



**Office of the Chief Executive Officer**  
Victorian Energy Networks Corporaion  
Level 2 Yara Tower  
World Trade Centre  
Siddeley Street  
Melbourne Vic 3005  
Telephone (03) 8664 6500  
Facsimile (03) 8664 6510

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**Victorian Energy Networks Corporation**

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20<sup>th</sup> April, 2005

Manager – Energy Market Reform Team  
National Energy Market Branch  
Department of Industry, Tourism and Resources  
GPO Box 9839  
CANBERRA ACT 2601

Dear Sir / Madam

**Options for the Development of the National Wholesale Gas Market**

As the independent system operator of the Victorian Principal Transmission System and operator of the Victorian gas spot market, VENCorp welcomes the opportunity to comment on the Draft Report prepared by the Allen Consulting Group for the Ministerial Council on Energy (MCE) Standing Committee of Officials' Gas Market Development Working Group, "Options for the Development of the Australian Wholesale Gas Market", March 2005.

Our submission on the Draft Report is attached.

Yours faithfully,

Matt Zema  
**Chief Executive Officer**

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**VENCorp Response to  
MCE Options Paper for the  
Development of the Australian  
Wholesale Gas Market – March 2005**

April 2005

## Table of Contents

Executive Summary .....	3
1. Need for national gas market development .....	4
2. Principles for a National Gas Market.....	5
3. Review of Options.....	6
3.1 Option 1 - Current market with organic development .....	6
3.2 Option 2 - Current market with voluntary Bulletin Boards.....	7
3.3 Option 4 – Extension of the Victorian Model to other pipelines .....	7
3.4 Option 3 - City Gate scheme .....	8
4. Option 3 - Responses to Specific Questions Raised in Consultation Paper .....	9
5. Summary .....	11

## Executive Summary

In brief, VENCORP's views on the Draft Report prepared by the Allen Consulting Group, "Options for the development of the Australian wholesale gas market" (March 2005) are as follows:

- There is a clear and demonstrated need for further development of the national gas market to provide all participants and potential participants with greater access to open and transparent market prices at various locations, and to market and system information across the interconnected south east Australian gas system.
- The market arrangements need to complement the national gas emergency protocols, which are also currently being progressed through the MCE consultative process. This should provide for a managed transition from normal market operation to activation of the emergency protocols that provides industry with adequate opportunity (where practical) to respond to emergencies prior to operator/Government intervention.
- The required market development is unlikely to occur within the foreseeable future without policy direction from the MCE. Introduction of bulletin board facilities for voluntary contract trading, in the form proposed in the ACG Options Paper, is unlikely to provide any greater transparency in terms of pricing, or market and system information. Therefore, Options 1 and 2, as set out in the Allen Consulting Draft Report, will not achieve the MCE's agreed principles for a national gas market.
- Extension of the Victorian spot market arrangements to other pipelines in south-eastern Australia (Option 4 in the Allen Consulting Group's Draft Report) is unlikely to be the most effective means of meeting the MCE's principles for a national gas market. Victoria's spot market arrangements have been specifically tailored, and are necessary, to meet the unique mesh-like characteristics of the Victorian gas transmission system. However, they are unlikely to be necessary or effective on some of the longer, radial pipeline systems elsewhere.
- VENCORP believes that establishment of an integrated national gas market should be the ultimate goal. However, this need not be in the same vogue as the National Electricity Market and need not require a single national set of balancing rules to apply on all pipelines, nor the establishment of a single national "independent system operator". Pipeline owner/operators could implement transparent price setting mechanisms that satisfy the MCE's market principles while best suiting the physical characteristics and pre-existing contractual arrangements on their respective pipeline systems. Integration of these arrangements could be provided through a national gas market administrator whose role would not necessarily be to physically operate the pipelines but rather to collate and publish system and market information on a daily and national basis, including market price forecasts and outcomes.
- The "ideal" eventual outcome, establishment of and transition to an integrated south-east Australian gas market may prove impractical or too difficult in an initial single step. This being the case, VENCORP considers the preferred initial way forward is a modified form of the city gate model described in Option 3 of the Allen Consulting Group report. This would involve clearing prices being set daily at city gates, and/or a number of key "hubs" across the interconnected south-east Australian transmission pipeline system, through a relatively simple and transparent market based process, supported by the open publication of market and system information on supply, demand, pipeline capacities and constraints.

## 1. Need for national gas market development

VENCorp contends that there is a clearly demonstrated need for urgent development of open, transparent market pricing and trading arrangements across the increasingly interconnected eastern Australian gas transmission pipeline system.

There has been considerable infrastructure development in pipelines and new gas supply sources in the past 5 years. Some parties argue that this significant investment signals a healthy, competitive natural gas market in Australia that requires no further attention from the MCE.

VENCorp concedes that long term bilateral contracting has been effective and will likely continue to be the primary driver for major new infrastructure investment. However, for use of this infrastructure to be optimized, it is necessary to provide appropriate mechanisms for short term, day to day, trading on these facilities.

Recent major gas infrastructure developments include the South West Pipeline and the underground storage facility in Victoria, the Eastern Gas Pipeline from Longford to Sydney, the Longford-Tasmania pipeline, the SEAGas pipeline, and new supply sources including Minerva and Bassgas.

VENCorp is the pipeline system and market operator for the Victorian principal gas transmission system, which interfaces with all of these new developments. While the new gas supplies and increased level of interconnection between gas transmission pipelines in south east Australia serve to provide increased reliability and security of gas supplies, they also result in a more complex operating environment.

Consequently, based on VENCorp's operational experience, in the absence of more openly available system and market information and more transparent market pricing signals on a national basis, there is a risk that the frequency of circumstances that result in market intervention by pipeline operators, and Governments, will increase.

There is also an essential linkage between the need for improved national wholesale gas market arrangements and the need for clearer national gas emergency protocols.

In its submission dated 15 April 2005 TXU has stated that:

*“a key shortcoming that **must** be addressed is the inadequate market arrangements when supply constraints or emergency situations occur, leading to unnecessarily early Government intervention and inefficient market outcomes. This has been clearly seen in the Moomba incidents of both 2004 and 2003.”*

A paper submitted to the MCE by the Energy Retailers Association of Australia (ERAA) in September 2004<sup>1</sup> also stated that :

*“Wholesale gas markets are required in Eastern Australia to manage increasingly complex energy portfolios, promote the development of additional gas fired generation....and as a means of providing commercial discipline at times of system constraint, with the intention of avoiding intervention in market operations”.*

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<sup>1</sup> “An Australian Wholesale Gas Market – Its Justification, Framework and Governance”, ERAA, September 2004

Separate investigations by NECA<sup>2</sup> and ESCOSA<sup>3</sup> into events in the electricity market when damage to the Moomba gas processing plant restricted gas supplies in January 2003 both concluded that the major issue was the lack of adequate gas market arrangements for managing the rationing of gas supplies. NECA had reached a similar conclusion in its investigation of events in November 2000, when there were also gas shortages in Adelaide.

ESCOSA stated “*our strong preference is for a market based approach....where short-term price signals drive efficient and secure solutions with trading between wholesale market customers facilitated*”.

Some industry participants have claimed that the Moomba supply failure in January 2004 provided evidence of industry’s capability to handle such events with the existing market arrangements. VENCorp considers such views to be misguided.

While it is true that the fortuitous timing of the SEAGas pipeline (the construction of which was underpinned by bilateral contracts) avoided catastrophic gas shortages in South Australia, and parties were able to enter contractual arrangements for gas supplies ex-Longford to supply NSW demand, this only occurred after SA Government intervention and then was only possible because Victorian gas demand in January was in the order of 350-400TJ per day.

Had the incident occurred when Victorian gas demand was significantly greater than this (peak winter demand on the Victorian PTS can be in excess of 1100TJ/day) then the simple existence of the SEAGas and Eastern Gas Pipelines, without clear pricing signals in NSW and SA, would not have provided a basis for a market based solution to balance supply and demand in all three States.

In addition to infrastructure development in gas supply and transportation, there has been and is ongoing significant investment in new gas fired power generation, particularly in Victoria and South Australia. This increasing interdependence between the two energy markets requires more flexible and responsive gas market arrangements.

This has been widely recognised by participants in VENCorp’s Victorian Gas Market Pricing and Balancing Review, the ERAA September 2004 submission to MCE (see above, refer footnote 1) and the NECA March 2003 report (refer footnote 2), the latter noting “*the nexus between the gas arrangements in South Australia, which date from an era of monopoly-monopsony negotiations, and the genuinely competitive national electricity market.*”

## 2. Principles for a National Gas Market

The Executive Summary of the Allen Consulting Group Draft Report reiterated the principles agreed by the MCE for the development of the national gas market<sup>4</sup> following consultation with industry in 2004, namely:

- information on market and system operations and capabilities at all stages of the gas supply chain (subject to recognition of existing contractual confidentialities) should be publicly available and frequently updated;
- gas market structure to facilitate a competitive market in all sectors;

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<sup>2</sup> “Investigation into the events in the electricity market on Saturday 25 January 2003”, NECA, March 2003.

<sup>3</sup> “Inquiry into Generator Bidding and Rebidding 25-28 January 2003”, ESCOSA, March 2003.

<sup>4</sup> “Statement on Principles for Gas Market Development”, Ministerial Council on Energy, December 2004

- gas market participants should be able to freely trade between pipelines, regions and basins;
- there should be regulatory certainty and consistency across all jurisdictions; and
- market design and institutional requirements responsive to and reflective of the needs of the market and market participants.

The various options for development of a national gas market should be assessed on how well they meet these principles. In addition, VENCorp suggests that options should also be considered against the following criteria:

- the market arrangements should complement the national gas emergency protocol (also being developed through the MCE's gas market reform process);
- consistency with the long term development of a an integrated national gas market;
- the interaction and interface with the National Electricity Market;
- facilitation of long term investment in supply and pipeline infrastructure; and
- costs and complexity of implementation and operation.

### 3. Review of Options

Of the four options presented in the Draft Report, VENCorp would prefer to see development along the lines of an enhanced version of Option 3. VENCorp believes that Option 4 as not practical at this time and rejects Options 1 and 2 as described in the Draft Report for the following reasons:

#### 3.1 Option 1 - Current market with organic development

Other than the Victorian gas spot market, none of the current gas market arrangements adequately meet the principles established by the MCE, particularly with regard to the publication or availability of market and system operational information or in transparency of market pricing and trading.

VENCorp agrees with Allen Consulting's assessment that development of a liquid spot and contract trading market, with its associated benefits, would be unlikely to be achieved in the near future by "organic" market evolution.

VENCorp also considers it unlikely that, in the absence of clear policy drivers being established by the MCE, and at least some Government facilitation, industry could readily achieve consensus on a market model or models and move to implement these to achieve the MCE's gas market principles.

With regard to the suggested criterion of facilitating long term investment, it is a reasonable argument that all investment in gas infrastructure to date, including the significant investment in the past five years or so, has been underpinned by bilaterally negotiated long term contracts. It is expected that future investment will similarly be driven by long term contractual arrangements.

Nevertheless, VENCorp agrees with the ERAA in its September 2004 submission to the MCE where it states that, in the Australian context,

*"there is insufficient market liquidity and depth for a simple bilateral market to set a market price for gas that truly reflects the value of that gas, at a point, at a point in time, on all occasions".*

The arguments for more open publication of market and system operational information as part of the National Gas Emergency Protocol, also being developed by the MCE, equally apply in the market context if the market is to be able to respond to supply/demand imbalances adequately to avoid, or minimise the impact of, triggering emergency intervention by operators and governments. There needs to be a continuum between the market and emergency protocols, to provide a clear transition path.

For these reasons, Option 1 is not a viable option to satisfy the MCE's gas market principles, nor achieve its objectives of accelerated development of the gas market.

### **3.2 Option 2 - Current market with voluntary Bulletin Boards**

VENCorp does not consider that a bulletin board facility, or facilities, for voluntary bilateral contract trades would be likely to have any significant impact on the level of information disclosure or market pricing transparency.

There is no clearing price for gas set by this mechanism. It may marginally improve facilitation of contract trading by allowing parties to post their buy and sell offers in a central, readily accessible location. However, with no compulsion to participate and the ability for parties to respond to such buy/sell offers by subsequently negotiating bilateral contract deals outside the bulletin board mechanism, it is unlikely that much additional market information will actually become openly available.

Bulletin board facilities of this type may add greater value in places such as Europe and USA where there are large numbers of players and volumes of trades, but it is unlikely that this would be replicated in the Australian context.

### **3.3 Option 4 – Extension of the Victorian Model to other pipelines**

VENCorp does not advocate adoption of the Victorian spot market arrangements on a national basis. The Victorian market arrangements are designed to meet the specific needs of Victoria's supply / demand and transportation system. That is, highly temperature sensitive demand and a relatively short, meshed transmission system with minimal linepack, requiring close management.

With most other transmission pipeline systems in Australia exhibiting characteristics of relatively long point-to-point pipelines with adequate linepack to manage daily imbalances, unless there is very high growth in gas fired power generation, it is unlikely to be efficient to impose the Victorian spot market arrangements on these other systems.

Of the four options presented in the Draft Report, this leaves Option 3 as being the only acceptable development option. In fact, VENCorp would prefer that Option 3 be further developed into an integrated hub-based national gas market, overseen by a single national market administrator. This is discussed below:

### 3.4 Option 3 - City Gate scheme

VENCorp has previously and publicly expressed its support for the conceptual market framework described by ERAA in its September 2004 submission on the MCE’s Gas Market Principles. VENCorp does believe, however, that the enhancements to this model described in the ACG Draft Report, namely the open publication and availability of daily system and market information along with periodic planning information, are essential to ensure that these markets can function effectively.

VENCorp, therefore, considers that implementation of this Option may provide a valuable initial step in achieving the MCE’s gas market principles and the objectives of its gas market reform program.

While the introduction of a “city gate” spot market(s) would be a significant step forwards, it may be more suitable to extend this to a hub-based model with prices available not only at major demand centres but also at “hubs” which interconnect a number of alternate sources of gas and pipelines – for example, VicHub (at Longford) and Iona (as the interface between underground storage, the PTS and SEA Gas).

Enhanced Option 3 - Hub / City Gate Model

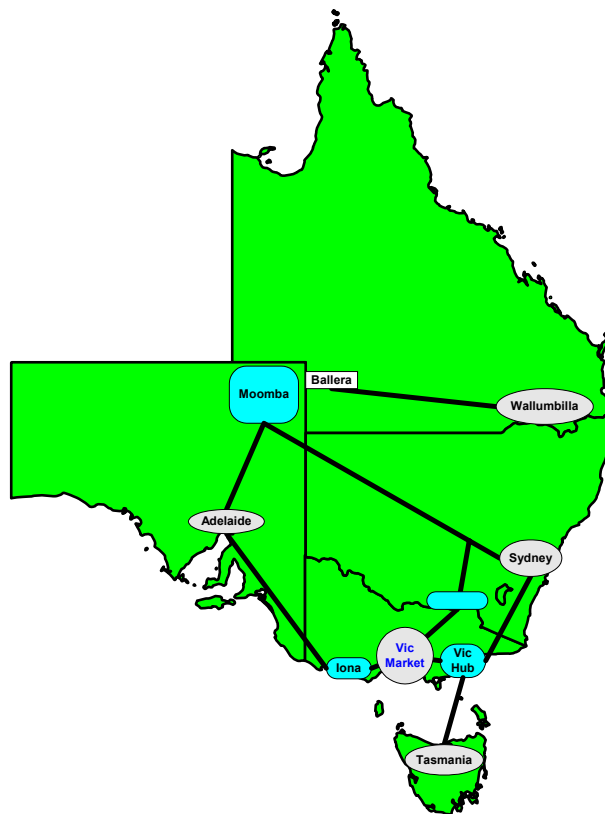


Figure 1 - Map Showing City Gates and Hubs

The design of the new spot markets should reflect the physical capabilities of the pipelines on which they apply and should be cognisant of the balancing requirements on each pipeline and of pre-existing long term contractual arrangements.

While Option 3 could be initially implemented with separate spot markets at each major load centre or “city gate”, VENCorp considers that, ideally, this concept should eventually lead to an integrated south east Australian spot market.

This is unlikely to be along similar lines to the National Electricity Market, with a single set of balancing rules for each pipeline and a single national pipeline operator, but probably should see a single market administrator responsible for setting and publishing prices, daily market and system operational information and longer term planning information. This body would also logically provide the same information service in the context of the National Gas Emergency Protocol being developed separately by MCE.

In order to meet the objectives of the National Gas Emergency Protocol, information should be made available not just at city gates but on all the interconnected supply and transportation systems across SE Australia.

#### 4. Option 3 - Responses to Specific Questions Raised in Consultation Paper

The Draft Report sought responses from interested parties to a number of specific questions in relation to each of the four options canvassed. For reasons discussed elsewhere in this submission, VENCorp believes that Option 4 is not practical at this time and rejects Options 1 and 2 as viable approaches to achieving the MCE’s market principles and objectives, but provides the following responses to the questions raised in relation to Option 3. In many cases, further discussion of the issues raised is provided throughout this submission.

- the type of information about any existing or impending shortfalls in upstream gas or

It is necessary to provide information indicating supply / demand details, pipeline capacities, spare capacity, useable linepack quantities, storage levels, production capabilities .

This information would facilitate market response to supply shortfalls and management of emergencies.

VENCorp believes that such a scheme is best implemented at all citygate locations, and at key hubs such as Iona and Longford. This could be done progressively but over a short period. Use of a pilot scheme may have some merit.

Production of a Statement of Opportunities and a National Transmission Statement will facilitate development of the SE Australian Market and the interconnected gas transmission network. It would be logical for such documents to be produced and published by an independent market administrator, preferably consolidated into a single document presenting the entire picture for the gas system on a national basis (or at least for the interconnected pipeline system across eastern Australia).

- the role of Governments, the AEMC, the AER, the market management entity and market participants in the regulation, governance and administration of city gate schemes;

- in particular, whether the AEMC should also develop and administer the detailed business rules for the city gate schemes, or just develop and administer the rules for the AER's approval of the city gate schemes;

Government has a role in setting clear policy direction and perhaps in providing any necessary legal/regulatory framework. AEMC should establish the principles and approve the rules and the system and market operator(s) on each pipeline are best placed to coordinate development of the detailed business rules in close consultation with industry.

- whether appropriate government regulation and oversight of a participant owned and governed market management entity can ensure that barriers to entry are kept low;

The key principle that applies to the establishment of a market management entity is one of independence from participants. VENCORP supports the ERAA position that the market operator should be an independent, market responsive body, which would have the necessary powers to establish rules and regulations to 'compel parties to participate and abide by the rules'.

In order for the market to develop, the market operator must be able to treat all participants equally, including new participants. The goal of establishing a new market is to increase competition where the 'maximum number of buyers and sellers can interact and trade against the value of gas' (ERAA<sup>5</sup>).

- whether Option 3 would be enhanced by requiring all transmission pipeline operators to be subject to the same non-price obligations under the National Gas Code — in relation to having an approved trading policy, ring-fencing, and information disclosure to facilitate the harmonisation of trading, nomination and balancing arrangements and to increase the level of interoperability in gas transmission;

One of the principles for the establishment of a national market was the development of the appropriate regulatory regimes to provide a consistent approach to the industry. The ERAA<sup>6</sup> believe that a single framework can be established that would meet the requirements of each system / jurisdiction, but at the same time provide a common market for participants.

VENCORP supports the position of requiring all transmission operators to be subject to the consistent non-price obligations, such as information disclosure but not necessarily balancing arrangements.

- other features that could improve Option 3.

Extension of the "city gate" scheme to incorporate hubs that interconnect pipelines and supply sources, with integration and coordination provided through a single national market administrator. This body would also be responsible for producing system information – both static (through an annual Statement of Opportunities/National Transmission Statement) and dynamic (daily updated information on supply/demand forecasts, price forecasts and outcomes,

<sup>5</sup> ERAA, An Australian Wholesale Gas Market – Its Justification, Framework and Governance, September 2004, p33

<sup>6</sup> ERAA, An Australian Wholesale Gas Market – Its Justification, Framework and Governance, September 2004, p30

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and system constraints) – in order to complement normal market operation and the national gas emergency protocol arrangements.

## 5. Summary

Table 1 provides a high level summary of VENCorp's assessment of the range of market development options presented in the Draft Report, against the MCE's agreed market principles and the other criteria suggested by VENCorp in section 2, above.

Other than the criterion of costs/complexity, the ranking of low, medium or high is a qualitative and coarse assessment of the extent to which each option meets the assessment criteria.

In this Table, Option 4 (extension of the Victorian spot market to other pipelines) has been replaced by VENCorp's preferred option, an enhanced version of Option 3. As discussed in Section 3.4 of this submission, this involves the extension of the city gate scheme to encompass key hubs that interconnect major transmission pipelines and supply sources, and would be coordinated by a single national market administrator.

A single national market administrator would provide the advantages of independence and consistency in the collection, presentation and publication of system and market information across the entire interconnected pipeline system and provide opportunities to lower costs by avoiding duplication of resources and facilities otherwise required by multiple market operators.

VENCorp considers that this approach best meets the principles established earlier by the MCE for a national wholesale gas market, establishes a consistent framework across SE Australia and will provide the most suitable basis for the longer term development of a national wholesale gas market.

**Table 1 : Assessment of Market Development Options - Summary**

	<b>Option 1</b> "Organic" development	<b>Option 2</b> Bulletin Board	<b>Option 3</b> City Gate Scheme	<b>Enhanced Option 3</b> Integrated SE Aust Market
<b><u>MCE Principles:</u></b>				
Publication of Information	<b>Nil - Low<sup>7</sup></b>	<b>Low – Medium</b>	<b>Medium - High</b>	<b>High</b>
Facilitate a competitive market	<b>Low</b>	<b>Low</b>	<b>Medium - High</b>	<b>High</b>
Free trade between pipelines, regions and basins	<b>Low</b>	<b>Low – Medium</b>	<b>Medium - High</b>	<b>High</b>
	While there is currently trade between regions and pipelines, there are clear limitations on the effectiveness and efficiency of this, particularly where immediate market response is required to address supply/demand "disturbances". Fully competitive markets require transparency of information and price setting for all participants and potential participants. Options 1 and 2 won't deliver this any time soon. Option 3 would be a significant improvement, but this would be even better if all system and market information for all interconnected pipelines was collected and published in a single location.			
Regulatory certainty and consistency	Regulatory "certainty" is more a product of the regulatory framework rather than which market option is chosen. Dependent on the level of regulation required, "consistency" becomes more difficult with a number of dissimilar market arrangements on different pipelines.			
Market responsive to participants	<b>Low</b>	<b>Low – Medium</b>	<b>Medium - High</b>	<b>High</b>
	Some participants may argue that allowing market to evolve "organically" is, by definition, being responsive to participants' needs – however, without Government direction, consensus among industry is unlikely to be achieved readily and information asymmetry may prevent development of markets to meet requirements of new entrants and smaller participants.			
<b><u>Other criteria:</u></b>				
Good interface with emergency protocols	<b>Low</b>	<b>Low – Medium</b>	<b>Medium - High</b>	<b>High</b>
Support long term development of a national gas market	<b>Low</b>	<b>Low – Medium</b>	<b>Medium - High</b>	<b>High</b>
Interface with NEM	<b>Low</b>	<b>Low – Medium</b>	<b>Medium - High</b>	<b>High</b>
Facilitation of investment	Investment in major gas supply infrastructure and pipelines has historically been underpinned by long-term bilateral contracts. This is likely to continue as the primary investment mechanism, regardless of the market model. Implementation of transparent spot markets need not impede this provided that the spot market design is cognisant of pre-existing contractual rights and of the need for clear property rights in return for investment.			
Implementation/operational costs	<b>Low</b>	<b>Low – Medium</b>	<b>Medium - High</b>	<b>Medium – High</b> This option, with a single national market administrator could be less costly than Option 3 with multiple markets and market administrators.

<sup>7</sup> Except for Victorian PTS