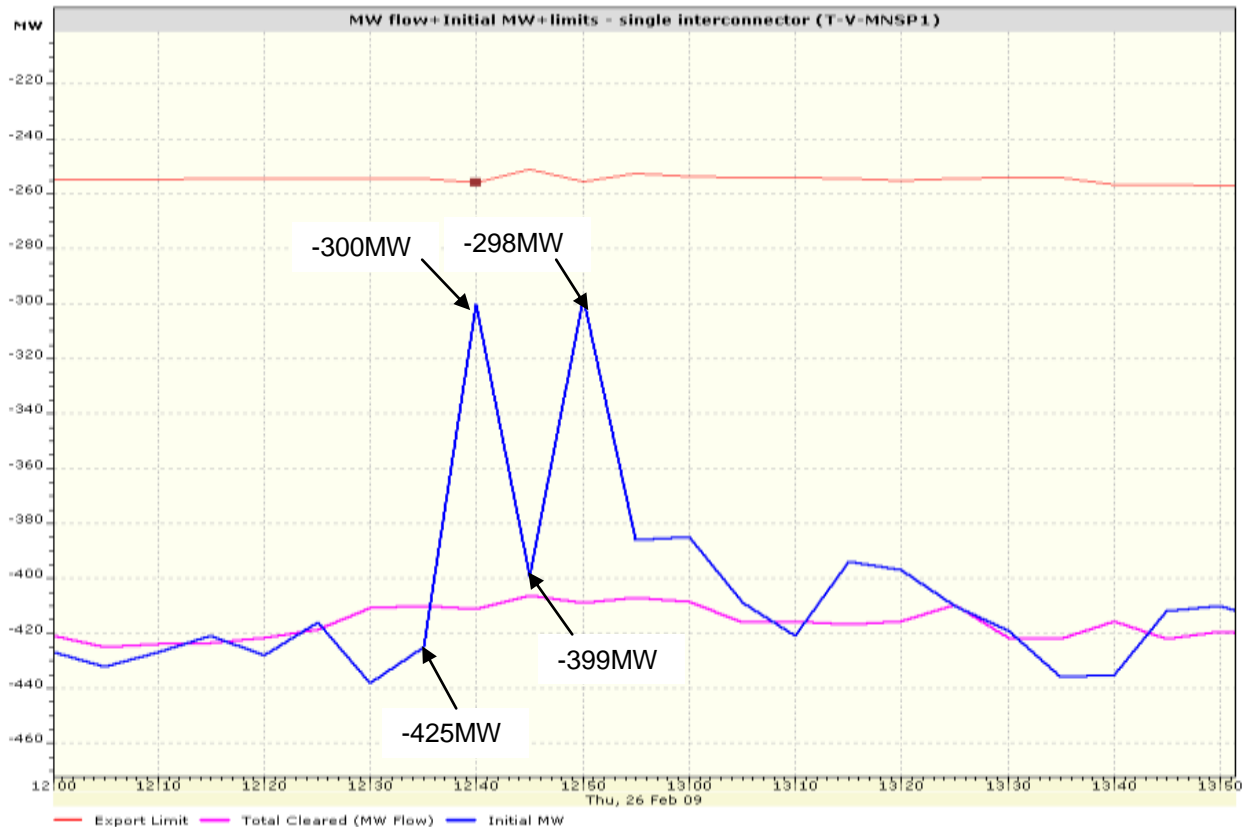


Figure 1 Initial MW Gordon Power Station

The Basslink frequency controller responded automatically to reduce its transfer from Victoria to Tasmania by 125MW at 12:35hrs, and by 101MW at 12:45hrs as indicated in Figure 2.



Graph 2 Initial MW Basslink

At 12:42 hrs Hydro Tasmania contacted NEMMCO, informing them that the AGC was dispatching Gordon Power Station to 440MW, in excess of their available generation of 335MW.

AGC was immediately transferred to the (unmodified) alternate site and the NEMMCO EMS group was advised of the issue. All network applications were restarted on the upgraded site, and from 12:50hrs onwards correct dispatch instructions were issued.

During the three DI's 12:35hrs to 12:45hrs market prices were not materially affected. Accordingly, the changes in regional reference price were insufficient to trigger the Manifestly Incorrect Input procedure set out under Rule 3.9.2B

Conclusion

NEMMCO identified DI 12:35hrs and DI 12:45hrs on 26 February 2009 as affected by dispatch errors and has determined under Rule 3.8.24 (a)(2) that a scheduling error occurred.

Incorrect target values were sent to Gordon Power Station which affected dispatch outcomes for the Basslink interconnector flow. The dispatch error had no material effect on market prices.

The AGC transfer procedure has been modified to ensure network applications are restarted after database modifications have been done.