

**NEMMCO**

National Electricity Market  
Management Company Ltd

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Sydney Office

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Dr John Tamblyn  
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Australian Energy Market Commission  
PO Box A2449  
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Australia

By email: [submissions@aemc.gov.au](mailto:submissions@aemc.gov.au)

Dear John,

**Submission on the proposed Rule change for Setting VoLL Following the Shedding of Interruptible Load**

Thank you for the opportunity to make a submission on the Australian Energy Regulator's (**AER**) Rule change proposal. Under this proposal, NEMMCO's obligation to set the dispatch price to the value of lost load (**VoLL**) following automatic load shedding is removed.

NEMMCO understands that the policy requires it to set VoLL when load has been prospectively shed as a result of a forecast imbalance between the demand and supply at a regional level. Assuming this, NEMMCO supports the intent of the policy underpinning the proposed Rule change. Given this, NEMMCO has provided some hypothetical scenarios, based on the South Australian region, to demonstrate how the proposed Rule would operate in practice, these are set out in the Attachment.

We look forward to the AEMC's consideration of our submission. If you have any queries on any of the matters raised in this submission please contact Taryn Maroney on (02) 8884 5609.

Yours sincerely,



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## **Attachment**

The proposed Rule requires that if NEMMCO reasonably determines that the central dispatch process may determine that all load in a region could not otherwise be supplied and NEMMCO issues instructions that are current for that dispatch interval to Network Service Providers or Market Participants to shed load, then NEMMCO must set the dispatch price at that region's regional reference node to equal VoLL.

The rule specifies two preconditions for NEMMCO to set VoLL:

1. a NEMMCO determination that central dispatch may not be able to dispatch supply to meet the load in a region; and
2. a NEMMCO instruction to shed load.

The following scenarios demonstrate how these preconditions would or would not be met.

### **Scenario One**

Demand	2000 MW
Generation output	1600 MW
Generation capacity	2100 MW
Generation from Heywood interconnector (Victoria to South Australia)	400 MW

#### Assumptions

- Murraylink is out of service.
- Heywood connection is lost and at that moment South Australian generation cannot meet its excess demand.

#### Consequences

Under this scenario, the loss of the Heywood interconnector would result in islanding of the South Australian region and automatic under frequency load shedding (**UFLS**) of about 400 MW. In this case the frequency recovers well as is required by the frequency operating standards. Given this, NEMMCO does not instruct any manual load shedding. The load is restored either after the Heywood interconnector is returned to service or the spare capacity is committed in South Australia.

VoLL is not set by NEMMCO because:

1. central dispatch is likely to be able to supply all the region's demand; and
2. NEMMCO has not instructed load shedding.

### **Scenario Two**

Demand	2000 MW
Generation output	1600 MW
Generation capacity	1900 MW
Generation from Heywood interconnector (Victoria to South Australia)	400 MW

### Assumptions

- Murraylink out of service.
- Heywood connection is lost and at that moment South Australian generation cannot meet excess demand.

### Consequences

Under this scenario, the loss of the Heywood interconnector would result in the South Australian region being islanded and UFLS of about 400 MW, however the frequency recovers well. At this time, NEMMCO does not direct any manual load shedding.

Following the system event, NEMMCO would commence load restoration. However, the entire load (400 MW) may not be able to be restored until the following or a combination of the following has occurred:

- The Heywood interconnector is returned to service
- Additional generation that has been bid is available
- NEMMCO issues a direction for generators to provide energy.

VoLL is not set by NEMMCO because:

1. central dispatch is not likely to be able to supply all the region's load; but
2. NEMMCO has not instructed load shedding.

However if the demand that has been restored increases and NEMMCO issues an instruction to shed load to maintain demand at the original restored level, then NEMMCO would set VoLL.

If NEMMCO was required to set VoLL, it would remain set until NEMMCO issued the instruction to restore the last amount of shed load (consistent with NEMMCO's Power System Operating Procedures, SO\_OP3705 Dispatch).

### **Scenario Three**

Demand	2000 MW
Generation output	1600 MW
Generation capacity	2100 MW
Generation from Heywood interconnector (Victoria to South Australia)	400 MW

### Assumptions

- Murraylink out of service.
- Heywood connection is lost and at that moment South Australian generation cannot meet excess demand.

### Consequences

Under this scenario, the loss of the Heywood interconnector would result in the South Australian region being islanded and UFLS of about 400 MW, however the frequency does not recover as quickly as is required by the frequency operating standards. Given this, NEMMCO directs manual load shedding to restore the frequency.

VoLL is set by NEMMCO because:

1. central dispatch is not likely to be able to supply all the region's load; and
2. NEMMCO has instructed load shedding.

If this occurred, VoLL would remain set until NEMMCO issued the instruction to restore the last amount of shed load (consistent with NEMMCO's Power System Operating Procedures, SO\_OP3705 Dispatch).

## **Scenario Four**

### Assumption

- Localised load shedding occurs due to reduced network reliability in South Australia.

### Consequences

Under this scenario, a local supply requirement cannot be met due to reduced network reliability and this requires NEMMCO to issue an instruction to shed load at a specific location. However, the central dispatch process does not recognise this as supply scarcity i.e. that a surplus of generation is available to be delivered to the regional reference node or an inability to meet a local supply requirement exists. Instead, the central dispatch process would treat the instruction as a reduced demand requirement. Under this scenario, NEMMCO would not be required to set VoLL.

VoLL is not set by NEMMCO because:

1. central dispatch is likely to be able to supply all the region's demand; even though
2. NEMMCO has instructed load shedding.