



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

By email : [MCETMarket Reform@industry.gov.au](mailto:MCETMarket Reform@industry.gov.au)

**RE: National Gas Emergency Response Protocol Issues Paper**

It is the ERAA's view that emergency events are best managed if there is a commercial impact on parties that do not respond appropriately to a dramatic change in market circumstances.

Changes in market circumstances are a continuum. At their simplest, the market can easily deal with small outages or constraints. As these outages or constraints become more serious the market response becomes more onerous and costly. Ultimately there comes a point where the supply outage or constraint is so severe that regardless of effort, or cost of supply, the market response is incapable of managing the shortfall. At this time demand will need to be centrally managed to allow the remaining supply to be used appropriately.

The ERAA sees the development of a wholesale gas market and the development of emergency procedures as a continuum, requiring a continuous commercial discipline over the market regardless of the market circumstances.

As part of this process ERAA is seeking:

- To provide a mechanism to limit intervention during times of constraint,
- Commercial certainty in the operation of evolving gas markets,
- Procedural certainty, at times where the market fails for any reason and,
- A clear transition from market rules to the central coordination of the system under established procedures.

## **Wholesale Gas Markets**

The ERAA has developed a set of wholesale gas market principles upon which it believes a wholesale gas market should be developed. These principles have been compared to existing market structures and have been used to determine the appropriate elements of a gas market structure that would suit Australia's circumstances.

## **Gas Market Principles**

The ERAA market framework is based on the following principles:

- Wholesale gas market arrangements should be allowed to evolve to meet the needs of market participants and their customers rather than being imposed by government;
- The market should match as closely as possible the physical capabilities of the system to maximise market efficiency;
- Gas market functions should be managed by an independent, market-responsive body (models may include GMCo, REMCo, new industry cooperatives, etc.);
- Complicated or costly market arrangements requiring extensive bureaucracies are not appropriate;
- Gas market arrangements will recognise and operate in concert with the balancing requirements of both the distribution networks and the transmission pipelines;
- Bilateral gas purchase and transportation contracts will remain in place; the gas markets will provide a supplementary source of supply either for balancing or to meet longer term demands both for existing and new players in each market;
- At least in the short term, separate markets will need to remain in place for each capital city (the geographical extent of each market will be a matter for later discussion, as will arrangements to cater for regional centres, and the question of markets at supply points such as Moomba or Wallumbilla);
- There should be close cooperation between the jurisdictions both in the development of market structures and in their ongoing operation to ensure no hurdles to interstate trading occur;
- Compliance with market rules should be a condition of participation, with some enforcement mechanism (important questions such as prudential arrangements will need to be resolved);

- Effective operation of the gas markets may impose some requirements on the terms and conditions of service offered by both transmission pipelines and distribution networks (in particular services they may wish to offer in relation to balancing, “park and loan” as well as nomination processes / timing.). This is to be minimised;
- The existing framework for both unregulated and regulated access to pipelines is compatible with the development of on-the-day gas markets;
- The contract carriage model, governed either by access arrangements under the Gas Code or by voluntary codes of practice, is compatible with evolving gas market arrangements, although some fine tuning may be needed to individual terms and conditions to ensure compatibility (this will need further investigation);
- The Victorian market carriage model was designed to support retail contestability and multiple supply sources, but a number of features in the current rules are causing concern. These are being addressed and if the recommendations by the market operator are acted upon, this should allow the Victorian market to interact with the proposed framework;
- The market structures should have a regulatory and governance framework fully compatible with the energy market reform package as announced by the MCE in December 2003;
- Governments should have sufficient comfort in the operation of the market in order to divest, or at least not utilise, the powers of direction that are current employed during times of constraint. The market should be designed to deliver that amount of information required to provide this comfort.
- The design of the market should include a very clear process on the procedures for market suspension and/or curtailment, and the criteria upon which a move to an intervened market would be made.
- Many transition issues would need to be addressed, including:
  - some time for participants to adjust to a new commercial discipline, and
  - for the convergence of existing imbalance markets and governance structures currently operating in NSW and SA

### **Market Intervention**

As stated above, industry has concerns relating to the management of emergency and constraint events. It is recognised in some circumstances, even with a wholesale gas market, there are parties (mass market retail customers) that are not directly impacted by the wholesale price and therefore won't respond to price signals – regardless of the price.

Retailers recognise that in such circumstances, if supply to essential services is threatened or the integrity of the gas supply system is at risk, that it is appropriate for the management of the gas demand to be centrally coordinated.

It is the ERAA's position that there is an urgent need to review gas rationing and gas emergency procedures in all jurisdictions.

In order for this to occur ERAA sees the need for the following way forward:

- The development of better defined emergency procedures,
- The development of gas rationing principles, and
- The development of a market supporting mechanism for period where the wholesale gas market is suspended.

### **Emergency Procedures**

The ERAA proposes the following:

- There should be clear definition of the circumstances under which any market rules would be suspended or resumed.
- Jurisdictions will have a legitimate interest in the development of procedures for the coordinated management of gas demand in the event of extreme circumstances where there is a clear threat to public safety and / or may ultimately require the shut down of substantial elements of gas distribution networks. Where this is the case Shutdown Tables will need to be developed for shutdown / reductions in gas use. In developing these Tables parties will need to balance the impact on the system, ease of operation, and capacity to maintain essential services. These Tables should be developed in conjunction with industry and made public.
- Due to the interconnected nature of the gas system and where events have a wider impact, jurisdictions will need to develop a meaningful agreement (between SA / NSW / Vic / Tas / Qld / ACT) on the use of emergency gas powers between the jurisdictions during a gas crisis. This should be developed in conjunction with industry and made public.

This agreement would need to consider how the interconnected states of South Australia, Victoria, Tasmania, NSW, ACT and (most likely in the near future) Queensland<sup>1</sup>, deal with a catastrophic failure in a key production / transmission facility.

---

<sup>1</sup> In the future possibly Western Australia and / or Northern territory

## **Gas Rationing Principles**

ERAA proposes the following<sup>2</sup>

- Gas rationing processes needs to be transparent, fast (or pre agreed), flexible and quarantined from self interest at the time of the constraint,
- Parties should know in advance the rationale for allocating capacity to reduce the arbitrary nature of the allocation,
- Parties to have notional rights (but not necessarily physical rights) to gas on the day via an allocation mechanism. This mechanism should recognise parties contractual rights to pipeline capacity but also recognise the implications to these users in providing gas to critical social services that must remain on line (eg hospitals), and
- Preference for commercial drivers over legal drivers. Commercial entities tend to respond in their own commercial best interest rather than potentially ambiguous legal process.

## **Suspended Wholesale Gas Market Mechanism**

It is ERAA's desire to see appropriate market mechanisms developed that would allow gas users to respond in a manner that minimised the need for direction regarding the right to consume gas.

In circumstances where a gas market is incapable of clearing, the market will need to be coordinated using direction. In such situations there should be a default value of gas to maintain a commercial discipline in the absence of a market set price. The value of this gas will need to be determined but it should recognise the value of alternative means of supply and the level of security of supply required by the market, including the social value of uninterrupted supply. The default value of capacity should not be disproportionate to the circumstances.

Parties who use more gas than they are notionally entitled to will pay those parties who use less gas than they are notionally entitled. This would be based on the finalised gas rationing principles.

The intent of the proposed mechanism is to ensure:

- The market values gas at times of constraint,

---

<sup>2</sup> These principles are in general agreement with ESCOSA Report "...suggested improvements to the process:" Page 50 – 51 (i) to (v)

- The incentive is in place to invest in system security or maintain viable options for gas supply. If parties are precluded from capturing the full value of capacity during peak periods or when capacity is constrained it takes away the incentive to invest in alternatives,
- The market doesn't become "lazy" and rely on direction when it is capable or has the drivers to deal with the constraints itself, and
- Parties have the incentive to take their own view and work to reduce their own exposure in a quick and efficient manner even prior to direction.

A desired outcome is for parties to react in such a manner that direction is not required, except in extreme circumstances.

Logically, commercial organisations faced with a wholesale gas market in the first instance and a default value of gas in the second instance will ensure they assess their exposure and take measures to "insure" against high priced outcomes if the exposures are considered unacceptable.

A known default transfer price will allow the negotiation of alternative arrangements prior to any event occurring. In agreeing the price of alternatives, parties will be able to take a view on the following:

- Frequency of events,
- Timing (time of year/day – impact on market/s),
- Degree of constraint,
- Own needs, and
- The value of alternatives:
  - Additional capacity on the impacted pipeline (increasing the party's notional access to gas at times of constraint). Increased demand for pipeline capacity should lead to the enhancement of the capacity in the pipeline and increase system security,
  - Install alternative source (fuel oil etc or alternative gas supply system eg SEAGas, EGP, Storage, VicHub),
  - Spot purchase at default value of gas, and
  - Curtailment.

## **Management of Emergency Procedures**

### *Managing Supply Portfolio Complexity*

Complex market interrelationships, competition, the interconnected nature of the various load centres, the use of gas storage and the interrelationship between gas and electricity, has led retailers to develop a complex portfolio approach to gas supply in order to optimise infrastructure utilisation, minimise cost and reduce exposure to variations in market load. Given the unique circumstances of every retailer, these positions cannot be reproduced and it is inappropriate for third parties to manage the retailer's supply and transmission positions.

### *Managing Pipeline Operations*

Unlike electricity, the need to utilise linepack to optimise the management of individual gas pipeline systems means that individual pipeline operators are best placed to manage their own systems and not a central system operator. This is carried out under the contractual arrangements pipeline companies have in place with their shippers<sup>3</sup>. These contracts routinely address the allocation of gas in the event of shortfall in supply into the pipeline system or constraints on the pipeline itself.

### *Demand Management*

It has already been acknowledged that in anticipation of emergencies, jurisdictions will need to develop some form of Shutdown Tables to manage demand. It has also been recognised that the coordination of these tables throughout the whole of the eastern Australian Gas System will need to be agreed to bring predictability and cohesion to circumstances where severe system constraints create a vast range of predominantly disparate jurisdictional (and commercial) drivers. If these system constraints are not appropriately addressed the outcome may not be in the best interests of the overall system efficiency.

A range of process and procedures need to be developed and understood by those parties (jurisdictions, industry and customers) that will be impacted such that these parties may reasonably anticipate how demand will be managed during "generic" emergency events.

At the moment the exercising of these powers may well be in the best interest of the State in questions but not for the overall Eastern Australian Gas System.

Pre-emptive work to manage demand during emergencies may require:

- Disclosure by industry (via the Gas Market Operator) of information relating broadly to gas market supply capability and demand requirements for the development of generic constraint scenarios.

---

<sup>3</sup> These agreements do not exist on electricity transmission systems. This is a fundamental difference between electricity and gas system operations.

- The develop of “constraint scenarios” in conjunction with industry, to provide jurisdictions and industry with “what if” analysis, transparency and understanding of what would happen in the case of certain generic events.
- Development of a methodology to continually inform the market as to the status of the constraint event, reporting to jurisdictional representatives, industry representatives and the market at large. This would include gas and electricity system operators.

## DETAILED COMMENTS

In this section, the ERAA responds to the specific question raised by the Gas Emergency Protocols Working Group Issues Paper.

### 3.1 How effective is the market in managing a gas shortfall?

ERAA considers the current market is effective (within the constraints of the availability of gas and haulage) in ensuring ultimate delivery of gas to customers where there is a gas shortfall, and that the ability of the gas market to manage emergency situations has improved, but there are still areas where further improvements could be made. ERAA believes that improvements should be driven by the need to better manage risk across the industry.

#### *Improvements in managing emergency situations in recent years*

The ability for the gas market to manage emergency situations has increased significantly in recent years. In particular, new supply sources and increased interconnection between regions have facilitated cross border flows for both portfolio management and at times of supply shortfall.

#### *Improvements still required*

However, there are still some areas where improvements are required. In considering what improvements are required, it is worth considering the event that occurred at Moomba in January of this year. The sequence of actions taken to deal with that event involved government setting the allocation parameters, following which industry managed the event. ERAA's concern however, was the allocation parameters had a substantial cost impact on certain members of the industry.

The overriding of commercial arrangements left industry participants with the choice of interrupting supply to their customers or seeking alternative supplies. Generally, impacted retailers response was to seek alternative short term supplies, involving additional costs. The purchasing decisions of the impacted retailers were complicated by uncertainty over specific details of the government's decision. The additional costs were borne by retailers and their customers.

While additional supplies of gas were available in January of this year, there is no certainty that alternative supplies would be available if such an event occurred at a different time of the year.

### *ERAA's Proposal*

Accordingly, in developing an Emergency Response Protocol, ERAA believes that the following principles are critical:

- (i) *Clear principles and process defining when and how jurisdictional powers will be invoked and when intervention will end.*

Intervention would typically be required where the system security is at risk or where the market is unable to clear itself through commercial arrangements.

It is important to all affected parties that there be a clear statement of the circumstances under which intervention would occur. Clear principles and processes should be developed in consultation with industry.

- (ii) *Clarity in relation to the principles that will apply once jurisdictional powers are invoked.*

Clarity about the principles that will apply once jurisdictional powers are invoked is important so that there is greater certainty for industry and governments. The need for clarity can be demonstrated by considering what might have occurred had the Moomba incident occurred during a time of high demand in Victoria.

In January, South Australia was able to source gas from Victoria. However, at a time of high demand in Victoria, South Australia may have been unable to obtain Victorian supply, as Vencorp would likely constrain exports to maintain system security.

This emphasises the importance of clarity about the processes for and basis on which curtailment would occur and that there is a mechanism for “valuing the gas”.

- (iii) *A mechanism or arrangements that ensures participants' commercial arrangements are kept whole in the event of an emergency (eliminating inter-jurisdictional and participant cross subsidies).*

In the event of emergencies where governments direct the flow of gas, retailers need to have the ability to recover costs. Any recovery mechanism should be applied across all jurisdictions.

### *Introduction of escalation procedures*

ERAA supports a mechanism that allows the industry to manage situations to the greatest extent possible before government intervention occurs and allows market responsiveness through demand side management and the trading of gas to manage the situations across regions.

Industry is best placed to make decisions on how to move gas across regions and manage this movement in a way that is least cost and most efficient.

ERAA suggests that an appropriate mechanism would be the introduction of escalation procedures that provide clear principles and processes for intervention and according to the severity of the event.

The implementation of effective escalation procedures should result in better management of emergency situations by providing certainty to participants and governments as to how situations will be managed and by improving the information flows.

The escalation procedures would set out a number of levels of emergency event and detail for each level the actions and information required. The lowest level of escalation procedure would involve a description of the event, duration, market impact, and actions to be taken by participants to prepare to manage the situation if it the situation were to be of longer duration or greater impact. Each higher stage would involve further action such as reducing load.

An emergency coordinator would be responsible for the management of the escalation procedures. Similar escalation procedures exist in other markets and have proven to be effective in managing emergency situations.

### **3.2 How can information on supply and demand be shared?**

A central industry owned and controlled entity would be the most appropriate information exchange repository. The industry body would ensure that information was kept up to date and in an appropriate format such that it could be provided to government on short notice. The information provided to this entity should be held on a confidential basis and only released in an aggregated form to industry participants and government during major gas emergencies.

### **3.3 What are the options for timing of Government involvement under a Protocol?**

ERAA considers that to the extent possible, industry should manage emergency situations with clear principles and processes as to when and how government will become involved. If events are of such a nature that governments need to be involved, then a consultative forum is required with all governments involved having clear predetermined parameters for involvement. These parameters should include clear parameters for directing gas flows and broader directions to industry.

As discussed above, ERAA supports the introduction of escalation procedures as an effective way of managing emergency events. The escalation procedures should define the timing of involvement of the consultative forum.

Together with the industry based central information entity model, ERAA believes that there would be a combined government and industry committee (similar to NOSEC) working above this entity. It would be this committee's task to establish a set of principles for the timing of government involvement under various scenarios. Government involvement could be quite early in the process but only in an information gathering role as industry believes that government should only intervene when there has been a market failure or when there has been significant property damage or threat to personal safety. The guidelines for VENCORP<sup>4</sup> determining the declaration of a level 5 emergency are a reasonable starting point for when government intervention should occur.

### **3.4 What are appropriate principles for gas sharing between jurisdictions?**

ERAA considers that appropriate principles for sharing gas are that:

- Commercial arrangements should not be overridden without compensation;
- No one participant or customer group should cross subsidise another;
- There should be fairness between jurisdictions in relation to gas sharing having regard to the differences between jurisdictions in terms of gas users and usage.

The detailed principles need to be determined in advance, recognising that supply shortfalls can occur for different reasons.

### **3.5 How should demand for gas-fired power generation be managed during an emergency?**

The national electricity market (NEM) conveys accurate price signals to generators during normal operation and during periods of gas constraint. It is imperative that this market be allowed to continue during gas supply constraints to ensure all alternative generating technologies are fully utilised. Inappropriate market intervention will limit this market's ability to deliver the electricity needs of the NEM states. Government intervention should only occur when it has been determined that the delivery of essential electricity cannot be provided to the market due to a market failure condition.

---

<sup>4</sup> VENCORP Emergency Procedures issue 4 item 6.2. Guidelines for determining the declaration.

### **3.6 How can market participants' commercial rights be better recognised?**

Presently jurisdictions have the ability to over-ride commercial or contractual rights of participants. While ERAA recognises that this may be required at times of emergency, it is important to recognise the inter-connected nature of the current gas market. Participants have diverse portfolios with varying contractual arrangements across several regions.

It is therefore essential that decisions that are made recognise this impact and that solutions are put in place to ensure equitable outcomes for all participants.

ERAA envisages that where trading arrangements provide a transparent market price (or prices) for gas, then that market price would provide a basis for the market to manage scarce supply at the lower levels of the escalation procedures. Where such a transparent price is not available, or in any case at the higher level of the escalation procedures, ERAA envisages that a default value of gas will need to be established to reflect the cost of alternative supply and transportation arrangements.

### **3.7 Are current jurisdictional emergency powers effective?**

ERAA has some concerns with the current jurisdictional powers, as they focus on directing flows of gas and preventing flows across states. Such an approach is likely to cause difficulties if emergency events were to occur at a time of high demand across all regions. ERAA considers that solutions need to be more focused on allowing industry to manage situations to the extent possible.

### **3.8 What is the most appropriate scope for a Protocol?**

ERAA supports the scope of the protocol that is set out in the Issues Paper.

### **3.9 What is the most appropriate form for a Protocol?**

ERAA supports a protocol that provides certainty to the market and industry. Industry strongly supports a high level of industry consultation. Accordingly, ERAA considers that it is imperative that the form of the protocol is one which the key decision makers support.

### **3.10 What is the most appropriate content for a Protocol?**

It has been suggested that the Protocol could cover the following matters:

- Emergency response coordination;
- The extent to which market based mechanisms should continue before intervention is required;
- Information provision requirements;
- Roles and responsibilities of Governments;
- Roles and responsibilities of market and responsibilities of market participants and end-users;
- Gas sharing arrangements;
- Communication protocols.

ERAA supports the content of the protocol and suggests that a working group comprising industry and government should further consider these issues.

### **3.11 What are the most appropriate/effective emergency communications protocols?**

It is paramount to have effective communication in the event of an emergency. ERAA considers that active management of communications protocols is imperative and suggests that a list of key personnel should be developed and provided to an emergency coordinator.

### **3.12 What support mechanisms are necessary?**

ERAA is supportive of industry managing situations to the extent possible with government only intervening where the market is unable to clear itself or system security is at stake. However, ERAA supports the introduction of an emergency coordinator to manage emergency situations. The involvement of the emergency coordinator should be set out in escalation procedures. The emergency coordinator would provide a mechanism for informing industry and governments while, at the same time, protecting the commercial integrity and sensitivity of market participant's information during these events.