

**IMPACT & IMPLEMENTATION REPORT – SUMMARY SECTION**  
*(For AEMO to complete and administer)*

<b>Issue Number</b>	STTM IIR 15-003		
Proponent	AEMO	Date of submission	
Affected gas markets	STTM (wholesale)	Consultation process (Ordinary or Expedited)	Ordinary
Industry consultative forums used	Short Term Trading Market Consultative Forum (STTM CF) Gas Wholesale Consultative Forum (GWCF)	Date industry consultative forums consultation concluded	August 2015
Short description of change	Amend the STTM Procedures to align with National Gas Amendment (Contingency Gas Evidentiary Changes) Rule 2015 No. 2 ( <i>published 7 May 2015</i> )		
Procedures or documentation impacted	The following documents are impacted by the proposed changes: <ul style="list-style-type: none"> <li>STTM Procedures.</li> </ul>		
Summary of the changes	The proposed changes will reflect: <ul style="list-style-type: none"> <li>the process for trading participants to revise price steps within their contingency bids or offers at the confirmation stage;</li> <li>the scope of evidence that AEMO will require to determine the quantity of contingency gas provided; and</li> <li>the method that AEMO will use to determine the resettlement amounts payable to trading participants.</li> </ul>		
Date I&IR published	20 August 2015	Date consultation under 135EE or 135EF concludes	17 September 2015
Contact address for written responses	Veronica Rodriguez Principal Economist, Markets Australian Energy Market Operator Ltd GPO Box 2008 Melbourne VIC 3001		
Email Address for Responses	<a href="mailto:GWCF_Correspondence@aemo.com.au">GWCF_Correspondence@aemo.com.au</a>		
Other key contact information	<a href="mailto:Veronica.Rodriguez@aemo.com.au">Veronica.Rodriguez@aemo.com.au</a>		

## IMPACT & IMPLEMENTATION REPORT – DETAILED REPORT SECTION

### ASSESSMENT OF PROPOSAL

<p>Summary and rationale for the changes</p> <p>(see Appendix A for the full set of changes)</p>	<p>On 20 May 2014, the Australian Energy Market Operator (AEMO) submitted a National Gas Rules (NGR) rule change request to the Australian Energy Market Commission (AEMC) in relation to contingency gas in the Short Term Trading Market (STTM).</p> <p>On 7 May 2015, the AEMC published a final rule, National Gas Amendment (Contingency Gas Evidentiary Changes) Rule 2015 No. 2, which:</p> <ol style="list-style-type: none"> <li>a) enable trading participants to confirm or revise the quantity of each price step within a contingency gas bid or offer;</li> <li>b) require all trading participants to be subject to the same evidentiary requirements following a contingency gas trigger event, and require AEMO to specify the evidence required following a contingency gas trigger event in the STTM Procedures;</li> <li>c) limit the scope of the evidence AEMO may request following a contingency gas trigger event to evidence AEMO requires to determine whether contingency gas was provided as scheduled, and to assist AEMO's reporting on contingency gas trigger events;</li> <li>d) in determining the amounts payable by trading participants for contingency gas, require AEMO to determine the quantity of contingency gas provided after considering the evidence it receives from trading participants</li> <li>e) enable AEMO to extend the timeframe for its reporting on contingency gas trigger events by up to a further 30 business days if necessary to allow it to receive and consider evidence; and</li> <li>f) correct minor drafting errors that associate "STTM storage facilities" with STTM Users in NGR rules 435 and 436.</li> </ol> <p>Changes to the STTM Procedures are required for items (a) to (d).</p> <p>The final rule will commence on 5 November 2015. AEMO is proposing to amend the STTM Procedures to be consistent with the changes to the NGR.</p>
<p>Cost estimate (and/or cost/benefit analysis)</p>	<p><u>Costs</u></p> <p>AEMO's costs for implementing these changes are in the order of \$56k – for changes to manual scheduling processes (including the CG Participant Confirmation Form), changes to internal business processes and training (internal and external). There are no IT systems changes.</p> <p><u>Benefits</u></p> <p>The proposed changes to the STTM Procedures provide:</p> <ul style="list-style-type: none"> <li>• Certainty to trading participants in relation to what evidence can be requested from them.</li> <li>• Operational efficiency in allowing for pre-approval of evidence methodologies.</li> </ul>

	<ul style="list-style-type: none"> <li>• Transparency in the process for the resettlement of contingency gas that has been delivered.</li> </ul>
The likely implementation effect of the change(s) on stakeholders	<p>The implementation effects of the proposal on trading participants are listed below:</p> <ol style="list-style-type: none"> <li>1. Update existing business processes to allow for discrete price step confirmation of CG bids or offers.</li> <li>2. Develop a methodology to be used in evidence of the quantity of CG provided.</li> </ol>
Testing requirements	<ul style="list-style-type: none"> <li>• No IT system changes are required.</li> <li>• As the CG confirmation process is a manual task, opportunity will be provided for participants to test their amended business processes.</li> <li>• Contingency Gas resettlements will be based on ad-hoc charges/payments.</li> </ul>
AEMO's preliminary assessment of the proposal's compliance with section 135EB:	<p><b>National Gas objective</b></p> <p>AEMO consider that the proposed changes contribute to the NGO by providing more efficient contingency gas pricing and improvements in efficient provision, operation, and use of contingency gas. In turn this is likely to improve the reliability and security of natural gas supply for consumers during contingency gas trigger events, when gas is likely to be scarce.</p>
<p>Consultation forum outcomes</p> <p>Details included in Appendix B.</p>	<p>The initial proposal was discussed at the Short Term Trading Market Consultative Forum (STTM-CF) on July 2011. This proposed to amend the STTM Procedures to allow resettlement of contingency gas where evidence provided shows contingency gas was not delivered by the required time and location. There was also a proposal to allow individual price steps of a contingency gas offer (or bid) to be confirmed during the confirmation process.</p> <p>AEMO undertook analysis of the proposals and identified that the current evidence requirements in the NGR were not adequate to enable resettlement.</p> <p>The proposals were further developed over the following 18 months, the Consultative Forum outcomes were:</p> <ul style="list-style-type: none"> <li>• A routine resettlement payment or charge which would adjust settlement based upon evidence, and to extend the same obligation to shippers.</li> <li>• Confirmation of the quantity of a price step in part or whole but not for revising the price of that step.</li> <li>• A head of power for providing sufficient evidence to support the proposed resettlement to be included in the rules, including more detail in the procedures, including guidance and examples.</li> <li>• Pre-registration of price steps that may be skipped in order to prevent a party not confirming a step to gain a higher price, then shopping around retail customers after the fact to find evidence proving delivery.</li> </ul>

	<p>The resettlement methodology was further refined during a workshop in December 2014. The change proposed meant that a trading participant's net settlement outcomes would be consistent with the regular deviation settlement outcomes.</p> <p>At the Consultative Forum meeting on 11 August 2015, AEMO discussed further changes required to align the draft STTM Procedures presented previously with AEMC's final rule determination in May 2015. The final determination did not allow AEMO to gather evidence to determine whether price steps have been correctly skipped as was initially proposed by AEMO. At this time AEMO also proposed including the location of all relevant customer facilities when confirming the CG available under an STTM User bid or offer, not just those associated with an individual price step. There were no dissenting views.</p> <p>Following the Consultative Forum meeting, AEMO amended the drafting of the settlement equations presented. The amendments, which were made following further review – relate to replacing terms for resettlement charges and payments with ad hoc charges and payments which better suit the settlement functionality – and do not change any of the settlement concepts.</p> <p>A table listing the relevant papers discussed at consultation form meetings is shown in Appendix B.</p>
--	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<b>RECOMMENDATION(S)</b>	
<p>Should the proposed Procedures be made, (with or without amendments)?</p>	<p>These procedures comply with National Gas Amendment (Contingency Gas Evidentiary Changes) Rule 2015 No. 2. Refer to AEMC website link <a href="#">Contingency Gas Evidentiary Changes</a>.</p> <p>Taking into account the consultation that has occurred, AEMO recommends the proposed Procedures change should be made as described in Appendix A.</p>
<p>Proposed effective date for the proposed change(s)</p>	<p>AEMO proposes an effective date of 5 November 2015 to align with the commencement date of National Gas Amendment (Contingency Gas Evidentiary Changes) Rule 2015 No. 2 (<i>published 7 May 2015</i>)</p>

## APPENDIX A – DOCUMENTATION CHANGES (SEE SECTION 3)

Blue represents additions Red and strikeout represents deletions – Marked up changes

Comments may be used to explain changes to the document

Changes are shown relative to STTM Procedures version 10.1

### 1. Definitions

Amend the definitions of ‘ad hoc charge’ and ‘ad hoc payment’:

**ad hoc charge** means an amount determined under clause 8.4.4 or 10.6A that is payable to AEMO by a *Trading Participant*.

**ad hoc payment** means an amount determined under clause 8.4.4 or 10.6B that is payable by AEMO to a *Trading Participant*.

### 2. Evidence of provision of contingency gas

Amend clause 9.4:

#### 9.4 Calling and Scheduling Contingency Gas

##### 9.4.1 Confirmation of availability

- (f) Subject to paragraph (b), AEMO must contact the *Trading Participants* in the provisional *contingency gas offer stack* and/or provisional *contingency gas bid stack*, except those *Trading Participants* whose *price steps* have been set to zero availability under paragraph (e), using the contact details provided under rule 434 and request confirmation of:
  - (i) the total quantity of *contingency gas* that can be provided by the time specified in the *contingency gas requirement* (whether less than, equal to, or greater than the total quantity specified in the applicable *contingency gas offer* or *contingency gas bid*); ~~and~~
  - (ii) the time at which any additional *contingency gas* would be available and the quantity of gas available at that time; ~~and~~
  - (iii) for an STTM User, the location of any customer facilities that would be used to make *contingency gas* available,by the time and in the manner specified by AEMO in its request.
- (fa) A *Trading Participant* may, instead of confirming availability for its *contingency gas offer* or *contingency gas bid* as a whole, confirm the

matters in paragraph (f) in respect of individual *price steps*, provided that:

- (i) the *Trading Participant* must not confirm a greater quantity of *contingency gas* for any *price step* other than the highest priced *price step* in its *contingency gas offer* or *contingency gas bid*; and
  - (ii) the *price steps* are associated with facilities that were registered under paragraph (g) at least 5 *business days* prior to the date of confirmation.
- (g) A *Trading Participant* may register facilities for the purposes of confirming individual *price steps* by giving AEMO the following information: ~~For the purposes of rule 445(2)(c), no other information is required to be provided by a *Trading Participant*.~~
- (i) (for an *STTM Shipper*) a description of each *STTM facility* and any other gas production facility it wishes to associate with a *price step*;
  - (ii) (for an *STTM User*) a description of each customer facility it wishes to associate with a *price step*;
  - (iii) the price to be specified in each *price step* associated with each facility;
  - (iv) the maximum and minimum quantities of *contingency gas* that could be provided by each facility;
  - (v) the maximum ramp rate for each facility; and
  - (vi) any other information reasonably requested by AEMO for the purposes of associating price steps with specified facilities.
- (h) Subject to paragraph (i), ~~if~~ the total quantity of *contingency gas* that a *Trading Participant* confirms can be provided by the time specified in the *contingency gas requirement* is:
- (i) less than the quantity specified in that *Trading Participant's contingency gas offer*, AEMO must set the availability of that *Trading Participant's price steps* in the relevant provisional *contingency gas offer stack* by reducing the quantities in *price steps* in order of decreasing price so that the total quantity across all *price steps* equals the reduced quantity available;
- Note:** A reduced quantity includes zero availability in the required timeframe, in which case the whole offer will be marked as unavailable and will not be *scheduled*.
- (ii) greater than the quantity specified in that *Trading Participant's contingency gas offer*, AEMO must set the availability of that *Trading Participant's highest priced price step* in the relevant provisional *contingency gas offer stack* so

that the total quantity across all *price steps* equals the increased quantity available;

- (iii) less than the quantity specified in that *Trading Participant's contingency gas bid*, AEMO must set the availability of that *Trading Participant's price steps* in the relevant provisional *contingency gas bid stack* by reducing the quantities in *price steps* in order of increasing price so that the total across all *price steps* equals the reduced quantity available; or
  - (iv) greater than the quantity specified in that *Trading Participant's contingency gas bid*, AEMO must set the availability of that *Trading Participant's* lowest priced *price step* in the relevant provisional *contingency gas bid stack* so that the total across all *price steps* equals the increased quantity available.
- (i) If the *Trading Participant* has confirmed individual *price steps* under paragraph (fa), AEMO must set the availability of each *price step* in accordance with that confirmation (or to zero for any *price step* that was not confirmed).

Insert a new clause 9.5:

## **9.5 Evidence of Delivery of Contingency Gas**

### **9.5.1 Requirement for evidence**

- (a) For the purposes of rule 449(3), a *Trading Participant* must provide reasonable evidence, in accordance with the applicable provisions of this clause 9.5, of:
  - (i) the quantity of *contingency gas* provided by that *Trading Participant* on a *gas day*;
  - (ii) the location at which it was provided; and
  - (iii) the period of time over which it was provided.
- (b) Evidence must be provided to AEMO no later than 40 business days after the end of the relevant *gas day*.

### **9.5.2 Demand side contingency gas**

- (a) For a *scheduled contingency gas offer* or *contingency gas bid* by an *STTM User*, the *STTM User* must provide evidence of:
  - (i) a reduction or increase in gas consumption at one or more identified customer facilities;
  - (ii) the initiation of the reduction or increase by an instruction issued by the *STTM User*;

- (iii) the start and end time of the reduction or increase, including any period of ramping down or up; and
  - (iv) the quantity of gas that would ordinarily have been consumed or injected between those times.
- (b) Examples of the evidence that could be provided in relation to the matters in paragraph (a) include (as applicable):
- (i) metering data for the consumption of gas;
  - (ii) metering data for any alternative fuel used during a reduction in gas consumption and conversion factors to derive gas equivalent usage rates;
  - (iii) output or production data for the facility and conversion factors correlating with gas consumption; and
  - (iv) historical metering or production data sufficient to establish a pattern of hourly gas consumption.

### 9.5.3 Supply side contingency gas

- (a) For a *scheduled contingency gas offer* or *contingency gas bid* by an *STTM Shipper*, the *STTM Shipper* must provide evidence of:
- (i) a reduction or increase in gas delivered to or withdrawn from the *hub* by that *STTM Shipper* using an identified *STTM facility*;
  - (ii) the initiation of the reduction or increase by the *STTM Shipper*;
  - (iii) the start and end time of the reduction or increase, including any period of ramping down or up; and
  - (iv) the quantity of gas that would have been delivered or withdrawn in the absence of that reduction or increase.
- (b) Examples of the evidence that could be provided in relation to the matters in paragraph (a) include (as applicable):
- (i) hourly gas flow and pressure data;
  - (ii) steps taken by the *STTM facility operator* to reduce or increase gas flow;
  - (iii) renominations by the *STTM Shipper* and confirmation of acceptance by the *STTM facility operator*.

### 9.5.4 Pre-approval of evidence methodologies

- (a) A *Trading Participant* may apply to AEMO for pre-approval of a methodology to be used in evidence of the quantity of *contingency*

gas provided on any *gas day* using a specified facility or type of facility and under given supply, demand or production conditions.

- (b) Within 20 business days of receiving an application under paragraph (a), AEMO must either:
  - (i) approve or reject the proposed methodology; or
  - (ii) request the *Trading Participant* to provide further information as reasonably required to enable AEMO to assess the proposed methodology.
- (c) If AEMO has requested further information, AEMO must either approve or reject the proposed methodology within a further 20 business days from the date (or the latest date) on which AEMO receives all the requested information.
- (d) If AEMO rejects a proposed methodology, it must give the *Trading Participant* reasons for its decision.
- (e) AEMO's approval of a proposed methodology indicates that AEMO accepts that methodology as a legitimate means of establishing the quantity of *contingency gas* provided, but:
  - (i) does not imply that any particular value or assumption in that methodology, or the outcome of its application, is conclusive evidence of that quantity for any given *gas day*; and
  - (ii) does not prevent AEMO from requesting further evidence to establish that quantity.

### 3. Contingency gas resettlement

Amend clause 10.1.3 by inserting the following new terms in the table:

Term	Definition
....	
$CQP^S(p,d,k,fd)$	The quantity of <i>contingency gas</i> AEMO has determined to have been delivered under rule 449(3) for <i>Trading Participant</i> p (as an <i>STTM Shipper</i> ) on <i>gas day</i> d on <i>market facility</i> $k \in SP$ (an <i>STTM facility</i> ) and in flow direction fd. This term may be positive or negative, where a positive value for supply to the <i>hub</i> increases net supply to the <i>hub</i> , while a positive value for withdrawal from the <i>hub</i> decreases net supply to the <i>hub</i> .
$CQP^U(p,d,k,fd)$	The quantity of <i>contingency gas</i> AEMO has determined to have been delivered under rule 449(3) for <i>Trading Participant</i> p (as an <i>STTM User</i> ) on <i>gas day</i> d on <i>market facility</i> $k \in SN$ and in flow direction fd (fd="from" only). This term may be positive or negative, where a positive value for withdrawal from the <i>hub</i> decreases net supply to the <i>hub</i> .
....	

Term	Definition
LDQ(p,d)	The <i>long deviation quantity</i> for <i>Trading Participant p</i> at a <i>hub</i> on <i>gas day d</i> .
....	
RDevN(d)	A revised <i>deviation price</i> for a <i>short deviation quantity</i> at a <i>hub</i> on <i>gas day d</i> . This value is determined in clause 10.6B and applied only for the purposes of <i>contingency gas</i> resettlement.
RDevP(d)	A revised <i>deviation price</i> for a <i>long deviation quantity</i> at a <i>hub</i> on <i>gas day d</i> . This value is determined in clause 10.6B and applied only for the purposes of <i>contingency gas</i> resettlement.
....	
SDQ(p,d)	The <i>short deviation quantity</i> for <i>Trading Participant p</i> at a <i>hub</i> on <i>gas day d</i> .

Insert new clauses 10.6A and 10.6B:

### 10.6A Ad Hoc Charges for Contingency Gas Resettlement

Explanatory Note	
<p>This clause describes how AEMO determines the amount payable by or to a <i>Trading Participant</i> where AEMO has determined under rule 449(3) that the <i>Trading Participant</i> has not provided the full quantity of <i>contingency gas</i> it was <i>scheduled</i> to deliver on a <i>gas day</i> and the <i>Trading Participant's deviation payments</i> or <i>deviation charges</i> do not fully account for the failure.</p> <p>When <i>contingency gas</i> is called to increase supply to the <i>hub</i>:</p> <p>(a) the amount to be refunded by the <i>Trading Participant</i> is an <i>ad hoc charge</i> in accordance with clause 10.6A(a) calculated by determining the undelivered <i>contingency gas</i> quantity (the <i>scheduled contingency gas</i> quantity less any negative <i>deviation quantities</i> for that <i>market facility</i> and flow direction, less the delivered <i>contingency gas</i> quantity determined by AEMO) and charging for this quantity at the difference between the <i>high contingency gas price</i> and the <i>deviation price</i> for a <i>long deviation quantity</i>.</p> <p>When <i>contingency gas</i> is called to decrease supply to the <i>hub</i>:</p> <p>(b) the amount to be refunded by the <i>Trading Participant</i> is an <i>ad hoc charge</i> in accordance with clause 10.6.A(b) calculated by determining the undelivered <i>contingency gas</i> quantity (the <i>scheduled contingency gas</i> quantity less any positive <i>deviation quantities</i> for that <i>market facility</i> and flow direction, less the delivered <i>contingency gas</i> quantity determined by AEMO) and paying for this quantity at the difference between the <i>low contingency gas price</i> and the <i>deviation price</i> for a <i>short deviation quantity</i>.</p>	

In each case, the *ad hoc charges* payable in respect of *contingency gas* resettlement will be distributed by way of *ad hoc payments* to other *Trading Participants* who are out of pocket as a result of the undelivered *contingency gas*, determined in accordance with clause 10.6B

See clause 10.8.2 for the calculation of *deviation quantities*.

- (a) The *ad hoc charge* for *Trading Participant p* in relation to a *scheduled quantity of contingency gas* to increase supply to the *hub* on *gas day d* is:

$$\begin{aligned} \text{AHC}(p,d) = & \text{MAX}(0, (\text{CGPH}(d) - \text{PDevPT}(p,d,k)) \times \\ & \{ \sum_{k \in \text{SP}} [\text{MAX}(0, (\text{MAX}(0, \text{CQ}^{\text{S}}(p,d,k, \text{fd}=\text{"to"})) - \text{MAX}(0, -1 \times \\ & \text{DQT}(p,d,k)) - \text{MAX}(0, \text{CQP}^{\text{S}}(p,d,k, \text{fd}=\text{"to"})))] \\ & + \sum_{k \in \text{SP}} [\text{MAX}(0, (\text{MAX}(0, -1 \times \text{CQ}^{\text{S}}(p,d,k, \text{fd}=\text{"from"})) - \text{MAX}(0, -1 \\ & \times \text{DQF}(p,d,k)) - \text{MAX}(0, -1 \times \text{CQP}^{\text{S}}(p,d,k, \text{fd}=\text{"from"})))] \\ & + \sum_{k \in \text{SN}} [\text{MAX}(0, (\text{MAX}(0, -1 \times \text{CQ}^{\text{U}}(p,d,k, \text{fd}=\text{"from"})) - \text{MAX}(0, -1 \\ & \times \text{DQF}(p,d,k)) - \text{MAX}(0, -1 \times \text{CQP}^{\text{U}}(p,d,k, \text{fd}=\text{"from"})))] \} ) \end{aligned}$$

- (b) The *ad hoc charge* for *Trading Participant* *p* in relation to a *scheduled quantity of contingency gas* to decrease supply to the *hub* on *gas day* *d* is:

$$\begin{aligned} \text{AHC}(p,d) = & \text{MAX}(0, (\text{PDevNT}(p,d,k) - \text{CGPL}(d)) \times \\ & \{ \sum_{k \in \text{SP}} [\text{MAX}(0, (\text{MAX}(0, -1 \times \text{CQ}^{\text{S}}(p,d,k, \text{fd}=\text{"to"})) - \text{MAX}(0, \\ & \text{DQT}(p,d,k)) - \text{MAX}(0, -1 \times \text{CQP}^{\text{S}}(p,d,k, \text{fd}=\text{"to"})))] \\ & + \sum_{k \in \text{SP}} [\text{MAX}(0, (\text{MAX}(0, \text{CQ}^{\text{S}}(p,d,k, \text{fd}=\text{"from"})) - \text{MAX}(0, \\ & \text{DQF}(p,d,k)) - \text{MAX}(0, \text{CQP}^{\text{S}}(p,d,k, \text{fd}=\text{"from"})))] \\ & + \sum_{k \in \text{SN}} [\text{MAX}(0, (\text{MAX}(0, \text{CQ}^{\text{U}}(p,d,k, \text{fd}=\text{"from"})) - \text{MAX}(0, \\ & \text{DQF}(p,d,k)) - \text{MAX}(0, \text{CQP}^{\text{U}}(p,d,k, \text{fd}=\text{"from"})))] \} ) \end{aligned}$$

### 10.6B Ad Hoc Payments for Contingency Gas Resettlement

- (a) If an *ad hoc charge* is payable by a *Trading Participant* under clause 10.6A, an equivalent amount is to be distributed to *Trading Participants* at the relevant *hub* by way of *ad hoc payments* determined under paragraph (b).
- (b) The *ad hoc payment* for *Trading Participant* *p* on *gas day* *d* depends on the *Trading Participant's deviation quantity* (whether short or long) and the nature of the relevant *contingency gas requirement* (whether for increased or decreased supply to the *hub*), and is determined as follows:

- (i) Calculate the *Trading Participant's short deviation quantity* for the relevant *hub* and *gas day* ( $\text{SDQ}(p,d)$ ):

$$\text{SDQ}(p,d) = \sum_{k \in \text{SP}} [\text{MAX}(0, -1 \times \text{DQT}(p,d,k))] + \sum_{k \in \text{SP}} [\text{MAX}(0, -1 \times \text{DQF}(p,d,k))] + \sum_{k \in \text{SN}} [\text{MAX}(0, -1 \times \text{DQF}(p,d,k))]$$

- (ii) Calculate the *Trading Participant's long deviation quantity* for the relevant *hub* and *gas day* ( $\text{LDQ}(p,d)$ ):

$$\text{LDQ}(p,d) = \sum_{k \in \text{SP}} [\text{MAX}(0, \text{DQT}(p,d,k))] + \sum_{k \in \text{SP}} [\text{MAX}(0, \text{DQF}(p,d,k))] + \sum_{k \in \text{SN}} [\text{MAX}(0, \text{DQF}(p,d,k))]$$

- (iii) *Trading Participant's ad hoc payment* where *contingency gas* was required to increase supply to the *hub*:

$$\text{AHP}(p,d) = \text{MAX}(0, \text{MIN}(\text{PDevNT}(p,d,k) - \text{RDevN}(d), (\sum_p \text{AHC}(p,d)) / \sum_p \text{SDQ}(p,d)) \times \text{SDQ}(p,d)$$

Where:

$\text{RDevN}(d)$  is the revised *deviation price* for a *short deviation quantity*, as described below; and

$\text{AHC}$  is the *ad hoc charge* payable under clause 10.6A.

If a *Trading Participant* does not deliver *contingency gas* as scheduled, this may result in a requirement to *schedule* additional *contingency gas*. RDevN(d) is determined by adjusting the *high contingency gas price* and recalculating the *deviation price* applicable to a *short deviation quantity* on the *gas day*. The adjusted *high contingency gas price* excludes any additional *contingency gas* that was *scheduled* to replace the *contingency gas* that was not delivered.

- (iv) *Trading Participant's ad hoc payment* where *contingency gas* was required to decrease supply to the *hub*:

$$\text{AHP}(p,d) = \text{MAX} (0, \text{MIN} ( \text{RDevP}(d) - \text{PDevPT}(p,d,k) ), (\sum_p \text{AHC}(p,d)) / \sum_p \text{LDQ}(p,d) \times \text{LDQ}(p,d))$$

Where:

RDevP(d) is the revised *deviation price* for a *long deviation quantity*, as described below; and

AHC is the *ad hoc charge* payable under clause 10.6A.

If a *Trading Participant* does not deliver *contingency gas* as scheduled, this may result in a requirement to *schedule* additional *contingency gas*. RDevP(d) is determined by adjusting the *low contingency gas price* and recalculating the *deviation price* applicable to a *long deviation quantity* on the *gas day*. The adjusted *low contingency gas price* excludes any additional *contingency gas* that was *scheduled* to replace the *contingency gas* that was not delivered.

## APPENDIX B

This Appendix outlines the consultation undertaken by AEMO through the STTM Consultative Forum with respect to the proposed rule change. Papers can be found on AEMO's website at <http://www.aemo.com.au/About-the-Industry/Working-Groups/Wholesale-Meetings/Gas-Wholesale-Consultative-Forum>, or if archived are available on request.

PAPER	DATE OF MEETING
Change Request S27 - Contingency Gas Flexibility Enhancement	Jul 2011
Change Request S28 - Contingency Gas Resettlement	Jul 2011
STTM 11-25-01 Contingency Gas - Resettlement Issues Paper	Aug 2011
STTM 11-25-02 Contingency Gas - Resettlement Issues Paper 2	Sep 2011
STTM 11-25-03 Contingency gas - discrete price step confirmation issues	Oct 2011
STTM 11-25-04 Contingency Gas - Resettlement rule change proposal	Oct 2011
STTM 12-25-01 Contingency gas - evidence issues	Mar 2012
STTM 12-25-04 Contingency gas - evidence regulatory changes	Jun 2012
STTM 12-25-06 Contingency gas – evidence provisions - proposed regulatory changes	Aug 2012
STTM 12-25-08 Contingency gas-skipped step reimbursement charge options	Sep 2012
STTM 12-25-11 Contingency Gas Reimbursement	Oct 2012
STTM 12-25-12 Contingency Gas Skipped Step Rule and Procedure Changes	Dec 2012
STTM 14-25-01 Workshop - STTM Contingency Gas Resettlement Methodology	Dec 2014
STTM 15-25-03 GWCF - STTM Procedures Contingency Gas Evidentiary Changes	Aug 2015