Australian Energy Market Commission

Level 5, 201 Elizabeth Street Sydney NSW 2000
PO Box A2449, Sydney South NSW 1235

P – 02 8296 7800
F – 02 8296 7899
E – aemc@aemc.gov.au

ABN 49 236 270 144
www.aemc.gov.au

Our ref: 12F701

29 November 2012

Electricity Network Inquiry
Productivity Commission
GPO Box 1428
Canberra City ACT 2601

Dear Mr Weickhardt and Ms Craik

Productivity Commission Draft Report on Electricity Network Regulation

The Australian Energy Market Commission (AEMC) welcomes the opportunity to respond to the Productivity Commission's (PC's) Draft Report on Electricity Network Regulation (the Report).

There is much within the Report that is consistent with the AEMC's views, particularly regarding changes to the rules for network regulation and the issues being addressed in the AEMC's Power of Choice review. Recognising the degree to which the PC has agreed with the AEMC's views on these issues, our response focuses primarily on those aspects of the Report where we would welcome more information about the PC's rationale for its views and/or where the PC has reached different conclusions to the AEMC.

As noted by the PC, there are a number of ongoing or recently completed reviews focussing on regulatory aspects of the National Electricity Market (NEM), including those by the AEMC. We consider it would assist stakeholders if the PC was to outline in the final report the extent to which its recommendations differ from or reinforce those in complementary reviews. This would also help stakeholders consider the best mechanisms for deciding whether to implement any of the PC's recommendations that are not already being addressed.

When undertaking rule changes and market reviews, the AEMC is guided by the National Electricity Objective (NEO)[1] and a focus on the long term interests of consumers. When giving effect to that objective there are a number of common principles or approaches that the AEMC seeks to follow, including that:

[1] See: http://www.aemc.gov.au/Electricity/Electricity-Market.html.

- Competition and market signals are generally likely to lead to better outcomes than regulation or planning for consumers, as businesses operating in competitive markets perform best when they meet consumers' needs.

- Outcomes will be best when consumers' preferences are revealed and utilised either directly through individual consumer decisions or through surveys and other mechanisms to inform decision-making by regulators and planners.

- It is important to allocate risks and provide incentives to those parties best able to respond to them, and financial incentives provide a direct means to help ensure that monopoly businesses better meet consumers' needs. Accountability for decision-making and outcomes should rest with those parties best able to manage risks.

The AEMC's comments have been guided by the NEO and these principles.

This submission provides general comments on the Report, followed by more detailed remarks concerning transmission frameworks in **Attachment A**. **Attachment B** is a table that briefly addresses each of the recommendations in the Report.

Network regulatory incentives and benchmarking

The final position paper on the network regulation rule change proposals raised by the Australian Energy Regulator (AER) and the Energy Users Rule Change Committee was published by the AEMC on 15 November 2012.[2] This paper and the previous AEMC documents in the rule change process set out the AEMC's analysis and views on network regulation issues. The final determination will be published by the end of November 2012.

Regulatory Incentives

The AEMC notes that the PC broadly agrees with our recommendations on regulatory arrangements and incentives published in the network regulation rule change final position paper.

The AEMC views ex-ante incentives as the primary tool to reveal the efficient level and timing of network capital expenditure (capex). Ex-ante incentives make network businesses accountable for their capex decisions, promoting efficient and timely investment, and ultimately lower prices for consumers. Moreover, the investment risk of a network's capex decisions appropriately rests with the network businesses. Effective shareholder oversight and the discipline of raising capital in financial markets provide a further discipline to encourage efficient investment decisions.

We consider that ex-ante incentives would be most effectively implemented if the AER was provided with the discretion to design the incentive schemes, in consultation with stakeholders, rather than being prescribed in the National Electricity Rules (NER).

The AEMC considers that a review by the regulator of capex incurred during the regulatory period before each determination is good practice to inform the regulator's assessment of the businesses future investment plans. Therefore, our position paper rules include a requirement for the AER to undertake such a review of past capex. In addition, the position paper rules allow the AER to reduce the amount of capex entering the Regulated Asset Base (RAB) of a network business if the business has overspent compared to its allowance and a review by the AER concludes that some of the investment was inefficiently incurred. Any cut in capex entering the RAB is limited to the amount of the overspend.

[2] See: http://www.aemc.gov.au/electricity/rule-changes/open/economic-regulation-of-network-service-providers-.html.

The AEMC considers the review mechanism leading to a reduction in the capex entering the RAB to be a last resort to address clearly inefficient expenditure, with ex-ante incentives being primarily relied upon to provide incentives for efficient expenditure. The power for the AER to reduce the amount of capex entering the RAB should not be seen as diminishing the role of ex-ante incentives. Rather, such reviews are to address a gap in the lack of supervision of capex that has occurred, as the inherent reliance on a degree of forecasting means ex-ante incentives may not always provide adequate assurance that investment is efficient.

We would be interested in the PC's views as to the relationship between ex-ante and ex-post incentives on capex and whether these are seen as complements or substitutes by the PC.

The approach to regulating networks under the Rules is, in general, to set an overall revenue allowance and for the business to be responsible for meeting its reliability, and other obligations, within the revenue allowed.[3] Under this approach, the regulator does not usually become involved in approving expenditure decisions on particular projects. The PC's recommendation to allow networks to apply for pre-approval to avoid ex-post assessments, and possible reductions in capex entering the RAB if approved revenues are expected to be exceeded, creates the risk of the regulator getting more involved in approving expenditure on individual projects ex-ante.

The AEMC is concerned that the PC's proposal could impact on efficiency incentives and incentives to manage expenditure within the original allowance. Furthermore, consideration should also be given to how such a mechanism would work with existing pass-through arrangements. We would be happy to discuss further our views on this issue with the PC.

When estimating the rate of return, the AEMC supports the AER having the discretion to adopt a trailing average approach when estimating the risk free rate and cost of debt. Given that efficient financing structures and conditions in financial markets can change significantly over time, it is our view that mandating a particular approach may lead to sub optimal outcomes. The AEMC welcomes the PC's agreement with the AEMC's view that the approach to estimating the rate of return should be consistent for state-owned and private networks.

We also welcome the PC's agreement with the approach taken by the AEMC in the network regulation rule change to provide the AER with more discretion to assess forecasts, including undertaking top down assessments, when setting capex and operational expenditure (opex) allowances. However, rather than adjusting the allowances to the minimum necessary to comply with the NER as proposed by the PC, the AEMC sees benefits in allowing the AER to substitute with its own best estimate; in doing so the AER would have regard to the network service provider's (NSPs) proposal, alongside the NEO and Revenue and Pricing Principles.

The AEMC considers that consideration of the benefits of combining the distribution and transmission chapters of the NER, as suggested by the PC, should be made after having undertaken a preliminary review of the advantages and disadvantages of such an approach. While as a general principle we support equivalence in drafting where the policy intent is the same, there is a time and resource cost involved in such an exercise, so it is important to be clear that there are material benefits to be gained from such work.

We were also unclear as to how the PC's consideration of having a single chapter in the NER for the regulation of transmission and distribution NSPs aligns with the PC's recommendations for quite different approaches to the regulation of transmission and distribution in Chapters 15 and 16 of the Report.

[3] There are some exceptions to this general approach, such as provisions for pass-through of certain costs and the contingent project mechanism.

Benchmarking

The AEMC sees benchmarking as playing an important role in the building block model in assessing the efficiency of NSPs during regulatory determinations, and the approach in the PC's report supports the AEMC's rule change decision to require the AER to produce regular benchmarking of network businesses.

The AEMC made a recommendation to the Standing Council on Energy and Resources (SCER) in 2011 for rule changes that would give the AER greater powers to collect consistent information from all NSPs to allow for greater benchmarking.[4] We would encourage the PC to consider further whether the existing provisions in the National Electricity Law and NER are sufficient to allow the AER to obtain consistent information from all NSPs for the purposes of benchmarking.

Whilst benchmarking is of critical importance to the regulator, it can also be of assistance to consumers, providing them with relative information about network performance. This would be useful to consumers when participating in the regulatory process and merits reviews, but also during informal interactions with NSPs.

With respect to the PC's recommendation that the NER should be changed to allow the AER to initiate a three way negotiation involving an NSP and consumer advocacy group, we would encourage the PC to review the position paper rules that include a range of provisions that increase the scope for consumer engagement in regulatory determinations. These changes will require:

- the NSP to indicate in its regulatory proposal the extent to which it has engaged with consumer representatives;
- the AER to publish an issues paper after receiving the regulatory proposal to assist consumer representative groups to focus on the key issues;
- the AER to publish a benchmarking report that informs consumers on the relative inefficiencies of NSPs; and
- the AER to take into account the extent which the NSP has engage with consumers in preparing its forecasts.

These provisions provide substantial scope for consumers and their representatives to be heavily involved in the regulatory process, and for the regulator to take account of their views, and the degree of support from consumers for the businesses' plans. It is also important to recognise that where networks have a very large and varied consumer base it is likely that the regulator will always have to play a role in determining an outcome that takes account of all stakeholders' views. We understand that negotiated settlements of the type envisaged by the PC have generally worked best in situations where there are relatively few well informed and resourced consumers with similar interests, e.g. airlines at an airport.

Demand-side participation (DSP) and time-based pricing

The AEMC's research, analysis and draft recommendations on DSP are contained in the Power of Choice – Stage 3 DSP Review, [5] which will be published in November 2012.

[4] AEMC 2011, Review into the use of total factor productivity for the determination of prices and revenues, Final Report, 30 June 2011, Sydney, p. 10.
[5] AEMC 2012, Power of Choice – giving consumers options in the way they use electricity, draft report, 6 September 2012.

DSP allows consumers to actively participate in the market through a suite of options to manage their electricity consumption in response to price signals. Consumers, given the right information and tools, will be in the best position to decide what decisions maximise their welfare. Time-based electricity prices that accurately reflect the costs of supply are an important part of DSP. It will be important for consumers to be informed and engaged before time-based prices are introduced so consumers understand the information and tools available to help them manage their consumption.

We also consider it is important that the regulatory arrangements do not favour particular technologies, but instead facilitate services emerging that best meet consumers' needs. This approach is also consistent with competitive retail markets where retailers and other service providers have incentives to identify and provide services that best meet consumers' needs.

The AEMC welcomes the PC's agreement that a move to cost reflective, time-based, pricing for distribution network services will potentially deliver significant benefits for consumers. We also agree that implementation should be undertaken in a phased approach, with comprehensive community consultation. Eliciting consumer engagement is a critical aspect of realising the benefits of cost reflective pricing and will depend on how the transition is managed.

Smart meters are likely to have a role in facilitating the provision of services that allow consumers to make more informed decisions to manage their consumption. Consumers are most likely to accept a smart meter as part of a tariff package or DSP service offering. Under a competitive model for metering provision, retailers and other third parties are able to develop, and offer, innovative products and appropriate tariff packages, and have a commercial incentive to elicit consumer support for these products.

The Power of Choice review is currently minded to recommending a competitive framework for the provision of all metering services, including smart meters. We note that the PC is favouring a network-led rollout of smart meters, regulated by the AER. The AEMC considers the PC may have overlooked some of the practical difficulties and extra costs associated with a network-led rollout strategy. We would encourage the PC to consider further whether an approach based primarily on rollouts by monopoly network service providers is likely to lead to sufficient commercial innovation and prioritisation of services consumers value to maximise the potential benefits for smart meters.

The AEMC considers that competitive provision of metering will contribute to efficient outcomes for consumers, as this approach supports innovation, greater DSP options for consumers and efficiency in metering costs. The risks around a competitive market based approach raised by the PC can be addressed through establishing coordination, managing stranded asset risk and requiring each meter to meet a minimum functionality specification. Appropriate arrangements for inter-operability and open access of the smart metering services will also be developed.

We agree with the PC that, where competition is effective, retail price regulation should be removed. The AEMC is currently in the early stages of a review of retail market competition in New South Wales, and has previously completed similar reviews in Victoria, South Australia and the Australian Capital Territory. However, we disagree with the PC's view that there is little point in proceeding with cost reflective network pricing in the presence of retail price regulation. Rather, time-based network tariffs should flow through to the regulated retail price, signalling the cost of network utilisation.

In our view it is important to seek to put in place appropriate incentives at all parts of the supply chain, and while the benefits from cost reflective network tariffs may be greater with retail price deregulation, there are likely to still be benefits while retail price regulation is maintained and time-based network tariffs are reflected in retail price caps. It is also important to bear in mind that more cost reflective network tariffs send important signals to networks about the value and cost of using and developing different parts of their networks.

Transmission and distribution network reliability

The AEMC considers that there are some key components that should underpin the approach to setting reliability standards for transmission and distribution, which are:

- Reliability standards should be based on economic considerations.
- Such standards should be derived from cost benefit assessments of network capability and the risks of loss of supply, with an estimate of the value of customer reliability (VCR) as a key input.
- The standards should be set by an independent body.
- It is important to balance potential benefits of setting an economic standard known ex-ante with sufficient flexibility to allow investment that would otherwise be needed to meet the standard to be deferred or advanced if there has been a significant change in circumstances since the standard was set.
- There should be transparency as to the standards to be achieved by the NSPs, including with regard to any incentives in revenue determinations. This also helps to promote accountability for outcomes.

This above approach is very different from the deterministic approaches adopted in some jurisdictions currently. It is consistent with many elements of the approach used in Victoria and recommended by the PC. The points of difference are primarily about the extent of the reliance on the VCR as the way to capture community expectations and the extent to which standards are transparently expressed.

As the PC notes, given the challenges associated with accurately estimating a VCR, this may not always be the only or most appropriate way of capturing community expectations. There is also a need to reflect high impact, low probability events when setting reliability standards.

Whilst in Victoria the level of transmission investment and thus network capability is derived from a cost benefit assessment, the outcomes of that assessment are not transparent – for example, at each transmission connection point the levels of redundancy (N-X) and times for replacing failed equipment are not specified.

The AEMC is currently undertaking the national work stream of the Review of Distribution Reliability Outcomes and Standards.[6] A draft report was published on 28 November 2012 that provides advice to SCER on whether there is merit in a nationally consistent framework for distribution reliability in the NEM.[7] It also includes high level features for a nationally consistent framework. If SCER requests the AEMC to undertake a final report, further detail on the national framework would be developed, including the methodology and body that would develop the value of customer reliability for each NEM region.

The AEMC will shortly be starting a project to develop an implementation plan for national transmission reliability standards. We will again review the framework that best delivers a national approach as part of that project.

---

[6] See: http://www.aemc.gov.au/Market-Reviews/Open/review-of-distribution-reliability-outcomes-and-standards-national-workstream.html.

[7] http://www.aemc.gov.au/media/docs/Draft-report-a0c2273a-3864-447e-9b49-cd9014f2275a-0.pdf.

As part of its proposals for changing the approach to setting reliability standards, the PC proposes significant changes to the transmission planning arrangements that apply in the NEM (outside Victoria). Under this model, it would be AEMO which, in consultation with the transmission businesses, would make the decision to proceed with a network or non-network solution to an identified constraint. If the costs of the solution are less than an appropriate threshold, AEMO and the network business should negotiate and agree on the required expenditure. If there is no agreement, the AER should determine the allowable spending. This proposal represents a fundamental shift away from incentive regulation currently used in Australia.

Incentive regulation as currently applied results in a capex allowance being approved by the AER. Where firms spend less than the forecast amount they are allowed to keep a proportion of the savings. The approach outlined by the PC suggests a shift to a rate of return type of regulation, where costs for each investment are assessed and approved on a project by project basis.

The AEMC considers that financial incentives are likely to provide the most robust and transparent driver for efficient decision-making, as efficient outcomes can best be promoted by aligning the commercial incentives on businesses with the interests of consumers. It is not clear from the Report why the PC considers that enhanced incentives on network businesses would be inappropriate or why such a fundamental change in the approach to regulation is justified.

We are also concerned that the roles of the AEMO, AER and Transmission Network Service Provider (TNSP) in the PC's proposed approach create diffuse accountability, when it is crucial that there is clear accountability for investment decisions that affect reliability of supply so directly. The approach to setting reliability standards can be separated from the institutional arrangements for transmission planning. Introducing the current approach to setting reliability standards in Victoria across the NEM as proposed by the PC does not necessarily imply that AEMO would need to be the standard setter or investment decision-maker in the rest of the NEM.

We have noted the PC's support for the introduction of the AEMC's Optional Firm Access (OFA) model. As the AEMC has stated, and which, amongst others, the Victorian Department of Primary Industries has supported, the OFA model is likely to work best when the investment decision-maker faces appropriate financial incentives to meet a generator's firm access requirements in a timely and efficient manner.[8] The AEMC is concerned that the approach proposed by the PC for transmission planning and investment decision making may not allow the benefits of the OFA model to be fully realised.

We note that the PC's recommendations for setting transmission reliability standards differ significantly from its views on distribution reliability standards. For instance, under the PC's recommendations for distribution reliability, Distribution Network Service Providers (DNSPs) would have limited regulatory oversight, with the Service Target Performance Incentive Scheme used solely to incentivise and enforce reliability performance. In contrast, for transmission reliability, the PC is proposing that AEMO lead TNSP planning and investment decision making, with TNSPs responsible for network provision and operation.

Interconnectors and transmission investment

The AEMC agrees with the PC's draft finding that the available evidence suggests the current physical capacity of interconnectors is reasonably appropriate, and there are processes in place and used to assess the need for new capacity. As noted by the PC, where net benefits exist, action to augment the network is underway, such as consideration of an upgrade to the capacity of the Heywood interconnector between Victoria and South Australia.

[8] Department of Primary Industries Victoria 2012, DPI submission to the AEMC Transmission Frameworks Review, October 2012 p. 9.

On the key drivers for improved transmission frameworks, the PC report has a high degree of alignment with the AEMC's TFR on the potential inefficiencies arising from disorderly bidding. However, the PC seems to propose that addressing disorderly bidding is the key driver for improved transmission frameworks, and that doing so also addresses problems in the wholesale contract market.

The AEMC has a broader view on the drivers for improved transmission frameworks, which is to:

- encourage co-optimisation of transmission and generation investment;
- provide a locational signal for new generation investment;
- address the lack of certainty of dispatch for generators when there is congestion (thereby reducing the incentives for disorderly bidding);improve the ability of market participants to manage the risk of price differences between regions; and
- provide signals to TNSPs to plan and operate their networks to maximise availability when it is most valuable.

A mechanism to solely address disorderly bidding does not automatically address all of these drivers. Any improved transmission frameworks should therefore be designed with a view to broader objectives than addressing disorderly bidding alone. In any event, due to the interconnected nature of transmission frameworks, it is unlikely to be possible to design a mechanism that uniquely addresses this issue.

The AEMC welcomes the PC's suggestion that the OFA model outlined in the AEMC's TFR should be implemented. However, we disagree with the PC recommendation that a 10 year review should be conducted to examine the costs, benefits and barriers of replacing OFA with nodal pricing.

If the final TFR report recommends implementing the OFA model, the AEMC does not consider it will be a stepping stone, or interim arrangement; we see OFA as a fundamental and long term market design, providing a stable framework for efficient transmission and generation investment.

The AEMC is concerned that any suggestion the OFA model would be subject to a 10 year review would undermine the willingness of participants to make long term investment decisions. The model is intended to promote certainty in the contract market. We consider it important, should the OFA proposal be implemented, that governments and regulators commit to that model for the long term.

With reference to identifying future transmission investment, the PC proposes making the RIT-T the primary determinant of investment revenues, which requires the removal of the current incentive based regulation of TNSPs. In contrast, the AEMC's view is that the RIT-T should act to complement the revenue cap efficiency incentives, with there being no formal link between the RIT-T process and the revenue determination process as undertaken by the AER. However, we note that under the NER the AER must have regard to Project Assessment Conclusion Reports produced under the RIT-T in determining a TNSP's revenue allowance. Furthermore, in the TFR, the AEMC has proposed an enhanced role for AEMO in reviewing TNSP Annual Planning Reports (APRs) and RIT-T documentation, which could provide a further source of advice to the AER.

The AEMC agrees with the PC's recommendation that the RIT-T should not be amended to include indirect effects of investment decisions. As stated in the TFR Second Interim Report, the AEMC does not propose to reassess the case for estimating economic impacts, such as wealth transfers,

on market participants and customers as part of the RIT-T process.[9] We also noted that, while desirable, it may not be appropriate for TNSPs to identify wealth transfers. This is due to the difficulty of estimating the benefits that accrue to consumers and generators, and the disproportionate burden on TNSPs of increased costs and time pressures. However, we would always encourage TNSPs to publish as much information as possible about the analysis they have done to inform RIT-T's, and the NER indicates the minimum that a TNSP should do.

Regarding the PC's request for information as to whether the RIT-T should be applied to replacement projects, similar issues were recently considered by the AEMC in relation to the regulatory investment test for distribution (RIT-D).[10] The AEMC found that including replacement projects would impose a disproportionate regulatory burden on DNSPs and it would appear similar reasoning also applies to transmission investments.

We also note that clause 5.6.5C(d) of the NER requires all investments not covered by the RIT-T must be developed at "least cost over the life of the investment". As such, TNSPs still go through internal planning processes for replacement expenditure in order to ensure they are least cost.

Consumer representation

The AEMC supports a peak consumer advocacy body to participate in broader regulatory reforms and detailed regulatory issues such as assessments of the rate of return in regulatory determinations. However, we would encourage the PC to carefully consider whether such a peak consumer advocacy body could be expected to be seen as a legitimate representative of all Australian consumers in negotiations with NSPs at the time of regulatory determinations.

The interests of consumers in Australia are diverse, whether due to geographic location, customer size, reasons for consuming electricity (industrial or residential consumers), income levels, etc. Given the diversity of interests, we consider it is important that future arrangements for consumer advocacy allow this diversity of interests to be drawn out and advocated for. Therefore, as a minimum, if a national body is to take over the functions of the Consumer Advocacy Panel, there would need to be structures in place to support the allocation of grant money to other consumer organisations through a mechanism free from actual or perceived bias.

While bodies to advocate for consumers interests are very important, it is also important that consumers themselves are better equipped to determine the services they want and we consider this is done best by informing consumers directly, rather than focussing solely on a national consumer advocacy body. The AEMC's approach to the Power of Choice review has focused on giving consumers themselves the information and incentives to make decisions about their own consumption because they ultimately are best placed to make such decisions.

Processes for amending the National Electricity Rules

The PC recommends the powers of the South Australian (SA) Minister and AEMC be amended to fast-track rule changes proposed by appropriately undertaken reviews agreed to by SCER.
In forming this recommendation, we consider the PC may be treating questions of policy, which are usually the subject of reviews, and questions around how policy is implemented, which is usually the subject of a rule change, as the same. In our experience they are quite different and involve different considerations.

[9] AEMC 2012, Transmission Frameworks Review, Second Interim Report, Sydney, p. 73-74.
[10] AEMC 2012, Distribution Network Planning and Expansion Framework, Rule Determination, 11 October 2012, Sydney.

In a review, the consultation is on matters of principle and policy. For rule change requests following reviews, the consultation focusses on more detailed, implementation issues, which are generally not considered adequately as part of the review process – in this regard consultation is not duplicative. For instance, it would not be a straightforward exercise to legally draft and integrate the PC's 54 recommendations harmoniously into the NER.

The AEMC has a power to fast track rule changes coming out of reviews; however, we have generally found this has resulted in insufficient time for adequate consultation. Moreover, in our experience, stakeholders have taken a very different approach to the development of policy in the context of a review and implementation of the policy through a rule change process. During the rule change they had much more detailed and nuanced comments than during the review.

Under a model where the SA Minister is given a broader power to make rules, SCER will still need to draft rules and consult with stakeholders in the same way the AEMC does. This will take similar time to the AEMC rule change process and SCER is arguably not best equipped to develop detailed rules, given its role as high level policymaker in the energy governance framework and the resources available to it.

While the PC has made these suggestions in an attempt to save time and reduce the burden of consultation for stakeholders, the AEMC considers the same consultation will still need to be undertaken – just by different bodies.

We would suggest that in its final report the PC clearly identifies those of its recommendations that differ from the rules as they exist at that time or are not currently being considered through review or rule change processes being undertaken by the AEMC. For such recommendations that are not being dealt with by existing processes, consideration can then be given by SCER as to whether and how the recommendations should be taken forward.

Public consultation

Energy market reforms cross jurisdictional borders, involve the cooperation of multiple stakeholders and influence long-term capital intensive investments. Accordingly, the AEMC considers that extensive consultation is integral to rigorous policy development.

In our experience, public forums and workshops provide an opportunity to discuss the analysis and thinking behind recommendations with key members of industry, consumer representatives, government and regulators. In these types of forums sessions can be organised on specific topics, allowing more detailed discussion with subject matter experts. This approach ensures a rigorous, interactive and peer reviewed approach to policy development.

When undertaking market reviews and changes to the NER and Procedures, the AEMC and AEMO carry out multiple rounds of stakeholder consultation. This level of interaction ensures stakeholders feel they have an opportunity to rigorously test and challenge the approaches being proposed. Although there is not always consensus with the outcomes, there should be no ambiguity as to the reasoning and analysis behind the decisions and no unexpected outcomes from the Rules and Procedures implemented.

We have found that a wide-ranging consultative approach to developing recommendations for electricity market reform positively contributes to their successful implementation.

Please contact Paul Smith, Senior Director Strategy and Economic Analysis, if you require further information or clarification of our comments.

Yours sincerely

Steven Graham
Chief Executive Officer

ATTACHMENT A

Transmission Reliability and Planning

Introduction

As noted by the Productivity Commission (PC), while there are significant overlaps between the thinking of the Australian Energy Market Commission (AEMC) and the PC with regards to transmission reliability and planning, a number of the PC's draft recommendations in this area are inconsistent with proposals made by the AEMC.[11]

This attachment to our submission explores these issues further. In particular, it highlights the inherent linkages between the arrangements for transmission planning and for transmission access, which we consider the PC may have placed insufficient weight on. It also touches on some related matters in the distribution sector.

A holistic approach

In the recent Second Interim Report for the Transmission Frameworks Review (TFR), the AEMC presented a proposal for enhanced generator access to the transmission network, which we termed "Optional Firm Access" (OFA). While we consider that this has considerable merit, we also noted that it would represent a significant change to the National Electricity Market (NEM) because it impacts on so many aspects of the market and regulatory arrangements.

The PC expressed support for the OFA model in the context of improving the usage of interconnectors. However, there appears to be some differences between the PC's recommendations for interconnector usage and those for transmission planning and reliability. It is clear that OFA would have a significant impact on transmission planning, and one of the key tasks for the AEMC in developing its final recommendations for the TFR will be to work up a model which fully integrates the OFA model with transmission planning frameworks.

One of the key objectives of OFA is to give generators confidence as to their ability to access the market. To do so requires clear accountability for transmission service provision, and for there to be meaningful consequences for any failure to deliver the service. As noted by a number of stakeholders, including the Victorian Department of Primary Industries, the OFA model would best be supported by transmission planning and provision functions being undertaken within a single transmission entity, thereby linking service accountability, risk management and reward, and which would allow for the optimisation of network investment and operation.

We note that the PC's preferred "AEMO planner model" does not include these features. Under this model:

- Accountability for the service received would be divided between the network operator and a separate investment decision-maker. (In the event that the AEMO planner model was subsequently developed to include competitive procurement, accountability for the service at a particular connection point in a region would be further spread over multiple network operators.) In practice, this is likely to mean that there is no accountability for service delivery.

- AEMO's not-for-profit status means that it is not possible to provide it with any financial incentives or to make it liable to compensate generators even if it was possible to identify to what extent AEMO was responsible for a service delivery shortfall in its role as investment decision-maker.

- The separation of investment decision-making and network operation means that cost trade-offs will not be made, with the risk that overall costs are not minimised.

[11] Productivity Commission 2012, Electricity Network Regulatory Frameworks, Draft Report, Canberra, p.17.

It is not clear, therefore, that the PC has satisfactorily reconciled its provisional policy positions with regards to interconnectors, where it recommends implementation of the OFA model, and transmission planning, where it recommends the implementation of structural arrangements that may not allow the benefits of OFA to be fully realised.

One of the potential advantages of the OFA model is the investment signals that would be provided by generators purchasing firm access. This would reduce the role played by network planners in determining whether or not there was a need to augment the network. Rather, transmission investment decisions would then be concerned with how best to provide a service for which there was already a clear driver (and for which a generator, rather than consumers, would bear the financial risk). We consider the role of investment signals provided by generators is an important consideration when deciding on the best planning and investment decision-making approach under OFA.

The PC's draft report appears to advocate contrasting approaches for transmission and distribution. For distribution, the PC reaffirms, and seeks to extend, the role of incentives applied to profit motivated businesses, which have clear service accountability, in order to minimise the overall costs of investment and operation. In contrast, for transmission, the PC's recommendations have the effect of diminishing the role of incentives, reducing accountability, and fragmenting the process for investing in and operating the network, with a government-controlled agency making all investment decisions.

It appears that these differing conclusions were at least partly informed by a view that the higher levels of reliability provided by transmission networks means that it is not possible to measure, and therefore incentivise performance in the same way as for distribution. The AEMC considers that the OFA model would assist in this regard, by giving a clear performance metric which could form the basis for powerful incentives to be placed on Transmission Network Service Providers (TNSPs). Building on this model could allow the PC to more closely align its approach for transmission with that for distribution.

It is not clear to the AEMC that all the draft recommendations made by the PC are necessarily the best way to address the issues identified. The following three sections of this attachment discuss this with regards to reliability standards, network planning and economic regulation.

Reliability standards

The implementation of the OFA model would mean that an increasing amount of transmission investment was market-driven, with a clear signal for investment to occur. While there would still remain a residual role for transmission reliability standards in investment decision-making, the materiality of this, and the role of the planner in determining a need for investment, would be less than at present.

Nonetheless, the AEMC agrees with the PC regarding the importance of a national approach to transmission reliability standards, due to the effects that reliability settings in one region of the transmission system can have on other regions and on the service received by users in those regions. As the PC notes, investments in another region can be a substitute for investments (or other solutions) within a region. A national approach could better interact with a firm access standard under the OFA model.

We also strongly agree that reliability standards should be based on economic considerations. Such standards should be derived from cost benefit assessments of network capability and the risks of loss of supply, with an estimate of the VCR as a key input.

However, as the PC notes, estimating the VCR is challenging, particularly so for transmission.[12] There have been large variations in VCRs calculated in Australia to date. A reliance on a single estimate of VCR may not therefore always be the most appropriate way of capturing community expectations. Consequently, the AEMC, in its Transmission Reliability Standards Review, concluded that an alternative approach, which includes a higher degree of transparency and certainty, represented a more appropriate solution overall. However, we view this as having a greater degree of consistency with the Victorian approach than was perhaps suggested by the Report.

The AEMC is shortly to commence work on the development of an implementation plan for national transmission reliability standards. We will review again the approach that best delivers a national approach as part of the project.

The AEMC published on 28 November a draft report on the national work stream of the Review of Distribution Reliability Outcomes and Standards, which will further explain our current thinking on the most appropriate frameworks for reliability standards.[13]

Network planning

The PC's preferred model for transmission planning features AEMO making all investment decisions (potentially including those to replace assets) across the NEM. It is not apparent that the issues identified by the PC necessarily point to this being the most appropriate approach.

While the PC sees significant benefits to the probabilistic planning approach currently applied in Victoria, it does not follow that this planning approach necessarily has to be performed by AEMO. Concerns were noted during the Transmission Reliability Standards Review which indicated that an approach whereby TNSPs undertake probabilistic planning might be somewhat problematic to reconcile with the current approach to economic regulation, due to the lower degree of transparency and certainty. We would encourage the PC to investigate such an option.

Benefits associated with AEMO's planning process are also highlighted by the PC, which seems to suggest that it is preferable to those of TNSPs as it keeps under review various potential augmentations, and leaves the application of the Regulatory Investment Test for Transmission (RIT-T) to the latest possible time before network investment is needed. In forming this view, the PC may have overestimated the difference between the processes adopted (which seem more likely to relate to the information published, rather than the process itself) and has discounted the potential for TNSPs to take a similar approach to AEMO.

An important driver for the PC's preferred planning model appears to be the need to take account of NEM-wide effects. The AEMC agrees that there are network effects that need to be taken account of in planning, and that planning frameworks need to facilitate the consideration of investments (or other solutions) across the NEM in response to an investment need in a particular region.

However, we find it difficult to reconcile the PC's statement that "the potential bias against interconnection between regions was one factor influencing the Commission's recommendation in regard to a NEM-wide planner"[14] with the PC's own examination of this issue. The PC concluded that the available evidence suggests there is a "reasonably appropriate" level of interconnection between regions.[15]

---

[12] Ibid, pp.470&479.
[13] http://www.aemc.gov.au/media/docs/Draft-report-a0c2273a-3864-447e-9b49-cd9014f2275a-0.pdf.
[14] Ibid, p.635.
[15] Ibid, p.598.

In our view, network investment can be efficiently coordinated across the NEM with TNSPs making investment decisions, and we presented some proposals in the TFR Second Interim Report to further enhance the robustness of frameworks in this regard. One of the PC's main criticisms of the AEMC's recommended approach is that "jurisdiction-based planning would perpetuate concerns about the intra-regional bias of investments".[16] In our view, the PC has comprehensively addressed these concerns in its analysis.

The evolution of the structure of the transmission sector in the NEM has resulted in there being two broad alternatives around which future frameworks could be developed:

- a number of regionally based, integrated, for-profit investment decision-maker and owner/operators; or

- a single, national not-for-profit investment decision-maker, with one or more separate network owner/operators in each region.

The AEMC prefers the former. We have seen no evidence that it is not possible to coordinate network investment on a national basis under such a model, and consider that our proposals to enhance AEMO's National Transmission Planner (NTP) function to drive coordination would be likely to further improve the robustness of frameworks in this regard. In addition, the diversity of views generated by TNSPs and the NTP under this approach would be likely to enhance the rigour of decision-making. We do not share the PC's view that this would also occur in a model where AEMO was making investment-decisions as it seems unlikely that TNSPs would publicly disagree with the party determining their investments.

As set out in the TFR Second Interim Report, we consider that financial incentives are likely to provide the most robust and transparent driver for efficient decision-making. Efficient outcomes can best be promoted by aligning the commercial incentives on businesses with the interests of consumers.

We note that all entities are subject to incentives, even if these are not financial. It cannot be assumed that there are no non-financial incentives acting on AEMO. The PC will be aware of the substantial literature and analysis of incentives for Government and quasi-Government organisations under the broad heading of public choice theory. This literature recognises that it is the incentives and accountability of the management of the body that is crucial to the outcomes the organisation achieves.[17]

We consider that checks and balances are important and are a key strength of our proposed approach, whereby both AEMO (in its role as NTP) and the AER would review TNSP investment proposals at different points in the planning process. We further note the PC's comments that, under proposals developed by the AEMC, there would be no requirement on a reliability standard setter to accept AEMO's recommendations for connection point reliability categorisation.[18] We consider such a review to be consistent with good governance principles.

These incentive and governance concerns, combined with the inefficiencies that are likely to result from separating investment decision-making from network operation, are the key reasons why we

[16] Ibid, p.530.
[17] An illustration of the different incentives AEMO may have is the continued promotion of NEMLink. As the PC notes, this is despite the fact that that NEMLink is uneconomic and is likely to remain so (under most scenarios) for the foreseeable future. AEMO has advocated changing the RIT-T to improve the likelihood of the project being assessed as economic. Incentives other than the pursuit of net economic benefits under the RIT-T therefore appear to be driving AEMO's behaviour.
[18] Ibid, p.516.

do not support the PC's preferred option for transmission planning. However, we recognise that, if investment-decisions are to be made by for-profit TNSPs, the incentives provided by economic regulation must be effective.

Economic regulation

Although not explicitly identified as such in the draft report, the PC's proposals for transmission represent a significant change away from incentive-based regulation to what is effectively a rate of return approach, with project by project approval.

Despite the PC's different approaches for distribution and transmission, in the context of transmission the PC still expresses an overarching view that "profit motivated businesses with strong incentives to cost minimise are more likely to identify efficient options for addressing a given reliability constraint".[19] We also note that the PC's recommendations for incentive regulation in Chapter 5 of its report are broadly aligned with the AEMC's final policy position for the Economic Regulation of Network Service Providers rule change.

Notwithstanding the PC's underlying support for incentive based regulation, together with its endorsement of measures in the network regulation rule change, the PC appears to have concluded that it is difficult to effectively apply incentive based regulation to transmission networks. In the Report, the PC does not fully explain why the changes it recommends in Chapter 5 would not provide appropriate incentives on TNSPs.

Incentive-based regulation can be used to provide drivers for all forms of efficiency:

- Allocative efficiency – Incentives are provided to minimise costs when deciding whether to invest, and to identify the most efficient option when making an investment.

- Productive efficiency – For a given investment project, there is an incentive to deliver this at the lowest cost.

- Dynamic efficiency – The incentives referred to in the previous two points above act to reveal a TNSP's costs, and the regulator should therefore be able to gradually tighten the targets on the TNSP encouraging it to innovate and further lower costs over time.

The PC's preferred approach would remove or substantially degrade all of these incentives.

The AEMC's view is that administrative mechanisms such as the RIT-T should act to complement the revenue cap efficiency incentives rather than be the main mechanism to promote efficient decisions and to allocated funds to a TNSP.[20] The RIT-T's primary role is as a consultative tool to identify and assess the options that are available to address any given transmission issue, including non-network options. It also enables market participants to identify possible national market benefits associated with projects thereby ensuring that these are recognised.

There is therefore not intended to be an explicit link between the RIT-T and the revenue setting process. However, RIT-T assessments will represent a body of evidence (which has been subject to public consultation) on the relative costs and benefits of different options for addressing transmission issues efficiently, and this information will be relevant to the AER in making determinations on efficient levels of forecast capital expenditures. RIT-T information would also be likely to be useful to the AER in undertaking ex post prudency tests to identify any clearly inefficient investment.

[19] Ibid, p.517.
[20] Ibid, p.637.

In this context, there is no concept of a RIT-T being "approved", whether by the TNSP or by an independent body.[21] The RIT-T involves significant stakeholder consultation (and which must be considered), the ability of stakeholders to dispute the RIT-T and the AER's compliance and monitoring role, all of which act as a discipline on TNSPs.

There are also other administrative mechanisms as a check against inefficient over- or under-investment by TNSPs. These include the publication of Annual Planning Reports, AEMO's National Transmission Network Development Plan and the AEMC's Last Resort Planning Power, as well as TNSPs' obligations under the NER and jurisdictional instruments.

The PC expresses concerns that the financial incentives acting on TNSPs may encourage them to favour particular outcomes: to delay or bring forward expenditure, to select network over non-network options, or to favour an intrastate option over an interstate option.[22]

The AEMC acknowledges concerns about the incentives on TNSPs in recent years, and much of our current work program is focussed on addressing these. For instance, the Economic Regulation of Network Service Providers rule change has considered issues associated with incentives to delay or advance investment. In the TFR we have set out proposals to promote the coordinated planning of the network on a national basis. Further, the OFA model developed under the TFR seeks to provide TNSPs with market-driven investment signals, reducing TNSPs' discretion in decision-making, and transferring risk away from consumers.

[21] Ibid, p.647.
[22] Ibid, p.648.

Attachment B

Productivity Commission Draft Recommendations			AEMC Position
1	5.1	The Australian Energy Regulator should develop an efficiency benefit sharing scheme to apply to capital expenditure that provides consistent incentives to reduce capital expenditure, both over time and when compared with operating expenditure.	The AEMC's position paper rule for the network regulation rule change gives the AER the power to develop such ex ante incentives.
2	5.2	The National Electricity Rules should specify the interdependent nature of the parameters used to estimate the weighted average cost of capital, and specify that any merits review must also consider the relevant rule in that light.	The AEMC's position paper rule for the network regulation rule change requires the AER and ERA to have regard to such inter-relationships when estimating the rate of return.
3	5.3	Estimates of the debt risk premium and risk free rate used in the calculation of the weighted average cost of capital should be calculated using long-term trailing averages.	The AEMC's position paper rule for the network regulation rule change allows the AER and ERA to use such trailing average approaches if they consider them to be the best way to estimate the rate of return, to meet the overall rate of return objective.
4	5.4	Where, within a given regulatory period, a network business spends materially more capital than that allowed for in the Australian Energy Regulator's final ex ante regulatory determination, then its entire capital expenditure should be subject to an ex post prudency test: • Only spending that is deemed efficient and prudent, given the information available to the network business at the time, should be included in the Regulatory Asset Base at the end of the period, subject to the condition that: – the maximum disallowable expenditure is no more than the difference between the ex-ante forecast and realised expenditure • If a network businesses is aware that it is going to exceed pre-approved spending levels, it should be able to apply for pre-approval to avoid the ex post assessment. The prudency test should not apply to cost pass throughs and contingent projects permitted under chapters 6 and 6A of the National Electricity Rules.	The AEMC's position paper rule for the network regulation rule change provides for an ex-post review of capex efficiency and the disallowance of inefficiently incurred capex if a service provider spends more than its allowance. We are concerned that the proposal for pre-approval of expenditure if a service provider expects to overspend undermines the incentive for service providers to seek efficiencies within the allowed expenditure, and risks the regulator being drawn into project specific approvals of expenditure.
5	5.5	The National Electricity Rules should be clarified to indicate that the Australian Energy Regulator is only required to test the reasonableness of the overall expenditure proposal. The Regulator should only be obliged to consider the reasonableness of a specific expenditure item if it could materially affect the judgment of the reasonableness of the total expenditure forecast.	The AEMC considers that its position paper rule for the network regulation rule change provides sufficient scope for the AER to scrutinise NSPs business plans and make changes in draft and final determinations.
6	5.6	In cases where the Australian Energy Regulator considers that the National Electricity Rules constrain its capacity to make appropriate revenue determinations, it should publish its preferred estimate along with the final determination, explaining the differences. In any subsequent merits review of its determination, the Australian Energy Regulator should ensure that the reasons behind its preferred estimate are clearly communicated to the merits review body.	This is a matter for the AER, and the AEMC is not aware of any provisions in the Rules that would stop the AER from doing what the PC suggests.
7	7.1	State and territory governments should privatise their state-owned network businesses.	This is not a matter for the AEMC.
8	7.2	If state and territory governments do not implement draft recommendation 7.1, then they should promote more efficient outcomes for their state-owned network businesses by ensuring that: • directors are appointed on merit, following a transparent selection process • ministerial directions are publicly disclosed at the time they are made and disclosed in the annual report • directors and officers are subject to the obligations under the Corporations Act • governments review objectives currently given to network businesses and: - remove those that would be more appropriately allocated to other agencies - remove those that are non–commercial and make it clear that the board is expected to deliver a dividend payout and rate of return on the equity invested in the network business that would be considered acceptable by an independent investor - where conflicting objectives remain, provide publicly transparent guidance on how to prioritise them.	The AEMC considers that effective corporate governance by shareholders of network service providers is a very important component of delivering good outcomes for consumers. The rules and application of the rules are only part of delivering an effective outcome for consumers. The AEMC would encourage the PC to emphasise the importance of shareholders responsibility in approving business plans that are submitted to the AER, and form the starting point for the AER's assessment of service providers' future expenditure requirements.

9	8.1	The Australian Energy Regulator should regularly undertake aggregate benchmarking of the performance of network businesses, including of their: • multifactor productivity — the output of services for given inputs • separate productivity of capital, labour and intermediate inputs. The results should control, to the best extent available, for any significant variations in the operating environments of the businesses, including customer density, line type and length, reliability requirements, and the capital vintage of relevant assets.	The AEMC's position paper rule requires the AER to produce an annual benchmarking report of all service providers.
10	8.2	Subject to compliance and other costs (draft recommendation 8.12), the Australian Energy Regulator should accompany aggregate analysis with detailed benchmarking of particular aspects of the performance of the businesses, including: • the rate of investment relative to the age-weighted capital stock by asset class • the efficiency of major maintenance activities • the adoption rate of best-practice commercial processes and equipment, including the use of customer panels and surveys, outsourcing, demand management, information technologies, financial controls, procurement practices, occupational safety, and project management. In determining relevant benchmarking performance and control variables, the Australian Energy Regulator should consult with: • network businesses, generators, retailers and network equipment suppliers • customer representatives • relevant experts within Australia and internationally.	The AEMC supports quantitative and qualitative benchmarking by the regulator. The AEMC also agrees that consultation with experts, consumers and industry should result in better quality benchmarking.
11	8.3	The Australian Energy Regulator should periodically assess the comparative performance of network business units within particular sub-regions of the National Electricity Market, where: • those sub-regions share similar physical operating environments • the costs and informational requirements of doing this are not too great (draft recommendation 8.12). The comparisons should relate to business units within a particular business, as well as comparable business units in different businesses. The Australian Energy Regulator should place most emphasis on comparisons of the efficiency of distribution networks in different metropolitan areas.	The AEMC's position paper rule requires the AER to produce an annual benchmarking report of all service providers.
12	8.4	The Rules should be changed to allow the Regulator to have the discretion to initiate a three-way negotiation of a mutually acceptable settlement, involving itself, the business, and a representative and qualified customer group similar, or identical, to that identified in draft recommendation 21.3. • Negotiation would only be triggered if the Australian Energy Regulator judged that the divergence between aggregate benchmarking estimates of forecast spending and the business's proposal were sufficiently narrow. • Where an arrangement was successfully negotiated using this process, the Australian Energy Regulator should not be obliged to go through the current formal draft/final determination processes.	The AEMC supports increased participation of consumers in the regulatory process. The AEMC's network regulation rule change includes a number of changes to the rules to promote more consumer involvement in the regulatory process, including much more extensive involvement of consumers in the revenue determinations.
13	8.5	In any of the next rounds of regulatory determinations, the Australian Energy Regulator should not use aggregate benchmarking as the exclusive basis for making a determination. Instead, the Australian Energy Regulator should use such aggregate benchmarking results as a diagnostic tool in responding to business cost forecasts. However, if the processes proposed in draft recommendations 8.9 to 8.11 led to sufficiently robust benchmarking, then: • a business would continue to make a detailed cost proposal, but if the overall proposal were divergent from the regulator's benchmarking estimate, the onus of proof would be for a network business to provide quantitative	The AEMC's position paper rule allows the AER to put appropriate weight on benchmarking analysis having regard to the quality of such benchmarking.

		evidence demonstrating why its cost forecast was preferable in meeting the National Electricity Objective • the Australian Energy Regulator's efficiency threshold applied to firms should be set close to, but below, the level of the most efficient firm.	
14	8.6	The Australian Energy Regulator should develop and maintain appropriate benchmarking databases and in-house expertise for the technical analysis required to undertake sophisticated benchmarking.	This is a matter for the AER.
15	8.7	The Australian Energy Regulator should make all benchmarking input data publicly available (recognising that the businesses being benchmarked are regulated monopolies) except where the data can be demonstrated to be genuinely commercial-in-confidence. Where the latter holds, the Australian Energy Regulator should still make the full datasets available to: • independent researchers who are using the results for non-commercial purposes • the consumer group involved in any negotiations described under draft recommendation 8.4 – but subject to statutory requirements for non-disclosure of information predetermined as commercially-in-confidence, drawing on existing models for data protection.	The AEMC supports consultation and debate about how best to perform benchmarking – publication of analysis should encourage such discussion.
16	8.8	When making its revenue allowance determinations, the Australian Energy Regulator should make judgments about capital expenditure forecasts that take account of any discrepancy between the Australian Energy Market Operator's top-down peak and average demand forecasts and the aggregate of distribution businesses' bottoms-up peak and average demand forecasts. The Australian Energy Regulator should use benchmarking of the discrepancies between previous expenditure forecasts and actual outcomes by different parties to inform that process.	This is primarily a matter for the AER. The AEMC is not aware of any provisions in the rules that would prevent the AER undertaking such analysis. It is important to recognise that AEMO's demand forecasts and DNSPs demand forecasts both have value, and therefore the key is to understand the reasons for differences, and to promote discussion between AEMO and DNSPs about the drivers of differences.
17	8.9	The Australian Energy Regulator should collaborate with other leading regulatory agencies, academic experts and global commercial benchmarking specialists to enable robust meta-analysis of electricity network benchmarking results from individual country (and where credible, multi-country) studies. The collaboration should include cooperation in developing: • the most meaningful measures of performance • consistent data collection • consistent reporting of results • best-practice analytic frameworks.	The AEMC supports consultation and collaboration to ensure benchmarking is undertaken as accurately as possible.
18	8.10	The Australian Energy Regulator should submit its major benchmarking analyses of electricity networks for independent expert peer review to establish their ongoing relevance, scientific validity, adoption of best-practice, and to gauge the degree of uncertainty in the results.	This is a matter for the AER.
19	8.11	The Australian Energy Regulator should make its benchmarking results publicly available, with: • accessible reporting of the results to inform consumer groups, network businesses, and others • disclosure of the importance of factors outside the control of businesses, but that may be controllable by governments • publication of the modelling strategy used to produce the results • the sensitivity of the results to changes in key assumptions • the performance of any statistical models against accepted scientific standards, including confidence intervals, parameter stability, and specification testing.	The AEMC supports consultation and debate about how best to perform benchmarking and the increased participation of informed consumers in the regulatory process - publication of analysis and results should encourage such discussion and participation.
20	8.12	The Australian Energy Regulator should periodically examine its detailed benchmarking methodologies and processes to assess their compliance costs for businesses and the costs for the Australian Energy Regulator. It should compare these costs with the likely benefits when determining the appropriate frequency and type of detailed benchmarking. In	The AEMC supports regular reviews of benchmarking analysis to ensure it is of a good quality. Given the asymmetry of information between a regulator and the

		undertaking such assessments, the Australian Energy Regulator should consult closely with network businesses. The Australian Energy Regulator should make all such assessments publicly available. The overall costs of benchmarking should be subject to independent review after five years.	regulated businesses we consider that benchmarking analysis is generally likely to be useful, and the key question is more about the best forms of benchmarking to use rather than whether to use it at all.
21	10.1	Distribution businesses should implement the roll-out of advanced metering infrastructure — so called smart meters — on a region-by-region basis within their network. • Before any roll-out, the Australian Energy Regulator, drawing on the proposal and supporting evidence from the distribution business, should assess the net present value of costs and benefits, and be required to consider demand management options that do not rely on smart meters. • When the Australian Energy Regulator determines the optimal start date of the roll-out, the relevant distributor must submit a costing to the Regulator for approval and agree to an appropriate timeline for implementation. • Mandatory time-based network charges to retailers (draft recommendation 11.3) should be implemented once smart meters are installed, appropriate customer consultation and education has taken place, and retail price regulation is removed (draft recommendation 12.3).	The AEMC's Power of Choice draft report sets out a framework for commercial investment in metering, which included the provision of the rollout of smart meters by network businesses as well as retailers or third party providers, consistent with consumer choice. We consider that this is more likely to deliver efficient outcomes for consumers than the model where networks have exclusive rights over meters.
22	11.1	The Standing Council on Energy and Resources should be tasked with overseeing the progressive implementation of cost-reflective, time-based pricing for electricity distribution network services, predicated on the long run marginal costs of meeting peak demand. Amongst other things, the Council should: • following consultation with key stakeholders, set timelines for the various steps in the development and implementation process, having regard to: – the Commission's specific proposals in relation to this process (draft recommendations 11.2 to 11.7) – progress in making necessary changes elsewhere in the system • monitor compliance with those timelines • address any areas where greater engagement between key stakeholders (distribution businesses, retailers, state and territory governments, the Australian Energy Regulator and customer representatives) would assist the expeditious implementation of the new pricing regime • if and as necessary, take specific steps to address implementation delays.	The AEMC's Power of Choice review draft report proposed a gradual phase in of efficient and flexible pricing options for consumers, achieved through applying cost reflective network pricing. The AEMC agrees that governments have an important role to play in implementing time-based pricing. The Power of Choice review also recommended that jurisdictions develop transition implementation plans, complemented by a consumer awareness and education strategy.
23	11.2	The Standing Council on Energy and Resources should initiate a process to establish a uniform set of licence conditions for all transmission and distribution network businesses in the National Electricity Market. The Council should task the Australian Energy Market Commission to undertake a framework review to assist that process. The development of a uniform set of licence conditions should have regard to the Commission's proposed changes to the reliability framework (draft recommendations 15.1 and 16.1) and should not in any way conflict with, or impede, the implementation of that framework. The uniform licence conditions should be included in the National Electricity Rules and replace the current state and territory licence conditions. It may not be immediately feasible to develop standardised provisions governing technical standards and safety, though these should ultimately be encompassed in the national set of licence conditions. The justification for any jurisdiction-specific conditions included in the new licensing regime should be clearly and cogently spelt out in the supporting framework review. Before incorporation into national licence conditions, preparatory work would be needed to develop a common approach to the identification of customers in need of special support to meet their electricity bills or pay for smart meters (draft recommendation 11.6), but:	This is primarily a matter initially for SCER. However, such a reform may have merit and we would encourage the PC to undertake further analysis to show more clearly that the benefits of greater alignment are significant and would outweigh the costs.

		• pending agreement on appropriate national criteria and approaches to funding, each state and territory government should continue to be responsible for targeted financial support to address affordability. The Australian Energy Regulator should be responsible for ensuring compliance with the new conditions and would have the authority to: • issue and retract licences • seek advice from relevant agencies on any technical matters relating to compliance assessment. Provision could also be made in the Rules for the Australian Energy Regulator to delegate responsibility for assessing compliance with particular licence conditions to a relevant state-level regulator.	
24	11.3	When the process of implementing cost-reflective, time-based prices for distribution network services is sufficiently advanced to reasonably allow for a tightening of relevant clauses in the National Electricity Rules: • clause 6.18.5(b)(1) should be amended so as to ensure that time-based tariffs are determined by (rather than 'take into account') a reasonable estimate of the long run marginal cost for the service concerned • clause 6.18.3(d)(1) should be amended so as: – to ensure that the grouping of customers for the purposes of setting time-based tariffs is based on economic efficiency (rather than 'having regard to' it) – to make it explicit that significant differences in the long run marginal cost of meeting peak demand between locations and across customer groups should be reflected in network pricing structures.	The AEMC's Power of choice review draft report has proposed that similar improvements are made to the distribution pricing principles via a rule change. The issues raised by the PC could be considered as part of that process.
25	11.4	When the process of implementing cost-reflective, time-based prices for distribution network services is suitably advanced, the requirements governing assessments by the Australian Energy Regulator of pricing proposals by distribution network service providers should be amended such that the regulator: • can only approve a distribution business's peak demand forecasts if they include reasonable forward estimates of the likely demand response to time-based pricing • subject to the above condition, must approve any reasonable estimate by a distribution business of the long run marginal costs of meeting peak demand. To support these changes, the Australian Energy Regulator should develop a capacity to model demand responsiveness to time-based pricing.	The Power of Choice draft report recommend greater consultation and increased AER scrutiny of the distribution networks proposed tariffs. We will provide further details on this as part of the Power of Choice final report.
26	11.5	Clause 6.2.8(a)(3) of the National Electricity Rules should be amended to: • require the Australian Energy Regulator to publish guidelines on the methodology or methodologies that are appropriate for estimating the long-run marginal costs of meeting peak demand, and the factors that should be encompassed in those estimates • give the Australian Energy Regulator the authority to publish binding guidelines about efficient, time-based tariff structures, including definitions of 'peak' pricing events. These guidelines should be developed in consultation with the relevant stakeholders and should be improved over time as the implementation of time-based pricing progresses.	The issue of whether the AER should publish such guidance is being considered for the Power of Choice final report.
27		The implementation of cost-reflective, time-based pricing for distribution network services should be accompanied by assistance for vulnerable consumers, which should target those who: • are potentially exposed to large price increases and who do not have reasonable opportunities to switch their demand to non-peak periods • will potentially face significant difficulty in meeting the charges used to recover the costs of smart meters. The Standing Council on Energy and Resources should develop common criteria for identifying who should receive such assistance, and when it should be delivered through electricity specific mechanisms rather than through the Australian Government's tax and transfer system. These criteria should be based on the outcomes of a review	The AEMC, through the Power of Choice review, recognises that some types of customers may have limited capacity to respond and change their consumption over the day, and therefore may face financial difficulties if moved to a time-varying tariff. The AEMC has proposed in the draft report arrangements for these consumers to remain on their

		commissioned by the Council of Australian Governments of concessions for utility services across all levels of government (consistent with recommendation 8.1 of the Productivity Commission's Urban Water Sector Inquiry report). These criteria, and a commitment to transparent funding of the electricity sector-specific support should then be reflected in the new National Electricity Market-wide licence conditions for network businesses (draft recommendation 11.2).	existing retail price structure. Such consumers (which have a capable interval/smart meter) would be able to also choose a time varying pricing option. The AEMC also proposed in the draft report that jurisdictions review their energy concession/rebate schemes and energy efficiency schemes so that they are better targeted to those consumers who have limited capacity to respond/change consumption.
28	11.7	The Australian Energy Regulator should require: • distribution network businesses to demonstrate that they have actively engaged with retailers very early in the development of new time-based pricing structures, including on ways to incorporate those charges in retail prices to clearly signal to customers the costs of meeting peak network demand • distributors and retailers to demonstrate that they have engaged with, and educated, customers prior to the introduction of smart meters, and again prior to the introduction of new time-based customer tariffs. – Such engagement should occur sufficiently early to ensure that customers have the knowledge and time to respond appropriately to time-based pricing (including of the various means to manage their peak demand); are aware of the implications for their electricity bills; understand the way in which advance warning of critical peak pricing events will be communicated; and are aware of the support mechanisms in the event that the new pricing regime creates financial difficulties for them.	The AEMC, through the Power of Choice review, has proposed that distribution network businesses engage in a formal consultation process with retailers and consumers when setting their network tariffs. The draft report recommended changes to Chapter 6 of the NER to facilitate this. The AEMC has also proposed transparent arrangements for how third parties directly engage with consumers to offer demand-side participation products and services. The AEMC has also recommended that there is a coordinated and strategic approach to consumer education and awareness regarding pricing reforms.
29	12.1	Coinciding with the gradual roll-out of smart meters to allow more cost-reflective network pricing, revenues from all distribution network 'standard control services' should be subject to regulated weighted average price (not revenue) caps. This should not apply to transmission businesses, which, given the complexities and lower net-benefits, should continue to be subject to revenue caps.	The AEMC has not recommended changing the form of price control, although we have noted that average price caps provide superior incentives for efficient pricing than revenue caps.
30	12.2	The Australian Energy Regulator should review the operation of, and the incentives provided by, the Demand Management and Embedded Generation Connection Incentive Scheme. In doing so, the Australian Energy Regulator should ensure that distribution companies' incentives are appropriately aligned with the objective of achieving efficient demand management. The innovation allowance component of this scheme should also be increased.	The AEMC Power of Choice review draft report proposed that the DMEGIS is reformed and recommended changes to the NER to facilitate this.
31	12.3	Where retail price regulation exists, the Australian Energy Market Commission should review the market for effective competition. • In jurisdictions where the Australian Energy Market Commission advises that retail price regulation should be removed, the relevant state or territory government should remove retail price regulation as soon as practicable. • Where the Australian Energy Market Commission advises that there is strong evidence that competitive pressures would be weak with the removal of the regulation, and could not be addressed by consumer awareness measures: – it should suggest any structural reforms that would be necessary to develop workable competition. These reforms should be promptly progressed by the relevant jurisdictions, and retail price regulations should be removed by no later than 2015.	The AEMC agrees that where competition is effective, retail price regulation should be removed. However, we disagree with the PC's view that there is little point in proceeding with cost reflective network pricing in the presence of retail price regulation.
32	13.1	Governments should, as soon as practicable, discontinue subsidies for rooftop photovoltaic units and other forms of distributed generation delivered via feed-in tariffs, and the small-scale component of the Renewable Energy Target	The AEMC supports feed-in tariffs that approximate the wholesale price of electricity at times of peak and

		scheme. State and territory governments should change the way small-scale distributed generators are reimbursed for exporting power into the grid. This would involve: – feed-in tariffs that approximate the wholesale price of electricity at times of peak and non-peak demand – arrangements that provide for direct payments from distribution businesses to distributed generation providers, which reflect the network value of their distributed generation capacity and output. To provide a transition to the new arrangements, current feed-in tariff schemes should continue for existing customers until the end of their contract period or until those schemes expire (whichever is earlier), but be closed to new entrants one year from governments' formal acceptance of this recommendation. Prior to that date, state and territory governments should develop replacement feed-in schemes with tariffs that approximate the wholesale price of electricity.	non-peak demand. However, we consider it would be very difficult to calculate the direct benefit from distributed generation providers to distribution businesses, in terms of avoided investment. The AEMC's proposed reforms for the demand management incentive scheme should make it simpler for distribution networks to negotiate with distributed generation providers for their services. The Power of Choice review draft report recommended that the national approach to feed in tariffs should include the value of time varying feed in tariffs.
33	14.1	The Australian Energy Market Operator should commission and pay the Australian Bureau of Statistics to undertake regular, detailed, disaggregated surveys based on best practice methodologies to reveal the value of reliability for different categories of customers, with the methodologies and results made public. The Australian Energy Market Operator should commission suitably qualified experts to consider and measure the costs of interruptions not likely to be captured in the Australian Bureau of Statistics surveys. This should include the costs associated with citywide disruptions, including to telecommunications, water services and public transport, and the resulting loss of international reputation from lower reliability. The Australian Energy Market Operator should use these measures to supplement the results of the surveys.	The AEMC agrees that reliability levels should be based on an economic assessment that compares the value of customer reliability against the costs of providing that reliability. This will require regular consumer surveys. The AEMC's detailed position will be published in the national work stream of the Review of Distribution Reliability Outcomes and Standards.
34	15.1	The Standing Council on Energy and Resources should, in consultation with the Australian Energy Market Operator and the Australian Energy Market Commission, develop a National Electricity Market-wide reliability framework in which reliability settings would be determined by customer preferences. This framework should replace all jurisdiction-specific reliability settings.	The AEMC agrees on the need for a national framework for transmission reliability, although disagrees with the PC's proposed approach.
35	15.2	Drawing on the current Victorian experiences, the Australian Energy Market Operator should carry out transmission planning for all transmission networks in the National Electricity Market. The Operator should: • use Values of Customer Reliability (as obtained through draft recommendation 14.1) • use best practice probabilistic processes in its cost-benefit analysis of network and non-network options to address reliability issues and/or constraints • describe its full cost-benefit analysis as part of its process for the Regulatory Investment Test for Transmission • make public all methodologies, parameters, data and other inputs used in the analysis • work closely with each of the transmission companies concerned to make sure that their experience and input is fully understood and where mutually agreed, appropriately incorporated into the analysis • use its best estimate of peak demand forecasts, having sought input from all relevant stakeholders • ensure that planning decisions are consistent with National Electricity Market-wide efficiency objectives • not carry out the 'procurer' role currently done in Victoria until it can be demonstrated that the benefits of such an approach exceed the costs in the Australian National Electricity Market environment.	The AEMC disagrees with aspects of the PC's transmission frameworks approach – see **Attachment A** for further detail.

36	15.3	In consultation with the transmission network businesses, the Australian Energy Market Operator should specify the details of the network or non-network solution to an identified constraint. If the cost of the solution is less than an appropriate threshold, then: • the Australian Energy Market Operator and the network business should negotiate and agree on the required expenditure. If there is no agreement, the Australian Energy Regulator should determine the allowable spending. If the costs exceed the above threshold, then: • the transmission business should submit detailed and final costings to the Australian Energy Regulator • with advice from the Australian Energy Market Operator, the Australian Energy Regulator should determine the allowable expenditure. The Australian Energy Regulator should automatically include the relevant agreed allowable expenditure in the revenue allowance for the transmission business. At the next regulatory reset, the actual capital spent on such projects should be included in the transmission business's Regulated Asset Base.	The AEMC disagrees with aspects of the PC's transmission frameworks approach – see **Attachment A** for further detail.
37	15.4	The Australian Energy Regulator should ensure that, in the Australian Energy Market Operator's role as a transmission planner, its public reporting and planning processes are adequate, transparent and meet the National Electricity Objective.	The AEMC disagrees with aspects of the PC's transmission frameworks approach – see **Attachment A** for further detail.
38	15.5	The Australian Energy Market Operator should review and, where necessary improve, the technical aspects of its probabilistic processes, particularly those relating to low-probability, high risk events. In undertaking the review, the Australian Energy Market Operator should closely consult wit	The AEMC disagrees with aspects of the PC's transmission frameworks approach – see **Attachment A** for further detail.
39	15.6	If the Standing Council on Energy and Resources does not accept draft recommendations 15.2 and 15.3, then it should implement a second best option in which: • transmission businesses would retain the function of planning and making augmentation decisions • the Australian Energy Market Operator would set hybrid standards for connection points every five years, with standards that could fall as well as rise, and would provide advice on efficient investment to meet those standards • in consultation with network businesses, the Australian Energy Market Operator would develop peak demand forecasts. The Australian Energy Regulator would use these demand forecasts in its regulatory determinations in accordance with draft recommendation 8.4 • the National Electricity Rules should be amended to allow the Australian Energy Regulator to accept the Australian Energy Market Operator's advice on the preferred network and non-network options and their cost as the default proposal, requiring the transmission business to show why its alternative was more efficient • the Victorian Government should not be required to relinquish its current planning framework, with the adapted hybrid model only applying to other jurisdictions. Other jurisdictions should be free to adopt the Victorian planning model.	The AEMC disagrees with aspects of the PC's transmission frameworks approach – see **Attachment A** for further detail.
40	15.7	Where necessary, the Australian Energy Market Operator should assist the Australian Energy Regulator in its compliance and auditing of transmission networks, to ensure that the agreed projects are completed and intrinsic network reliability is maintained.	The AEMC disagrees with aspects of the PC's transmission frameworks approach – see **Attachment A** for further detail.
41	15.8	The Australian Energy Market Operator should act as the planner of last resort where it considers that underinvestment could expose the network to serious reliability problems, with the right to direct investment should the Australian Energy Market Operator believe that not to do so could seriously compromise the reliability of the National Electricity Market. The Australian Energy Regulator would act as an arbitrator in any disputes.	The AEMC's has proposed in its second interim report for the Transmission Frameworks Review that AEMO should be responsible for the Last Resort Planning Power for transmission networks as part of a broader set of proposals for enhancing the role of the National Transmission Planner function carried out by AEMO. However, we have yet to consider whether this should

			be extended to directing the making of an investment or to act as procurer of last resort.
42	15.9	The Australian Energy Regulator should review the Service Target Performance Incentive Scheme for Transmission to ensure the incentives and targets are consistent with the new National Electricity Market-wide reliability framework.	The AEMC disagrees with aspects of the PC's transmission frameworks approach – see **Attachment A** for further detail.
43	15.10	Transmission businesses not already using this approach should transition to dynamic capacity ratings on all critical equipment.	The AEMC disagrees with aspects of the PC's transmission frameworks approach – see **Attachment A** for further detail.
44	16.1	The Standing Council on Energy and Resources should specify that reliability requirements for distribution businesses be included in the Australian Energy Regulator's Service Target Performance Incentive Scheme, replacing all existing jurisdiction-specific reliability settings. • The reliability requirements should reflect the preferences of customers by using the estimated values of customer reliability, as spelt out in draft recommendation 14.1, and should be specific to the distribution business.	The AEMC's detailed position on distribution reliability was published in the national work stream of the Review of Distribution Reliability Outcomes and Standards on 28 November.
45	16.2	The Australian Energy Regulator should also make the following amendments to the Service Target Performance Incentive Scheme: • reliability performance targets for the system average interruption duration index, system average interruption frequency index and momentary average interruption frequency index should be adjusted annually, according to rolling five-year average annual performance • revenue at risk should be negotiated as part of the Australian Energy Regulator's revenue determination process • the reporting and information component of this scheme should require distribution businesses to report their reliability performance at the zone substation level. Worst performing feeders should be identified as part of this process • reporting by all distribution businesses of performance against the parameters in the scheme should be published annually and be at least as detailed and comprehensive as current reporting mechanisms for distribution businesses in Victoria.	The AEMC's detailed position on distribution reliability was published in the national work stream of the Review of Distribution Reliability Outcomes and Standards on 28 November.
46	16.3	Where a distribution business can show that they are unable to technically comply with one or more parameters of the Service Target Performance Incentive Scheme, and where satisfied that the benefits exceed the costs, the Australian Energy Regulator should: • approve the required revenue for the distribution business to install the necessary equipment • require compliance as soon as possible.	The AEMC's detailed position on distribution reliability was published in the national work stream of the Review of Distribution Reliability Outcomes and Standards on 28 November.
47	18.1	In the absence of any unintended consequences identified during current consultation processes, the Australian Energy Market Commission's 'optional firm access' package for generator access to the transmission network should be implemented. • It should operate for a period of at least 10 years. • It should be monitored by the Australian Energy Market Operator for its effects on network planning and performance and, in concert with the Australian Energy Regulator, changes in observed patterns of generator bidding behaviour. Monitoring results should be made public annually.	The AEMC see merits in implementing the optional firm access model – however, any suggestion that it may be changed after a review would erode the certainty that parties need to make long-lived transmission infrastructure investments, thereby counteracting the very certainty in the contract market that the model is intended to promote.
48	18.2	After the optional firm access package has been operational for 10 years, a cost-benefit analysis should be conducted, with particular regard to the structure of the National Electricity Market at the time, the views of consumers, and any remaining barriers to the introduction of nodal pricing. • If the analysis finds net benefits are likely, and no significant and insurmountable barriers or risks are identified, nodal pricing (including financial transmission rights) should be introduced with appropriate transitional arrangements and arrangements for disadvantaged consumers.	The AEMC disagrees. Optional firm access is not being proposed as a transitional reform and to do so would undermine investment certainty in a long-life asset.

49	19.1	The Regulatory Investment Test for Transmission should not be amended to include indirect effects of investment decisions.	The AEMC agrees with the PC, but always encourages TNSPs to publish as much information as possible about the analysis undertaken when completing a RIT-T, including information not required to be published under the Rules.
50	19.2	In combination with the adoption of probabilistic reliability planning (draft recommendation 15.3), the Regulatory Investment Test for Transmission should be changed so that reliability is only assessed as a component of overall benefits and not as a separate criterion.	The AEMC is currently considering the role of the RIT-T in relation to the optional firm access model as part of the Transmission Frameworks Review.
51	21.1	There should be an independent review of the resourcing and capacity of the Australian Energy Regulator to undertake all its functions, including whether there are impediments to its performance and options for improvement.	This is not a matter for the AEMC.
52	21.2	The Australian Energy Regulator should have greater control over, and accountability for, the resourcing and management of its functions. It should: • have its own separate budget sufficient to meets its role • submit a separate annual report of its performance • publicly reveal its strategy for improving its performance • have an independent capacity to negotiate resource sharing arrangements with a range of agencies, not just the Australian Competition and Consumer Commission • ensure that it establishes and retains the necessary specialist expertise to competently carry out its role, in accordance with draft recommendation 8.6 • develop a program for regular ongoing communication and interaction with network businesses, their customers and other relevant stakeholders, with those interactions not just confined to periods of regulatory determinations.	This is not a matter for the AEMC.
53	21.3	There should be adequate ongoing funding of a single but broadly representative consumer body with expertise in economic regulation and relevant knowledge and understanding of energy markets. This body would: • represent the interests of all consumers during energy market policy formation, regulatory and rule-making processes, merit reviews, and negotiations with providers of electricity networks and gas pipelines • subsume the role of the existing Consumer Advocacy Panel into its broader functions • be funded through a levy on market participants, drawing on the approach used to currently fund the Consumer Advocacy Panel • have a governance structure that involved a board of members appointed on merit, and an advisory panel to give the board advice on the needs of the mix of customers concerned.	See our comments in the main letter.
54	21.4	The National Electricity Law should be amended to expedite the making of Rules arising from any appropriately conducted independent review relevant to the National Electricity Market and that are agreed by the Standing Council on Energy and Resources. This should be achieved by giving the: • Australian Energy Market Commission the power to expedite Rule requests and • South Australian Minister a broader power to make Rules.	See our comments in the main letter.