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Dr John Tamblyn
Chairman
Australian Energy Market Commission
AMEC Submissions
PO Box A2449
Sydney South
NSW 1235

Your reference: EMO 0001: 1st Interim Report

Dear Dr Tamblyn,

**Review of energy market frameworks in light of climate change policies – 1st interim report**

TRUenergy is pleased to have the opportunity to comment on the first interim report related to the current AEMC review into the impacts of climate change policies on energy market frameworks.

As we made a detailed submission on the scoping paper, we have opted to focus our comments on the first interim report largely on areas that we believe require further consideration by the Commission, or were we have other more specific comments to contribute. Our comments on the areas raised in the report are set out below.

## A1. Convergence of gas and electricity markets

We are broadly comfortable that gas market arrangements outside Victoria are flexible enough and provide and adequate investment environment to support increased gas fired power generation as a result of the CPRS.

The main area where we remained concerned is the Victorian gas transmission investment framework.

In particular this framework relies on the ability of VENCorp to apply a market benefit test to determine if an augmentation to the principal transmission system is required. Unfortunately, VENCorp's approach to making these market benefit assessments is reactive, and does not factor in highly likely future developments until they are firmly committed. For example, while it is quite clear that the CPRS will drive significant

additional gas fired generation in Victoria, the current approach does not factor this into the market benefit test until connection applications are received.

While at a high level, the approach of waiting for connection applications has appeal, it does have some downsides. In particular, challenges occur when the lead times associated with transmission assets (eg. pipelines and compressors) are often of the same magnitude as power station development times. This means that the inability to pre-emptively develop the network to meet highly likely but not yet committed demand, is likely to lead to delays in generation development. Excessive delays in generation development will impact on the costs of meeting the CPRS objectives.

Another approach open to investors under the National Gas Rules (NGR) that would theoretically help to resolve this problem is for investors to fund the gap between the assessed market benefits and the cost of the augmentation. Unfortunately the rights that are received in exchange for such participant funding are inadequate to allow credible business cases to be developed. Thus participant funding is unlikely to overcome the reactive nature of this investment regime.

We would support the Commission further exploring this matter with a view to ensuring that the Victorian principal transmission system investment environment can efficiently support increased power generation investment, and does not become an impediment to achieving the objectives of the CPRS at reasonable cost.

## A2. Generation capacity in the short term

The Commission has indicated that in its view the NEM framework is likely to deliver adequate investment to ensure reliability in the medium term. We broadly support this view, subject to the key investment barriers discussed in this submission being adequately addressed, including:

- Ensuring the gas pipeline investment regime in Victoria is supportive to power generation development, and development of upstream facilities that will be required to supply the expanding power generation fleets fuel requirements driven by the CPRS;
- Generation investors need to be able to reliably predict the level of electricity network congestion that will apply over the life of an investment at the time of the investment decision; and
- The risk of variability in static loss factors must be acceptable.

*Proposal to enhance the RERT*

In the near term, prior to a time at which new supply side options could be developed, the Commission has indicated that reserve shortfalls have been forecast, and that enhancements to the RERT may be needed to deal with these matters.

Because this timeframe spans the period before supply side options are available, it is clear that the proposed enhancement to the RERT can not be targeted at the supply side. Hence, we assume the proposed enhanced RERT is primarily intended to fund greater demand side participation.

In this context, we believe a case has yet to made as to why demand side that will not become economic on their own merits warrant additional assistance from an enhanced RERT, or indeed why the current RERT would be deficient in bringing such options into play if required for reliability reasons.

In the scenario being painted (ie. a supply shortfall in the period until new plants can be built), it seems intuitive that a price response would be expected from the contract market. For example, if supply side options are completely exhausted, it would be expected that the price would rise until hitherto uneconomic demand side options became commercial. Under these conditions it is not clear why a RERT would be required to bring these options forward. A clearer case will be required from the Commission before more work on enhancing the RERT can be justified.

From a retail point of view, TRUenergy opposes use of the RERT mechanism, as it imposes uncapped and unhedgeable costs on retailers which must be passed through to customers.

Apart from the obvious problem of an inability to pass such imposts through in jurisdictions where inflexible retail price regulation remains; even in deregulated markets RERT events create unwelcome cost imposts on customers who rely on the energy industry to be able to deliver a predictable price that can be factored into their annual budgeting and pricing activities.

In summary, we are not convinced that:

- The RERT mechanism, in either its current or an enhanced form would be efficient in addressing any short to medium term reserve shortfalls;
- A strong case has yet to be made that additional regulatory intervention would enhance the market objective in this area.

## A3. Investing to meet reliability standards with increased use of renewables

*Energy only market & reliability settings*

TRUenergy is generally comfortable with the energy only market design provided reliability settings are adequate.

In addition, we support the current framework for periodically reviewing the reliability parameters to ensure they remain adequate. In this regard we note that should evidence emerge of need for a rapid change in the reliability parameters, the option of a rapid rule change to bring forward amendments remains available if required.

## A4. Operating the system with increased intermittent generation

We remain concerned with the current approach to dealing with several ancillary services, which are likely to be strained by the increased entry of renewable plant.

In particular the mandatory requirements approach used in sourcing reactive power and inertia are an ongoing source of inefficiency which needs to be addressed.

For example the mandatory requirement for provision of reactive power inherent in the existing regime creates incentives on generation developers to minimise their reactive power capability (in order to minimise exposure to technical compliance penalties).

The best example of inefficiencies related to this regime is in South Australia, where licensing requirements have been altered to mandate additional provision of reactive, to ensure the system can continue to be managed. In contrast, if a commercial driver for generators to provide reactive was present –commercial trade offs could be made between network and generation reactive investment to lead to more efficient overall investment outcomes.

Similar problems have emerged in relation to the increased prevalence of low inertia plant. Simple adjustments to the implementation of the frequency control regime could be made which would provide additional revenue opportunities to high inertia plants, which would encourage them to voluntarily remain committed – and hence providing inertial response to the power system – based on economic trade-offs.

The Commission should pursue these matters in the course of this review, as efficiencies to be gained by making procurement of these services commercial will be lost if appropriate regimes are not put in place prior to the majority of RET and low emission generation investments being developed. We do not believe it is appropriate to delegate the establishment of fundamentally new markets to the market operator NEMMCO, and therefore support these matters being progressed by the Commission.

**A5. Connecting new generators to energy networks**

TRUenergy agrees with the Commission, that there is potential for efficiency gains if co-ordination problems associated with the current connection regime can be overcome. In particular we concur that economies of scale in transmission investment are likely to be available in prospective resource areas if co-ordination of connection timings can be managed.

The two main variants presented by the Commission in this area are the open season variant, and the options that offer different approaches to sharing the stranding risk of pre-emptively built assets.

After considering these options, we are concerned that the open season approach could introduce as much inefficiency as it addresses. For example, it is possible that projects conceived after the season has ended may face problems in obtaining adequate access. While this option would not expose customers to stranding risk, we are concerned that the other inefficiencies it creates could still limit the achievement of the customer benefits that may be available if economies of scale could be fully achieved.

The second option presented proposes a high level economic assessment to identify potential hub areas, and then if a threshold (say 50%) of the capacity is committed to by developers, the full line is constructed with the risk of asset stranding (if the remaining 50% is not utilised at a later date) being born by customers. This option appears more likely to allow full economies of scale to be achieved, and has the

ultimate beneficiaries of these economies (eg. the customers in the investing region), face the risk of asset stranding if forecast connections do not eventuate.

While there is still a lot of detail to be worked through on option 2 – we support its further development by the Commission. Some key areas to be fleshed out on this model include more definition of the economic assessment criteria, and how prospective hub locations would be selected.

We also note that for this model to maintain the integrity of the NEM's locational pricing signals – generators who commit to capacity on the hubs will need commensurate predictable access to the reference node associated with this investment for the life of their project. This matter is further explored in the next section on congestion. Should sufficiently predictable access to the node not be available in exchange for funding the transmission, the locational signal will be undermined. If this was the outcome, then some variant of the option 4 cost allocation methodology would be the only viable option. However this would severely reduce dynamic efficiency in the NEM, and so is not recommended.

## A6. Augmenting networks and managing congestion

In terms of congestion, the Commission proposes to further assess the likely incidence of congestion in the presence of the RET and CPRS.

TRUenergy is very concerned about the barrier to generation investment that the existing implementation of the NER access regime, with its inability to manage congestion risk, is creating. While in the past, locations could readily be found which could accept generator connections with minimal impacts on existing network users, we now find that excess network capacity is becoming increasingly scarce.

*Generation investment requirements*

It is important that the Commission fully considers how congestion risk impacts on generation developers. Key requirements in any generation development are access to fuel supply for the life of the project, and a revenue source for the project.

Currently developers in the NEM can manage fuel procurement risk – either by participating in an upstream fuel market (eg. for natural gas, coal etc.) or by demonstrating adequate renewable resource availability in an area (eg. wind monitor records).

In addition market risk can be managed at a regional reference node by participating in the wholesale contract market, or in some cases by directly retailing to customers.

The key area that cannot currently be managed is the risk of congestion in the network between the generator location and the reference node.

This breakdown in the revenue chain presents real challenges to developers, who's only option at present is to make a high level assessment of the likelihood of connection of a congesting generator at some time in the future, and factor a risk margin into the project to attempt to deal with the inability to be able to predict access over time.

*Current examples of this investment barrier*

TRUenergy is currently facing the inability to manage congestion risk at two of our development projects: the Hallet power station in South Australia and the Solar Systems facility in northern Victoria.

In both cases we have assessed current levels of available access to the reference node would be adequate for our needs, but have identified that large quantities of renewable capacity has been foreshadowed in locations that would, if these projects proceed, severely limit the ability of our projects to access the node. It is therefore difficult to commit to these investments in the knowledge that our ongoing ability to market the energy output of the stations at the regional reference nodes is likely to decay significantly within a short time of making the investment.

We note that in both cases, locations have been selected after identifying available network capability – but that the effort of determining these locations is now worthless given that we have no ability to lock in this benefit for the life of the project. This outcome significantly limits the practical impact of the locational signal delivered by congestion that the Commission mentions in its report.

These real life examples illustrate that the lack of an ability to be able to predict reliable access levels over the life of a project are a real barrier to entry. In this context we do not believe more modelling is required to demonstrate that congestion is currently creating, and will continue to create, significant problems in the market if it remains unaddressed. Significantly, we note that the mere perception of likely future congestion is enough to increase entry barriers both for renewable and conventional generation projects.

*Will the enhanced transmission planning arrangements deal with the congestion problem?*

In its interim report, the Commission presumes that the recent changes to the transmission planning arrangements including the changes to the RIT-T, the National Transmission Planner and the Last Resort Planning Power will be sufficient to deal with any increased congestion that result from the introduction of the CPRS and enhanced RET. Whilst these changes may help to marginally improve the current arrangements by facilitating some minor additional development of transmission to deal with congestion, generators are not convinced that these changes alone will be sufficient.

As such, TRUenergy supports the alternative arrangement proposed by a Group[1] of private sector generators in another submission to this review that will help deal with congestion risk via the protection of access in the existing Rules.

[1] This group includes Loy yang power, AGL, International Power.

*Approach to dealing with congestion*

We have worked closely with the Group to better understand the access regime encompassed in the NER, and how it deals with congestion.

This group has identified that the existing rules do provide:

- Protection to access levels of exiting network users; and
- Mechanisms that allow new entrants to connect with a predictable level of access over the life of their investment.

Despite the benefits that would flow from these rules, experience and discussions with NSP's indicate that they are not currently being implemented.

As mentioned above, the Group has submitted separately into this review, outlining in some detail how our understanding of the Rules can be implemented to produce an access regime that:

- Provides adequate certainty to generator developers; and
- Enhances the dynamic efficiency of the NEM.

TRUenergy urges the Commission to identify why these rules have not been implemented, and ensure that the scheme outlined by the group, or another mechanism that provides generators with predictable levels of access over asset life timeframes, is implemented urgently to ensure that dynamic efficiencies associated with generator locational signals are not lost. This is important given the magnitude of the investment challenge engendered by the CPRS and RET.

***Static Loss Factors***

In our submission to the scoping paper, TRUenergy identified a lack of stability in static loss factors as a significant investment risk, which was currently unmanageable, and was likely to be a significant concern to many generation developers as they respond to the RET and CPRS investment requirements.

While our concern was noted on page 46 of the interim report, a footnote appears to dismiss our claim that variations in loss factors have significant impacts on project revenues. This conclusion is challenged below.

To better illustrate the volatility that can occur in loss factors, we have identified the following actual variations – which have been experience by real projects and sourced from the NEMMCO infoserver:

| Station | Effective Date | Loss Factor | % Change |
|---|---|---|---|
| Cathedral Rocks | 10-Feb -05<br>01-Jul-05 | 1.0761<br>0.847 | -21% |
| Wattle Point | 8-Mar-05<br>1-Jul-05 | 0.9302<br>0.8411 | -9.5% |

As indicated in our submission to the scoping paper, variations of this magnitude can severely undermine the investment cases of impacted generators. This occurs because project revenue is calculated as the product of RRP*SLF*Volume.

Clearly if the reference price and volumes are held constant, a change in the SLF from 1 to 0.8 (eg. similar to that experienced by Cathedral Rocks), will result in a 20% decrease in annual revenue for the project compared to what would have been expected.

This illustrates that impacts of loss factor variability are material, and that concerns over their impact on project viability are valid. To prevent the need for high discount factors to be applied to investments – currently the only way to deal with this risk - more stability in these factors would be beneficial to the market.

In a similar way to network congestion, these loss factor variations are often due to the connection of other generators (often on long remote lines) after the initial generator has been installed. One mechanism to provide greater stability in loss factors would be to link loss factors into the rule requirements that require new connectors "do no harm" to existing network users. This would provide a strong locational signal if a connector was considering connection on a line with a highly sensitive loss factor.

In any event, we would encourage the Commission to further consider mechanisms for stabilising loss factors over investment timescales (or equally improving predictability of any variations).

## A7. Retailing

TRUenergy is in strong agreement with the Commission on the risks posed by the existing regulated retail pricing regimes operating in many jurisdictions.

The preferred resolution to the retail pricing question would be to remove price regulation across the NEM prior to CPRS commencement. However it is not clear this could be achieved in the required timeframe.

Other submission (eg. that by the ERAA) have explored the negative impact of retail price regulation on the investment environment in more detail. In addition this submission has identified the need for urgent action given that prices for the 2010 year are likely to be set toward the end of 2009, and certainty over how pass through will be dealt with is required by then.

On this basis, we will avoid repeating arguments made by the ERAA in this submission.

It is however worth noting that we perceive the risks posed to the industry by price regulation as the most material of any identified by the Commission in this review. On this basis, we urge the Commission to pursue resolution of this matter with vigour.

## A8. Financing new energy investments

*Energy market frameworks impact on investment*

In terms of the energy market frameworks, the broach structure is compatible with investment.

There are a number of areas were we believe the investment environment could be enhanced, and some residual barriers to investment removed. These are discussed in more detail above, and include the need for:

- Deregulation of retail prices;
- Congestion certainty for investors;
- Enhancement to the Victorian pipelines investment regime;
- Need for predictable SLF for investors;
- Adequate level of MPL & reliability parameters; and a
- Predictable environment free of operator intervention (eg. no RERT)

For further discussion of TRUenergy's views on the matters raised in this submission, or the AEMC energy framework review in general, please contact me via (03) 8628 1000.

Yours sincerely,

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