



Australian Energy Markets Commission

**Stage 2 East Coast Wholesale Gas Markets and
Pipeline Frameworks Review**

Draft reports on east coast gas markets

GPR 0002 and GPR 0003

Submission by

The Major Energy Users Inc

February 2016

Assistance in preparing this submission by the Major Energy Users Inc (MEU) was provided by Headberry Partners Pty Ltd and Darach Energy Consulting Services.

This project was part funded by Energy Consumers Australia (www.energyconsumersaustralia.com.au) as part of its grants process for consumer advocacy and research projects for the benefit of consumers of electricity and natural gas.

The views expressed in this document do not necessarily reflect the views of the Consumer Advocacy Panel or the Australian Energy Market Commission. The content and conclusions reached in this submission are entirely the work of the MEU and its consultants.

TABLE OF CONTENTS

	PAGE
Executive summary and conclusions	3
1. Introduction	5
2. The provision of information	14
3. The East Coast gas market	16
4. The DWGM proposed changes	22

Executive summary and conclusions

The MEU appreciates the opportunity to provide this response to the AEMC draft reports on proposed improvements to the east coast gas markets and the Victorian DWGM. While it is clear that the MEU does not support the proposals to change the gas markets, it is supportive of the proposed changes to the pipeline capacity trading and the improvements in information provision.

The MEU commits to working with the AEMC to provide consumer input into the AEMC as it further investigates the issues introduced in the two draft reports.

1 The gas markets

The MEU is very concerned at the extent of the changes proposed by the AEMC in its draft report. The MEU is concerned that the cost of making the changes has not been addressed at all.

The AEMO National Gas Forecasting Report (NGFR) 2015 highlights that the domestic gas market for the next 20 years will be static at best and is likely to decline in volumes of gas used yet this issue is not addressed to any significant extent.

The AEMC proposal assumes that gas market models used elsewhere can be effectively transplanted to the Australian market yet does not appropriately address the reality that the supply of gas is controlled by a very few producers, two of whom are also LNG exporters. Whilst noting this, the AEMC does not assess whether a lack of competition at the physical level will impact on any secondary market that is established. The MEU points out that in the electricity market, where there is greater competition in production, the secondary electricity market does reflect the amount of competition in the physical market and where there is limited competition, the secondary markets exhibit little activity. The MEU considers that the lack of competition in production in the gas market is the primary reason for the limited trading that is occurring and that a change in the market structure will not of itself result in increased secondary trading. The lack of recognition of this fact is a grave oversight by the AEMC.

The MEU highlights that the current markets do exhibit some secondary trading and that this is increasing, albeit slowly, with most of such secondary trading occurring in the DWGM. In this regard, the MEU points out that secondary trading in the electricity market when it commenced was very modest in the early years and did not develop quickly. The MEU considers that there is a sound reason to continue with the current arrangements, although some refinements could be implemented.

The MEU is concerned that the AEMC has not addressed the physical constraints in gas transportation that impact the operation of the gas markets or that the forecast declining use of gas domestically will impact on investment in long haul gas transportation.

Overall, the MEU considers that the AEMC draft report has addressed its brief without fully appreciating:

-) what is already happening in the current market arrangements
-) what the cost will be for the benefits that will be achieved
-) how the realities of the physical domestic markets will impact on the markets established by the proposed changes
-) the extent to which the LNG market will impact the domestic market and how the domestic market might be able to interact with the LNG market.

The MEU considers that wholesale change to the gas markets as proposed by the AEMC is not warranted although improvements could be instituted.

Specifically, the changes proposed for the DWGM are far reaching, expensive, do not recognise why the Victorian gas supply arrangements was designed to meet its unique requirements, and nor do they reflect the extensive investigations previously undertaken to provide a market that reflects the physical reality of the Victorian gas supply arrangements. The MEU is very concerned that the needs of Victorian consumers are being put into a secondary position to the needs of the other east coast gas consumers and just as importantly secondary to the potential needs of the LNG exporters.

2 Provision of Information

The MEU supports the proposed changes in information provision with one qualification.

The MEU considers that the AEMC must develop a better solution to 'depersonalising' information to protect large users. While the MEU has concerns on the impacts of the new reporting of gas consumption by large users will have in markets other than the gas market, it is also concerned about the costs and impositions that the reduction of the reporting threshold will bring.

3 Pipeline capacity trading

The MEU supports the changes proposed but also notes that there issues of monopoly rent taking that still need to be addressed

1. Introduction

The Major Energy Users Inc (MEU) welcomes the opportunity to provide its views on the three AEMC draft reports on the east coast gas markets, addressing:

-) The Victorian gas market (DWGM)
-) The east coast gas markets and pipeline review
-) The east coast gas information report

The MEU notes that, to a degree, the draft report on east coast gas information is a standalone document and, in practical terms, the draft reports on the east coast gas market review and the review of the Victorian DWGM are by their very nature integrated in that the east coast gas market review which is predicated on the changes to the DWGM. With this in mind, the MEU has elected to provide a single response to the three draft reports, rather than reiterating aspects where there is commonality of commentary.

The MEU notes that the drivers for undertaking this review relate to the goals of the CoAG Energy Council (CEC) for a desire to see

"...the establishment of a liquid wholesale gas market that provides market signals for investment and supply, where

-) responses to those signals are facilitated by a supportive investment and regulatory environment,
-) trade is focused at a point that best serves the needs of participants,
-) an efficient reference price is established, and
-) producers, consumers and trading markets are connected to infrastructure that enables participants the opportunity to readily trade between locations and arbitrage trading opportunities."

The MEU supports the broad thrust of these desires as they should benefit gas consumers. Equally, the MEU notes that the Victorian DWGM already delivers most of this goal, so from one point of view, it is the extension of the DWGM to other parts of the east coast gas market that could well satisfy the desire of the CEC.

However, the MEU also sees that there some major structural issues that militate against the achievement of this goal.

1.1 The reality of the physical market

These are that the gas production is controlled by a very few providers (effectively the east coast gas market is an oligopoly of four major players) and two members of this oligopoly are also major exporters of gas via LNG. The larger gas production facilities serving the domestic market are subject to joint marketing

6

arrangements where one of the parties is responsible for selling production from each facility.

Overlaying the dominance of the oligopoly of producers is another four-member oligopoly of gas transportation assets with one member of the oligopoly being the dominant provider.

The AEMC points out that there are around 45 unique businesses listed across three categories of gas users (retailers, large industrial users including LNG producers and gas fired generators¹). In fact there are many fewer when common ownership is investigated as the large majority of gas fired power stations operating in the NEM have a common owner with a gas retailer and so too is there common ownership between some of the LNG exporters and players in the domestic market.

The MEU points out that as well as there being oligopolies in gas production and gas transport there are only 27 gas retailers registered with the AER to operate in the east coast gas markets. Two of these are no longer current and there are effectively only about 14 current gas retailers who are independent² and compete with each other. On top of this, there are a relative few industrial users of gas that have the ability and inclination to want to trade in the gas market (the AEMC has identified 16 in its draft report) - about the same number as there are independent retailers.

These market realities raise the question as to who will be the beneficiary of the proposed changes to the gas markets. The AEMC points out, quite rightly (page 23), that in

"...a market made of large numbers of diverse participants there are many opportunities to trade."

In fact, the gas market has a relative few independent participants and it is unlikely that there will be a significant increase in the numbers of market participants, even if trading is made more accessible. The MEU has seen that even where there apparently large numbers of competitors, real competition is low. For example, in SA, while there are many retailers registered to trade electricity in the SA region, currently there are perhaps 2 or 3 that are active in a significant sense³. Further, competition for electricity supply from base load power stations in SA has reduced and the futures market is trading thinly because of the lack of competition in production. This reinforces the MEU view that with little competition in production, there will be little active secondary trading.

The MEU considers that the AEMC review has not addressed the structural fundamentals of the gas market and has recommended significant change without a full understanding of the realities of the real lack of competition.

¹ See AEMC draft report table 2.1

² For example, AGL has 5 subsidiaries holding retail licences and Origin 4

³ Report from CQ Partners to Energy Industry Roundtable in SA 13 December 2015

At the most fundamental, the MEU questions how a highly competitive market can be developed when gas production is dominated by a lack of competition in the physical market. Despite this, the AEMC is recommending massive changes to the gas markets, especially the DWGM.

The proposals by the AEMC outlined in their draft reports cite that greater liquidity in the gas market is key to providing better price transparency and a reference price that is more useful than the prices provided by the current structures. The MEU agrees that increased liquidity is a key to such an outcome but, unusually for the MEU, it agrees with APA Group⁴ that the supply chain is currently so structured that a movement in price by any one of the member producers of the oligarchy will massively impact the market. As a result, the MEU (and APA Group) consider that the achievement of a liquid market will not occur while there remain so very few producers of consequence in the market who each have a ready ability to change the market by their individual actions.

It is the absence of strong competition between producers that the MEU considers will prevent the development of increased liquidity sufficient to achieve the goals of the CEC, yet this issue has not even been addressed by the AEMC because such investigation is outside its remit. The AEMC asserts that this is an aspect that the ACCC is investigating yet the MEU considers the AEMC has missed the point.

While the ACCC is investigating competition issues in the east coast gas market, the AEMC has blithely assumed that the competition issues will "go away" because of the ACCC review and the AEMC seems to assume that the changes the ACCC recommends or makes as a result of its review, will address this lack of competition. In fact, in all probability, the current structure will remain much the same as a result of the ACCC review, retaining its oligopolistic features although, at best, there may be introduced some controls on how the oligopolies exercise their market power.

It is on this false premise that the AEMC has produced a "grand plan" to cause major change to the DWGM and move away from price being divulged at demand points to being divulged at points of production which are remote from where consumers will buy their gas.

In earlier responses to the discussion papers, the MEU also pointed out that the price of gas seen by gas users is not just the price at the production point but includes the cost of transport to the point of demand. Except in Victoria, the major points of demand for the domestic gas market are served by one (Tasmania and Brisbane) or two pipelines (Adelaide and Sydney) and each of these pipelines is connected to just one point of production. This reality has major implications for consumers as it ties the price of gas and its deliverability to unique points of production.

⁴ APA response to discussion paper on each coast gas market

The AEMC opines that its approach reflects an ability to integrate future medium and long term adjustments required to implement the CEC vision. What is absent from the AEMC analysis is what the future might bring. For example, it is already quite clear that the amount of gas being used domestically is falling, both at the small user end of the market and for industrial use. There is little doubt that the rising prices for gas as a result of the decision to allow exports from the east coast, will have a further dampening impact on domestic gas demand.

While there is an expectation that the use of coal for generating electricity will reduce over time, there has been an equal expectation that gas would replace coal for providing electricity supplies. This view is now experiencing considerable doubt. For example, in South Australia where gas is the primary source of fuel for thermal electricity generation, gas fired power stations are being closed as a result of the high price for gas and competition from renewable generation. Further, the current high price for firm supplies of electricity in the SA region seen in the futures market reflect prices for electricity based on current prices for gas at about \$7/GJ plus transport. The very high costs of electricity forecast for SA region as a result of the high cost of gas will reduce the amount of gas generated electricity in favour of more cost efficient methods of supplying electricity.

The AEMC asserts that the lack of secondary trading that is a feature of the DWGM and the STTMs supports its view that change is needed to increase liquidity. Yet what is absent from the AEMC assessment is any improvement that will occur if the changes it recommends will or can result from the small numbers of significant players in the gas markets.

The AEMC comments (page 25) that

"For [financial risk management products] to emerge, it is imperative to get the physical market right so that liquidity can grow to a level where physical and financial participants have sufficient confidence in the price signal."

The MEU agrees with this view but points out that with just four producers for the domestic market (and perhaps the addition of Shell/Arrow/BG⁵ should it elect to enter the domestic market) the ability of just one of the producers to impact the secondary markets through their actions in the physical market will likely to significantly diminish trade in the secondary market.

1.2 The reality of the LNG market impact

One of the primary reasons for wanting to change the domestic gas market is that the LNG market is forecast to be more than three times the quantity of gas traded in the domestic market. While true, the impact of the LNG market on the domestic market will be much less than this and therefore the MEU questions whether there

⁵ Two of the three LNG exporters are producers for the domestic market

is a need to change the domestic markets in order to accommodate the LNG market.

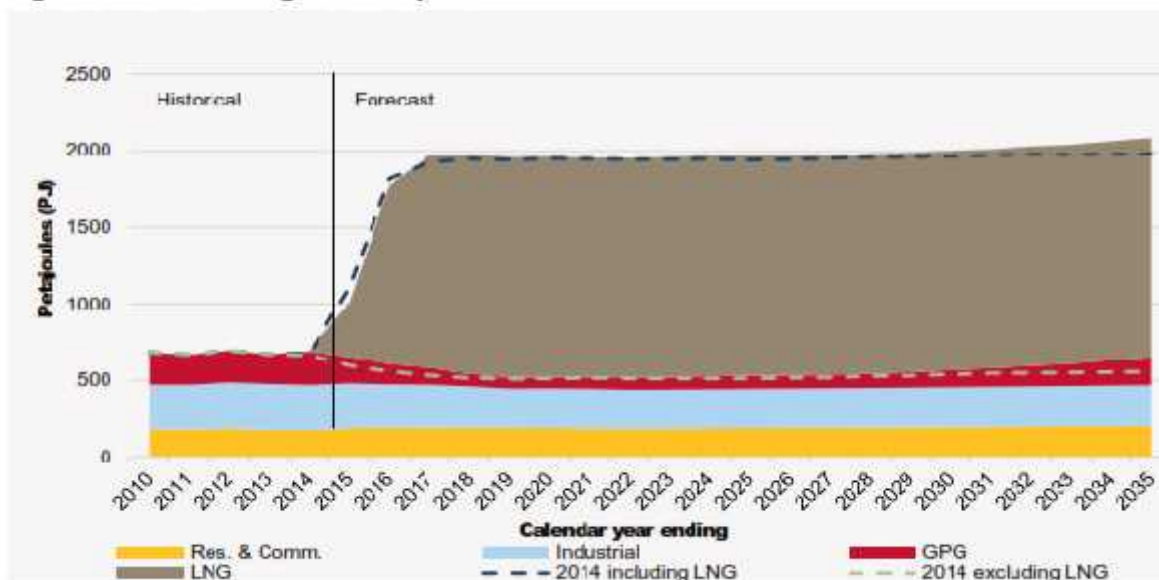
In reality, the LNG market impact on the domestic market will be quite modest as the bulk of gas exported as LNG will in fact never enter the domestic market. At most, the amount of gas that can currently flow from Wallumbilla to Moomba is 340 TJ/d in a westerly direction, and the ability of the Adelaide and Sydney pipelines is currently limited to what Moomba can produce and a proportion of what SWQP can deliver. In the same vein, there is a limit to what can be moved from the south to Moomba and onto SWQP.

The impact of the gas delivery from the Northern Territory via the Tennant Creek to Mount Isa pipeline will further impact the carrying capacities and deliveries throughout the region north of Moomba.

While the MEU accepts that pipelines can be increased in size to carry more gas than they currently do, the MEU points out that with a domestic market forecast to slowly decline (as shown below from AEMO NGFR 2015 page 3), there is little expectation that significant investment will be made in the main pipeline systems feeding to Moomba as the domestic gas demand would not warrant such investment.

Figure 1 highlights the transformation of the market expected in the short term during the ramp-up of the LNG facilities.

Figure 1 Total annual gas consumption



The MEU considers that the AEMC has not examined the realities of the current carrying capacities for the existing gas transport arrangements and the (unlikely) potential of future investment in long haul gas transport in the southern region of the domestic gas market.

The MEU considers that a major shortcoming of the AEMC analysis is the lack of appreciation that gas available from the LNG market will be at the margin and that the existing gas transport arrangements will not permit significant movement of gas between the south and the north, or that the forecast reduction on the domestic gas market will impose limits on future investment in gas transport

1.3 An ability to access short term availability of gas

As noted above, the MEU considers that the amount of gas to and from the LNG market will, perforce be modest.

Despite this, the AEMC highlights that there is a distinct possibility for the LNG producers to suffer an incident that will prevent the export of LNG so that gas could be available to for sale in the domestic market. The MEU points out that, with the exception of the Shell/Arrow/BG export facility, both Origin and Santos (as both producers and LNG exporters) are more likely to use the gas themselves for domestic use (or sell it to another exporter) rather than place it on the open market at a discounted price. The MEU sees that this issue, whilst there may be opportunities for some, does not necessarily translate into opportunities for consumers due to the tightly held control of the upstream market.

The MEU also points out that short term availability of gas does not necessarily reflect the usage profile of gas by the majority of domestic gas users. For example:

-) Large industrial users have a consistent demand for gas and as a result tend to contract the bulk of their needs on long term bases⁶ and use the spot market for a small part of their supplies⁷. It is difficult for large industrial users to ramp up gas demand when operating at full capacity because of short term availability.
-) Small business and residential users of gas use gas based on weather impacts, so a short term availability in summer does not lead to an increase in demand and would require the direct involvement of the users' retailer as well.
-) Power generation is an option for use of short term low price gas availability but that also depends on the electricity demand at the time and the degree to which generators have locked in their forward contracts.

There is also the possibility that short term gas availability will never make it to the domestic market and be "soaked up" by other LNG exporters. The MEU does not consider that the domestic market should undergo expensive and expansive modification so that exporters can more easily trade gas between themselves - why should consumers pay for exporters to be able to increase their profits!

⁶ These long term bases commonly include a take or pay element which limits the ability to reduce gas supplies under contract to benefit from short term low cost supplies.

⁷ The MEU is aware that the large industrial users use the spot market to trade surplus gas when their operations are impacted.

1.4 The current markets already provide much of the CEC vision

While the MEU accepts that an ability to trade gas in the domestic market is an advantage, the MEU points out that the current arrangements provide this feature already, particularly the DWGM.

The AEMC posits that it has investigated two basic gas trading models that have been successfully applied in overseas markets, viz:

-) gas commodity trading hubs at specific physical points supported by a system for trading pipeline capacity
-) "virtual" trading hubs where access is available to the total pipeline system with gas traded elsewhere in the system.

The MEU recognises that these other options for gas trading are used but questions whether these other options provide a better outcome for the domestic market than what applies currently.

The AEMC comments (page 30):

"In order to develop a liquid trading market on the east coast of Australia, it will be necessary to address the challenges presented by a small number of market participants dispersed over a very large geographic area. Consequently, the Commission has developed a roadmap for market development that seeks to concentrate trading at two hubs and to facilitate access to these hubs."

The MEU agrees with the AEMC that there are few market participants and they are spread over a wide geographic area. Where the MEU disagrees with the AEMC is that there needs to be just two trading hubs. The very fact that the geographic spread is so wide highlights that the cost to move gas from one location to another adds a significant cost and this must be included in the cost of gas delivered. Further, the points of production are so few, so physically remote from each other and have such significantly different costs of production, all point to a need for an east coast Australian solution rather than trying to adjust an overseas model to fit these unique circumstances.

The MEU does not dispute that the solutions developed for Europe and the US may well suit their circumstances but those circumstances are best suited to their specific needs. For example, the US model reflects a large number of producers spread over a large geographic area. That the US has some 280 trading points reflects the reality of the large number of production points and even more points of consumption.

The proposal by the AEMC has a "virtual hub" for the southern node and a point hub for the northern node - effectively a combination of the European and US

12

approaches. Yet these options are proposed without the same levels of competition of production seen in the markets where these concepts were developed.

The AEMC provides considered detail as to how the recommended structure would operate yet fails to provide evidence that the recommended structure will provide the outcomes sought when the specific and unique features of the east coast gas supply structure are superimposed on the models proposed.

It is this lack of evidence that the MEU finds hardest to see how the changes will improve on what already exists, especially when AEMO (the operator of the DWGM) highlights considerable concerns that the entry/exit model exhibits when applied to the Victorian gas market.

The MEU also notes that the AEMC proposes that the DWGM has to change because this fits better with its view of the east coast market. That this is proposed in direct opposition to the majority of respondents to the DWGM discussion paper highlights that the AEMC has, decided that the DWGM has to change even if this does not deliver a better outcome for Victorian consumers. The Victorian government requested the AEMC review the operation of the DWGM to identify if there were improvements which will benefit Victorian consumers. Despite this, the AEMC has used the opportunity to make a change to the DWGM which benefits other regions to the detriment of Victorian consumers.

1.5 Conclusion

The MEU's long-stated position is that the primary challenges facing the gas market in the east coast do not relate to the design of the various markets. They arise from upstream issues, many of which are the subject of the ACCC's review noted above. The key upstream issues include:

- The lack of competition in the upstream production area, including the continued joint marketing of gas by various producers and access to prospective gas production tenements
- The significant level of concentrated monopoly ownership on the gas transmission pipelines across the east coast;
- Restrictions on access to firm pipeline capacity outside Victoria, including capacity hoarding by incumbent shippers and retailers;
- The progressive removal of regulatory coverage from most transmission pipelines outside Victoria which exacerbates the issues around access to capacity for new entrants under competitive terms and conditions;
- The lack of commitment by state governments to developing new sources of gas, particularly in NSW and Victoria despite numerous reviews.

It is these factors as much as, or more than, specific market designs that are the cause of the lack of transparency in gas and transportation prices and contract

13

terms, the relatively low levels of gas trading and liquidity, the limited competition in some markets and the absence of a thriving financial market.

In its consultation papers, the AEMC proposed a number of alternatives none of which the AEMC has settled on other than they are different to the current arrangements. There was little consistency of support for any of the three proposals and a trend for continuing the current arrangements. Despite this, the AEMC has concluded change has to occur based on views of what has been implemented elsewhere where the conditions are a far cry from what applies on the east coast of Australia. Based on this the AEMC has proposed a massive change based on the assumptions that the overlays will generate an outcome which will improve the east coast gas market. What concerns the MEU is that the AEMC recommendations are based on supposition and do not reflect the realities of the markets that we have.

The MEU points out that the electricity market in Australia is much more developed and has greater competition yet despite that, consumers are still seeing many instances where the lack of competition in critical areas of the market which delivers poor outcomes that are a direct result of the structure that we have inherited.

The AEMC is fully aware that the MEU proposed changes to the electricity market that were needed to address structural imperfections to improve outcomes for consumers yet the AEMC decided that the electricity market is sufficiently robust so that changes are not needed. In contrast, consumers see that the current gas markets are robust yet the AEMC is determined to make changes and impose significant costs on consumers on the basis that it considers solutions used elsewhere might, hopefully, deliver a market structure which might provide the basis for better outcomes. The MEU sees that this is inconsistent.

The following chapters address each of the three elements of the draft report - the provision of information, the wider east coast gas market and the DWGM.

2. The provision of information

The MEU has reviewed the draft report for the changes to the provision of information. The MEU considers that the changes proposed are all valuable and will add to providing a more efficient gas market.

The MEU has one major concern and that involved the release of information regarding consumption by larger users being made public. The MEU is very concerned that while the information on usage by large consumers can assist in providing a more efficient gas market, it will have profound effects on markets in which the larger users operate.

The MEU notes that the AEMC does recognise that the release of such information could impact large users but is of the view that this can be overcome by delays in reporting and by some aggregation. The MEU begs to differ.

To most large users of gas, the amount of gas used each day can provide competitors in the users' own markets with useful information about production and even information as to how efficient the large user is in producing its products. Such information can be extremely damaging to the large user in its competition with others in the same market. This issue has been widely recognised throughout the gas markets and as a result, there has been a determination to ensure that such information is not divulged except in a form which through aggregation of information sufficiently "depersonalises" the information to prevent it being useful to the large users' competitors. The MEU also points out that release of gas usage information (even if some time after the use of the gas) is still valuable to competitors as typically the products produced by the large end user are not delivered to their markets until some time after the gas was used.

For example, if a particular gas user signalled to the gas market that its gas usage was down for a period of time, the impact of any shortage of its product would not be seen for perhaps weeks later. That a competitor is aware that there could be a shortage of product in the future is likely because of a lower (or no) gas usage) by the end user; such an outcome would put the larger user at a significant competitive disadvantage in its own market. The MEU notes that AEMC draws an analogy of the gas fired generator and comments that a delay in notification could overcome the competition issue in the electricity market. As noted, the case for many industrial large users of gas is that the impacts on their markets are usually seen much later than when the incident occurs. The proposed delay of release of information by 5 days as suggested by the AEMC would not provide protection for large industrial users but perhaps offers electricity generators some protection.

The AEMC has indicated that greater investigation is required into the issue of provision of information by large gas users and the form of its release. The MEU comments that it sees that the AEMC must ensure that information that is sensitive to large users is kept confidential either through sufficient aggregation of the information to enable it to be "depersonalised" so that the large users' competitors

cannot deduce any information about what might occur in other markets. Where that information cannot be aggregated, then the information must remain confidential and not made public, even if its release might improve efficiency in the gas market. The MEU is very concerned that marginal efficiency improvements in the gas market will lead to significant competitive disadvantage in other markets.

The MEU also points out that a large proportion of large gas users are either directly connected to or so close in the distribution network to the transmission system, that "depersonalisation" of the information will be very difficult as the transmission networks were most commonly built to service these large users.

The AEMC suggests that if such large user usage information is already being provided to a transmission pipeline, then this obligation to report is transferred to the pipeline operator. The MEU points out that many large users still acquire some or all of their gas through retail contracts and suggests that any reporting requirements should be transferred to their retailer rather than direct reporting.

The AEMC implies that a reduction in the threshold for reporting from 20 TJ/d to 10 TJ/d will improve the efficiency of the market operations. What is absent from the discussion by AEMC is what will be the impact of this reduction. For example, such questions that have not been addressed include:

-) how many more large users will be required to report
-) what will be the total cost impact of this increased reporting, including the costs to the large users, their retailers, the pipeliners and AEMO,
-) what will the tangible (as distinct to theoretical) improvement in the market operations
-) why 10TJ/d⁸ rather than 15 TJ/d or 5 TJ/d
-) at what point does the cost from lowering the threshold exceed the benefit of lowering it

The MEU considers that the AEMC must develop a better solution to 'depersonalising' information to protect large users. While the MEU has concerns which focus more on the impacts of the new reporting of gas consumption will have in other markets than the gas market, it is also concerned about the costs and impositions that the reduction of the reporting threshold will bring.

⁸ Other than this is the threshold used in WA

3. The East coast gas market changes

3.1 Wholesale gas trading markets

While the MEU can see what the AEMC is attempting do with its concepts of a supply hub at Wallumbilla (and perhaps another at Moomba) and a virtual hub in the South based on the DTS in Victoria, the MEU is not convinced that the proposal either recognises that the east coast market has so few independent points of production or that the transport from each of the points of production is only by specific pipelines. Effectively, as observed by the MEU in section 1, the east coast market is an oligopoly of production and there is no competition in transport from each of these points.

The MEU notes that the models on which the two hubs are based (Europe and North America) have significantly greater levels of competition in production and multiple means to deliver the gas from production to end user. In contrast, the east coast gas market has limited competition and this limited competition means that a move in pricing or by supply by any one participant (producer of pipeline) will have an immediate and significant effect on the market and so increase the risk for those trading in the secondary market.

It should be noted that the MEU has long been a supporter of a supply hub at Wallumbilla and the AEMC proposal reinforces this point. Where the MEU and AEMC differ is the long term proposal to reduce the STTMs to just balancing points. The MEU considers the STTMs provide a useful purpose in setting the price for gas at points of significant consumption and that the phasing out of this price clarity at these points of consumption will be a loss for consumers at those points. The MEU notes that the AEMC proposal sees the phasing out of the STTMs will be carried out at a later point in time and there is no firm commitment at this time for this to occur.

The AEMC comments that the addition of a supply hub at Moomba might lead to a dilution of trading at Wallumbilla. The MEU notes the AEMC observation that there will be limited market participants and these need to concentrate their activities at one location in order to maximise the secondary trading opportunities. The MEU sees that this is a risk. Equally, the MEU sees that trading at the points of consumption (ie the STTMs) obviates this risk of dilution as the number of parties at each STTM will remain relatively constant especially at the Adelaide and Sydney hubs.

In addition to the physical constraints limiting the Wallumbilla supply hub to readily provide a single point of exchange, the AEMC also raises concerns about the potential for the Wallumbilla supply hub to exhibit a lack of certainty about trades being completed in the absence of a market based balancing mechanism.

In contrast to the Wallumbilla supply hub, both the Adelaide and Sydney STTMs do have a clear mechanism for balancing supply, and for the costs of out of

balance participants to be charged appropriately for their out of balance through the market operator service (MOS).

The AEMC is critical of the STTMs because

- J They are located at the end of long transmission pipelines which prevents an ability to trade gas at one STTM to another location. The AEMC seems to imply that a supply hub is not so constrained. The MEU points out that accessing gas from either of the northern or southern hubs of its preferred design is also subject to exactly the same problem - the gas used in Sydney and Adelaide still has to travel significant distances from the two new hubs and so the delivery of gas from one to the other is still beset by transport costs and potential congestion even though the gas might be available at (say) Wallumbilla.
- J Some stakeholders have asserted the costs of operating the STTMs are disproportionate administratively and those who operate within their bilateral trades incur a share of the costs. The MEU is unaware of any gas end user that consistently operates within its bilateral trades as all gas end users are subject to impacts which modify their gas usage within a gas day at some point in time. The most common cause of a gas day imbalance is an unscheduled production issue causing a reduced need for gas. The fact that both Sydney and Adelaide had relatively non-transparent and expensive gas balancing arrangements prior to the introduction of the STTMs attests to this need.
- J Those operating across jurisdictions see different arrangements to the DWGM. The MEU finds it difficult to accept that the existing arrangements cannot be normalised to implement a common gas time (just as electricity trading is normalised) to enable swaps between the DWGM and STTMs which would enable an increase in secondary trading. The MEU points out that swaps and other trades cannot be carried out across the proposed structure in the absence of a clear cost for transport between the different points of demand. To this end, the AEMC proposes a pipeline capacity trading mechanism and the MEU considers this would enable enhancements of trades between the existing markets if there was a common time basis.

The AEMC advises that AEMO has developed a simplified model for the STTMs based on supply from trading hubs and the cost of transport and this would replace the ex ante and ex post pricing mechanisms with a trade schedule. The MEU questions whether this really does achieve an overall lower cost because there is now a need to have an ex ante and ex post cost of gas at each of the hubs which would reflect the costs of balancing at the hubs.

The AEMC produces an example (Box 5.6) which describes how a large user would access gas at Adelaide. The MEU accepts that the process would work and could overlay the same user having a bilateral arrangement for the supply of the bulk of its gas and use the two hubs to trade at the margins, and still be able to use the balancing service at Adelaide to adjust its actual position on the day.

18

Currently, large users are moving towards a greater number of trades on the STTM as they become more comfortable with the processes and risks involved. So the question then becomes why is the large user better off under the proposed changed compared to the existing arrangements?

There is a developing secondary market in the STTMs so the vision of the CEC is served by the enhancements of the existing arrangements rather than a wholesale change which will impose considerable costs.

The question is then where is the benefit to offset the costs only recently incurred in establishing the STTMs? To offset the perceived detriments of the STTMs, the AEMC asserts that the major benefit to consumers is for having a supply hub which, by having more trades and therefore being capable of more liquidity, will reflect a more accurate view of the base cost of gas,

This leads to the next question as to why the price for gas at a supply hub will be more reflective of the "real" price for gas than the price seen at a demand hub. Throughout the AEMC draft report, it is highlighted that bilateral trading of gas will remain the dominant form of gas sales, although there will be trading at the margins, as now occurs.

The MEU points out that the price for gas in the southern hub will be dominated (as now) by the price set by and availability of gas ESSO/BHP at Longford as that production point is by far the largest in the southern region. How will a trading mechanism such as proposed overcome this dominance when it is recognised that despite there being gas available from other sources in the Victorian region, Longford has to be providing gas just to meet demand in the Victorian market. Effectively Longford sets the price for gas through its bilateral trades that all Victorian consumers have to enter into or face the possibility of not having sufficient gas. This is the reality of the southern hub.

In the northern hub, it is the price set by Santos at Moomba that decides the price for gas in the Adelaide and Sydney hubs although Longford has sufficient capacity that it can influence the price ex Moomba by entering the Adelaide market but more so the Sydney market. As noted in section 1.2, the impact of the LNG market on the domestic market will be mainly at the margin as the amounts of gas made available from the LNG market will be modest in terms of the LNG market but should have an impact on the domestic market when there is a surplus or shortage in the LNG market needs.

Other than gas to Brisbane and a few gas fired generators, any gas shortfall or surplus to the LNG plant needs will have to flow on the SWQ pipeline which has a capacity of 340 TJ which is much the same capacity of the Moomba production facility. In comparative terms Longford has three times the capacity of Moomba

As noted in section 1.2, with a declining market for gas domestically, it is most unlikely that there will be significant investment in the long haul gas transport routes due to the uncertainty of getting an adequate return on the investment.

The MEU finds it increasingly difficult to see how the proposed changes to the current arrangements will deliver a benefit to consumers when considering the realities on which the domestic market is based. What is most concerning is that there is no cost benefit analysis to identify the value of the changes proposed by the AEMC when considering that AEMO has forecast a fall in domestic gas demand

3.2 The cost of the proposed changes

The MEU notes that the entire approach by the AEMC has been based on theory of gas markets and what might eventuate if various changes are implemented. There is no certainty that what is proposed will deliver the outcomes propounded and the MEU has already provided its views that the structure of production for the domestic market is one of limited competition and therefore this will have a major impact on what eventually occurs.

A second major concern is that the changes proposed will not only require significant investment to implement, ranging from the costs to develop the detailed designs of the markets through to implementation of the new market design with all of the associated costs for new hardware and software needed to make the markets work. There will be further costs for the participants to learn about the new systems and for them to implement the necessary changes to enable them to operate in the new market structure.

While the benefits of the new approach have been explained in some detail, these have been only revealed in qualitative terms and no attempt has been made to provide any quantification of the benefits from a consumer's viewpoint.

So what has been provided in the AEMC draft report is a view that its proposals will deliver better outcomes but there is no attempt to identify whether the value of the benefits are offset by the costs to make the changes. In this regard, the consumers and a number of supply side entities have:

-) posited that the benefits of the changes proposed might not warrant the costs involved
-) implied the disruption to the markets while the changes are in process might impose more hardship than the benefits of the likely rewards
-) stated a view that the benefits seen by the AEMC might not be delivered to the extent that the AEMC implies
-) commented that the current arrangements are not as detrimental to consumers as implied by the AEMC.

The MEU points out that the changes made to the energy markets over the past two decades have exhibited outcomes that have not delivered to the extent expected and have cost more than expected. For example, the electricity market was seen in the late 1990s as providing an outcome that would provide lower cost electricity supplies to all in the NEM. Since then, the price of electricity has moved

from being one of the more competitive in the world to one that exhibits much higher costs - the ranking of the Australian electricity pricing has changed to the detriment of consumers.

Since its implementation, there have been three major reviews of the electricity market (the Parer review, the Expert Panel review on energy access, and the Energy Reform Implementation Group review) and many other minor reviews and rule changes in order to deliver on the promise of better and lower cost electricity supplies. Two overriding issues that have beset the electricity market is the lack of competition in electricity generation and the cost of monopoly services to transport electricity to where it is needed and these were have been continually addressed since NEM inception.

The costs to consumers of the reviews and the changes that resulted from these reviews have been massive as has the increase in the cost of electricity to consumers.

The MEU is very concerned that this new proposal by the AEMC is another attempt to put a "fix" on a market that cannot be "fixed" because of the inherent physical structure of the market we have - with its concentrated ownership of production and of gas transport.

The MEU considers that a lack of assessment of the costs of any change and the value to consumers anticipated from the proposed changes has resulted in uni-dimensional view of the current markets and the need for change.

In section 4, the MEU discusses this issue further in relation to the proposed changes for the DWGM

3.2 Improvements to the pipeline capacity trading

In its response to the discussion papers, the MEU noted that it has concerns about the ability of pipeline owners and those holding capacity to:

-) Use their monopoly power to set excessive prices
-) Use their "ownership" of capacity to prevent competition (hoarding)
-) To prevent access through allocation of capacity

The AEMC has elected not to address these issues as they consider them to be within the purview of the ACCC review of the east coast gas market. However, regarding these issues the MEU notes that the AEMC has received advice from Incenta and Castalia that these reports consider the issues raised by MEU warrant a change to the market to overcome the issues raised by the MEU. The AEMC has advised that it will "continue to work with the ACCC" as the ACCC enquiry focuses on pipeline transport issues. The MEU hopes that such activity will lead to the resolving the concerns that the MEU has raised as a result of first hand experience of the problems identified

Despite the failure of the AEMC to address the very real concerns raised by the MEU with regard to accessing pipeline capacity, the MEU recognises that the AEMC considers there is a need to address access to capacity that is available for use but for which there is no clear advice that such "as available" capacity can be accessed and under what provisions.

The AEMC comments that it's proposed reforms:

"...should facilitate the more dynamic trading of capacity and a more liquid wholesale gas market by:

-) reducing search and transaction costs involved in trades;
-) enabling shippers to obtain competitively priced un-nominated capacity;
-) improving the incentives for shippers to trade capacity;
-) reducing actual or perceived discriminatory access to capacity; and
-) improving the information on which decisions in the sector are made.

The MEU is supportive of such aims and considers that the proposals by the AEMC should help lead to these outcomes. The following comments and questions by the MEU are more of a guide to assist improving the proposals rather than criticisms as such:

1. Auctioning contracted but un-nominated capacity. What prevents a capacity holder from nominating all of its capacity but then not using it on the day? The capacity holder has already paid for the capacity so it does not pay more for the capacity but by nominating and then not using the capacity prevents the capacity being auctioned.
2. As noted by the AEMC, trading platforms need to be consistent (standardised products) so that auctions for capacity on different pipelines as each pipeline provides transportation from a specific production point. For example, supply to a Sydney user can access gas from the north via MSP and from the south via EGP. From an end user view point, the user is seeking a price based on the price of gas at the point of production and the cost of transport. If the two pipelines have inconsistencies in the auction processes (eg different terms of different timings) then comparisons cannot be made from an end user perspective.

4. The DWGM proposed changes

The AEMC considers that its review of the DWGM sits within the overall Gas Market Vision and objectives of the Council of Australian Government's Energy Council (COAG Energy Council) for the east coast gas market. Specifically, the COAG Energy Councils is seeking to facilitate:⁹

- liquid and competitive wholesale spot and forward markets;
- access to markets through more harmonised pipeline capacity contracting arrangements;
- harmonised market interfaces – facilitating trading between regions; and
- development pathways to improve interconnectivity between supply and demand centres.

The Victorian Government's principal objectives in initiating its review were to ensure that the Victorian gas market arrangements adequately promoted:

- competition in the gas market;
- risk management by market participants;
- appropriate investment signals and incentives.

While the MEU considers that the AEMC's proposals should reflect the concerns of stakeholders, more importantly, the MEU considers that the views and concerns of MEU members who are large consumers and direct market participants.

The MEU recognises that the AEMC's task is, therefore, very complex. It is also of vital interest to our members who are significant gas users in Victoria and elsewhere.

Necessarily, the MEU's response to the Draft Paper does not cover all the issues related to the AEMC's proposal. Further, the AEMC acknowledges that there is much detailed work to be undertaken both as part of its Final Determination and following that Final Determination to implement any proposed changes.

The MEU therefore places a very high priority on continuing a dialogue with the AEMC on these matters that are so important to our members and to the community of Victoria. This is particularly so given that the major changes in the AEMC's overall recommendations for east coast gas market development concern the Victorian gas market.

⁹ Adapted from the COAG Energy Council Gas Vision statement and from presentation by Mark Feather, Executive Director, Energy Sector Development Brand, Victorian Department of Economic Development

4.1 The AEMC draft recommendation in context

The MEU considers that the AEMC's task, in developing recommendations to COAG Energy Council and the Victorian Government, is to address two distinct issues:

- The effectiveness of the DWGM in delivering a safe, secure and reliable supply of gas to Victorian consumers including encouragement of new gas production, pipeline investment and retail competition in Victoria;
- Review of the DWGM in the context of the overall east coast gas vision and objectives.

While a common driver in both aspects of the study is the challenge of the rapid changes in the east coast gas market arising from the Queensland LNG projects, the MEU considers that a careful balance must be established between preserving the interests of Victorian gas consumers and designing a new more integrated east coast gas market.

Despite this, the MEU considers that the first outcome, securing a competitive and reliable supply to Victorian consumers may well be achieved through a process of incremental change to the DWGM. The MEU considered this was the most appropriate action for the DWGM and that it would come at a relatively low cost to Victorian consumers and could be carefully staged over time to meet observed changes in the Victorian market.

The AEMC, however clearly considers that its primary focus is on improving the east coast gas market to the detriment of the main aspect that the Victorian government was seeking. This concern is exacerbated by the AEMC's statement that:¹⁰

"It is therefore important that the market design and transportation arrangements in Victoria do not restrict gas flowing to where it is valued the greatest on the east coast."

Major businesses, including MEU members, have invested in Victoria based in part on their confidence in the cost and security of Victorian gas supplies. The AEMC's statement above suggests that these benefits should have a lesser priority in the future than the interests of LNG producers in Queensland, producers who had established their LNG plants on the claim that there were sufficient supplies in the north to support their investments.

It is not at all clear to consumers in Victoria why the AEMC should assume that the LNG export market is a more valuable use of gas than the manufacturing and processing industries in Victoria. Feedback from MEU members has also

¹⁰ AEMC, 2015, *Review of the Victorian Declared Wholesale Gas Market*, Draft Report, 4 December 2015, Sydney, p. 12.

highlighted the very real concerns of Victoria's largest gas consumers with the potential risks and costs of such a significant change to the Victorian gas market.

Specifically, in its response to the consultation paper the MEU raised a concern that changes to the DWGM are being driven by the LNG market requirements and other east coast market issues rather than the needs of the DWGM and the Victorian consumers that depend on it. The AEMC has responded as follows:¹¹

"In conducting this review, the overarching objective guiding the Commission is the NGO. Overall, the outcomes of this would be expected to promote efficiency of the gas market for the long term benefit of consumers of natural gas services."

This statement can be read to imply that the AEMC is willing to place additional costs on Victorian gas consumers if it determines that the overall gas market will be more efficient. Leaving aside the question of how this overall efficiency will be determined, it is still not clear why businesses and households in Victoria should, in effect, fund changes to make it easier for the LNG producers in Queensland.

The MEU considers the AEMC has not adequately addressed the potential issues of the entry-exit model it proposes for the Victorian gas market considering the unique conditions of the Victorian gas network and Victorian demand and supply.

In this regard, the MEU points out that the DWGM was established in 1999 after considering other more traditional models such as the US point-to-point and the UK entry-exit models. The decision was made that neither of these two models were "fit for purpose" in the Victorian situation of (inter alia) multiple entry points, a meshed network, significant intra day swings in demand and limited line pack.

The MEU, therefore, considers that the AEMC has formed its recommendation without adequately considering the costs, risks and implementation issues for Victorian consumers arising from such a significant change to the fundamental operation of the DWGM and the associated operation of the Victorian Declared Transmission System (DTS).

Neither has the AEMC established that the current DWGM/DTS arrangements are failing the gas consumers in Victoria now, or will do so in the future. The MEU notes, for instance, the current excess capacity in the DTS and its ability to handle increasing flows to and from the contract carriage markets in NSW and South Australia.

The MEU recognises that there are enhancements to the DWGM that need to be implemented (indeed this is the focus of the Victorian government). The MEU notes here that the DWGM has already adapted to change and other challenges. There is no reason to suppose it cannot do so in the future without the need to fundamentally rewrite the market arrangements and this is what the MEU proposed in its response to the consultation paper and this could be progressively

¹¹ Ibid, p. 73.

adopted as part of the DWGM's future development path and subject to a positive cost-benefit analysis and consultation with stakeholders.

Further, the MEU is also very concerned that the AEMC is proceeding on this single track of significant change from the DWGM model to the "Entry-Exit model", in the absence of the ACCC's assessment of the upstream issues and that the AEMC will focus its further research on only one of the five options set out in the Discussion Paper; namely the Southern Hub with entry-exit ("entry-exit model"). The MEU considers this decision by the AEMC's is premature, particularly considering the significant costs and risks associated with such a change.

In section 1 above, the MEU points out that it is upstream issues that constrain competition downstream and that a change to an "entry/exit" model will not change this reality. What is equally important is that the DWGM has evolved to provide better access and more price transparency for gas and capacity costs than other east coast gas markets. For instance, it is well recognised that the Victorian market has the most competitive wholesale market (basin on basin competition) and retail markets with a growing number of active gas retailers and direct connect customers managing their own gas requirements. Nor has there been a lack of efficient investment in the DTS or investment in interconnections to other pipelines.

The MEU notes the arguments that the DWGM spot market prices do not adequately reflect the value of gas and that there are unhedgeable risks such as ancillary/uplift payments that are not captured in the market price. The MEU considers that the spot market price in the DWGM is reasonably reflective of the different values of gas at different times of the day and of the year and that assertions about the level of "unhedgeable" risks may be overstated since the introduction of intra-day trading. The MEU points out that "unhedgeable risk" will exist in the entry/exit model too as it will never be possible to accurately allocate the cost of balancing gas on a causer pays basis. This is a non-trivial issue, particularly when it is realised that the complexity and interactions in the Victorian meshed network will inevitably lead to complexities and costs in balancing the network.

The MEU considers that the AEMC has not given sufficient attention to the physical characteristics of the Victorian network and the underlying characteristics of supply and demand in the Victorian market. We would highlight that these matters were central to the initial design of the DWGM¹², along with the desire to promote retail competition. The MEU concerns are echoed by AEMO in its submission highlighting the importance of these unique characteristics of the Victorian network must be central considerations but not adequately addressed by the AEMC.¹³

¹² We refer the AEMC to the MEU's previous submission and our analysis of the recent paper by Larry Ruff, one of the original designers of the Victorian DWGM. In this paper, Ruff points to the difficulty of overlaying an Entry-Exit model on the Victorian gas network.

¹³ See for instance, AEMO, "Australian Energy Market Commission Victorian Declared Wholesale Gas Market (DWGM) Discussion Paper", 12 October 2015.

The MEU does understand that the AEMC has not completed its detailed investigations of the entry-exit model but highlights major issues that must be addressed such as:

-) Setting the overall regulated revenue and pricing services
-) Auctioning capacity despite that existing consumers have capacity rights that they have funded for decades
-) The setting capacity charges based on LRMC rather than the current variable charges will make tariff setting complex, needing tracking of flows, resulting in significant year-on-year changes
-) The allocation of residual sunk costs into tariffs

The MEU is not convinced that the entry/exit model is in the best interests of Victorian consumers and it will introduce significant costs and will have major impacts on individual consumers as they see the costs for transport change significantly. The pursuit of a totally integrated east coast gas model cannot be at the expense and risk of one sector, the Victorian gas consumers.

The MEU sees no compelling reason for the AEMC to select only the one option for further detailed assessment. If it does proceed down a single path, the AEMC will do so on what the MEU consider is an unjustified, and risky, presumption that the entry-exit model provides the best overall cost benefit outcome. This view is what the MEU proposed in its response to the AEMC consultation paper and the MEU provided (along with many others) that this is what the AEMC should recommend.

4.2 The AEMC's Draft Recommendations

The AEMC states that its draft recommendations to change the DWGM and associated market carriage arrangements in Victoria form part of "an integrated package of reforms to Australia's east coast gas markets"¹⁴.

In terms of the proposed changes to the DWGM, the AEMC is focussed on two key areas:¹⁵

- *Trading gas at the Southern Hub:* the DWGM is to be transitioned to a Southern Hub model where trading would occur on a voluntary, continuous basis with the hub operator playing only a residual role in balancing. A key feature of the Southern Hub would be the introduction of exchange trading, similar to that in place at Wallumbilla currently; and
- *Access to transportation capacity at the Southern Hub:* the market carriage model and associated limited transportation rights mechanisms would be

¹⁴ Ibid, p. i.

¹⁵ Ibid, p. i – ii.

transitioned to an entry-exit system for capacity allocation that would allow network users to book firm transmission rights at each entry and exit point to the Declared Transmission System (DTS).

However, there are many issues that the AEMC acknowledges still need to be resolved in its preferred entry-exit model. The MEU is concerned that none of these are small issues and all have significant ramifications for Victorian consumers. They include:

- the efficient co-ordination between the entry-exit system in Victoria and the contract carriage outside of Victoria;¹⁶
- the risk that the long-term reservation of system capacity (as occurs in the entry-exit model) will enable existing shippers to refuse to on-sell unused capacity;¹⁷
- the risk that adequate investment will not occur to address congestion within the Victorian network (as opposed to the entry and exit points);
- the challenge of meeting the intra-day supply/demand and security requirements in the Victorian physical market;
- pricing of entry and exit charges to recover the long run marginal costs (LRMC) of expansion and the existing investment in the Victorian PTS;
- transitioning to the new model, including assigning value to existing AMDQ and AMDQ cc rights.

4.3 Concerns with the AEM approach

The MEU accepts that the DWGM has to change over time in order to adapt to changing circumstances. The MEU also notes that the AEMC has settled on only one option for addressing change in the Victorian gas market yet the proposal makes no attempt to identify if this option is the most cost effective compared to other options. In fact, the AEMC makes no attempt to assess the cost impacts on Victorian consumers of the proposal at all. All the AEMC does is to posit that its preferred solution is the only solution worthy of further investigation and does so on the basis of its analysis while ignoring the concepts investigated for the DWGM previously; the MEU also notes that many stakeholders did not support the AEMC preferred option in the discussion paper phase of the AEMC review.

The MEU suggests that at a minimum, the AEMC should also examine the costs and benefits of the least cost incremental change alternative as a counterpoint to the significant changes involved in the establishment of Southern Hub/entry-exit model for Victoria. Rather than carry out cost/benefit analyses, the AEMC has pre-emptively decided a major change is needed.

The AEMC proposal represents the most significant change to the Victorian gas market since 1999. Moreover, it would be the most significant change to the gas

¹⁶ Ibid, p. 67.

¹⁷ Ibid, p 69.

market arrangements on the east coast. Given that the existing Victorian DWGM/PTS is widely recognised as working reasonably well, supporting investment and promoting wholesale and retail competition. The AEMC must demonstrate more than it has in this Draft Report, that the entry-exit model should be the sole focus of future detailed design and cost analysis.

4.4 The Victorian DWGM has effectively adapted to change when needed

As indicated above, the MEU supports a constructive and systematic approach to the reform of the DWGM, including a number of the incremental reforms detailed in Package A of the consultation paper.

The MEU notes that the DWGM has continuously evolved since its inception to address issues of concern to stakeholders and this has been achieved in a systematic and consultative way. Examples include the adoption of intra-day scheduling and trading and the enhancements to the ancillary payment algorithms following the high level of ancillary payments incurred in winter 2007. The MEU's experience to date, therefore, suggests that the Victorian DWGM market has reasonably effective processes in place to undertake such reforms and to do so following consultations with all key stakeholders.

However, we recognise that it is essential for the Victorian market to be able to adapt quite quickly to the new challenges such as may arise as a result of the LNG operations in Queensland and other changes in supply and demand. Thus, there is scope for:

-) reform not only of the DWGM but of the DWGM rule change process
-) ensuring that the economic regulatory regime administered by the AER can adequately address the need for new investment in the DTS¹⁸

However, these are not reasons to abandon a relatively successful gas market model that is uniquely adapted to the Victorian supply/demand and current network infrastructure requirements and .

The MEU notes that the entry-exit model proposed will require extensive modifications of, inter alia, the National Gas Law, the NGR, AEMO processes and procedures, metrology procedures, existing contractual arrangements and so on. Each of these must not only be subject to comprehensive consultation with all stakeholders, but will incur significant expense that must for more than offset by the value to consumers by the change proposed. .

¹⁸ The MEU is more cautious about the need for such a change in the NGR

4.3 Issues not addressed in the assessment of the DWGM

The MEU points out that there is significant inconsistency between what is provided in the draft report and other assessments of the DWGM

4.3.1 There is already significant competition in the DWGM

In the Draft DWGM Report the AEMC states in several places that the most stakeholders are satisfied with the level of retail competition. This then raises the question as to why change is needed if there is a general view that the market is working.

In its 2015 review of the effectiveness of retail competition the AEMC concluded with respect to the Victorian gas market that:¹⁹

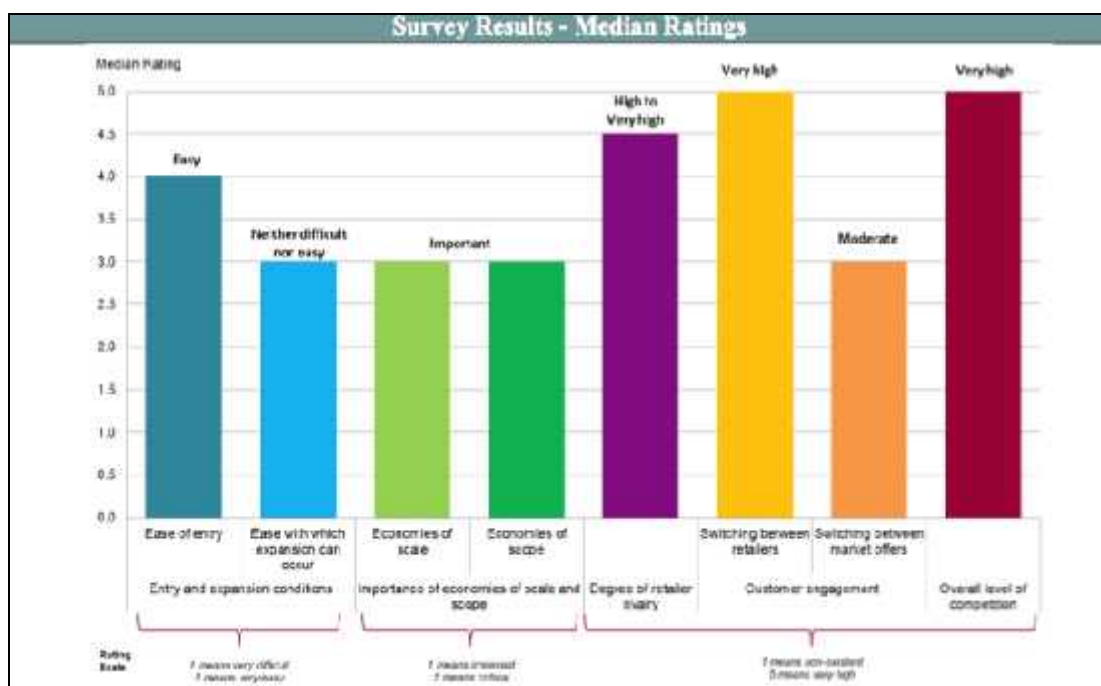
"Competition [in Victoria] is also effective in the gas retail market with low market concentration and high customer density. Two new retail brands entered the market in 2015, Click Energy and Momentum Energy, bringing the total number of retail brands to ten. Switching data suggests customers are actively shopping around between the retailers available."

Victoria was the only gas retail market where competition was fully affective as assessed by the AEMC. Even in South Australia, the AEMC considered that: "competition is relatively less effective".²⁰

The draft report fails to demonstrate how its proposed change would further improve on competition that is already seen as exemplary and works. Retailers are reported in the same 2015 report on Victorian gas competition that it was "easy" to enter the Victorian gas market. The following chart shows the views of the retailers across a number of other measures

¹⁹ AEMC, *2015 Retail Competition Review, Final Report*, AEMC 30 June 2015, Sydney, p ix.

²⁰ *Ibid*, p x.



Source: K Lowe Consulting, *AEMC 2015 Retail Competition Review: Retailer Surveys*, Report for the AEMC, May 2015, Table 8.5, p. 82.

Therefore, the MEU considers that the critical questions that the AEMC must address are whether the Victorian gas market has sufficient competition or whether this needs to be increased? The MEU asks in what way would the entry-exit model enhance competition over the current approach, noting the risk of capacity hoarding and related new entrant exposure to capacity purchasing risk inherent in the entry/exit model?

It is clear the DWGM as currently constructed has largely delivered on the promise of competition and ease of market entry for new shippers and retailers and further enhancing competition is hardly a reason for introducing significant changes in the market structure, especially when the entry/exit model is likely to concentrate more power over pipeline capacity in the hands of the DTS owner (APA) and the established shippers/retailers than has occurred under the current arrangements.

In contrast to the AEMC, the MEU has significant concerns with the impact of the AEMC's recommended entry-exit model on the maintenance and further development of competition in Victoria both upstream and downstream.

In the first instance, the AEMC has acknowledged, but not yet addressed, is the issue of capacity hoarding for those who hold firm capacity rights at the entry and exit points on the system.²¹ The risk of hoarding capacity rights is real and affects the level of competition both upstream and downstream. It has, therefore, led to the development of complex and relatively highly

²¹ AEMC 2015, *Review of the Victorian Declared Wholesale Gas Market*, Draft Report, 4 December 2015, Sydney, p. 39-40.

interventionist capacity release mechanisms in the entry-exit models in Europe.

While the AEMC correctly notes that there is less risk under an entry-exit model, as opposed to a system of point-to-point rights, because it is easier to trade these rights²² however in the DWGM this is not an issue being based on a mechanism where the capacity is held by consumers as AMDQ and this, together with AMDQcc, provides financial protection to shippers and retailers. A new entrant shipper, retailer or direct customer does not have to separately (and often with great difficulty) negotiate with the pipeline owner for access and incur the risks of stranded capacity costs or insufficient firm capacity access.

The MEU is, therefore, not convinced therefore that the AEMC's entry-exit model will encourage additional competition compared to the current market mechanisms.

The MEU notes that the current model where capacity "rights" (AMDQ) have been allocated to the customers rather than to the shipper/retailer, has enabled large customers in particular, to freely negotiate with different gas suppliers without the constraint and uncertainty of a back-to-back negotiation by the prospective supplier for capacity on the network.

It is clear that the current arrangements have provided considerable competition.

4.3.2 Commercial Risks in the Victorian DWGM

The AEMC, while acknowledging that competition in the Victorian gas market is well developed (see above), also points to the unhedgeable market risks. The AEMC (amongst others) claim that these risks deter new entrants from entering the Victorian wholesale market.

Before discussing the commercial risks in the Victorian market it is useful to reiterate that the structure of the DWGM means that the Victorian shippers, retailers and direct consumers do not face the risk of purchasing capacity on the DTS that does not match their actual demand. For example, a new entrant retailer does not have to negotiate a fixed capacity contract with the owner of the DTS. Therefore they are not exposed to the risk of paying for capacity that is in excess of their requirements. Nor does the new entrant face the risk of non-delivery (if it only has non-firm access) or imbalance payments on the DTS in the absence of a constraint on the network. This significantly reduces risk and enhances competition

²² Although the extent to which it is easier, is debateable

However, under the entry-exit model the new retailer or shipper will need to negotiate for firm capacity rights and will face potentially significant pipeline imbalance payments or loss on trade in capacity rights, so even under the proposed change, the risk still exists of imbalance payments which are also unhedgeable.

Beyond the issues summarised above, the assessment of commercial risk in the Victorian gas market centres around two issues; the commodity price risk as expressed in the "out of balance" volume charges based on the spot price in the DWGM; and the various ancillary/uplift payments when there is a constraint on the network.

New entrants and direct customers have a variety of ways of managing "out of balance" volume risks in the DWGM net market which acts as a strong incentive for accurate forecasting of demand. There are also a variety of off-market physical or financial hedging options that can be made with third parties. In any case, all gas markets including an entry-exit model will have some form of penalty for users who do not accurately forecast their supply or demand (at each of the entry or exit points in the case of the entry-exit model).

The major concern with the DWGM appears to be with the risk of ancillary charges which are not part of the "on-market" spot price and are therefore seen to be unhedgeable. Nevertheless, a new entrant has some ability to protect themselves from these charges. For instance, the new entrant has access to the customer allocated AMDQ for at least some of their load. Direct customers have access to their own AMDQ allowance. Additional AMDQ credits can be purchased at auction when available, as can storage capacity in Iona and, on occasions, at the LNG plant in Dandenong. All these will reduce exposure to ancillary charges.

In its response to the AEMC's Stage 2 DWGM Discussion paper the MEU highlighted that the total ancillary payments had greatly reduced since the introduction of intraday trading and the improvements in the AEMO's forecasting capabilities.²³ In the Draft DWGM Report, the AEMC responded to the MEU observations as follows:²⁴

"While ancillary payments have been low (or non-existent) in recent years this may not necessarily be the case going forward. For example, while APA has nearly trebled the capacity of the Victoria – New South Wales Interconnect to accommodate gas flows northwards out of Victoria, this may result in constraints emerging elsewhere in the DTS and hence greater levels of ancillary payments in future years."

²³ MEU, Response to the AEMC's DWGM Discussion Paper, p. 20.

²⁴ AEMC 2015, *Review of the Victorian Declared Wholesale Gas Market*, Draft Report, 4 December 2015, Sydney, p. 73.

This claim by the AEMC is not substantiated with any data on current capacity and gas flows on the DTS. However, the MEU does note that the DTS currently has significant underutilised capacity as does SEAGas, as illustrated in the table below. Given the AEMO forecast decline in Victorian demand (and elsewhere), this will leave even greater spare capacity on the DTS for transfers of gas to and from NSW.

Pipeline	Location	Annual utilisation	Peak daily utilisation
Carpentaria	Queensland	66%	89%
Eastern	NSW	64%	101%
MAPS	SA	48%	99%
MSP	SA-NSW	55%	74%
Queensland	Queensland	89%	97%
RBP	Queensland	74%	93%
SEAgas	SA-Victoria	41%	84%
SWQP	Queensland	28%	79%
Tasmanian	Victoria-Tasmania	26%	47%
Longford-Melbourne (DTS)	Victoria	45%	79%

Notes: Annual utilisation figures are calculated based on the capacity of the pipeline as of 31 December 2015. Daily utilisation figures are calculated based on the capacity of the pipeline on the day that peak demand occurred. Peak daily utilisation can exceed technical pipeline capacity through the use of line-pack. Sources: <http://www.gasbb.com.au/Reports/Actual%20Flow.aspx>; <http://www.gasbb.com.au/Reports/Capacity%20Outlook.aspx>; and FTI analysis.

Source: FTI Consulting, *Conceptual design for a virtual gas hub(s) for the east coast of Australia*, Table 4-2, p. 20.

The MEU therefore considers that the AEMC must undertake considerably more modelling of the current Victorian system before it can use the claim of future risks of additional ancillary payments as a justification to incur the costs of imposing a new market system on Victorian consumers.

Moreover, the MEU considers there are a number of changes would further reduce this risk without having to restructure the overall DWGM. For instance, one possibility might be to reassess the value of facilitating trading in AMDQ and AMDQcc beyond the public register of spare capacity and unallocated AMDQ and AMDQcc.²⁵ Shippers such as GDF SUEZ highlight that one of the reasons for the very large uplift payments in 2007 was the lack of uplift cover for some shippers/retailers due to the difficulties in trading AMDQ credits.²⁶

²⁵ The MEU notes that in November 2014, the AEMC published its decision to not make a rule change proposed by AEMO to introduce portfolio rights trading in the Victorian DWGM. The proposed rule change would have allowed market participants to register bilateral trades of aggregated transportation rights (authorised MDQ and AMDQ credits) owned by themselves or their customers. AEMO had sought this rule change in response to concerns that the market for AMDQ rights is not liquid, the holders are dispersed and have little incentive to trade resulting in underutilization of AMDQ rights with some market participants having a surplus and some a shortfall. See for instance, AEMO, “Rule Changes Bulletin – December 2014”.

²⁶ GDF SUEZ, “National Gas Amendment (Portfolio Rights Trading) Rule 2014 (Project Reference GRC0021)”, 11 April 2014. <http://aemc.gov.au/getattachment/63671a57-e53d-4152-8e45-1882ce611c73/GDF-Suez-Australian-Energy.aspx>.

A second option might be to investigate a reduction of the maximum market bid price of \$800/GJ²⁷ which in turn impacts on the potential costs of ancillary payments.²⁸

The two options mentioned above are likely to be just two of a number of alternatives that might address the perceived risk of ancillary payments. However, the MEU considers that the risk should not be entirely removed as ancillary payments provide an important signal to the market about constraints. They also provide the motivation for retailers and shippers to look for alternatives, such as contracting more storage or contracting for demand side services.

4.3.3 Physical risks to an efficiently priced, secure gas supply

The DWGM separates the unconstrained market schedule from the constrained operational schedule. In effect, this means that physical gas supply and gas quality can be maintained to customers in almost all circumstances as gas pipeline pressures and supply points can be altered under the operational schedule. While the AEMO will seek to do address a constraint at least-cost overall, its priority is to maintain the safety and security of the network and the quality of gas in the network.

Under the entry-exit model, the optimisation task becomes considerably more difficult, particularly where there are multiple points of entry into the “centre” of demand, and multiple exit points from the network. The “spaghetti” nature of the Victorian gas network has been one of its strengths in terms of security of supply. However, the entry-exit model cannot take advantage of this characteristic and cannot readily deal with constraints within the virtual hub (i.e. within the Victorian gas supply network).

In addition, the Victorian network has limited line-pack capacity while also dealing with significant intra-day swings in demand set against a relatively flat injection profile.²⁹ This pressure created by intra-day swings in demand is likely to increase as LNG demand balancing in Queensland grows and shortages emerge in NSW gas supply.

The physical structure of the Victorian gas network together with the supply options and demand characteristics of the network users was a major factor influencing the design of the Victorian DWGM.

²⁷ The MEU notes that this value for the market price cap is twice the value used in the STTMs

²⁸ Calculated as the (difference between the offered price for gas used to resolve a localized constraint and the unconstrained market price) times (volume of gas offered at the constrained price).

²⁹ From a producer’s perspective there are significant costs associated with providing intra-day swing load to the network system. This is not an issue when considering long transmission pipelines but is an important consideration in the Victorian network.

Because of the importance of these physical characteristics, it is worth restating the quote in the MEU's previous submission by Dr Larry Ruff, one of the original market design consultants in Victoria. He describes the Victorian physical market as follows.³⁰

"[the Victorian pipeline system] takes gas from several, widely-separated injection points to more than 100 withdrawal points, with storage facilities and interconnections that can be injection points one day and withdrawal points the next, multiple laterals interconnected by a large ring, gas flows that can reverse direction from day to day or within a day, volatile weather that can cause the mostly-residential demand to change significantly and unpredictably from day to day and during the day, and little linepack that must be managed carefully to deal with the unpredictable swings in demand from day to day and within days."

A central question that is not adequately addressed by the AEMC relates to what market design is most appropriate to manage the complex physical characteristics of the Victorian gas market described above. The DWGM with its separate market and operational schedules has generally succeeded in ensuring a continuous and safe gas supply to Victorians and to interstate shippers without significant price volatility caused by operational or scheduling constraints.³¹

The AEMC's draft recommendation for the entry-exit model provides no adequate clarification on how this model might manage these physical characteristics of the Victorian gas pipeline and gas demand. The AEMC suggests that this can be the subject of further investigation before its Final Report. However, this highlights the limitations of the AEMC's one model approach.

For instance, it is quite likely that given these characteristics, the entry-exit model will not provide either reliable or efficient outcomes. To quote Ruff again:³²

"Entry/exit capacity makes capacity trading much easier and (particularly if there are only a few large zones), more liquid than it is with point-to-point capacity. But entry/exit capacity is such an oversimplified/inaccurate representation of physical capacity [in a complex network] that trading purely among shippers would often produce a very large gap between the market outcome and an efficient or even feasible outcome... unless the NGG [UK National Gas Grid] uses large safety margins in setting the MDQx,

³⁰ Ruff, Larry E., "Rethinking Gas Markets – and Capacity", Harvard Education Papers, 2012, p. 2. <http://www.hks.harvard.edu/hepg/Papers/2012/LEruff%20EEEP%20Final%2002Jul12.pdf>

³¹ Market prices are higher in winter than summer, but this reflects the value of gas at that time and captures the production and storage costs associated with supplying gas at the winter peak period.

³² Ruff, Larry E., "Rethinking Gas Markets – and Capacity", Harvard Education Papers, 2012, p. 9.

in which case the gap will take the form of unused capacity on virtually every day, even high-demand days."

Ruff also explains that the gap between the market outcome and a feasible physical outcome in an entry-exit model can become so large that the Transmission System Operator (TSO): "must continually manage the gap by buying and selling capacity and gas itself"³³. The costs and risks of the TSO's operations to buy and sell gas must be shared amongst users in some way and risk muting price signals and distorting incentives.

Yet reduction of the unexpected costs that come from ancillary/uplift costs is a prime objective of the AEMC's recommendation, and the entry/exit model actually increases the likelihood of these costs as the physical nature of the network increases in complexity.

Ruff highlights that in order to decide when and where to buy and sell capacity and gas in an entry-exit model, the TSO needs – but does not have access to – all the set of possible transactions. That is, the TSO sees only the market prices resulting from individual transactions, not the full set of possible transactions (that would be seen by the pipeline operator) that could be used to solve a problem. In the DWGM, however, as all trades must go through the market, the TSO (AEMO in this case) can see the overall physical and economic impact of its decision.

To put it another way; in a complex physical system an action at any point on the network will have physical impacts elsewhere in the system. AEMO, as the central operator in the DWGM, can integrate trading and pricing with system operations to both reflect and optimise these complex interrelationships.³⁴

In contrast, two parties considering a trade at an entry or exit point cannot know if the network will handle the required physical shipments unless they know all the other shipments taking place at the same time. In a simple radial, point-to-point or "no-loops" network this may not be a significant issue but on a complex meshed network with significant looping, decentralised trading may produce large gaps, economic inefficiencies and potentially, security problems.

This is a non-trivial issue for the AEMC's recommended entry-exit model and, as noted above, the MEU considers that the AEMC has moved forward on this entry-exit model without adequate assessment of the potential economic and security of supply losses from the disaggregation of

³³ Ibid.

³⁴ This discussion draws on the 2011 submission by Swier and Ruff to the Productivity Commission. See: Ruff L E & Swier G, "Productivity Commission, Inquiry into examining the case for microeconomic reform in Australia's urban water sector", February 2011, p.p 15-16.

<http://www.pc.gov.au/inquiries/completed/urban-water/submissions/sub047.pdf>

trading and pricing with systems operations. These inefficiencies will be reflected one way or another in the overall cost of gas to users.

For example, the AEMC has suggested a number of options to address this gap in an entry-exit model, but does not acknowledge that in a complex system like the Victorian gas network the gap may well be quite extensive relative to the size of the network.

The AEMC does, however, acknowledge that there might need to be charges not dissimilar to the current congestion uplift charges (for those who overrun their entry or exist allowances) with residual costs to be recovered from the “totality of participants” (similar to surprise uplift?).³⁵ Therefore, notwithstanding the changes, there will still be “unhedgeable risks”.

4.3.4 Investment in the Victorian Gas Network

There is a claim, supported by the AEMC’s recommendation, that the DWGM does not provide adequate signals for investment in the Victorian network.

The MEU highlighted in its previous submission that the evidence does not support a claim that investment has been inadequate or even particularly untimely. In addition to examples of investment, the MEU’s previous submission noted that the DWGM/DTS was exposed to record peak system demand over a period of days but without any pressure breaches within the system.³⁶

The MEU again emphasises this point. The DWGM/DTS arrangements in Victoria have been accompanied by investment in new sources of gas, power generation, underground storage facilities, new pipelines, enhanced compression and interconnections to SA and to NSW. It has produced price-driven responses to market shocks without market suspension and minimal need for operator intervention in the market.

It has also worked alongside private investment such as the expansion of the VNI interconnect. The market and gas operations have continued to perform well despite the rapid increase in flows through to NSW.

Therefore, the claim of inadequate or inefficient investment seems to reflect a presumption that the private sector will make better investment decisions than a centralised planner and/or it is better for the private sector to wear

³⁵ AEMC 2015, *Review of the Victorian Declared Wholesale Gas Market*, Draft Report, 4 December 2015, Sydney, p. 36.

³⁶ MEU, “Response to the AEMC’s DWGM Discussion Paper”, October 2015, p. p. 17-18.

the risks than the consumer as it is the party best placed to manage the risk.³⁷

As a first comment, the MEU questions whether a regulated pipeline investor does wear any risk of inefficient pipeline investment in Australia. In particular, the AEMC's entry-exit model includes the assumption that the relevant pipelines are subject to economic regulation by the AER.³⁸ The MEU considers that the economic decisions under the NGR ensure that an owner will get a commercial return, funded by consumers, on the pipeline assets even when they do not represent the most efficient decision.

The issue therefore rests on whether the individual pipeline owners can make more efficient decisions than a centralised body on investment at the entry or exit points and within the virtual hub itself.

It is not clear to the MEU that this is the case, particularly in terms of investment in complex network systems. For instance, AEMO may be in a better position than an individual pipeline owner to consider the overall economic benefits of an investment and where this investment might be best located within the network system from an overall operational efficiency perspective³⁹.

In a similar vein, the pricing signals for investment at a particular entry or exit point (following an auction of capacity at that point) may well not signal the most cost effective overall solution to the constraint – at least in a complex system such as the Victorian network. Where AEMO can optimise the overall investment response (e.g. additional compression) within the network, shippers or retailers can only signal there is a constraint issue at the entry or exit point. The real constraint may be elsewhere in the system.

As an example, the MEU refers to AEMO's published Victorian Gas Planning Review 2015. With respect to the South West Pipeline (SWP), AEMO notes:⁴⁰

"Before the commissioning of Winchelsea Compressor Station, the pipeline was reaching its capacity during high demand days. This was demonstrated by a number of Net Flow Transportation Constraints (NFTC) on the SWP during previous winters. Given the 62 TJ/d capacity increase with the

³⁷ See AEMC 2015, *Review of the Victorian Declared Wholesale Gas Market*, Draft Report, 4 December 2015, Sydney, p. 34. The AEMC appears to be saying that the participants purchasing capacity and to pre-commit to purchasing new capacity at entry and exit points would ensure that they (the purchasers of capacity) bear at least some of the costs and risks associated with these decisions.

³⁸ See *Ibid.* The AEMC states that: "Under an entry-exit system, the revenue earned by the pipeline owner would be regulated, on a similar basis to today".

³⁹ The MEU points out that AEMO does this for the Victorian electricity transmission system and that does not exhibit under-investment

⁴⁰ See AEMO, *Gas Statement of Opportunities*, Attachment B, Victorian Gas Planning Review 2015, Table 23, p 16.

Winchelsea compressor, the pipeline is sufficient based on the demand forecast for the next five years."⁴¹

This would appear to be an economically efficient network solution, but one that did not rely on prices at the SWP entry point and it delivered benefits to other parts of the western region network. It is not clear to the MEU if the entry-exit model would find such a solution, based on the prices of trades at the entry and exit points to the DTS.

4.3.5 Setting transmission tariffs

As the DTS is a fully covered pipeline, the AER sets the total revenue allowance for the DTS owner following the requirements of the NGR.

The current Victorian transmission tariffs are largely volumetric charges based on delivery of gas at defined transmission supply points (currently 25 such points). The rate for delivery at each point varies depending on whether the delivery is to D tariff customers (annual use greater than 10TJ) or V tariff customers (volume customers in aggregate from that supply point for that retailer). In addition, there are volume based cross-system charges and matched delivery charges (at certain entry- exit points to the system). Injection charges based on volumes used in the peak 10 winter MDQ days for each demand point, provide signals of costs of capacity at peak system times for each defined location on the network.

Sitting behind these tariffs is a complex modelling of gas flows through the overall PTS system.

The AEMC is proposing that while the overall revenue recovered by the DTS owner will continue to be determined by the AER under the NGR, the majority of the allowed revenue under the entry-exit model will be recovered by entry and exit capacity tariffs as opposed to volumetric tariffs.

However, the detail for setting such tariffs can be very complex, particularly on a complex network with multiple entry and exit points. The AEMC's preferred approach includes:⁴²

- setting a reserve price for each entry and exit point;
- auctioning capacity at each entry and exit point;
- developing the tariffs according to the LRMC of servicing additional demand at each entry and exit point, where the LRMC is calculated

⁴¹ Winchelsea compressor station is located on a separate transmission pipeline but is connected physically to the SWP.

⁴² This is not a comprehensive description of the AEMC's proposal. Further details are provided in the draft report. See AEMC 2015, *Review of the Victorian Declared Wholesale Gas Market*, Draft Report, 4 December 2015, Sydney, p. 37-38.

- by first modelling all potential combination of routes between various entry and exist points in the network;
- applying volumetric tariffs to balance any under or over recovery of revenue over time.

The AEMC indicates that “specific approaches” to setting capacity tariffs and recovery costs at the Southern Hub (Victoria) will be “considered and assessed further as part of the detailed design of the entry-exit system”.⁴³

The AEMC also notes that the introduction of entry-exit system would necessitate “changes to the structure of tariffs” and, consequently, to the “allocation of risk in the market”.⁴⁴

In response to this, the MEU highlights that while current DTS tariffs are complex, the AEMC’s preferred approach will hardly reduce this complexity. Moreover, the LRMC assessment for pipeline services will change over time in response to either declining demand or new expansion, so LRMC based capacity prices will need to be constantly updated if they are to continue to “signal” investment or withdrawal requirements.

In addition, as the DTS is not operating at full capacity in most areas, LRMC based capacity pricing will be unlikely to recover the sunk costs of the system. If this is the case, then considerable reliance will be based on how the allocation of the residual costs will impact volumetric tariffs.

Again, the MEU is concerned that the AEMC has focused on just one proposal for reform, the entry-exit model, while still leaving many essential details to the future analysis.

The MEU can understand that it takes time to develop these detailed design features; that is not our issue. The issue is that the AEMC has effectively “closed the door” on other options, including the simplest and low cost option, before it has examined the detail of how the address the many issues that are already being seen. Just as importantly, there is no recognition of what the costs of making the change will be and how the risks to consumers and other stakeholders will change and, indeed, if they increase.

4.3.5 Transition to the Entry-Exit Model

The AEMC’s proposed transition to its preferred model is extremely ambitious. As indicated in its draft report, the AEMC intends to implement

⁴³ Ibid, p. 38.

⁴⁴ Ibid.

41

the Southern Hub with entry-exit by 2020 although the AEMC also considers a more staged approach⁴⁵.

However, it is doubtful if the proposed changes to the other parts of the east coast gas market will involve such fundamental changes as the proposed changes to Victorian DWGM/DTS market. To wit, the AEMC has identified a number of design issues and change requirements.

The unresolved design issues include:⁴⁶

- the means by which the hub operator will procure or sell gas in order to balance the system;
- how the costs of the hub operators balancing actions should be passed onto participants;
- the appropriate length of the balancing period given the network characteristics;
- the approach to and mechanisms for allocating entry and exit capacity to participants (e.g. the use of auctions);
- the capabilities required to undertake the various roles associated with the new regime;
- how pipeline services provided under the entry-exit system would fit within the current regulatory framework and hence how they should be treated under the regulatory framework
- how the regulated entry-exit tariffs and additional revenue from any capacity allocation system would fit in the current price-cap form of revenue regulation.

The AEMC also notes the following implementation requirements:⁴⁷

- changes to the National Gas Law;
- substantial rule changes;
- development of exchange based trading and a market-based balancing regime;
- development of an entry-exit regime, including capacity allocation mechanisms and tariff methodologies;
- changes to the access arrangement for the DTS;
- changes to the market's scheduling, settlement and metering functions;
- development of new roles and functions and the identification of appropriate institutions to take these roles; and
- ensuring seamless trading of gas between the systems, i.e. the coordination between the entry-exit system in Victoria and contract carriage outside of Victoria.

⁴⁵In addition, the AEMC's overall reform plan for east coast gas market will include facilitation of trade in pipeline capacity markets and transition of STTM gas demand hubs to simplified balancing mechanisms.

⁴⁶For details see Ibid, p. 40.

⁴⁷ibid, p. 45.

In addition to all the above, the AEMC will need to address two specific transitional issues:⁴⁸

- *Transitioning AMDQ and AMDQ cc.* The AEMC's position is that AMDQ and AMDQ cc provide limited benefits to the holders of the certificates. The transitioning process will involve consideration of:
 - the value that holders of certificates receive from the certificates;
 - the value to the market in preserving the limited rights provided specifically by AMDQ, given these were allocated at the commencement of the DWGM (1999); and, if so,
 - how to preserve the value of the limited rights in the context of the new market design.
- *Access Arrangement for the DTS:* The new DTS access arrangement covers the period 2018-2022 and the process will be commencing in 2016. The AEMC notes that this will require "clarity around whether, and when, new market arrangements will be introduced"⁴⁹. The AEMC therefore suggests that a "transitional version of the Southern Hub model with an entry-exit system" may need to be considered just prior to the next regulatory period commencing in 2022.

The MEU considers that given all the factors listed above (and some that are not listed) the AEMC's proposed timetable is extremely ambitious and carries with it significant implementation risks and commercial risks to consumers, retailers and shippers.

In addition, and of most concern, is that the AEMC is proceeding down this "single Package path", without adequate consideration of the many unresolved issues and the potential costs associated with implementing this package.

4.4 Conclusions on the AEMC approach to the DWGM

The AEMC's focus is on the claimed benefits of their preferred model rather than the overall costs and benefits relative to the alternatives (such as incremental change that appears to have the greatest support amongst stakeholders). This is evident in the following quotation from the AEMC's draft report:⁵⁰

"While transition to a Southern Hub with entry and exit would provide many benefits to market participants wishing to trade gas in Victoria and, in turn, consumers of gas, there will be costs involved in transitioning to a new

⁴⁸ For details, see Ibid, p.p 41-43.

⁴⁹ Ibid, p. 43.

⁵⁰ Ibid, p.p. 45-46.

framework. These include the costs associated with implementation of an exchange (and balancing platform), integration with existing systems and operations, ongoing operational costs, and implementation and establishment costs for the industry.

We are undertaking further work to understand the costs and likely benefits of implementing the reforms proposed and will present these findings in our final report."

The MEU's analyses above means that we remain sceptical of the extent to which the entry-exit model will provide improvements and "many benefits" to Victorian consumers compared to, for instance, the simpler task of enhancing the existing DWGS/DTS systems.

Indeed, we believe that the AEMC's single recommendation for a Southern Hub based on an entry-exit model has failed take account of the unique characteristics of the Victorian network and the volatile supply/demand conditions in Victoria. It is difficult to see how the AEMC can conclude that the entry/exit model delivers better results than an incremental change when it has not addressed the many issues the MEU (and indeed the AEMC) sees that must be addressed before any conclusion can be reached.

The MEU reiterates that the unique features of the DWGM were fundamental to the final selection of the DWGM/DTS model in preference to point-to-point or the entry-exit model that the AEMC now espouses⁵¹. It behoves the AEMC to undertake a more detailed examination of these issues, which still apply today, before imposing an alternative regime on Victorian consumers. Failure to fully explore these issues prior to making final recommendations would be a very significant risk.

Moreover, we are most concerned with the potential costs of the changes required in absolute terms, and relative to the alternatives – particularly given our view above that:

- (a) the benefits are not as substantial as the AEMC claims (but has not tested);
and
- (b) the costs may be considerably greater than the AEMC appears to believe.

Nor has the AEMC addressed the important question as to who would bear these costs. If the changes are to be part of, and driven by, the CoAG's east coast gas market vision, then it would be appropriate that the costs of any major changes to the DWGM are borne by the beneficiaries of the change (ie the LNG exporters and the other gas markets) rather than Victorian consumers who have already expended considerable effort and money into developing a gas market that serves them well.

⁵¹ Despite the fact that the entry/exit model was seen as inappropriate when the market was first contemplated.

Finally, the MEU notes that many of the industry players have not provided support for the AEMC's preferred model based on their experience both in Victoria, interstate and overseas.

APA, for instance, concludes with respect to the entry-exit model set out in the AEMC's Discussion Paper, that:⁵²

"On balance, APA does not see that this approach accomplishes any of the policy objectives better than the current DWGM."

Origin Energy, a participant in both upstream and downstream markets and is a major investor in Queensland LNG, states in its response to the AEMC's DWGM Discussion Paper:⁵³

"While the east coast market design needs to be robust to respond to continued shifts in assumed supply and demand patterns, we consider significant departures from current arrangements should only be contemplated where a proven market failure exists following completion of more targeted design changes."

With specific reference to the entry-exit model, Origin Energy goes on to state:

"As the DWGM already operates as a form of virtual hub, it is not clear what the implications of removing the implicit allocation of DTS capacity would be and as a result, what an entry-exit model would deliver to the market compared with what is currently in place. Key to this process is an investigation of the extent to which congestion may be an issue within the DTS and how this issue would be managed under an entry-exit model.

Further consideration would need to involve an assessment of the associated cost to implement and administer this change on an ongoing basis to ensure the perceived benefits outweigh the costs."

The MEU generally agrees with these concerns from experienced industry participants about the entry-exit model and the potential cost benefit of implementing such a substantial change to what is fundamentally, a working model tailored to the unique characteristics of the Victorian gas network and Victorian demand.

The MEU considers that the approach of pursuing just one option, the DWGM as an entry-exit market, is fundamentally wrong as the assessment of the proposed model has been limited through a lack of detailed investigation of all the issues and costs associated with such a change.

⁵² APA Group, "Submission to AEMC Discussion Paper: Review of the Victorian Declared Wholesale Gas Market", October 2015, p. 23.

⁵³ Origin Energy, "Review of the Victorian Declared Wholesale Gas Market – Discussion Paper", 13 October 2015, p.p. 3-4.