Recommendations and findings

### The process for reform is part of the problem and must change

Recommendation 21.7

The Standing Council on Energy and Resources should reform its processes and decision making so that critical policy reviews of the National Electricity Market, the corresponding changes to the National Electricity Rules, and their implementation occur in a timely fashion.

Recommendation 21.6

The National Electricity Law should be amended to require the Australian Energy Market Commission (AEMC) to accelerate the process for making Rule changes within six months where they:

* are requested by the Standing Council on Energy and Resources, and
* arise from the recommendations of an appropriately conducted independent review, including previous AEMC reviews, relevant to the National Electricity Market.

Recommendation 21.8

The Standing Council on Energy and Resources (SCER) should convert the current Australian Energy Market Commission’s (AEMC’s) review of distribution and transmission reliability into an accelerated Rule change process (as set out in recommendation 21.6) to be completed by December 2013. SCER should request the AEMC to draw on the Productivity Commission’s recommendations 15.1, and 16.1 to 16.7, as well as the quantitative assessment of the benefits of the recommended reforms, in formulating the proposed Rule changes.

### The institutions need to change too

Recommendation 21.1

The Australian Energy Regulator should have greater control over, and accountability for, the resourcing and management of its functions. It should:

* submit a separate annual report of its performance
* have administrative control over its own budget, which would need to be adequate for it to manage its functions efficiently and effectively, including acquiring, developing and retaining the necessary specialist expertise
* publicly reveal its strategies for addressing current stakeholder concerns and those raised in future stakeholder surveys
* 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 strengthens and retains the necessary specialist expertise to competently carry out its role, in accordance with 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.

Recommendation 21.2

The 2014 independent review of the resourcing and capacity of the Australian Energy Regulator (AER) should be undertaken by a small group of senior and experienced persons.

* These persons should be external to the Australian Competition and Consumer Commission and the AER, have an appropriate understanding of the competencies required to undertake utility regulation, and include some contemporary international experience from counterpart regulators.

The review should, among its other tasks:

* specifically address any difficulties the AER has in attracting and retaining specialist staff
* consider the commissioning of an independent stakeholder survey covering the relevant review issues
* consider funding options for the AER.

Recommendation 21.3

The Australian Energy Regulator (AER) should remain located within the Australian Competition and Consumer Commission (ACCC). However, a follow‑up independent review should be carried out in 2018 to examine if the reforms to the AER’s resourcing and transparency (recommendation 21.1) have had the desired impacts. If not, the issue of the AER’s structural separation from the ACCC should be examined together with other possible changes to improve its performance.

Recommendation 21.4

The operation and performance of the Australian Energy Market Commission, the Australian Energy Market Operator and the proposed new National Energy Consumer Advocacy Body should be independently reviewed by 2018 to identify opportunities for improvements. All these institutions and the Australian Energy Regulator should be reviewed at least at 10 year intervals after that time.

### Consumers need a clear voice in the regulatory regime

Recommendation 21.5

The new National Energy Consumer Advocacy Body proposed by the Standing ***Council on Energy and Resources should:***

* have expertise in economic regulation and relevant knowledge and understanding of energy markets
* represent the interests of all consumers during energy market policy formation, regulatory and rule-making processes, merits reviews, and negotiations with providers of electricity networks and gas pipelines
* subsume the role of the existing Consumer Advocacy Panel into its broader functions, but only provide grants to consumer bodies where the research proposal is judged to have merit and unlikely to proceed without some government funding
* ultimately subsume the role of the Consumer Challenge Panel
* receive adequate ongoing funding through a levy on market participants, drawing on the approach used to currently fund the Consumer Advocacy Panel
* have a governance structure that involves an expertise-based board of members appointed on merit, and an advisory panel to give the board advice on the needs of the mix of customers concerned
* be independent from the Australian Energy Regulator.

***The recently commissioned independent review into the best design of the National Energy Consumer Advocacy Body should take these recommendations into account.***

### Effective demand management requires pricing and other regulatory reform

Recommendation 10.2

The Standing Council on Energy and Resources should finalise a minimum technical standard for advanced metering infrastructure, including smart meters, which should:

* ensure that distribution businesses and other parties can purchase off‑the‑shelf equipment from global manufacturers of smart meters with no, or minimum, modification
* incorporate capacities for:
* interoperability with add-on technologies that distributors, retailers and third parties wish to offer customers
* open access to information for distributors, retailers and third parties, subject to privacy provisions
* direct load control.

Recommendation 10.3

The National Electricity Rules should be amended so that distribution businesses would be able to include the rollout of advanced metering infrastructure, including smart meters, as an eligible category in their regulatory revenue proposals to the Australian Energy Regulator. During the regulatory period, distribution businesses should be able to decide on the timing, location and number of smart meters in any rollout. These changes should be accompanied by:

* engagement with consumers and retailers about the process, and the implications of smart meters for them
* the development of an incentive program by the Australian Energy Regulator that takes account of the benefits of smart meters:
* in reducing network expenditures in subsequent regulatory periods
* accruing to others in the energy supply chain
* time-based network charges to retailers (recommendation 11.1)
* options for direct load control.

Recommendation 10.1

The Regulatory Investment Test for Distribution in the National Electricity Rules should be altered so that a preferred investment option cannot have costs that exceed the benefits. The current $5 million threshold value and the use of exemptions should be reviewed if the test imposes unjustifiably high compliance costs on distribution businesses, the Australian Energy Regulator and other parties.

recommendation 11.1

The Standing Council on Energy and Resources should oversee the progressive implementation of cost-reflective, time-based pricing for 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 proposed process (recommendations 11.2 to 11.9)
* 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.

recommendation 11.2

The Standing Council on Energy and Resources should initiate a process to establish uniform licence conditions for all transmission and distribution network businesses in the National Electricity Market.

* The uniform licence conditions should have regard to the Commission’s proposed changes to the reliability framework (recommendations 15.1 and 16.1) and should not 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.
* Standardised provisions governing technical standards and safety should ultimately be encompassed in the national licence conditions, but with a transition to recognise the practical implementation difficulties of any rapid changes in this area.

The Council should task the Australian Energy Market Commission to undertake a framework review to assist the transition to uniform licence conditions.

* The supporting framework review should clearly spell out the justification for any jurisdiction-specific conditions included in the new licensing regime.

recommendation 11.3

Before incorporation into national licence conditions, preparatory work should be undertaken to develop a common approach to the identification of customers in need of special support to meet their electricity bills (recommendation 11.8).

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.

recommendation 11.4

The Australian Energy Regulator should be responsible for ensuring compliance with most new licence conditions, with the exception that a relevant independent national, state or territory regulator should have responsibility for compliance with national safety licence conditions.

* The Australian Energy Regulator would still oversee any economic incentive schemes relating to safety and would need to ensure that revenue determinations took into account the agreed national safety standards.

The Australian Energy Regulator should be given authority under the National Electricity Rules and the National Electricity Law to:

* issue and revoke licences
* seek advice from relevant agencies on any technical matters relating to compliance assessment.

Recommendation 11.5

When the process of implementing cost-reflective, time-based prices for distribution network services is sufficiently advanced, the National Electricity Rules should be amended to:

* ensure that any time-based tariff is determined by (rather than ‘take into account’) a reasonable estimate of the long-run marginal cost for the service concerned
* 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)
* 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
* with any deviation from this principle arising from any state or territory government decisions about community service obligations transparently funded by the relevant jurisdiction.

Recommendation 11.6

When the process of implementing cost-reflective, time-based prices for distribution network services is sufficiently advanced, the requirements governing assessments by the Australian Energy Regulator of pricing proposals by distribution businesses should be amended such that the regulator:

* can only approve a distribution business’s peak demand forecasts if they include reasonable estimates of the likely demand response to critical peak 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.

Recommendation 11.7

The National Electricity Rules should be amended to:

* require the Australian Energy Regulator to publish guidelines on the appropriate methods 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 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.

RECOMMENDATION 11.8

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 fixed component of network charges.

The Standing Council on Energy and Resources should develop common criteria for identifying who should receive such assistance and how it should best be delivered. These criteria should be based on the outcomes of a review 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 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 (recommendation 11.2).

recommendation 11.9

The Australian Energy Regulator should require:

* distribution 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 tariffs. Such engagement should occur sufficiently early to ensure that customers have been:
* given sufficient information and time to respond appropriately to time-based pricing (including of the various means to manage their peak demand)
* informed about the implications for their electricity bills
* given clear guidance about the way in which advance warning of critical peak pricing events will be communicated
* provided with support mechanisms in the event that the new pricing regime creates financial difficulties for them.

Recommendation 12.1

The Australian Energy Regulator should use revenue caps, rather than weighted average price caps, in the regulation of all distribution businesses.

RECOMMENDATION 12.2

State and territory governments should implement, as soon as practicable, any advice from a retail competition review by the Australian Energy Market Commission to remove retail price regulation, and/or undertake consumer awareness measures and structural reforms to improve the effectiveness of retail competition.

recommendation 12.3

The Standing Council on Energy and Resources, in consultation with the Australian Energy Market Commission, should revise the current timetable for retail competition reviews to enable all retail price regulation to be removed no later than 2015.

Recommendation 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 scheme.

State and territory governments should change the way small-scale distributed generators are reimbursed by:

* instituting arrangements for network businesses to remunerate such generators at a level that reflects the savings in network costs from distributed generation capacity and output, particularly taking into account the extent to which distributed generation reduces the requirements for peak network capacity
* setting feed-in tariffs that approximate the wholesale price of electricity at times of peak and non-peak demand.

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 the 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.

### Network expenditures are inefficient

Recommendation 5.1

The Australian Energy Regulator should consider the use of long-term trailing averages to estimate the debt risk premium and risk‑free rate used in the calculation of the weighted average cost of capital.

Recommendation 5.2

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.

### Using benchmarking in incentive regulation could improve efficiency

Recommendation 8.1

The Australian Energy Regulator’s regular aggregate benchmarking of the performance of network businesses should include comparisons of:

* 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 age of relevant capital assets.

Recommendation 8.2

Subject to compliance and other costs (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.

Recommendation 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 (recommendation 8.12).

The comparisons should relate to units within a particular business, as well as comparable units in different businesses.

The Australian Energy Regulator should place most emphasis on comparisons of the efficiency of distribution networks in metropolitan areas.

Recommendation 8.4

When benchmarking is sufficiently reliable, the National Electricity Rules should be changed to allow the Australian Energy Regulator (AER) to have the discretion to initiate a three-way negotiation of a mutually acceptable settlement. This should involve itself, the network business and the representative and qualified customer body identified in recommendation 21.5:

* Negotiation would only be triggered if the AER judged that the divergence between aggregate benchmarking estimates of forecast spending and the business’s proposal were sufficiently narrow.
* Where an agreement was successfully negotiated using this process, the AER should not be obliged to go through the current formal draft/final determination processes.

Recommendation 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, it should use aggregate benchmarking as a diagnostic tool in responding to business cost forecasts.

Recommendation 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.

Recommendation 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 body involved in any negotiations described under recommendation 8.4.

Provision of data should be subject to statutory requirements for non-disclosure of information predetermined as commercial-in-confidence, drawing on existing models for data protection.

Recommendation 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 demand forecasts and the aggregate of network businesses’ bottom-up demand forecasts
* any discrepancy between previous expenditure forecasts and actual outcomes by different parties.

Recommendation 8.9

The Australian Energy Regulator should collaborate with other leading regulators, 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.

Recommendation 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.

Recommendation 8.11

The benchmarking analysis produced by the Australian Energy Regulator should include:

* 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.

Recommendation 8.12

The Australian Energy Regulator (AER) should periodically examine its benchmarking methodologies and processes — with input from an independent expert referee — to assess their usefulness in the determination process and the costs they impose on stakeholders. It should compare these costs with the likely benefits when determining the appropriate frequency and type of detailed benchmarking. In undertaking such assessments, the AER should consult closely with network businesses.

The AER should make all such assessments publicly available.

### State-owned enterprises are part of the efficiency problem

Recommendation 7.1

State and territory governments should privatise their government‑owned network businesses.

Recommendation 7.2

If state and territory governments do not implement recommendation 7.1, then they should promote more efficient outcomes for their government‑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 are also 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 a commercial investor
* where conflicting objectives remain, provide publicly transparent guidance on how to prioritise them.

Recommendation 7.3

In giving effect to recommendation 7.1, governments should:

* be guided by the overarching objective of maximizing the net benefit to the community, with clear identification and prioritisation of any subsidiary goals
* undertake key regulatory reforms prior to sale
* avoid the transfer to the new owner of unjustified liabilities, obligations or restrictions that may inhibit the future efficiency of the business
* establish an expert unit within the relevant treasury to oversee the process, and develop clear milestones and a timetable
* undertake genuine consultation with the public and key affected groups, including likely beneficiaries, accompanied by effective communication of the benefits of privatisation
* ensure adequate accountability through independent auditing of the privatisation process.

### Reliability standards are mostly too high

Recommendation 14.1

Reliability standards throughout the National Electricity Market should be based on the value that customers place on network reliability.

Recommendation 14.2

The Australian Energy Market Operator (AEMO) 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.

AEMO 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. AEMO should use these measures to supplement the results of the surveys.

recommendation 15.1

All jurisdictions should adopt the Australian Energy Regulator’s Service Target Performance Incentive Scheme as the basis for setting efficient reliability requirements for distribution businesses. The Scheme should replace all existing jurisdiction-specific distribution reliability requirements.

Recommendation 15.2

The Australian Energy Regulator should 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 a rolling five‑year average of annual performance
* incentive payments for deviations from the reliability performance targets should reflect the preferences of customers by using the estimated values of customer reliability, as spelt out in recommendation 14.2, and should be specific to the distribution business
* 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.

recommendation 16.1

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 transmission reliability framework in which reliability settings would be determined by customer preferences (recommendation 14.1).

This framework should replace all jurisdiction-specific transmission reliability settings.

recommendation 16.2

A new approach to transmission reliability planning should be adopted. The Australian Energy Market Operator (AEMO) should carry out probabilistic   
cost–benefit transmission planning for all transmission networks in the National Electricity Market in order to set reliability standards and demand forecasts at each connection point. AEMO should:

* use Values of Customer Reliability (as obtained through recommendation 14.2)
* use best practice probabilistic processes in its cost–benefit analysis of efficient standards
* 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
* work closely with the relevant distribution companies in determining demand forecasts and cross checking the reliability settings for each connection point
* use its best estimate of peak demand forecasts, having sought input from all relevant stakeholders
* set standards reflecting the probabilistic analysis at the connection point level throughout the National Electricity Market.

recommendation 16.3

The regional transmission network service providers should plan necessary augmentation and replacement investments with reference to the reliability standards set by the Australian Energy Market Operator (AEMO) and the National Transmission Network Development Plan. This should have two components.

For augmentation and replacement projects below a threshold value:

* the regional transmission network service provider should submit plans and seek funding for investments to meet reliability standards as part of the ex ante revenue determination process with the Australian Energy Regulator (AER), but could, ex post, decide to solve reliability problems in any way it decided was most efficient.

For augmentation and replacement projects above a threshold value:

* the regional transmission network service provider should submit details and seek funding of investments to meet reliability standards as part of the improved Regulatory Investment Test for Transmission process under which the AER would approve the allowable expenditure, having taken advice from AEMO.

At the next regulatory reset, the actual capital spent on such projects should be included in the transmission business’s Regulatory Asset Base, subject to any ex post review if expenditures exceeded the allowable revenues as set out in the approved Regulatory Investment Test for Transmission. If an ex post review identified instances of over‑expenditure linked to inefficiently timed capacity increases, inclusion of the over-expenditure in the Regulatory Asset Base should be deferred until such time that the additional capacity would have been net beneficial. For cost overruns, only the efficient investment spend should be included in the Regulatory Asset Base.

Recommendation 16.4

The Australian Energy Regulator should ensure that, in the Australian Energy Market Operator’s role as a transmission standard setter, its public reporting and planning processes are adequate, transparent and meet the National Electricity Objective.

Recommendation 16.5

The Australian Energy Market Operator (AEMO) 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, AEMO should closely consult with network businesses and seek independent peer review of its technical methods.

Recommendation 16.6

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, appropriate maintenance and operational standards are being achieved, and intrinsic network reliability is maintained.

recommendation 16.7

The Australian Energy Market Operator (AEMO) 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 AEMO 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.

Recommendation 16.8

The Australian Energy Regulator should review the Service Target Performance Incentive Scheme for Transmission to ensure the incentives and targets are consistent with the recommended National Electricity Market-wide reliability framework.

Recommendation 16.9

Transmission businesses not already using dynamic capacity ratings on all critical equipment should transition to this approach.

Recommendation 16.10

The Australian Energy Market Operator (AEMO) should oversee the technical details of connection of new generators to the National Electricity Market to allow for contestability. AEMO should:

* on receipt of an application for connection from a generator determine, in consultation with the relevant transmission business, the details of the augmentation and upgrades to shared network infrastructure that would be required to implement the connection, as well as the detailed specifications that ensure that the safe operating state of the network is maintained. This would complement information provided by the transmission business. The transmission business would have the opportunity to review and provide commentary on AEMO’s proposed specifications but AEMO would make the final decision on the required specifications
* provide the specifications to enable the generator to seek tenders to build the connection assets.

The Australian Energy Regulator should provide guidelines on the provision of information from transmission businesses to new connection applicants.

This framework should replace the existing arrangements in Victoria immediately and be implemented elsewhere in the National Electricity Market once Victorian arrangements are finalised and any regulatory barriers have been overcome.

RECOMMENDATION 17.1

The Regulatory Investment Test for Transmission process should be revised. The new test should continue to be performed by transmission businesses, but:

* be accompanied by parallel independent analysis from the Australian Energy Market Operator. This analysis should be published, and provided as advice to the Australian Energy Regulator (AER). The advice should have presumptive force in the AER’s deliberations
* be used by the AER as the basis for a revenue determination for the individual project in question, in a manner similar to the current ‘contingent projects’ process. The AER should assess and approve both the merit and process of the analysis.

Recommendation 17.2

The revised Regulatory Investment Test for Transmission should apply to all large projects, subject to a uniform threshold value, whether augmentation, replacement or a combination of both.

Recommendation 17.3

The revised Regulatory Investment Test for Transmission, and the associated project-specific revenue determination, should be triggered when a project (or any of the considered options) exceeds a threshold value. In the first instance, this should be based on the current threshold for application of the full test ($38 million), which should then be indexed over time to maintain its real value.

RECOMMENDATION 17.4

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.

When a Regulatory Investment Test for Transmission is triggered for a major project, a full cost–benefit analysis involving a (public) probabilistic reliability assessment should be conducted.

RECOMMENDATION 17.5

The Regulatory Investment Test for Transmission should not be amended to include indirect effects of investment decisions.

### Regulatory policy on interconnectors and transmission pricing should take a long-term view

FINDING 18.1

The available evidence suggests that, given the existing network conditions, the current physical capacity for interconnection is appropriate.

Recommendation 19.1

As an interim measure before the potential full introduction of the Australian Energy Market Commission’s optional firm access package, a short-term congestion pricing mechanism as suggested by the Australian Energy Regulator should be introduced to the National Electricity Market.

Recommendation 19.2

Provided that cost‑benefit analyses show net benefits (including incremental net benefits in moving from short‑term congestion pricing), and once technical matters have been resolved, the Australian Energy Market Commission should commence implementation of the optional firm access package for generator access to the transmission network.

* It should operate for a period of at least 10 years.
* The Australian Energy Market Operator (AEMO) should provide information to applicants for firm access and the Australian Energy Regulator relating to the (long-term) upgrades required, and benchmark indicators of their cost.
* Optional firm access should be monitored by AEMO 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.

Recommendation 19.3

After the optional firm access package has been operational for 10 years, a review should be conducted to consider whether the introduction of nodal pricing is warranted on cost–benefit grounds, or if other reforms (such as alterations to the optional firm access model) offer greater benefits. The review should have particular regard to the structure of the National Electricity Market at the time, the views of consumers and other stakeholders, and any remaining barriers to the introduction of nodal pricing.