



Wholesale Market Maintenance Planning Procedures (Victoria)

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Current version release details

Version	Effective date	Summary of changes
4.0	1 May 2024	AEMO is making amendments to these <i>maintenance planning procedures</i> to account for the AEMC’s “DWGM distribution connected facilities” and “Review into extending the regulatory frameworks to hydrogen and renewable gases” rule changes. Other general updates have also been made as part of this procedure update.

Note: There is a full version history at the end of this document.

1. Introduction

1.1. Purpose and scope

These are the Wholesale Market Maintenance Planning Procedures (Procedures) made under section 91BL of the National Gas Law (NGL), rule 326 and rule 326A of the National Gas Rules (NGR).

The NGL and the NGR prevail over these Procedures to the extent of any inconsistency.

These Procedures may only be amended in accordance with Part 15B of the NGR.

1.2. Application

These Procedures apply to AEMO and each person to whom they are expressed to apply.

1.3. Legal and Regulatory Framework

- (a) These Procedures, as required by rule 326(2) of the NGR must, with respect to maintenance, include the following:
 - (i) notification of *maintenance*;
 - (ii) requests to carry out *maintenance*;
 - (iii) approval of requests (including conditions of approval);
 - (iv) initiation of *maintenance* (including initiation at the request of AEMO);
 - (v) risk assessment and management;
 - (vi) information exchange and release (including release of confidential information);
 - (vii) timing (including deferral) of *maintenance*;
 - (viii) the types of *equipment* to be taken off line and brought back on line in the course of *maintenance* operations and the procedures for taking it off line and bringing it back on line;
 - (ix) any other matter contemplated by, or reasonably incidental to, rule 324 or rule 326.
- (b) Rule 326A requires that *distribution connected facility operators* must provide information to AEMO about maintenance of its *distribution connected facility* in accordance with these Procedures.
- (c) In addition to *DWGM facility operators* and *distribution connected facility operators*, these Procedures apply to:
 - (i) a *responsible person* for any change of a *metering installation* pursuant to section 6.3.3 of the *metering installation coordination procedures* (part of the Wholesale Market Metering Procedures); and
 - (ii) a *responsible gas quality monitoring provider* for the temporary or permanent modification of a *gas quality monitoring system* pursuant section 2.7.5 of the *gas quality monitoring procedures*.

1.4. Definitions and interpretation

1.4.1. Glossary

Terms defined in the NGL and the NGR have the same meanings in these Procedures unless otherwise specified in this clause.

Terms defined in the NGL and NGR are intended to be identified in these Procedures by italicising them, but failure to italicise a defined term does not affect its meaning.

The words, phrases and abbreviations in the table below have the meanings set out opposite them when used in these Procedures.

Table 1 Defined Terms

Term	Definition
DTS	<i>Declared Transmission System</i>
DTS SP	<i>Declared Transmission System Service Provider</i>
Emergency work	Maintenance to <i>equipment</i> owned or operated by a facility operator that must be undertaken immediately to address a risk to <i>system security</i> , the <i>equipment</i> , the environment or safety of the public or the facility operator’s personnel.
equipment	Defined in section 2.2.
facility operator	A facility operator includes a <i>DWGM facility operator</i> , <i>distribution connected facility operator</i> , <i>responsible person</i> for a <i>metering installation</i> and a <i>responsible gas quality monitoring provider</i> .
NGL or Law	National Gas Law.
NGR or Rules	National Gas Rules.
maintenance	maintenance means work carried out by a facility operator that, in AEMO’s opinion, may affect (a) the supply of gas through the <i>Market</i> ; or (b) AEMO’s ability to operate the <i>declared transmission system</i> ; or (c) <i>declared transmission system capacity</i> ; or (d) <i>system security</i> ; or (e) the efficient operation of the <i>declared transmission system</i> generally, and includes work carried out on <i>pipeline equipment</i> but does not include maintenance required to avert or reduce the impact of an <i>emergency</i> .
Planned maintenance	Maintenance that is notified to AEMO more than 5 days before the maintenance commencing, as specified in rule 326(3)(a).
Unplanned maintenance	Maintenance that is notified to AEMO within 5 days of the maintenance commencing, as specified in rule 326(3)(b). Unplanned maintenance will be considered by AEMO’s maintenance planning review, subject to time constraints.

1.4.2. Interpretation

The following principles of interpretation apply to these Procedures unless otherwise expressly indicated:

- (a) These Procedures are subject to the principles of interpretation set out in Schedule 2 of the NGL.
- (b) References to time are references to Australian Eastern Standard Time.
- (c) References to a day are references to a calendar day, unless specified otherwise.

1.5. Related documents

The following documents support this Procedure.

Table 2 Related Wholesale Market Procedures

Reference	Title	Location
Emergency Protocol	Emergency Protocol	https://www.aemo.com.au/energy-systems/gas/emergency-management/victorian-role
Connection Approval Procedures	Wholesale Market Connection Approval Procedures (Victoria)	https://www.aemo.com.au/energy-systems/gas/declared-wholesale-gas-market-dwgm/procedures-policies-and-guides
Distribution Operation Procedures	Wholesale Market Distribution Operation Procedures (Victoria)	
Gas Quality Monitoring Procedures	Wholesale Market Gas Quality Monitoring Procedures (Victoria)	
Management Procedures	Wholesale Market Management Procedures (Victoria)	
Metering Procedures	Wholesale Market Metering Procedures (Victoria)	
Market Operations Procedures	Wholesale Market Operations Procedures (Victoria)	
Settlement Procedures	Wholesale Market Settlement Procedures (Victoria)	
System Security Procedures	Wholesale Market System Security Procedures (Victoria)	

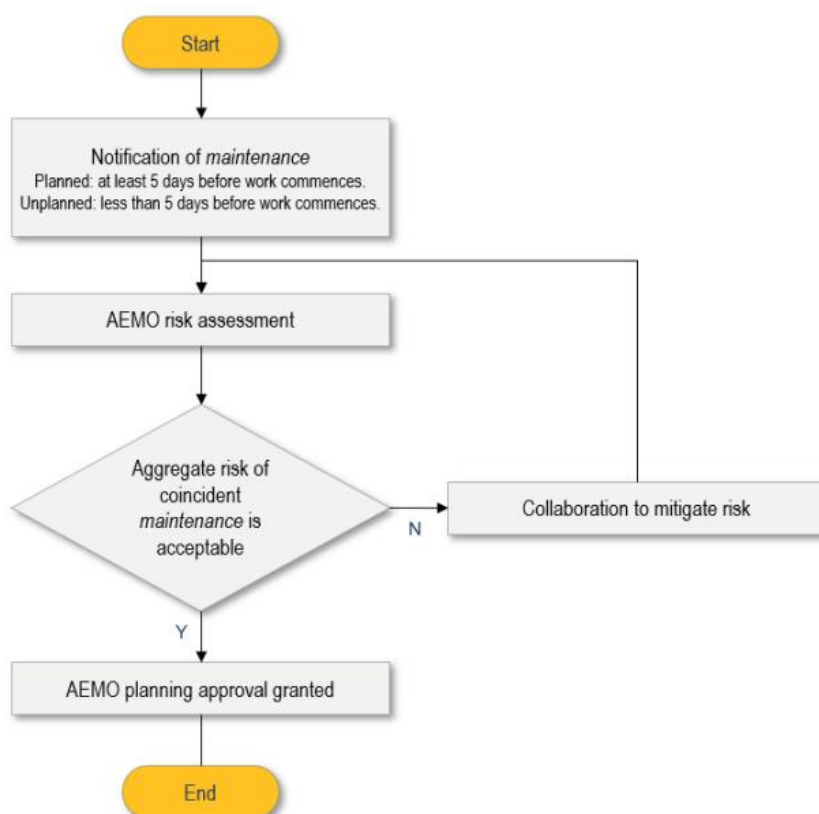
2. Maintenance planning process

2.1. Overview of maintenance planning process

The AEMO maintenance planning process is completed in the maintenance planning review phase (this section) and the undertaking maintenance phase (see section 3).

The maintenance planning review phase is performed in advance of the proposed work. This approach is depicted in the flow chart of Figure 1.

Figure 1 Maintenance planning process flowchart



2.2. Facilities and equipment subject to maintenance planning review

Without limitation, maintenance includes work conducted on the following:

- (a) In relation to DWGM facility operator's:
 - (i) gas production facility, storage facility or blend processing facility;
 - (ii) equipment as defined in rule 326(8), including pipeline equipment which may incorporate compressor stations, valves, city gates, pressure reduction stations;
 - (iii) gas quality monitoring system;
 - (iv) metering installation;

- (v) *communication link* equipment; and
 - (vi) control equipment.
- (b) In relation to a *responsible person* for a *metering installation*:
- (i) *metering installation*;
 - (ii) communication link equipment;
 - (iii) control equipment.
- (c) In relation to *responsible gas quality monitoring providers*:
- (i) *gas quality monitoring system*;
 - (ii) communication link equipment;
 - (iii) control equipment.
- (d) In relation to a *distribution connection facility operator's*:
- (i) *gas production facility, storage facility or blend processing facility*;
 - (ii) *equipment* as defined in rule 326(8), including *pipeline equipment* which may incorporate compressor stations, valves, city gates, pressure reduction stations;
 - (iii) *gas quality monitoring system*;
 - (iv) *metering installation*;
 - (v) *communication link* equipment; and
 - (vi) control equipment.

2.3. Notification of maintenance

2.3.1. Facility operator's notification of maintenance

Facility operators must send a notification to AEMO of maintenance where, in AEMO's reasonable opinion, work carried out by the facility operator may affect:

- (a) the supply of *gas* through the *Market*; or
- (b) AEMO's ability to operate the DTS; or
- (c) the DTS capacity; or
- (d) system security; or
- (e) the efficient operation of the DTS generally,

and includes work carried out on *pipeline equipment* but does not include maintenance required to avert or reduce the impact of an emergency.

Facility operators must consult with AEMO if they are unsure if work is considered maintenance. Alternatively the *facility operator* may regard the work as maintenance and notify AEMO in accordance with the requirements of these Procedures.

For the purposes of rule 326(3), planned maintenance and unplanned maintenance is to be provided to AEMO as a notification of forecast maintenance.

2.3.2. Submission of maintenance information

Information must be submitted by at least one of the methods listed in the following table.

Table 3 Methods for exchange of maintenance information

Method of information exchange	Maintenance Forecast Notification	Emergency Maintenance Notification	Facility Release Request	AEMO Notification / Response
Phone		X	X	X
Email	X			X

2.3.3. Timing of forecast maintenance submissions

DWGM facility operators that intend to perform maintenance must provide AEMO with notification of the maintenance forecasts in accordance with rule 324(4), given as follows:

- (a) rule 324(1)(a) – annual forecasts for each year in the 5 year period commencing on each 1 January must be provided to AEMO by 30 September in the immediately preceding year.
- (b) rule 324(1)(b) – monthly forecasts for each month in the 12 month period commencing on each 1 January must be provided to AEMO by 30 September in the immediately preceding year.
- (c) rule 324(4) – week-ahead forecasts commencing from Monday in each week which must be provided to AEMO by no later than the immediately preceding Wednesday.
- (d) rule 324(5) – as soon as practicable having regard to the nature of the change if it becomes aware of a material change to information previously provided. A material change is defined in section 2.3.4.

Distribution connected facility operators, responsible persons for metering installations and responsible gas quality monitoring providers that intend to perform maintenance must provide to AEMO the maintenance forecasts in accordance with the timings in this section 2.3.3.

2.3.4. Material changes in forecast maintenance

A material change in a forecast maintenance is any variation to the forecast that, in AEMO's opinion, may or will impact:

- (a) the supply of gas through the *Market*; or
- (b) AEMO's ability to operate the DTS; or
- (c) DTS capacity; or
- (d) system security; or
- (e) the efficient operation of the DTS generally.

Facility operators must consult with AEMO if they are unsure if a change to information previously provided is a material change, or alternatively the facility operator may regard the change as a material change and notify AEMO in accordance with the requirements of these Procedures.

Updated maintenance forecasts may also include maintenance that was not previously listed in a forecast.

AEMO may consider the updated maintenance forecast as either planned maintenance or unplanned maintenance.

AEMO's maintenance planning review may consider unplanned maintenance subject to time constraints on completing the maintenance planning review.

2.3.5. Maintenance information

Maintenance forecasts, as required by rule 324(4) and these Procedures, must include:

- (a) the availability of *equipment*;
- (b) details of any constraints on the availability of *equipment*;
- (c) the time and duration of any proposed maintenance;
- (d) full details of the proposed maintenance;
- (e) the longest period likely to be required to recall into operation relevant *equipment* during the course of maintenance; and
- (f) operational requirements for maintenance to be performed including:
 - (i) the *gas* pressure under which the maintenance will be performed;
 - (ii) requirements for testing; and
 - (iii) test operations required.

2.4. AEMO's maintenance planning review

2.4.1. Maintenance planning review process

AEMO undertakes a maintenance planning review of forecast maintenance (including planned maintenance and unplanned maintenance) to give *Registered participants* assurance that the proposed maintenance will minimise any threat to *system security*.

AEMO will, having regard to information provided by *Registered participants*, review forecast maintenance to minimise any threats to system security as a consequence of the unavailability of *equipment* undergoing maintenance. This risk-based assessment in regard to the maintenance planning review is detailed in section 2.4.2, and will include consideration of the following:

- (a) prior maintenance planning review and the conditions specified for that prior review (if applicable); and
- (b) system and environmental conditions present at the time of work.

Maintenance planning review of an unplanned maintenance request is subject to AEMO determining at the time that:

- (c) maintenance can be safely performed concurrently with other maintenance that have completed their maintenance planning review and *emergency work*; and
- (d) the aggregate risk of all facility operator maintenance and *emergency work* is acceptable.

Planned maintenance will be preferentially approved over unplanned maintenance where AEMO determines the risk of conducting maintenance concurrently is not acceptable.

AEMO will consider the impact of any concurrent *emergency work* in the evaluation of risk from planned maintenance and unplanned maintenance.

AEMO grants maintenance planning review approval to maintenance requests where the aggregated risk of all facility operators' maintenance being performed at the time is assessed as acceptable. Maintenance, that has completed AEMO's maintenance planning review, is still subject to the facility operator requesting a facility release to undertake maintenance as detailed in sections 3.2.

2.4.2. Risk assessment and management

AEMO will consult with facility operators to plan maintenance to minimise *Market* impact and any threats to *system security* as a consequence of the unavailability of *equipment* undergoing maintenance. This will be performed via a risk-based assessment that will include consideration of the following:

- (a) Constraints on the availability of *equipment*;
- (b) Time, duration and recall period of maintenance;
- (c) System conditions required to perform maintenance;
- (d) Impact on system security from the unavailability of *equipment*;
- (e) Anticipated environmental and system conditions present at the time of maintenance;
- (f) Other proposed *facility operators'* maintenance occurring concurrently; and
- (g) Risk mitigation options to minimise potential threats to *system security*.

AEMO will use the requirements of the Gas Safety (Safety Case) Regulations 2018 and the Australian Standards as the minimum threshold for evaluation of risk. The qualitative risk assessment process, as described by the Australian Standard for pipeline safety management, AS 2885.6, will be used as the basis for this assessment.

Control measures that minimise threats to system security as a consequence of the unavailability of *equipment* will be communicated to *facility operators* as a condition of the maintenance planning review approval.

2.4.3. AEMO's response to a notification of forecast maintenance

AEMO will attempt to respond to a notification of forecast maintenance with the outcome of the maintenance planning review by the time specified below. This timeline is dependent on the type of maintenance notification, as detailed below:

- (a) Annual and monthly forecasts provided by 30 September, will be responded to by 1 December of that year.
- (b) Week-ahead forecasts provided by 4pm on the immediately preceding Wednesday, as specified in section 2.3.3(c), will be responded to by 4pm on the immediately preceding Friday.
- (c) Unplanned maintenance forecasts will be responded to as soon as practicable.

AEMO’s maintenance planning review process will be communicated as one of the options given in the following table.

Table 4 Maintenance Planning Review Outcomes

Assessment Outcome	Explanatory note
Approved	Maintenance planning approval granted on the basis of AEMO’s maintenance planning review determining that the maintenance in AEMO’s opinion has minimised any threat to <i>system security</i> .
Conditionally Approved, (with specified conditions)	Maintenance planning approval granted, subject to specified conditions, required to minimise any threat to system security.
Not approved	AEMO may not approve if it reasonably considers that any maintenance proposed by a facility operator does not, in AEMO’s opinion, minimise any threats to <i>system security</i> caused by the maintenance.

AEMO may direct any maintenance by a:

- (a) *DWGM facility operator* to be delayed, suspended or cancelled under rule 326(5) which is discussed in section 3.6.1.
- (b) *Distribution connected facility operator, Registered participant that is a responsible person or Registered participant that is a responsible gas quality monitoring provider* to be delayed, suspended or cancelled by direction under 91C of the NGL which is discussed in section 3.6.2.

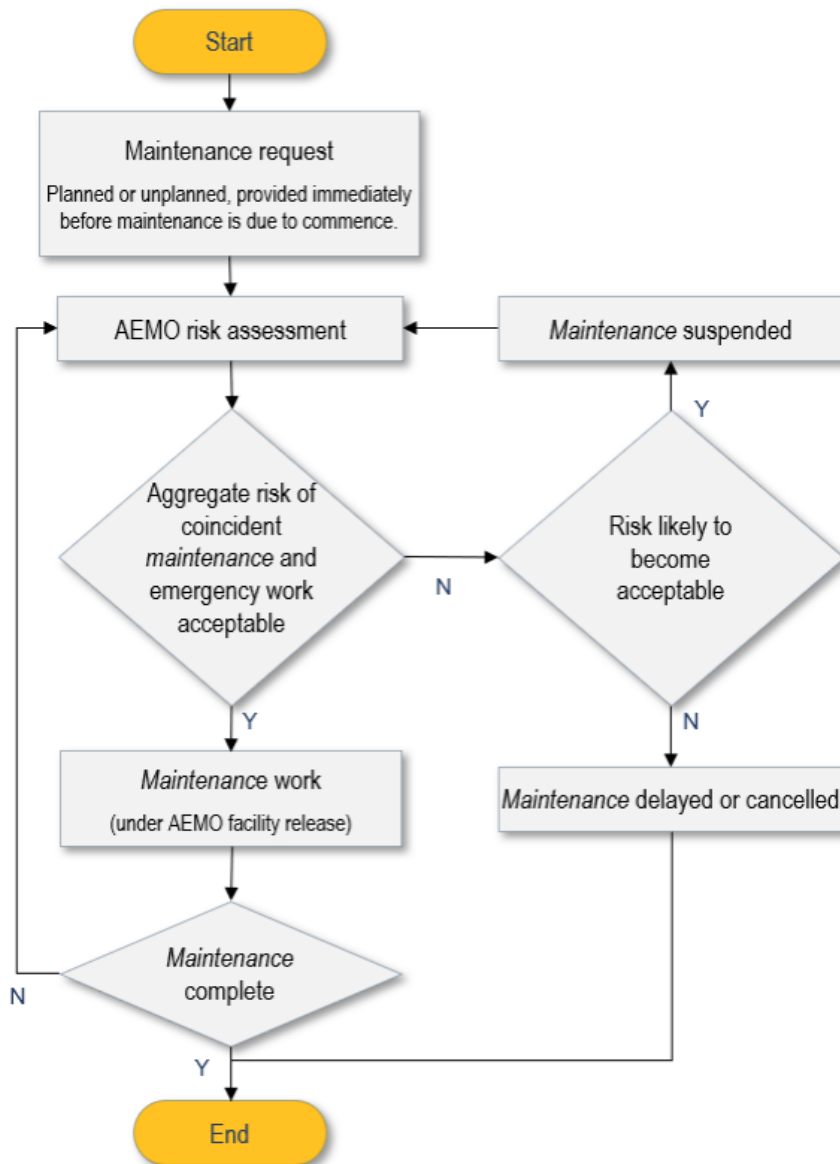
3. Undertaking maintenance

3.1. Overview

This section covers how AEMO manages risk on the day of the maintenance work for maintenance within the DTS to be undertaken by the DTS SP, *responsible person for metering installations* and a *responsible gas quality monitoring provider*. This approach is depicted in Figure 2.

For the avoidance of doubt, a *DWGM facility operator's* (excluding the DTS SP) or *distribution connected facility operator's* maintenance, may result in a request for AEMO to apply a scheduling constraint reflecting the altered injection or withdrawal capacity in AEMO's schedule for the *gas day(s)* as outlined in section 3.2.2.

Figure 2 Performance of maintenance process flowchart



3.2. Requests to undertake maintenance

3.2.1. Request to carry out planned and unplanned maintenance

The DTS SP, *responsible person for metering installations* and a *responsible gas quality monitoring provider* must request a facility release from AEMO as outlined in section 3.3, to initiate planned maintenance and unplanned maintenance, unless otherwise agreed by AEMO.

This request must be made immediately prior to the intended commencement of work and be communicated in accordance with the submission of maintenance information requirements detailed in section 2.3.2.

The maintenance request must include the following:

- (a) reference to prior planning approval (stating no approval if not previously received);
- (b) availability of relevant *equipment*;
- (c) details of the person making the request (name, organisation, contact details); and
- (d) anticipated commencement and completion time of proposed work.

The person making the request must be contactable for the duration of work via the details provided in the request.

3.2.2. Notification of a facility's scheduling constraint

A *DWGM facility operator* (excluding the DTS SP) and *distribution connected facility operator* maintenance may impact capacity at a *market injection point* or *market withdrawal point* capacity. This requires a facility operator to inform AEMO of the scheduling constraint as follows:

- (a) Planned maintenance, causing a scheduling constraint at a facility, should be submitted before D-2 at 11:00am (i.e. the D+2 schedule for gas day D) for gas day D.
- (b) Unplanned maintenance and emergency work, requiring a scheduling constraint at a facility, should be submitted as soon as possible.

A *DWGM facility operator* or *distribution connected facility operator* may request a scheduling constraint under the *gas scheduling procedures* or *distribution operational coordination procedure* respectively, reflecting the facility capacity limitation which will be entered into AEMO's market system.

These constraints will be published via a MIBB report to *Registered participants* and may be sent as a notification via SWN.

3.2.3. Notification of emergency work

A facility operator must notify AEMO of *emergency work* as soon as practicably possible. Notification must include relevant details of:

- (a) the breakdown or threatened breakdown; and
- (b) its proposed response to the breakdown or threatened breakdown.

The notification should also include the maintenance information specified in section 2.3.5, where available.

For the avoidance of doubt, *emergency work* may commence without AEMO approval. The *facility operator* must immediately notify AEMO of this *emergency work*.

3.3. AEMO's facility release to undertake maintenance

AEMO grants the DTS SP, *responsible person for metering installations* and a *responsible gas quality monitoring provider* a facility release, in response to the request in section 3.2.1 and section 3.2.3, to remove *equipment* from service in order to undertake maintenance.

A facility release may be granted by AEMO, and may specify conditions required to be followed to undertake the work that may relate to:

- (a) duration of work;
- (b) conditions specified in the planning approval; and
- (c) conditions specific to the environmental and system factors present at the time of maintenance.

Maintenance must be performed in accordance with the associated maintenance information and facility release unless a consent to change has been approved by AEMO. Consent to change will be assessed in accordance with AEMO's risk assessment and management process detailed in section 2.4.2.

AEMO will provide a facility release for a *gas day*, unless another time period is agreed with AEMO.

3.4. Initiation of maintenance

A facility operator must undertake maintenance in accordance with the facility release and/or the maintenance information reviewed in AEMO's maintenance planning review.

3.5. Update AEMO on outcome of maintenance

A facility operator must provide an update to AEMO if maintenance that is being undertaken will materially change in regard to the facility release and/or the maintenance information provided for the maintenance planning review.

A facility operator must promptly notify AEMO that the maintenance has been:

- (a) completed, in which case AEMO will close the facility release;
- (b) extended, in which case AEMO may close the facility release and AEMO needs to undertake a maintenance risk assessment for extending maintenance across future *gas days*; or
- (c) delayed or cancelled, in which case AEMO will close the facility release and the work should be rescheduled by the facility operator for a future notification of forecast maintenance as per section 2.3.

3.6. AEMO direction to delay, suspend or cancel maintenance

3.6.1. AEMO direction to DWGM facility operator in regard to maintenance

AEMO will review maintenance by *DWGM facility operators* and consult with the *DWGM facility operator* where, in AEMO's reasonable opinion and as per rule 326(5):

- (a) the *DWGM facility operator* is conducting or proposing to conduct maintenance in a way that does not minimise threats to system security; and
- (b) the relevant *equipment* will not be materially damaged by deferring that maintenance.

AEMO may direct the *DWGM facility operator* to delay, suspend or cancel maintenance.

The need to issue a direction will be determined in consultation with the *DWGM facility operator*, and be based on AEMO's risk assessment, as detailed in section 2.4.2.

An AEMO direction will have following effect:

- (a) Delay: the maintenance has not obtained a facility release and will be re-scheduled to an alternate date.
- (b) Suspend: AEMO rescind a facility release with the intention that maintenance may recommence within the approved maintenance window. Maintenance must stop for the duration of the suspension.
- (c) Cancelled: AEMO rescind a facility release with the intention that maintenance will not recommence within the approved maintenance window. This work may be re-scheduled to an alternate period.

3.6.2. AEMO direction to a non-DWGM facility operator in regard to maintenance

In relation to maintenance by *distributions connected facility operators*, *Registered participants* that are *responsible persons for metering installations* and *Registered Participants* that are *responsible gas quality monitoring providers*, AEMO may give a direction under clause 91BC of the NGL to undertake an action (e.g. to Delay, Suspend or Cancel maintenance as defined in section 3.6.1) in relation to the maintenance to maintain and improve the security of the declared transmission system or a declared distribution system.

In the event a *Registered participant* that is a *responsible person* or *Registered participant* that is a *responsible gas quality monitoring provider* flow unmetered or unmonitored gas during maintenance AEMO may, under clause 91BC of the NGL, direct the flow to cease.

4. Other matters

4.1. East Coast Gas System maintenance planning function

AEMO is responsible for the East Coast Gas System reliability and supply adequacy function. This function enables AEMO to direct relevant entities (i.e. facility operators) undertaking maintenance to mitigate an identified risk or threat to gas supply. This may include AEMO directing a facility operator using an East Coast Gas System direction to cease maintenance.

4.2. Victorian Gas Planning Report and Gas Statement of Opportunities function

Information provided to AEMO under the maintenance planning function may be used to inform the Victorian Gas Planning Report and Gas Statement of Opportunities. These gas planning reports are expected to use the information submitted under rule 324 to inform the planning report.

4.3. Gas Bulletin Board reporting

Maintenance information is required to be reported to the Gas Bulletin Board as part of the Short Term Capacity Outlook and Medium Term Capacity Outlook data submitted by some *BB reporting entities*.

AEMO, as the operator of the DTS, is responsible for submitting DTS maintenance forecasts.

These maintenance forecasts will impact the Short Term Capacity Outlook and Medium Term Capacity Outlook data for the DTS that AEMO submits to the Gas Bulletin Board.

Past version release details

Version	Effective date	Summary of changes
3.0	22 April 2021	Changes to take into account of National Gas Amendment (DWGM maintenance planning) Rule 2021 No. 4.
2.0	14 October 2013	Document update.
1.0	1 July 2009	Initial version.