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RULE

Australian Energy Market Commission

CONSULTATION PAPER

NATIONAL GAS AMENDMENT (DWGM SIMPLER WHOLESALE PRICE) RULE 2019

PROPONENTS

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ABOUT THE AEMC

The AEMC reports to the Council of Australian Governments (COAG) through the COAG Energy Council. We have two functions. We make and amend the national electricity, gas and energy retail rules and conduct independent reviews for the COAG Energy Council.

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FIGURES

1 INTRODUCTION

On 5 November 2018, the Australian Energy Market Commission (Commission) received a rule change request from the Victorian Minister for Energy, Environment and Climate Change, that seeks to amend the National Gas Rules (NGR). The rule change request seeks to improve risk management options in the Victorian Declared Wholesale Gas Market (DWGM) by 'socialising' or 'smearing' the recovery of congestion uplift payments across market participants, instead of the current approach that aims to recover congestion uplift payments from those parties that caused the congestion.

On 24 November 2016, the Commission received a rule change request from the Australian Energy Market Operation (AEMO), on behalf of EnergyAustralia,[1] that seeks to amend the NGR. The rule change request seeks to enable AEMO to include constraints within the DTS in the pricing schedule for the Victorian DWGM.

As these two rule change requests relate to a common subject matter and are seeking to address similar issues the Commission has consolidated them under s.300 of the NGL. The consolidated rule change request is referred to as the DWGM simpler wholesale price rule change request. This consultation paper has been prepared to facilitate public consultation on the DWGM simpler wholesale price rule change request and to seek stakeholder submissions.

This paper:

- sets out a summary of, and background to, the DWGM simpler wholesale price rule change request
- identifies a number of questions and issues to facilitate the consultation on this rule change request
- outlines the process for making submissions.

The Victorian Minister for Energy, Environment and Climate Change also submitted two other related rule change requests to the Commission on:

- DWGM improvement to AMDQ regime[2]
- DWGM forward trading market[3]

The Commission will assess these two related rule change requests separately from, but concurrently with, the DWGM simpler wholesale price rule change request that is the subject of this consultation paper. The Commission has published three separate consultation papers and a background paper that includes all three rule change request. The Commission will consider potential interactions between all three rule change requests.

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1 AEMO is the only party other than the Victorian Minister who can propose changes to the rules relating to the DWGM. AEMO has proposed this rule change after receiving it from EnergyAustralia.

2 Victorian Minister for Energy, Environment and Climate Change, *Rule Change Proposals for Declared Wholesale Gas Markets*, 29 October 2018

3 Ibid.

Submissions on this consultation paper are due by **Friday 26 April 2019**. Details on how to lodge a submission are contained in chapter 6 of this consultation paper. A template is available to help stakeholders provide their views on the issues raised in the paper.[4]

4 https://www.aemc.gov.au/sites/default/files/2018-09/A-guide-to-the-rule-change-process-200617.PDF

2 BACKGROUND

The Victorian Declared Wholesale Gas Market Background Paper (Background paper)[5] provides background information to the rule change request in this consultation paper and the two related DWGM rule change requests. The Background paper includes an overview of DWGM market design features - including scheduling, determining the market price, ancillary payments and uplift payments - that are relevant to the rule change request in this consultation paper.

This chapter provides additional background information that is specific to the rule change request in this consultation paper. It provides:

- an overview of current arrangements relating to congestion and common uplift in the DWGM
- information on related projects.

2.1 Current arrangements

Uplift payments are, as far as practicable, intended to be allocated to the parties whose actions cause physical constraints on the DTS, which in turn cause ancillary payments to be incurred.[6] The four types of uplift are:

- congestion uplift
- congestion uplift for declared transmission system service provider (congestion DTSSP)
- surprise uplift
- common uplift.

Section 2.3.4 of the Background Paper provides an overview of these four types of uplift. Additional information on congestion and common uplift is outlined below.

2.1.1 Congestion uplift framework

Congestion uplift payments

Congestion uplift seeks to recover the costs of locational constraints from those parties that caused them. Congestion uplift payments are levied on market participants who are scheduled to withdraw in excess of their allocated portion of the physical capacity of the system, as defined by their authorised maximum interval quantity (AMIQ), derived from their authorised maximum daily quantity (AMDQ).

"Locational" constraints arise when a pipeline does not have the capacity to transport sufficient gas even if there were adequate forewarning of supply and demand conditions. For example, if on a very cold day there is high and sustained demand for gas in Melbourne, then the Longford to Melbourne pipeline may be unable to service this demand from the cheapest gas (offered at Longford). This would be the case even if AEMO has sufficient forewarning of

5 AEMC, *Victorian Declared Wholesale Gas Market Background Paper - Consultation Paper*, 14 March 2019.

6 Ancillary payments are used to compensate market participants that are constrained on.

high demand, because it is not able to indefinitely increase pressure in preparation. As a result, more expensive gas (for example from Dandenong LNG or Iona) may be required because it is on the demand side of the constrained Longford to Melbourne pipeline.

Locational constraints can be avoided by building more pipeline capacity - although this comes with its own costs relating to transmission investment. For this reason, congestion uplift seeks to allocate costs related to locational constraints by charging market participants which exceed their AMIQ (related to their AMDQ). The total number of AMDQ available to market participants is set with regard to the total physical capacity of the relevant pipelines. If there was more physical capacity in the transmission system there would be more AMDQ and less congestion. Therefore:

- buying AMDQ is a proxy for contributing to the cost of the transmission system,
- not holding AMDQ is a proxy for not contributing to the cost of the system, and being a causer of transmission constraints.

Congestion uplift hedge protection

A market participant is able to hedge against congestion uplift payments if it:

- holds sufficient AMDQ
- is scheduled to inject gas into the DTS at a physical injection point matched to the location of its AMDQ, and
- nominates a quantity of its scheduled injection as a hedge against congestion uplift payments. This is called an injection hedge nomination (IHN).

If a market participant has a congestion uplift hedge:

- it will not be required to pay congestion uplift payments if it withdraws a quantity of gas equal to or below its nomination, and
- it will not receive an ancillary payment if it is constrained on to inject gas up to its AMDQ.

AMDQ therefore provides financial protection against congestion uplift payments, but this protection is limited because it is not granted if a participant is not injecting gas. The ability to hedge against congestion uplift payments is limited to those market participants with physical injections matched to the location of their AMDQ. If a market participant is a spot buyer, that does not inject gas, it must enter into a bilateral agreement with a market participant that is injecting at the location of its AMDQ, to receive hedge nominations.

2.1.2 Common uplift

Common uplift payments

Common uplift payments are other uplift payments that cannot be allocated to market participants through congestion and surprise uplift. If the aggregate amount of uplift payments allocated by AEMO through congestion and surprise uplift does not fund the total ancillary payments of that gas day, the unfunded portion of ancillary payments is allocated to market participants as common uplift.

Common uplift payments arise in the following circumstances:[7]

- where AEMO overrides the total demand forecasts from market participants by increasing the demand forecasts for scheduling, but the actual uncontrollable demand is less, the additional withdrawals that result could be attributed to specific market participants
- where the terms and conditions of the service envelope agreement of the relevant DTSSP limits the amount of uplift payments that would otherwise be payable by that DTSSP as a result of failing to meet its agreed capacity requirements, or
- where uplift payments are payable but there is no basis for categorising these uplift payments as surprise or congestion uplift payments.

Pro rata method of allocating common uplift payments to market participants

The Victorian Minister (as outlined in section 3.1.2) suggested that congestion uplift could be 'socialised' or spread across market participants on a pro rata basis, using a similar method to the allocation of common uplift payments to market participants, or a different method could be applied.[8]

The current method of calculating common uplift payments for each market participant involves a pro rata method based on the total amount of gas withdrawn by that market participant for that gas day, divided by the total amount of gas withdrawn by market participants for that gas day. This method is applied for each of the three types of common uplift.[9]

2.2 Related projects

In June 2017, the Commission published its final report on its review of the DWGM at the request of the Victorian Government. The purpose, findings and recommendations of that review are outlined in section 5 of the AEMC's Background Paper.[10]

7 AEMO, *Wholesale Market Uplift Payment Procedures*, version 3.0, 25 October 2016, p6.

8 Victorian Minister for Energy, Environment and Climate Change, *Rule change proposals for the declared wholesale gas market reforms*, 29 October 2018, p6.

9 AEMO, *Wholesale market uplift payment procedures*, Version 3.0, 25 October 2016, pp20-21.

10 AEMC, *Victorian Declared Wholesale Gas Market Background Paper, Consultation Paper*, 14 March 2019, pp22-29.

3 RULE CHANGE REQUESTS

This chapter provides a summary of the issues and proposed solutions to the consolidated DWGM simpler wholesale price rule change request as outlined by the rule change proponent.

Copies of the rule change requests that have been consolidated as the DWGM simpler wholesale price rule change request may be found on the AEMC website, www.aemc.gov.au.

3.1 Rule change request on DWGM simpler wholesale pricing from the Victorian Minister for Energy, Environment and Climate Change

This section sets out:

- the issues raised by the proponent with current arrangements
- the proponent's proposed solution to address these issues - Socialise congestion uplift
- other approaches that may address the issues raised by the rule change request
  - 2017 review recommendation - Cleaner wholesale price
  - more cost reflective uplift payments
  - directional flow point constraint (DFPC) pricing

3.1.1 Issues with current arrangements

The proponent considers that the current treatment of uplift payments (in particular the congestion uplift methodology) is a barrier to effective risk management and trade in the DWGM, as explained below.

The current uplift methodology is highly complex

- It is difficult for market participants to understand and predict the outcomes of the current uplift methodology.[11]

The current uplift methodology may not effectively allocate costs to the causers of those costs[12]

- the congestion uplift framework was designed to address constraints relating to high levels of demand that would not be able to be met due to capacity constraints in the DTS. This type of congestion is less likely to occur now than in the past due to physical and commercial changes in the market.
- congestion due to maintenance or outage is more likely to occur now, but in these circumstances the congestion uplift methodology is unlikely to allocate costs to cause and may be contributing to inefficient and inequitable market outcomes, as noted below in relation to the event on 1 October 2016.

11 Victorian Minister for Energy, Environment and Climate Change, *Rule change proposals for the declared wholesale gas market reforms*, 29 October 2019, p2.

12 Victorian Minister for Energy, Environment and Climate Change, Rule change proposals for the declared wholesale gas market reforms, 29 October 2019, p4.

The current uplift methodology may deter financial risk management and trade

- the ability to hedge against congestion uplift is restricted to participants with physical injections matched to the location of their AMDQ, which may negatively impact trading:
  - a market participant that is only a buyer from the spot market is unable to directly hedge against congestion uplift even if it has AMDQ. Its only option is to enter into an agency injection hedge nomination (AIHN) with an injecting participant at the location of the AMDQ. The injecting participant could be a competitor and unwilling to provide the buyer with an AIHN. The proponent suggests that this increases the transaction costs of purchasing gas from the spot market as the arrangement needs to be entered into bilaterally and ex ante.
  - the other option for a participant to manage the risk of congestion uplift is to acquire its own supply contract and hold sufficient AMDQ. The proponent suggests this may be challenging if the participant only requires a small volume of gas, which is likely for a spot market buyer, particularly a new entrant.
- a market participant that exclusively transports gas from Longford to Culcairn through the DTS is unable to hedge its congestion uplift exposure. A market participant that is injecting at Longford requires AMDQ in order to hedge congestion uplift and it cannot acquire AMDQ without acquiring tariff V or tariff D customers in Victoria - which is unlikely if it is just intending to transport gas through the system. This may serve as a disincentive for inter-regional trade.
- the effectiveness of risk management options is limited as the market price does not reflect the total wholesale cost of gas. This limits the effectiveness of any physical forward position or financial derivative hedges entered into by market participants outside of the DWGM:[13]
  - a market participant that is scheduled to inject gas bought outside of the DWGM to meet its own withdrawal requirements will not be exposed to the market price if it is in balance, but would still be exposed to, and may incur, uplift payments.
  - a market participant which enters into a financial derivative contract to hedge its exposure to the market price, would still be exposed to, and may incur, uplift payments.

The evolution of the market may result in more frequent or more material uplift payments being levied - the proponent notes that, while the above issues have been of relatively little consequence during the more stable market environment of the recent past, they are becoming increasingly apparent and costly in a more dynamic market. The proponent notes that:

- of 27 days leading to positive ancillary payments from July 2008 to October 2018, 21 have occurred in the 2016 and 2017 calendar years.[14]

13 Victorian Minister for Energy, Environment and Climate Change, *Rule change proposals for the declared wholesale gas market reforms*, 29 October 2019, p3

14 The proponent notes that over this period of time, AEMO's procedures and methodologies have been subject to modification for reasons other than congestion management. Victorian Minister for Energy, Environment and Climate Change, *Rule change proposals for the declared wholesale gas market reforms*, 29 October 2019, p4

- within the days of positive ancillary payments in 2016 and 2017, congestion costs were the largest category of uplift payments due to a single event - the unplanned shutdown of the Longford gas processing facility on 1 October 2016. In this event, the AER noted that "approximately $3.1 million in ancillary payments were generated across the market as gas was scheduled out of merit order including from Dandenong LNG."[15] Of the $3.1 million in ancillary payments on 1 October 2016, $2.8 million were allocated to market customers as congestion uplift payments.[16] The amount allocated to market customers as congestion uplift payments was according to the rules, although the nature of the congestion, being caused by an unplanned outage of a major facility, does not accord well with many stakeholders' understanding of what ordinarily constitutes congestion on gas pipelines.[17]

3.1.2 Proposed solution - Socialise congestion uplift

In order to address the issues with the current uplift framework in the DWGM, the Victorian Minister proposed the changes outlined below.

To change the way congestion uplift payments are recovered:

- the current cost to cause methodology for allocating congestion uplift payments to market participants would be replaced with a pro rata method that spread congestion uplift payments across market participants.
- the proponent suggested that there are likely to be different ways that congestion uplift could be spread across market participants and that the AEMC should explore different implementation methods with stakeholders through the rule change process. For example, common uplift is currently recovered on a pro rata basis from market participants based on each participant's withdrawal quantities relative to all withdrawals on the relevant gas day. For more information on the proposed change, and the implications of this change, refer to section 5.1.
- a consequence of socialising congestion uplift is that the cost of congestion would be 'decoupled' from AMDQ. The proponent suggests that this may open opportunities to simplify current market processes such as IHN and AIHN and deliver further benefits to market participants.

To retain the way surprise uplift and congestion DTTSP are recovered:

- surprise uplift would be retained in its current form as it is necessary to maintain incentives for market participants to accurately forecast their gas requirements and facilitate efficient decisions regarding adjusting their gas requirements.
- congestion DTSSP would be retained in its current form. The proponent suggests that the rationale for changing the recovery of congestion uplift does not appear to hold for the

15 AER, *Weekly Gas Market Report*, 25 September - 1 October 2016.

16 AEMO, *DWGM Event - Intervention - 1 October 2016*, 14 October 2016, p6.

17 Victorian Minister for Energy, Environment and Climate Change, *Rule change proposals for the declared wholesale gas market reforms*, 29 October 2018, p4.

DTS service provider, which arises when the service provider fails to comply with its obligations under the Service Envelope Agreement.[18]

According to the proponent, the proposed change would contribute to the NGO in the following manner:[19]

- **Allocative efficiency -** market participants would be exposed to a similar/same price and this means that market participants would be better able to manage their price risk by entering physical or financial contracts. Improving the ability of existing and new market participants to better manage risk is expected to place downwards pressure on the costs of providing gas. To the extent that this reduces costs for market participants, these cost savings could be passed onto consumers.
- **Dynamic efficiency** - introducing a simpler price for wholesale gas should improve market participants' ability to readily adapt to changing supply and demand conditions over time.
- **Productive efficiency** - the rule change will promote the efficient use of gas and efficient levels of investment, throughout the supply chain from production to consumption across the whole east coast. This may lead to improvements in productive efficiency of the Victorian gas market.

The proponent also suggested that the proposed reforms will assist in contributing to the further development of the east coast gas market more broadly, which is guided by the COAG Energy Council's gas market vision statement and the reform 'target model' set out by the AEMC in its review of the Victorian Declared Wholesale Gas Market.[20]

The proponent did not include a proposed rule in its rule change request.

3.1.3 Other considerations

The Victorian Minister's proposal to address the issues raised in its rule change was to smear congestion uplift payments across market participants. The Victorian Minister noted that an alternative approach based on the AEMC's 2017 Review recommendation would be highly complex and the design, testing and implementation of this change would likely require a similar timeline to implement as the 'target ' model, which is at odds with the need to reform the DWGM in a timely manner.[21] The Victorian Minister also suggested that most cost reflective uplift payments and directional flow point constraint pricing (DFPC) be considered during the rule change process. More detail on these other considerations is outlined below.

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18 The DTS service provider (APA Group) and AEMO are parties to the Service Envelope Agreement, under which: (a) The service provider makes available the entire VTS to AEMO and provides a range of supporting services to AEMO, and (b) AEMO operates the VTS in accordance with the National Gas Rules.

19 Victorian Minister for Energy, Environment and Climate change, *Rule change proposals for the declared wholesale gas market reforms*, 29 October 2019, pp7-10.

20 Ibid, p10.

21 Victorian Minister for Energy, Environment and Climate Change, *Rule change proposals for the declared wholesale gas market reforms*, 29 October 2018, p4.

2017 Review recommendation - Cleaner wholesale price

In the 2017 Review, the AEMC recommended including the costs currently intended to be recovered by common and congestion uplift in the market price, while retaining separate pricing of temporal constraints (surprise uplift).[22]

The review concluded that:

- by including most ancillary costs in the market price, the market price would reflect a greater proportion of the total wholesale price for gas, which should improve the ability of market participants to effectively manage risk both physically and financially.
- surprise uplift should be retained as it sends important price signals that are relevant for gas market participants to be able to act upon. For example, it incentivises them to accurately forecast their short-term gas requirement so that AEMO can effectively operate the DTS.
- there are likely to be considerable complexities in implementing this recommendation which should be worked through during the development of the rule change request and the rule change process itself.

Subsequent analysis by AEMO and the Victorian Government has revealed the extent of the complexity required to implement the recommendation. It appears to involve fundamental changes to the DWGM market design including modifications to the pricing and operating schedules, the methodology for calculating uplift payments and procedures to achieve daily linepack targets [23]

Following on from this further analysis the Victorian Minister considered that changing the pricing schedule in this manner is likely to be highly complex and is unlikely to provide a short to medium-term solution, which is at odds with the need to reform the DWGM in a timely manner.[24]

More cost reflective congestion uplift

The Victorian Minister suggested that it is also worth considering a different approach of more cost reflective uplift payments:[25]

- because some stakeholder suggested it may be warranted in the 2017 review
- given that currently high congestion uplift payments are typically due to ad hoc events, such as unplanned maintenance and outages, the Victorian Minister said that it is worth considering how these events and the subsequent allocation of ancillary payments are treated.

22 AEMC, *Review of the Victorian declared wholesale gas market*, 30 June 2017, p41.

23 Victorian Minister for Energy, Environment and Climate Change, *Rule change proposals for the declared wholesale gas market reforms*, 29 October 2018, p5.

24 Victorian Minister for Energy, Environment and Climate Change, *Rule change proposals for the declared wholesale gas market reforms*, 29 October, p5.

25 Victorian Minister for Energy, Environment and Climate Change, *Rule change proposals for the declared wholesale gas market reforms*, 29 October 2018, p7.

Directional flow point constraint (DFPC) pricing

The Victorian Minister also suggested that it may be worth considering directional flow point constraint (DFPC) pricing which was an option considered but not taken forward by the gas wholesale consultative forum in 2014.[26] DFPC pricing would potentially enable co-located bids and offers to be matched in circumstances where the trade is physically possible.[27]For more information on the DFPC pricing and potential implementation issues, refer to section 5.1.3.

3.2 Rule change request on application of constraints in the DTS from AEMO

This section sets out:

- the issues raised by the proponent with current arrangements
- the proponent's proposed solution to address these issues.

3.2.1 Issues with current arrangements

Under the current NGR, AEMO is not able to include constraints internal to the DTS in the pricing schedule. Physical constraints are included in the operating schedule and not the pricing schedule, as explained in the Background paper.[28]

AEMO suggests that the current arrangements, where a system constraint would act to physically limit scheduled withdrawals from the DTS but this constraint is not applied in the pricing schedule, has the adverse outcomes described below:[29]

Market outcomes - the proponent suggested that this has resulted in poor market outcomes.

- Market outcomes are unpredictable and do not reflect the supply/demand balance.[30] For example, following the introduction of AEMO's new procedures in May 2015, where constraints internal to the DTS were active, maintenance of the Brooklyn Compressor restricted net withdrawals from the South West Pipeline to zero in the operating schedule, while the pricing schedule included all withdrawal bids. As the constraint does not cause ancillary payments in this case, there is no incentive for market participants to minimise the impact of the constraint. Therefore the pricing schedule is developed using demand that is not technically feasible on the day and is unrepresentative of the actual supply/demand balance.[31]

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26 Victorian Minister for Energy, Environment and Climate Change, *Rule change proposals for the declared wholesale gas market reforms*, 29 October 2018, p7.

27 Ibid, p7.

28 AEMC, *Declared Wholesale Gas Market Background Paper*, Consultation paper, 14 March 2019.

29 The previous practice was to apply constraints internal to the DTS in pricing schedule and operating schedule. In 2014, AEMO presented a brief to the Gas Wholesale Consultative Forum (GWCF) which identified that this practice did not comply with the NGR which states that in producing a pricing schedule, AEMO must not include a representation of the DTS. After discussions with industry, on 4 May 2015 the Wholesale Market Gas Scheduling Procedures (Victoria) v 2.0 took effect. The updated procedures introduced a new type of constraint and outlined the circumstances where the existing constraints could be applied. AEMO (on behalf of EnergyAustralia), Rule change request - *Application of constraints in the Declared Transmission System*, 24 November 2016, p2.

30 AEMO, *Rule change request - Application of constraints in the declared transmission system*, 24 November 2016, p7.

31 Ibid, pp4-5.

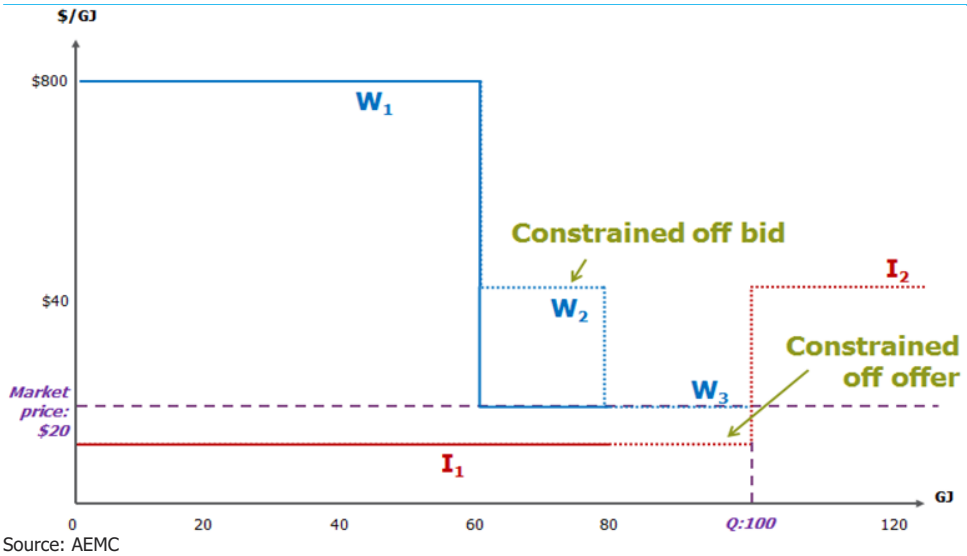
- Higher market prices than would occur if system constraints that would act to physically limit scheduled withdrawals from the DTS were represented in the pricing schedule.[32]
- Reduced gas trading compared to the situation where system constraints that would act to physically limit scheduled withdrawals from the DTS are represented in the pricing schedule.[33]

Ability to hedge effectively - the proponent suggests that the uncertainty and risk associated with the current arrangements reduces market participant's ability to hedge effectively in the market where constraints internal to the DTS limit withdrawals.

Figure 3.1 shows the stylised outcomes of the pricing schedule under the current arrangements, where a physical constraint limits scheduled withdrawals from the DTS, and this constraint is not represented in the pricing schedule. Figure 3.1 shows that, in this stylised example:

- the market price is set at $20/GJ in the pricing schedule, based on the dotted line intersecting supply (injections) and demand (withdrawals) in the DWGM, and without taking into account physical constraints in the DTS.
- AEMO has constrained off a withdrawer (W2) and has constrained down an injector (part of I1) and no other gas is constrained on.
- The total amount of gas is 100 units in the pricing schedule, but is reduced to 80 units in the operating schedule.
- No ancillary payments apply and no market participant has been constrained on.

Figure 3.1: Current arrangement - physical constraint limits scheduled withdrawals in the DTS and constraint is not included in pricing schedule



Source: AEMC

32 Ibid, p6.
33 Ibid, p7.

3.2.2 Proposed solution - internalise constraints on withdrawals in pricing schedule

Currently, rule 221(4) of the NGR is as follows:

> The inputs and assumptions set out in subrule (3) must be applied by AEMO in an optimisation program in which valid bids submitted by Market Participants are used to produce pricing schedules that specify injections and withdrawals of gas to be made in each gas day in a way that minimises the cost of satisfying the expected demand for gas in that gas day and for the purpose of doing so, AEMO must not take into account any transmission constraints affecting the transportation of gas in the declared transmission system during that gas day.

The rule change request proposes that rule 221(4) of the NGR be amended so that:[34]

- where a system constraint would act to physically limit scheduled withdrawals from the DTS, AEMO will apply a constraint to represent this in the pricing schedule[35]
- a differential between the pricing schedule and operating schedule will remain in cases where constrained on injections are required .[36]

Figure 3.2 shows stylised outcomes of the pricing schedule under the proposed rule. That is, where a physical constraint limits scheduled withdrawals from the DTS, this constraint is represented in the pricing schedule. Figure 3.2 shows that, in this stylised example:

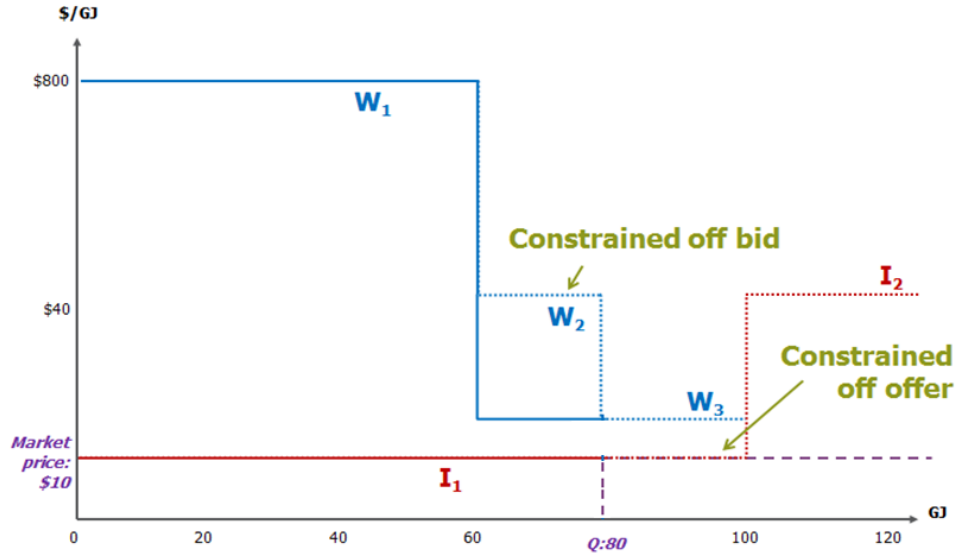
- the market price is set at $10/GJ in the pricing schedule, based on the dotted line intersecting supply (injections) and demand (withdrawals) in the DWGM, and taking into account physical constraints in the DTS.
- AEMO has constrained off a withdrawer (W2) and has constrained down an injector (part of I1) and W3's bid in included in the pricing schedule, lowering the market price from $20/GJ (current arrangements in Figure 3.1) to $10/GJ.
- the total amount of gas is 80 units in the pricing schedule and operating schedule and therefore implementation of the rule change proposal would not change the amount of gas traded in this example, as the physical constraint limiting the quantity of gas traded applies in the operating schedule in both the current and proposed arrangements.
- No ancillary payments apply and no market participant has been constrained on.

34 The rule change request provides specific proposed drafting changes to rule 221(4) of the NGR, however this drafting is based on an earlier (now outdated) version of that rule. The drafting of rule 221(4) in the body of the text above reflects the current drafting the rule.

35 It is suggested that the rule change proposal would allow AEMO to apply the Net Flow Transmission Constraint (NFTC) in the pricing schedule. This, for example, would ensure controlled withdrawals from the Iona Close Proximity Point, that cannot physically be met, will not be used to set the market price. AEMO (on behalf of EnergyAustralia), *Rule change request - Application of constraints in the declared transmission system*, 24 November 2016, p3.

36 AEMO (on behalf of EnergyAustralia), *Rule change request - Application of constraints in the declared transmission system*, 24 November 2016, p6.

Figure 3.2: Proposed solution - physical constraints limit scheduled withdrawals in the DTS and constraint is included in the pricing schedule



Source: AEMC

The rule change request suggests that this proposed rule change would:[37]

- lower gas market prices set in the pricing schedule and the corresponding price paid by Victorian consumers
- reduce uncertainty and risk in the market
- enable more effective hedging and trading of gas between market participants
- enable additional trades to occur that where currently offers to inject below the market price would act to relieve a constraint are being constrained down.

37 AEMO (on behalf of EnergyAustralia), *Rule change request - Application of constraints in the Declared Transmission System*, 24 November, p7.

4 ASSESSMENT FRAMEWORK

The Commission's assessment of the DWGM simpler wholesale price rule change request must consider whether the proposed rule promotes the national gas objective (NGO).

4.1 Rule making test

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.[38] This is the decision making framework that the Commission must apply.

The NGO is:[39]

> 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, safety, reliability and security of supply of natural gas.

Based on a preliminary assessment of the rule change request, the Commission considers that the most relevant aspects of the NGO are the efficient investment in, and efficient operation and use of, natural gas services with respect to the price of natural gas.

4.2 Proposed assessment framework

To determine whether the rule change proposal is likely to promote the NGO, the Commission will assess the rule change request against an assessment framework. The framework may be refined during the rule change process.

At this stage, the Commission is seeking stakeholder views on its proposed assessment framework which includes the following criteria:

- **Effective risk management in the DWGM -** whether market participants are able to manage price and volume risk and options to improve the effectiveness of risk management activities.
- **Signals and incentives for efficient investment in and operation and use of pipeline capacity -** whether investment in, and operation and use of the DTS will occur in an efficient and timely manner and options to strengthen the signals and incentives for efficient investment in, operation of and use of the DTS.
- **Trading between the DWGM and interconnected pipelines -** whether the current DWGM arrangements inhibit trading of gas between the DTS and interconnected facilities and pipelines, and options to allow producers and shippers to effectively operate across gas trading hubs on the east coast without incurring substantial transaction costs.
- **Promoting competition in upstream and downstream markets -** whether the DWGM continues to encourage the introduction of new gas supplies to the market and

38 Section 291(1) of the NGL.
39 Section 23 of the NGL.

promote competition among retailers for the sale of gas, and the extent to which the design of the DWGM may be a deterrent to large users participating in the market.

- **Regulatory and administrative burden -** whether the cost of implementing the proposed solution(s) is/are proportional to the costs of managing the issues they are trying to resolve.

4.3 Making a more preferable rule

Under s. 296 of the NGL, the Commission may make a rule that is different (including materially different) to a proposed rule (a more preferable rule) if it is satisfied that, having regard to the issue or issues raised in the rule change request, the more preferable rule will or is likely to better contribute to the achievement of the NGO.

5 ISSUES FOR CONSULTATION

This chapter identifies issues for consultation in relation to the consolidated rule change request on DWGM simpler wholesale price. The issues below are provided as a guideline for submissions. Stakeholders are encouraged to comment on these issues as well as any other aspect of the rule change request or this paper, including the proposed assessment framework.

The issues for consultation relate to:

- the congestion uplift methodology
- the application of constraints in the DTS
- transmission investment and operation in the DTS
- trading between the DWGM and interconnected pipelines
- promoting competition in upstream and downstream markets
- regulatory and administrative burden.

5.1 Congestion uplift methodology

5.1.1 Issues with current arrangements

The rule change request from the Victorian Minister suggests that the current uplift methodology is a barrier to effective risk management and trade in the DWGM as it:

- is highly complex, which makes it difficult for market participants to understand and predict the outcome
- may not effectively allocate costs to the causers of those costs, which may be inequitable
- may send incentives that deter financial risk management and trade
- may result in more frequent or more material uplift payments being levied, due to the evolution of the market.

More detail on these issues is outlined in section 3.1.1.

In efficient well functioning markets, market participants can manage price and volume risk through physical and/or financial risk management options. In the DWGM, market participants can try to manage price and volume risks through a combination of physical supply contracts, financial derivatives, and/or the spot market. However, the ability to hedge uplift payments is limited to congestion uplift hedge protection, which may be difficult to acquire at a reasonable cost, for the reasons outlined in section 3.1.1.

Uplift payments typically represent a small cost for the market as a whole, relative to the total gross amount of gas traded through the DWGM. However uplift payments can be volatile, for example as evidenced by the large cost of uplift payments on 1 October 2016.

QUESTION 1: CURRENT ARRANGEMENTS FOR CONGESTION UPLIFT

(a) In relation to the current congestion uplift framework:

- is this framework overly complex or are congestion uplift charge outcomes able to be understood and predicted?
- does it effectively allocate costs to causers?
- is the evolution of the market likely to change the frequency and materiality of congestion uplift payments?
- to what extent do concerns about congestion uplift influence market behaviour?

(b) To what extent does the congestion uplift hedge protection framework:

- enable market participants to effectively manage the risk of congestion uplift payments without incurring unreasonable transaction costs?
- provide any other benefits for market participants or the operation of the DWGM, such as signals and incentives for investment in additional transmission capacity?

5.1.2 Proposed solution

As set out in section 3.1.2, the Victorian Minister has proposed that:

- congestion uplift payments be spread across market participants.
- in socialising congestion uplift, congestion uplift could be recovered using a pro rata method (for example in the way that common uplift is recovered, as outlined in section 2.1.2) or through another method.

The proponent suggests that spreading congestion uplift payments across market participants will mean that buyers and sellers are exposed to a similar/same price and that market participants will be able to better manage their price risk by entering into physical or financial contracts.[40] The proposal suggested that, if for example, common and congestion uplift payments were calculated based on the total quantity of energy injected and withdrawn, then market participants would receive or pay:

- the market price on a dollar per unit basis
- a common and congestion uplift, also on a dollar per unit basis.
- in addition, market participants would continue to receive ancillary payments if constrained on, and pay surprise uplift.

The proposal to spread congestion uplift payments may not result in a similar/same price for market participants in all circumstances. In the case where congestion uplift payments were spread across market participants:

- buyers would pay the market price and uplift payments (where they apply)

40 Victorian Minister for Energy, Environment and Climate Change, *Rule change proposals for the declared wholesale gas market reforms*, 29 October 2019, p9.

- sellers would receive the market price and ancillary payments (where they apply)
- counterparties may not be receiving equal and opposite amounts which may pose challenges for physical or financial contracts. If for example, the market price is $10/GJ and common and congestion uplift payments are $1/GJ in total, the combined market price plus common and congestion uplift payments would be $11/GJ. Derivatives could be struck at the combined amount of $11/GJ, which would capture most of the wholesale cost of gas, except for surprise and congestion DTSSP uplift payments (where they apply). However the typical seller of such derivatives would only receive $10/GJ in the spot market (unless they happen to also receive ancillary payments) and are therefore out of pocket $1/GJ. Similarly, the typical buyer of such a derivative would pay $11/GJ in the spot market and would be out of pocket $1/GJ.
- The extent to which this is an issue may depend on the materiality and volatility of uplift payments. In recent years, uplift payments have been volatile for some market participants, in particular due to the large uplift payments that occurred on 1 October 2016. However uplift payments typically represented a relatively small cost for the market as a whole, relative to the total gross amount of gas traded through the DWGM.

There may be a trade-off between simplifying the congestion uplift payments faced by market participants and the need to provide incentives that encourage behaviour that limits the creation of constraints (and therefore costs) to the system to an efficient level. On the one hand socialising congestion uplift may allow some market participants to more effectively manage risk relating to congestion uplift payments. On the other hand, socialising congestion uplift may reduce the incentives to efficiently manage constraints, in both operational and investment timescales. In assessing this trade-off, the Commission is interested in stakeholder's views on whether the congestion uplift framework is providing the following incentives that it was designed for:

- short-term incentives to reduce congestion due to capacity constraints on the DTS, for example on high gas demand days.
- long-term incentives to invest in additional capacity to address congestion issues.

A consequence of socialising congestion uplift is that the cost of congestion would be 'decoupled' from AMDQ. This may:

- on the one hand, reduce signals provided by AMDQ for investment in transmission capacity, which to the extent that these signals are valuable, reduce the value of AMDQ (note that related issues are discussed in the related rule change request on DWGM improvements to AMDQ regime).
- on the other hand, as suggested by the proponent, this may open opportunities to simplify current market processes such as IHN and AIHN and deliver further benefits to market participants.
- increase ancillary payments for the market as a whole as market participants would no longer be using hedge nominations to hedge against congestion uplift.

If congestion uplift were spread across market participants, consequential changes may be required to the processes and procedures for calculating and allocating common uplift between market participants. This is because common uplift payments are based on total

ancillary payments, minus surprise uplift and congestion uplift. Therefore, a change in the method of calculating congestion uplift may, as a consequence, change the method of calculating common uplift.

QUESTION 2: PROPOSED SOLUTION

(a) If congestion uplift costs were spread across market participants, and congestion uplift hedge protection did not apply, what effect might this have on:

- the clarity of congestion signals in the short-term?
- the clarity of long-term term signals to invest in transmission capacity?
- the materiality of uplift payments?
- the ability of market participants to manage risk related to congestion uplift payments?
- outcomes for market participants?

(b) If congestion uplift costs were spread across market participants, what would be the best method to recover congestion costs? Should a pro rata method be used, as is currently applied for common uplift, or a different method?

(c) If congestion uplift payments were spread and the cost of congestion was decoupled from AMDQ:

- what effect would this have on the value of AMDQ?
- would this create opportunities to simplify current processes around IHN and AIHN? If so, how?
- what effect might this have on the ancillary payments for the market as a whole?

5.1.3 Other approaches to address the issues raised by the Victorian Minister

As outlined in section 3.1.3., the Victorian Minister suggested that the following other considerations be considered during the rule change process

- More cost reflective uplift payments
- DFPC pricing

Compared to the Victorian Minister's proposal to spread congestion uplift payments across market participants, it would likely be more complex to implement more cost reflective uplift payments or DFPC pricing.

More cost reflective uplift payments

The proponent noted that a number of stakeholders during the 2017 DWGM review process suggested that the cost reflectivity of congestion uplift is not strong in all circumstances. As such, stakeholders suggested that more cost reflective uplift payments may be warranted. The proponent noted that, given that high congestion uplift charges are typically due to ad

hoc events, such as unplanned maintenances and outages, it is worth considering how these events and the subsequent allocation of ancillary payments are treated.[41]

The consideration around more cost reflective pricing:

- would likely be more complex and take longer to design and implement, relative to the Victorian Minister's proposal to spread congestion uplift payments across market participants
- may be difficult to achieve due to the difficulty in exactly attributing the cost of constraints to causers in a wide range of different scenarios. For example, the cost of some transmission constraints may be able to be reasonably attributed 50% to surprise uplift payments and 50% to congestion uplift payments. However, in other transmission constraint scenarios, it might be difficult to clearly allocate a specific proportion of the cost of the constraint to a particular type of uplift. A matter for consultation is whether the benefits of an uplift payment regime that attempted to be more cost reflective would outweigh the implementation costs.

DFPC Pricing

Under the current arrangements:[42]

- when a flow direction constraint binds on a paired system withdrawal and system injection point, a scenario could occur where additional injections and withdrawals at the point could be scheduled above the market schedule.
- these co-located bids and offers are not matched and traded, despite the fact that:
  - a trade could be executed at a price which is above the seller's willingness to sell (as indicated by its offer) and below the buyer's willingness to buy (an indicated by its bid). That is, an efficient trade could occur.
  - the trade is physically possible and consistent with the capacity of the DTS, as the exchange of gas would occur at the injection/withdrawal point and not require access to the constrained DTS.

These trades do not currently occur as the constrained on injector would not necessarily be compensated by the corresponding withdrawer due to the uplift allocation methodology.

If a DFPC mechanism were implemented:[43]

- efficient trades would be facilitated between two market participants at the same location behind a constraint (i.e. at a price above the market price that both the buyer and seller would be willing to trade at)
- it would enable additional trade to occur at constrained locations, where buyers value gas at a price above the DWGM spot price.

41 Victorian Minster for Energy, Environment and Climate Change, *Rule change proposals for the declared wholesale gas market reforms*, 29 October 2018, p7.

42 AEMC, *Review of the Victorian declared wholesale gas market*, Final report, 30 June 2017, p66

43 Ibid, p66.

This option was considered by the gas wholesale consultative forum in 2014. At the time it was not considered worthwhile to pursue due to implementation costs.[44] For example, it would require changes not inconsequential to settlement arrangements and the scheduling system.

If DFPC pricing were to be implemented:

- the market design would need to consider whether all participants at the constrained on point pay the local DFPC price or only those participants scheduled above the market (i.e. the buyer and seller trading at a price above the market price).
- changes would likely be required to scheduling and settlement systems to facilitate this pricing mechanism
- it may change market participants' bidding practices.

> QUESTION 3: OTHER APPROACHES
>
> Would other approaches, including (but not limited to) more cost reflective uplift payments or DFPC pricing, better address the issues raised by the Victorian Minister in the simpler wholesale price rule change request than the proposed solution to smear congestion uplift across market participants?

5.2 Application of constraints in the DTS

5.2.1 Issues with current arrangements

The rule change request states that the issues with the current arrangements relate to the circumstances where a system constraint would act to physically limit scheduled withdrawals from the DTS, and this constraint cannot be represented in the pricing schedule. This issue is detailed in section 3.2.1. In summary, it is suggested that this issue results in:

- market outcomes that are unpredictable and do not reflect the supply/demand balance
- higher market prices and reduced gas trading than would occur if these constraints were represented in the pricing schedule
- uncertainty and risk that reduced market participant's ability to hedge effectively
- no incentive for market participants to limit their bids due to an expected constraint, because the costs are not allocated to the causers.

In relation to the level of gas trading, it is suggested that, in some scenarios:

- offers to inject gas below the market price are being constrained down, even where they would act to relieve the applied constraint. This can occur when injections at other system injection points that are offered at a lower price are constrained down in the operating schedule.

44 Victorian Minister for Energy, Environment and Climate Change, *Rule change proposals for the declared wholesale gas market reforms*, 29 October 2018, p7.

- the lower priced injections set the price in the operating schedule which precludes the higher price injections.
- inclusion of the constraint in the pricing schedule would result in a reduced differential between the pricing schedule and operating schedule, allowing the injection to occur.[45]

> QUESTION 4: CURRENT ARRANGEMENTS
>
> What effect do the current arrangements, in which constraints that would act to physically limit scheduled withdrawals from the DTS are not represented in the pricing schedule, have on:
>
> - incentives for market participants to bid in ways that take account of an expected constraint?
> - the level of market prices?
> - the level of uplift payments?
> - the level of gas trading?
> - the predictability of market outcomes (i.e. reflecting the supply/demand balance)?
> - the value of AMDQ?

5.2.2 Proposed solution

AEMO's proposed solution is to internalise withdrawal constraints in the pricing schedule. That is, where a physical constrain limits scheduled withdrawals from the DTS, this constraint is represented in the pricing schedule. For more detail, refer to section 3.2.2.

There is potential for overlap between the DWGM simpler wholesale price rule change request and the related rule change request on DWGM improvements to AMDQ regime. The related rule change on DWGM Improvements to AMDQ regime proposes:

- the introduction of separate, tradeable entry AMDQ rights and exit AMDQ rights
- the introduction of an exchange to improve secondary trading of AMDQ rights, and
- making AMDQ available for a range of different tenures[46]

If exit AMDQ rights (and other changes) were made in the related rule change request on DWGM Improvements to AMDQ regime, which improved market participants ability to withdraw gas from the DTS, this may reduce the need to make the part of this rule change request relating to internalising withdrawal constraints in the pricing schedule.

After receiving EnergyAustralia's rule change proposal in August 2016, AEMO undertook an initial round of consultation with stakeholders on the proposal. It received two submissions, from AGL and APA, which are summarised below.

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45 AEMO (on behalf of EnergyAustralia), Rule change request - Application of constraints in the Declared Transmission System, 24 November 2016, p5 and p7.

46 For more information refer to AEMC, *National Gas Amendment (DWGM Improvement to AMDQ regime) Rule 2019*, Consultation Paper, 14 March 2018.

AGL shared EnergyAustralia's concerns regarding the current disconnect between the operating and pricing schedules in the DTS and the aim of the proposal towards harmonisation of the operating and pricing schedules. AGL suggested that the rule proposal would benefit from further consideration of:[47]

- whether the proposed change to rule 221(4) of the NGR of "constraints on withdrawals from the DTS" was too broad and if, instead, the change should define a constraint as a limit measured on the collective withdrawal limit of gas at biddable withdrawal points.
- whether the proposed change to rule 221(4) of the NGR should state that "AEMO must include *only* constraints on withdrawals from the DTS" as the word 'only' may prevent the inclusion of other relevant factors.

In its submission, APA expressed a concern that the rule change proposal would have broader negative implications for the efficient operation of the market, including the loss of congestion signals and the loss of efficient pricing of AMDQ. APA suggested that alignment of the operating and pricing schedules reduces the value of AMDQ and AMDQcc, the market price of which is critical for signalling investment in additional transmission capacity.[48]

QUESTION 5: PROPOSED SOLUTION

(a) If constraints limiting scheduled withdrawals from the DTS were represented in the pricing schedule, what effect would this have on:

- market participants' bid and offer practices?
- market participants' ability to effectively manage price and volume risk?
- outcomes for the market as a whole (i.e. level of market prices and volume of trading)
- outcomes for individual market participants?

(b) If AMDQ exit rights were introduced in the related rule change on 'DWGM improvements to AMDQ regime', would it still be worthwhile implementing the proposal to internalise withdrawal constraints in the pricing schedule?

(c) Are the proposals to smear congestion uplift and internalise withdrawal constraints in the DTS mutually exclusive? Are there benefits of implementing both proposals?

5.3 Transmission investment and operation in the DTS

The Victorian Minister notes that a potential downside of socialising congestion uplift is that it may result in less efficient management of transmission constraints, including less efficient scheduling outcomes in the short term and less efficient investment in the Victorian DTS and other gas facilities in the long term.[49]

47 AGL, *Application of constraints in the Declared Transmission System*, 26 October 2016, p1.

48 APA, *Comments on EnergyAustralia proposed rule change – Application of constraints in the DTS*, 24 October 2016 p. 1.

49 Victorian Minister for Energy, Environment and Climate Change, *Rule change for the declared wholesale gas market reforms*, 29 October 2018, p. 8.

This is because the rule change request, as envisaged, would decouple uplift payments from the possession of AMDQ. Currently, market participants are charged uplift payments when they withdraw gas from the DTS in excess of their allocated portion of the physical capacity of the system, which is derived by their AMDQ allocation.

For more information on AMDQ rights refer to the consultation paper on DWGM improvements to AMDQ regime.[50]

The Victorian Minister suggests that:

- the incentives provided by the current AMDQ regime may not be strong enough to support efficient levels of investment into, and efficient utilisation of, pipeline capacity.[51]
- congestion uplift does not always allocate cost to cause, and therefore may not be sending efficient signals to market participants regarding the value of AMDQ (or available transmission capacity). For example, the Minister cites that congestion due to maintenance or outage is often allocated to non-holders of AMDQ, rather than the parties that caused the maintenance or outage to occur.[52]

QUESTION 6: TRANSMISSION INVESTMENT AND OPERATION IN THE DTS

If one or both of the proposals to spread congestion uplift payments or internalise withdrawal constraints in the pricing schedule were made, what effect would this have on:

(a) the effectiveness of the AMDQ regime?

(b) efficient operation of the DTS in the short-term?

(c) efficient investment and operation of the DTS in the long-term?

5.4 Trading between the DWGM and interconnected pipelines and facilities

The Victorian Minister suggests that the current uplift methodology may serve as a disincentive for a market participant to transport gas through Victoria for inter-regional trade. For example, a market participant that exclusively transports gas from Longford to Culcairn through the DTS is unable to hedge its congestion uplift exposure. Although the participant is injecting at Longford, it requires AMDQ in order to hedge uplift and it cannot acquire AMDQ without acquiring tariff V or tariff D customers in Victoria - which it is unlikely to have if it is simply transporting gas through the system.[53]

50 AEMC, *DWGM improvements to DMDQ regime*, Consultation paper, 14 March 2019.

51 Victorian Minister for Energy, Environment and Climate Change, *Rule change proposals for the declared wholesale gas market reforms*, 29 October 2018, p21.

52 Victorian Minister for Energy, *Environment and Climate Change, Rule change for the declared wholesale gas market reforms*, 29 October 2018, pp. 9-10.

53 Victorian Minister for Energy, Environment and Climate Change, Rule change for the declared wholesale gas market reforms, 29 October 2018, p8.

QUESTION 7: TRADING BETWEEN THE DWGM AND INTERCONNECTED PIPELINES AND FACILITIES

(a) Does the current uplift framework (including congestion uplift hedge protection) inhibit the trading of gas within the DTS and between the DTS and interconnected pipelines and facilities? Does it allow producers and shippers to effectively operate across gas trading hubs without incurring substantial transaction costs?

(b) If congestion uplift payments were smeared across market participants and/or withdrawal constraints were included in the pricing schedule, how would this affect the ability of market participants to move gas within (across) the DTS and from the DTS to interconnected facilities and pipelines?

5.5 Promoting competition in upstream and downstream markets

The Victorian Minister suggests that their proposal will improve the ability of market participants to manage risk, increasing price transparency and reducing complexity:[54]

- will reduce barriers to entry, which may encourage new entrants to the market
- may enhance the flow of gas within Victoria and potentially provide new sources of supply and enhance diversity of supply.

QUESTION 8: PROMOTING COMPETITION IN UPSTREAM AND DOWNSTREAM MARKETS

To what extent may any one the following proposals, if implemented individually, encourage the introduction of new gas supplies to the market and/or promote competition among retailers for the sale of gas:

(a) Socialising congestion uplift payments?

(b) Other approaches in relation to DWGM wholesale pricing, including (but not limited to) more cost reflective uplift payments or DFPC pricing?

(c) Internalising withdrawal constraints in the pricing schedule?

5.6 Regulatory and administrative burden

Rule change proposal to spread congestion uplift payments

The Victorian Minister suggests that the proposed changes to uplift calculations would be low cost and simple to implement because:

- it would require no changes to the pricing and operating schedules, and

54 Victorian Minister for Energy, Environment and Climate Change, *Rule change request for the declared wholesale gas market reforms*, 29 October 2018, p8.

- it would only require minor changes to the way in which uplift payments are allocated.

If congestion uplift payments are spread across market participants, consequential changes may be required to the calculation processes and procedures around common uplift.

Other considerations raised by the Victorian Minister

Other approaches to address the issues raised by the Victorian Minister may include (but not be limited to) more cost reflective uplift payments and DFPC pricing. Implementing either more cost reflective uplift payments or DFPC pricing is likely to be more complex than socialising congestion uplift across market participants.

The implementation of DFPC pricing was considered by the gas wholesale consultative forum in 2014 and, at the time, it was not considered worthwhile to pursue due to implementation costs. However, the Victorian Minister said that it may be worthwhile considering the benefits of implementing DFPC pricing again given changed market conditions.[55]

Rule change proposal to internalise withdrawal constraints in the pricing schedule

The rule change proponent suggests that implementation costs in terms of AEMO systems and processes are not expected to be significant and could be implemented in a reasonably short timeframe.[56]

QUESTION 9: REGULATORY AND ADMINISTRATIVE BURDEN

(a) If any of the following solutions were implemented, what would the expected regulatory and administrative burden be for AEMO and market participants:

- Socialising congestion uplift
- Other approaches to address the issues raised by the Victorian Minister in relation to wholesale pricing (i.e. more cost reflective uplift payments, DFPC pricing or another option)
- Internalising withdrawal constraints in the pricing schedule.

(b) What would be an appropriate timeframe for AEMO to implement each of the solutions listed above in 9(a)?

55 Victorian Minister for Energy, Environment and Climate Change, *Rule change proposals for the declared wholesale gas market reforms*, 29 October 2018, p7.

56 AEMO (on behalf of EnergyAustralia), *Rule change request - Application of constraints in the Declared Transmission System*, p1.

6 LODGING A SUBMISSION

Written submissions on the rule change request must be lodged with Commission by **Friday 26 April 2019** online via the Commission's website, www.aemc.gov.au, using the "lodge a submission" function and selecting the project reference codes **GRC0049**.

The submission must be on letterhead (if submitted on behalf of an organisation), signed and dated.

Where practicable, submissions should be prepared in accordance with the Commission's guidelines for making written submissions on rule change requests.[57] The Commission publishes all submissions on its website, subject to a claim of confidentiality.

All enquiries on this project should be addressed to Andrew Pirie on (02) 8296 7867 or andrew.pirie@aemc.gov.au.

57 This guideline is available on the Commission's website www.aemc.gov.au.

ABBREVIATIONS

AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AMDQ	authorised maximum daily quantity
AMDQ cc	AMDQ credit certificates
AMIQ	authorised maximum interval quantity
COAG Energy Council	Council of Australian Government's Energy Council
Commission	See AEMC
DFPC	Direction flow point constraint
DTS	Declared Transmission System
DTSSP	Declared Transmission System Service Provider
DWGM	Declared Wholesale Gas Market
NFTC	Net Flor Transmission Constraint
NGL	National Gas Law
NGO	National Gas Objective
NGR	National Gas Rules