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Submission to the Productivity Commission

Electricity Network Regulatory Frameworks

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Established in 1972 by pioneers of the Australian environmental movement, Total Environment Centre (TEC) is a veteran of more than 100 successful campaigns. For nearly 40 years, we have been working to protect this country's natural and urban environment, flagging the issues, driving debate, supporting community activism and pushing for better environmental policy and practice.

TEC has been involved in National Electricity Market (NEM) advocacy for eight years, arguing above all for greater utilisation of demand side participation — energy conservation and efficiency, demand management and decentralised generation — to meet Australia's electricity needs. By reforming the NEM we are working to contribute to climate change mitigation and improve other environmental outcomes of Australia's energy sector, while also constraining retail prices and improving the economic efficiency of the NEM — all in the long term interest of consumers, pursuant to the National Electricity Objective (NEO).

Since its inception in 1998, the NEM has not achieved the intended level of privatisation and deregulation; has failed to keep electricity affordable; has impeded the implementation of environmental and climate change policies; and is a mess of overlapping responsibilities (state and federal, public and private). The main challenges currently facing the NEM are to constrain retail price increases; to transform the electricity network from a 'hub and spokes' model to a two-way system with greater consumer input and demand-side participation; and to transition the Australian energy sector from its current reliance on ~90 per cent fossil fuels to one based on renewable energy and energy conservation and efficiency.

We believe that to fundamental reform is required to face these challenges. In the context of the numerous reform processes currently underway, largely as a response to higher retail electicity prces, TEC is focused on a suite of reforms that will deliver better outcomes for both consumers and the environment, including:

- Creating a forum like a **Consumer Challenge Panel** alongside a **national energy consumers' advocacy body** to give consumers a much greater role in regulatory processes, especially the 5 yearly network revenue determinations;[1] while retaining the existing jurisdictional and sectoral funded advocacy bodies as the core of representation.
- Establishing the capacity to **review existing price paths** which are no longer necessary to support investment, as demand is declining.
- **Reducing the period of network revenue determinations** from 5 years to 2 or 3 years, to reduce the potential for gaming of demand forecasts.
- Improved **incentives and targets to undertake network demand management** and to **decouple network volume and revenue.**
- Introducing a **National Energy Savings Initiative** with targets to incentivise retailers and distributors to help consumers save energy (based on the successful NSW and Victorian target schemes).
- Reforming the **National Electricity Objective** (as flagged in the Limited Merits Review, but from TEC's perspective to introduce environmental and social criteria as part of the "long term interest of consumers").
- Requiring a consolidated and comprehensive **annual report on the performance of the NEM** based on a range of benchmarks.[2]

[1] In the longer term moving to a system of **negotiated settlements** (as exists in California and other jurisdictions) to replace the current "propose-respond" model which heavily favours networks.
[2] Currently there is a variety of disparate reports from regulators. TEC completed a consolidated *NEM Report Card* this year with benchmarks based on international best practice as a model for an annual NEM-wide reporting process.

We appreciate the opportunity to provide a submission to the Productivity Commission. There is currently a range of policy and regulatory processes underway in relation to the energy sector. Responding to multiple processes with limited resources in addition to the need to work on own projects means that we have found it necessary to restrict our response to a small number of selected issues.

Productivity Commission Draft Report

TEC appreciates the breadth and quality of the Commission's recommendations. We, too, considered that a narrow focus on benchmarking and interconnectors was far too limited to result in significant proposals for reform when it is clear that holistic and fundamental reform is required. We agree with the Commission on most issues and its proposed responses, and encourage it to follow through with strong recommendations in its final report.

However, in TEC's eight years of involvement in the NEM, we have seen many reviews come to similar conclusions and yet fail to provide specific recommendations or reforms; or, where concrete recommendations have been presented, policymakers have consistently failed to follow up with meaningful reform. In this context, we note that the Commission confirms much of what has been said before in other reviews, for example Garnaut's report regarding network regulation (2011). We therefore appreciate the Commission's attempts to align its reform proposals with other current regulatory processes and to provide a timeline for their implementation. The comments that follow relate specifically to where TEC has a different perspective to the Commission.

A focus on consumers

National consumer body

A process is currently underway with the support of Minister Ferguson and with Consumer Advocacy Panel (CAP) funding to create a new national consumer body, tentatively called Energy Consumers Australia (ECA), to represent residential and small business consumers. However, we disagree on three key points:

1. We do not agree with the Commission's argument that such a body "would need to represent *all* consumer groups" (Overview, 9), since large energy users have deep pockets, are already well represented by the Energy Users Association of Australia, and have distinct and sometimes competing interests.
2. In regard to the role of such a body in regulatory processes, while the establishment of ECA provides the opportunity for improved regulatory outcomes, consumers need a more formal role to maximise their capacity to influence regulatory and market reform processes and further reduce retail prices. This is discussed below.
3. In regard to funding, there is a strong case for concurrent CAP and ECA funding to be retained, given that there are and will continue to be jurisdictional (rather than NEM-wide) processes which jurisdictionally-based consumer groups are best-placed to engage in; and given that the supplementary funding required for ECA (about $2.5 million pa) amounts to only 10 cents per person – far less than market participants spend on their lobbying and regulatory proposals, and also far less than the amount that such groups can save consumers through their intervention.[3]

Beyond a national consumer body

TEC sees the establishment of the ECA as one significant step toward increased participation of consumers in the regulatory process and the refocussing of regulation to centre on consumers and the NEO. While the establishment of ECA should help to improve regulatory outcomes, much more is needed to enable

[3] In California, the Division of Consumer Advocates estimates that its intervention in regulatory processes saves consumers $167 for every dollar it spends.

consumers to influence regulatory processes and guide the NEM toward acting in the long-term interests of consumers.

There are two main methods for increasing participation that are successfully being used in other jurisdictions:

1. A system of negotiated settlements whereby the network's revenue is negotiated between networks and consumers, with the regulator playing a supporting role. This could be based on either the current 'propose-respond' model, whereby the network proposes its revenue for a 5 year period and the AER's role is to assess whether it is reasonable, or implemented as a voluntary initiative as an alternative to the formal 2 year process that is currently undertaken to determine revenues for the next regulatory period. In the former case, the AER's assessment would be replaced by a dedicated negotiated settlement regime.[4] In either case, the AER need only make a determination on matters that the networks and consumers can't reach accord.

   This has been proven to work overseas[5] and the likelihood of speedy decisions provides an incentive for networks to participate in good faith; consumers are likely to see lower prices as a result. This would however likely require substantial changes to the National Electricity Law or Rules, and depends upon a high degree of goodwill between consumers and networks.

2. Creating a formal role for consumers in the existing regime of revenue determinations and other regulatory processes. This could either take the form of an advisory role for consumers, which has proved useful in the UK,[6] or a statutory role guaranteeing consumer rights in regulatory processes.

   The former could be a panel of independent experts providing informal advice and complementing existing consumer input via stakeholder group, or informal advice from consumer groups, either via a panel or via Energy Consumers Australia.

   The latter could provide a direction to the AER and AEMC:

   a. to re-establish the primacy of the NEO — i.e., the long term interest of consumers — in all regulatory processes;
   b. to involve consumer representatives (possibly directly nominating ECA) to the same degree as market participants in all such processes from the outset, with full transparency;
   c. to provide all necessary expert input and data to consumer reps in such processes; and
   d. to explain why, when it has varied from the consumer position in its decisions.

TEC's preference is for a relatively simple solution that requires the minimal changes to the existing Law and Rules. Recognising that an advisory role is no guarantee of better outcomes for consumers, but that negotiated settlements may take several years to implement, we recommend the following 2 stage approach:

- Short-term: establishment of an advisory role for consumers in all regulatory processes, but with consumers represented by ECA or stakeholder groups rather than, or as well as, an expert panel, in addition to a legally binding mandate such as that provided by the 4 points above.
- Long term: introduce a system of negotiated settlements as an optional alternative to the current propose-respond model for revenue determinations.

[4] E.g. similar to the one that operates in California and elsewhere, with consumers there represented by the Division of Ratepayer Advocates [DRA].
[5] In California, the DRA calculates that its interventions have saved consumers $167 for every $1 it has cost)
[6] The UK regulator Ofgem's Consumer Challenge Group (CCG), for example, is an Ofgem-appointed non-stakeholder expert panel which provides informal input into regulatory processes on behalf of consumers (without replacing other existing avenues for consumer input).

Demand management (DM)

We agree that DM is underutilised in the NEM and that a coordinated suite of reforms is needed to improve the utilisation of DM. While consumer consultation, removal of retail price regulation, and the introduction of smart meters/time-based pricing for critical peak periods are essential for improving the situation, we urge the Commission to include additional measures in its final recommendations.

Smart grids/cost-reflective pricing

While we agree with the Commission regarding cost-reflective pricing, it is frustrating to note that this recommendation has been made by countless processes yet little has been implemented, except in Victoria where the smart meter rollout has been dogged by teething problems and opposition. There is a serious need to go beyond simple recognition of the problem and make recommendations that can overcome this persistent reluctance to roll-out more cost-reflective pricing. The Commission's report is unfortunately largely silent on this issue.

Decoupling volume and revenue

The Commission appears to have followed the traditional line of thought that investment in DM should be increased by incentivising networks. While this is important, there should also be an effort to decouple revenue from electricity throughput and provide a price signal for DM providers to compete directly against augmentation options on a level playing field.

Current approaches proposed by the AEMC in its *Power of Choice* draft report to decouple volume from revenue[7] amount at best to partial decoupling, since none of them fundamentally alter the underlying link between volume and revenue. They simply claw back some of the revenue earned from increased volume rather than fundamentally shifting the business model of networks and retailers toward being energy service companies (ESCOs). While we agree that incentivising networks is important, to some extent network incentives simply reinforce the prevailing view that sees DSP as a separate activity, undertaken to benefit from regulatory incentives, rather than as an essential part of business.

We recommend that research should be commissioned into international best practice on decoupling energy volume and revenue, with a view to recommending a new regulatory model for Australia that would inherently encourage more DSP, rather than using incentives to patch a defective regulatory model.

Demand management targets

TEC considers it likely that the reforms proposed by the AEMC to the Demand Management and embedded Generation Connection Incentive Scheme (DMEGCIS) should result in greater uptake of DM initiatives by distribution networks. However, given the poor uptake of current DSP initiatives by networks and the uncertainty surrounding how effective reforms proposed by the AEMC will be, TEC is convinced that a target for DM for networks is an essential component of reform. Such a target would kick in only where incentives were not working, so there is no downside. However, number of potential scheme designs and the lack of examples of such target schemes from other jurisdictions, it is critical for the AEMC to urgently commission a study into a potential DM target scheme design.

DM Innovation Allowance (DMIA)

Good quality research into DM that is of sufficient scale to be attractive is also costly to networks, and is unlikely to occur in the currently regulatory environment unless there is targeted innovation funding for this purpose. Networks that pursue innovative DM programs despite the framework take significant risks and we agree with the AEMC that research and development projects are unlikely to attract funding under the DMEGCIS even after proposed changes.

[7] Page 129.

While we support government programs such as Smart Grids, Smart Cities, these programs are limited in scope, designed for a specific objective, and are too small and disparate to replace a strong and consistent mechanism within the NEM for funding DM research and innovation. The current DMIA must either be replaced with a new fund mandated by the rules, or that the AEMC develops new principles that better guide the AER's development of the scheme and ensure that it is incentivising innovation.

An appropriate alternative model is that used by UK regulator Ofgem, where network operators bid for portions of £250m of innovation funding over a regulatory period. We agree with the AEMC that any such scheme should include both cost recovery and a mechanism which allows the network to capture a share of any associated long term benefits.

Regulatory Investment Tests (RITs)

Networks are required to undertake RITs before committing to major new infrastructure spending. However, to our knowledge, no new transmission line or distribution network project proposal has ever been abandoned (rather than merely postponed) as a result of a RIT (or its predecessor), whether because of inaccurate demand forecasts, actual demand being lower than projected, or an alternative (demand management or local generation) project being shown to be more economically efficient.

This suggests that there is a major flaw in these processes.[8] This is no surprise, since (a) proponents are expected to call for and review DSP alternatives to their own infrastructure plans, and (b) the AER does not have the powers and/or the resources to properly review the merits of these proposals, instead essentially being reduced to the role of checking that the networks have "ticked the boxes" before concluding that, indeed, their project is the least-cost solution to an emerging network constraint.

TEC considers that the AER should have greater powers and resources to oversee these processes, becoming the arbiter instead of rubber-stamping the result of processes conducted essentially by the proponents for their own benefit. Indeed, new infrastructure proposals should be subject to public tender in which DSP proponents such as DM aggregators and local solar power providers can compete on an equal footing.

Distributed generation

In relation to solar PV, the Commission's report takes a narrow view, judging the technology solely on estimated cost of abatement. Given this focus, TEC is disappointed that the report uses now-discredited figures, suggesting that the cost of abatement is between $432 and $1,042 per tonne of CO2 emissions rather than the more likely range of between $177 and $497.[9] This is in spite of the fact the Commission has previously been made aware of this issue and responded acknowledging its errors.[10] Even these revised estimates are likely to now be incorrect due to the rapid reduction in the cost of solar panels and the reduction in tariffs. The Australian Photovoltaic Association argues that the cost of abatement is even lower, around $90/tonne CO2-e to $95/tonne CO2-e, depending on the location of the installation.[11]

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[8] See TEC's submission to the 2012 Senate inquiry into electricity prices for an example of the inadequacy of the current regulatory process for new network projects: in this case, TransGrid's proposed Dumaresq-Lismore line.

[9] Productivity Commission, Carbon Emission Policies in Key Economies: Responses to Feedback on Certain Estimates for Australia, Supplement to Research Report, December 2011.

[10] Ibid. Giles Parkinson, 'While you were at the beach' *RenewE conomy* (22 January 2012) http://reneweconomy.com.au/2012/while-you-were-at-the-beach and 'Why you are paying $10/hr to run your neighbour's air-con' *RenewEconomy* (18 October 2012) http://reneweconomy.com.au/2012/why-you-are-paying-10hr-to-run-your-neighbours-air-con-21376. We agree with Parkinson that "Until organizations such as the Productivity Commission get their mind around solar PV – regarded by just about every major utility in the world as the biggest game changer in the industry for the past few decades – then we cannot rely on them to make sensible recommendations".

[11] APVA, Response to PV Costs and Abatement in the Productivity Commission Research Report *Carbon Emission Policies in Key Countries, May 2011* (June 2011).

Furthermore, the Commission maintains that distributed solar PV should be paid at the same rate as a centralised coal-fired generator, i.e. in the wholesale market, despite the fact that retailers sell the same electrons at a much higher price in the retail market. This places solar PV generators at a disadvantage.

TEC recommends that arrangements should be made to provide direct payments to distributed generators from distribution network businesses which reflect the true value of their distributed generation capacity and output, i.e. the value of avoided network investment. The networks often state that such payments are already available, but the reality is that these are left to the discretion of the network business and thus do not generate a transparent and clear price signal about what a generator would need to do to qualify for the payments.[12] The Commission should recommend that the regulator set payment levels for generation provided during peak periods based on the value of avoided network costs. If no generation is supplied during the peak period, then no payment will be received, but the generator will have a clear price signal in advance and will be able to plan accordingly.

The Australian Energy Regulator

We do not feel that the discussion of the AER is correctly focused. TEC is not convinced that where the AER sits is the critical issue, rather that its available resources and powers need to be enhanced. It is clear that the AER does not have sufficient resources or powers to effectively play its full role in the NEM. The focus of the discussion should therefore be not on institutional reform, but on the needs of the AER as a regulatory body.

These needs are likely to become greater given the range of proposals for reform in the NEM. For example, the Commission suggests that the AER maintain in-house expertise for the technical analysis required to undertake sophisticated benchmarking of network businesses, but the AER's capacity to do this at present is very limited. Likewise, initiating a public tender process for infrastructure projects would require more resources for the AER, but the costs would be more than offset by savings in the form of less infrastructure spending.

Recommendations

We urge the Commission to recommend the following in its final report:

National consumer body

SCER should:

- approve the resourcing of ECA from July 2013 as per the prepared Business Plan;
- commit to preserving the existing energy CAP provisions,;
- establish an advisory role for consumers in all regulatory processes, but with consumers represented by ECA or stakeholder groups rather than, or as well as, an expert panel; and
- in the longer term, introduce a system of negotiated settlements as an optional alternative to the current propose-respond model for revenue determinations.

Smart grids/cost-reflective pricing

- Mandated, accelerated, NEM-wide smart meter deployment in conjunction with extensive consumer engagement programs.
- Implementation of an incentive mechanism for networks to drive smart meter deployment in network-constrained areas.
- Mandating implementation of the National Smart Metering Program metering specifications and performance standards.

[12] http://www.climatespectator.com.au/commentary/productivity-commission-releases-bomb

Decoupling volume and revenue

- The AEMC should urgently commission a study into decoupling energy volume and revenue to recommend a regulatory model inherently amenable to DSP.

Demand management targets

- The AEMC should urgently commission a study into a potential DM target scheme design.

Regulatory Investment Tests (RITs)

- A public tender process for infrastructure investments should be instituted in which DSP proponents can compete with traditional network based solutions on an equal footing.

In addition to these recommendations, in its final report we urge the Commission to:

Distributed generation

- Discontinue using outdated and discredited figures regarding solar PV and cease conducting assessments of distributed generation until there is the capacity and willingness to do so fairly and holistically.
- Recommend a process to establish payments to distributed generators based on the value of avoided network investment.

The Australian Energy Regulator

- Focus its discussion on the powers and resources of the AER to effectively undertake its functions, rather than on its institutional positioning.

Yours sincerely,

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