Energy Retailers Association of Australia Incorporated

19 November 2008

The Chairman
Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

Dear Dr Tamblyn,

Re: Review of energy market frameworks in light of climate change policies – Scoping paper

The Energy Retailers Association of Australia (ERAA) appreciates the opportunity to comment on the Australian Energy market Commission's (AEMC) scoping paper related to the impact of climate change polices on energy market frameworks.

ERAA members are involved in retailing electricity and gas across Australia. The impacts of climate change policy have impacted on our members for some time, however there is no doubt that the impacts of the Carbon Pollution Reduction Scheme(CPRS) and the expanded Mandatory Renewable Energy Target scheme (RET)will dramatically increase the impact on energy markets in coming years.

In this context the ERAA supports the review currently being conducted by the AEMC, and believes that the scoping paper picks up most of the key impacts that will affect our members as these policies proceed. The following submission sets out in more detail the areas of the market frameworks that could impact on retailers as climate change policies are introduced, and their materiality.

Convergence of gas and electricity markets

1. How capable are the existing gas markets of handling the consequences of a large increase in the number of gas-fired power stations and their changing fuel requirements?

Historically the Eastern Australian gas market has been characterised by large quantities of gas available and relatively low demands. This benign supply/demand situation has led to the east coast market experiencing low gas prices by international standards.

Suite 306, 460 Pacific Highway, St Leonards, NSW 2065
Tel: (02) 9437 6180 Fax: (02) 9437 6790 www.eraa.com.au
ABN 24 103 742 605

The introduction of the CPRS is expected to result in large increases in gas fired generation. In addition, a number of LNG export facilities are proposed which will further increase demand for gas, potentially creating a link between international and domestic prices.

Under this environment significant investment in gas production and transport infrastructure will be required. While much of the CPRS inspired generation is likely to operate at a high load factor (to displace coal), gas stations are also likely to be required to provide peak load capacity – particularly to help manage intermittent supply from the forecast large increases in RET induced wind capacity. From a gas market perspective, this is likely to result in increased demands on gas capacity (ie. MDQ and MHQ), compared to what has historically been the case.

These impacts concern retailers in a number of areas including:

- Potential underlying increases in gas prices as the demand for gas increases substantially;
- Concerns about long term availability of gas given the quantities of reserves that will be required to underwrite the base load power stations and LNG facilities (i.e. will replacement reserves be found to ensure ongoing supply security?);
- An increasingly volatile intra-day gas demand profile as the proportion of power generation increases. This will severely test the cost allocation mechanisms in both the Victorian gas market and the STTM (once it is established);
- Constraints on asset operation and nomination timing that make existing system operation and commercial arrangements unable to cope with increasingly volatile intra-day gas demands;
- Costs accruing to retailers as a result of delays in infrastructure investment due to the inability of regulatory regimes making timely investment decisions in the face of uncertainty related to climate change policy directions; and
- Inhibiting the ability of retailers to pass through higher gas wholesale prices in those jurisdictions where price regulation it is retained.

The ERAA focuses below on the questions that are likely to have material impact for retailers.

Suite 306, 460 Pacific Highway, St Leonards, NSW 2065
Tel: (02) 9437 6180 Fax: (02) 9437 6790 www.eraa.com.au
ABN 24 103 742 605

2.What areas of difference between gas and electricity markets might be cause for concern and how material might the impacts of such differences be?

The likelihood of increasingly variable gas power station dispatch due to the RET policy, and contingency effects arising from increasingly prevalent base load gas power stations tripping are all likely to result in a increased volatility in gas market load.

In contrast to this gas market arrangements (outside Victorian) tend to be geared toward managing daily demand cycles. Even the Victorian market, with its four hour scheduling arrangements, is likely to face increased challenges as Victoria's electricity system changes in response to the CPRS and RET policies.

Spot markets for gas are expected to have trouble dealing with high levels of intra-day demand volatility. It will be critical for retailers that the cost allocation and recovery regimes operating within these markets are adapted to ensure that costs created by power generation variations are borne by the generators, and not smeared across the retail sector.

The AEMC should review such cost recovery arrangements in both the Victorian and proposed STTM regimes to ensure that unmanageable and unhedgable costs are not imposed on retailers who manage their gas trading activities in a responsible manner. This is a material issue.

Generation capacity in the short term

3. What are the practical constraints limiting investment responses by the market?

To a large extent contracts in the electricity market are underwritten by retailers.

One key risk is the regulatory uncertainty surrounding costs pass through in the retail market as a result of continuing price regulation in jurisdictions. This situation is exacerbated with the introduction of the CPRS where doubt remains as to whether retailers will be able to pass on the carbon costs to customers. An inability to do so will have negative implications for a retailer's ability to enter into contracts with new generators. This is likely to constrain the level of investment in new generation in the market.

Another key risk that has become apparent in the existing regime, which is currently unmanageable, and which developers often seek to pass-through to retailers in contracting, is the risk of major changes to Marginal Loss Factors (MLFs).

Suite 306, 460 Pacific Highway, St Leonards, NSW 2065
Tel: (02) 9437 6180 Fax: (02) 9437 6790 www.eraa.com.au
ABN 24 103 742 605

Experience has shown that these variables can change significantly from year to year, and further negative changes to MLF are likely given the sustained investment required to meet the expanded RET. Retailers will be deterred from signing contracts of this kind if this risk remains unmanageable, and this could limit investment by proponents.

The significant increase in new intermittent generation is likely to lead to new patterns of congestion. An increased level of congestion creates uncertainty regarding the level of access available to all generators, as congestion can often result in the 'constraining off' of some generators. Congestion risk is therefore likely to become a barrier to investment as developers, investors and bankers begin to factor this in their investment decisions.

4. How material are these constraints, and are they transitional or enduring?

For retailers the MLF risk is material and enduring. Regulatory change to stabilise loss factors, preferably at the time of investment, is required to remove this constraint to ongoing investment.

5. How material is the likelihood of a need for large scale intervention by system operators? How likely is it that this will be ineffective or inefficient?

It is unlikely that the current mechanisms would be effective in dealing with an ongoing significant shortfall in capacity. It is therefore important that action is taken to strengthen the investment signal in the market by addressing the issues discussed above.

In any case the current market intervention mechanisms are less than ideal due to their distortion effect on the market. The Reliability and Emergency Reserve Trader and Reliability Directions, result in unhedgeable costs which are passed through to retailers. In markets where regulated retail prices remain in place, this does nothing other than move the financial stress from the generator to the retailer. In uncapped markets, it is likely that the cost would be passed through to customers.

Retailers would be very concerned if these intervention mechanisms were being relied upon to manage the impacts of the upcoming policy transition. Such an outcome would signal a major failure in market design and is unlikely to be sustainable.

Suite 306, 460 Pacific Highway, St Leonards, NSW 2065
Tel: (02) 9437 6180 Fax: (02) 9437 6790 www.eraa.com.au
ABN 24 103 742 605

Investing to meet reliability standards with increased use of renewables

6. How material is the risk of a reduction in reliability if there is a major increase in the level and proportion of intermittent generation?

The RET in particular will lead to a significant increase in the volume of intermittent generation (chiefly wind) entering the electricity market. In order to ensure that reliability is maintained, it will be important to ensure that sufficient returns are available to investors in peaking plant, which will be needed to back up intermittent generators.

Interestingly, due to its low marginal cost, increasing levels of wind generation is likely to 'crowd out' gas fired generation, weakening the ability of existing and new gas fired peaking capacity to recover their fixed costs.

In its' recent review of reliability settings, the Reliability Panel determined that an increase in the Value of Lost Load (VoLL) was required to help stimulate investment in peaking plant and to ensure that the reliability standard is met in the coming years. This analysis was in the absence of the Climate change policy interventions - the subject of this Review.

It therefore means that further changes to the reliability settings may be required to ensure that the reliability standard continues to be met.

7. What responses are likely to be most efficient in maintaining reliability*?*

The ERAA supports a proactive approach in managing reliability. The two-yearly review of the reliability settings, including VoLL, will provide the opportunity to monitor changes in the market and assess the appropriateness/effectiveness of the increase in VoLL. From a retailer's perspective, it is important to ensure that whatever adjustment is made to the reliability settings or market structure is balanced against the costs to market participants and that some mechanism is provided to help manage any resulting cost increases.

As outlined above, retailers' key concern under any approach will be to ensure that costs allocated to them can be managed in a predictable way, and that uplifts or other unpredictable costs are avoided. Any approach resulting in unmanageable costs should be considered inefficient by the AEMC and disregarded.

Suite 306, 460 Pacific Highway, St Leonards, NSW 2065
Tel: (02) 9437 6180 Fax: (02) 9437 6790 www.eraa.com.au
ABN 24 103 742 605

Operating the system with increased intermittent generation

8. How material are the challenges to system operations following a major increase in intermittent generation?

9. Are the existing tools available to system operators sufficient, and if not, why?

10. How material is the risk of large scale intervention by system operators and why might such actions be ineffective or inefficient?

11. How material are the risks associated with the behaviour of existing generators, and why?

The large increase in intermittent generation anticipated under a CPRS will make it more challenging to maintain network stability and system security. There is likely to be a greater need for spinning reserves to manage frequency and reactive power to manage voltage control.

With regard to the behaviour of existing generators, discussion in the scoping paper, related to the challenges faced by existing plants which have not been designed to operate with the degree of flexibility required to meet the challenges of large increase in intermittent plant. In particular the ability of gas fired stations to be available to deal with rapid reductions in intermittent plant is likely to be of concern.

A foretaste of this problem is already being witnessed in South Australia, with some instances of negative pool prices being witnessed in high wind, low demand periods. Under these conditions, multiple gas / coal units have been committed overnight and operating on minimum load to be available to meet the peak demand the following day. Co-incident high wind production in the state has resulted in excess generation conditions, and negative prices.

If these conditions were sustained over the long term, it is not clear that sufficient incentives on the firm generators would remain to continue operating.

The exposure to these negative prices will depend on contractual structures between generators and their customers. While in the short term these structures have been established to deal with the current market structure (or at least the market structure in the immediate past), future contracts may take into account the likelihood of these excess generation conditions and provide enhanced incentives to reduce the likelihood of excess generation conditions occurring.

From a retailer point of view, contracts can result in the risk of negative prices being faced by retailers (rather than generators). Therefore it is in retailer interest to reduce the risk of such outcomes and seek more sustainable contract structures in the future.

Suite 306, 460 Pacific Highway, St Leonards, NSW 2065
Tel: (02) 9437 6180 Fax: (02) 9437 6790 www.eraa.com.au
ABN 24 103 742 605

More sophisticated contracting may assist mitigating this risk, however due to long contract terms, and other factors this solutions may not completely eliminate incentive problems of this type – at least in the medium term.

Connecting new generators to energy networks

12. How material are the risks of decision-making being "skewed" because of differences in connection regimes between gas and electricity, and why?

There are two separate investment regimes operating in the Australian pipeline industry, a contract carriage regime (operating in most of Australia), and a market carriage regime (operating in Victoria). The Victorian regime determines which investments proceed on a similar basis to the electricity regime's regulatory test (as applied by VENCorp), while the contract carriage regime involves shippers contracting for capacity on the pipeline – with the contract underwriting the investment.

The contract carriage regime has shippers directly facing the full cost of developing any required pipeline infrastructure. This means that the cost of augmentation is directly factored into locational decisions for power stations. In contrast, the electricity regime only requires the generator to fund shallow connection costs, with deeper costs being funded by customers (providing there will be net market benefits or reliability benefits from the investment). This means that if the generator believes there is a strong chance of market or reliability benefits emerging – it will not face the electricity transmission costs of its locational decision.

This can result in an incentive for generators to locate in a way that minimises gas transmission (directly funded by the generators) and maximises electricity transmission (paid for by others). Clearly such incentives may be sub-optimal from a societal point of view (if transmitting gas would have been a lower overall cost to society than transmitting electricity), while being optimal from the proponents point of view. It is likely that this situation will materially reduce dynamic efficiency associated with generation location compared to a scenario where the generator proponent faced the full costs of both electricity and gas transmission.

Under the VENCorp model a key risk for generator or other developers of merchant assets (eg. producers, storage providers etc.), is the risk that regulated network infrastructure will not be built in a timely manner, or with sufficient specifications to meet its needs. The option for proponents to invest in the shared system in order to bring forward development is available, however uncertainty over the effectiveness of the congestion property right associated with such investments is a barrier to such investment proceeding.

Suite 306, 460 Pacific Highway, St Leonards, NSW 2065
Tel: (02) 9437 6180 Fax: (02) 9437 6790 www.eraa.com.au
ABN 24 103 742 605

Given the convergence of gas and electricity markets it would be preferable if investment regimes could be better aligned to provide efficient locational signals to generation developers.

13. How large is the coordination problem for new connections? How material are the inefficiencies from continuing with an approach based on bilateral negotiation?

This section in the scoping paper raises the possibility of a central planner “picking” renewable investment areas and building transmission networks to these areas on the "expectation" that generation will locate there.

From a retailer's point of view, the concern is that building large assets well ahead of time could lead to stranded assets, which raises the risk of large network costs increases, with potentially little gain. It also has a sense of central planning about it which may be seen as inconsistent with the market based principles on which the NEM has been developed.

It is with these concerns in mind that the ERAA expresses some caution toward this approach. The retail sector has a lot of experience in having to deal with inefficient cost recovery processes from the errors of central planning in the past (eg. the Victorian smelter levy / land tax). We would be very concerned about uplifts or “special levies” of any kind re-entering the market.

14. Are the rules for allocating costs and risks for new connections a barrier to entry, and why?

There would appear to be some benefits to TNSP’s having the option to facilitate some form of discussion between potential generation developers to allow shared development of connection assets where this is efficient. The ERAA would be supportive of the AEMC exploring such measures while giving careful consideration to competition and legitimate confidentiality concerns of proponents.

Augmenting networks and managing congestion

15. How material are the potential increases in the costs of managing congestion, and why?

As outlined above, many renewable developers seek to pass market risks through to their retailer customers when developing new power stations. This can mean that in some structures retailers can be exposed to congestion risk. For example, if a contract did not have a minimum delivery quantity of REC’s, and the contracted plant faced congestion significant enough to severely limit its output in

Suite 306, 460 Pacific Highway, St Leonards, NSW 2065
Tel: (02) 9437 6180 Fax: (02) 9437 6790 www.eraa.com.au
ABN 24 103 742 605

a year, then the retailer could be left short of renewable certificates in that year. For this reason, retailers are keen to ensure that generation developers have the ability to determine their access to the local reference node at the time of development.

In theory the current national electricity rules (NER) allow generators to lock in a level of access at the time of their connection (or get compensation if they are constrained). Despite this, the ERAA is not aware of any instances of a TNSP having implemented such an arrangement. In addition, disputes are commonplace between incumbent generators who have access levels laid out in their contracts and TNSP's who have failed to ensure that all parties connecting to their network have compatible clauses to allow such access to be delivered.
As such there is no practical way for a developer of generation (or an off-taker or other investment underwriter) to be able to lock in a well defined level of access to the regional reference node (RRN) at the time of investment.

It is highly likely that with the large increase in renewable and gas investment in non-traditional generation areas, and potentially with the closing down of traditional high emission stations, that congestion is likely to significantly increase. The ERAA is concerned that not all debt and equity investors understand the magnitude of these risks.

It is essential that all generators have the ability to lock in a clearly defined level of access to the RRN at the time of connection. The regime should ensure that connection of future generators does not undermine the investments of existing generators. Failure to resolve this issue will perpetuate a growing barrier to investment and increase difficulties in delivering on the policy goals of the CPRS and RET scheme.

16. How material are the risks associated with continuing with an "open access" regime in the NEM?

The key risk that the ERAA has identified in the NEM investment environment associated with access is the inability for generators to lock in certainty of access to the reference node for the life of their project. As this risk becomes more widely understood and apparent, it is likely that debt and equity investors will either abstain from investing in the NEM (as the CPRS will create a wide range of infrastructure investment needs that will compete with the NEM for capital), or else push up discount rates to compensate for this unmanageable risk. Either case is undesirable.

It is widely accepted that projects without certainty about fuel supply cannot get funding. Access to the local reference node is a similar risk – and once it becomes understood by investors that this is not possible in the NEM this is likely to become a serious barrier to investment as well.

Suite 306, 460 Pacific Highway, St Leonards, NSW 2065
Tel: (02) 9437 6180 Fax: (02) 9437 6790 www.eraa.com.au
ABN 24 103 742 605

The ERAA considers generator access as a material issue that should be addressed in this review.

17. How material are the risks of "contractual congestion" in gas networks and how might they be managed?

The discussion of this point in the scoping paper does not make it clear what exactly the AEMC has in mind when it refers to "contractual congestion".

We assume this may refer to situations where a dominant retailer may hold the majority (or all) of the contractual capacity available on a particular network element. When a competing retailer seeks a contract on the asset it is not able to obtain one, and therefore is not able to compete for customers in that network section. We consider this to be much less of an issue in states other than Victoria, where any expansion in additional capacity confers firm access rights. In Victoria, however, participants do no obtain firm access over capacity they create and there is therefore a disincentive to undertake such investment, which creates issues for contractual congestion in the future.

18. How material is the risk of inefficient investment in the shared network, and why?

A key issue for retailers is investment in the Victorian regulated gas transmission system.

Current constraints in the planning process have meant that investments have been delayed resulting in significant costs to retailers (as the key traders in the market). It is not clear that that current regulatory process will allow system developers to factor in increasing power generation requirements early enough to ensure that system constraints will be avoided. This is likely to result in intra-day constraints on the Victorian system which could impact severely on gas retailers via uplifts, congestion costs or high gas prices resulting from the need to use expensive LNG.

It is important that the Victorian investment regime is flexible enough to respond in a timely manner to changes in demand and cross system flows resulting from increased power generation and changes in production away from historic trends.

19. How material is the risk of changing loss factors year-on-year?

As outlined above, this is a material risk, and due to the nature of many contractual arrangements, a risk that often falls on retailers.

Suite 306, 460 Pacific Highway, St Leonards, NSW 2065
Tel: (02) 9437 6180 Fax: (02) 9437 6790 www.eraa.com.au
ABN 24 103 742 605

A review of loss factors from year to year on the NEMMCO website will reveal several examples of loss factors changes from well in excess of 1 to well under 1 (eg. less than 0.9). Each 0.1 change in a loss factor reduces the revenue expectation for a project across its life by 10%. Changes of over 20% have been seen in the NEM.

Uncertainty over future revenue streams of this magnitude is not acceptable to investors. An ability to lock in a loss factor at the time of investment is required to ensure adequate stability in the investment environment.

It is worth noting that from an investor's point of view, the locational incentive provided by MLFs is completely undermined if there is a strong likelihood of them falling significantly over time.

The outlook for the expanded RET is that any project located in a network area with an attractive loss factor, is likely to have another project locate nearby soon afterwards. Investment by a second plant is likely to drive down the loss factor significantly. With this outlook, the effectiveness of loss factors as a locational signal is again undermined.

The ERAA regards this matter as material and supports exploration of a solution in this review.

Retailing

20. How material is the risk of an efficient retailer not being able to recover its costs, and why?

In most NEM jurisdictions (with the exception of Victoria from Jan 2009) regulated retail price caps remain in place for small customers. The ability of the retail sector to pass through cost increases related to serving these customers is subject to arbitrary decisions by government or regulators.

The introduction of the CPRS and expanded RET, as well as the myriad of other schemes justified on the basis of climate change (eg. VEET, etc.) will create significant cost increases for retailers.

Experience across the NEM has shown that the ability to pass through large retail price increases is often highly problematic.

In this environment the ERAA sees the risk of inadequate cost pass through as highly material, and sees a real risk of the loss of gains in competition experienced to date in some NEM jurisdictions if such a situation eventuates. The ERAA strongly encourages the AEMC to make this point in its report to the MCE.

Suite 306, 460 Pacific Highway, St Leonards, NSW 2065
Tel: (02) 9437 6180 Fax: (02) 9437 6790 www.eraa.com.au
ABN 24 103 742 605

21. What factors will influence the availability and pricing of contracts in the short and medium term?

Currently the majority of contracts that are traded post 2010 contain carbon cost pass through clauses. This means that it is difficult for retailers to offer firm prices to customers without a means to manage carbon price risk.

It is also worth noting that liquidity in this period is also low.

The key drivers for this situation is the lack of certainty over the governments CPRS and RET plans. Both will have significant impacts on both the underlying energy price and the cost of carbon.

It is likely that contract market post 2010 will remain illiquid and subject to carbon price pass through until the government delivers a firm RET and policy positions. For this reason, the ERAA does not see a role for this AEMC review in influencing this situation.

22. How material are the risks of unnecessarily disruptive market exit, and why?

ERAA members span the full range of retailers, from large well financed incumbents, to small innovative recent entrants.

Key challenges face all of the retailers as the CPRS and RET roll out. Some of these include:

- Higher pool prices as carbon is factored into generator costs – this will push up NEM prudential requirements and other working capital requirements which could prove onerous to some smaller retail participants;
- Introduction of a scheme without adequate compensation could lead to the financial collapse of high emission generators – under some scenarios resulting in retailers losing hedge cover and facing unsustainable energy costs;
- Distressed generators, delays in new investment may create conditions in which generators have incentives to maximise returns in the short term – potentially resulting in high pool prices and inadequate hedge cover available for retailers;
- Price increases could increase the level and extent of customer bill payment difficulties and in the absence of appropriate government funded support measures, increase customer default levels and retailer bad debt exposure.

Suite 306, 460 Pacific Highway, St Leonards, NSW 2065
Tel: (02) 9437 6180 Fax: (02) 9437 6790 www.eraa.com.au
ABN 24 103 742 605

While the likelihood of these scenarios varies, they are all within the realms of what may eventuate under various scheme implementation options. A number of them would result in retailers defaulting on obligations to NEMMCO, and the consequent triggering of a ROLR event.

If a large retailer was to default the risks of cascading defaults could be quite high.

In the instance of a ROLR event in the gas markets, it is not at all clear how physical gas could continue to be delivered to customers, even if they were allocated to a ROLR retailer successfully. This is because it is unlikely the receiving retailer would have sufficient contracted production capacity to meet the needs of the new customers, and it is difficult to see sufficient capacity being able to be negotiated in the timeframes that would be required. A likely outcome may be that governments may be forced to exercise emergency powers – and likely have to foot the bill for some gas to keep the customers on supply.

The ERAA has long held the view that these ROLR arrangements are not workable, and that a more market based approach is required which allocated customers to retailers in the best position to manage them at the time of the ROLR event.

There is a material risk of ROLR events and this area should be examined by the AEMC.

Financing new energy investments

23. What factors will affect the level of private investment required in response to climate change policies?

The key driver of retailer investment is adequate retail margins. Investment has been strong in areas were margin has been attractive, and negligible in areas were price caps limit the ability of retail investors to recover costs.

Apart from this, clear predictable market arrangements which ensure that risks can be managed through behaviour or investment are required.

24. What adjustments to market frameworks, if any, would be desirable to ensure this investment is forthcoming at least cost?

The progressive increase of regulated price caps to levels allowing cost recovery, followed by the removal of these caps is the single biggest change that would drive increased retailer investment.

Apart from that, addressing the material risks outlined in the submission above would create a NEM investment environment that would support efficient

Suite 306, 460 Pacific Highway, St Leonards, NSW 2065
Tel: (02) 9437 6180 Fax: (02) 9437 6790 www.eraa.com.au
ABN 24 103 742 605

implementation of the objectives of climate change policies, and delivery of the NEM objective.

If you require any further information in relation to this matter please feel free to contact me on (02) 9437 6180.

Yours sincerely

Cameron O'Reilly
Executive Director
Energy Retailers Association of Australia

Suite 306, 460 Pacific Highway, St Leonards, NSW 2065
Tel: (02) 9437 6180 Fax: (02) 9437 6790 www.eraa.com.au
ABN 24 103 742 605