AEMC

RULE CHANGE

Australian Energy Market Commission

DRAFT DETERMINATION

National Gas Amendment (Prioritisation of Tied Controlled Withdrawal Bids) Rule 2010

Rule Proponent

Australian Energy Market Operator

Commissioners

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25 February 2010

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AEMC 2010, Prioritisation of Tied Controlled Withdrawal Bids, Draft Determination, 25 February 2010, Sydney

About the AEMC

The Council of Australian Governments, through its Ministerial Council on Energy (MCE), established the Australian Energy Market Commission (AEMC) in July 2005 to be the rule maker for national energy markets. The AEMC is currently responsible for rules and policy advice covering the National Electricity Market and elements of the natural gas markets. We are an independent, national body. Our key responsibilities are to consider rule change proposals, conduct energy market reviews and provide policy advice to the Ministerial Council as requested, or on AEMC initiative.

Summary

On 16 November 2009, the Australian Energy Market Operator (AEMO) asked the Australian Energy Market Commission (Commission or AEMC) to consider a Rule Change Request to introduce new tie-breaking provisions for equally-beneficial controllable withdrawal bids[1] in the Victorian Declared Wholesale Gas Market (DWGM).

The Commission has decided it should not make the proposed Rule in respect of this Rule Change Request as it is not satisfied, based on the information it has considered to date, that the proposed Rule will or is likely to contribute to the achievement of the National Gas Objective (NGO).

The Commission published a notice under section 303 of the National Gas Law (NGL) on 23 December 2009 notifying that it had commenced the Rule Change Process and that it had under section 62 of Schedule 3 of the NGL dispensed with the first round of consultation in the Rule Change Process.[2]

AEMO's proposed Rule provided that holders of Authorised Maximum Daily Quantity (AMDQ or authorised MDQ) or AMDQ credits should be prioritised in the event of there being multiple equally-beneficial controllable withdrawal bids. The proposed Rule would, if implemented, replace the current arrangements under National Gas Rules (NGR) rule 214(c)[3] in which equally-beneficial controllable withdrawal bids are scheduled to the "same extent". AEMO has indicated that NGR rule 214(c) has been implemented, practically, in such a way that equally-beneficial controllable withdrawal bids are scheduled on a pro-rated basis.

AEMO has indicated that the proposed Rule would increase consistency in the treatment of scheduling between equally-beneficial withdrawal and injection bids in the Victorian DWGM. AEMO has stated that the proposed Rule therefore represents good regulatory practice. AEMO has also indicated that the proposed Rule may contribute to signalling investment in the Victorian Declared Transmission System (DTS) in situations of system constraints because it would incrementally increase the utility of AMDQ and AMDQ credits. AEMO therefore considers that the proposal

[1] In this draft Rule determination the phrase "controllable withdrawal bid" is a reference to a withdrawal bid for a controllable quantity under part 19 of the National Gas Rules.

[2] AEMO had requested in the Rule Change Request that the Commission dispense with the first round of consultation under section 62 of Schedule 3 of the NGL.

[3] See Appendix A for NGR rule 214.

promotes an environment of efficient investment, operation and use of natural gas services.[4]

In making its draft Rule determination, the Commission has assessed the proposed Rule against the NGO. The Commission has focussed its assessment of the impacts of the proposal on different elements of the NGO including efficient investment, efficient use of natural gas services and price and reliability. The Commission has sought to balance a number of potential benefits and disadvantages in respect of these matters likely to result from AEMO's proposed Rule, if it was made.

Having undertaken its assessment, and on the basis of the information considered by it to date, the Commission is not satisfied that the proposed Rule will or is likely to contribute to the NGO by promoting efficient investment. Whilst the Commission recognises that the proposal increases the utility of AMDQ and AMDQ credits, it is not clear whether demand for AMDQ or AMDQ credits will increase as a result of the proposed Rule or whether increased demand for AMDQ/AMDQ credits would help inform investment in the DTS.

In addition, the Commission considers that there are risks that the proposed Rule could lead to inefficiencies in the allocation of gas, and therefore inefficiencies in the use of natural gas services, at the Culcairn withdrawal point on the Victorian DTS. The Commission considers these risks could arise where there exist barriers to trading of AMDQ or AMDQ credits or where the proposed Rule has the effect of creating or reinforcing market power in relevant markets in New South Wales (NSW). At this stage, the Commission is raising these issues as potential risks and concerns. The Commission is seeking comments from market participants as to whether these concerns are likely to arise in practice.

The Commission considers that the proposal may, relative to the existing pro-rating arrangements, provide some benefits in terms of increased regulatory certainty on the allocation of gas in tie-breaking scenarios. Greater certainty over the allocation of gas could promote improved risk management from market participants which could bring price and reliability benefits to customers, promoting more efficient operation and use of natural gas services. However, the Commission's preliminary consideration is that the materiality of these potential effects is unclear.

On balance, and weighing up the factors outlined above, the Commission is not satisfied that the proposed Rule will or is likely to contribute to the achievement of the NGO.

The Commission welcomes stakeholder comments on these issues to inform its preparation of the final Rule determination. The Commission will consider these issues further in the light of any comments and submissions it receives from respondents.

[4] Rule Change Request, p. 7.

Submissions are now invited on this Draft Rule Determination. All submissions should be made to the Commission by 8 April 2010. Further details about making submissions on this draft Rule determination can be found in chapter 1.

Contents

1 AEMO's Rule change request

1.1 The Rule Change Request

On 16 November 2009, AEMO made a request to the Commission to make a rule regarding the scheduling of tied controlled withdrawal bids in the Victorian DWGM (the Rule Change Request).

1.2 Rule Change Request rationale

In this Rule Change Request, AEMO (the Rule Proponent) seeks to address an inconsistency between the treatment of scheduling of equally-beneficial controllable withdrawal bids and equally-beneficial injection bids in the Victorian DWGM.

Under the current DWGM arrangements AEMO uses injection and withdrawal bids, together with forecasts of uncontrollable demand and other relevant information, to determine the injection and withdrawal bids to schedule in each of the five scheduling intervals in the gas day. In determining the schedule of injections and withdrawals, AEMO may need to apply tie-breaking rules. These are applied whenever there are two or more “equally-beneficial” injection or withdrawal bids. In this context, AEMO considers that “equally-beneficial” means that the prices of the bids are the same.[5]NGR rule 214 is set out in Appendix A. This rule provides for scheduling and prioritisation of different types of injection and withdrawal bids. In particular, rule 214(c) and (d) provide that AEMO must as far as practicable apply the following principles:

(c) where two or more withdrawal bids are equally beneficial, those withdrawal bids should be scheduled to the same extent;

(d) where two or more injection bids are equally beneficial, then those injection bids that are associated with AMDQ credit certificates or authorised MDQ should be scheduled before other injection bids that are not associated with AMDQ credit certificates or authorised MDQ.

AMDQ and AMDQ credits are instruments which confer limited rights on parties that withdraw/inject specified amounts of gas from/into the DTS. These rights are allocated to customers at injection and withdrawal points on the Victorian DTS.

The present tie-breaking rules therefore differ in their treatment of equally-beneficial controllable withdrawal bids and equally-beneficial injection bids. AEMO considers that the rules are inconsistent in their treatment of withdrawal and injection bids in the

[5] The Rule Change Request states (footnote 2, p. 2) that "equally beneficial bids means bids that, in the absence of a tie-break procedure, and taking account of bid price, location, accredited constraints, system capacity and the temporal and physical distribution of system demand over the gas day, would be scheduled with equal priority on a pro-rated basis by the scheduling systems and processes".

scheduling process[6] and that this inconsistency should be removed in the interests of good regulatory practice[7].

AEMO therefore considers that where there are equally-beneficial controllable withdrawal bids, holders of AMDQ and AMDQ credits should be prioritised. AEMO has also indicated that by giving preference to holders of AMDQ and AMDQ credits the rule change may contribute to signalling investment in the Victorian DTS in situations of system constraints because it incrementally increases the utility of AMDQ and AMDQ credits.[8]

1.3 Solution proposed by the Rule Change Request

The proposed Rule provides that holders of AMDQ or AMDQ credits should be prioritised in the event of there being multiple equally-beneficial controllable withdrawal bids in the DWGM.

If implemented, the proposed Rule would therefore replace the current arrangements under which equally-beneficial controllable withdrawal bids are scheduled to the same extent, irrespective of whether parties hold AMDQ or AMDQ credits at those withdrawal points. AEMO has advised that it has implemented the phrase "scheduled to the same extent" by scheduling bids on a pro-rated basis. We refer to this operationalisation by using "pro-rated" in this draft Rule determination.

1.4 Relevant background

Under section 295(3)(a) of the NGL, a request for a Rule regulating a declared wholesale gas market can only be made by AEMO or the Minister of an adoptive jurisdiction. This Rule Change Request is a request to regulate a declared wholesale gas market and was made by AEMO, satisfying section 295(3)(a) of the NGL.

1.5 Commencement of Rule making process

On 23 December 2009, the Commission published a notice under section 303 of the NGL advising of its intention to commence the Rule change process in respect of the Rule Change Request. An information paper prepared by AEMC staff identifying specific issues was also published concurrently with the Rule Change Request.[9]

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[6] Rule Change Request, p. 3.

[7] Rule Change Request, p. 7.

[8] Rule Change Request, p. 7.

[9] This Information Paper is available from the AEMC website www.aemc.gov.au

The Commission decided to dispense with the first round of public consultation in the Rule change process under clause 62 of Schedule 3 of the NGL as requested by the Rule Proponent. Accordingly, there was no first round consultation in this Rule change process. The basis for making this decision is set out below.

AEMO requested that the AEMC exercise its discretion under clause 62 of Schedule 3 of the NGL to dispense with the first round of public consultation in the rule change process[10] and the pre-draft determination public hearing[11]. Clause 62 of Schedule 3 of the NGL is a transitional provision applying to rule change requests that were proposals to amend superseded jurisdictional rules at the "relevant changeover date". In this case, the superseded jurisdictional rules were the Victorian Gas Industry Market and System Operations Rules version 31 (MSOR)[12] and the relevant changeover date was 1 July 2009.

Under clause 62 of Schedule 3 of the NGL, the Commission may dispense with a particular step in the rule change process if the Commission is of the opinion that the relevant step is unnecessary because no equivalent step existed under the superseded jurisdictional rules or the same or a similar step has already been taken under the superseded jurisdictional rules.[13]

The Commission was able to exercise its discretion to dispense with the first round of public consultation[14] as the MSOR's rule change process did not include a step equivalent to the first round consultation in the standard AEMC Rule change process as set out in the NGL.

1.6 Consultation on draft Rule determination

In accordance with the notice published under section 308 of the NGL, the Commission invites submissions on this draft Rule determination by 8 April 2010.

In accordance with section 310 of the NGL, any person or body may request that the Commission hold a hearing in relation to the draft Rule determination. Any request for a hearing must be made in writing and must be received by the Commission no later than 4 March 2010.

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[10] Under section 303(3)(a) of the NGL

[11] Under section 307 of the NGL.

[12] See www.aemo.com.au

[13] Clause 62(2) of Schedule 3 of the NGL.

[14] Section 303(3)(a) of the NGL.

Submissions and requests for a hearing should quote project number "GRC0001" and may be lodged online at www.aemc.gov.au or by mail to:

Australian Energy Market Commission

PO Box A2449
Sydney South NSW 1235

2 Draft Rule Determination

2.1 Commission's determination

In accordance with section 308 of the NGL the Commission has made this draft Rule determination in relation to the Rule proposed by AEMO. The Commission has determined not to make the proposed Rule as the Commission is not satisfied that the proposed Rule will or is likely to contribute to the achievement of the NGO.

2.2 Commission's considerations

In assessing the Rule Change Request, the Commission considered the following matters:

- the Commission's powers under the NGL to make a draft Rule determination and a Rule;
- the Rule Change Request;
- the AEMO and Victoria Energy Networks Corporation (VENCorp) consultation on the proposed Rule prior to its submission to the AEMC, including submissions to and minutes of the VENCorp Gas Market Consultative Committee (GMCC) and the AEMO Gas Wholesale Consultative Forum (GWCF);
- the potential introduction of the Short Term Trading Market (STTM) in NSW[15];
- VENCorp's 2004 Victorian Gas Market Pricing and Balancing Review to the Victorian Government (the Pricing and Balancing Review);
- CRA International's 2008 Strategic Review of Victorian Gas Market;
- the December 2009 Discussion Paper from the Victorian Department of Primary Industries (DPI) submitted to the AEMO GWCF entitled *Proposal to align planning arrangements for the Victorian electricity transmission grid and the Victorian Declared Gas Transmission System*; and
- the Commission's analysis of whether the proposed Rule will or is likely to contribute to the achievement of the NGO.

[15] Members of the Gas Market Leaders Group noted on 19 January 2010 that the NSW Application Act to apply the adoptive provisions for the STTM is expected to be approved by the Ministerial Council on Energy in February 2010 and passed by the end of March 2010. Synopsis of 26th Meeting of the Gas Market Leaders Group held on 19 January 2010. See www.mce.gov.au

2.3 Commission’s power to make the Rule

The Commission is satisfied that the subject of the Rule Change Request falls within the subject matter about which the Commission may make Rules, as set out in section 74 of the NGL and schedule 1 to the NGL. The subject of the Rule Change Request falls within section 74 of the NGL as it relates to regulating the operation of a DWGM. In particular, it relates to the principles determining which bids AEMO is to schedule to withdraw natural gas from the Victorian DTS.

2.4 Rule making test

Under section 291(1) of the NGL the Commission may only make a Rule if it is satisfied that the Rule will, or is likely to, contribute to the achievement of the NGO.

The NGO is set out in section 23 of the NGL as follows:

> “The objective of this Law 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.”

Under section 291(2) of the NGL, for the purposes of section 291(1) of the NGL the AEMC may give such weight to any aspect of the NGO as it considers appropriate in all the circumstances, having regard to any relevant Ministerial Council on Energy (MCE) statement of policy principles.

For the Rule Change Request, the Commission considers that the relevant aspect of the NGO is efficient investment in transmission pipeline services and efficient use of natural gas services for the long term interests of consumers of natural gas with respect to price and reliability of supply of natural gas.

2.5 Other requirements under the NGL

In applying the Rule making test in section 291 of the NGL, the Commission notes that there is no relevant MCE Statement of Policy Principles.[16]

Under section 295(4) of the NGL, the Commission may only make a Rule that has effect with respect to an adoptive jurisdiction if satisfied that the proposed Rule is compatible with the proper performance of AEMO's declared system functions[17]. The Commission has decided not to make a draft Rule in respect of this Rule Change Request as it is not

[16] Under section 73(a) of the NGL, the AEMC must have regard to any relevant MCE statement of policy principles in making a Rule.

[17] AEMO's declared system functions are stated in section 91BA(1) of the NGL.

satisfied, based on the information it has considered to date, that the proposed Rule will or is likely to contribute to the achievement of the NGO.

3 Commission's Reasons

The Commission has analysed the Rule Change Request and assessed the issues arising out of this Rule Change Request. For the reasons set out below, the Commission has determined that the proposed Rule should not be made and accordingly, has not made a draft Rule. The Commission's analysis of the Rule proposed by AEMO is also set out below.

3.1 Assessment

In raising this Rule Change Request, AEMO is seeking to address an inconsistency between the treatment of scheduling of equally-beneficial controllable withdrawal bids and equally-beneficial injection bids in the Victorian DWGM.

AEMO has indicated that by introducing consistency in these arrangements the proposed Rule represents good regulatory practice. AEMO has also indicated that the proposed Rule also promotes an environment of efficient investment, operation and use of natural gas services.[18]

On the basis of the evidence currently available, the Commission is not satisfied that the proposed Rule will or is likely to contribute to the achievement of the NGO.

Whilst the Commission agrees with AEMO that the proposed Rule increases consistency in the tie-breaking arrangements, this has not satisfied the Commission that the proposed Rule will or is likely to contribute to the achievement of the NGO. The Commission has identified a number of issues and concerns with the proposed Rule.

The Commission will consider stakeholder comments on the issues it has raised and encourages respondents to address these issues in their submissions.

The issues that the Commission has identified are set out below.

3.1.1 The potential impact of the proposal

In order to assess the impacts of the proposal under the NGO, the Commission has considered the scope of the likely impact of the proposed Rule. The likely impact in practice appears to be restricted to a narrow range of low probability circumstances at the Culcairn withdrawal point. One premise of the Commission's analysis is that the STTM has commenced operation in NSW. The Commission has used this premise as it considers that the operation of the STTM would be likely to impact the incentives

[18] Rule Change Request, p. 7.

affecting behaviour of market participants in the Victorian DWGM.[19]The low probability circumstances are most likely to arise where prices in the NSW STTM reach the market price cap of $400/GJ[20], prices in Victoria are lower than $400/GJ and market participants are seeking to export gas into NSW through the Victoria – NSW pipeline interconnector. Such a scenario could occur where there are significant supply shortages and high demand in NSW, leading to significant market stress.[21]

In these circumstances, significant constraints could arise on the interconnector which prevent the NSW and Victorian markets equilibrating. In this situation it is possible that tied withdrawal bids might occur at the Culcairn withdrawal point leading to the invoking of tie-breaking rules. In this scenario, it is possible that bids would be tied at $400/GJ reflecting the NSW STTM market price cap. Under the proposed Rule and in these circumstances, gas for withdrawal at Culcairn would be allocated to those parties holding AMDQ/AMDQ credits.

Whilst at present the Commission considers that in the short term the tie-breaking rules will only be triggered in these limited circumstances, it is possible that they could arise elsewhere on the Victorian DTS over time and as network configurations change.

3.1.2 Impacts on efficient network investment

On the basis of the information available, the Commission does not have sufficient evidence to support AEMO's view that the proposed Rule would be likely to result in more efficient pipeline investment.

The Commission recognises that the proposal marginally strengthens the benefits of holding AMDQ[22] at the Culcairn withdrawal point in the scenario set out in section 3.1.1.

However, the Commission is not satisfied on the basis of the evidence available to it that information relating to increased demand for AMDQ and AMDQ credits will or is likely to lead to efficient investment decisions, in particular at the Culcairn withdrawal point. In particular, it is difficult to assess what weight would be given to AMDQ/AMDQ credit information in informing investment and capital expenditure

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[19] Members of the Gas Market Leaders Group noted on 19 January 2010 that the NSW Application Act to apply the adoptive provisions for the STTM is expected to be passed by the end of March 2010. See www.mce.gov.au

[20] GJ stands for giga joule. 1 GJ = 1000 megajoules.

[21] It should be noted that tied withdrawal bids at Culcairn may also occur at prices in the NSW STTM lower than $400/GJ. See Appendix B for more information.

[22] In the current DWGM arrangements, there is a total of 17 TJ of AMDQ and no AMDQ credits for withdrawals at Culcairn. 1 TJ = 1000 GJ.

proposals for evaluation by the Australian Energy Regulator (AER) under the existing regulatory framework.

Several factors would suggest that minimal weight would be given to this information. These factors include:

- AEMO does not take into account AMDQ/AMDQ credit related information in undertaking its forecasting and planning process;[23]
- There is limited trading of AMDQ/AMDQ credits and it would therefore be difficult to rely on the price or value of these in informing investment decisions;[24]
- The proposed Rule appears likely to only affect demand for AMDQ for withdrawals at Culcairn in the current Victorian market;[25]
- AMDQ/AMDQ credits play a limited role within the open access and market carriage arrangements that apply in Victoria. They do not represent a fully developed capacity product and participants are not required to secure these rights before they can flow on the network.[26]

Similarly, the Commission is not satisfied that it is likely that the proposed Rule would lead to additional demand from parties to enter into bilateral AMDQ/AMDQ credit arrangements with APA GasNet, as owner of the DTS, to underpin investment outside of the AER's regulatory assessment framework. In particular, the Commission considers that it is unclear whether there would be demand for bilateral agreements with APA GasNet from parties such as gas retailers under the market carriage framework that applies in the Victorian DWGM.

3.1.3 Impacts on efficient use of natural gas services

The Commission considers that there is a risk that the proposed Rule could potentially lead to inefficiencies in the use of natural gas services at the Culcairn withdrawal point in the narrow range of circumstances described in section 3.1.1. Similar concerns may arise in the future at other withdrawal points in the DTS depending on the development of the DWGM.

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[23] AEMO's advice. See section 5.5.1.

[24] AEMO's advice and Commission's assessment. See section 5.5.1.

[25] AEMO's advice. See Appendix B.

[26] See section 5.5.2.

In particular, the proposed Rule could lead to inefficiencies in the allocation of gas at the Culcairn withdrawal point when compared to the existing arrangements under which tied withdrawal bids are pro-rated. An inefficient allocation of gas would occur in circumstances where a rule is in place which prevents scarce gas being allocated to parties that value it the most.

The Commission considers that these risks could arise where there exist barriers to trading of AMDQ/AMDQ credits, or where the proposed Rule has the effect of leading to or reinforcing market power in relevant markets in NSW. The exercise of market power in market stress circumstances could cause significant commercial damage to parties with significant detrimental impacts on competition, potentially preventing parties from competing to supply gas to customers in relevant markets (e.g. retail) in NSW with significant detrimental impacts on prices.

3.1.4 Impact of the proposal on effective and efficient risk management

The Commission considers that the proposed Rule could increase regulatory certainty for market participants relative to the existing arrangements under which withdrawal bids are pro-rated. This is because allocating gas to holders of AMDQ/AMDQ credits is potentially clearer and more certain than the existing pro-rating mechanism. The Commission considers that greater certainty over the allocation of gas in these circumstances could promote improved and more innovative risk management from those parties that do not hold AMDQ/AMDQ credits. This could potentially bring reliability and price benefits to customers, promoting the efficient operation and use of natural gas services.

However, the Commission considers that the materiality of these benefits is likely to be unclear.

3.1.5 Overall conclusion

On balance, after weighing up the factors outlined above, the Commission is not satisfied that the proposed Rule will or is likely to contribute to the achievement of the NGO.

Whilst the proposal may bring some benefits in terms of consistency and improved risk management, the Commission is not satisfied that the proposal will or is likely to promote efficient network investment. Further, the Commission has identified a number of issues which suggest the proposed Rule is unlikely to promote the efficient allocation of gas which require further consideration.

The Commission invites comments from respondents on these issues.

4 Commission's analytical approach

This chapter describes the analytical approach that the Commission has taken to assess the Rule Change Request in accordance with the requirements set out in the NGL (and explained in chapter 2).

4.1 General analytical approach

As discussed in section 2.4, the Commission may give such weight to any aspect of the NGO as it considers appropriate in all the circumstances.[27] For this Rule Change Request, the Commission considers it appropriate to give weight to the following aspect of the NGO: efficient investment in transmission pipeline services and efficient use of natural gas services for the long term interests of consumers of natural gas with respect to price and reliability of supply of natural gas.

Economic efficiency is a concept central to the NGO. As the Commission has discussed in relation to previous Rule change requests, economic efficiency is commonly considered to have three elements:

- Productive efficiency - e.g. the natural gas market should be operated on a least cost basis given the existing and likely network and other infrastructure;
- Allocative efficiency - e.g. natural gas production and consumption decisions should be based on prices that reflect the opportunity cost of the available resources; and
- Dynamic efficiency - e.g. ongoing productive and allocative efficiency should be maximised over time. Dynamic efficiency is commonly linked to the promotion of efficient long-term investment decisions.

In the context of regulated energy markets, a relevant consideration is the extent and form of market intervention. Interventions in the operation of the market should be minimised. This enables resources to be allocated primarily on the basis of prices established through market mechanisms, hence supporting productive, allocative and dynamic efficiency.

The Commission also seeks to apply principles of good regulatory design and practice as it considers that the NGO has implications for the means by which the regulatory arrangements operate (in addition to their ends). In applying these principles, the Commission seeks to have regard to the need, where practicable, to:

- promote stability and predictability - market Rules should be stable, or changes to them predictable, so that participants and investors can plan and make informed short and long-term decisions; and

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[27] Having regard to any relevant MCE statement of policy principles.

- promote transparency - to the extent that intervention in the market is required, it should be based on, and applied according to, transparent criteria.

4.2 Application of analytical approach for the Rule Change Request

In the present circumstances the application of this analytical approach has involved focussing on the following issues:

- the likely impact on the efficiency of investment in gas transmission pipelines;
- the likely impact on the efficient use of natural gas services;
- the likely impact on the promotion of reliability of supply of natural gas.

The Commission has focussed on this set of issues, respectively, because:

- the Rule Proponent stated that the proposed Rule may contribute to signalling investment in the DTS ;
- the Commission considers that the proposed Rule has the potential to impact the efficient allocation of gas by impacting on competition; and
- the Commission considers that the proposed Rule may impact the ability of parties to manage their risks at times of market stress.

The application of the Commission's analytical approach in this instance has involved the following tasks and methods:

- reviewing the development of the proposed Rule in the prior VENCorp and AEMO consultations, including examining the views of stakeholders;
- examining reviews of the Victorian wholesale gas market since 1998; and
- undertaking bilateral discussions with AEMO (as the Rule Proponent and DWGM operator), the AER and APA GasNet to inform the Commission's assessment of the Rule Change Request.

5 Efficient investment in gas transmission pipelines

The supply of natural gas to consumers depends on an effective supply chain, which includes natural gas producers, transmission and distribution pipelines and retailers. The NGO specifically references efficient investment in natural gas services, a key aspect of which is investment in transmission pipelines.

A key question for the Commission in assessing this Rule Change Request is whether the proposed rule will or is likely to promote efficient investment in gas transmission pipelines.

5.1 Rule Change proponent's view

The Rule Proponent stated that the proposed Rule:[28]

> "...may contribute to signalling investment in the DTS (Declared Transmission System) in situations of system constraints because it incrementally increases the utility of authorised MDQ and AMDQ credits. Part of the purpose of these rights is to act as a signal to augment the DTS. In summary, AEMO considers the proposed Rule... strengthens an investment mechanism which, in turn, promotes an environment of efficient investment, operation and use of natural gas services."

The Rule Proponent further explained:[29]

> "AEMO expects that the proposed Rule may increase the value of authorised MDQ and AMDQ credits because where a tied withdrawal bidding situation occurs, the withdrawal bid of a Market Participant who holds authorised MDQ and AMDQ credits that is allocated or nominated to a controllable withdrawal point would be accepted over those who do not hold them. This change is expected to affect Market Participants holding authorised MDQ or AMDQ credits at the Culcairn withdrawal point. ... The benefit of the rule change, while incremental, is to send a potential signal to invest in the DTS as a consequence of the increased marginal value of authorised MDQ and AMDQ credits."

5.2 Stakeholder views

A number of stakeholders expressed views on this issue during the prior VENCorp consultation:

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[28] Rule Change Request, p. 7

[29] Rule Change Request, p. 7.

- APA GasNet noted in the original VENCorp consultation on the proposed Rule that investment in additional capacity was being hampered by the inability to offer certainty in withdrawal rights[30];

- Origin and Visy Paper stated at GMCC meeting 143 that the main benefit of prioritising tied controllable withdrawal bids would be increased signals for investment in the network.[31]

These appear to be the only stakeholder views expressed on this issue during the VENCorp consultation recorded in the GMCC documentation.

5.3 Victorian planning and investment arrangements

The Commission has undertaken a preliminary analysis of the potential impact of the proposed Rule, if it were made, on the efficiency of investment in gas transmission pipelines in Victoria. The Commission welcomes comment on this high-level analysis and on practical aspects relevant to its analysis.

As outlined in AEMO's Rule Change Request, a possible impact of the proposal is that it would increase the value of holding AMDQ or AMDQ credits. This is because holders of AMDQ and AMDQ credits at withdrawal points would be prioritised where withdrawal bids are tied.

The Commission accepts that an impact of the proposed Rule Change would be that it incrementally increases the benefits of holding AMDQ or AMDQ credits.

However, a key issue for the Commission is whether this in turn, is likely to promote efficient investment in the DTS.

In order to address this question, it is important to set out the existing investment and planning framework in Victoria and the role of AMDQ and AMDQ credits in this framework.

5.3.1 Arrangements for planning and investment in Victorian gas transmission pipelines

Under the current DWGM arrangements, AEMO operates the DTS, which is owned by APA GasNet. APA GasNet is responsible for investment in the DTS, and planning is undertaken by both AEMO and APA GasNet.

[30] Noted in VENCorp's submission to the GMCC meeting 143 held 23 September 2008. See www.aemo.com.au

[31] Minutes of the GMCC meeting 143 held on 23 September 2008. See www.aemo.com.au

AEMO's planning role

AEMO undertakes planning as part of its "declared system functions" under section 91BA(1)(d) of the NGL:

> "to provide information and other services to facilitate decisions for economically efficient investment in markets for natural gas."

NGR rule 323 places an obligation on AEMO to prepare and publish an annual planning review by 30 November each year. AEMO fulfills this obligation with its publication of the *Victorian Electricity & Gas Transmission Networks Annual Planning Report* and any updates[32]. As part of the annual planning review, AEMO forecasts supply and demand and transmission system capacity for the next five years. It also develops potential network augmentation options to address constraints on the DTS. While AEMO has a planning role, it appears unable under the NGR[33] to direct APA GasNet to undertake a specific investment.[34]

In developing potential major[35]network augmentation options, AEMO's practice is to assess the options against an economic value test.[36] The economic value test (NGR rule 79(2)(a)) is that there is a positive overall economic value of the expenditure. In determining the overall economic value, AEMO will evaluate the costs of network congestion in particular locations and the costs associated with load shedding in the absence of investment being undertaken. The avoided costs of congestion and load shedding will be compared with the total costs of investment in a network augmentation to determine whether an investment is justified.

The Commission understands from discussions with AEMO that the price or value of AMDQ or AMDQ credits is not used by AEMO in assessing the efficiency or market benefits of network augmentation options.

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[32] For example, AEMO's 2009 *Victorian Annual Planning Report Update.*

[33] Noting that section 91BC of the NGL gives AEMO the power to direct a Registered participant to undertake actions with respect to the DTS in relation to maintaining and improving the reliability of supply of natural gas, the control of the flow of natural gas or any other matter that may affect the safety, security or reliability of the DTS.

[34] Also see DPI, Discussion paper for the AEMO GWCF, December 2009, p. 5.

[35] AEMO has advised that deterministic planning standards are used for local augmentations.

[36] VENCorp Annual Planning Report 2009, p. 108.

Investment in the DTS

Decisions on whether to augment the DTS are made by APA GasNet. The Commission considers that investment in the DTS is likely to occur through two potential routes:

- APA GasNet undertakes an investment following an AER determination that the investment would be conforming capital expenditure in terms of NGR rule 79, with the cost of the investment being recovered from tariff revenues; and
- APA GasNet underwrites an investment by agreeing network capacity contracts with third parties.

5.3.2 The role of AMDQ and AMDQ credits

AMDQ and AMDQ credits are instruments which confer limited rights on parties that withdraw/inject specified amounts of gas from/into the DTS. These rights are allocated to customers at injection and withdrawal points on the DTS.

AMDQ and AMDQ credits are tradable and provide their holders with benefits:

- they can be used to hedge against congestion uplift charges;
- their holders are entitled to preferential curtailment treatment; and
- their holders receive priority in having injection bids scheduled whenever there are "equally-beneficial" (tied) injection bids.

Most of the AMDQ for withdrawals (990TJ) was allocated to customers at the start of the Victorian wholesale gas market in 1998/9. It should also be noted that there are specific AMDQ rights for 17 TJ of withdrawals at the Culcairn exit point from the Victoria-NSW pipeline interconnector. These were allocated to GasNet (now APA GasNet) at the commencement of the Victorian wholesale gas market. 16 TJ of these rights have subsequently been allocated by GasNet to customers at the Culcairn exit point.

5.4 Impact of the proposed rule on withdrawal points

In order to understand the impacts of the Rule Change Request on investment in the DTS, it is important to understand which withdrawal points would be affected by the proposal in the short and long term.

In the short term under the current DWGM, the proposed Rule appears likely to only affect the scheduling of withdrawals at one withdrawal point in the DTS, namely Culcairn. The proposed Rule would also be likely to only affect scheduling of withdrawals at Culcairn in a limited range of circumstances. Analysis supporting this view is provided in Appendix B.

The Commission considers that this restricted scope of the proposed Rule has implications governing the extent to which the proposal would impact network investment.

It is plausible that the circumstances in which AEMO's proposed tie-breaking rule is likely to be invoked would involve significant supply disruptions in NSW combined with high demand. These are circumstances in which:

- the price in the NSW STTM has reached the market price cap of $400/GJ; and
- Victorian prices are lower than the NSW STTM price.

In these situations, Victorian gas market prices are likely, in principle, to converge to the NSW price (provided that there are not similar disruptions in Victoria). Constraints on the Victoria-NSW interconnector may prevent the Victorian and NSW markets reaching equilibrium such that the Victorian spot (imbalance) price is set below the NSW STTM price. In this situation, it is possible that tied withdrawal bids might occur at the Culcairn withdrawal point leading to the invoking of tie-breaking rules.[37]

While the proposed rule appears likely to only affect withdrawals at the Culcairn withdrawal point under the current network configuration, it may affect withdrawals at other offtake points in the DTS in the future depending on the development of the Victorian gas market.

However, on the basis of the analysis outlined above, it is important to note that any investment impacts associated with the proposal are likely, at least under the current market arrangements, to be confined to the Culcairn withdrawal point.

5.5 Analysis of impact of the proposed Rule on efficient investment

As noted above, whilst the Commission accepts that an impact of the proposed Rule Change is that it increases the benefits of holding AMDQ or AMDQ credits, a key issue is whether this is likely to have consequential impacts on efficient investment in the DTS.

For the reasons outlined below, the Commission considers that there is insufficient evidence to suggest that the proposed Rule will or is likely to have a positive impact on efficient network investment.

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[37] In the example provided, tied bids would occur at when the NSW STTM price was $400/GJ. However, it is also feasible that tied bids could occur when the price in the NSW STTM is lower than $400/GJ. For example, at such prices Victorian market participants could price part of their controllable withdrawal bids to withdraw gas from Culcairn at the NSW STTM price, as withdrawal bids are scheduled at the "local price" rather than the unconstrained Victorian DWGM price. This is a plausible scenario as the NSW STTM price is an ex-ante price for the gas day (commencing 6:30am) released at 1pm the previous day, and Victorian market participants can rebid up to an hour before each of the five scheduling intervals in the Victorian gas day. Victorian participants may have an incentive to price their controllable withdrawal bids in this way. See Appendix B.

We discuss the likely impact of the proposed Rule on the efficiency of investment under two scenarios outlined below, namely:

- where APA GasNet undertakes an investment following an AER determination that the investment would be conforming capital expenditure in terms of NGR rule 79, with the costs of the investment recovered from tariff revenues;
- where APA GasNet underwrites an investment through network capacity contracts agreed with third parties (e.g. gas retailers).

5.5.1 APA GasNet undertaking investment following an AER determination that the investment would be conforming capital expenditure

It is unclear how the proposed Rule would affect investment undertaken by APA GasNet following a determination by the AER that the investment would be conforming capital expenditure in terms of NGR rule 79.

Under current arrangements, APA GasNet may underwrite a pipeline investment with regulated revenues if the AER determined that the forecast capital expenditure was conforming forecast capital expenditure in terms of NGR rule 79. This forecast conforming capital expenditure would then become part of APA GasNet's projected capital base under NGR rule 78, and APA GasNet would recover the cost of the forecast expenditure through tariffs approved by the AER.

The basis upon which AER determines whether forecast capital expenditure would be conforming is given in NGR rule 79. The test has the following two components:

(a) the capital expenditure must be such as would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services, and

(b) it must be justifiable under one of a number of grounds, which include: that there would be a positive overall economic value, it would be necessary to maintain and improve safety, and it would be necessary to comply with regulatory obligations.

The Commission has considered how the proposed Rule, if made, could affect the way in which the AER undertakes its assessment of forecast capital expenditure.

As noted above, under the proposed rule it appears likely that AMDQ and AMDQ credits associated with withdrawals at constrained offtake points would have greater value compared to the existing arrangements. This may result in a greater demand and higher prices for these instruments. For example, AMDQ rights at Culcairn could be more highly valued if the proposed Rule is likely to be invoked during high impact events when the price of energy in NSW reaches the $400/GJ cap. In these circumstances the value of holding AMDQ could be high.[38]

In principle, any incremental increase in demand for and/or the price of AMDQ and AMDQ credits could inform the assessment by the AER of whether forecast capital expenditure would be conforming under NGR rule 79.

However, the Commission considers that it is unclear what weight would be given to this information by APA GasNet and the AER in the assessment of forecast expenditure.

The Commission understands that the AER's assessment of forecast capital expenditure is informed by forecasts prepared through AEMO's planning processes.[39] However, under the present planning model adopted by Victoria, AEMO does not take the value of AMDQ/AMDQ credits into account when considering potential network augmentations. As such, to the extent that the AER relies on information from AEMO, this input is unlikely to reflect information on the demand for AMDQ/AMDQ credits.

Further, to the extent that AMDQ/AMDQ credit information was relied upon by APA GasNet in an application for funding for forecast capital expenditure, it is also unclear as to the weight that would be attached to this information. Whilst in principle the value of AMDQ/AMDQ credits should reflect the future stream of benefits associated with AMDQ/AMDQ credits rights and could potentially justify investment in the network, there is limited evidence to suggest that could be relied upon in practice.

In particular, to the extent that there is limited trading in AMDQ rights, it would be difficult to rely on the price of AMDQ to inform investment decisions. For this to occur, the Commission considers that there would probably need to be a relatively liquid market in the trading of these rights.

The Commission also notes that AMDQ is essentially a product that provides hedging risk against, amongst other things, congestion uplift. Neither AMDQ nor AMDQ credits represent a fully developed tradable capacity product, under which the holders of that product are granted financial or physical rights to flow gas through injection or withdrawal points on the DTS. This is because there are open access market carriage arrangements in the Victorian DWGM such that participants are not required to secure rights before they can flow gas onto the network.

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[38] A higher price for AMDQ and AMDQ credits rests on an assumption that the prices reflect parties' actual value of those instruments. The actual price may, however, be impacted by a lack of liquidity and limited competition in the market for AMDQ and AMDQ credits.

[39] For example, GasNet attached advice from VENCorp to its May 2007 submission to AER for its third Access Arrangement for the Victorian Principal Transmission System (the previous name for the DTS). GasNet Access Arrangement Submission, 14 May 2007, Attachment A, see www.aer.gov.au

In the light of the above analysis, it is difficult to conclude that information relating to trading in and demand for AMDQ/AMDQ credits is relevant to inform assessments of efficient forecast expenditure under the current arrangements. Whilst it might be possible for APA GasNet and the AER to consider this information through the regulatory assessment process, it is difficult to assess the weight, if any, that should be given to it.

In assessing the proposed Rule, it is necessary to consider the incremental impact of the proposed Rule relative to the existing arrangements. The Commission recognises that the proposal could incrementally increase demand for AMDQ (e.g. in the short term at Culcairn). However, in view of the difficulties associated with giving weight to information relating to the value of AMDQ to inform assessments of efficient forecast expenditure under the existing arrangements, the Commission is not satisfied that the proposed Rule would have a material impact on informing more efficient network investment decisions.

Further, if the proposed Rule did have a material impact on informing more efficient investment decisions then a further question arises as to whether the Rule should only be applied on a forward looking basis, such that it would not be applied to existing holders of AMDQ/AMDQ credits. This is because any benefits of the proposed Rule relating to efficient investment and improved investment signals would only arise from future demand for AMDQ/AMDQ credits rather than from the present demand for AMDQ/AMDQ credits.

The Commission will consider views addressing the points raised above and invites comments on this section.

5.5.2 Third parties underwriting investments in return for capacity contracts

APA GasNet has indicated that it may seek to underwrite investment in the DTS by entering into network capacity contracts with third parties.[40] These contracts would involve APA GasNet selling AMDQ/AMDQ credits or rights to those instruments for a period of time.

As has been noted above, it is possible that the proposed Rule would have the incremental effect of increasing demand for AMDQ at Culcairn given the potential value associated with holding AMDQ during high price energy scenarios in NSW. However, the Commission is not currently persuaded that the proposed Rule would lead to more efficient network investment given the existing market framework that applies in Victoria.

In particular, as noted above under the current market carriage framework applying in Victoria, AMDQ rights play a limited role. In particular, these rights do not represent a fully firm right to access the network to the exclusion of other parties that do not hold these rights. As such, under the open access framework that applies in Victoria it is

[40] APA GasNet submission to the CRA Strategic Review of the Victorian Gas Market Options Paper, p. 2.

therefore unclear whether gas retailers or other parties would seek to enter into capacity contracts with APA GasNet when these contracts would not be able to exclude others from using the network.

Whilst the proposed Rule marginally increases the "firmness" of rights at points such as Culcairn, it is not clear to the Commission that the proposed Rule would be likely to lead to additional demand from parties to enter into bilateral AMDQ/AMDQ credits arrangements with APA GasNet.

In addition, as noted above, if the Commission were to conclude that the proposed Rule would have a material impact on informing more efficient network investment decisions, a question arises as to whether the Rule should only be applied on a forward looking basis, based on future demand for AMDQ/AMDQ credits.

The Commission will consider views from respondents which address the points raised above and invites comments on this section.

5.6 Conclusion

The Commission recognises that the proposal marginally strengthens the benefits of holding AMDQ/AMDQ credits at the Culcairn withdrawal point.

However, the Commission is not satisfied, on the basis of the evidence available to it, that information relating to increased demand for AMDQ/AMDQ credits will or is likely to lead to more efficient investment decisions, including in particular, investment decisions at the Culcairn withdrawal point.

On the basis of the information available, the Commission does not have the evidence to support a view that the proposed Rule would be likely to result in more efficient pipeline investment. The Commission will consider views from respondents which address the points raised above and invites comments on this section.

6 Efficient use of natural gas services

A key factor for Commission in assessing the Rule Change Request is the extent to which the proposed Rule would, by prioritising holders of AMDQ/AMDQ credits, lead to a more efficient allocation of gas and therefore promote the efficient use of natural gas services, when compared to the existing arrangements.

6.1 Rule Change proponent's view

The Rule Change proponent did not address this issue in its Rule Change Request.

6.2 Stakeholder views

AEMO and VENCorp consulted on this Rule Change Request prior to it being submitted to the Commission. The publically available documents from those consultations and the papers from the meetings of VENCorp's GMCC and AEMO's GWCF do not indicate stakeholder views on this issue.

6.3 Analysis of potential impacts on efficient use of natural gas services

As noted above, the impact of the proposed Rule is that holders of AMDQ/AMDQ credits at withdrawal points would be given priority in the scheduling of gas withdrawals in tie-break scenarios. This would differ from the current arrangements under which bids would be pro-rated.

The Commission therefore needs to consider whether the allocation of gas in these circumstances would promote efficient use of gas services. Related to this, the Commission needs to consider the potential competition impacts of the proposal. To the extent that the proposal has impacts on competition, these could translate into impacts on prices.

In considering these issues, it is important to reiterate that the tie-breaking provisions would be likely to only affect the scheduling of withdrawals at the Culcairn withdrawal point in the present market arrangements. In addition, the tie-breaking provisions are only likely to be triggered when gas is being exported to NSW, the Victoria-NSW interconnect is constrained and the NSW STTM price is higher than the Victorian DWGM imbalance price. An example of this is where NSW STTM prices reach the market price cap of $400/GJ, which may occur in scenarios of high demand and shortages of gas supply in NSW combined with constraints on the Victoria to NSW pipeline interconnector. The reasons underlying this have already been set out above in section 3.1.1 and are set out in more detail in Appendix B.

While the proposed rule appears likely to only affect withdrawals at one offtake point in the immediate future, it may affect withdrawals at other offtake points in the DTS in the future depending on the development of the Victorian gas market.

6.3.1 How the efficient use of gas services could be affected by making the proposed Rule

The Commission considers that there is a risk that the proposal could lead to inefficiencies in the allocation of gas at the Culcairn withdrawal point when compared to the existing arrangements under which tied withdrawal bids are pro-rated.

The Commission considers that an inefficient allocation of gas would occur in circumstances where a rule is in place which prevents gas being allocated to parties that value it the most.

The nature and extent of these risks is discussed further below.

Tradability of AMDQ/AMDQ credits

In practical terms, the proposed Rule creates a risk that a party that values the gas more highly relative to the holder of AMDQ/AMDQ rights is prevented from accessing the gas at the Culcairn withdrawal point.

However, as AMDQ/AMDQ credits are tradable, the potential for these circumstances to arise might appear limited. This is because the party that places a higher value on exporting gas to NSW can seek to purchase from the holder, the AMDQ/AMDQ credits that were prioritised, or alternatively enter into some other form of commercial arrangement that would facilitate the export of gas into NSW.

It should however be noted that trading of AMDQ in Victoria is limited and that the identity of holders of AMDQ is confidential under the NGR.[41] Further, there is no organised platform for the trading of AMDQ/AMDQ credits.

The Commission would therefore welcome comments on the ability and ease by which parties are able to trade AMDQ/AMDQ credits for withdrawals at the Culcairn withdrawal point. To the extent that there exist any barriers to trading, this could prevent gas being allocated efficiently.

Market power and competition risks

A fundamental consideration is whether the proposed Rule is likely to impact on the effectiveness of competition or the potential to exercise market power in relevant markets in NSW or other regional areas.

The Commission has not received representations from industry participants or customers that there are any market power concerns at the Culcairn withdrawal point or any other withdrawal point. Further, no analysis has been performed on whether existing holders of AMDQ/AMDQ credits at Culcairn have market power in retail markets in NSW or any other regional area.

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[41] NGR rule 328(4).

The Commission considers that this issue will require further analysis in the light of relevant stakeholder comments, when developing a final decision on the proposal.

To the extent that holders of AMDQ/AMDQ credits hold market power in NSW markets (e.g. retail), the proposed Rule could have the effect of exacerbating this market power. In these circumstances the exercise of any market power at the Culcairn withdrawal point could prevent other parties from competing to supply customers in NSW. Under such a scenario, the party that holds the AMDQ/AMDQ credits might refuse to trade its AMDQ/AMDQ credits to potential competitors in order to frustrate entry into NSW or another relevant market. Alternatively, parties holding the AMDQ/AMDQ credits may refuse to trade the gas that has been allocated to them (by virtue of the proposed Rule) in order to preserve their market power.

As has been noted earlier, our assessment of the proposed Rule is that some of the scenarios in which it is likely to be triggered at the Culcairn withdrawal point could be times of supply shortages and high demand in NSW where STTM prices have reached the NSW price cap of $400/GJ. Whilst these scenarios are low probability, they are not unprecedented, as illustrated by the recent experience in Victoria when the imbalance price reached the market price cap of $800/GJ.[42]

At times of high prices and market stress the exercise of market power could cause significant commercial damage to parties with significant detrimental impacts on competition. For example, retailers seeking to export gas into NSW in high price and supply shortage scenarios could be subject to significant financial risk in the form of imbalance prices if they are unable to get their gas to market. Further, to the extent that competitive sources of gas are withheld from NSW the price impacts could be significant.

To the extent that market power was exacerbated by the prioritisation of AMDQ/AMDQ credit holders in tie-break scenarios, making the proposed Rule would be inconsistent with the promotion of the efficient use of natural gas services.

At this stage, the Commission therefore welcomes comments from respondents on whether there are any market power issues at the Culcairn withdrawal point or any other withdrawal point that parties consider is relevant. To the extent that any such issues were identified, the Commission would need to conduct further comprehensive analysis on the validity of any such concerns.

6.4 Conclusion

The Commission considers that there is a risk the proposed Rule could potentially lead to inefficiencies in the use of natural gas services in limited circumstances at the Culcairn withdrawal point. These circumstances would arise where there are barriers to the trading of AMDQ/AMDQ credits or alternatively where existing holders of

[42] For one scheduling interval on 22 November 2008.

AMDQ/AMDQ credits have market power in retail markets in NSW or in other regional areas.

The Commission also notes that these issues have not previously been the subject of consultation through the industry consultation process undertaken through the GMCC and the GWCF.

The Commission would therefore welcome comments on the potential concerns set out in this chapter from both Victorian and NSW market participants.

7 Promoting reliability and reduced prices through effective and efficient risk management

In this section the Commission considers the extent to which the proposed Rule could promote certainty and more efficient risk management leading to more efficient operation and use of natural gas services through reliability and price benefits.

7.1 Rule Change proponent's view

The Rule Proponent did not address this issue in the Rule Change Request.

7.2 Stakeholder views

AEMO and VENCorp consulted on this Rule Change Request prior to it being submitted to the Commission. The publically available documents from those consultations, and papers from the meetings of VENCorp's GMCC and AEMO's GWCF do not indicate stakeholder views on this issue.

7.3 Analysis of potential impacts on reliability

The Commission considers that the proposed Rule may promote more efficient operation and use of natural gas services by promoting reliability and lower prices. This may occur through the proposed Rule allowing parties to more effectively and efficiently manage their risks at times of market stress and potential supply shortages. This is discussed further below.

7.3.1 Increased certainty for participants

As we have noted, under the existing arrangements, scheduling of tied controllable withdrawal bids is undertaken on a pro-rated basis for all parties. This provides limited certainty for parties about the quantities of gas they would be scheduled to withdraw from the DTS in circumstances in which there were tied bids. As the analysis in Appendix B indicates, it appears that these situations would most likely occur at the Culcairn withdrawal point at times of market stress where market prices are set at $400/GJ in the NSW STTM and where the gas price in Victoria is less than $400/GJ.

In these scenarios, there would be potentially strong incentives on parties to bid for as much available gas for withdrawal at Culcairn as possible, potentially significantly in excess of the availability of capacity on the Victoria to NSW pipeline interconnector. If the existing tie-break arrangements were applied and bids pro-rated, this could lead to significant uncertainty for parties as to the volume of gas that is likely to be scheduled. Under the existing pro-rated arrangements, the amount of gas scheduled to be withdrawn by a party would depend on both:

- the total quantity of gas bid for withdrawals from that offtake point amongst all parties; and

- the relative quantities of gas bid for withdrawals by each party.

The Commission considers that under the proposed Rule, both holders and non-holders of AMDQ and AMDQ credits would have greater certainty about the likely amounts of gas they would be scheduled to withdraw in situations of tied bids. Greater certainty would result as all market participants would be able to bid in the knowledge that AMDQ and AMDQ credit holders would be prioritised, in the event of tied bids. Holders of AMDQ and AMDQ credits could rely on being scheduled to withdraw quantities of gas up to their level of AMDQ and AMDQ credits in the scenario where tied bids are likely to occur. Non-holders of AMDQ and AMDQ credits would commensurately know that holders would be prioritised over them.

This greater certainty allows both holders and non-holders of AMDQ and AMDQ credits to better manage their risks, possibly lowering their risk management costs and providing productive efficiency benefits. Productive efficiency can be achieved when an output is produced at the minimum possible cost given available technology and input prices. It is possible that lower risk management costs to parties could be passed onto customers through lower prices although these benefits may be marginal and are difficult to quantify.

Similarly, more efficient management of risks at times of market stress may promote reliability at those times, a key aspect of the NGO. This is because all market participants would have increased certainty regarding the outcomes of any tie-breaking scenarios and would be able to better manage their risks around this.

7.3.2 Incentive for non-holders of AMDQ and AMDQ credits to be innovative

There is a potential secondary effect from the increased certainty provided to non-holders of AMDQ and AMDQ credits under the proposed Rule, if it were made. This secondary effect is that these parties may have an incentive to find new and innovative ways of managing their risks, thereby promoting dynamic efficiency. Dynamic efficiency refers to the processes of technological and managerial innovation and reflects the ability of parties such as gas retailers to improve the quality and costs of their services and to respond to emerging resource availability and market developments.

To the extent that non-holders of AMDQ and AMDQ credits seek to develop more innovative alternative arrangements for managing risks in high market stress scenarios, such as those that could potentially occur at Culcairn, these benefits could be passed onto customers through lower prices (although these benefits might be marginal and difficult to quantify).

7.4 Conclusion

The Commission considers that the proposed Rule, if it were made, would have the potential to promote more efficient operation and use of natural gas services by promoting reliability and lower prices at times of market stress through allowing parties to more effectively and efficiently manage their risks. However, the materiality of this potential effect is unclear.

The Commission invites comment on its analysis and the materiality of the issues it has identified in this chapter.

Abbreviations

AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
AMDQ or authorised MDQ	Authorised Maximum Daily Quantity
Commission	See AEMC
DPI	Victorian Department of Primary Industries
DTS	Victorian Declared Transmission System
DWGM	Declared Wholesale Gas Market
GMCC	Gas Market Consultative Committee
GWCF	Gas Wholesale Consultative Forum
MCE	Ministerial Council on Energy
MSOR	Market and System Operations Rules version 31
NGL	National Gas Law
NGO	National Gas Objective
NGR	National Gas Rules
NSW	New South Wales
STTM	Short Term Trading Market
VENCorp	Victoria Energy Networks Corporation

A Existing tie-breaking rules for tied injection and withdrawal bids

This appendix presents the existing tie-breaking provisions for tied withdrawal bids and tied injection bids, as set out in NGR rule 214.

214 Priority of bids in the scheduling process

For the purpose of scheduling under rule 215, if two or more bids are equally beneficial for scheduling, then AEMO must as far as practicable apply the following principles:

(a) an increase in the amount of gas injected in accordance with an injection bid should be scheduled before scheduling a reduction in gas withdrawn under a withdrawal bid;

(b) subject to paragraph (d), where two or more injection bids are equally beneficial, those injection bids should be scheduled to the same extent;

(c) where two or more withdrawal bids are equally beneficial, those withdrawal bids should be scheduled to the same extent;

(d) where two or more injection bids are equally beneficial, then those injection bids that are associated with AMDQ credit certificates or authorised MDQ should be scheduled before other injection bids that are not associated with AMDQ credit certificates or authorised MDQ.

B Circumstances in which the proposed rule would impact scheduling of withdrawals

This appendix presents the Commission's analysis about the circumstances in which it appears likely the proposed Rule would currently impact the scheduling of withdrawal bids. These are the circumstances in which there could be multiple equally-priced withdrawal bids and some of those bidders hold AMDQ or AMDQ credits.

As discussed in section 3.1.1, a premise of this analysis is that the NSW STTM has commenced operation.

The Commission welcomes comment on the analysis in this appendix.

B.1 Withdrawal points at which the proposed Rule may impact scheduling

AEMO's proposed Rule would apply to controllable withdrawal bids. It appears likely that it would only affect controllable withdrawals at the Culcairn offtake point in the short term. The reason for this is that Culcairn is the only one of the four points on the DTS at which controllable withdrawal bids are made[43] at which constraints can affect withdrawals and are likely to do so in the near future. Consequently, it is likely that Culcairn is the only such withdrawal point for which parties may wish to hold AMDQ or AMDQ credits.

B.2 Background information

The following table indicates key background information about the Victorian DWGM and the NSW STTM relevant to the analysis in this appendix.

Table B.1 Background data on the Victorian DWGM and the NSW STTM

[43] Culcairn, Iona, SEA Gas and VicHub

	Victorian DWGM	NSW STTM
Market price cap	$800/GJ (known as VoLL)	$400/GJ
Number of scheduling intervals per day	5	1
Commencement time of the scheduling intervals	6am (start of gas day); 10am; 2pm; 6pm; 10pm	6:30am (start of the gas day)
Ex-ante / ex-post pricing for scheduling intervals	Ex-ante imbalance pricing for a scheduling interval	Ex-ante price for a gas day
When ex-ante prices for each scheduling interval are released	By the start of each scheduling interval	1pm the day before the gas day[44]
Time by which market participants must submit rebids	One hour before the start of the relevant scheduling interval	12pm the day before the gas day

B.3 Circumstances in which the proposed Rule would affect scheduling

This section indicates the practical situations in which multiple parties may make tied bids to withdraw gas at Culcairn, and whether the proposed rule would impact the scheduling in those situations. The table below indicates the analysis.

Table B.2

[44] Draft National Gas (Short Term Trading Market) Amendment Rules 2010 - 12 January 2010. See www.aemo.com.au

Imbalance price in Victorian DWGM	Price in NSW STTM	Potential situation	Further comment	Would the proposed rule affect scheduling of withdrawals at Culcairn?
$800/GJ	Up to $400/GJ (likely to be $400/GJ)	The Victorian market is facing significant supply disruption and potentially high demand.	Parties would likely have an incentive to withdraw gas from the NSW STTM and inject it into the Victorian DWGM.	No, as parties are likely to import gas to Victoria from NSW.
Up to $400/GJ	$400/GJ[45]	High price in the NSW STTM possibly resulting from significant supply disruptions and high demand. The Victorian market is operating normally in that the imbalance price can be up to $400/GJ. Constraints at Culcairn result in a local clearing price for withdrawals at Culcairn at the price of the NSW STTM.	Parties have an incentive to export gas from Victoria and inject it to the NSW STTM.	Yes, as there are likely to be multiple withdrawal bids at the NSW STTM price.
$400/GJ	$400/GJ	Both Victorian and NSW markets facing significant supply disruption, resulting in the NSW market reaching the	Unlikely scenario given the limited capacity of the Victoria-NSW interconnect.	No, as this scenario is unlikely to occur.

[45] It is plausible there could also be tied withdrawal bids at Culcairn if the NSW STTM price was less than $400/GJ. This would be because the NSW STTM price would be a daily ex-ante price released at 1pm the day before and Victorian participants would be able to price their withdrawal bids at the NSW STTM price. See National Gas (Short Term Trading Market) Amendment Rules 2010 - 12 January 2010.

Imbalance price in Victorian DWGM	Price in NSW STTM	Potential situation	Further comment	Would the proposed rule affect scheduling of withdrawals at Culcairn?
		market price cap. There are no transmission constraints between the NSW STTM and the Victorian DTS.		