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Elisabeth Ross
Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235
By website: www.aemc.gov.au

Dear Ms Ross

RE: ERC0100 National Electricity Amendment (Scale Efficient Network Extensions) Rule 2010 Consultation Paper

The Clean Energy Council (CEC) is the peak body representing Australia's clean energy and energy efficiency industries. Its priorities are to create the optimal conditions in Australia to stimulate investment in the development and deployment of world's best clean energy technologies; develop effective legislation and regulation to reduce energy demand and improve its efficient use; and work to reduce costs and remove all other barriers to accessing clean energy.

The CEC advocates the development of policies on behalf of its members at federal and state government levels and promotes understanding of the industry and its potential through channels such as industry events, forums, conferences, newsletters and publications. The clean energy industry includes generation of electricity using wind, hydro, solar, biomass, geothermal and ocean energy as well as the emerging technologies and service providers in the energy efficiency sector, which includes solar hot water and cogeneration.

The CEC welcomes the opportunity to make a submission in response to the AEMC's Consultation Paper on the National Electricity Amendment (Scale Efficient Network Extensions) Rule 2010, proposed by the Ministerial Council on Energy.

Introduction on policy background

One of the AEMC's Review of Energy Market Frameworks in light of Climate Change Policies (the Review) conclusions was to consider "the introduction of measures to promote the efficient connection of clusters of new generation to the electricity networks as new generation connects over time". This Rule change is part of these measures and one which the clean energy industry supports.

A recent announcement by the Prime Minister confirmed that the Carbon Pollution Reduction Scheme (CPRS) legislation will not be re-introduced until at least 2013. Therefore the

Renewable Energy Target (RET) will now be “the driving force behind new investment in renewable generation”. The national planner for transmission, the Australian Energy Market Operator (AEMO), described the RET in its National Transmission Statement late last year as “a legislative reality”.

The proposed Scale Efficient Network Extensions (SENE) concept sets out to address issues relating to possible duplication of costs and risk allocation between market participants.

However, and as the CEC has suggested previously in other submissions, unless there are amendments made to the National Electricity Objective (NEO) to include the environment, the relevance to the RET for agencies such as the AEMC, AEMO and AER is unattainable.

Both the AEMC and the Ministerial Council on Energy (MCE) have stated that the existing market framework is unlikely to promote the efficient connection of multiple generators in the same location over a period of time. The proposed Scale Efficient Network Extensions (SENE) concept sets out to address issues relating to possible duplication of costs and risk allocation between market participants.

Investment measures for transmission lines

The CEC and its members are all supporters of a transmission policy that will promote the development and investment of the renewable energy generation sector in order to meet the 20 percent RET by 2020.

The SENE framework, previously known as Network Extension for Remote Generation (NERG), has been developed to provide a regulatory framework to assist in unlocking the untapped renewable energy resources in remote areas of Australia. In many cases these are located well away from existing power station, transmission lines and load centres.

In its preliminary findings of the Review the AEMC concluded that the existing model for bilateral negotiation for new connections will not cope efficiently with multiple connection applications. However, the successful application of the Competitive Renewable Energy Zones (CREZs) in Texas USA is supported by the CEC. It is a framework which could potentially be used in Australia to enhance the ability of renewable generation to connect efficiently.

The SENE proposal does not go far enough

It is the CEC’s view that the SENE framework has a great potential to play a significant role in delivering the investment required in transmission in order to achieve the 20 percent RET by 2020. The overall concept may have some limited success in delivering the objectives of the MCE.

However, keeping in mind that the SENE framework, the National Electricity Objective (NEO) and the National Electricity Law (NEL) do not acknowledge the environmental benefits from the renewable energy generation that the RET legislation is there to promote and develop.

Unfortunately this is no fault of the AEMC or of the AEMO. Publications of these agencies during 2009 demonstrate that they are well aware that the Government has put policies in place to change the electricity generation mix and increase the level of renewable energy generation.

The CEC believes that due to a fundamental inconsistency in legislation these agencies are unable to achieve these objectives such as the RET and other accompanying government statements.

Submission response

The CEC would like to answer the following questions that it believes are the cornerstone to the issues that are relevant to this Rule change and what it seeks to address.

Are SENE needed?

Yes. However the proposed SENEs framework does not go far enough to resolve the issues of allocation risk that enables infrastructure to be built and allows consumers to benefit from scale economies associated with larger network assets. This submission has identified the issues which the CEC considers to be the underlying problems facing agencies such as the AEMC in proposing such measures.

In theory existing NEM Rules could achieve most of the SENE objectives, and if jurisdictions carry the standing risk, as part of a state development plan, the TNSP might be able to build these infrastructure needs. The existing rules allow developers to get together and build a joint line similar to the SENE.

Consumers have historically underwritten similar investments by the previous vertically integrated utilities. For example, the building of the lines at 500kV from La Trobe Valley around Melbourne and beyond to the border with South Australia would not have passed a regulatory test at the time however they have proven to be of immense long term customer benefit.

However the CEC believes that relying on this historical approach may not be adequate. The SENE proposal has the advantage of integration with the National Transmission Network Development Planner (NTNDP) process. Further, the CEC emphasises that for a successful SENE framework and process, one that delivers the RET legislation effectively and efficiently by 2020, more work is needed.

Thus it is the CEC's opinion that this Rule change delivers only some of the way towards what is required. A recent report by McLennan Magasanik Associates (MMA) [1] for the CEC, states that;

“Transmission augmentations that remove constraints or congestion, for example, deliver benefits that can be much more extensive across a network than can be recovered from the bilateral contract market, or from regulated cost recovery. Market arrangements and regulated processes are constrained in their ability to exclude free-riders from the potential benefit. As a result, the primary sources of revenue to recover the costs of transmission services have to be the generation and customer beneficiaries. However, this is not necessarily efficient or equitable under the current arrangements which have not incentivised much merchant investment, and in the case of regulated investment, have limited cost recovery to within the jurisdictions containing the interconnection transmission assets. “

It is imperative that to deliver the benefits that this Rule change should achieve, more work is needed.

Will SENE improve efficiency?

It depends. The proposed SENE may improve efficiency if it is implemented correctly. MMA's report [1] outlines that even though the AEMO/NEMMCO SOO, ANTS and the National Transmission Planner provide some of the information to the NEM marketplace to allow investment decisions to be made. There has been little attention to planning the backbone of the transmission grid to facilitate this major re-organisation to the structure of generation.

It is important that the AEMO, NSP and the AER take into account the environmental/planning blockers or new technology developments, when making decisions about the SENE framework. For example if near-load geothermal costs fall then remote wind generation viability may be reduced. The three entities will have to predict where good sites are and not miss critical technological developments.

Is risk allocated appropriately?

There are two main features of risk allocation; allocation of project cost blow outs, and asset stranding risk.

Project cost blow out risks need to be allocated correctly, so that incentive remain on the NSP to deliver projects on time and on budget. Failure to do so could either leave generators inefficiently exposed to this risk, or as is proposed for customers to absorb this. The CEC wants to see certainty in both the operational and capital expenditures that generators face exposure to and we are concerned that currently the TNSP does not have any risk allocated to it in this regard – which could undermine efficient project delivery incentives creating unmanageable generator exposures. Generators need cost certainty over major project cost components in order to have their projects approved by their Boards and financiers. This is a key element when backing a project.

We also note that inadequate incentives on NSP's to deliver projects on budget could leave customers inefficiently exposed as well.

The second major risk is the allocation of costs for stranded network assets that occur when a SENE is built based on a particular generation forecast that does not eventuate. The whole premise of the SENE proposal has been that this risk should be borne by the customers, who would ultimately benefit from the economy scale benefits targeted by the SENE through lower REC and energy costs. The CEC concurs that this is the right allocation for this risk, and notes that the AER and AEMO have key roles under the proposal to ensure customers are not exposed to unnecessary asset stranding risk.

- In regard to the above discussion, several aspects of the wording in 5.5A.13 needs to be tightened to ensure these principles are properly implemented in the SENE proposal: 5.5A.13(d) (1) allows any "material" variation in costs to be passed through into SENE charges. This provides no cost discipline on NSP's to deliver the projects on time or on budget as they are not exposed to any cost over-runs. This should be reviewed to ensure appropriate commercial discipline is in place for the NSP;
- 5.5A.13(d) should be clarified to ensure that if any efficient cost pass through does remain after our previous point is made, it should be calculated across the original generation forecast used in the SENE commitment decision. It would not be appropriate to use the actual generator out-turn in any price reforecast as this would

undermine the principle of customers bearing the asset stranding risk if AEMO / AER forecasts are incorrect;

- 5.5A.13(d)(2) contemplates 5 year reviews of financing costs and regulated WACC. As outlined above, generator developers will often require certainty in the costs they will face on major plant items (eg. connection assets) in order to lock in financing. This clause seems to eliminate this option, potentially undermining the SENE intent of assisting generator development and reducing generator costs (to ultimately benefit customers). An option to allow generators to lock in a long term tariff is needed to align tariff costings with generator financing timeframes. In any event clause 5.5A.13(d)(2)(i) should be deleted in order to ensure incentives existing for efficient NSP financing decisions.

Should configurations other than hub and spoke be allowable?

Yes. If the proponent has designed other configurations, i.e. tapered capacity or branched lines, it should be allowed. Additionally the proponent will want the most efficient design which may have many options, including a fixed point, reactive load, and flexibility. A very prescriptive solution will limit TNSPs in their solution design creativity.

How should capacity be allocated?

Allocation of capacity should be on a 'first comes first served' basis as each proponent applies to connect. There may be some obvious problems, for instance when proponents apply at the same time, however the CEC would like the Rule change to deal with the larger issues as outlined in this submission paper. Further the capacity of a line cannot be over-sold and if a generator connects without a firm capacity right it should be exposed to being constrained off.

Other options for allocation could be expressions of interest and auctions. Further, the SENE may develop to include the upgrades of transmission lines or building additional parallel lines which would therefore allow further flexibility in allocated capacity.

We note that the concept of "firm capacity" on a SENE only relates to the thermal ratings of the transmission extension in question. A SENE will connect to the shared network and be subject to the same power flow constraints as the rest of the network where it joins. To this extent the rules of the market dispatch still apply.

How do SENE interact with shared network?

With difficulty. The SENE will be affected by constraints and capacity as per previous comments. However, it is also true that a ring-fencing period as compared with a gas market 15-year 'no coverage' arrangement also has issues if a customer wants to connect.

If another generator comes into the area of a fully contracted SENE they may invest to increase SENE capacity in exchange for a firm right, or they could connect without getting rights and compensate others if they constrain anyone off.

In section 6.2.1 of this issues paper, the AEMC highlights that "generators negotiate an agreed power transfer capability with the NSP as part of the connection agreement. If the generator is unable to access its agreed capacity, it is entitled to compensation. These arrangements are intended to mimic the connection arrangements that are available to individually connecting generators."

We would expect the arrangements for generator connection more generally (i.e. outside SENE's) to be discussed further when the AEMC undertakes its Transmission Framework Review later this year and the CEC will make further comments on the interaction between SENE and the shared network .

Western Renewable Energy Zones

The Western Renewable Energy Zones (WREZ) aimed to develop transmission plans of service to priority zones to facilitate the environmentally sensitive development of the most cost-effective renewable resources located in the Western Interconnection [2].

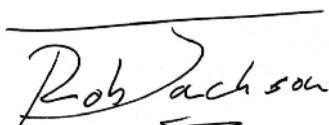
The WREZ is demonstrated to have a better definition in the planning/environmental approvals which should be used as part of the high-level planning of the SENE. The CEC notes that this would significantly reduce the planning risk for proponents however it would require consultation with State/Territory Governments to manage each jurisdiction's development objectives [2].

MMA's report [1] highlights the need for "temporally and locationally efficient investment in transmission capacity, particularly to provide for remote renewable generation". It expands that this investment may require a number of changes to the energy market frameworks.

The example used [1] in Texas, USA, where legislation has required the Public Utility Commission of Texas (PUCT) to designate Competitive Renewable Energy Zones (CREZ) areas as high- quality clean energy resources that require transmission to be built to allow access to load centres. The PUCT orders utilities to construct or expand transmission between the CREZ and load centres to help meet the Renewable Portfolio Standard (RPS) requirements (which are similar to Australia's LRET scheme). Under this law, transmission investments are automatically considered 'prudent' and are funded by load.

To discuss our submission and answer any other questions, please contact the undersigned on (03) 9929 4100 or via email rjackson@cleanenergycouncil.org.au.

Yours sincerely



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[1] McLennan Magasanik Associates, *Transmission Issues for Remote Renewable Energy Generation*, 2 March 2010

[2] National Renewable Energy Laboratory, *Western Renewable Energy Zones, Phase 1: QRA Identification Technical Report*, October 2009, <http://www.nrel.gov/docs/fy10osti/46877.pdf>