

WHOLESALE MARKET MAINTENANCE PLANNING PROCEDURES (VICTORIA)

PREPARED BY: AEMO Operations
DOCUMENT REF: 281618
VERSION: 3.0
EFFECTIVE DATE: 22 April 2021
STATUS: Final

Approved for distribution and use by:

APPROVED BY: Michael Gatt
TITLE: Chief Operations Officer

DATE: 29/03/2021

VERSION RELEASE HISTORY

Version	Effective Date	Summary of Changes
1.0	1 July 2009	First Issue
2.0	14 October 2013	Document Update
3.0	22 April 2021	Changes to take into account of National Gas Amendment (DWGM maintenance planning) Rule 2021 No. 4.

CONTENTS

1.	INTRODUCTION	4
1.1.	Purpose and scope	4
1.2.	Definitions and interpretation	4
1.3.	Related documents	5
2.	GENERAL	5
2.1.	Types of equipment	5
2.2.	Information exchange and release	5
3.	NOTIFICATION OF MAINTENANCE	6
3.1.	Maintenance forecasts	6
3.2.	Emergency work	8
4.	MAINTENANCE REQUESTS	8
5.	MAINTENANCE REQUEST APPROVAL PROCESS	9
5.1.	Assessment of risk	9
5.2.	Facility release	9
6.	INITIATION OF MAINTENANCE	9
7.	MAINTENANCE APPROVAL DELAY, SUSPENSION OR CANCELLATION	10
8.	RISK MANAGEMENT	10
9.	MAINTENANCE COORDINATION PROCESS	11

TABLES

Table 1	Methods for exchange of <i>maintenance</i> information	5
Table 2	Maintenance planning approval outcome.....	8

FIGURES

Figure 1	Maintenance planning process flowchart.....	11
Figure 2	Performance of maintenance process flowchart.....	12

1. INTRODUCTION

1.1. Purpose and scope

These are the Wholesale Market Maintenance Planning Procedures made under rule 326 of the National Gas Rules (Procedures).

These Procedures have effect only for the purposes set out in the National Gas Rules (NGR). The NGR and the National Gas Law prevail over these Procedures to the extent of any inconsistency.

The procedures relate to AEMOs responsibility for the coordination of all *maintenance* planned by DWGM facility operators to minimise threats to system security as a consequence of the unavailability of equipment undergoing *maintenance*.

1.2. Definitions and interpretation

1.2.1. Glossary

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

Defined terms/Terms defined in the 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.

Term	Definition
Available supply	Comprises supply unaffected by maintenance.
Emergency work	Work in connection with equipment owned or operated by a DWGM facility operator that must be undertaken immediately to address a risk to the <i>system security</i> , the equipment, the environment or safety of the public or personnel of the DWGM facility operator.
<i>Maintenance</i>	As defined in NGR 200
Planned maintenance	Maintenance that is notified to AEMO more than 5 days before the day on which that maintenance is due to commence.
System security	Refer Wholesale Market System Security Procedures (Victoria)
Unplanned maintenance	Maintenance that is notified to AEMO within 5 days of the day on which maintenance is due to commence. Unplanned maintenance may still be eligible for AEMO planning approval.

1.2.2. 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 National Gas Law.
- (b) References to time are references to Australian Eastern Standard Time.

1.3. Related documents

Title	Location
National Gas Law	South Australian Legislation, Government of South Australia website
National Gas Rules	AEMC website
Wholesale Market Electronic Communication Procedures (Victoria)	AEMO website
Wholesale Market Gas Scheduling Procedure	AEMO website
Wholesale Market System Security Procedures (Victoria)	AEMO website

2. GENERAL

2.1. Types of equipment

Without limitation, *maintenance* may include work conducted on the following types of facilities and equipment:

- *Gas production facilities;*
- *Storage facilities;*
- Compressor stations;
- *Pipelines;*
- Valves;
- City gate and pressure reducing stations;
- *Gas quality monitoring system;*
- Gas metering equipment; and
- Communication and control equipment.

2.2. Information exchange and release

Procedures for the exchange of information under these Procedures are given in the Wholesale Market Electronic Communication Procedures (Victoria). Information must be exchanged via at least one of the methods listed in Table 1.

Table 1 Methods for exchange of maintenance information

Method of information Exchange	Forecast	Emergency work notification	Request	AEMO Notification/Response
Phone		✓	✓	✓
Email	✓			✓
Fax			✓	✓

Method of information Exchange	Forecast	Emergency work notification	Request	AEMO Notification/Response
Radio		✓	✓	✓

Maintenance information supplied to AEMO by participants is protected under NGR clause 138AB from unauthorised use or disclosure. AEMO may disclose information only in the circumstances permitted under 91G of the National Gas Law.

3. NOTIFICATION OF MAINTENANCE

Notification of *maintenance* must be provided to AEMO by *DWGM facility operators* where, in AEMO's opinion, work may affect:

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

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

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

Work required to avert or reduce the impact of an *emergency* must be communicated to AEMO immediately in accordance with the information exchange and release requirements detailed in section 3.2.

3.1. Maintenance forecasts

DWGM facility operators that intend to perform *maintenance* must provide AEMO with notification of the *maintenance* in accordance with NGR 324, given as follows:

- (a) annual forecasts for each year in the 5 year period commencing on each 1 January, provided by 30 September in the immediately preceding year; and
- (b) monthly forecasts for each month in the 12 month period commencing on each 1 January, provided by 30 September in the immediately preceding year.
- (c) week-ahead forecasts commencing from Monday in each week, provided by no later than 4pm on the immediately preceding Wednesday.
- (d) as required forecasts for any material change to information previously provided in an annual, monthly or week-ahead forecast, provided as soon as practicable having regard to the nature of the change after the *DWGM facility operator* becomes aware of the material change.

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

- (i) AEMO's ability to supply gas through the system; or
- (ii) AEMO's ability to operate the *declared transmission system*; or

- (iii) *declared transmission system capacity*; or
- (iv) *system security*; or
- (v) *the efficient operation of the DTS generally*.

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

As required forecasts may also include *maintenance* that was not previously listed in a forecast.

For the purposes of maintenance forecast planning approval, as required *maintenance* that is notified to AEMO within 5 days of the day on which that *maintenance* is due to commence will be treated as unplanned maintenance. Notification of *maintenance*, including an as required forecast, that is given at least 5 days prior to the day on which that *maintenance* is due to commence will be treated as planned *maintenance*.

3.1.1. Maintenance forecast information

Maintenance forecasts must provide the following information in accordance with NGR 324(4):

- (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. *gas requirements for testing*; and
 - iii. *test operations required*.

3.1.2. Maintenance forecast planning approval

AEMO provides planning approval of planned, and where possible unplanned, *maintenance* forecasts to give the *DWGM facility operator* assurance that the proposed *maintenance* will be approved when requested (refer section 4).

AEMO will, having regard to information provided by Registered participants, coordinate *maintenance* to minimise any threats to system security as a consequence of the unavailability of equipment undergoing *maintenance*.

Planning approval will be given where AEMO determines the aggregated risk of all *DWGM facility operator* forecast *maintenance* is acceptable. This risk-based assessment and coordination process is detailed in Section 8.

Unplanned *maintenance* may not obtain planning approval if AEMO does not have sufficient time to complete the assessment process. The time to complete the assessment will depend on the complexity of the proposed *maintenance* assessment.

A *DWGM facility operator* that intends to conduct *maintenance* without planning approval must still submit a *maintenance* request in accordance with section 4.

Maintenance with planning approval is still subject to the obligations detailed in sections 4 and 5 unless otherwise agreed with AEMO or specified in an approved operating agreement.

3.1.3. Maintenance planning response

AEMO will attempt to respond to *maintenance* forecasts with the outcome of the *maintenance* planning assessment and coordination process by a time so as not to delay work. This timeline is dependent on the type of *maintenance* notification, as detailed below:

- Annual and monthly forecasts provided by 30 September, will be responded to at least by 1 December of that year.
- Week-ahead forecasts provided by 4pm on the immediately preceding Wednesday, will be responded to at least by 4pm on the immediately preceding Friday.
- As required forecasts, will be responded to as soon as practicable.

The outcome of the planning approval process will be communicated as one of the options given in Table 2.

Table 2 Maintenance planning approval outcome

Assessment Outcome	Explanatory Note
Approved	Planning approval granted enabling participant to progress planning activities. A request to conduct <i>maintenance</i> will be approved barring extenuating circumstances.
Conditionally Approved, (with specified conditions)	Planning approval granted enabling participant to progress planning activities. A request to conduct <i>maintenance</i> will likely be approved subject to specified conditions.
Not approved	The proposed <i>maintenance</i> presents an unacceptable threat to system security and/or operation that cannot be adequately managed and is not approved. A request to conduct this <i>maintenance</i> will not be approved.

3.2. Emergency work

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

- the breakdown or threatened breakdown; and
- its proposed response to the breakdown or threatened breakdown.

The notification should also include *maintenance* forecast information (section 3.1.1) where available.

4. MAINTENANCE REQUESTS

Unless otherwise agreed with AEMO, or as specified in an approved operating agreement, *DWGM facility operators* must request AEMO approval to initiate planned and unplanned *maintenance*. This request must be made immediately prior to the intended commencement of work and be communicated in accordance with the information exchange and release requirements detailed in section 2.

The maintenance request must include the following:

- reference to prior planning approval (stating no approval if not previously received);
- 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.

5. MAINTENANCE REQUEST APPROVAL PROCESS

Unless otherwise agreed with AEMO, or as specified in an approved operating agreement, *DWGM facility operators* must obtain AEMO approval of a maintenance request prior to the commencement of planned and unplanned *maintenance*. This approval process enables an assessment of the *maintenance* risk profile subject to the system and environmental conditions present at the time of work.

Emergency work (not *maintenance*) may commence without AEMO approval. The *DWGM facility operator* must immediately notify AEMO of this work as referenced in Section 3.2.

5.1. Assessment of risk

AEMO grants approval of maintenance requests where the aggregated risk of all *DWGM facility operator maintenance* being performed at the time is assessed as acceptable. This risk-based assessment is detailed in section 8, and will include consideration of the following:

- (a) planning approval and the conditions specified for that approval; and
- (b) system and environmental conditions present at the time of work.

Approval of an unplanned *maintenance* request is subject to AEMO determining at the time that:

- a. *maintenance* can be safely performed concurrently with other *maintenance* that have planning approval and emergency work; and
- b. the aggregate risk of all *DWGM 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 and unplanned *maintenance*.

5.2. Facility release

Approval of maintenance requests may be managed through the AEMO facility release process. Release will be granted on agreed conditions, that may relate to the:

- (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*.

6. INITIATION OF MAINTENANCE

Unless otherwise agreed with AEMO, or as specified in an approved operating agreement, *maintenance* may only commence after AEMO grants approval through issuance of a facility release.

Maintenance may proceed under the agreed conditions until the completion of work or until AEMO issues a recall notice to suspend or cancel *maintenance* as referenced in section 6.

Maintenance must be performed in accordance with the associated forecast and request unless consent to change has been approved by AEMO.

Consent to change will be assessed in accordance with the maintenance notification process detailed in section 2.

Emergency work (not *maintenance*) may commence without AEMO approval. The *DWGM facility operator* must immediately notify AEMO of this work as referenced in Section 3.2

7. MAINTENANCE APPROVAL DELAY, SUSPENSION OR CANCELLATION

AEMO will coordinate and consult with the *DWGM facility operator* where AEMO determines that risk is or may become unacceptable to conduct or continue *maintenance*. This may result in AEMO issuing a direction to the *DWGM facility operator* to delay, suspend or cancel *maintenance*. The requirement to issue a direction will be determined in consultation with the *DWGM facility operator* and be based on the risk assessment process detailed in section 8.

An AEMO direction will have following effect:

- (a) Delay: the *maintenance* request has not been approved and will be re-scheduled to an alternate period.
- (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.

8. RISK MANAGEMENT

AEMO will consult and collaborate with *DWGM facility operators* to coordinate *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 approach 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 *DWGM facility operator maintenance* occurring concurrently; and
- (g) Risk mitigation options to minimise risk.

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 *DWGM facility operators* as a condition of approval.

9. MAINTENANCE COORDINATION PROCESS

The AEMO *maintenance* coordination process is completed in two phases. The first addresses *maintenance* planning and is performed in advance of the proposed work. This approach is depicted in the flow chart of Figure 1.

The second phase manages risk on the day of the *maintenance* work. This approach is depicted in Figure 2.

Figure 1 Maintenance planning process flowchart.

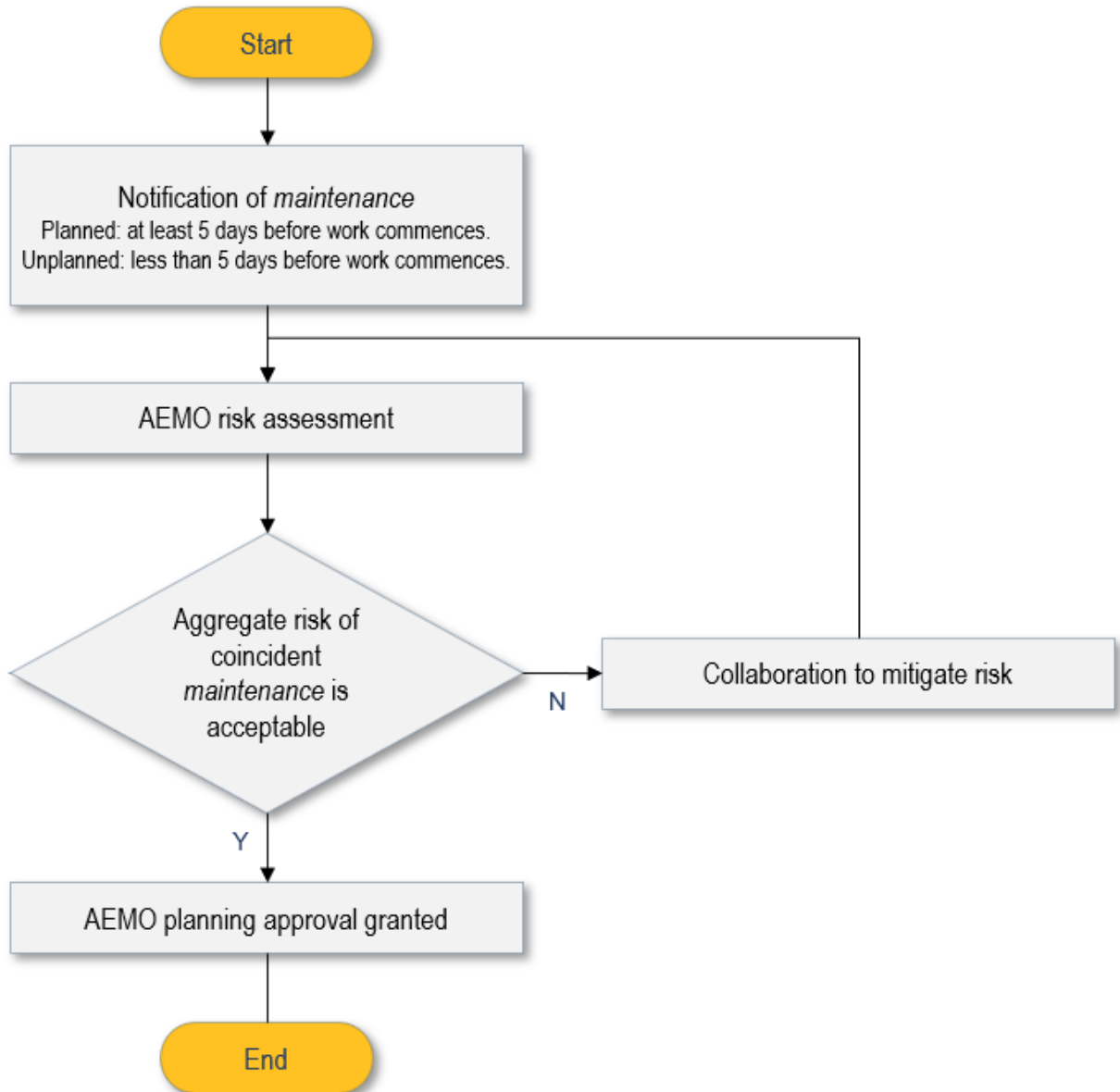


Figure 2 Performance of maintenance process flowchart.

