

17 November 2010

Mr John Pierce  
Chairman  
Australian Energy Market Commission  
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FROM THE OFFICE OF THE  
CHIEF EXECUTIVE OFFICER

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**Submitted online**

Dear Mr Pierce *John,*

**National Gas Rule Change Proposal in relation to various hedging instruments in the Declared Wholesale Gas Market (DWGM)**

AEMO requests that the AEMC consider making a Rule change under section 295 of the National Gas Law (NGL). The proposed Rule change seeks to amend Part 19, Division 2, Subdivision 2 of the National Gas Rules (NGR) to remove or amend rules to minimise the stranding of Injection Hedge Nominations at system injection points (SIP) when a SIP at a close proximity point (CPP) becomes unavailable. It allows for the renomination of authorised MDQ and AMDQ credit tie-breaking rights and Authorised Maximum Interval Quantity profile over a gas day. The first of these is of the most benefit when there is a failure of a SIP while the second is beneficial where there is a change in forecast demand.

These measures are designed to enable Market Participants to utilise their market hedging instruments more effectively and therefore more efficiently manage trading risks. This should result in a decrease in their market transaction costs to the benefit of gas consumers.

A description and draft of the proposed Rules, a statement of the issues concerning the existing NGR and a description of the consultation process and how the proposed Rule contributes to the achievement of the national gas objective (NGO) is provided in the Attachment.

AEMO would be please if you could have this matter considered by the AEMC. For further details, please contact Terry Grimwade, Executive Managing Director Market Performance on (03) 9609 8520.

Yours sincerely



**Matt Zema**  
**Managing Director and Chief Executive Officer**

**Attachments: Rule Change Request**

VEN\_DOCS-#316750-V4-COVERING\_LETTER\_TO\_AEMC\_-\_REVISED\_AMIQ\_AMDQ\_RULE\_CHANGE.DOC

## RULE CHANGE REQUEST

### 1 Introduction

In the Declared Wholesale Gas Market (DWGM) Market Participants (participants) bid gas into the market at system injection points (SIP). Generally, gas is dispatched according to price with the lowest priced supply bids dispatched first, however, these arrangements vary if: there are capacity or supply constraints applying to any SIP; there are transmission system constraints; or bid prices are tied. The market uses a range of mechanisms to determine the scheduling priority of the different bids and, in turn, each Market Participant's imbalance exposure to market price and exposure to the costs of congestion on the transmission system. This proposal seeks to ensure that these mechanisms operate more efficiently, particularly at locations where there are two or more SIPs that are *close proximity injection points* (CPP) by:

- permitting participants to nominate Authorised Maximum Daily Quantity (AMDQ) to SIPs and to update these nominations during the gas day;
- permitting participants to update their Authorised Maximum Interval Quantity (AMIQ) profile during the gas day.

Subject to approval of the proposed rule changes, the relevant systems and Procedures will be changed so that a Market Participant's Injection Hedge Nomination (IHN) applies collectively to CPPs rather than to individual SIPs. In this proposal, references to SIP or SIPs generally pertain to CPPs and participants refers to relevant classification of Registered participants under the National Gas Rules (NGR).

The proposed rules are set out in annotated form in Appendix 2 and a clean version appears in Appendix 3.

### 2 Background

#### 2.1 Close Proximity Injection Points

The benefits of the first part of this rule change will apply to CPPs. As mentioned above these are groups of SIPs that are sufficiently physically close to each other that AEMO has determined may be treated as one for some purposes. There are currently two CPP locations in Victoria: one at Longford where there are injections through multiple SIPs for the ESSO production plant and the VicHub; the second is at Iona where there are injections through three SIPs<sup>1</sup> serving the Otway gas plant, the underground storage facility and the Minerva Plant.

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<sup>1</sup> There are (out of market) connections upstream of one or more of these SIPs enabling back-up and/or sharing.

## 2.2 AMDQ

In the DWGM, capacity rights termed 'authorised MDQ' and 'AMDQ credits', collectively referred to as AMDQ<sup>2</sup>, provide physical and financial capacity rights to the participants who hold them. In the context of this proposal AMDQ is used in the following ways:

- by giving scheduling priority in the form of tie-breaking rights to equally beneficial bids that are supported by AMDQ nominated to SIPs; and
- to generate AMIQ which is an 'uplift hedge' to mitigate a participant's risk of exposure to congestion uplift costs which occur when the transmission system is constrained.

These rights enable participants some ability to manage their imbalance exposure to the market price and to the costs of congestion on the transmission system.

## 2.3 Injection Hedges

### 2.3.1 Injection Hedge Nominations (IHN)

Injection hedges in combination with AMDQ enable a participant to manage its risks by limiting its exposure to congestion costs arising from transmission constraints. A participant who holds AMDQ on a pipeline may generate an injection hedge by making IHN to one or more SIPs. By doing so, the participant is able to generate AMIQ to manage its risks of incurring uplift costs for *any* congestion costs arising from transmission constraints. The extent of the injection hedge generated at a SIP is limited to the injections scheduled for that participant at that SIP. A participant may also make arrangements to submit an Agency Injection Hedge Nomination (AIHN) that will assign some injections to generate AMIQ for another participant.

Each participant's AMDQ is automatically allocated to SIPs for tie-breaking of equally beneficial bids in proportion to the participant's IHNs.

*In Figure 1 a participant holds 100TJ AMDQ which can be used at three SIPs which are CPPs SIP1, SIP2 and SIP3. If the participant's respective IHNs are 40TJ, 60TJ and 100TJ, then the AMDQ allocated for injection bid tie-breaking will be prorated to be 20, 30, and 50TJ, respectively (i.e. prorated by the participants IHNs).*

As described above, participants who hold AMDQ in respect of a pipeline may generate an injection hedge at a SIP by submitting an IHN for that SIP and then having gas scheduled at that SIP. The injection hedge is capped at the lesser of the injections scheduled at the SIP and the participant's IHN at the SIP.

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<sup>2</sup> It should be noted that a participant's Authorised MDQ is allocated from Longford (990TJ) based on the holdings of their Tariff D customers and their share of Tariff V customer load. AMDQ credits are similar rights applying to other pipelines and/or injection points that must be contracted from APA or other participants that hold them. The amount of these rights issued is limited to the agreed capacity of the relevant pipeline.

*In Figure 1 if the participant has 50TJ scheduled at SIP1, the injection hedge achieved will be 40TJ in accordance with the IHN. If instead 30TJ is scheduled for injection for the participant, the injection hedge would then be capped at 30TJ.*

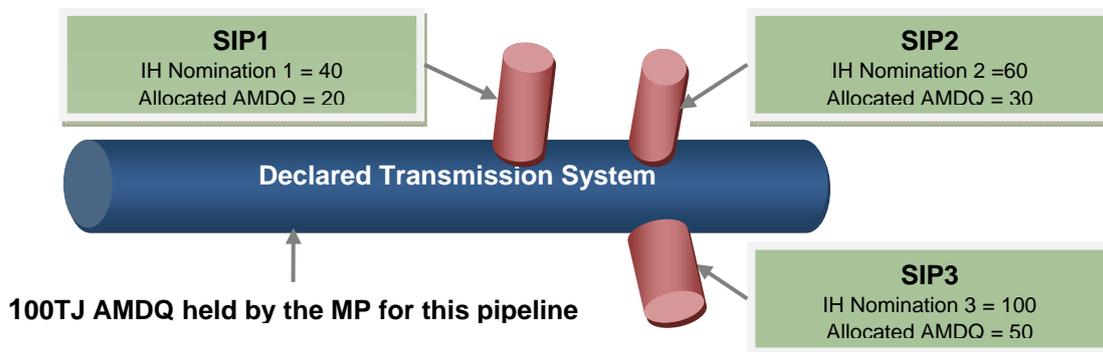


Figure 1 – Close Proximity Injection Points

The injection hedges achieved by a participant are used to generate an uplift hedge for the gas day. Where a participant achieves injection hedges at two or more SIPs which are CPPs, these injection hedges are summed but capped at the quantity of AMDQ held by the participant (for the relevant pipeline) to produce the participant’s ‘uplift hedge’ for AMIQ purposes associated with those CPPs. This is summed with any uplift hedges achieved by the participant from other pipelines to produce their overall uplift hedge for the gas day.

### 2.3.2 Agency Injection Hedge

The need for Agency Injection Hedges (AIH) may arise where one participant has excess gas supply relative to their AMDQ holding while another participant has excess AMDQ relative to their relevant gas supply. The AIH mechanism allows a participant with excess AMDQ to utilise their AMDQ to generate an injection hedge by making arrangements with another participant to have additional gas injections scheduled to support their injection hedge.

*In Figure 1, assume that the three neighbouring SIPs illustrated have been determined by AEMO to be CPPs. If the participant holding 100TJ AMDQ through their injection hedge nominations and scheduled injections achieves aggregate injection hedges of 120TJ, the AMIQ (uplift hedge) contribution generated is 100TJ as it is capped by the 100TJ AMDQ. On the other hand, if the aggregate injection hedge achieved was 90TJ the uplift hedge contribution would be 90TJ.*

### 2.3.3 AMIQ and AMIQ Profiles

A participant’s uplift hedge is a daily quantity which is allocated across scheduling intervals in the gas day in accordance with a profile submitted by the participant. There are five scheduling intervals which are the periods 6am to 10am, 10am to 2pm, 2pm to 6pm, 6pm to 10pm and 10pm to 6am. This profile is called an Authorised Maximum Interval Quantity (AMIQ) profile. The AMIQ profile specifies a percentage for each scheduling interval that is applied to the uplift hedge to allocate a gigajoule amount to each scheduling interval.

An AMIQ profile should take account of and may reflect the participant’s expected scheduled withdrawals across the gas day. It is currently nominated by the participant before the day commences and cannot be altered during the gas day.

The uplift hedge works as follows: In the first of the five daily schedules, a participant will only be exposed to a share of total congestion uplift charges to the extent that the participant's scheduled withdrawals (set equal to their forecast demand plus any scheduled controllable withdrawals) exceeds their profiled uplift hedge during any scheduling intervals in the gas day i.e. their 'AMIQ exceedence'. In reschedules, the exposure to any congestion uplift is limited to the participant's change in AMIQ exceedence, if any.

A table setting out the various hedge instruments and where they are applied on the system appears in Appendix 1.

### 3 Issues

#### 3.1 Main Issues

There are three main issues with the current arrangements:

- The inability of participants to change the allocation of AMDQ amongst CPPs during the gas day for injection tie-breaking purposes, which increases participants' risks if supply to a SIP fails. The AMDQ held by the participant is allocated to SIPs for tie-breaking purposes prorated by the IHNs nominated to those SIPs. The IHNs nominated to each SIP are fixed for the gas day and therefore the AMDQ allocations are also fixed for the gas day.
- The need for participants to nominate IHNs to SIPs to manage risks of uplift costs rather than collectively to CPPs has resulted in inefficient over-nomination of IHNs and a reduction in the ability of participants to offer or receive AIHs. An issue arises if there is a supply outage at a SIP where scheduled injections are reduced and the desired injection hedge at the affected SIP is not achieved. This situation would be avoided if IHNs were applied collectively to CPPs so that in the event of a reduction in output from one, then any excess scheduled injections or an increase in scheduled injections at one or more other SIP that forms part of the same CPP group could support the Injection Hedge.
- The inability to modify an AMIQ profile during the gas day prevents participants from optimising the use of their uplift hedge if they become aware of a change in their forecast demand profile.

The following detailed examples illustrate how, under the current rules, the inability to nominate IHN collectively to CPPs, or to renominate AMIQ profiles during the gas day, gives rise to a number of issues for participants:

##### 3.1.1 Loss of critical tie-breaking rights

In the event of a gas supply outage at a SIP, any AMDQ allocated to that SIP is stranded at that SIP for the rest of the gas day. While the participant may rebid injections at other SIPs in that group of CPPs to try to meet their gas supply needs for the day, the stranded AMDQ cannot be reallocated and so the injection tie-breaking rights, which may be critical on such a day, are lost. If as a consequence, the participant does not achieve their injection target, they might fail to achieve the injection hedge and risk greater exposure to congestion cost and would also incur imbalance payments. The imbalance payment could be at a high market price given that there has been a failure of a gas supply source.

*Example: a participant allocates AMDQ to each of three SIPs: SIP1, SIP2 and SIP3, for injection tie-breaking as shown in Figure 1. 100TJ gas is initially scheduled from 6am comprised of 20, 30 and*

50TJ at SIP1 SIP2 and SIP3, respectively to meet total withdrawals of 100TJ. After 2 hours SIP3 fails after only 4TJ has been injected for the participant in accordance with the schedule.

To meet its initial 100TJ target the participant rebids 96TJ at \$0/GJ at the other two SIPs (where they have additional gas supply) for the 10am schedule to cover the failure of SIP3, 36TJ at SIP1 and 60TJ at SIP2. However, SIP1 and SIP2 are both constrained with two or more other participants also bidding at \$0/GJ competing for the limited injection capacity on each. The other participants already have AMDQ at SIP1 and SIP2 for tie-breaking while the initial participant has none, as its 100TJ AMDQ is stranded. As a result, the participant cannot achieve any increase in its scheduled injections which are now 54TJ in total.

The imbalance payment incurred by the participant for a reduction in scheduled injections of 46 TJ at the reschedule price of say \$10/GJ is:

$\text{Increase in Imbalance Payment} = 46,000 \text{ GJ} \times \$10 / \text{GJ} = \$460,000.$

At the end of the day it is determined that the uplift hedge achieved is just 54TJ and not 100TJ as planned. As a result they have 46TJ more exposure to uplift in Schedule 2 than they otherwise would have. The uplift rate is \$20/GJ in Schedule 2 partly due to the supply outage (this is a likely price scenario because it is very likely that LNG, a high cost gas source, is the price setting gas in the event of a supply outage). The participant incurs an uplift payment at the reschedule:

$\text{Increase in Uplift Payment} = 46,000 \text{ GJ} \times \$20 / \text{GJ} = \$920,000.$

### 3.1.2 Risk of failure to achieve appropriate uplift hedge

Secondly, if the participant's IHNs at the other SIPs within a group of CPPs are not large enough to cover rescheduled injections should these be achieved from rebids, then the uplift hedge will again not be achieved. To mitigate this risk, participants tend to submit high IHNs that materially exceed their AMDQ. Their aim is to mitigate the risk of not achieving an IH in the event of a supply outage at a SIP by bidding or rebidding to achieve larger scheduled injections and higher IH at the other SIP(s). This strategy works but is at the expense of being able to offer AIHs to others. As a result the use of AIHs in the gas market is currently very limited. By default, scheduled injections count towards IHs before AIHs and as the uplift hedge is capped by the AMDQ holding, the excess scheduled injections are not used and so cannot support AIHs. This proposal will eliminate the risks of stranded AMDQ so that participants can align their IHNs with their AMDQ and therefore be able to offer AIHs if they have excess gas supply.

This rule change proposal would attempt to resolve these issues by allowing participants to nominate AMDQ to SIPs for the 6am schedule and make renominations prior to reschedules during the gas day. This would enable 'unused' AMDQ at a SIP within a group of CPPs to be renominated to another for injection tie-breaking in the event of a supply outage. The current systems and procedures would be changed so that IHNs would apply collectively to CPPs rather than to individual SIPs obviating the need for participants to use artificially high IHNs to mitigate the risk. These changes would enable participants to mitigate risks of imbalance payments and exposure to congestion costs where their AMDQ would otherwise be stranded in the event of an unplanned supply outage and also would also eliminate the incentive for participants to over nominate IHNs and so enable trade of AIHs between participants.

*Example: Based on the previous example, after the supply failure at SIP3, the participant could renominate the 'unused' 46TJ of AMDQ from SIP3 across SIP1 and SIP2 for injection tie- breaking prior to the reschedule at 10am. Note that 4TJ AMDQ is deemed to have been used at SIP3 in the first two hours and this remains allocated at SIP3.*

*The participant renominates 36TJ and 60TJ (=96TJ) AMDQ to SIP1 and SIP2 instead of the initial 20*

and 30TJ (=50TJ). Due to the increase in tie-breaking rights the participant manages to increase its scheduled injections by a further say 31 TJ between SIP1 and SIP2 from 50TJ in total to 81TJ. This combined with the 4TJ scheduled and injected at SIP3 means that the MP achieves rescheduled injections of 85TJ overall at the CPP. An uplift hedge of 85TJ is achieved for protection against congestion costs. The imbalance payment incurred by the participant is now for a smaller reduction in scheduled injections of 15TJ at the reschedule price of \$10/GJ:

*Imbalance Payment at Reschedule 15,000 GJ x \$10 /GJ = \$150,000.*

*The participant has reduced their market price exposure and is some \$310,000 better off under the AMDQ renomination proposal.*

*In addition the participant's congestion uplift exposure can be reduced by up to another 35TJ as the uplift hedge is 85TJ rather than 50TJ. Assuming an uplift payment rate of \$22/GJ the amount incurred could be reduced to*

*Uplift Payment at Reschedule = 15,000 GJ x \$22/GJ = \$330,000.*

*The renomination of AMDQ has enabled the participant's congestion uplift payment to be reduced by \$590,000 compared to their position under current arrangements. Note that the uplift rate used here is higher than that earlier because the aggregate of exposed GJ of all participants has been reduced by this participant achieving a greater uplift hedge.*

*It is recognised that the participants who were already flowing gas at other SIPs (2 and 3) would be impacted when AMDQ is transferred in this way, however, this represents fair competition and is not an issue. The participant transferring AMDQ to the SIP has equal rights and the physical benefits of the AMDQ should supply at that SIP be constrained.*

### 3.1.3 Inability to alter AMIQ profiles

The third issue, concerns alteration of AMIQ profiles during a gas day. As discussed earlier, the Uplift Hedge is a daily quantity that is profiled across scheduling intervals in accordance with an AMIQ profile nominated by participants. The AMIQ profile cannot be changed during the gas day and this prevents participants from optimising the use of their uplift hedge if they become aware of a change in their forecast demand profile.

*Example: A participant has an expected load profile including gas powered generation and allocates their AMIQ profile across scheduling intervals in such a way as to minimise potential exposure to congestion uplift. At 11 am the participant realises that 10TJ more gas will be used by their generator load in the 2pm to 6pm scheduling interval than they previously thought and 10TJ less will be used from 6pm to 10pm. As the system stands the participant is obliged to submit an updated forecast but they cannot change their AMIQ profile. Their AMIQ exceedence from 2pm to 6pm increases by 10TJ and incurs a congestion uplift rate of say \$21/GJ:*

*Uplift payment 10,000 GJ x \$21/GJ = \$210,000*

*Under this proposal the participant could renominate their AMIQ profile to match the shift in forecast demand between the scheduling intervals. They would then eliminate the change in AMIQ exceedence and so not incur this above uplift payment.*

## 3.2 Other issues

This proposal has been discussed at the Gas Wholesale Consultative Forum (GWCF). The GWCF analysed various scenarios looking at the costs that affected participants could be exposed to under the current Rules, which would be mitigated by the proposed rule change. By way of example, Origin Energy presented a worked example illustrating that there may be additional and significant consequential costs to participants, and the market in general, due to a delay in production of related petroleum liquids products such as propane e.g. at \$1/GJ

not taken and also costs associated with delays in use of contract gas e.g. at \$2/GJ not taken, both of which are affected.

*In the example under section 3.1.1, the net reduction of 46TJ in scheduled injections would cause additional costs of as follows:*

*Additional costs 46,000 GJ x (\$1+\$2) = \$138,000*

*With the proposal to enable AMDQ renominations, this would reduce the costs by \$108,000 to:*

*Additional costs 15,000 GJ x (\$1+\$2) = \$30,000*

## 4 Proposed Rule Changes

### 4.1 Description of the Proposed Rule Changes

AEMO is proposing the following changes to the definition of close proximity injection points (Rule 200) and to Rule 211:

- Amend the definition of “close proximity injection points”.
- Amend subclause (1) to retain only obligations to lodge bids and demand forecasts in the 2 day ahead horizon.
- Introduce new subclause (2A) that gives Market Participants the option but not the obligation to lodge certain nominations. If a Market Participant does wish to lodge a nomination, it must do so by 5:00 am on the day on which the gas day commences.
- Consequential number and reference changes to subclause (1) and the note to subclause (2).;
- Change subclause (4) to allow the submitted nominations of authorised MDQ, AMDQ credits or AMIQ profile to be updated during the gas day. Currently subclause (4) only allows for updated demand forecasts or bids to be submitted for the gas day.
- Add new subclauses (5A) and (5B) to include the additional requirements for the submission of the authorised MDQ, AMDQ credit and AMIQ profiles as detailed under subclause (4).
- Add new subclause (5C) to clarify that only the AMIQ profile for the last schedule of the gas day will be used for the uplift payment calculation.
- Update subclause (7) to extend the confidentiality envelope to nominated authorised MDQ and AMDQ credits.

### 4.2 Correction to definition of close proximity injection points

Though not a part of the critical changes in this proposal, this proposal provides an opportunity to correct the definition of **close proximity injection points** (CPPs).

The term CPPs only applies to SIPs in circumstances where these points can be treated as the same injection point for the purposes of utilising AMDQ to generate AMIQ under rule 240. However, the term CPPs does not and cannot apply to such SIPs for the purposes of scheduling under Division 2, Subdivisions 1 and 2 as indicated in the current definition. This is because there are physical flow constraints that differ between SIPs and which impact schedules. Supply demand point constraints (SDPCs) are applied to represent upstream production flow limits and/or physical injection point limits are an essential input into the scheduling process. In addition, the accredited constraints under the various supply

contracts differ between SIPs and these include response times, ramp rates, maximum and minimum flow rates under a contract. These physical constraints mean that SIPs are not equal from a scheduling perspective.

The detailed rule change drafting appears in Appendices 2 (annotated) and 3 (clean).

## **5 Public Consultation**

Under section 305 of the NGL, the AEMC may consider dispensing with some elements of the rule making process if a gas market regulatory body (which includes AEMO) has made a request for a Rule under section 295(1) and in the opinion of the AEMC, has adequately consulted with the public having regard to certain criteria set out in section 305(2)(a).

AEMO's public consultation process consists of the publication of rule change proposals on its website. It requests submissions from the public on the proposed rule change and if any submissions are received, they are dealt with in its rule change application. AEMO's public consultation process also includes discussing rule change proposals at the GWCF. The GWCF is a standing open forum enabling consultation with all stakeholders on development of the DWGM. The GWCF's objective is to:

- facilitate effective and efficient consultation between AEMO and stakeholders for the development of changes to the DGWM Procedures, the National Gas Rules (primarily Part 19), systems and arrangements governing the wholesale market; and
- provide stakeholders with a forum to raise and address issues relating to the operation and functionality of the wholesale market.

A summary of the key dates and the issues raised with participants of the GWCF and through AEMO's website for this rule change application follows. A more in depth discussion is contained in Appendix 4 and contains references and links to discussion papers and meeting minutes.

In February 2009, an initial paper setting out Injection Hedge Nomination issues was presented to the GMCC (Gas Market Consultative Committee, the predecessor to the GWCF). Options were proposed and put to the GMCC/GWCF at the March, May, June and October 2009 meetings. At the November 2009 meeting, a proposed rule was submitted to the GWCF for noting.

In June 2010, a version of the proposed rule changes was posted on AEMO's website with an invitation for submissions from the public. This proposed rule is substantially similar to, and has the same intent as, the proposed rule as consulted in June. The changes to the proposed rule in this application are designed to simplify and clarify the existing Rules by separating the obligation to submit bid and demand forecasts from the discretionary right to submit injection hedge nominations and AMIQ profiles. None of these proposed changes affect the intent or the anticipated consequence of the rule change as consulted in June but, rather, it improves the rule drafting to give effect to that intent.

The consultation process as implemented and its outcomes were as follows:

- AEMO has consulted extensively on the matters that are included in the proposed Rule by publishing on its website a version of the Rule that is of the same substance and intent as the proposed rule included in this submission;

- stakeholders were given at least 20 business days to provide written comments to AEMO on the key issues addressed in the proposed Rule and were also given the opportunity to raise any issues at the GWCF;
- the public consultation was open to industry members, industry representative bodies and stakeholders including end-user representatives, with key consultation dates and documents published on AEMO's website and notified via AEMO Communications and AEMO's contacts databases;
- the rule changes proposed in the consultation process were of the same substance and intent as set out in this proposal; and
- no submissions were received on the proposal.

## **6 How the proposed Rule contributes to the National Gas Objective (NGO)**

Section 23 of the NGL states the NGO is:

*to promote efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas.*

The proposed changes to the Rules will promote more efficient scheduling of gas supplies and operation of the DTS in the long term interest of gas consumers with respect to price, reliability and the security of gas supply.

The current CPPs at Longford and Iona account for over 90% of gas supplies, particularly on days of high demand in winter when gas prices and/or the costs of congestion (uplift) may be very high. Supply outages at individual SIPs due to upstream production forced outages are not uncommon and the impact in terms of injections (imbalances) and a reduction in uplift hedge, typically both measured in tens of TJs, have financial consequences that could be measured in millions of dollars. Similarly, a misaligned AMIQ profile could result in exposure to uplift measured in tens of TJs in more severe cases, again with similar financial consequences.

The proposed changes will increase certainty of supply under adverse conditions; they will provide participants with greater flexibility to optimise their scheduled injections and uplift hedges to mitigate their risk of imbalance and uplift payments resulting in more efficient allocation of gas. This will improve participants' ability to manage risk of exposure to unplanned trading costs and other cost penalties in the market which is anticipated to ultimately deliver benefits of lower gas costs to gas consumers.

This proposal should also result in more flexible and wider use of AIHNS and AMDQ ensuring that these hedging products can be used more effectively and efficiently.

## **7 Expected Benefits and Costs of the Proposed Rule**

The rule change will give participants improved tools for managing risk of increased imbalance payments and congestion uplift by enabling them to rebid AMDQ to other SIPs in a group of CPPs if there a SIP failure.

Participants will no longer have to follow the strategy of nominating artificially high IHNs therefore allowing them to offer AIHNs as a firm product to other participants.

AEMO has estimated implementation costs arising from system changes of this rule change at approximately \$300,000. This is relatively small compared to the costs of congestion uplift and imbalance payments that can occur in the market, particularly when the market price (in the case of imbalance payments) or the relevant bid prices (in the case of uplift payments), are very high or even approach the market price cap of \$800/GJ.

**Appendix 1 - Table of Hedging Instruments**

<b>Instrument</b>	<b>Location</b>	<b>Duration</b>	<b>Existing</b>	<b>Proposed</b>
AMDQ and AMDQ credits	Currently allocated by SIP for tie-breaking	Gas day	At initial Schedule	Rebidding to SIPs at each schedule
IHN	Currently by SIP	Gas day	Subject to scheduled injection and AMDQ, it generates AMIQ hedge against uplift	Allocate once collectively to CPPs or a single SIP where applicable
AIHN	Currently by SIP	Gas day	A participant may provide excess injections to support another's uplift hedge	Allocate once collectively to CPPs or a single SIP where applicable. Excess injections can support another's hedge
AMIQ Profile	System wide	Gas day by scheduling interval	Cannot be altered during the gas day.	May be rebid for coming scheduling intervals of the gas day to cover changes in hourly demand forecast distribution

## Appendix 2 – Draft of the Proposed Rule (Changes Marked Up)

The proposed drafting of the rule:

*Additional words underlined and highlighted in red. Deleted sections are struck through.*

### 200 Definitions

**close proximity injection points** means a group of system injection points that AEMO has determined d by AEMO that can be regarded as the same injection point for the purposes of determining AMIQ under rule 240. ~~the same system injection point for the purpose of scheduling under Division 2, Subdivisions 1 and 2 and the determination of AMIQ under rule 240.~~

### 211 Timing of submissions by Market Participants

- (1) By 11:00 am on the day that is 2 days before the day on which a gas day commences, a Market Participant must submit to AEMO:
  - ~~(a) must submit to AEMO:~~
  - (a) demand forecasts required under this subdivision for the gas day; and
  - (b) bids in respect of controllable quantities of gas for the gas day;
  - ~~(b) may submit to AEMO an injection hedge nomination, AMIQ profile or agency injection hedge nomination for the gas day.~~
- (2) If the basis for a submission for a gas day made under subrule (1) ~~(a)~~ or previously resubmitted under this subrule changes, it must be resubmitted to AEMO by whichever of the following is the next to occur:
  - (a) 7:00 am on the day before the day on which the gas day commences;
  - (b) 5:00 am on the day on which the gas day commences.

(2A) By 5:00 am on the day on which the gas day commences, a Market Participant may submit injection hedge nominations and agency injection hedge nominations by close proximity injection point, nominations of authorised MDQ, AMDQ credit or an AMIQ profile.

#### Note

After the time specified in ~~paragraph (b)~~ subrule (2A), updates may only be made to demand forecasts and bids in accordance with subrules (4) to (6).

- (3) On the day before the day on which a gas day commences, a Market Participant may submit updated demand forecasts or bids for that gas day:
  - (a) by 3:00 pm for inclusion in the updated operating schedule to be published at 4:00 pm on that day; or
  - (b) by 10:00 pm for inclusion in the updated operating schedule to be published at midnight.
- (4) On a gas day, a Market Participant may submit updated demand forecasts, ~~or~~ bids, nominations of authorised MDQ, AMDQ credit or an updated AMIQ profile for that gas day:
  - (a) by 9:00 am for inclusion in the updated operating schedule to be published at 10:00 am on that day; or

- (b) by 1:00 pm for inclusion in the updated operating schedule to be published at 2:00 pm on that day; or
  - (c) by 5:00 pm for inclusion in the updated operating schedule to be published at 6:00 pm on that day; or
  - (d) by 9:00 pm for inclusion in the updated operating schedule to be published at 10:00 pm on that day.
- (5) An updated bid submitted under subrule (4) must be for the whole of the gas day, and must be consistent with the quantity scheduled in respect of that bid for the current and preceding scheduling intervals.
- (5A) An updated nomination of authorised MDQ or AMDQ credit submitted under subrule (4) must be greater than or equal to the lesser of:
- (a) the current nomination of authorised MDQ or AMDQ credit; and
  - (b) the total quantity of gas scheduled for injection by that Market Participant for the current and preceding scheduling intervals of the gas day.
- (5B) An updated AMIQ profile submitted under subrule (4) must be for the whole of the gas day, and must be consistent with the AMIQ profile nominated for the current and preceding scheduling intervals for the gas day.
- (5C) For the avoidance of doubt, the last AMIQ profile submitted by a Market Participant for a gas day is used in determining the AMIQ of that Market Participant in accordance with Rule 240(3).
- (6) An updated demand forecast submitted under subrule (4) must be made by hour for the scheduling horizon commencing at the relevant standard schedule time.
- (7) Injection hedge nominations, nominations of authorised MDQ, AMDQ credit, AMIQ profiles, and agency injection hedge nominations are confidential information.

## Appendix 3 - Draft of the Proposed Rule (Clean)

The proposed drafting of the rule:

### 200 Definitions

**close proximity injection points** means a group of system injection points that AEMO has determined can be regarded as the same injection point for the purposes of determining AMIQ under rule 240.

### 211 Timing of submissions by Market Participants

- (1) By 11:00 am on the day that is 2 days before the day on which a gas day commences, a Market Participant must submit to AEMO:
  - (a) demand forecasts required under this subdivision for the gas day; and
  - (b) bids in respect of controllable quantities of gas for the gas day.
- (2) If the basis for a submission for a gas day made under subrule (1) or previously resubmitted under this subrule changes, it must be resubmitted to AEMO by whichever of the following is the next to occur:
  - (a) 7:00 am on the day before the day on which the gas day commences;
  - (b) 5:00 am on the day on which the gas day commences.
- (2A) By 5:00 am on the day on which the gas day commences, a Market Participant may submit injection hedge nominations and agency injection hedge nominations by close proximity point, nominations of authorised MDQ, AMDQ credit or an AMIQ profile.

#### Note

After the time specified in subrule (2A), updates may only be made to demand forecasts and bids in accordance with subrules (4) to (6).

- (3) On the day before the day on which a gas day commences, a Market Participant may submit updated demand forecasts or bids for that gas day:
  - (a) by 3:00 pm for inclusion in the updated operating schedule to be published at 4:00 pm on that day; or
  - (b) by 10:00 pm for inclusion in the updated operating schedule to be published at midnight.
- (4) On a gas day, a Market Participant may submit updated demand forecasts, or bids, nominations of authorised MDQ, AMDQ credit or an AMIQ profile for that gas day:
  - (a) by 9:00 am for inclusion in the updated operating schedule to be published at 10:00 am on that day; or
  - (b) by 1:00 pm for inclusion in the updated operating schedule to be published at 2:00 pm on that day; or
  - (c) by 5:00 pm for inclusion in the updated operating schedule to be published at 6:00 pm on that day; or
  - (d) by 9:00 pm for inclusion in the updated operating schedule to be published at 10:00 pm on that day.

- (5) An updated bid submitted under subrule (4) must be for the whole of the gas day, and must be consistent with the quantity scheduled in respect of that bid for the current and preceding scheduling intervals.
- (5A) An updated nomination of authorised MDQ or AMDQ credit submitted under subrule (4) must be greater than or equal to the lesser of:
  - (a) the current nomination of authorised MDQ or AMDQ credit; and
  - (b) the total quantity of gas scheduled for injection by that Market Participant for the current and preceding scheduling intervals of the gas day.
- (5B) An updated AMIQ profile submitted under subrule (4) must be for the whole of the gas day, and must be consistent with the AMIQ profile nominated for the current and preceding scheduling intervals for the gas day.
- (5C) For the avoidance of doubt, the last AMIQ profile submitted by a Market Participant for a gas day is used in determining the AMIQ of that Market Participant in accordance with Rule 240(3).
- (6) An updated demand forecast submitted under subrule (4) must be made by hour for the scheduling horizon commencing at the relevant standard schedule time.
- (7) Injection hedge nominations, nominations of authorised MDQ, AMDQ credit, AMIQ profiles, and agency injection hedge nominations are confidential information.

## Appendix 4 - Detailed Responses to Issues Raised by GWFC

Discussions at the GWCF concerning this issue are documented and published on AEMO’s website. Relevant papers and minutes of subsequent discussions can be found by navigating the following links:

[GMCC Meeting 146, 17 February 2009 – GMCC 09-083-01 Injection Hedge Nominations at Close Proximity Points - Issues](#)

[GMCC Meeting 147, 17 March 2009 – GMCC 09-083-02 Note for GMCC: Injection Hedge Renominations](#) (includes Minutes of previous meeting, see section 6.3 of Minutes)

[GMCC Meeting 148, 19 May 2009 – GMCC 09-083-03 Notes for GMCC: Injection Hedge Renominations](#) (including Minutes of previous meeting, see section 9.5 of Minutes)

[GMCC Meeting 149, 23 June 2009 – GMCC 09-083-04 Proposed New Model for IHN & AIHN](#) (including Minutes of previous meeting, see section 6 of Minutes)

[GWCF Meeting 151, 18 August 2009 – GWCF 09-083-07 AMIQ Renominations](#)

[GWCF Meeting 153, 20 October 2009 – GWCF 09-083-08 Update notes on AMDQ/AMIQ renomination project](#)

[GWCF Meeting 154, 17 November 2009 – GWCF 09-083-09 Draft Rule Changes – Rule 211](#)

A discussion at GWCF 153 raised one issue with the proposal. This is discussed below.

Issue	Summary of concern	Response
1	TRUEnergy raised the point that use of the phrase “greater than” rather than “consistent with” in proposed sub-clause (5B) regarding updating AMIQ profiles during the day.	This change is relevant to renominating AMDQ, however AMIQ profiles for schedules that have not yet occurred can be changed up or down as long as the total profile for the day does not exceed 100%. AMIQ cannot be changed for schedules that have already occurred. Consistent with is a more appropriate term in this case.

## Appendix 5 - Glossary

Acronym	Full name or term
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AIHN	Agency Injection Hedge Nomination
AMDQ	Authorised Maximum Daily Quantity (of gas)
AMIQ	Authorised Maximum Interval Quantity
CPP	Close Proximity Injection Points
DTS	The Victorian Declared Transmission System
DWGM	The Victorian Wholesale Gas Market
GMCC	Gas Market Consultative Committee
GWCF	Gas Wholesale Consultative Forum
IHN	Injection Hedge Nomination
MSOR	The Victorian Market and System Operations Rules
NGL	National Gas Law
NGO	The national gas objective as stated in section 23 of the NGL.
NGR	National Gas Rules
SIP	System Injection Point
VENCorp	The Victorian Energy Networks Corporation