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Australian Energy Market Commission  
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### **National Electricity Amendment (Scale Efficient Network Extensions) Rule 2010: Options Paper**

The Energy Supply Association of Australia (esaa) welcomes the opportunity to make a submission to the Australian Energy Market Commission's (AEMC) Options Paper for the Scale Efficient Network Extensions (SENEs) Rule change proposal.

esaa is the peak industry body for the stationary energy sector in Australia and represents the policy positions of the Chief Executives of over 40 electricity and downstream natural gas businesses. These businesses own and operate some \$120 billion in assets, employ over 52,000 people and contribute \$16 billion directly to the nation's Gross Domestic Product.

#### *A complex Rule change*

The SENE is a complex Rule change proposal. While the underlying idea is relatively simple – building a bigger network asset to efficiently connect future remote generation – its implementation and integration with wider transmission arrangements is less straightforward. Reflecting this complexity, the Commission's previous Consultation Paper elicited both a large number of submissions and a wide diversity of views from industry and other stakeholders.

In response to this interest and the breadth of opinions advanced, the Commission decided that rather than narrow down the Rule change process by issuing a draft decision and consulting around the edges, it should instead widen the field of discussion through the release of an Options Paper featuring five SENE models and an invitation for alternative approaches.

esaa commends the Commission for this decision. Given that it is the industry that will be tasked with implementing any SENE framework, thorough consultation and engagement with the energy industry before any changes are made is imperative. The Options Paper process will provide an opportunity for the Commission to draw further on the expertise of the industry in developing its response to the Ministerial Council on Energy's Rule change request, both in terms of the high level perspectives the industry has to offer and its insights on detailed implementation matters.

As was made clear in submissions to the Consultation Paper and in the presentations and the commentary at the stakeholder forum held in October, there remain a diverse range of views in the industry on SENEs. These range from high level principles about SENEs being necessary to level the playing field for remote generation connections to views that the SENE framework is unwarranted or that other avenues to improve existing connection frameworks should be explored in parallel.

In regard to implementation, there are genuine questions to be resolved about how SENEs would interact with existing investment and regulatory frameworks, such as the operation of any use of the Regulatory Investment Test for Transmission in SENEs and the treatment, classification and valuation of SENE assets by economic regulation.

These are all valid views and in a mature and sophisticated market like the National Electricity Market (NEM), such a range of views on a difficult policy area like SENEs is to be expected. The Association urges the Commission to work through all the issues raised, both in the context of this Rule change and in the Commission's wider Transmission Frameworks Review where applicable.

Given the diversity of views throughout esaa's membership, this submission will not make a detailed comment on the implementation models canvassed in the Options Paper. Instead, the Association will take the opportunity to offer some more general comments on the direction of the market's development as context for the Commission's consideration of SENEs and broader policy issues.

*Towards the NEM model of electricity supply: 'guided decentralisation'*

Electricity supply is technologically complex, capital intensive and characterised by long-term investments in the order of 30 to 50 years. Given its importance to the economy and the community, the best way to deliver a reliable and secure supply of electricity at least cost is an enduring question facing policy makers, both in Australia and overseas.

While the provision of electricity in Australia was initially by a mixture of private and municipal suppliers, by the late 1940s Australia had opted to provide electricity predominantly through state-owned, vertically integrated monopolies. Electricity supply under this paradigm was focussed on regional transmission networks that provided dedicated assets to connect generation at major fossil fuel sites to cities and other load centres. State agencies were responsible for planning, developing, commissioning and operating these systems and state controls on tariffs were applied to most public electricity authorities.

Today's supply chain is a far cry from this centralised planning world.

Over the past two decades successive federal and state governments have pursued an extensive reform program: structural separation, corporatisation, privatisation, creation of markets and regulatory frameworks. The guiding principle through this reform has been that the best way to deliver the electricity supply the community expects entails transferring primary responsibility for supply from governments to markets, with essential consumer protections retained by governments through the aegis of specialised agencies. This has seen decentralised, commercially-driven

decision-making by private and corporatized entities replace the old paradigm of centralised decision-making.

The current model of electricity supply is consistent with the operation of the broader Australian market economy and hinges on competition in the competitive parts of the industry (generation and retail sectors), combined with economic regulation of the monopoly parts of the system (transmission and distribution networks), to deliver a reliable, secure and least cost supply of electricity to consumers.

Of course electricity markets can never be completely hands off for governments and despite the reform process, compared to most goods and services, governments are still heavily involved in the supply of electricity in Australia. This reflects certain physical properties of electricity and its economic and social importance.<sup>1</sup> It also reflects the stuttering progress in implementing agreed reforms.

A further, important qualification should be noted regarding the current NEM supply paradigm: while delivering sufficient and appropriate generation and network investment is primarily the responsibility of the market and its decentralised participants, a number of mechanisms and frameworks have evolved to effect a light-handed, centralised 'steering' of decentralised investment and operational decision-making.

In particular, the regulatory framework, the market institutions, information provision documents (e.g. the Electricity Statement of Opportunities and projected assessments of system adequacy), and the market signposts and parameters (e.g. the Reliability Standard and market price cap) work together with the market to help the industry deliver the investments the NEM needs without prejudicing the decision-making primacy of the market. This is a balancing act between decentralisation and central planning and at times can be subtle.

While there is probably no definitive answer to the supreme question of what is the best way to deliver a reliable and secure supply of electricity at least cost, the 'guided decentralisation' model that has evolved in the NEM over the last 12 years is broadly workable. It has delivered enough capacity to underpin the reliability that Australia expects and provided Australia with some of the lowest cost electricity in the OECD.

#### *Challenges to the current NEM model: the re-emergence of central planning*

While the NEM model has been successful, it is also fragile. It hinges on clear articulation of objectives, transparency, predictability and a careful management of the trade-off between reform and constancy of settings. It also depends on the confidence of the market that governments will show the discipline to resist the urge to interfere beyond what is necessary for the smooth functioning of the market. Furthermore it relies on appropriate, clear and consistent policy settings in related areas, most notably climate change policy.

While the distinction between appropriate government facilitation and excessive intervention in the current NEM model is naturally imprecise, there is nonetheless cause

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<sup>1</sup> For instance, these physical properties give rise to common benefits to all participants from: a well-designed market in which to trade electricity; robustly enforced rules and technical standards; and the common provision of ancillary services to maintain the system's operation.

to think that as the industry stands in 2010 and looks to the decade ahead, there are a number of challenges on the horizon that could see governments attempt to deliver prescribed outcomes in the market and so test the continued viability of the guided decentralisation model.

#### *Carving up the market with technology/fuel mandates*

A key principle of the NEM is that markets, not governments, determine the pattern of investment. However, at the national level, the federal Government has decreed that rather than let the market completely determine generation mix, the fuel mix must include 20 per cent renewables by 2020. This has implications for network investment, which of course is a key motivator for the current SENE proposal.

But beyond the national Renewable Energy Target, which after a tortuous policy development process appears finally to have been bedded down, there have been calls for further technology/fuel mandates. Victoria has already set its own target for generation from large-scale solar power. Given how energy policies and programs have proliferated through jurisdictions in recent years, there is a credible risk that this Victorian policy is emulated in other jurisdictions, though probably not via a consistent mechanism. State and federal governments also continue to actively encourage the take up of small scale generation, through premium feed-in tariffs and the small-scale Renewable Energy Scheme.

While these policies are attractive to governments, ostensibly to achieve their climate change, renewable energy and other objectives, the consequence is that with each 'carving up' of the market for energy to a particular fuel or technology, the space for decentralised investment decision-making shrinks commensurately. It also diminishes the confidence of market participants in the stability of the market environment and can impair the viability of investments they may be considering.

#### *Greenhouse policy*

A second key pressure on the NEM model is coming from emissions reduction policy. While the precise shape of future greenhouse policy is presently inchoate, the broad political support for emissions reductions and the likelihood that a significant proportion of these will be expected to come from the electricity sector means that Australia's electricity industry will almost certainly face an unprecedented period of transition over the coming years.

The exact dynamics of this transition are impossible to predict without knowledge of the precise policy mechanism; however, it is generally accepted that it will involve some retirement of emissions-intensive generation assets.

How the turnover of the industry's capital stock is managed will be a fundamental question for the industry over the next decade (and beyond). A range of possible policies have already appeared in the public debate, ranging from the ESAS conditionality test in the shelved Carbon Pollution Reduction Scheme to proposed negotiated closures or to more extreme plans from other quarters.

While much remains unclear and the industry awaits further information from governments on what its future operating environment will be, one potential strategic

implication for the market from greenhouse policy could be that central authorities having, to a greater or lesser extent, their hands on the levers controlling retirements and new investments. Such an arrangement is not conducive for investment by the remainder of the market, which would have to make decisions under the shadow of central decision-making that does not necessarily follow the usual, more predictable, drivers of commercial decision-making.

#### *Other market interventions*

In addition to these new impositions on decentralised decision-making, a number of long-standing incursions on the market remain. With the exception of Victoria, state governments remain recalcitrant about relinquishing retail price setting power, despite its deleterious effects on the market and the dubiousness of their claims to be effectively protecting customers from unwarranted price rises. Similarly, the Australian Energy Market Operator retains its Reliability and Emergency Reserve Trader power to intervene to contract for reserves in the wholesale market, although this power is currently being reviewed by the Reliability Panel.

#### *How do SENEs fit in?*

Against this wider background, the Association has a few observations on SENEs. It seems clear that a well-designed SENE, where generation forecasts prove accurate, has the potential to deliver benefits to the market and savings for consumers given economies of scale in network assets. Institution of the SENE framework would likely significantly ease the development of generation resources remote from the existing grid and assist in meeting the Renewable Energy Target.

On the other hand, the SENE feature of explicitly overbuilding connection assets in anticipation of future generation from a remote area would represent a material departure from current connection frameworks. Consumers unavoidably would be exposed to risks should generation not eventuate as forecast, although there are options available to mitigate this risk to some extent.

In broad terms, the proposed approach for SENEs accords with the guided decentralisation philosophy of the NEM model: they entail a mixture of centralised planning with decentralised investment decisions by market participants. However, the overbuild feature does represent a step towards a strategic approach to building connection assets that is not present in current frameworks.

Determining whether such a step is warranted is the task for the AEMC and as noted above, there is a diversity of views on SENEs in the esaa membership on the Rule change. However, the Association considers that the SENE Rule change proposal needs to be considered in the wider context of the direction of the market's development and encourages the Commission in its deliberations to be mindful of the broader issues at play.

#### *Conclusion: the need to monitor and advise on the strategic trajectory of the market's development*

Looking beyond this current Rule change to the broader development of the market, esaa, as a markets-led organisation, supports markets as the primary decision-making

process for investment and operational decisions, while also noting that some degree of government involvement in electricity markets is justified.

The Association also acknowledges that calibrating between allowing market players to pursue their objectives without constraints and centralised steering is a careful balancing act. esaa supports tending to the market's development through rigorously considered, careful reform. Once again, esaa commends the Commission's consultative approach to the SENE Rule change. Furthermore, the Association does support efficient, sensible greenhouse policy. With the right policy settings, the industry believes that the transition to a lower carbon footing can be achieved.

But what the Association does not support is the NEM incrementally and heedlessly drifting back along the spectrum toward central planning via the collective impact of disparate state and federal government policies. The law of unintended consequences is particularly germane to energy policy and there is the risk that Australia's electricity supply sector could find itself in a situation where it is expected to operate as a decentralised market but excessively intrusive policy settings have poisoned the environment for commercial behaviour.

This limbo of sorts is not sustainable and the Association is cognisant that while it took two decades of reform to build the current NEM conceptual edifice, it could be unravelled much more quickly. For instance, to the extent that merchant investments made in good faith are adversely affected by government interventions and the environment for investment is undermined, the challenge of attracting the billions of dollars of investment required to maintain supply reliability becomes increasingly hard. This could in turn necessitate more government intervention to maintain supply reliability and a further crowding out of commercial decision making.

The Association believes that such a situation can be avoided, but it requires clear and overarching direction, and restraint from governments. Accordingly, the Association encourages the Commission, in its role as market developer and advisor to governments, to monitor the strategic trajectory of the market's development and provide clear advice to both the industry and governments on the long-term direction of the market and the potential unintended impacts of proposed government policies.

Any questions in respect of our submission should be addressed in the first instance to Kieran Donoghue, by email to [kieran.donoghue@esaa.com.au](mailto:kieran.donoghue@esaa.com.au) or by telephone on (03) 9670 0188.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Brad Page', with a stylized flourish at the end.

**Brad Page**  
Chief Executive Officer