Energy Retailers Association of Australia Incorporated

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By email: j.soderbaum@aciltasman.com.au.

Dear Mr Söderbaum

Re: Development of a national energy grid – Stakeholder Consultations

The Energy Retailers Association of Australia (ERAA) is pleased to provide comments on ACIL Tasman's Issues Paper – *Development of a national energy grid*.

The ERAA is an independent association representing eighteen retailers of electricity and gas throughout the National Electricity Market (NEM) and the jurisdictional gas markets. ERAA members collectively provide electricity to 11 million customers in the NEM and are the first point of contact for end-use customers for both gas and electricity.

The ERAA considers that the development of effective and truly national (i.e. NEM - wide) grids for electricity and gas are an important part of the natural evolution of energy markets in Australia. The likely efficiency gains of a more national framework including enhanced reliability, at lower costs should confer benefits on market participants and end users alike. Given this, the ERAA is supportive of policy reforms which advance this agenda, such as the recent establishment of the Australian Energy Market Operator (AEMO), (which will also have responsibility for a national transmission planning function). Similarly, the ACIL Tasman review is important in that it should assist in identifying if there are gaps/impediments in the current energy market frameworks which could be alleviated through Infrastructure Australia funding. It is important to note that many of the issues being explored in this Issue Paper are being looked at through other review processes, most notably the Australian Energy Market Commissions *Review of Energy Market Frameworks in light of Climate Change Policies (climate change review).* We trust that ACIL Tasman and infrastructure Australia will take into account the outcomes of all relevant reviews in its deliberations.

While we support a review seeking to identify areas where external government funding sources (such as those available to Infrastructure Australia) could constructively be employed in the energy sector, we note that any such investment would need to be carefully considered to avoid counterproductive impacts. In particular we note that the successful operation of the National Electricity Markets investment model relies on all investments being driven by market signals. Inappropriate intervention by governments – either in the form of regulation, or of government funded investment – can undermine the sustainability of this investment model and ultimately the energy sector as a whole. As noted in the NSW government commissioned Owen Inquiry report – government funding in the competitive electricity sector can become a self-perpetuating cycle.

With this word of warning, our comments on the broad components identified in the Issues Paper are set out below.

Capacity of Energy Networks

Transmission interconnection

There has been some doubt as to whether the current regulatory arrangements adequately facilitate the building of new, or expansion of existing transmission interconnectors. This issue has taken on increased importance given the likely need for future interconnector augmentation as a result of the Carbon Pollution Reduction Scheme (CPRS) and expanded Renewable Energy Target (RET).

Whilst there have been a number of recent changes to energy market frameworks which are intended to improve the efficiency of transmission development, they are for the most part not yet fully operational and are essentially unproven. The establishment of the National Transmission Planner (NTP) with responsibility for developing the National Transmission Network Development Plan (NTNDP) is seen as positive and should allow for a more strategic development of the network. The NTNDP is expected to outline the long-term, efficient development of the power system, including future development options. Ultimately, however, the effectiveness of the NTP in facilitating the efficient development of the transmission network will be dependent on the extent to which Transmission Network Service Providers (TNSPs) have regard to the NTNDP in formulating their own plans.

Like the NTP the new Regulatory Investment Test – Transmission (RIT-T) should be an improvement on previous arrangements. The RIT-T which amalgamates the reliability and market benefits limbs of the previous Regulatory Test will allow proposed transmission projects to be assessed against both local reliability standards as well as their ability to maximise benefits to the national markets. Again the RIT-T is new and is yet to prove its effectiveness in ensuring that economic augmentations are built in a timely manner. In particular, the definition and subsequent quantification of market benefits will go a long way in determining if the RIT-T actively allows for the building of efficient transmission projects.

The AEMC has identified the current inter-regional transmission charging framework as a potential weakness going forward. The absence of transmission charging agreements between regions (except for one between South Australia and Victoria) means that customers do not currently contribute to the costs of transmission assets in other regions that facilitate electricity flows to and from their region. The lack of such a charging regime could prevent the building of transmission assets which have inter-regional benefits, such as interconnectors. This is of particular concern in regions such as South Australia where it is expected that interconnector augmentation will be required to facilitate increased power exports to accommodate the entry of more wind to meet the RET. The AEMC has therefore recommended the implementation of a new inter-regional transmission charging mechanism (IRTCM) which would allow TNSPs in each region to levy a load export charge on their counterparts in adjacent regions for flows from the TNSPs region to the adjacent regions. The ERAA has expressed support for this model as it seems logical that the costs of projects which benefit customers across different regions should be spread accordingly.

If applied appropriately, the IRTCM is likely to increase the willingness of TNSPs to undertake augmentations where the benefits are spread across regions - such as interconnector upgrades.

Networks ability to manage renewable energy

Connecting remote generators

The current market frameworks are unlikely to cope with the entry of vast amounts of renewable energy required to meet the RET. Many of these renewable resources are remote from the existing network and will require the building of significant transmission infrastructure to get to market. It is unlikely that such network augmentations would pass the Regulatory Test (even the new RIT-T) and thus other means of funding are needed. However, the high upfront costs involved and the lack of firm access acts as a disincentive for private parties to undertake augmentation projects. Additionally, transmission investment is subject to substantial economies of scales, which means that it is most efficiently built in large blocks and is less efficient for individual parties to effect augmentations to solely meet their needs. The AEMC has recognised these weaknesses and has recommended a new framework for the funding of remote transmission investment.

Under the Network Extensions for Remote Generation (NERG) model, hubs would be created in specific remote areas and customers would underwrite the cost of any additional transmission capacity in excess of what is required by the first connecting parties. The rationale of this approach is that it would facilitate the efficient sizing of remote transmission assets. We think this is one area where infrastructure funds could make an important contribution. The concept of the NERG proposal requires consumers to provide some of the upfront funding of NERGs; ostensibly this will be paid for by consumers in the transmission component of their regulated retail tariffs. While the intention is for consumers to receive a rebate over time as new generators connect, consumers bear the risk, in terms of higher charges, of new generators not turning up. One option is for infrastructure funds to substitute for the funding directly provided by electricity consumers, and therefore the government takes on the stranding risk.

That being said, while the ERAA broadly supports the NERG proposal, we are concerned about the lack of detail. The AEMC in its 2nd Interim Report to the climate change review states that the AEMO and Network Service Providers each have a role in planning NERGs whereby the AEMO will identify potentially economic geographical locations. In making its assessment the AEMO would have regard to the amount of possible generation capacity in an area and whether the likely generation is sufficiently remote. This according to the AEMC would enable NERG development to be strategically focused on locations with the best prospects for developing efficient outcomes in the NEM. These criteria in our view are vague and leave some key questions surrounding how the efficiency outcomes in the NEM will be assessed. For example clarity is needed on whether and to what extent will: the type of renewable energy (e.g. baseload vs. intermittent); the impacts of congestion; and network security issues have on determining NERG zones.

System security and stability

The significant increase in renewable energy (mainly wind) to meet the RET will present many challenges for network operation. Unexpected changes in the output from wind farms are likely to impact on frequency and voltage control. This will require greater use of frequency control ancillary services (FCAS) and network control ancillary services (NCAS) to manage frequency and voltage respectively. The ERAA is of the view that NEMMCO has sufficient tools at its disposal to deal with the challenges to system security posed by the increased entry of intermittent generation in the market.

All new wind farms will have to be classified as semi-scheduled generators under the new semi-dispatch Rule, which means that they will be incorporated into central dispatch at times of a binding constraint. This will give AEMO greater control over the output of intermittent generators, enabling better management of system security. Additionally, the availability of the new Australian Wind Energy Forecasting System (AWEFS) will enable AEMO to get more accurate forecasts of wind power and thus better manage the impact of wind farms on the system.

Congestion

Whilst we are comfortable with the market's ability to manage network security and stability issues due the increased penetration of renewables, we are concerned about congestion. There is general consensus that the increased entry of renewables in the market will mean that network congestion will become more of a problem. An increase in the level of congestion has negative implications for the efficiency of dispatch as it could result in higher cost generation being dispatched ahead of lower cost sources. Additionally, the absence of an appropriate congestion management regime will increase uncertainty amongst potential investors in generation, particularly if they are not assured of getting their output to market. The AEMC has attempted to address the issue of congestion in its climate change review by proposing the implementation of a Generator Transmission Use of

System (G-TUOS) charge that would be set on an annual basis and apply to all generators.

The ERAA, is concerned that the proposed G-TUOS may not deliver a useful signal to investors due to (amongst other problems) its lack of price certainty (due to the annual reset) and lack of linkage to the transmission investment planning regime. Additionally, the instability in the G-TUOS costs is likely to increase generator cost volatility. These outcomes would likely result in increases to premiums demanded by generators through the contract market – thereby directly impacting on retailer (and ultimately customer) costs.

Energy market's ability to meet demand

In our view the 'energy only' market has been largely successful in facilitating investment in the NEM. There is evidence of possible future reserve shortfalls in some regions – but that is likely due to scepticism on the part of investors as a result of the uncertainty surround the climate change policies. As such the ERAA is not supportive of knee-jerk market interventionist mechanisms to deal will capacity shortfalls. The AEMC has proposed a number of possible interventions including Reserve Contracting and Load Shedding Management (LSM), both of which are unacceptable in our view.

Under the LSM market customers would be given upfront payments for making their load centrally dispatchable, with a further payment (based on their 'declared value of customer reliability') to follow if the load is actually dispatched. According to the AEMC, the LSM is economically desirable because it provides an avenue for customers to declare their value of reliability and be compensated in accordance with their value. This approach is inconsistent with other elements of the market design in which service providers are paid the market value of their services, not whatever value they choose to nominate (ie. we do not have a "pay as bid" market). As it stands customers have an incentive to enter into contracts with retailers to shed load when it is in their commercial interest to do so, similarly retailers have an incentive to enter such contracts to minimise their exposure to high spot prices.

Like the current Reliability Emergency Reserve Trader (RERT) the LSM is inefficient and distortionary, as contracted load would receive an upfront fee for making load dispatchable, and then potentially large payments based on the 'declared value of reliability' if used. These costs would then be recovered by an uplift on market customers. Additionally the LSM could also disincentivise interruptible load from entering into market contracts with other participants (such as retailers) as they may well opt to take the chance of receiving uncapped returns if an LSM arrangement is invoked, rather than entering the market.

The Reserve Contracting mechanisms require an investment in reserve capacity well ahead of dispatch – i.e. before the risk of any shortfall in generation can be adequately assessed. This increases the likelihood of customers bearing the cost of reserves that ultimately are not utilised. As is the case with the RERT and LSM demand side participants could opt to withdraw from the market and instead enter into reserve contracting arrangements where the revenue stream is more certain. This like the RERT and LSM will only result in market distortion.

Gas transmission sector

As noted in the issues paper, the private sector has proven capable of delivering gas transmission infrastructure around Australia over the last decade. We are not aware of any instances where external government funding would be required in this sector.

The ERAA welcomes further discussion with the ACIL Tasman and Infrastructure Australia on the views expressed in this submission, or on other matters associated with the impact of climate change policies on the retail sector generally. In particular we re-iterate our opening comments about the need to ensure that investment by Infrastructure Australia is restricted to areas that address specific market failures and do not undermine the natural market driven investment cycle.

Please contact me on (02) 9437-6180 to facilitate such discussions.

Yours sincerely,

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