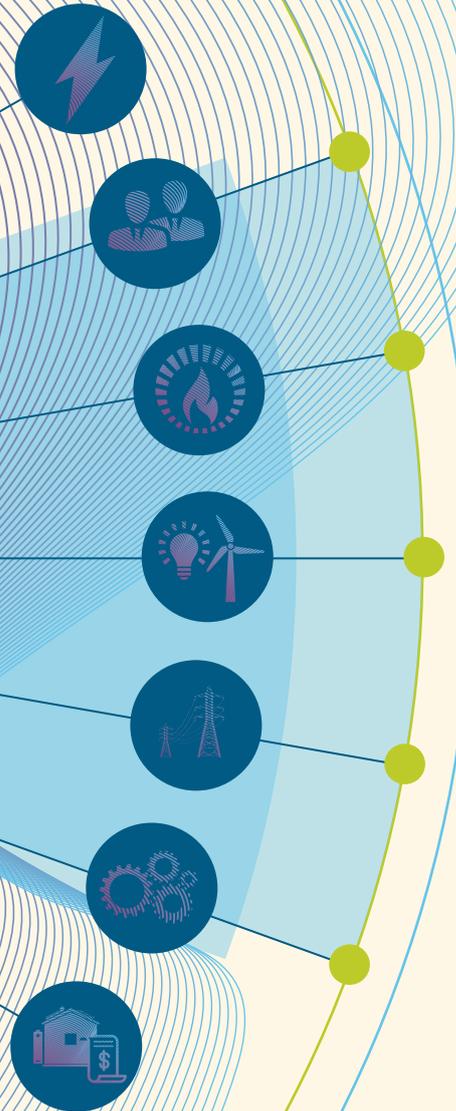
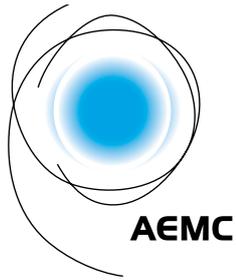


Australian
Energy
Market
Commission

ANNUAL REPORT

2017-2018





Australian Energy Market Commission
Level 6, 201 Elizabeth Street
Sydney NSW 2000

30 September 2018

The Hon Dan van Holst Pellekaan MP
Minister for Energy and Mining
GPO Box 974
Adelaide SA 5001

Dear Minister

Australian Energy Market Commission annual report 2017-2018

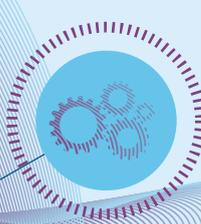
I am pleased to present the Australian Energy Market Commission 2017-2018 annual report.

This report is prepared in accordance with Section 27 of the Australian Energy Market Commission Establishment Act 2004 (SA).

A handwritten signature in black ink, appearing to read 'John Pierce', with a long horizontal stroke extending to the right.

John Pierce
CHAIRMAN

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Includes the performance summary, Chairman's message and Chief Executive's message, and how energy markets are governed.

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For consumers



We were established by the Council of Australian Governments to meet objectives enshrined in law which require us to focus on the delivery of secure, reliable energy at the best price for consumers.

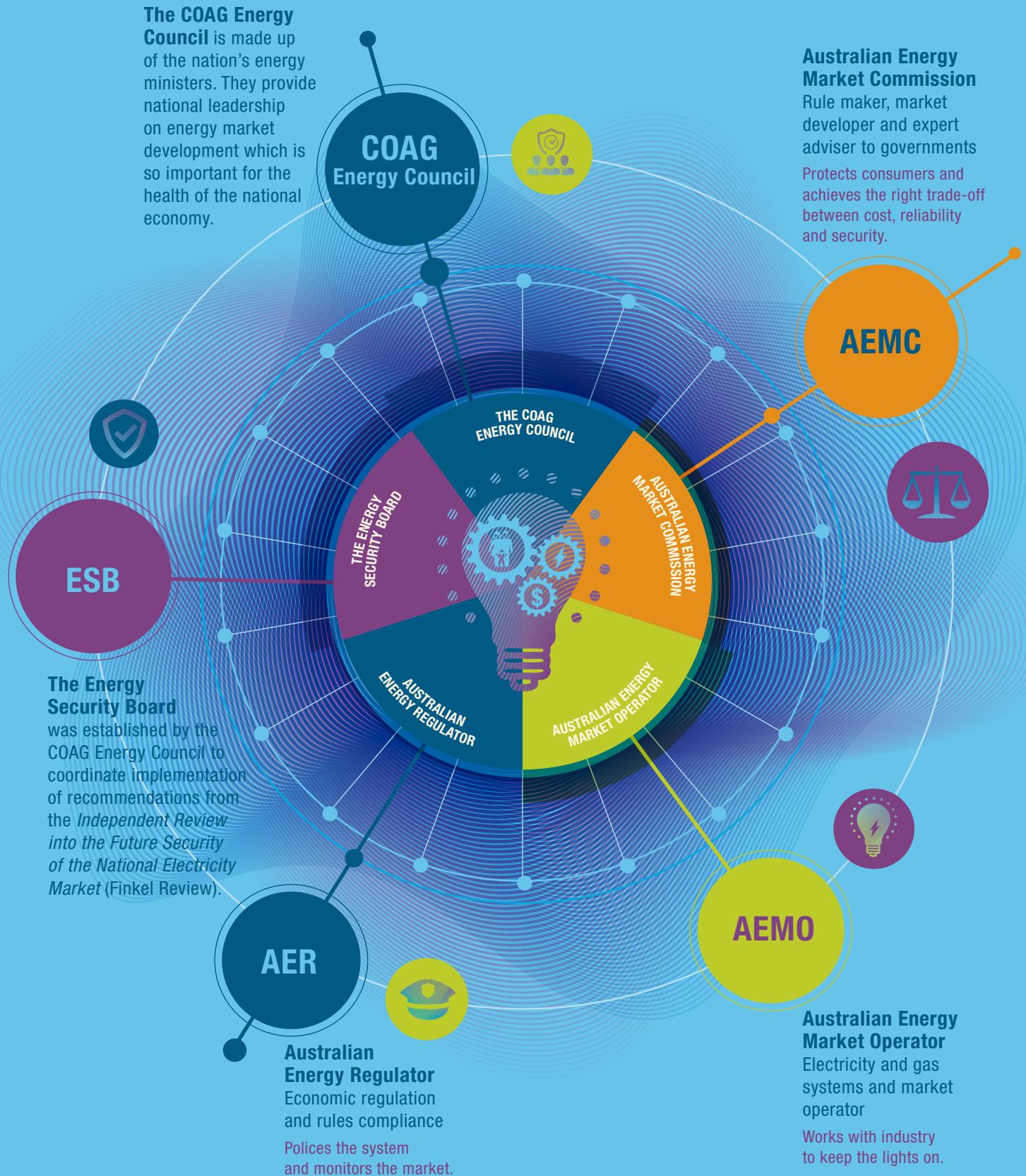


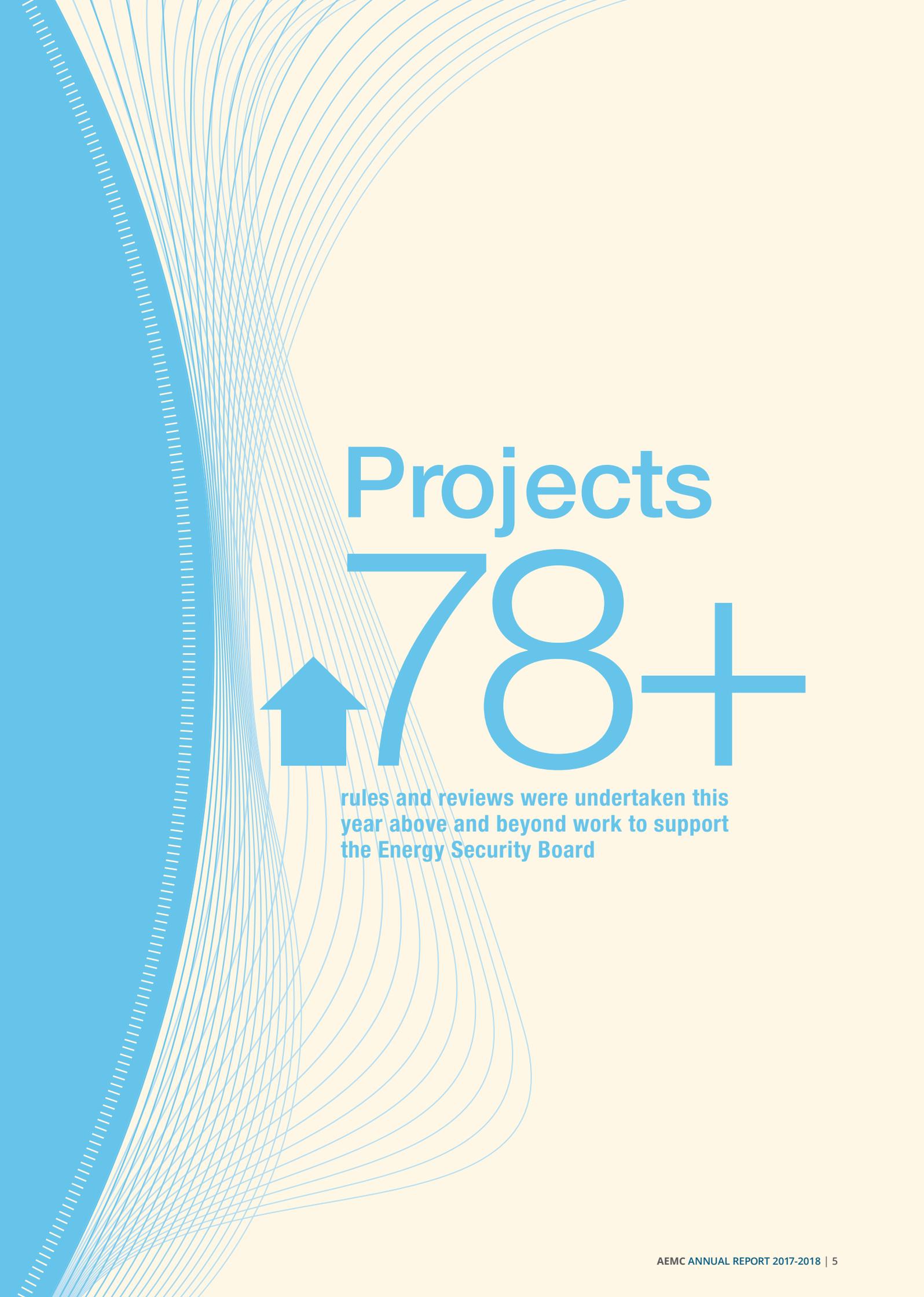
We pursue energy market development that puts consumers first and resists pressure for measures that may impose greater costs on families and businesses.



As independent adviser to the nation's energy ministers we take the long view on how to drive prices as low as possible because consumers need affordability as well as security and reliability.

How energy markets are governed





Projects

 78+

rules and reviews were undertaken this year above and beyond work to support the Energy Security Board

Performance summary

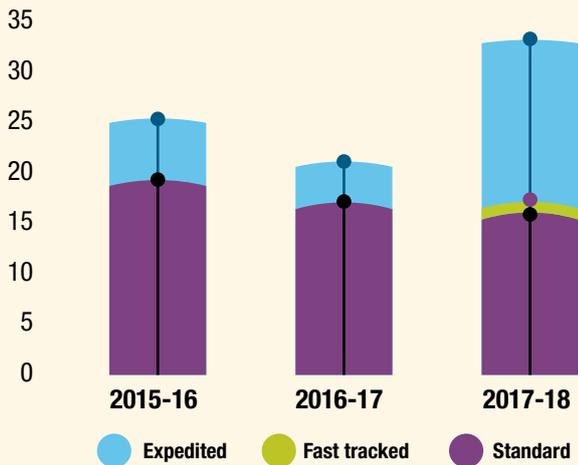
94 
employees

78 
projects

Rule changes, reviews, and advice started and completed

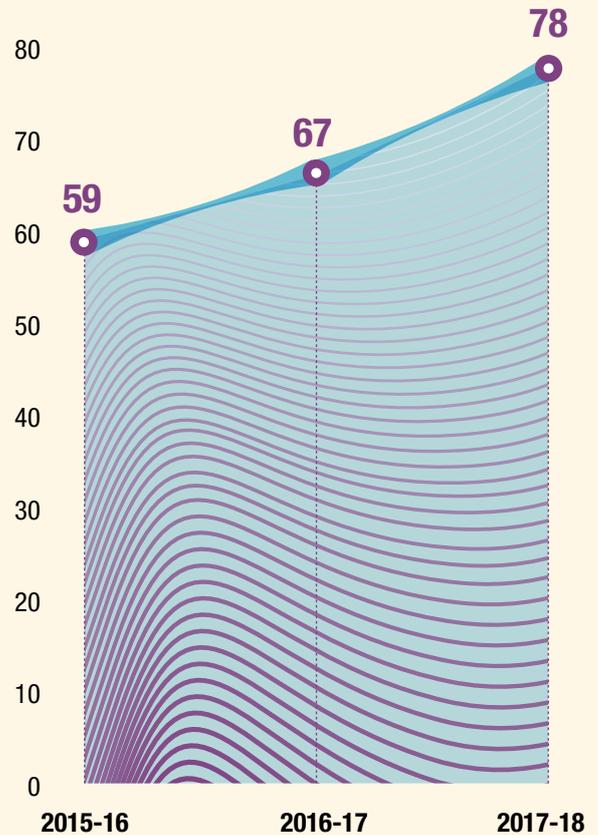


Working faster – categories for completed electricity and gas rule changes

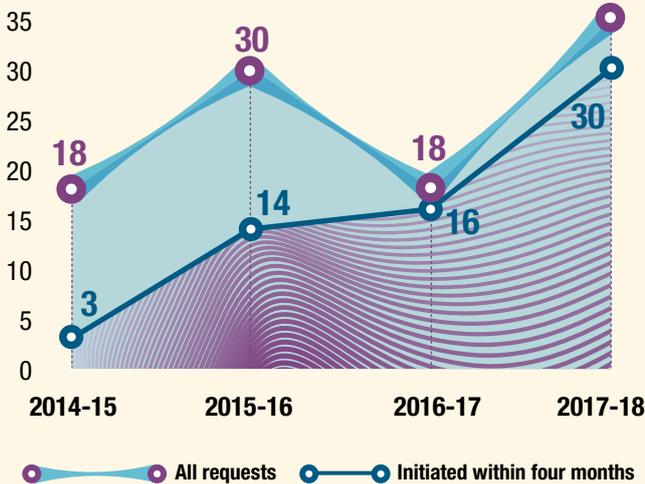


● Rule changes initiated ● Rule changes completed
● Reviews and advice started ● Reviews and advice completed

Projects completed and underway



Starting rules faster after stakeholders send us requests



● Projects

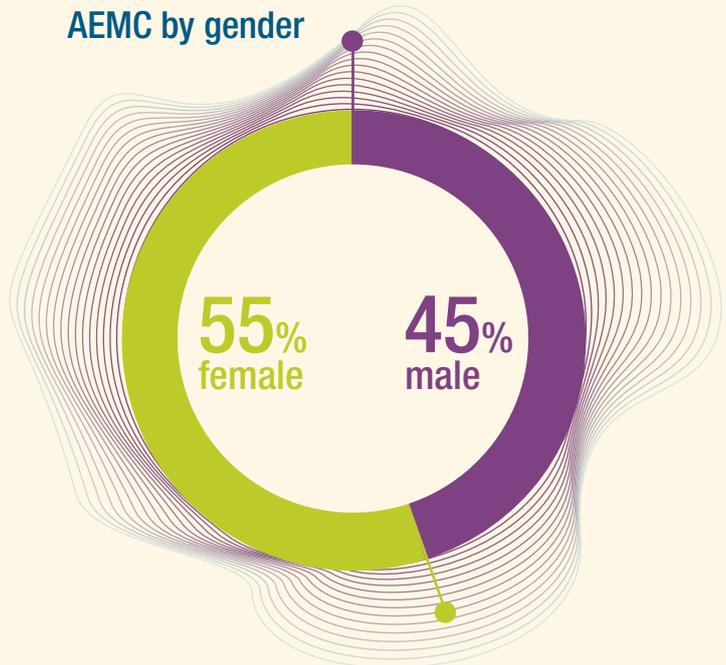
972 
leadership group
formal stakeholder meetings

37 
forums and
workshops

798 
submissions

2493 
statements submitted
by Solar Citizens in relation to the
distribution market model project

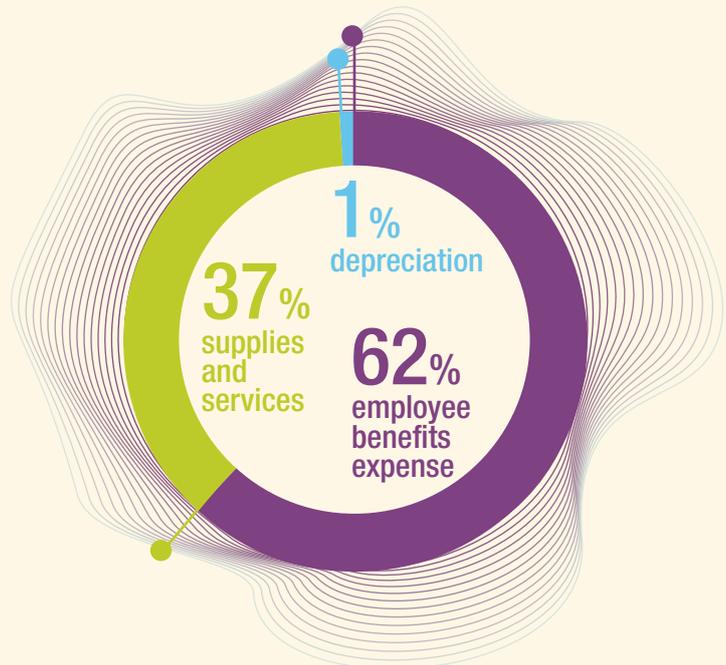
AEMC by gender



Annual expenditure within budget
(target +/-5%)



Actual expenses



Chairman and Chief Executive message

JOHN PIERCE AND ANNE PEARSON



Considering all ideas on their merits

The AEMC's focus for much of this year has been on fundamental changes to the energy market, such as the decision to move to five minute settlement, and the nuts and bolts progressive rule changes required to keep the power system secure and regulatory frameworks up to date.

We make the rules, but not in isolation. We engage and consult throughout the rule change process to address issues here and now, but with an eye on the longer term. The forward-looking advice we give to governments is predicated on our critical thinking and analysis of information, including that provided by stakeholders. The integrity of the evidence is the direct route to delivering reliable, secure energy at the most efficient price. We consider all ideas on their merits, no matter where they come from.

Contributing to broader discussions is imperative as we explore options for the grid of the future. The ability of the power system and energy markets to deliver for consumers depends on the cooperation of all interested stakeholders; and when we all do our jobs well, the whole is very much greater than the sum of its parts.

Power system security

Power system security remains a priority for the AEMC, and is important for building confidence in the system's ability to respond to operational dynamics brought about by the changing generation mix.

A key to an orderly restructure of the electricity sector is for the wholesale revenue and costs of those operating in the competitive parts of the sector to be linked to and reflect the physical needs of a reliable power system. That is for these to reflect the value of electricity when it is produced and consumed. This is the case when the contracts between market participants are written by reference to spot prices.

With more people connecting energy resources like solar PV, batteries and price-responsive appliances, the regulatory framework must support

In this rapidly changing environment the knowledge and expertise of our stakeholders is invaluable



a more decentralised grid. Expanding distributed energy resources will be particularly important for network planning and operation, particularly when forecasting long-term user demand and short-term energy flows, and how that might defer or avoid network investment.

Distributed energy resources can also offer a range of benefits at distribution network level, including opportunities for consumers to lower their electricity bills. But they can also create new technical challenges for distribution network service providers as they work to integrate these new technologies. One of our new rules has created a register of distributed energy resources to give networks and the market operator, AEMO, greater visibility of distributed energy resources so they can better manage these challenges. Our annual electricity networks economic regulatory framework review also looked at more ways to unlock the potential of distributed generation. Later in 2018 we will start consultation on changes to how networks' capital and operating expenditure is assessed and remunerated so they can efficiently solve local network capacity problems with the lowest cost mix of investment and demand response.

Our system security work program has recommended rule changes and reviews to support the evolution of a reliable and secure power system. We have completed many already, as reflected in our expanded work program this year. Other key work, including the review into coordination of generation and transmission investment is still underway.

We continue our focus on keeping the rules current to assist AEMO in managing the power system as it changes, while keeping the cost of transition as low as possible for consumers. The most recent reform package to help AEMO address immediate system security issues commenced in July 2018. These new rules to maintain system strength and

frequency control are specific, targeted solutions which will help keep the system in a secure operating state. Key changes include:

- managing the rate of change of power system frequency rule which makes networks provide minimum levels of inertia, and enabling networks to contract with suppliers to provide inertia substitutes with AEMO approval
- managing power system fault levels rule to keep the system stable by making networks provide minimum levels of system strength at key locations, and requiring new generators to pay for remedial action if they affect system stability
- generating system model guidelines rule requiring generators and networks to provide more detailed information about how their equipment performs so AEMO and networks have the right data to efficiently plan and operate the system.

This year we made another fundamental change to help the electricity wholesale market ready for new technologies that enable the power system to deliver for consumers in more dynamic ways. The five minute settlement rule aligns price signals with the physical operational needs of the market to underpin investment in fast response technologies like batteries, new generation gas peaker plants and demand response. With more wind and solar generation entering the market, along with retirement of thermal generators, there is an important role for fast response generation and services to plug the gaps when the wind isn't blowing and the sun isn't shining. This will lead to more efficient operational decisions and investment and given that wholesale costs make up one third of a typical electricity bill this change can be expected to lead to lower electricity prices than in a 30 minute settlement market.

Lower prices and more protection for consumers

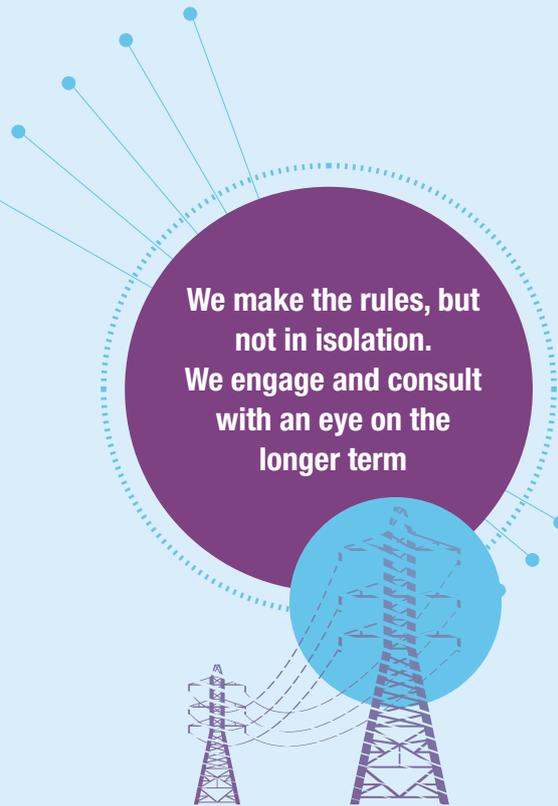
Our annual review of retail energy competition delivered a concerning report-card this year on retailer behaviour – with complex pricing plans, conditional offers, and a general lack of transparency preventing consumers from gaining the maximum benefits possible in the market in terms of competitive deals and services. It found that consumer confidence in energy retailers has been driven to new lows - a reality check telling everyone in the sector they need to work better, faster and more creatively to deliver for consumers.

We have come through the period of higher prices following the closure of the Northern and Hazelwood generators and higher gas commodity prices. Reforms are on foot to enable and support innovation in both technology and pricing. The AEMC recently made the first rules in a package of reforms which will help customers deal with their retailers: requiring notifications when discounts end, and preventing plans which only offer discounts on inflated rates.

There is nothing preventing retailers from being more innovative and cost competitive. A small number of them are offering products and services which use customers' consumption data to help them find the best retail offer or optimise their solar-battery setup based on generation patterns.

But most have been slow to act and there is more work to be done.

Rule changes are underway on advance notice of price changes, more timely installation of meters and allowing consumers to submit meter self-reads, and we will be progressing work to benchmark the support that retailers provide to our most vulnerable consumers. It's imperative that appropriate consumer protections are in place, and that retailers do more to actively promote them, so vulnerable consumers and small businesses are not left behind.



We make the rules, but not in isolation. We engage and consult with an eye on the longer term

Retailers have an opportunity to start rebuilding customer confidence and reverse the alienation caused by bill shock. People are adopting new technologies to source their own energy as solar PV becomes more financially beneficial for households and small businesses. More than 1.8 million Australian households are now using solar panels and this is expected to continue, with solar costs forecast to decline further.

This is good news for those who are able to engage with market transformation and take matters into their own hands. At the same time it risks increasing costs for those who are unable to make those changes and have to stay on the traditional energy supply model.

There is considerable scope to improve customer experiences and outcomes in the retail energy market. Retailers should offer prices, products and plans that are more easily understood, and empower consumers by giving them access to data and technology to help them manage their energy usage.

Making it easier to buy and sell gas

In 2017-2018 we continued to redesign Australia's gas markets to improve competition and lower costs to households and businesses. Through our reviews, now being implemented by the Gas Market Reform Group, we are establishing a new approach to trading gas, supported by improved access to pipeline capacity and additional information.

We have also recommended changes to the pipeline regulatory framework that would help gas pipeline users negotiate lower prices and better deals, making it cheaper and easier to move gas around the market, allowing gas consumers to benefit from lower prices. To track the benefits of our reforms as they are implemented, we will be monitoring the growth in liquidity in wholesale gas and pipeline trading markets every two years.

Reciprocal exchange of ideas

The volume of work produced by AEMC staff reached unprecedented levels this year. In 2017-2018 the organisation completed 15 reviews and 33 rule changes, the most rule changes completed in a single year since our establishment. Another 22 rule change requests and eight reviews were underway at 30 June 2018. Consultation and engagement on these projects involved almost one thousand meetings between our senior staff and stakeholders this year. We recognise how fortunate we are in our stakeholders' willingness to commit time and resources to bring about lasting change.

In this rapidly changing environment, the knowledge and expertise of our stakeholders is invaluable. The AEMC is very fortunate in this regard; experts across the energy sector willingly dedicate their time to serve as members of the Reliability Panel; to be part of working and technical reference groups; to prepare detailed submissions on complex matters of policy; and to attend forums and workshops. Working with our stakeholders we consider how changes to one part of the market will affect other parts; how options that weren't available a relatively short time ago may now be possible because of technological advancement or market maturity and how regulatory frameworks can respond to new business models, technologies, and consumer needs.

Timely reform

When we receive a rule request where problems and solutions are easily identified, we make changes quickly. Seventeen of the 33 rule changes were completed this year were expedited or fast-tracked. But more complex changes warrant deeper consideration of the cause, costs, workability of the proposed solution, and implementation processes. Lasting change requires genuine consultation and engagement, which we take very seriously.

Everyone has a part to play in making the energy system and markets work. The energy sector's governance framework itself is built on collaboration between three market bodies – the Australian Energy Market Operator, the Australian Energy Regulator and the Australian Energy Market Commission. The bodies also work together to advise the Energy Security Board.

If stakeholders see something in the energy sector that isn't working, whether it's a barrier for a particular new technology or a problem with how the physical or financial market operates, the rule change process is there for anyone to take the initiative to address it. Anyone, except for the AEMC itself, can submit a rule request and play an active role in keeping the electricity market fit for purpose.

Thanking our people and stakeholders

The AEMC's ability to deliver secure, least cost energy for consumers rests with the quality of our people. We have formulated a staff development program which helps AEMC staff cultivate the skills required to work independently, and build trusted relationships with our stakeholders.

We also welcome new faces to the Commission and leadership team. In 2018 the number of Commissioners expanded from three to a new total of five with the appointment of Ms Michelle Shepherd, Ms Allison Warburton and Mr Charles Popple. Mr Neville Henderson retired on 16 February 2018 and we recognise and thank him for his contribution to the AEMC and the Reliability Panel during his eight-year term as a Commissioner.

Following the close of this reporting period we also announced two new appointments to the executive leadership team, Mr David Feeney to the position of Executive General Manager Retail and Wholesale Markets and Associate Professor Tim Nelson as Executive General Manager Economic

Analysis. These appointments add to the AEMC's strategic and analytical capabilities, particularly in terms of wide-ranging commercial experience and energy policy development. The public policy conversation has big questions to answer as new technologies and consumer choices drive structural change further into the energy sector. We look forward to working with all our new colleagues as we continue to produce rules and advice to the high standards expected by our stakeholders.

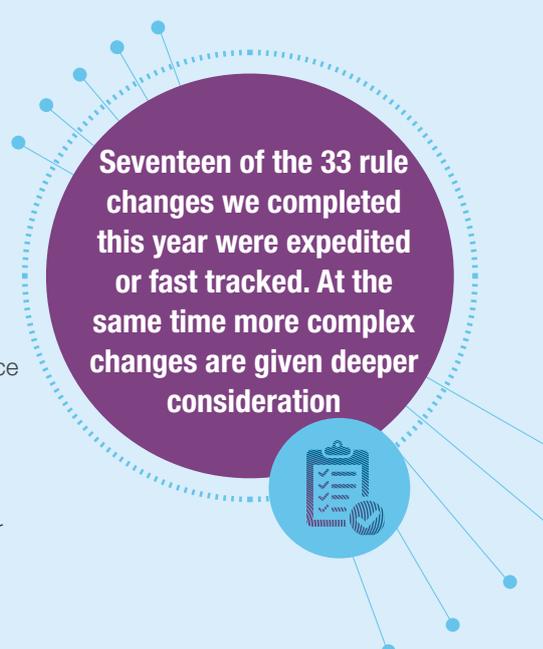
We are grateful to all of you – staff and stakeholders alike – who have worked indefatigably this year to deliver better outcomes for consumers in a challenging environment. As we look ahead to another transformative year in energy, please know that we value your input, and remain staunchly committed to the strategic development of Australia's energy markets in the long-term interest of the nation's energy consumers, their families and businesses.



John Pierce
CHAIRMAN



Anne Pearson
CHIEF EXECUTIVE



Seventeen of the 33 rule changes we completed this year were expedited or fast tracked. At the same time more complex changes are given deeper consideration

Australia must have enough electricity available at the lowest cost. We want to encourage the right amount of investment in the power system's long-term capacity so the operator isn't forced to intervene more than necessary with higher cost safety-net options. We are changing the framework to encourage the efficient adoption of new technologies and more transparent information so decisions made by market participants, the operator, regulators and policy makers are better informed.

We are also working on adapting the intervention framework including directions, instructions and strategic reserves so it is fit for the changing power system and only used when necessary.



Key projects

- Reliability frameworks review
- Coordination of generation and transmission investment review
- Reliability and Emergency Reserve Trader (RERT) rule
- Generator three-year notice of closure rule
- Annual market performance review
- Reliability standard and settings review

As the generation mix changes we need new ways to control frequency when the wind stops blowing and the sun stops shining. Frequency varies whenever electricity supply does not exactly match consumer demand and uncontrolled changes in frequency can cause widespread blackouts. This year we have worked on an extensive package of new rules to enable new technologies and service providers to provide frequency control services. The program will develop over time in response to AEMO-led trials particularly in relation to how new business models like virtual power plants can be integrated.



Key projects

- Frequency operating standards review
- Generator technical performance standards rule
- Register of distributed energy resources rule
- Frequency control frameworks review
- Generating system model guidelines review
- Managing power system fault levels rule
- Managing the rate of change of power system frequency rule



Reliability



PROJECT LANDSCAPE



Security



Choice and control

2017-2018

Because of the technology revolution families and businesses are not just electricity consumers. They can be power producers. Expanding renewable generation is an opportunity. It also means we must change how we manage the system to keep it working well.



Gas

We are very focussed on least-cost solutions, bearing in mind that the more costs you put into the system, the greater the burden on consumers. The price of energy is one of the most important inputs to the economy and it's important to develop a competitive market for new energy services so consumers have more choices in managing their energy bills. We understand the community as a whole is very committed to exploring new technologies and renewable options. Our intention is not to hold this back, but to enable consumers to choose what they want without cost burdens that could be avoided with better planning and more efficient practices. We also work to protect consumers, especially the most vulnerable, as the system changes.

More people are connecting all sorts of equipment to their distribution networks. These are called distributed energy resources including batteries, rooftop solar, electric vehicles, and price-responsive appliances. Regulation is currently flexible enough to support this integration especially as major changes in recent years have reduced network costs and introduced cost-reflective pricing so people can make the most of their investments. Our annual report on promoting efficient investment in the grid of the future analyses how the regulatory framework may need to change to support a grid with more decentralised, local renewable generation.



Key projects

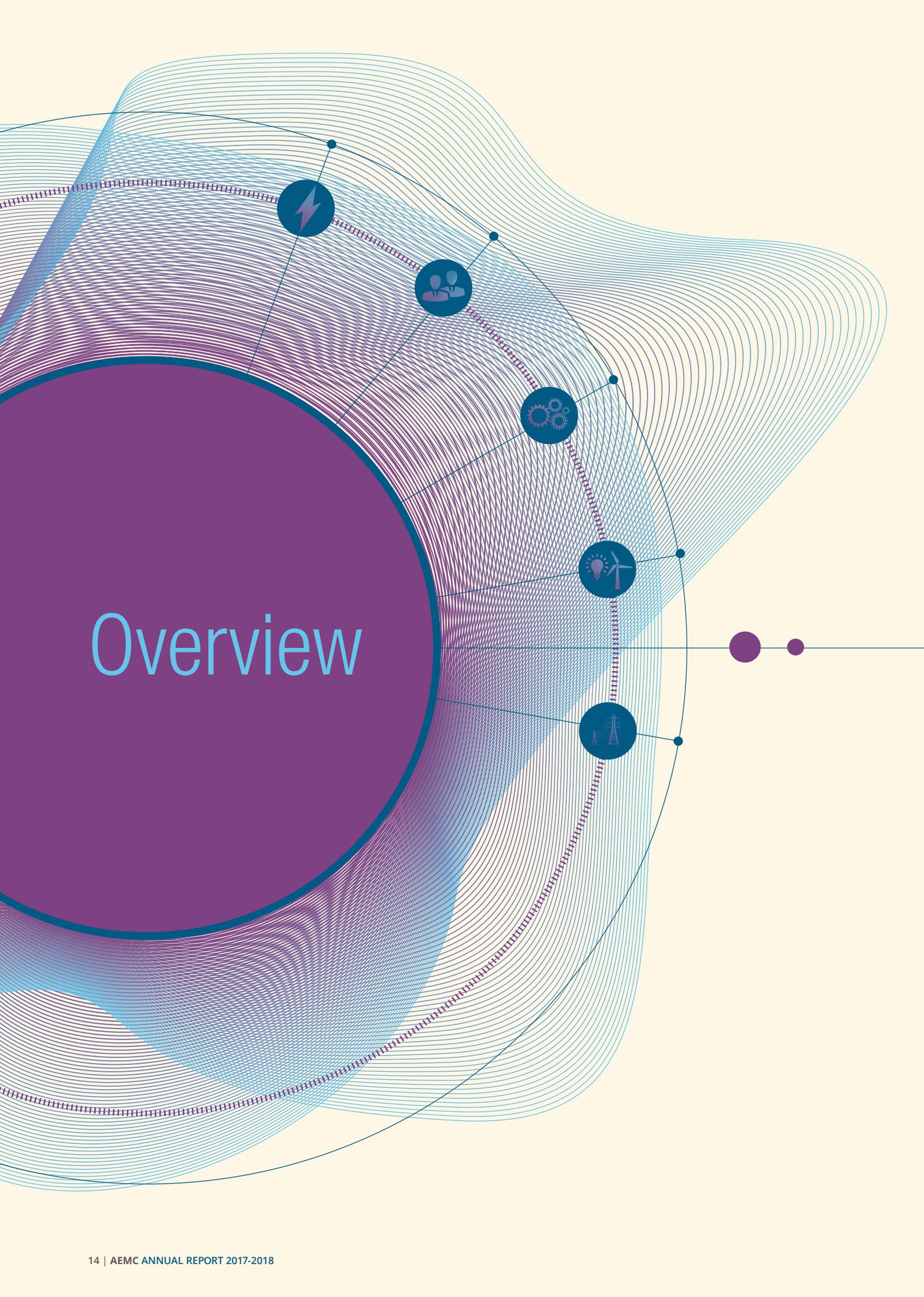
- Advance warnings to shop around before energy discounts finish rule
- Stopping energy discounts that can leave customers worse off rule
- Advance notice of price increases rule
- Allowing self-meter reads to improve accuracy of energy bills rule
- Improving customer outcomes in retail energy markets review
- Electricity networks economic regulatory frameworks review
- Stronger protections for vulnerable customers rule
- Introducing maximum timeframes for meter installations rule

Changing the way gas pipelines are regulated will make it cheaper and easier to move gas around the market. This helps keep gas and electricity prices for consumers as low as possible. Gas markets are transforming. Isolated point-to-point pipelines have evolved into an interconnected network with two-way flows. This year we have built on our comprehensive reviews of the east coast and Victorian gas markets to rebalance negotiating power between pipeline users and owners

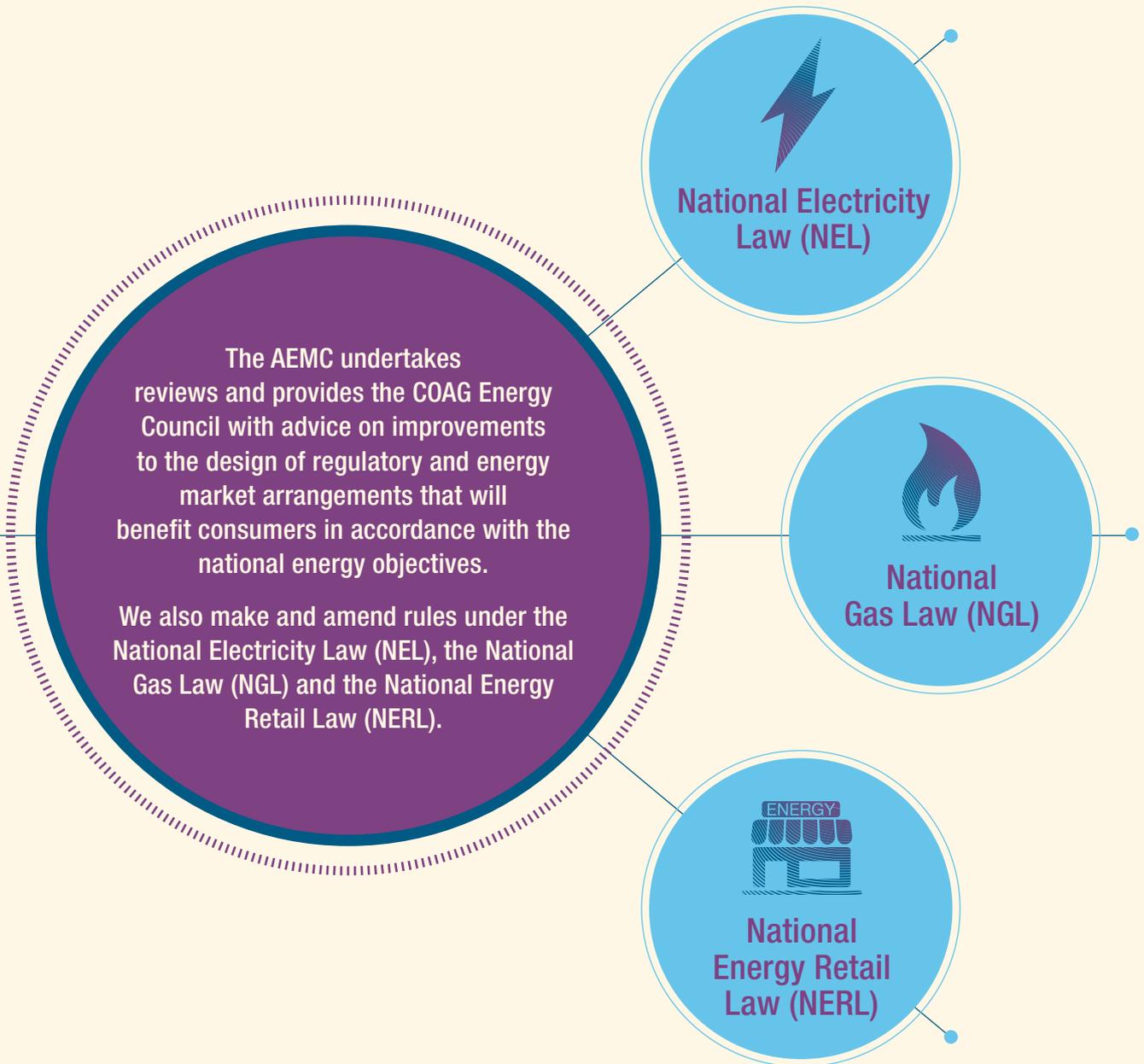


Key projects

- Economic regulation of covered pipelines review
- Liquidity in wholesale gas and pipeline trading markets review
- Improving the natural gas bulletin board rule
- Improved market parameters in the STTM rule
- Better decisions on unintended scheduling results rule



Overview



Overview



What we do

The Australian Energy Market Commission is progressing reforms that allow consumers to access efficiently priced energy delivered by secure and reliable systems.

Reviews and advice

The AEMC undertakes reviews and provides the COAG Energy Council with advice on improvements to the design of regulatory and energy market arrangements in accordance with the national energy objectives which go to serving the long-term interests of consumers. In conducting our reviews and preparing advice we consult widely on matters which are related to the progress of the COAG Energy Council's energy reform agenda. Many of our reviews arise from terms of reference provided by the nation's energy ministers, but we can also initiate our own reviews on matters related to the rules.

The AEMC regularly monitors and reports on a range of matters including the level of competition in energy retail markets, future residential electricity price trends, and energy market performance. The Reliability Panel, which forms part of the AEMC's institutional arrangements, reviews and reports on the safety, security and reliability of the national electricity system.

We also understand the impact on the energy sector of policies outside the energy market portfolio – such as emissions reduction policies – and highlight any issues in our advice to help promote integrated and consistent policy outcomes.

Rule making

The AEMC makes and amends rules under the National Electricity Law (NEL), the National Gas Law (NGL) and the National Energy Retail Law (NERL).

These rules:

- impact on how market participants can operate in the competitive wholesale generation, gas and retail sectors
- provide specific rights for consumers to whom energy is sold or supplied
- govern the economic regulation of electricity transmission and distribution services – the 'poles and wires' – and gas pipelines.

The AEMC cannot propose rules (except for minor changes such as corrections). However any stakeholder including governments, industry participants and consumers can request rule changes. Our rule making test, the central focus of which is the long-term interests of consumers, contributes to greater regulatory predictability and transparency of the rule making process.

The South Australian Parliament recently passed legislation¹ that amends the National Energy Laws to give the South Australian Minister the power to make rules on the recommendation of both the COAG Energy Council and the Energy Security Board.

¹ See the Statutes Amendment (National Energy Laws) (Rules) Act 2018.

Electricity markets

The national electricity market is the wholesale electricity market for the electrically connected states and territories of eastern and southern Australia – Queensland, New South Wales, the Australian Capital Territory, Victoria, South Australia and Tasmania.

The Northern Territory and Western Australia are not physically connected to the national electricity market and have their own electricity systems although the Northern Territory has adopted parts of the national electricity market's rules framework.

The AEMC became the rule maker in the Northern Territory for parts of the National Electricity Rules from 1 July 2016. This follows the adoption of the National Electricity Law as a law of the Northern Territory in 2015.

The Northern Territory has adopted the rules that regulate access to the network, set revenues that networks can recover, set out arrangements for connections to the network, and regulate metering. The national rules apply to the Darwin, Katherine, Tennant Creek and Alice Springs electricity networks.

As the Northern Territory is not physically connected to the national electricity market, the rules include amendments to recognise the differences for a non-interconnected network, within an overarching and uniform set of national rules.

Western Australia is not physically connected to the national electricity market and has its own electricity system.

Gas markets

The AEMC makes National Gas Rules which apply to three types of wholesale gas markets: gas supply hubs, short term trading market hubs and the declared wholesale trading market in Victoria. These markets are operated by AEMO with separate price-setting arrangements.

The AEMC also makes rules that cover the economic regulation of natural gas pipelines which are covered under the National Gas Law and, under the new Part 23 of the National Gas Rules, rules which relate to information disclosure and arbitration for non-covered pipelines.

Western Australia has adopted a modified version of the National Gas Law. Some AEMC amendments to the National Gas Rules apply in Western Australia in relation to certain covered pipelines.

On 29 June 2018, the COAG Energy Council approved the legal and regulatory framework to implement the capacity trading reforms originally recommended by the AEMC in its east coast wholesale gas market and pipeline frameworks review. The Gas Market Reform group was responsible for leading the design and development of the reform package. Although the AEMC recommended that these reforms also be implemented in the Northern Territory, at the request of the Northern Territory Government, the COAG Energy Council in July 2018 agreed to delay the application of the day-ahead auction reform in the Northern Territory.

Retail markets

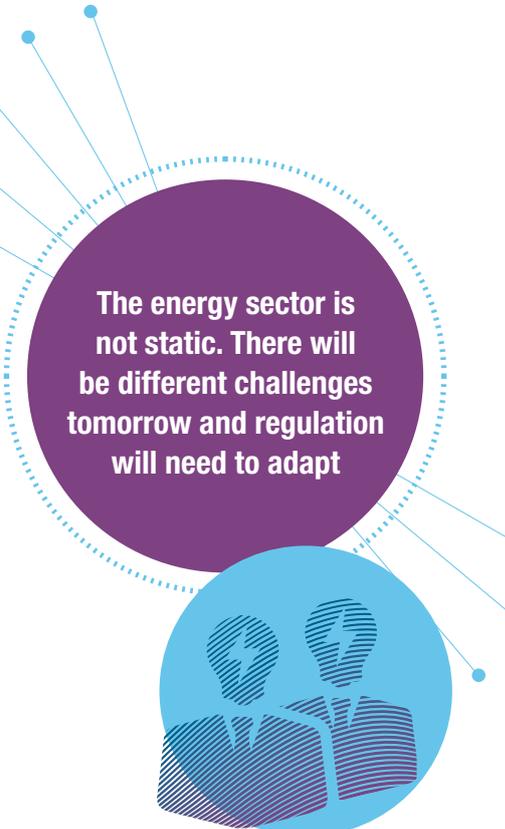
Energy retail markets provide the interface between retailers and their customers. They allow energy retailers to sell electricity, gas and related services to residential and business customers.

Retail markets provide the frameworks to support retail competition, including allowing consumers to choose between competing retailers, and balancing and reconciliation services such as managing the daily allocation of gas usage to retailers to enable the settlement of gas supply contracts.

Competitive retail markets with appropriate consumer protections provide a basis for innovation, consumer choice and competitive pricing, but it is important to recognise that Australia's retail energy market is still maturing.

The mobile phone sector, generally viewed as an effectively competitive market, has had price deregulation in place for more than two decades. In contrast, Victoria has had price deregulation in place for less than a decade, New South Wales deregulated prices less than five years ago, and south east Queensland only two years ago.

The retail energy market will continue to evolve in the coming years as consumer preferences about managing their energy usage change, and technology improves.



The energy sector is not static. There will be different challenges tomorrow and regulation will need to adapt

Guiding principles

National energy objectives

The AEMC is established under the *Australian Energy Market Commission Establishment Act 2004* and makes rules and conducts reviews under the National Electricity Law (NEL), the National Gas Law (NGL) and the National Energy Retail Law (NERL).

We must have regard to the National Electricity Objective (NEO), the National Gas Objective (NGO), and the National Energy Retail Objective (NERO) – the national energy objectives. Each of these describes the objective of the relevant law to be the achievement of economic efficiency in the long-term interests of consumers.

The AEMC may only make a rule, or a recommendation, if it is satisfied that it will or is likely to contribute to the achievement of the relevant objective.

The National Electricity Objective (NEO)

“The objective of this Law is to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to:

- a) price, quality, safety, reliability and security of supply of electricity; and
- b) the reliability, safety and security of the national electricity system.”

The National Energy Retail Objective (NERO)

“The objective of this Law is to promote efficient investment in, and efficient operation and use of, energy services for the long term interests of consumers of energy with respect to price, quality, safety, reliability and security of supply of energy.”

The National Gas Objective (NGO)

“The objective of this Law is to promote efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas.”

Our mission, vision and values

Mission

To improve consumer outcomes from the strategic development of energy markets, through rules and advice.

Vision

Flexible and resilient markets that benefit consumers.

Values

The shared values of the AEMC are leadership, engagement and integrity. Each of us seeks to reflect those values in how we act and discharge our functions.

Leadership reflects our desire to foster and support informed debate on energy market development. We engage with

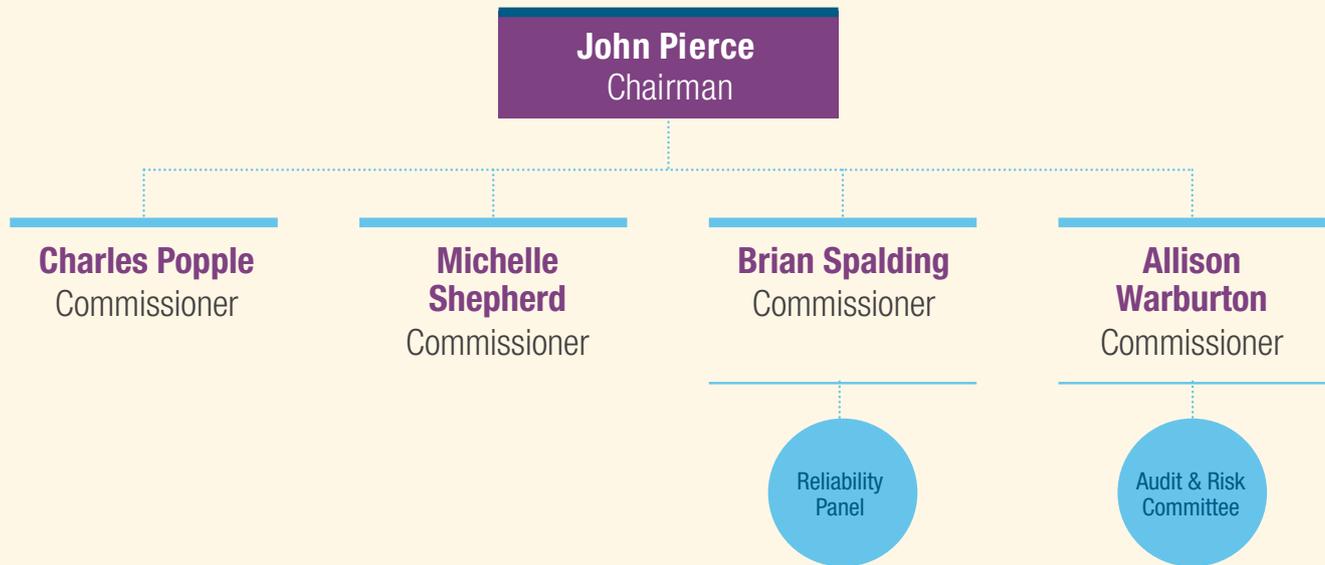
governments, consumers and market participants to promote dialogue and understanding. We value different perspectives and welcome meaningful debate on energy market issues. We share our knowledge, and empower those who look to us for advice.

Engagement is at the core of everything we do. We aim to build and maintain strong relationships with stakeholders and we value their input to our rule making and strategic advice to governments. We focus on pursuing opportunities for consultation and expanding the range of organisations, groups and individuals with whom we collaborate.

Integrity speaks to the respect we have for our stakeholders, our high standards of impartiality, objectivity and the transparent processes that frame the work we undertake. An ethical, reliable and consistent approach is paramount in all our dealings with governments, industry and consumers.

Organisation chart

Commissioners



Executive leadership team



AEMC Commissioners



Mr John Pierce AO
Commissioner

Mr John Pierce was appointed as the Chairman of the AEMC on 2 June 2010 and re-appointed on 2 June 2015. He has worked at the most senior levels of policy development and advised ministers, cabinets and the Council of Australian Governments. Mr Pierce is a former Secretary of the Federal Department of Resources, Energy and Tourism, a former Chairman of NSW Treasury Corp and served for more than a decade as Secretary of the New South Wales Treasury. Prior to his time with Treasury, his energy business and operational experience was at Pacific Power and the Electricity Commission of NSW. Mr Pierce is a member of the UNSW Australian School of Business (ASB) Advisory Council and Macquarie University's Industry Advisory Board, Department of Economics. John is currently Adjunct Professor in the Office of the Pro Vice Chancellor (Business), Griffith University. From 2010 to 2012 he served as Panel Chair of the Electricity Supply Industry Expert Panel which conducted a comprehensive review of the development of Tasmania's electricity industry. Mr Pierce holds a Bachelor of Commerce with Honours from the University of New South Wales.



Mr Charles Popple
Commissioner

Mr Charles Popple was appointed as a part time Commissioner of the AEMC on 17 February 2018. He has spent more than four decades in the energy network sector. In the 1990s he played a significant role in the development of the national electricity market including reform of the network sector and the implementation of transmission system planning and pricing arrangements. He has held management roles with Victorian Power Exchange, VENCORP, SPI PowerNet and SP AusNet. As a consultant, his focus was on energy markets and regulatory arrangements, with a view to achieving a balance between security, environmental challenges, and competitive pricing and products for energy consumers. Charles has a Bachelor of Engineering from Monash University and a Master of Engineering Science in power system engineering from the University of Melbourne.

AEMC Commissioners are appointed by Australia's state, territory and federal governments to make the rules under the national energy laws, and to advise governments on overall energy market development.

The five Commissioners' qualifications and experience encompass engineering, financial, economic, legal and commercial expertise. We welcomed three new Commissioners in 2018. Mr Charles Popple, Ms Allison Warburton and Ms Michelle Shepherd joined Dr Brian Spalding and AEMC Chairman Mr John Pierce AO. A two-thirds majority of the COAG Energy Council is now required to confirm a new Commissioner appointment.

Mr Neville Henderson retired on 16 February 2018 and we recognise and thank him for his contribution to energy market reform, the Australian Energy Market Commission and the Reliability Panel during his eight-year term as a Commissioner.



Ms Michelle Shepherd
Commissioner

Ms Michelle Shepherd was appointed as a part time Commissioner of the AEMC on 11 June 2018. She has more than 20 years' experience in energy policy and regulation in both the private and public sectors and has been involved in energy market development across Australia. Before her appointment she was the General Manager Regulatory and Government Affairs at Alinta Energy for six years where she was actively involved in energy policy reform and the commercial implementation of policy changes nationally. Prior to Alinta Energy, Michelle spent nearly 10 years at AGL where she played a key role in the development of regulatory frameworks across Australia. Michelle has also worked for the Australian Competition and Consumer Commission, UK Competition Commission and the Federal Department of Finance. Michelle has strong board experience and a focus on governance. She is currently the Vice President (Deputy Chair) of the YMCA WA. She held a directorship on the board of REMCo when it operated the Western Australian gas market. She holds a Bachelor of Commerce from Curtin University and a Bachelor of Applied Economics from Murdoch University and is a graduate of the AICD Company Directors Course.



Dr Brian Spalding
Commissioner

Dr Brian Spalding was appointed as a part time Commissioner of the AEMC on 19 April 2010 and re-appointed on 19 April 2013 and 19 April 2016. He has held key implementation and operational roles in national and state electricity markets since their inception. He was Chief Executive Officer of the National Electricity Market Management Company (NEMMCO) where he was responsible for the operation of the national electricity market and power system for south and eastern Australia. Prior to joining the AEMC he was Executive General Manager Operations at the Australian Energy Market Operator. Dr Spalding holds a Bachelor of Science, a Bachelor of Engineering with First Class Honours and a PhD in Power System Analysis from the University of New South Wales.



Ms Allison Warburton
Commissioner

Ms Allison Warburton was appointed as a part time Commissioner of the AEMC on 12 March 2018. She has worked in the energy sector for more than 20 years, advising energy users, governments and major corporations on energy policy and legislation. Allison was previously a partner and national head of Minter Ellison's climate change and renewables practice, and has been involved in emissions reduction and clean energy projects, and advised on the renewable energy target, the Emissions Reduction Fund and other legislative schemes to report on and reduce emissions. In 2016 she was appointed by the Queensland Government to its independent Renewable Energy Expert Panel to advise on credible pathways to achieving the government's renewable energy target. She served as a non-executive director of Stanwell Corporation until January 2018 and previously advised the Australian Greenhouse Office on developing new laws to regulate geological carbon capture and storage. Allison has a Bachelor of Arts and a Bachelor of Laws with Honours from the University of Queensland and is a Member of the Australian Institute of Company Directors, the Queensland Law Society and the Law Council of Australia.

AEMC executive leadership team



Ms Anne Pearson
Chief Executive

Ms Pearson was appointed as Chief Executive of the AEMC in February 2016, bringing organisational leadership capabilities, and a breadth of industry and regulatory experience to the role. Prior to her appointment she served as Senior Director, Market Development, with responsibility for directing reviews and rule determinations to facilitate the energy sector's adjustment to technological change and consumer responses in a carbon-sensitive world. Before joining the Commission in 2007, Ms Pearson's roles included Executive Manager of Retail Regulation at EnergyAustralia and corporate mergers and acquisitions at law firms Freehills and Deacons. She holds a Bachelor of Arts and a Bachelor of Law with Honours from the University of Sydney.



Dr Kris Funston
*Executive General Manager,
Retail and Wholesale Markets*

Dr Funston leads the team responsible for reviews and rule changes relating to the competitive parts of Australia's electricity and gas sectors. He brings wide-ranging commercial experience to the role, having worked in economic regulation and competition across a number of different sectors including water, telecommunications and energy. Dr Funston's previous roles include Manager, Competition and Regulation for Sydney Water, Australia's largest water utility, Senior Regulatory Manager for Telstra, and Deputy Chief Economist at the New Zealand Commerce Commission. Dr Funston holds a PhD in Economics and a Bachelor of Economics with Honours, both from the Australian National University.

Our executive general managers set the agenda for the organisation and are accountable for its operating principles. They develop and implement the organisation's strategy and direct our rule-making and review functions.

As energy market transformation continues to result in a significantly increased workload for the AEMC, our leadership team's focus on the most effective use of available resources has enabled us to continue to meet commitments to our stakeholders.



Ms Suzanne Falvi
*Executive General Manager,
Security and Reliability*

Ms Falvi leads the team responsible for reviews and rule changes relating to system security and reliability which have been a key focus for the energy market bodies in the past three years. She also leads the Reliability Panel secretariat. She previously worked as a senior policy adviser for the ACT Government in their energy policy team, as in-house counsel in a solar technology research and development company, and for Minter Ellison specialising in competition, energy, administrative law and commercial litigation. She holds a Bachelor of Economics, a Bachelor of Law with Honours and a Master of Laws in International Law from the Australian National University.



Ms Tricia Khoo
Financial Controller

Ms Khoo joined the AEMC in 2017 and is responsible for the finance function. Her most recent role prior to joining the AEMC was as Financial Controller at Intoll (now CPEIB Australia) where she managed finance, compliance and company secretarial functions for the holding structures of their infrastructure and real estate investments in Australia and Canada, and for legacy entities in Bermuda and Luxembourg. She was also involved in investment and divestment activities, including project funding and finance restructuring, during that time. She previously held financial reporting roles at AMP and Babcock and Brown Power. Tricia holds a Bachelor of Commerce from the University of Sydney and is a qualified Chartered Accountant.



Ms Gayee McGrath
*Executive General Manager,
 People and Culture*

Ms McGrath has been working with the AEMC since 2016, and is currently the head of People and Culture, the team responsible for organisational culture, professional development and recruitment. Ms McGrath's background is in executive management; she previously worked as Executive General Manager for CiEvents, a global strategic event management agency, and spent 16 years with Qantas in senior executive roles. Ms McGrath has qualifications in business studies, and certifications in leadership, executive management and human resources.



Dr Alan Rai
*Executive General Manager,
 Strategy and Economic Analysis
 (Acting)*

Alan was appointed acting head of the AEMC's Strategy and Economic Analysis division in December 2017. He was previously a director in the AEMC's Retail and Wholesale Markets team. Prior to joining the AEMC in September 2015, Alan was an economic consultant to a range of Hunter-based private and public sector businesses including energy companies and NSW government agencies. Alan started his career at the Reserve Bank of Australia in the domestic and international financial markets divisions. He was an energy economics consultant at the CSIRO, consulting to businesses involved in all aspects of the national electricity market. Alan has an Honours degree in Economics and Commerce from Macquarie University, and a PhD in Economics from the University of New South Wales.

The previous executive general manager in this position, Chantelle Bramley, left the organisation in December 2017.



Ms Catriona Webster
General Counsel

Ms Webster leads the team which provides and coordinates support to the Commission on legal, regulatory and governance matters, and drafts amendments to the national energy rules. She has more than a decade of experience in providing legal advice on energy market and regulatory matters. Before joining the Commission, Ms Webster was a corporate counsel for The Marketplace Company where she worked on full retail competition in gas markets and assisted with the transition of those markets from jurisdictional gas market operators to the Australian Energy Market Operator in 2009. She holds a Bachelor of Arts from the University of Adelaide and a Bachelor of Law with First Class Honours from the University of Sydney.



Mr Richard Owens
*Executive General Manager,
 Transmission and Distribution
 Networks*

Mr Owens leads the AEMC team responsible for reviews and rule changes relating to the operation and economic regulation of electricity and gas networks. He was appointed an associate utilities commissioner for the Northern Territory Utilities Commission from 6 April 2018. He was a member of the taskforce for the Finkel review into the future security of the national electricity market, and previously worked as a regulatory and competition lawyer at DLA Phillips Fox and Chapman Tripp, and as principal legal advisor for the New Zealand Ministry of Economic Development. Mr Owens holds a Bachelor of Law with First Class Honours from New Zealand's University of Canterbury, and a Master of Laws from the University of Leuven in Belgium.

Work program 2017-2018





15 completed

8 underway
at 30 June

33 completed

22 underway
at 30 June

Projects



Reliability
Encouraging the right amount of investment in the power system's long-term capacity.



Choice and control
Helping energy shoppers to be more engaged and better informed



FOR CONSUMERS



Security
Making sure the power system can be operated within the correct technical range and keeping it strong enough to withstand faults and failures.



Gas
Stronger regulation of pipelines and monitoring the effectiveness of changes already underway

Rules

Requests for new rules or changes to the existing framework must come from outside the AEMC. Any government, regulatory body, organisation or individual can request a rule change and have it assessed against the national energy objectives.

A guide to the rule change process is available on our website. It includes information about how to submit a rule request or lodge a submission, and we provide further guidance when requested. The AEMC itself does not propose rule changes except for minor changes like corrections.

Stakeholders shape the design and regulation of the market through their participation in the rule change process, and the extent of their involvement has a direct impact on the quality of market outcomes. Active and early engagement assists the AEMC to develop a comprehensive understanding of the potential impacts of each rule change and make well-informed decisions.

Between July 2017 and June 2018, we completed 33 rule changes - the most completed in a single year since the AEMC's establishment in 2005. A further 22 were underway at 30 June 2018.

This amplification reflects market bodies' and governments' focus on maintaining security and reliability in the national electricity market; increased involvement by individual consumers in the rule change process; and concerns about retailer behaviour in light of the significant price rises faced by consumers in recent years.

This year:

- stakeholders submitted 28 new rule change requests
- we received 488 written submissions from stakeholders in relation to open rule changes
- we made 20 rules amending the National Electricity Rules
- we made four rules amending the National Gas Rules
- we made four rules amending the National Energy Retail Rules
- we made three determinations not to make a rule in response to electricity rule requests
- no rule change decisions were challenged by judicial review

Our reasons for making (or not making) a rule, including how our decision serves the long-term interests of consumers, are set out in the final determination for each rule change that is published on our website. Our decisions are subject to judicial review. A number of other accountability mechanisms including reporting obligations under the *Australian Energy Market Commission Establishment Act 2004* and the COAG Energy Council's Statement of Expectations also apply to the AEMC's performance of its functions.

Rule making timeframes

We seek to complete rule change processes as quickly as possible while recognising the importance of balancing broad public consultation with achieving the right outcomes for consumers.

The rule change process must be undertaken within the statutory timeframes required by the national energy laws.

The standard timeframe under law for a rule change is approximately 130 working days. We must start as soon as practicable after receiving a rule change request. To facilitate constructive consultation and encourage targeted feedback we start rule changes after an initial period of analysis and generally publish a consultation paper to facilitate stakeholder submissions.

Before we start the statutory process we make practical decisions about whether the standard timeframes are achievable given the request's scope and competing reform priorities. We are able to extend the timeframe both at the start of a project and throughout the process in certain circumstances which are specified in the national energy laws.

In 2017-2018 we extended four rule changes at initiation. All four of these rule changes were carried out under the expedited process, and the extensions were to allow for an increased timeframe of eight weeks in accordance with the recommendation made in the final report of the 2015 Review of Governance Arrangements for Australian Energy Markets. This allowed us to give proper consideration to the issues and their implications, while still completing these rule changes promptly – in a condensed timeframe much shorter than the standard rule-making process of six months.

We also extended 30 per cent of rule change processes after initiation, a significantly lower percentage than in 2016-2017 when we extended two-thirds of rule changes. While this lengthened the time taken to make the rules, many of these were extended because of the complexity of issues involved – for example in Five minute settlement and Generator technical performance standards – or, as above, to slightly extend the expedited process and allow for additional consultation in the case of Reinstatement of the long notice Reliability and Emergency Reserve Trader.

In some cases modifications to the standard timeframes also facilitate stakeholder participation in our engagement processes, which we recognise can be challenging when a single organisation is contributing to a number of concurrent AEMC rule changes or reviews as well as consultation processes being run by other market bodies.

Rule changes by category

The majority of rule changes follow the standard rule making process, but there are two exceptions: the expedited rule making process and the fast-track rule making process. The Commission may expedite the rule making process if the request is for a non-controversial or urgent rule (as those terms are defined in the national energy laws).

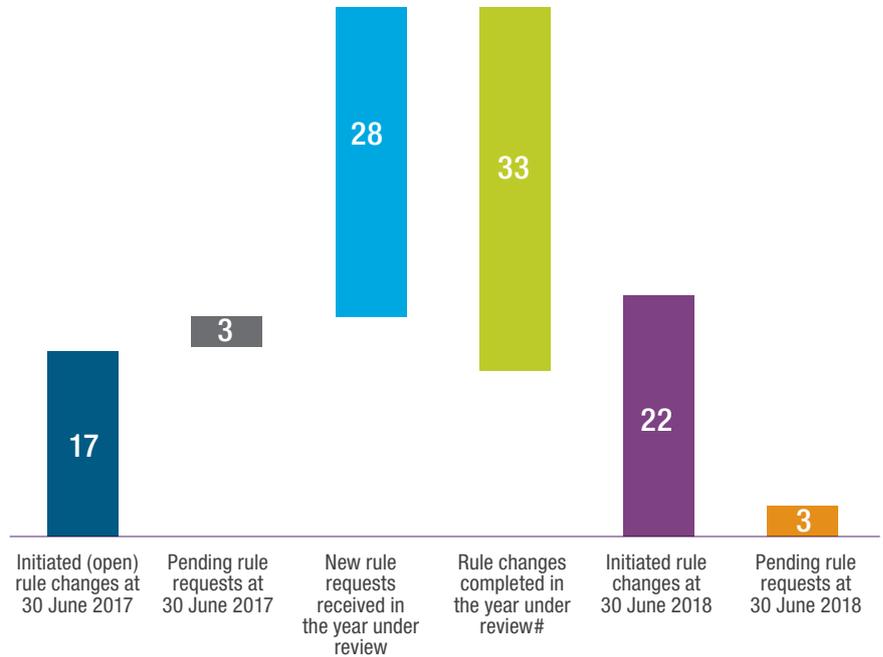
Under the expedited process there is only one round of consultation on the rule change and no draft determination is made. A final determination must be made within eight weeks of the initiation of the rule change request.

The rule making process can be fast tracked where there has been adequate previous public consultation on a proposed rule change by a market regulatory body, or if the request arises from an AEMC review. Under the fast-track process there is no consultation period before the AEMC makes a draft rule determination. The fast-track process is nine weeks shorter than the standard process.

Standard

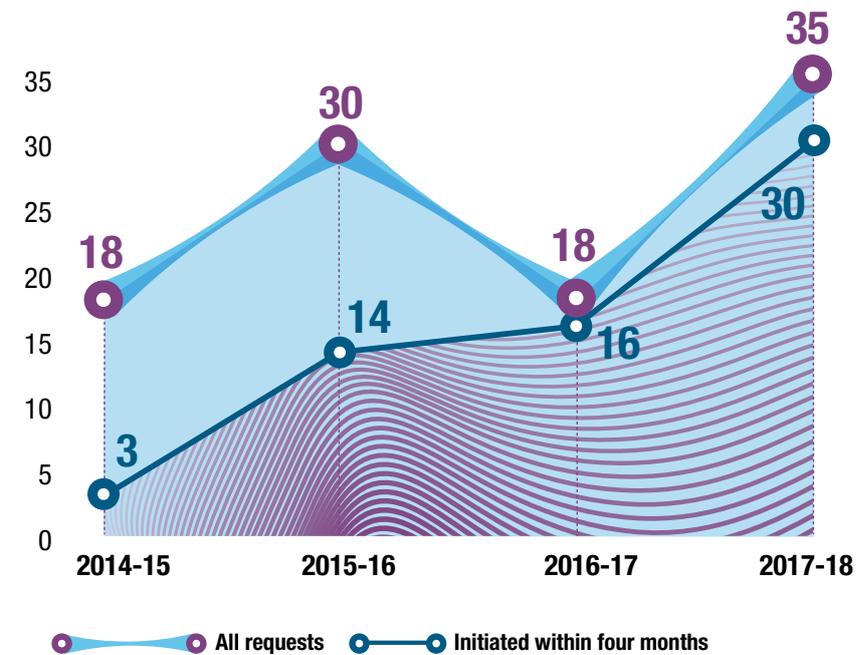
Sixteen standard rule changes were completed in the year under review. These rule changes were completed within 240 working days on average, compared with 271 days last year. This relatively long average timeframe is largely attributable to three complex projects: Non-scheduled generation and load in central dispatch (which included two consolidated requests), Five minute settlement and Inertia ancillary service market. Our decisions to extend these projects were informed by stakeholder views on the complexity of the issues under consideration and requests for extended consultation periods.

Rule changes requested, initiated and completed



Some single requests have resulted in the initiation of multiple related rule changes (electricity/gas/retail)

Rule changes initiated within four months



Expedited

We completed 16 expedited rule changes in 2017-2018, the highest number completed under this process within a year since our establishment in 2005. Fifteen of these were expedited as the rule change was non-controversial; one - Pricing during market suspension - was expedited due to the urgency of the change.

Shortly after the close of the year in review, the South Australian Parliament changed the legal requirements of the expedited process. From 20 September 2018, the period to complete expedited rule changes is eight weeks instead of six, which updates the process to be more fit for purpose.

Fast tracked

In June 2017 we initiated a rule request, Improvements to natural gas bulletin board, under the fast-track process. We received 10 stakeholder submissions and published a final determination in September 2017.

Timeliness

We received 28 new requests to change rules this year, compared with 17 last year.

Our timeliness in initiating rule change requests remained stable at 86 per cent. We initiated 35 new rule changes this year (excluding minor changes) and 30 of them were initiated within our target four month timeframe.

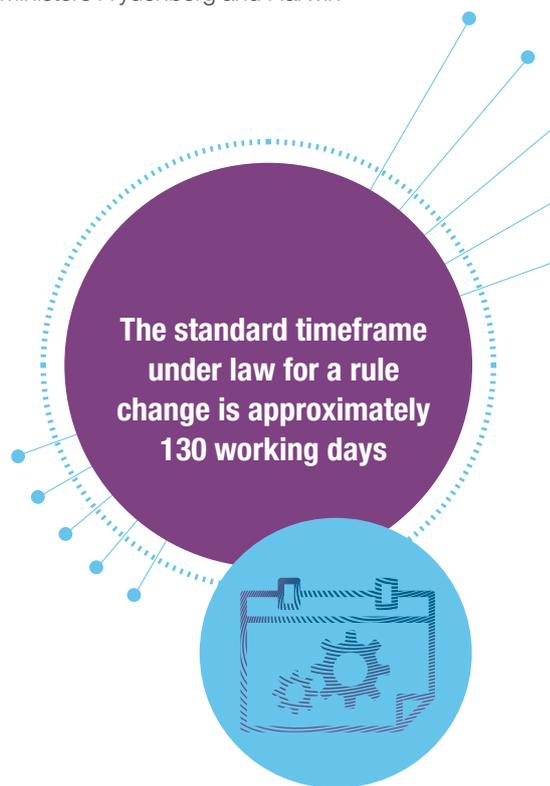
We completed 70 per cent of rule changes without extension after initiation this year, a significant improvement on the 33 per cent we achieved in 2016-2017. We have focussed on increasing our timeliness in direct response to stakeholder feedback received via our post-project surveys, in email correspondence and during one-on-one meetings.

Our new website includes a comprehensive forward calendar which contains all available information on upcoming publication dates for rule changes underway or pending.

Rule change request proponents

Proponent	Requests in 2017-2018
AEMO	11
Minister Josh Frydenberg*	6
AER	2
Australian Energy Council	2
COAG Energy Council	2
Dr Daryl Dodt	1
Minister Don Harwin*	1
Jemena Gas Networks	1
Dr Kerry Schott AO	1
Ms Kirsty Johnson	1
Reliability Panel	1

* one request was submitted jointly by Ministers Frydenberg and Harwin



Managing rule making timeframes

Standard rule change process

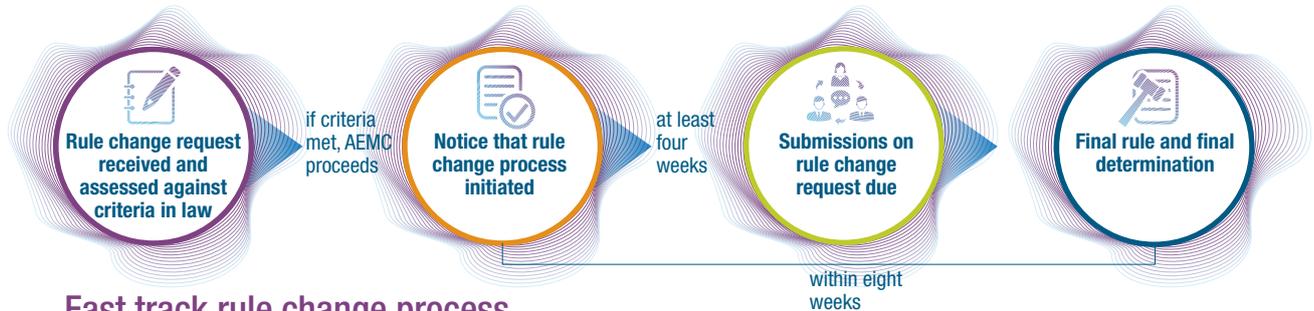
Approximately 130 working days



Expedited rule change process

Approximately 40 working days

The Commission may expedite the rule making process if the request is for a non-controversial or urgent rule (as defined in the national energy laws).



Fast track rule change process

Approximately 85 working days

The rule making process can be fast tracked where there has been adequate previous public consultation on proposed rule changes by a market regulatory body, or if the request arises from an AEMC review.



Reviews and advice

During 2017-2018 we completed 14 reviews and made one formal submission to a federal government inquiry into modernising Australia's electricity grid. A further eight reviews were underway at 30 June 2018.

We received 310 standard written submissions from stakeholders in relation to reviews we worked on this year. Independent advocate Solar Citizens also submitted a spreadsheet of 2493 concise submissions from their supporters in relation to the Distribution market model project.

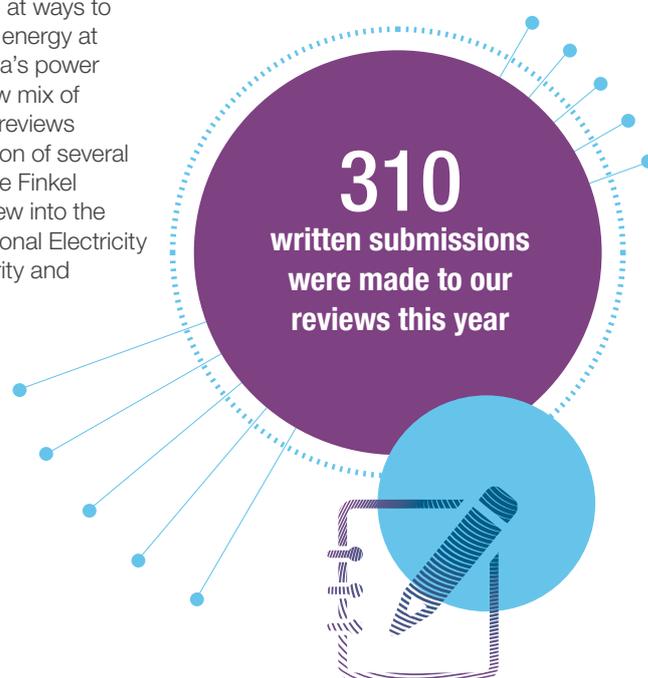
Eighty per cent of the reviews we completed this year were completed within the original terms of reference timelines. The timeframe for the publication of the AEMC's 2017 retail competition review was extended to 25 July 2017 to allow stakeholders the appropriate time to assess information in the Independent Review into the Future Security of the National Electricity Market, and the State of the Energy Market report from the AER, and consider our retail competition review in light of their findings. We also published the final report for the Electricity network economic regulatory framework review two weeks later than scheduled due to the volume of other work completed at the same time.

Ten new reviews were initiated in 2017-2018. Two were required by the rules and four were requested by the COAG Energy Council. State governments

asked the AEMC for advice on the clean energy target and on embedded networks and stand-alone systems.

The remaining two reviews, the Frequency control frameworks review and Reliability frameworks review were initiated by the AEMC.

The Frequency control frameworks review addressed concerns with frequency performance and considered how best to integrate new technologies and distributed energy resources into the system's security. The Reliability frameworks review looked at ways to deliver a reliable supply of energy at the lowest cost as Australia's power system transitions to a new mix of generation sources. Both reviews concluded the consideration of several recommendations from the Finkel Panel's Independent Review into the Future Security of the National Electricity Market that relate to security and reliability.



Reliability



When it comes to the power system, reliability and security are two different issue

Is there is enough electricity to go round?

A reliable power system must have sufficient capacity to produce and transport the amount of electricity consumers want.

To make sure reliability is maintained, we have a reliability standard in the National Electricity Rules. The current standard is 0.002 per cent, which means that for 99.998 per cent of the time in any given region, there should be sufficient supply to meet demand. The

value of customer reliability (VCR), is an estimate of the value that different types of customers place on having reliability electricity under different conditions, is an important input to setting the reliability standard and the determination of the market reliability settings of the market price cap and cumulative price threshold. The Reliability Panel completed a review of the reliability standard and settings in April 2018 and found that the current reliability standard and settings are achieving their purpose and that there is insufficient evidence to support a change to the price settings.

Why isn't the reliability standard zero?

With the increased public focus on reliability issues – and load shedding in particular – some commentators have suggested that the reliability standard should be zero, that is, that load shedding due to insufficient supply is no longer acceptable. They believe there should be enough electricity to meet demand not just 99.998 per cent, but 100 per cent of the time.

As system operator, AEMO is required to do all it can to keep the lights on, targeting 100 per cent reliability. There are a number of tools and options under the rules that help AEMO to do this including market intervention mechanisms like strategic reserves (such as the reliability and emergency reserve trading process), the ability to direct participants and access to data. We have work underway to promote transparency of the forecasting process, which is key to informing the market, while minimising the costs that will flow through to consumers, and to help AEMO operate the system differently as the generation mix changes.

But when these options have been exhausted, it is vital for AEMO to be able to keep the system in a secure operating state even if that means initiating managed load shedding.

Setting the level of the reliability standard involves a trade-off between the price that consumers pay for electricity and the cost to consumers of not having electricity there when it's needed. Getting the balance right avoids what some have called 'gold plating' – the building of capacity far in excess of what is actually needed at the present time.

Changing the reliability standard from 0.002 to zero could require billions of dollars of additional investment in both generation and electricity networks, inevitably resulting in higher prices for consumers.

Reliability frameworks review

The recommendations of the reliability frameworks review's final report were released 26 July 2018. They are about developing specific, targeted solutions to deliver the certainty of supply that customers want, at the lowest possible cost.

The Commission has and will continue to improve the regulatory frameworks that support the delivery of reliable electricity supply. These actions will encourage the efficient use of new technologies and businesses models to meet the needs of consumers at lowest costs, now and in the future.

This work addresses the need for the power system to be able to comprehensively meet consumer needs

at the lowest cost before the operator has to step in to intervene with higher cost safety-net options.

A key part of this work clears the way for energy users to participate directly in the wholesale electricity market to deliver lower-cost reliability. The Total Environment Centre (TEC) and Public Interest Advocacy Centre (PIAC) submitted a rule request on 31 August 2018 which is in line with the review's recommendations and seeks to better integrate demand side participation in the wholesale electricity market.

Australia's power system is in transition to a new mix of generation sources as more wind and solar power and demand response enters the market, while old generators are closing at the end of their economic lives. As the generation mix changes, the AEMC proposes to expand the regulatory framework to encourage efficient adoption of new technologies and demand response, supported by more transparent forecasting, to help deliver system reliability.

It's essential that our regulatory framework encourages the right amount of investment in the power system's long-term capacity. These recommendations support clear investment signals for the right generation to be built to support consumer needs.

The final report recommends adoption of a new mechanism for consumers to offer demand response in the wholesale market, to be informed by AEMO and ARENA demand response trials.

Energy users can play a vital role by turning off or reducing power use at very high demand times. This can help keep costs down by avoiding unnecessary investment in generation that's only used for a few days a year. That's why the Commission has recommended actions to remove barriers to demand response and give service providers additional tools to make it easier for consumers to choose to 'power down' in response to price signals from the wholesale market.

Reliability frameworks review recommendations

Integrate more demand response into the wholesale market through:

- a wholesale demand response mechanism, informed by AEMO and ARENA trials
- a voluntary, short-term forward market that allows trading of financial contracts closer to real time
- subject to the outcomes of trials, giving consumers the ability to contract with multiple retailers or aggregators at the same connection point (multiple trading relationships)
- continuing to explore how new ways of forecasting can improve wholesale market signals and underpin more efficient operational decisions
- adapting the intervention framework – including directions, instructions and strategic reserves – so it is fit for the changing power system and only used when necessary to keep costs down.

Improve the transparency and consistency of forecasting information so decisions made by market participants, the operator, regulators and policy makers are better informed.

Continue to explore how new ways of forecasting can improve wholesale market signals and underpin more efficient operational decisions.



Adapt the intervention framework – including directions, instructions and strategic reserves – so it is fit for the purposes of a changing power system and only used when necessary

Security

Is the power system operating with the technical parameters like frequency and voltage in the correct range and is the system able to withstand faults and failures?

The power system needs sufficient inertia which is currently produced by the large spinning turbines of synchronous generators like hydro, gas, coal and biomass to keep frequency at normal levels. This inertia – or momentum – is what lets the system ride through sudden disturbances, such as a fault caused by a lightning strike, and maintain the frequency within the required limits.

Uncontrolled frequency deviations can cause blackouts. Voltage that is too high can damage equipment; too low and equipment can be damaged, operates inefficiently or doesn't work at all.

Australia has committed to emissions reduction targets and an increasing proportion of renewable generation is entering the system, especially in South Australia. But non-synchronous generators like wind and solar currently provide little or no inertia.

Areas of the power system with a high proportion of non-synchronous generation also have relatively low system strength. They have less ability to recover from sudden equipment failures before voltage collapses or the devices designed to protect the power system fail to operate correctly, and blackouts happen.

What is the AEMC doing to deliver a more secure power system?

Immediately after completing our self-initiated system security market frameworks review in June 2017, and concurrently with a number of rule changes resulting from that workstream, the AEMC initiated the Frequency control frameworks review and Reliability frameworks review.

The Reliability Panel also started its 2017 annual market performance review, looking at the performance of the national electricity market in terms of reliability, security and safety over the 2016-2017 period.

The Reliability Panel's final report, published in April 2018, determined that

we're not facing an immediate reliability problem because there is enough generation capacity in the power system over the short and medium term to meet the reliability standard. This is due to a range of factors including declining power consumption, more investment in demand response and increasing uptake of newer generation technologies including wind, solar PV and battery storage which are filling the gaps left by retiring coal-fired generators.

The Panel's conclusions on security were different. It identified 11 instances during the previous financial year when the system was operating outside its secure limits for greater than 30 minutes. It also reported that Tasmania did not meet the frequency operating standard for seven months from October 2016 to May 2017.

Through a number of rule changes, the AEMC has already introduced a package of new tools which commence from July 2018 to help AEMO address the immediate system security issues resulting from the changing generation mix. These include requirements for networks to provide minimum levels of inertia and system strength, and new 'last line of defence' schemes to help AEMO better prepare for, and respond to, a system security emergency. The rules provide networks with adequate time to deliver these services.

Supporting a reliable and secure power system at least cost to consumers.

We initiated the frequency control frameworks review to address concerns with frequency performance in the national electricity market, consider how best to integrate faster frequency control services offered by new technologies into the current regulatory and market arrangements and remove barriers to distributed energy resources participating in system security frameworks.

The reliability frameworks review looked at ways to deliver a reliable supply of energy at the lowest cost as Australia's power system transitions to a new mix of generation sources.

Shortly after the close of the year in review, we published final reports for the frequency control frameworks review, the reliability frameworks review and the electricity network economic regulatory framework review 2018.

The package of recommendations and reforms outlined a number of concrete and practical changes that are necessary to accommodate significant changes in electricity generation and consumption and to improve reliability, security and regulation of Australia's power system at the least cost.

The three reports delivered on eight key recommendations from the 2017 Finkel review. These recommendations are another step towards a resilient power system that can efficiently serve energy users into the future, without imposing unnecessary costs on consumers.

Key changes include:

- clearing the way for energy users to participate directly in the wholesale electricity market to facilitate greater demand management and delivery lower-cost reliability
- improving the transparency and consistency of forecasting supply and demand and the regular reporting of frequency variations in the market to inform decisions for generators, large users, retailers and the market operator, and the revolution of future policy

Both the reliability frameworks review and frequency control frameworks review recommended some further rule changes and a work program to follow. The AEMC and AEMO continue to work cooperatively to address system security problems.

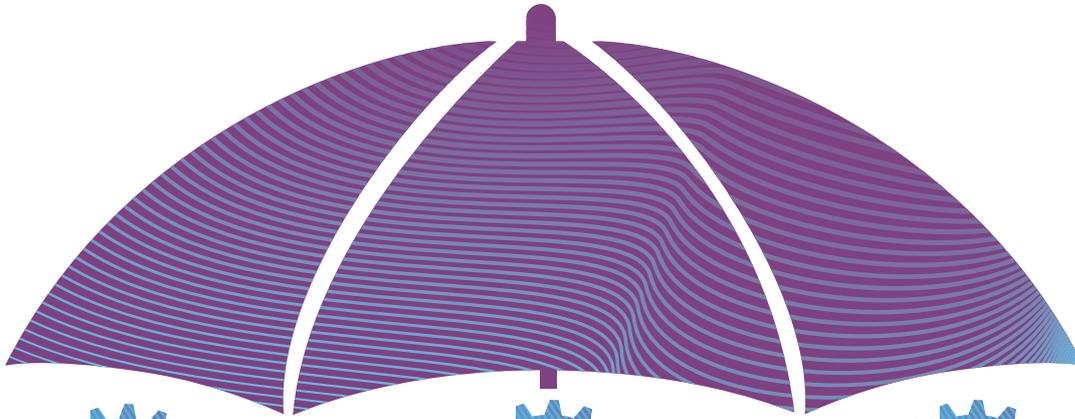
What's next?

The AEMC will begin consideration of other ways in which network regulation may need to change in the future to support a grid where an ever-increasing number of consumers are generating energy as well as consuming it. The economic regulatory framework review 2019 will look at changes required to develop arrangements that better align capital expenditure and operating expenditure incentives.

Through our coordination of generation and transmission investment review we are looking at ways to improve the coordination of generation and transmission investment so new electricity supply can be added to the system at the lowest possible cost. A directions paper to be published in September 2018 will focus on how the regulatory framework could accommodate a more strategic approach to transmission planning.

System security market frameworks review

Delivering a more secure power system



Giving AEMO the tools it needs to keep the power system secure



Strengthening the power system to withstand faults and failures



Keeping frequency operating within the correct range



Generator technical performance standards

creating the foundation for a secure, least cost transition as new generators with different technical characteristics join the power system



Emergency frequency control schemes
a new management framework for the 'last line defence' mechanism to help prevent system-wide blackouts



Managing the rate of change of power system frequency
working with AEMO to assess the required level of primary frequency control from generators



Generating system model guidelines
helping AEMO manage the changing power system by requiring generators and networks to provide more detailed information about how their equipment performs



Managing power system fault levels
requiring networks to maintain minimum levels of system strength to keep the system stable



Reliability Panel review of the frequency operating standard
assessing whether the existing standard is appropriate to maintain a secure power system as the generation mix changes



Register of distributed energy resources
giving AEMO and distribution network businesses more data to help keep the power system secure and safe, and to enable more accurate forecasting of consumer demand



Managing the rate of change of power system frequency
requiring networks to maintain required minimum levels of inertia to keep the system secure



Frequency control frameworks review
looking at ways to integrate new technologies and demand response to help keep the system secure

Frequency control frameworks review

The frequency control review was undertaken this year to identify the next steps to be taken by our long-term reform program to underpin a future power system that is secure. The review's final report was released on 26 July 2018 and details actions to be taken by the AEMC, AEMO and the AER to support better frequency control.

The work undertaken as part of this review adds to the toolkit we've already put in place to address the challenges of intermittent generation. Intermittent generation, exit of older power stations and emergence of different technologies. There are two parts to this. The first is making changes now that help inform on-the-ground decisions for generators, large users, retailers and the market operator, and future policy decisions. The second is making further changes that might be needed to improve the stability of electricity supply in the future once evidence is in from the trials which AEMO will be conducting, such as on integrating virtual power plants.

The AEMC and the Finkel Panel have previously identified the system

security challenges associated with the transformation of the energy sector as newer types of electricity generation, like wind and solar connect, and conventional forms of electricity generation like coal, retire. In addition, the formerly passive demand side is becoming increasingly engaged in energy markets through uptake of new technologies and services, like solar PV, storage and demand response. These technologies are changing the way in which these consumers draw electricity from, and export electricity to, the broader power system.

These challenges are reflected in the mixed security performance of the power system in 2016-2017, resulting in a less secure power system and in some cases load being shed. Undertaking work to improve security outcomes in the national electricity market is therefore a priority. Stable frequency is an important part of maintaining a secure power system. Frequency varies whenever electricity supply does not exactly match consumer demand and uncontrolled changes in frequency can cause blackouts. The report includes actions to make the most of existing equipment as well as harnessing the power of new technologies to help keep the power system stable.

The gradual shift toward more variable sources of electricity generation and consumption, and difficulties in predicting this variability, increases the

potential for imbalances between supply and demand that can cause frequency disturbances. The frequency control frameworks review responds to the specific challenge of maintaining good frequency control as the power system changes, and removing inefficient barriers to the provision of essential frequency control services by new technologies.

As the generation mix changes we need new ways to control frequency to deliver better frequency performance across the system. This will include new rules and operating techniques, and more transparent and regular reporting of frequency performance to inform investment and operating decisions. To date, the AEMC has made a series of rule changes to address the immediate system security needs of the transforming system. This includes requirements for networks to provide minimum levels of inertia and system strength, and new last line of defence schemes to help AEMO better prepare for, and respond to, system security emergencies. The review has identified other issues that still need to be addressed through a longer-term, collaborative work plan, which is set out in detail in the final report. The AEMC will progress its part of the work plan, and continue to work closely with AEMO and other stakeholders so the security needs of the system can be achieved at least cost.

Frequency control frameworks review recommendations

AEMO-led trials and other actions will help determine how frequency performance can be improved in the short term and new business models like virtual power plants can be integrated.

Detailed consideration of ways to procure essential frequency services in the longer term in a way that recognises the capabilities of all potential technologies and service providers.



New rules to enable new technologies and service providers to provide frequency control services.

Regular reporting by AEMO and the AER on frequency outcomes to promote transparency and help market participants make investment and operational decisions.

Fast and flexible energy

The AEMC has made a final rule to change the settlement period for the electricity spot price from 30 minutes to five minutes, starting in 2021. This will align settlement and dispatch.

This fundamental change will bring long-term benefits for electricity consumers.

Providing an improved price signal that is aligned with the physical needs of the electricity system will result in more efficient bidding and operational decisions in the wholesale market. Over time this flows through to lower wholesale costs (which make up around one third of a typical electricity bill) which should lead to better prices for consumers.

Investment in newer technologies

Five minute settlement will also provide clearer incentives for efficient investment in technologies which can respond to price signals quickly, like batteries and demand response. With more wind and solar generation entering the market, along with the retirement of ageing thermal generators, there is an important role for fast response generation and services to fill the gaps when the wind isn't blowing and the sun isn't shining.

Enhanced security

More fast response technologies can also enhance power system security because they are able to respond in real time to variations in the intermittent generation which makes up an increasing proportion of the available supply. Developments such as aggregating distributed battery storage, next generation gas peaking plants and faster start demand response are already happening, but this rule change will provide a greater financial incentive to invest in these services.

Transition period

Why wasn't five minute settlement implemented when the national electricity market began operating in 1998?

The 30 minute settlement interval reflects limitations in metering and data computational resources at that time. These resources were not sophisticated enough to handle any finer detail than half hourly pricing.

One of the challenges associated with moving to five minute settlement is the fact that financial transactions, data and IT systems were all designed around a five minute dispatch and 30 minute settlement framework.

A transition period of three years for the move to five minute settlement was necessary to give industry and contract markets time to adjust to this major change. In addition to contractual positions, there are also implications for metering and participants' IT systems. Implementation periods of two to four years were required for aligning settlement and dispatch in the United States and New Zealand.

The timeframe balances the need to capture the benefits of moving to five minute settlement as soon as possible against the transitional costs and risks. It also gives industry a timetable for building and developing new fast response generation and technologies in preparation for the change in three years' time – so this investment can start happening now.

What's next?

AEMO will govern and oversee the implementation of five minute settlement. The AEMC acknowledges the breadth and depth of implementation required and recommends that market participants begin transitioning to five minute settlement without delay, in consultation with AEMO.

More affordable energy and consumer protection

Improving trust and transparency is the key challenge for retailers in delivering a better deal for energy consumers.

Every year the AEMC shines a light on the state of retail competition in electricity and gas markets to see if small customers are having their needs met. The review looks at what's working, what's not, and makes recommendations to help customers access the deals that are best for them.

Our 2018 retail energy competition review, published in June, found that higher prices combined with complex and confusing energy offers have driven consumer confidence to new lows. While competition in the retail energy

sector continues to evolve, it is currently not delivering the expected benefits to consumers.

We will see financial benefits for people who are able to engage with market transformation and use smart meters, residential solar PV and battery systems to take control of their energy usage and bills. But this risks the burden of increasing costs for those who are unable to make changes and have to stay on the traditional energy supply model.

It's imperative that appropriate consumer protections are in place, and that retailers do more to actively promote them, so vulnerable consumers and small businesses are not left behind. Concern about retailer behaviour – from consumers and government – is driving an increase in the number of retail rule change requests submitted to the AEMC.



Reforms are enabling innovation in technology and pricing. There is nothing stopping retailers from being more cost-competitive

2018 retail competition review recommendations

- AEMC to assess whether changes to the national energy customer framework (NECF) are required to protect consumers receiving services from new energy service providers
- AEMC to assess how retailers support customers in financial difficulty
- retailers and comparison service providers to establish an industry code of conduct, and if this isn't established - that regulatory measures are considered
- all comparison websites to display the proportion of retailers and plans represented on their site
- AER to report on customer numbers, switching rates and contract types for residential and small business customers
- AEMC to work with industry to make data on electricity contracts available to the market to make the wholesale cost of energy more transparent

We have already made two new rules which are part of a package of initiatives resulting from the Australian Government's roundtable discussions with energy retailers in August 2017.

Putting a stop to electricity discounting that leaves consumers worse off

Discounting can work to benefit consumers as long as the details are properly disclosed, but dodgy discounts designed to confuse consumers are not acceptable.

The preventing discounts on inflated energy rates rule prohibits electricity retailers from making discounts appear bigger than they actually are. It aims to stop pseudo-discount deals that leave consumers worse off.

In detail, it will prohibit retailers from discounting off market retail contracts where all the rates in the contract (such as usage rates and daily charges) are above the equivalent rates in a standing offer. In these cases, before discounts, consumers would be worse off compared to the standing offer.

Advance warning to shop around

Households and small businesses often sign up to electricity and gas deals with rewards like price discounts or movie tickets. Customers may not be aware when these benefits end or change, and could be left financially worse off as a result.

The notification of end of fixed benefit period rule requires retailers to let customers know when benefits they have signed up to are about to end.

Notices must include the date on which the customer's benefits will change and a reference to the energy comparison website www.energymadeeasy.gov.au, which provides information on a range of alternative deals for energy shoppers.

The new rule is expected to reduce the number of customers remaining on contracts with expired or reduced benefits, or rolling onto "standing offers" which tend to be higher priced. It will also increase consumer engagement and improve retail competition.

What's next?

Three additional rule change requests from Minister Josh Frydenberg are underway:

- Advance notice of price changes which proposes requiring retailers to provide clear and concise price change notices at least five business days before the price changes come into effect. This will give people more time to take action, like shopping around for a better deal.
- Estimated meter reads which consolidates separate rule requests relating to inaccurate estimated meter reads from Minister Frydenberg, Dr Daryl Dodt and Ms Kirsty Johnson. The proposed rule would allow customers to have their electricity or gas bill based on their own reading of the meter. This could reduce the risk of customers being exposed to higher bills based on overestimated energy use, or having to repay significant sums due to previous bills based on underestimated energy use.

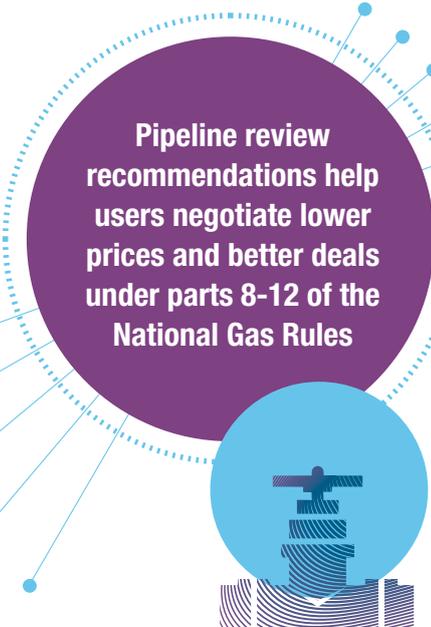
- Metering installation timeframes which, if made, would require retailers to provide customers with new electricity meters within a defined timeframe, enabling them to access new products and services sooner.

Unless advised otherwise by the COAG Energy Council, the AEMC will initiate a review in January 2019 to look at the support options retailers provide for customers in financial difficulty, and how these operate with required hardship provisions. The review will benchmark and identify best practices.

In March 2019, unless advised otherwise by the COAG Energy Council, we will also commence work on assessing whether changes to the national energy consumer framework are required to protect consumers receiving services from new energy service providers.

Finally, the ACCC report on retail electricity pricing contains a number of recommendations consistent with those made by the AEMC. The COAG Energy Council is considering the ACCC's package which if adopted, will include further work for the AEMC.

Making it easier to buy and sell gas



Pipeline review recommendations help users negotiate lower prices and better deals under parts 8-12 of the National Gas Rules

Gas markets are transforming. Isolated point-to-point pipelines have evolved into an interconnected network with two-way flows.

As the market evolves, the AEMC's gas market reforms, including our reviews of the east coast gas market and Victorian gas market, will make it easier and cheaper to move gas around Australia to where it is needed and valued most by consumers. This helps keep gas and electricity prices as low as possible.

Helping gas pipeline users negotiate lower prices and better deals

Just after the close of the year in review, the AEMC released a package of recommendations for stronger regulation of gas pipelines.

The recommendations follow a request from the COAG Energy Council to undertake a review of Parts 8-12 of the National Gas Rules to address concerns that customers may be paying more than necessary for gas pipeline services.

The changes we have recommended will help pipeline users negotiate lower prices and better deals for shipping gas. Gas users, like manufacturing businesses, that rely on gas, gas-fired electricity generators, and retailers who supply small businesses and households will be better off as a result.

Under this package, more pipeline services will be subject to access arrangements which set out prices, terms and conditions for pipeline users and are approved by the regulator. Prices would be set at more efficient levels, contract terms would be more balanced, and arbitration would act as a more credible back-stop if negotiations fail.

The AEMC has also recommended giving regulators oversight of a wider range of pipeline services, and allowing all stakeholders, including pipeline users, to have more input into regulators' decisions on appropriate prices, services and conditions. This would mean pipeline users are better represented and better protected.

In developing these recommendations, the AEMC worked closely with the ACCC as it continued its gas market inquiry, the AER, the Economic Regulation Authority of Western Australia and the Gas Market Reform Group. Stakeholders also provided valuable input in a series of workshops and bilateral meetings.

Monitoring changes and the effectiveness of reforms

The AEMC will undertake a biennial review to track growth in liquidity in wholesale gas and pipeline trading markets. As implementation of the complete reform package will take several years, the first review, which was initiated in January 2018, will focus on providing a baseline for future reviews.

Baseline measures will enable the AEMC to track progress and assess the effectiveness of reforms and the case for further reform to wholesale gas and pipeline trading markets over the longer term. Broadly, the biennial reviews will:

- monitor changes in liquidity in the wholesale gas and pipeline capacity trading markets
- report on the effectiveness of reforms in the east coast and Victorian gas markets
- identify the need for any further reforms, if appropriate.

The draft report, published in April, found liquidity on the gas supply hub at Wallumbilla has increased over the past two years. This positive change was reflected in almost all metrics of liquidity that formed part of the analysis.

Where information was available, metrics were also calculated for other facilitated gas markets including the gas supply hub at Moomba, the short-term trading markets, the Victorian DWGM and pipeline capacity markets. Results for these other markets were more diverse across all metrics.

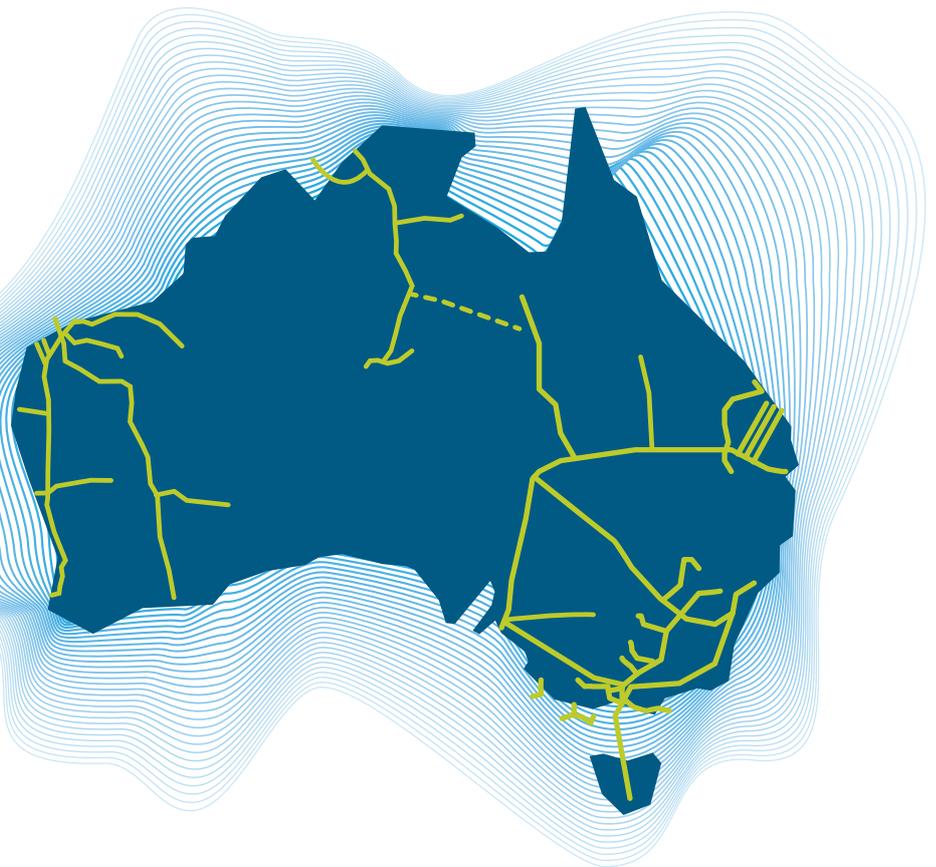
The draft report noted that with only two years of data, it is too early to assess the trends for gas market liquidity from these initial metrics. Also, because the gas supply hub at the Moomba location has only been in operation since June 2016, more time should be given for any of the related liquidity metrics to develop.

The first biennial review's final report is due to be published in August 2018.

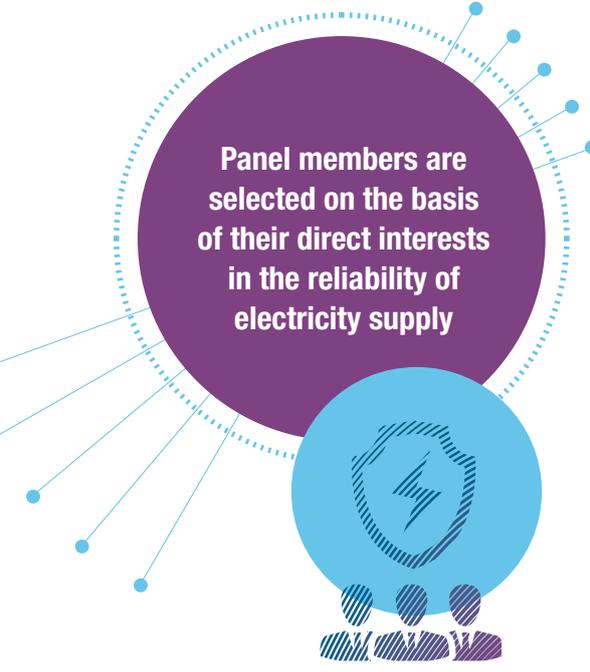
Scope of gas rule making powers

We make rules for the northern and eastern gas markets. This includes the facilitated wholesale markets of the Victorian declared wholesale gas market, the short term trading market located in Adelaide, Sydney and Brisbane, and the gas supply hub operating in Moomba and Wallumbilla. Our rule-making powers also cover the economic regulation of transmission and distribution pipelines, operation of the east coast Bulletin Board, and retail markets and consumer protections for small customers.

Amendments made to the National Gas Rules by the AEMC in relation to the economic regulation of transmission and distribution pipelines also apply to the western gas market.



Reliability Panel



Panel members are selected on the basis of their direct interests in the reliability of electricity supply

The Reliability Panel is comprised of members who represent a range of participants in the national electricity market, including AEMO, generators, network businesses, consumers and large end users. The Panel determines standards and some of the guidelines used by AEMO and participants which help to maintain a secure and reliable power system for consumers.

The Panel's work program is set by requirements in the rules and through terms of reference received from the AEMC.

The National Electricity Law sets out the key responsibilities of the Panel.

These include:

- to monitor, review and report on the safety, security and reliability of the national electricity system
- at the request of the AEMC, to provide advice in relation to the safety, security and reliability of the national electricity system.

Reliability standard and settings

The reliability standard and settings are determined by the AEMC and set out in the National Electricity Rules, based on advice from the Reliability Panel.

The reliability standard is an expression of the maximum expected level of electricity at risk of not being supplied to consumers in any national electricity market region.

The reliability settings are the price mechanisms underpinning the reliability standard and provide a price envelope in which the wholesale market operates. The settings are comprised of:

- the market price cap
- the administered price cap
- the cumulative price threshold
- the market floor price.

Under the National Electricity Rules, the Reliability Panel is required to carry out a review of the reliability standard and reliability settings every four years. This regular review allows the Panel to take into account any changes in market arrangements and consider whether the reliability standard and reliability settings remain suitable, or whether changes should be made to ensure these mechanisms continue to meet the requirements of the market, market participants and consumers.

The reliability standard and settings review 2018 was completed in April 2018. It found that the current reliability standard and settings are achieving their purpose and that there is insufficient evidence to support a change to the settings.

In reviewing the standard and settings, the Panel modelled a range of different futures - including a world with more household battery storage systems and more wind generation. It also factored in the current state of uncertainty in the market and how the market is transforming.

Setting the reliability standard involves a trade-off between the prices consumers pay for electricity and the cost to consumers of not having electricity there when it's needed. In undertaking this review, the Panel was cognisant of getting the balance right to avoid what some have called 'gold plating' with excess capacity built but not required for years.

The Panel noted that removing the difference between the current standard of 99.998 per cent of demand met and 100 per cent could require considerable additional investment in generation and electricity networks measured in the billions of dollars.

Work program

In 2017-2018 the Panel completed two reviews – the reliability standard and settings review 2018 and the 2017 annual market performance review. The review of the frequency operating standard was underway at 30 June. At the conclusion of stage one, the Panel made a new frequency operating standard implementing changes already made to the national energy rules through the Emergency frequency control schemes rule and providing clarification and further guidance about how AEMO operates the power system, particularly in relation to different types of contingency events.

The Panel's annual review of security, reliability and safety

The 2017 annual market performance review, which looked at the power system's performance for the 2016-2017

financial year, found there is enough generation capacity over the short and medium term to meet the current reliability standard.

But we still have a problem. Keeping things like frequency and voltage within secure technical limits is becoming more challenging. The fundamental changes underway, as coal-fired power stations continue to close at the end of their operational lives and the proportion of weather-driven generation like wind and solar increases, are helping the nation meet its emissions reduction targets but are also making the system harder to control.

In 2016-2017 the power system dropped outside secure technical limits for greater than 30 minutes on 11 occasions, including South Australia's system-wide blackout.

The electricity rules require the system to be returned to a secure state within 30 minutes after an incident. Failure to do so risks damaging equipment and can turn short supply interruptions into much longer ones.

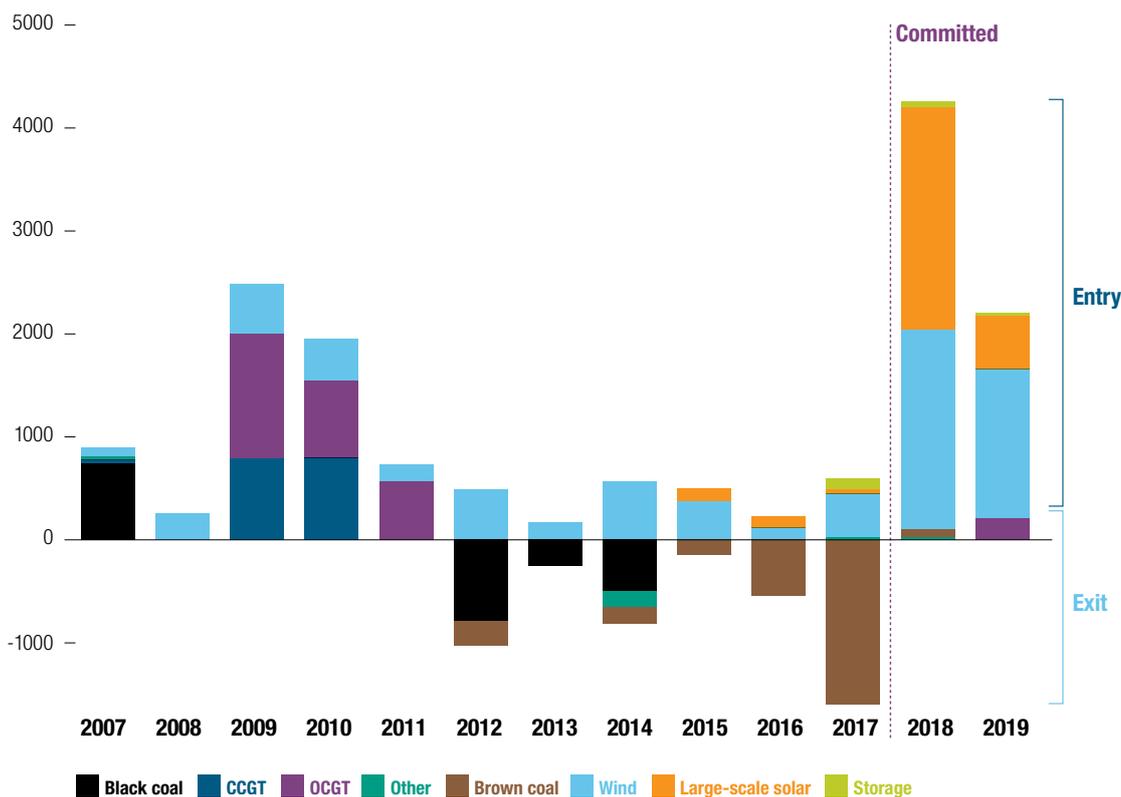
Eleven incidents within 12 months is historically high, up from seven the year before, four in 2014-2015, and two and one in the years prior.

This report underlines the importance of the AEMC's work program to secure the power system in light of the changing generation mix.

Fixing system security involves many small technical measures. We have already made several rules to help the immediate situation, and there are more to come. Each on their own may not sound dramatic but they are vital to securing the system for consumers.

In 2018-2019 we will continue to work closely with AEMO and other stakeholders to progress the identification and resolution of security issues so that the changing power system can continue to operate for the benefit of consumers.

The generation mix is changing: renewables are entering and gas and coal-fired generators are being retired



Panel members at 30 June 2018

We would like to express our gratitude to Neville Henderson who served as Chair of the Reliability Panel from 3 November 2009 until his retirement from the AEMC on 16 February 2018.

In August 2018, the Sun Metals Chief Financial Officer and Executive Director, Ms Kathy Danaher, was appointed as a discretionary member on the Reliability Panel until 31 August 2021, representing major energy users.



BRIAN SPALDING (CHAIR)

Dr Spalding, Commissioner at the AEMC, has held key implementation and operational roles in national and state electricity markets since their conception in the early 1990s. He was Chief Executive Officer of the National Electricity Market Management Company (NEMMCO) where he was responsible for the operation of the national electricity market and power system for south and eastern Australia. Prior to joining the AEMC he was Executive General Manager Operations of the Australian Energy Market Operator.



LANCE BALCOMBE

Mr Balcombe, Chief Executive Officer of TasNetworks, is the transmission network service provider representative on the Panel. He was appointed CEO of TasNetworks in 2013. His previous roles included executive management positions at Hydro Tasmania, most recently that of Chief Financial Officer, and a similar role with Incat.



MARK COLLETTE

Mr Collette, Executive – Energy at Energy Australia, is a discretionary member of the Panel. He has worked for EnergyAustralia since 2003 where he is responsible for all aspects of the company's wholesale operations and commodity trading activities. In former roles, Mr Collette held executive responsibility for wholesale markets, corporate strategy and development, policy and government affairs and commercial and industrial sales.



TREVOR ARMSTRONG

Mr Armstrong, Ausgrid's Chief Operating Officer, joined the organisation as a cadet engineer in 1986 and has spent the past 30 years working in various roles including Executive General Manager System Planning & Regulation, and Executive General Manager Transmission & System Operations. He was appointed as Ausgrid's Chief Operating Officer in 2012.



ROYCE DESOUSA

Mr DeSousa, General Manager – Energy & Sustainability, is responsible for energy at Visy Industries, a multinational packaging and recycling company, and is a discretionary member of the Panel. His focus includes energy supply, energy efficiency, carbon management, and diversified energy generation including renewable energy. Prior to working in energy, Mr DeSousa was a process, project and maintenance engineer in Visy's paper mills.



GAVIN DUFTY

Mr Dufty is St Vincent de Paul Society, Victoria's Manager of Policy and Research. He represents end-use customers of electricity on the Panel. He has worked in the community welfare sector for more than 20 years. During this time Mr Dufty has produced a number of reports focusing on the cost of living with particular emphasis on energy.



MILES GEORGE

Mr George is the former Managing Director of Infigen Energy, having retired at the end of 2016, and is currently a Strategic Adviser for Infigen. He has more than 20 years of experience in the infrastructure and energy sectors in Australia, the United States and Europe. Over the past 15 years, Mr George has focussed on business development, investment, financing and management in the renewable energy industry. He represents generators on the Panel.



CHRIS MURPHY

Mr Murphy, Strategic Advisor at Meridian Energy and General Manager – Energy Market Interfaces for Telstra, is a discretionary member of the Panel. In previous roles in the electricity industry he has been responsible for distribution revenue, system-wide load forecasting, tariff development and regulatory affairs.



CAMERON PAROTTE

Mr Parotte is AEMO's Executive General Manager of Strategy and Innovation, and leads the organisation's work on ensuring the integrated energy systems in Australia remain secure and affordable while realising Australia's clean energy policies. He joined AEMO in January 2016, initially focussing on the transfer of system management from Western Power as part of the Western Australian electricity market reforms; and then leading all AEMO WA market and system operations. Prior to joining AEMO, Mr Parotte held leadership roles in Western Power, the major WA electricity network utility, in areas including system operations, network operations, transmission planning and design.



RICHARD WRIGHTSON

Mr Wrightson, Executive General Manager Wholesale Markets for AGL Energy, is the market customer representative on the Panel. The Wholesale Markets team is responsible for the procurement, trading and price risk management of AGL's wholesale electricity, gas, oil, carbon and renewable requirements. In his former roles, Mr Wrightson worked on a wide range of issues including setting up retailing, risk management, power station dispatch and wholesale trading activities.

Commissioner Charles Pople was appointed as the permanent acting chair to enable him to take responsibility for Panel meetings when the current Chair, Dr Brian Spalding, is not present.

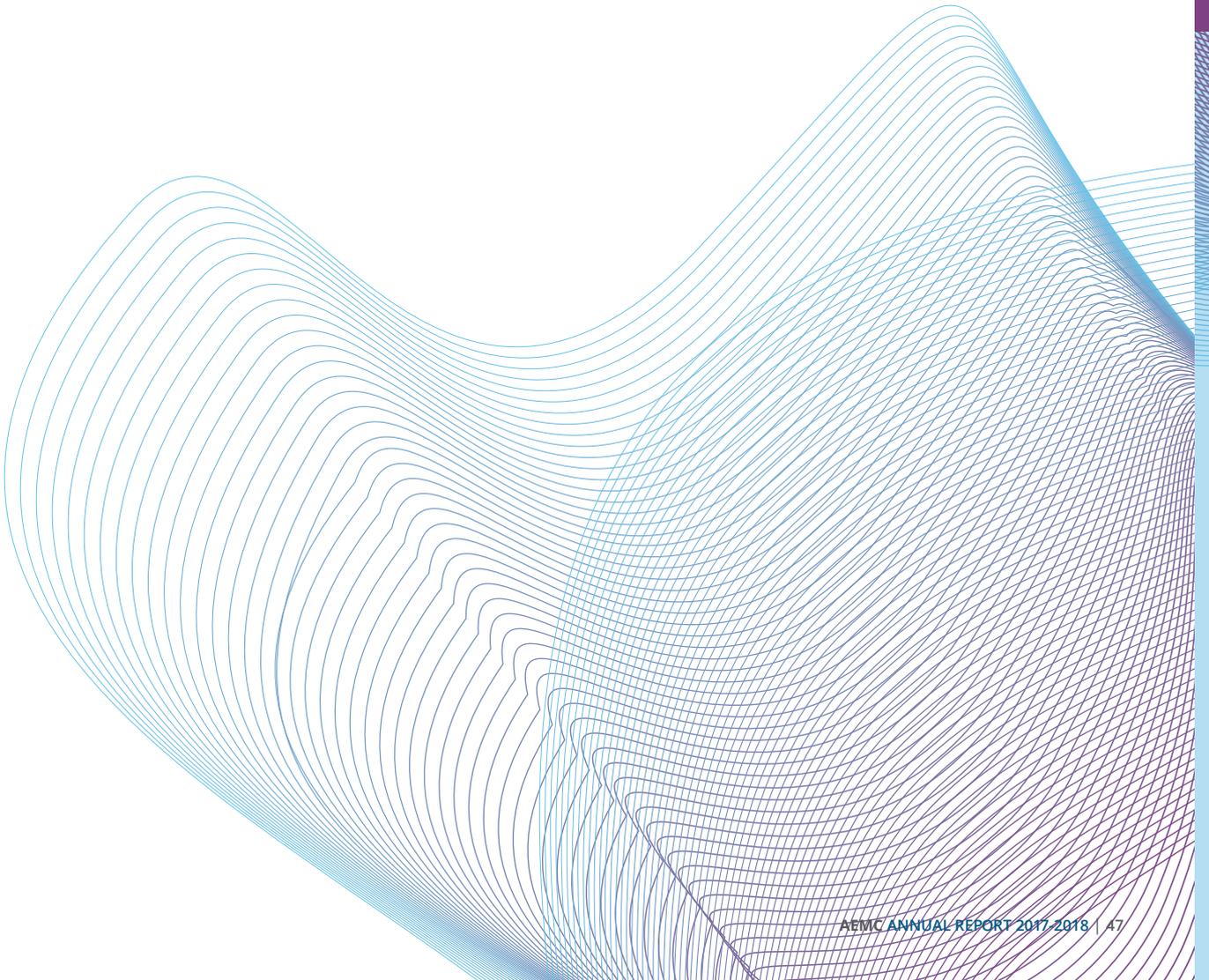


CHARLES POPPLE

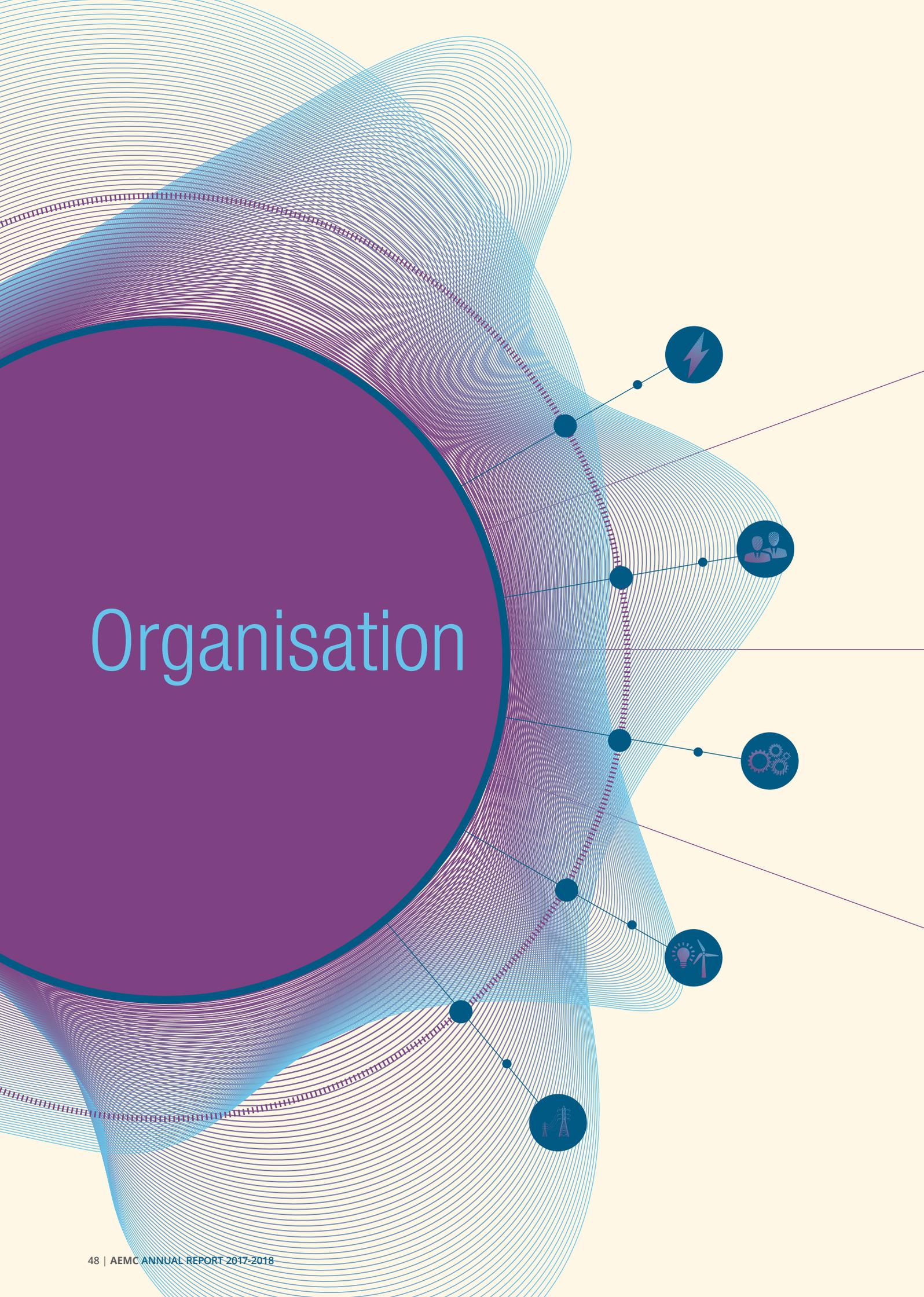
Mr Charles Pople was appointed as a part time Commissioner of the AEMC on 17 February 2018. He has spent more than four decades in the energy network sector. In the 1990s he played a significant role in the development of the National Electricity Market including reform of the network sector and the implementation of transmission system planning and pricing arrangements. He has also held management roles with Victorian Power Exchange, VENCORP, SPI PowerNet and SP AusNet. As a consultant, his focus was on energy markets and regulatory arrangements, with a view to achieving a balance between security, environmental challenges, and competitive pricing and products for energy consumers.

Reliability panel meetings 2017-2018

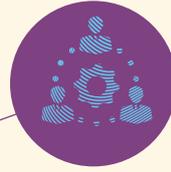
Member	Organisation and position	Market segment	Term expiry	Panel meetings	
				Eligible	Attended
Current members as at 30 June 2018					
Brian Spalding (Chair)	Chairman and AEMC Commissioner	AEMC	18 Apr 2019	6	6
Trevor Armstrong	Chief Operating Officer, Ausgrid	DNSPs	31 Dec 2019	13	10
Lance Balcombe	Chief Executive Officer, TasNetworks	TNSPs	17 Dec 2018	13	9
Cameron Parrotte	Executive General Manager Strategy and Innovation, AEMO	AEMO	N/A	10	10
Mark Collette	Executive Energy, EnergyAustralia	Discretionary	31 Dec 2018	13	11
Royce DeSousa	General Manager – Energy and Sustainability, Visy	Discretionary	31 Aug 2018	13	8
Gavin Dufty	Manager Policy and Research, St Vincent de Paul Society, Victoria	End use customer of electricity	31 Dec 2019	13	11
Miles George	Strategic Adviser, Infigen Energy	Generators	17 Dec 2018	13	10
Chris Murphy	Strategic Advisor, Meridian Energy and General Manager – Energy Market Interfaces, Telstra	Discretionary	31 Dec 2020	13	13
Richard Wrightson	Executive General Manager, Wholesale Markets, AGL Energy	Market customers	31 Dec 2020	13	7
Observers					
Stephen Jarvis	TasNetworks for Lance Balcombe	TNSPs	n/a	1	1
Sam Sofi	Ausgrid for Trevor Armstrong	DNSPs	n/a	1	1



Organisation



972
stakeholder
meetings



798
submissions



37
public forums



Organisation

Stakeholders

Effectively engaging with people and organisations interested in Australia's energy market provides valuable input to our rule making and our strategic advice to governments. We encourage a frank and open exchange of ideas to understand the implications of changes that we make and to build an understanding of the reasons for our decisions.

We engage frequently with energy market participants and the broader industry through stakeholder reference groups, forums, written submissions, workshops and meetings around specific rule changes and reviews. The effectiveness of stakeholder participation in the process determines the quality of the rule change decision or review recommendations and subsequent market outcomes.

In addition to project-specific engagement, we engage with the energy industry on broad market development issues. Industry and consumer representatives are also part of the Reliability Panel.

The AEMC places an ongoing focus on providing clear, accurate and relevant information, using processes and communication channels that make it easy for stakeholders to engage with us. The refresh of our website was a significant step forward in this direction.

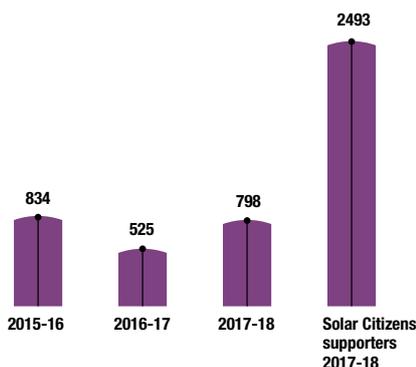
Submitting a rule change request

A unique aspect of the energy market and regulatory change process in Australia is that anyone can submit a request to change the arrangements. Rules can be changed in response to requests submitted to us by individuals, consumer groups, industry or governments.

The AEMC's website includes step-by-step guidelines to assist individuals or organisations in preparing a rule change request. If a proponent is unsure about whether their request satisfies the relevant statutory requirements, we encourage them to speak with us for help in framing an appropriate response for submission.

In 2017-2018 we received two requests from individual consumers in relation to electricity meter readings. We commend their initiative in participating in the

Submissions received from stakeholders



Our new website

In February 2018 we relaunched the AEMC website after extensive consultation with representatives from key stakeholder groups. The website is the central source of information about rule changes and reviews and archives all reports the AEMC has published since our establishment in 2005. It's where you can register for workshops, lodge submissions, submit rule requests, and sign up for our weekly e-newsletter and direct email alerts of new projects prior to initiation.

We also introduced an expanded calendar to increase awareness and transparency of future publication dates and make it easier for stakeholders to manage their engagement with us.

market's processes. Their requests have been initiated and were consolidated with a related request from Minister Josh Frydenberg.

Stakeholder feedback on our consultation processes

As part of our commitment to identifying ways in which we can improve our engagement and communication, this year we invited 657 stakeholders to participate in one or more quarterly online surveys about projects in which they were actively involved, for example by making a submission or attending a public forum.

The 14 projects we surveyed were selected to source feedback from a wide range of stakeholder types across different focus areas.

We were pleased to receive responses from 22% of individuals who shared their opinions about how we interacted with them and provided valuable recommendations about steps we can take to enrich our stakeholder engagement.

The average rating this year was 6.8 (out of 10), which was slightly lower than last year's result of 7.2. Two-thirds of respondents rated the AEMC's overall approach to the review or rule change they participated in as quite good, very good or excellent (7 or more out of 10).

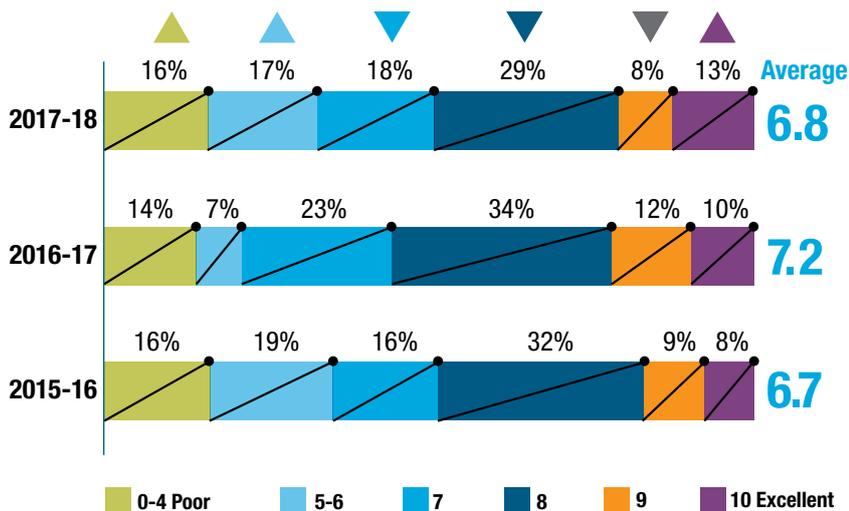
In a year of considerable stakeholder concern about energy issues we made particular efforts to dedicate more staff and time to engagement activities and we note a three point rise in the number of people prepared to give the AEMC full marks (10 out of 10) for consultation excellence.

In response to feedback received from surveys we recently created a new pending notifications process. Stakeholders told us they would prefer to receive information about projects before the consultation paper is published to give them more time to prepare submissions. On an opt-in basis, we now send a brief email to subscribers when a new rule change request is published on the AEMC's website.

In a year of considerable concern about energy issues we dedicated more staff and time to engagement



Overall ratings of AEMC approach to consultations



1000
formal meetings and
public forms with an
emphasis on more face
to face engagement



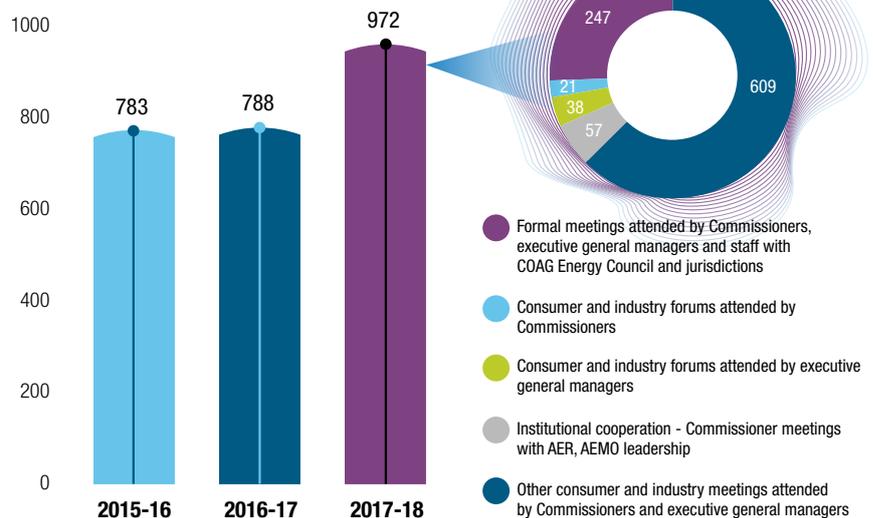
Increase in extent of engagement

Between July 2017 and June 2018 key AEMC staff participated in almost 1000 formal meetings and forums with governments, market bodies, industry and consumer groups; a significant increase on last year's total. This year we particularly focussed on expanding opportunities for direct contact between our Commissioners and stakeholders through collaborative meetings rather

than more formal presentations at conferences and forums. The increase in meetings between our Commissioners and the AER and AEMO's boards reflects our reciprocal participation in the work of the Energy Security Board.

We also received and assessed 798 formal written submissions to rule changes and reviews, and a spreadsheet of 2493 concise submissions from Solar Citizens supporters in relation to the distribution market model project.

Formal meetings – rising engagement



Case study: Five minute settlement and stakeholder engagement

Seven papers and reports published

One infographic, one fact sheet and seven information sheets

20 industry representatives who participated in working group meetings

112 meetings with stakeholders

90 stakeholders who attended the public forum or webinar

Nine forum presentations given by consumer and industry representatives

Four forum presentations given by AEMC staff

114 written submissions

44 post-project surveys completed by stakeholders

Engagement with the Energy Security Board

The Energy Security Board is comprised of an Independent Chair, Independent Deputy Chair and the most senior leaders of the AEMC, AER and AEMO.

It is responsible for the implementation of recommendations from the Independent Review into the Future Security of the National Electricity Market (Finkel Review). In October 2017 it provided the COAG Energy Council with advice on changes to the national electricity market and legislative framework. The Energy Security Board proposed a National Energy Guarantee with a focus on maintaining the system's reliability and achieving Australia's international emissions reduction commitments at the lowest overall cost.

Along with our market body colleagues, the AEMC has provided secretariat support, and policy and legal resources to progress the Energy Security Board's work program. The Commission is playing a direct role in the delivery of more than half of the Finkel review's recommendations. The Commission's expertise in using robust analysis and best practice stakeholder engagement to design lowest cost regulatory solutions contributes to the ESB's ability to deliver solutions to energy market challenges.

A particular focus for the Commission has been addressing the Finkel

recommendations relating to power system security including a range of new obligations, information requirements and tools to help manage the power system as it changes.

The Commission's extensive knowledge and understanding of the interlinkages across energy market and regulatory frameworks put us in a unique position to contribute to ESB projects that span multiple policy areas. This includes drawing on Commission analysis to contribute to the ESB's work to improve transmission planning frameworks, providing advice on strategic priorities for the energy sector, and reporting on the health of the national electricity market.

Engagement with international energy market bodies

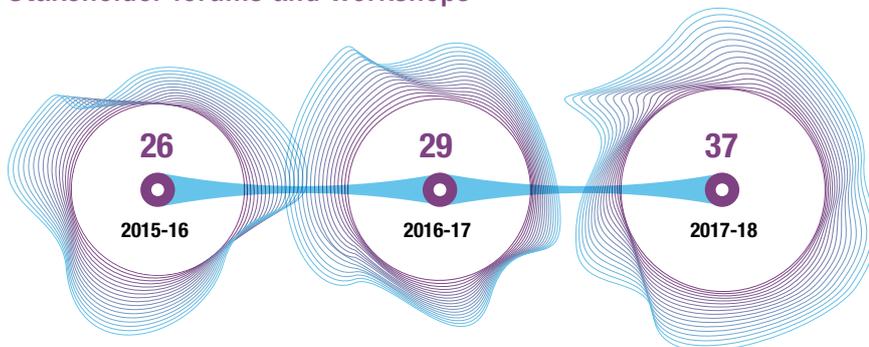
The AEMC actively engages with international energy market bodies that cooperate on global issues affecting energy markets. Our Commissioners and executive leadership team meet regularly with representatives from the New Zealand Electricity Authority and Ofgem, the UK's Office of Gas and Electricity Markets.

International engagement enables us to benefit from the experience of others and provides a forum to share insights drawn from the high quality analytical work undertaken by Australia's own energy market institutions.

The AEMC is a member of the International Confederation of Energy Regulators (ICER) – an international body whose membership includes more than 200 regulatory authorities around the world. ICER's aim is to improve policy-makers' awareness and understanding of energy regulation and its role in addressing energy regulation issues in an international context. Through ICER, regulators exchange information about good practices in energy regulation. The AEMC representative on the ICER Steering Committee is our Chief Executive, Ms Anne Pearson.

This year Chairman John Pierce and Director Shari Boyd spoke at the World Forum on Energy Regulation in March 2018. Executive General Manager Chantelle Bramley participated in a panel discussion on the transition of the Australian energy system at the November 2017 Bloomberg New Energy Finance Global Summit in Shanghai, and Executive General Manager Suzanne Falvi represented the AEMC at the Second International Regulatory Futures Workshop in New York.

Stakeholder forums and workshops



Our people

The AEMC has a unique offering for its people: as advisers and rule makers in the dynamic sector of energy, our work has a far reaching impact. We're passionate about our contribution to the energy industry, working collaboratively and consultatively, and applying the highest professional standards in all that we do. Through our employee recognition program we celebrate the outstanding achievements of our people, and our organisational values of leadership, engagement and integrity.

Resourcing and succession planning

A key component of our people strategy is to establish an active pipeline of candidates to support the timely recruitment for replacement and new positions, and to support the retention and career development of our people. In line with our expanding program of work, since 1 July 2017 we have recruited 22 people, 50 per cent of whom are in our policy areas, including three graduates. We provide a comprehensive graduate program and plan to recruit a further two graduates in the 2018-2019 financial year.

Career development

Providing career development opportunities for our people is an important component of our engagement and retention strategy. This includes strengthening the leadership pipeline and offering lateral career moves to develop skill breadth.

Since 1 July we have made six internal appointments. To resolve interim resourcing gaps and provide experiential

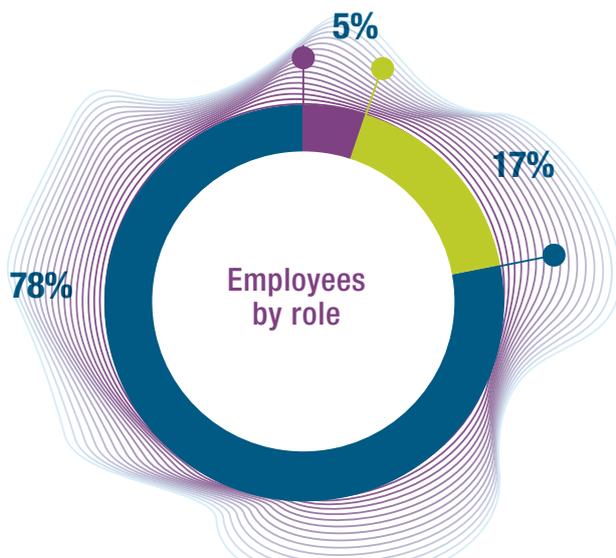
learning that supports career development of our people, we seek to provide opportunities for our people to step into acting roles.

Building capabilities

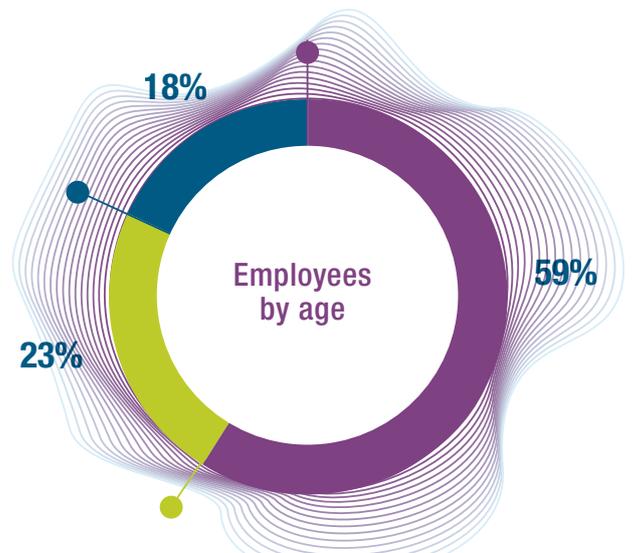
We encourage continuous learning and support further study in the field of economics as it relates to the work of the AEMC through our scholarship program, and offer study assistance to employees completing relevant post graduate qualifications.

Leadership development

As part of our succession planning we have delivered our first leadership development program to our director and senior adviser level employees. The program provided the 34 participants with the opportunity to build leadership perspective, skills and capabilities. The aim of the program is to create sustained and ongoing organisational impact by cultivating a coaching culture which supports continuous learning and performance excellence.



- Staff directly associated with rules and market development project delivery
- Corporate support (includes administration, operations, human resources, finance and IT)
- Commissioners



- up to 30
- 31-45
- 45+

This year the AEMC introduced a Chief Executive forum hosted by Anne Pearson, providing our people with an opportunity to hear from external senior leaders about their leadership journey, influences and observations.

Technical skills development

Ongoing technical and professional development is a key component of our learning and development program. We have held 23 lunch and learn sessions, covering a broad range of topics. This popular series has had a total attendance of more than 380 people, averaging 17 employees per session. This is an opportunity for our people to share their expertise, as well as providing access to subject matter experts to facilitate discussion on particular topics.

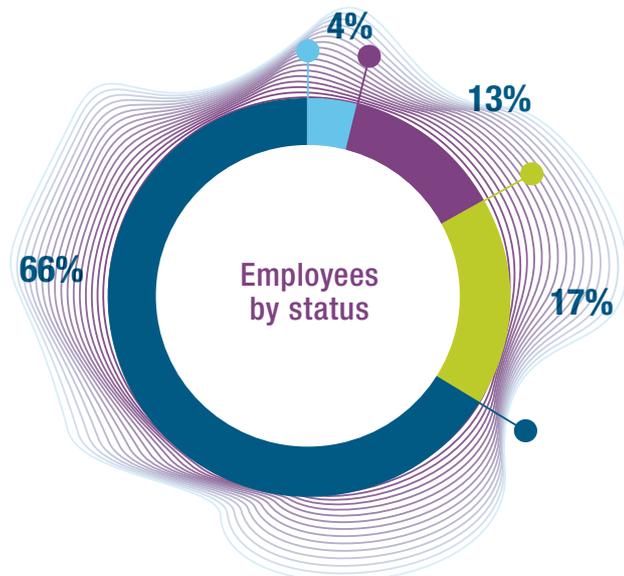
Additionally we continue to support our people to build technical expertise and to keep abreast of industry knowledge by participating in conferences, seminars and targeted individual training aligned to personal development plans.

Professional development

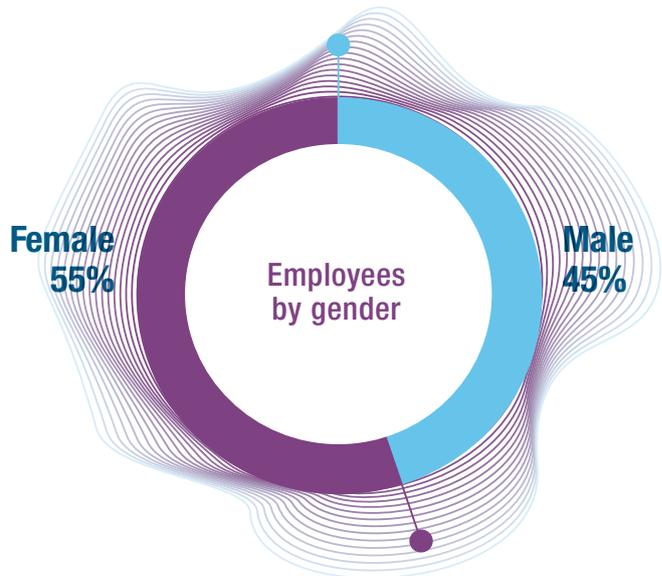
To continue our focus on organisational effectiveness we delivered a series of workshops targeted at developing core communication skills across the organisation. This program was made available for all of our people and incorporated effective business writing, presentations skills development, as well as embedding a problem-solving framework which will be introduced by a group of internal program champions to assist in productivity and efficiency initiatives across the organisation.

Diversity

We are focussed on maintaining an inclusive culture where our differences are harnessed to create operational strengths. This includes providing the opportunity to work flexibly, and technology which supports this. Seventeen per cent of our people work part time. Ensuring gender diversity across the organisation is also important; 63 per cent of our executive leadership team are female. We have also had a 100 per cent return rate from parental leave.



■ Permanent full time ■ Permanent part time
■ Fixed term ■ Casual



Health, safety and wellbeing

The primary focus of our work, health and safety strategy is prevention and early intervention. We take a practical approach to risk management in which our health and wellbeing program forms an integrated part of our work, health and safety management plan. The aims of the program are to support a positive organisational culture that values its people; build awareness and provide education in relation to health and wellbeing; assist in the prevention of injury and ill-health by providing our people with strategies and opportunities for early intervention and support; and promote health through interventions such as flu vaccinations.

Over the course of the last year we have specifically targeted sedentary work and lifestyle habits by changing our physical work environment to provide sit/stand desk solutions and workspaces that better facilitate collaboration, supported by education on positive ergonomic practices. Additionally, we provided an integrated wellbeing program which holistically assessed individual wellbeing and provided tailored support strategies. Twenty-five people participated in the program on a voluntary basis.

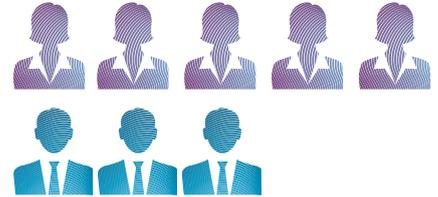
We continue to support the psychological wellbeing of our people through our employee assistance program to provide a solutions-focussed service to employees and their immediate families.

We monitor and measure the wellbeing and engagement of our people. This information assists us in continually developing our strategy to ensure the program is relevant and that our WHS framework is effective.

Employee feedback

In June we conducted our annual employee engagement survey. We have partnered with a specialist external provider who applies an industry standard approach to measuring engagement and employee experience, which will provide an external benchmark and latest practice methodology to understand what we are doing well, and key areas where we can improve. We will look at the health of our culture, how our processes and systems support our people, learning and development, our communication practices and leadership.

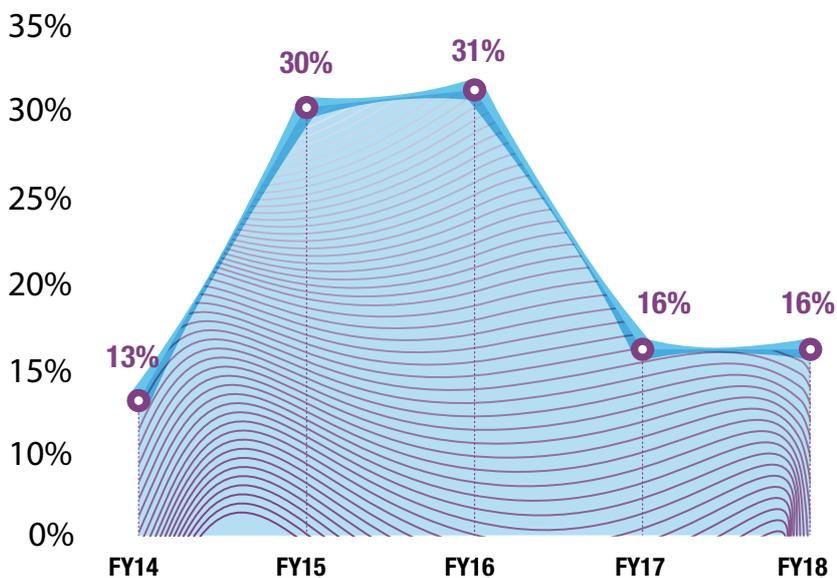
Executive leadership team by gender



Commissioners by gender



Staff turnover



Target 10%-20% balancing retention of corporate knowledge with infusion of new ideas.

Governance

An independent review of our risk assessment framework was conducted this year and found that appropriate mitigation measures were in place and being implemented.



Three new Commissioners were appointed this year, taking the Commission to full strength

Legislative framework

The AEMC is a body corporate established under South Australian law and its key functions and powers in relation to the making of national energy rules and market reviews are set out in the national energy laws (Part 4, National Electricity Law; Part 2, National Gas Law; Part 9, National Energy Retail Law) and the Australian Energy Market Commission Establishment Act 2004 (SA).

In addition to its powers and functions under these laws, the AEMC is required to comply with a number of South Australian, New South Wales and Commonwealth laws relating to such matters as record keeping, information disclosure, financial reporting and employment related matters. For example, the AEMC complies with the Fair Work Act 2009 (Cth), New South Wales work health and safety laws and South Australian laws such as the Freedom of Information Act 1991 (SA), the Public Finance and Audit Act 1987 (SA) and the State Records Act 1997 (SA).

Memoranda of understanding

To assist in the performance of its operations, the AEMC has entered into Memoranda of Understanding (MOU) with the following organisations:

- Australian Energy Regulator
- Australian Competition & Consumer Commission
- National Competition Council
- Australian Energy Market Operator
- Essential Services Commission of Victoria
- Independent Competition and Regulatory Commission of the ACT
- Office of the Tasmanian Economic Regulator
- Energy and Water Ombudsman New South Wales

- Energy and Water Ombudsman Queensland
- Energy and Water Ombudsman Victoria
- Energy and Water Ombudsman South Australia
- Energy Ombudsman Tasmania

Corporate responsibility

AEMC Commissioners are appointed by Australia's state, territory and federal governments to make the rules under the national energy laws, and to advise governments on overall energy market development. The Commissioners are supported by the AEMC's executive leadership team and staff. Together they discharge rule making and market development roles in line with the AEMC's code of conduct which requires AEMC staff to act with fairness, honesty, impartiality and integrity in all our dealings.

Key performance indicators

The AEMC's statement of intent sets out how the AEMC will meet the COAG Energy Council's expectations through the AEMC's strategic priorities and work program. It also sets out the AEMC's deliverables and performance indicators to measure its performance in meeting those expectations. Our KPIs cover these areas:

- organisational development and budget management
- progress on the work program
- engagement with stakeholders.

Performance

The AEMC's workload has continued to increase; we completed 33 rule changes this year and initiated 86 per cent of new requests within the target timeframe of four months. Seventy per cent of rule changes were completed without extension after initiation, a significant improvement on our 2016-2017 result of 33 per cent.



The Commissioners review the corporate governance framework of the organisation, its strategic priorities and business plan

Our turnover remained within the target range at 16 per cent, and our engagement with the leadership of AEMO and the AER increased significantly.

Two reviews were completed within slightly longer timeframes than requested, and we also experienced a minor non-compliance issue in relation to the timing of one rule change. Stakeholders were notified of an extension, but the notice was not correctly published in the relevant newspapers.

We initiated surveys for 29 per cent of completed projects in which we asked stakeholders to provide feedback and recommendations on our engagement processes. Our next stakeholder satisfaction survey will be conducted in early 2019.

The Commission and executive leadership team

The five Commissioners exercise the AEMC's statutory rule making and market development functions, subject to some delegations as explained below.

Most of the functions relating to the management and day-to-day

running of the organisation are the responsibility of the Chief Executive and the executive leadership team. The Commission retains the majority of the statutory rule making powers and market development functions, and is also responsible for the AEMC's strategic direction. The Chief Executive and executive leadership team have delegations in relation to some statutory decisions, including initiation of rule changes, and a range of other operational matters, including the employment of staff and engagement of consultants.

The Commissioners review the corporate governance framework of the organisation, overseeing the development of the AEMC's strategic priorities and business planning, and approving corporate development initiatives as proposed by the Chief Executive with the executive leadership team. The Commission holds monthly organisational meetings to review operational matters.

In terms of risk management and reporting, the Commissioners review the AEMC's budget, monitor its financial performance, and consider and approve the annual financial statements.

Statement of Intent key performance indicators

Area	Measure	2015-2016	2016-2017	2017-2018
Organisation				
Budget management	Annual expenditure is within +/-5% of initial budget	-5.2%	-1%	0.2%
Staff management	Staff turnover, on average, of between 10% and 20% per year (to reflect proactive management of underperformance and retention of key staff)	31%	16%	16%
Staff development	100% of staff have objectives and personal development plans which are reviewed annually	100%	100%	100%
Effective governance	Annual management review of risk assessment framework and implementation of appropriate internal audit work program	Completed	Completed	Completed

Area	Measure	2015-2016	2016-2017	2017-2018
Work program				
Rule requests	75% of requests initiated within four months of receipt	47%	89%	86%
	100% of rule changes made within statutory timelines (including where extensions are requested)	100%	100%	97%*
Rule change extensions	Proportion of rule change processes that are extended	32%	67%	30%
Rule change challenges	0% of rule change challenges are upheld	No challenges	No challenges	No challenges
Market reviews and advice	85% of reviews completed within original Terms of Reference timelines	100%	80%	80%
Efficient resource use	Proportion of FTE and total budget spend on rule making, reviews and advice	FTE: 83.4%	100%	FTE: 83% Total budget: 86%
Stakeholder engagement				
COAG Energy Council and jurisdictions engagement	Number of formal meetings attended by Commissioners and/or staff with Council and/or jurisdictional leads	206	199	247
Commissioner forums	Number of consumer and industry forums attended by Commissioners	45	23	21
Staff-led forums	Number of consumers and industry forums attended by AEMC staff	43	46	38
Institutional cooperation	Number of meetings between Commissioners and AEMO and AER leadership	35	28	57
Stakeholder satisfaction survey (survey every three years)	At least 7 out of 10 stakeholders satisfied with the AEMC's performance	70% of stakeholders gave a rating of 7 or more out of 10 on their overall opinion of the AEMC	The next survey will be conducted in 2019	The next survey will be conducted in 2019
Consultation process surveys	Develop project-specific stakeholder satisfaction surveys and ensure at least 25% of projects initiate survey upon project completion.	29% of completed projects surveyed.	28% of completed projects surveyed.	29% of completed projects surveyed.

*This was a minor non-compliance issue for one rule change. Stakeholders were notified of an extension, but the notice was not correctly published in the relevant newspapers.

Commission statutory and governance meetings 2017-2018*

Area	Measure	Statutory meetings		Organisational meetings	
		Eligible	Attended	Eligible	Attended
Neville Henderson	19 October 2017 to 16 February 2018	25	22	7	6
John Pierce	2 June 2015 to 1 June 2020	38	29	12	8
Charles Popple	17 February 2018 to 16 February 2023	13	13	5	5
Michelle Shepherd	11 June 2018 to 10 June 2021	3	3	1	1
Brian Spalding	19 April 2016 to 18 April 2019	38	37	12	11
Allison Warburton	12 March 2018 to 11 March 2022	12	12	4	4

*Commissioner absences were noted in relation to Energy Security Board commitments

Conflicts of interest

Under Section 22 of the Australian Energy Market Commission Establishment Act 2004 (SA), Commissioners must disclose any direct or indirect conflicts of interest in any matter the AEMC is considering. These disclosures are formally minuted and published on the AEMC website. The following declarations of interest were made by Commissioners in 2017-2018.

Mr Pierce is appointed in a full time capacity and does not consider that his commitments give rise to any conflicts that require management. Mr Pierce is currently a member of the UNSW Australian School of Business Advisory Council. He is also a board member of the Regulatory Policy Institute Advisory Board and the Department of Economics Industry Advisory Board at Macquarie University, and Adjunct Professor in the Office of the Pro Vice Chancellor (Business), Griffith University.

Dr Spalding is appointed in a part time capacity. He is currently a member of the Energy Saving Scheme Committee and the Energy Networks Regulation Committee of the Independent Pricing and Regulatory Tribunal, and was an advisor on the New South Wales Energy Security Taskforce.

Dr Spalding makes the following statement about the arrangements he has put in place to manage (perceived or actual) conflicts of interest:

1. Any potential involvement on my part in matters relating to the energy sector, which are not within the jurisdiction of the AEMC, would be disclosed to the Chairman of the AEMC before being involved in such matters to ensure no potential conflict may arise.
2. Confidential information obtained in my capacity as a Commissioner will not be disclosed or used for purposes other than the proper purposes.

Mr Popple is appointed in a part time capacity and does not consider that he has any current commitments or interests that give rise to conflicts that require management.

It is noted that between the date of Mr Popple's appointment on 17 February 2018 and 2 March 2018 Mr Popple held shares in AusNet Services Limited. No statutory decisions of the Commission were made in that period and Mr Popple disposed of his shareholding on 2 March 2018.

Ms Warburton is appointed in a part time capacity. She was a partner of law firm Minter Ellison prior to her appointment as a Commissioner and currently holds a pecuniary interest in Minter Ellison Administration Pty Ltd for the purposes of enabling a distribution from the firm's service entity for the 2017-2018 year. In order to manage any perception of conflict, Ms Warburton will absent herself from any decision of the AEMC to appoint external legal counsel to provide advice or representation on any matter until the relevant interest is disposed of or redeemed. This is expected to occur by no later than 30 June 2019.

Ms Shepherd is appointed in a part time capacity and does not consider that she has any commitments that give rise to conflicts that require management.

Audit and risk management

Risk management is a fundamental component of managing our operations. Our processes to identify, assess and manage risk include:

- Audit and Risk Management Committee monitoring of the overall risk management framework, financial reporting processes, processes for compliance, performance of auditors and oversight of the audit program

- a broad based risk assessment process which is used to develop a rolling three-year internal audit plan and to inform risk management activities
- a risk appetite statement which is shared with all AEMC staff
- the corporate planning processes which prioritise actions based on assessed risks
- the identification and management of compliance areas on a functional basis with legal support where necessary
- the project control framework which is used for all rule change and review projects. This includes the creation of a risk register, where relevant, and the active management of identified risks.

Audit and risk management committee

The AEMC's Audit and Risk Management Committee is comprised of:

- Mr Jim Mitchell - independent Chairman
- Allison Warburton - AEMC Commissioner and Committee member [replacing Brian Spalding who stepped down as a member of the Audit and risk management committee in April 2018]
- Ms Jane Byrne - independent Committee member

Mr Mitchell currently holds appointments as the independent Chair of the Audit and Risk Committee for a range of government agencies including the New South Wales Department of Education. His former roles include Deputy Auditor-General of the Audit Office of New South Wales for seven years, Assistant Director General for the Department of Local Government and probity adviser to the Director General at the New South Wales Department of Transport.

Ms Byrne is a financial services professional with 30 years of experience at senior executive level in governance and risk management in relation to trusts, superannuation, and wealth management. She is currently a non-executive director of the St Patrick's College Strathfield Advisory Board, Chair of the College's Risk Management Committee, and a member of the Finance Council of the Sisters of the Good Samaritan. Ms Byrne was Company Secretary of Pillar Administration, Australia's third largest superannuation fund administrator, for ten years and currently consults on governance and risk with PFS Consulting.

Fraud prevention

Within our risk management framework, procedures are in place to help identify sources of potential fraud or corrupt practices, prevent occurrences, and investigate and take appropriate action on reported breaches. No instances of fraud were identified during the year under review.

Business continuity

The objective of the AEMC's business continuity and disaster recovery plan is to ensure that business processes are robust and able to withstand minor business interruptions and to ensure the ongoing ability of the AEMC to continue its operations in the event of a major business interruption. The AEMC did not suffer any major business interruptions in the year under review.

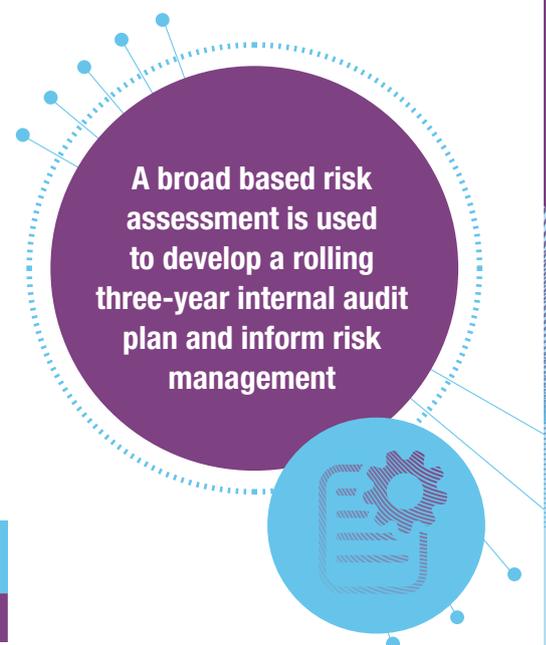
Freedom of information

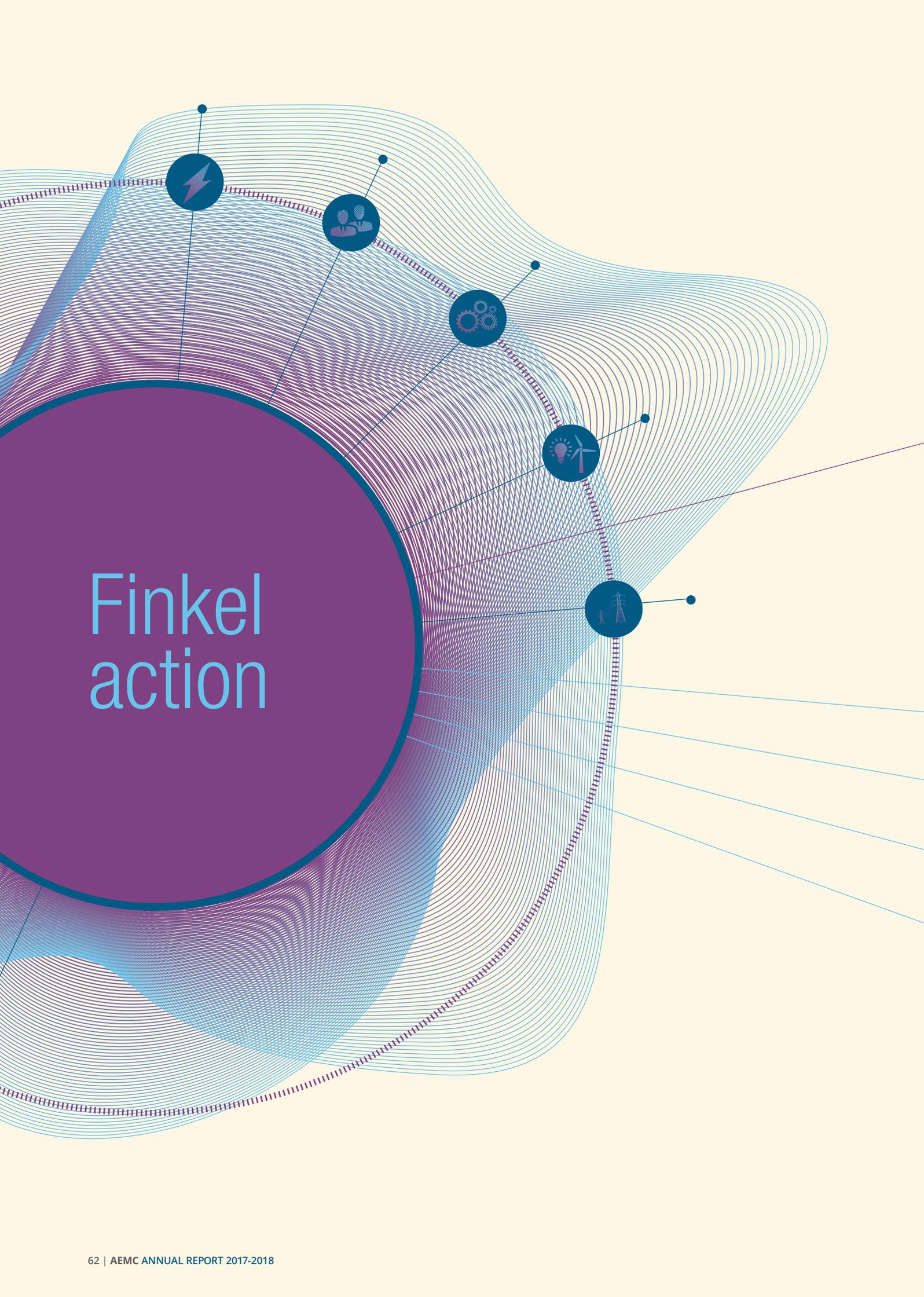
The AEMC is subject to the Freedom of Information Act 1991 (SA). There were no freedom of information requests made to the AEMC in 2017-2018. All documents we publish regarding our rule making, reviews, advice and all versions of the National Electricity Rules, National Gas Rules and National Energy Retail Rules are on our website at www.aemc.gov.au. They can also be inspected at our offices. A request under the Freedom of Information Act 1991 (SA) is not required to inspect them.

Commission audit and risk management committee membership and meetings 2017-2018

In addition to face to face meetings the audit committee dealt with a number of matters out of session

Members	Committee term	Eligible	Attended
Jim Mitchell (Committee Chair)	From 1 July 2015	4	4
Jane Byrne	From 1 July 2015	4	4
Brian Spalding	Until 23 April 2018	4	4
Allison Warburton	From 23 April 2018	1	1





Finkel action



Implementing the independent review into the future security of the national electricity market (Finkel review)

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– the need for orderly transition

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Finkel action

Implementing the independent review into the future security of the national electricity market (Finkel review)

Rewarding consumers

Recommendation	What	AEMC project
<p>Better, clearer information on prices, contracts, and energy use</p> <p>See Finkel recommendations 6.1, 6.3 and 6.4</p>	<p>Requiring energy retailers to warn customers when discounts are ending, prompting them to shop around for a better deal.</p>	<p>Notification of end of fixed benefit rules started in February 2018</p>
	<p>Stopping retailers from offering energy deals deliberately designed to confuse customers with high base rates to make so-called discounts appear bigger than they actually are.</p>	<p>New rules preventing discounts on inflated energy rates start in July 2018</p>
	<p>Seeking stakeholder feedback on a draft new requirement for retailers to tell customers about any prices increases before it happens, and provide information on how to shop around for a better deal.</p>	<p>Advance notice of price changes final determination due in September 2018</p>
	<p>Seeking stakeholder feedback on a draft rule to reduce bill shock by allowing customers to have their electricity or gas bill based on their own reading of the meter.</p>	<p>Estimated meter reads final determination due in November 2018</p>
	<p>Seeking stakeholder feedback on a proposal to install new electricity meters within a defined timeframe so customers benefit from better services and information as soon as possible.</p>	<p>Metering installation timeframes draft determination due in September 2018</p>
	<p>Recommending ways to improve customer outcomes and raise awareness of opportunities for customers to manage their energy bills by regularly assessing competition in the energy retail market.</p>	<p>2018 Retail energy competition review published in July 2018</p>
	<p>Tracking the progress and effectiveness of its gas reform package to support faster and more efficient gas trading and access to pipeline transportation along the east coast of Australia.</p>	<p>Biennial review into liquidity in wholesale gas and pipeline trading markets published in August 2018</p>

	Giving customers access to better energy use data through the competitive roll-out of advanced meters. This will make it easier for customers to choose a deal to suit them.	Rules to expand competition in metering and related services started in December 2017
	Assisting the Energy Security Board in tracking the performance of the energy system and the opportunities for improvement through its annual health of the national electricity market report.	Health of the national electricity market second annual report due in December 2018
Appropriate consumer protections See Finkel recommendations 6.5 and 6.9	Seeking stakeholder feedback on proposed new obligations on retailers to implement effective hardship policies to help customers who are having difficulty paying their bills.	Strengthening protections for customers in hardship draft determination due in September 2018
	Providing recommendations to COAG Energy Council on law and rule changes needed so customers connected to embedded networks and standalone systems receive efficient prices and appropriate protections.	Advice on updating the embedded networks regulatory frameworks to be published in December 2018 Review of standalone power systems initiated in August 2018
	Introducing better protections for life support customers by strengthening the registration and deregistration process for life support customers.	Strengthening protections for customers requiring life support equipment rules started in February 2018
Efficient spending on and pricing of network and non-network solutions See Finkel recommendations 5.1 and 6.8	Launching a network reform program to build a network of the future that works for investors and customers. This will focus on appropriately balancing network incentives and progressing the findings of our Distribution Market Model on optimising distributed energy resources.	2018 electricity networks economic regulatory Frameworks review published in July 2018
	Consulting on options to improve the efficiency and coordination of generation and transmission planning. This will complement AEMO's integrated system plan and AER's review of the RIT-T.	The next stage of our coordination of generation and transmission investment review work will be published in August 2018
	Seeking stakeholder feedback on a draft rule to smooth gas network revenue across periods with the objective of reducing the network price volatility for customers.	Cross period revenue smoothing (gas) final determination due in August 2018
	Providing recommendations to COAG Energy Council to help gas pipeline users negotiate lower prices and better deals under Parts 8 – 12 of the National Gas Rules.	Review into the scope of economic regulation applied to covered pipelines final report published in July 2018

Reliable and low emissions future – the need for orderly transition

Recommendation	What	AEMC project
<p>Helping design and implement emissions reduction mechanisms that can integrate with energy policy</p> <p>See Finkel recommendations 3.1, and 3.2</p>	<p>Assisting the Energy Security Board in the detailed design of the proposed national energy guarantee which would integrate emissions and energy policy for the first time.</p>	<p>National energy guarantee – COAG Energy Council decision in August 2018</p>
<p>Designing a framework that send the right signals to incentivise the right investment at the right time, and provides tools to intervene only when necessary</p> <p>See Finkel recommendations 2.1, 3.2, 3.4 and 6.7</p>	<p>Aligning the financial incentives in the market with physical needs of the system by moving to five minute settlement.</p> <p>Consulting on a draft rule that would require large electricity generators to provide at least three years' notice before closing.</p> <p>Supporting a growing share of renewables in the system by developing new rules on technical performance standards for generators seeking to connect to the electricity grid, and a clearer process for negotiating those standards.</p> <p>Extending the time period for which AEMO can contract for capacity under the RERT. The RERT is a type of strategic reserve that allows AEMO to pay a premium for additional generation or demand response in advance.</p> <p>Consulting on a proposal to enhance the RERT so this safety net is fit for purpose in the current environment, with reserves procured at lowest cost. The RERT is a type of strategic reserve that allows AEMO to pay a premium for additional generation or demand response in advance.</p>	<p>Implementation of five minute settlement is underway. The rule will commence in July 2021</p> <p>Generator three year notice of closure final determination due in November 2018</p> <p>Generator technical performance standards final determination due in October 2018</p> <p>Reinstatement of long notice reliability and emergency reserve trader (RERT) final determination published in June 2018</p> <p>Enhancement to the reliability and emergency reserve trader (RERT) draft determination due in October 2018</p>

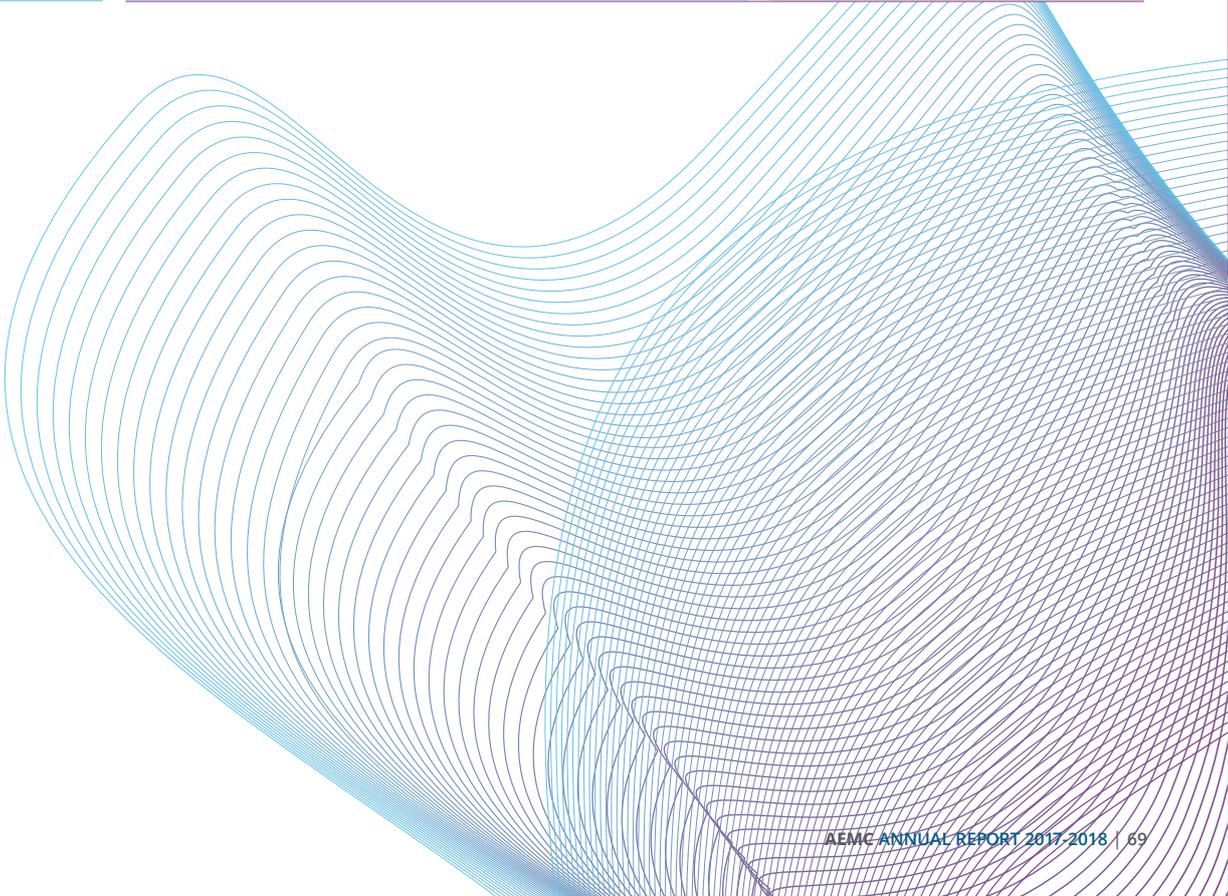
Introduced new rules to make the AER responsible for calculating values of customer reliability which are used to develop reliability standards in networks and wholesale markets.	Establishing values of customer reliability rule commenced in July 2018
Recommending actions that encourage the right amount of investment in the power system's long-term capacity and expands the frameworks to encourage efficient adoption of new technologies and demand response, to provide reliable supply of electricity to customers at lowest cost.	Reliability frameworks review final report published in July 2018
Providing better ways and more tools for AEMO to signal when the market needs to increase electricity supply or reduce demand at short notice.	New declaration of lack of reserve conditions rules started in December 2017
Confirming that the reliability standard and settings that signal to the market the level of generation and demand response needed to meet consumer demand remain appropriate.	Reliability standard and settings review for 2020-2024 was published in April 2018
Seeking stakeholder feedback on a proposal to encourage participants to work collaboratively with AEMO to restore or maintain supply, rather than wait for a direction.	Compensation following market suspension draft determination due in November 2018
Improving the transparency and consistency of information AEMO provides to signal whether or not electricity supply is projected to meet demand in the medium-term.	Reporting of aggregate generation capacity for MT PASA new rules started in May 2018

Increased security

Recommendation	What we are doing	AEMC project
Maintaining a strong system	Obliging network businesses to maintain system strength above AEMO-determined minimum levels at key locations in the power system.	Managing power system fault levels rules start in July 2018
Resisting frequency changes	Obliging network businesses to maintain a minimum level of inertia determined by AEMO, that will help the system resist frequency changes.	Managing power system frequency rules start in July 2018
Requirements for generators to support system security See Finkel recommendations 2.1	Requiring generators to provide more information about how their equipment performs in different scenarios. This will allow AEMO and network businesses to better understand and manage the power system as it changes.	New generator system model guidelines are now in place
	Consulting on draft rules to introduce tighter technical performance standards for generators seeking to connect to the electricity grid, and a clearer process for negotiating those standards.	Generator technical performance standards final determination due October 2018
Introducing better frequency control frameworks and mechanisms to manage the system See Finkel recommendations 2.2, 2.3, 2.5	Recommending options to improve frequency control and keep the power system stable. This includes trials, more regular reporting of system performance, and new rules to integrate distributed energy resources like batteries into the power system so that can be used to control power system frequency.	Frequency control frameworks review final report and recommendations published in July 2018
	Implementing better schemes to manage emergency events with a new category of contingency event called, the protected event, allowing AEMO to take pre-emptive action to secure the system for certain low probability but high consequence events.	Emergency frequency control scheme rules started in March 2017
	Setting the foundations for a competitive distribution market that would enable distributed energy resources owned by consumers to be a more active part of frequency control.	The findings set out in our distribution market model are being progressed through a number of different channels
	Providing operational guidance to AEMO and market participants to support the effective implementation and operation of new emergency frequency control schemes and inertia and system strength requirements.	A new frequency operating standard took effect in November 2017. It is currently being updated , to accommodate changes resulting from the frequency control frameworks review.

Stronger governance

Recommendation	What	AEMC project
<p>Advice on strategic priorities for the sector</p> <p>See Finkel recommendations 7.1, 7.2 and 7.4</p>	<p>Assisting the Energy Security Board develop its advice to inform COAG Energy Council's strategic energy plan. This follows advice provided from the Commission to the COAG Energy Council in 2017 which was informed by stakeholder views and provide in line with terms of reference issued by the COAG Energy Council.</p>	<p>Ongoing input to Energy Security Board processes</p>
<p>Maintain a regulatory framework that is fit for purpose</p> <p>See Finkel recommendations 7.7 and 7.9</p>	<p>The AEMC continually reviews and monitors large parts of the electricity rules through annual and one-off reviews. The AEMC cannot initiate rule changes but makes recommendations to COAG Energy Council through its reviews if the rules need updating for any reason including in light of changing technologies and conditions.</p> <p>The AEMC has been using the expedited rule change process more often. In addition, we are consolidating related rule requests where possible, rule requests related to reviews are being determined as part of the review process, and AER/AEMO are developing procedures and guidelines alongside associated rule change processes so they can commence together.</p>	<p>Annual electricity networks economic regulatory frameworks review, reliability frameworks review, frequency control frameworks review, review of embedded networks, coordination of generation and transmission investment and the energy sector 2017 strategic priorities.</p> <p>See AEMC website for information on categorisation of every rule request.</p>



Rules and reviews



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Rules and reviews

Table A Electricity rules made by the AEMC in 2017-2018

Electricity rule made	Benefit/impact	
<p>Replacement expenditure planning arrangements</p>	<p>This rule places new obligations on network businesses to provide more information about their plans for retirement and replacement of electricity network assets.</p> <p>As the technology-driven transformation of the electricity market continues, there is a greater focus on identifying investment opportunities for non-network solutions such as battery storage, embedded generation and demand response to provide more efficient alternatives to 'poles and wires'.</p> <p>The new requirements make the planning and regulatory investment tests for replacement projects consistent with processes for network augmentation projects.</p>	<p>Consolidation Rule 2017 No. 5 (NER versions 94 and 97, NT NER version 14)</p>
		<p>Date Made 18 Jul 2017</p>
		<p>Commenced 18 Jul 2017, 18 Sep 2017</p>
		<p>Proponent AER</p>
		<p>Category Standard</p>
<p>Participant derogation - NSW DNSPs revenue smoothing</p>	<p>This final rule - and the corresponding rule for the ACT - will minimise price volatility for customers.</p> <p>On 4 July 2017 the Federal Court ordered the AER to remake its 2015 determinations for distribution network businesses.</p> <p>These rules allow for any changes in revenue as a result of the remade determinations to be 'smoothed' and recovered from customers over two regulatory control periods instead of one.</p> <p>Next steps: the AER will publish a draft decision in early 2019.</p>	<p>Consolidation Rule 2017 No. 6 (NER version 95)</p>
		<p>Date Made 1 Aug 2017</p>
		<p>Commenced 15 Aug 2017</p>
		<p>Proponent Ausgrid, Endeavour Energy, Essential Energy</p>
		<p>Category Standard</p>
<p>Participant derogation - ACT DNSP revenue smoothing</p>	<p>See participant derogation - NSW DNSPs revenue smoothing.</p>	<p>Consolidation Rule 2017 No. 7 (NER version 95)</p>
		<p>Date Made 1 Aug 2017</p>
		<p>Commenced 15 Aug 2017</p>
		<p>Proponent ActewAGL</p>
		<p>Category Standard</p>

Electricity rule made

Benefit/impact

Classification of loads as ancillary service loads

Market ancillary services, such as frequency control ancillary services (FCAS) which are necessary for maintaining a secure power system have generally been provided by large-scale generators.

However the growth in distributed generation and technological innovation has opened opportunities for customer load to provide the FCAS needed for a secure power system.

This rule will maximise the number of customers who are eligible to provide FCAS by extending eligibility to customers who were formerly excluded due to their status as 'non market load'.

Consolidation	Rule 2017 No. 8 (NER version 96, NT NER version 13)
Date Made	8 Aug 2017
Commenced	29 Aug 2017
Proponent	AEMO
Category	Expedited

Managing the rate of change of power system frequency

The exit of large thermal synchronous generation, together with an increasing proportion of renewable generation like wind and solar, has resulted in a power system with less inertia. Less system inertia means frequency may become less stable. If frequency changes too quickly then the system is at greater risk of going black.

This final rule will equip the system to manage frequency changes by requiring networks to make minimum levels of inertia available when needed to help stabilise the frequency.

This rule change is part of the AEMC's broader package of system security work which includes a range of measures to help AEMO and networks manage a transforming power system with reduced inertia and system strength.

Next steps: The new obligations for TNSPs to provide minimum required levels of inertia commence on 1 July 2018. If AEMO declares a shortfall in a sub-network, the relevant TNSP will be given notice and will need to have inertia services available to meet the minimum requirements by 1 July 2019.

Consolidation	Rule 2017 No. 9 (NER versions 98 and 110, NT NER versions 15 and 24)
Date Made	19 Sep 2017
Commenced	19 Sep 2017, 1 July 2018
Proponent	South Australian Minister for Mineral Resources and Energy
Category	Standard

Managing power system fault levels

Part of the AEMC's broader package of system security work, this final rule will manage power system fault levels by requiring networks to maintain minimum levels of system strength at key locations in the power system to keep the system secure. It also requires new connecting generators to pay for remedial action if they are going to negatively impact on minimum system strength levels.

Consolidation	Rule 2017 No. 10 (NER versions 98, 102 and 110, NT NER versions 15, 18 and 24)
Date Made	19 Sep 2017
Commenced	19 Sep 2017, 17 Nov 2017, 1 July 2018
Proponent	South Australian Minister for Mineral Resources and Energy
Category	Standard

Electricity rule made

Benefit/impact

Generating system model guidelines

When system strength is low, some generators may be unable to meet technical standards under all conditions and may therefore be at increased risk of being disconnected from the network.

The AEMC made this final rule requiring generators and networks to provide more detailed information about how their equipment performs to help AEMO accurately model how the power system will operate as the market transforms.

It also allows AEMO to request data to assess if remedial action is needed for system strength.

This rule change is part of the AEMC's broader package of system security work.

Consolidation	Rule 2017 No. 11 (NER versions 98 and 110, NT NER versions 15 and 24)
Date Made	19 Sep 2017
Commenced	19 Sep 2017, 1 Jul 2018
Proponent	AEMO
Category	Standard

Application of rate of return guidelines to TasNetworks

This final rule reduced costs and uncertainty for TasNetworks in preparing and making its revenue proposals for the regulatory control period starting 1 July 2019 by providing consistency between the arrangements that would apply for the transmission and distribution businesses.

Arrangements put in place last year would have meant that the revised rate of return guidelines would have applied to TasNetworks' distribution business and the current rate of return guidelines to its transmission business.

This change may also make it easier and provide a more streamlined assessment process for stakeholders and the AER.

Next steps: the AER's draft decision on TasNetworks' regulatory proposal is expected in September 2018.

Consolidation	Rule 2017 No. 12 (NER version 99, NT NER version 16)
Date Made	26 Sep 2017
Commenced	3 Oct 2017
Proponent	TasNetworks
Category	Expedited

Secondary trading of settlement residue distribution units

The AEMC has made a final rule enabling AEMO to provide a platform for secondary trading of settlement residue distribution units, which result from different regional reference prices when electricity is transferred through interconnectors.

If AEMO implements this platform it will improve liquidity in the market for the settlement residue units, which is likely to increase interstate trade of electricity, improve risk management and increase competition.

Next steps: before introducing any secondary trading mechanism, AEMO must amend the auction rules which involves engaging in consultation in accordance with the prescribed procedures and seeking approval from the settlement residue committee.

Consolidation	Rule 2017 No. 13 (NER version 100, NT NER version 17)
Date Made	10 Oct 2017
Commenced	20 Oct 2017
Proponent	Westpac Banking Corporation
Category	Standard

Electricity rule made

Benefit/impact

Pricing during market suspension

AEMO suspends the spot market when the market cannot operate as normal, for example, if there is no electricity supply due to a black system event. In these situations, AEMO must determine the prices which generators are paid, and customers receive, while the issues which led to the suspension are being resolved.

The AEMC has made a final rule that simplifies the process for setting prices if the spot market is suspended, and establishes a simpler, more workable market suspension pricing framework.

Consolidation	Rule 2017 No. 14 (NER version 103, NT NER version 19)
Date Made	10 Oct 2017
Commenced	1 Dec 2017
Proponent	AEMO
Category	Expedited

Five minute settlement

The AEMC has made a final rule to change the settlement period for the electricity spot price from 30 minutes to five minutes, starting in 2021.

This fundamental change will bring long-term benefits for electricity consumers.

Providing an improved price signal that is aligned with the physical needs of the electricity system will result in more efficient bidding and operational decisions in the wholesale market. Over time this flows through to lower wholesale costs which should lead to better prices for consumers.

Five minute settlement will also provide clearer incentives for efficient investment in technologies which can respond to price signals quickly, like batteries and demand response.

More fast response technologies can also enhance power system security because they are able to respond in real time to variations in the intermittent generation which makes up an increasing proportion of the available supply.

A transition period of three years for the move to five minute settlement was necessary to give industry and contract markets time to adjust to this major change. The timeframe balances the need to capture the benefits of moving to five minute settlement as soon as possible against the transitional costs and risks.

Next steps: AEMO will govern and oversee the implementation of five minute settlement. The AEMC acknowledges the breadth and depth of implementation required and recommends that market participants begin transitioning to five minute settlement without delay, in consultation with AEMO.

Consolidation	Rule 2017 No. 15 (NER version 104, NT NER Version 20; Schedules 1-6 to be consolidated into a new version of the NER on commencement)
Date Made	28 Nov 2017
Commenced	19 Dec 2017, 1 Jul 2021
Proponent	Sun Metals
Category	Standard

Electricity rule made

Benefit/impact

Contestability of energy services

This rule will support a competitive market in ‘behind the meter’ battery storage and other distributed energy resources.

More competition encourages innovation in high-tech energy options for consumers, while also allowing households and businesses to have greater control over how their energy assets are used.

Limiting distribution network businesses’ ability to own and control these assets addresses the risk of distribution businesses favouring network benefits at the expense of maximising benefits for the electricity system as a whole.

Next steps: the AER must develop, maintain and publish distribution service classification guidelines

Consolidation	Rule 2017 No. 16 (NER version 104, NT NER Version 20)
Date Made	12 Dec 2017
Commenced	19 Dec 2017
Proponent	COAG Energy Council, Australian Energy Council
Category	Standard

Declaration of lack of reserve conditions

Reliability requires a sufficient number of generators with the capacity to produce the amount of electricity customers want, and transmission and distribution networks (the poles and wires) with the ability to transport that electricity to customers in real time.

This rule was made to give AEMO better ways to signal when the market needs to increase electricity supply or reduce demand at short notice in order to maintain reliability.

It also provides AEMO with extra tools to forecast when the ‘lack of reserve’ - the buffer of spare electricity capacity - is getting too low.

Next steps: AEMO will report quarterly on the performance of the new framework and the drivers behind lack of reserve declarations.

Consolidation	Rule 2017 No. 17 (NER versions 104 and 105, NT NER versions 20 and 21)
Date Made	19 Dec 2017
Commenced	19 Dec 2017, 16 Jan 2018
Proponent	AEMO
Category	Standard

System restart plan release provisions

AEMO is responsible for maintaining power system security. Following a large-scale blackout AEMO coordinates the restart and restoration process, using emergency procedures set out in a system restart plan.

This rule clarifies how AEMO may share information about system restart plans with generators, networks and other key parties involved in restoring the electricity system after a widespread blackout.

Consolidation	Rule 2018 No. 1 (NER version 106)
Date Made	20 Feb 2018
Commenced	27 Feb 2018
Proponent	AEMO
Category	Expedited

Electricity rule made

Benefit/impact

Testing of system restart ancillary service capability

Restart services are provided by generators with specialised equipment that allows them to restart after a system-wide blackout without needing electricity from the grid.

AEMO recently enhanced the testing regime for these restart services, consistent with the recommendations and findings of the AEMC's Reliability Panel, the Finkel review, and AEMO's report on the South Australian system black event.

The new rule exempts generators from having to provide 15 business days' notice for a short notice test of SRAS capability. Instead, AEMO will work directly with network service providers to plan the test date.

This rule change provides regulatory certainty for SRAS providers by aligning the short notice test requirements and the NER.

Consolidation	Rule 2018 No. 2 (NER version 107, NT NER version 22)
Date Made	20 Mar 2018
Commenced	10 Apr 2018
Proponent	AEMO
Category	Expedited

Implementation of demand management incentive scheme

The AEMC expedited this new rule so customers could start to benefit from lower network prices with the demand management incentive scheme starting early.

This scheme encourages network businesses to use alternatives to building more expensive poles and wires, such as demand response and distributed generation, where these can address system constraints at the least cost to consumers.

Over the long term, the demand management incentive scheme will promote more efficient investment in network services which will flow through to consumers as lower network prices. Starting the demand management incentive scheme early means customers can benefit sooner from this initiative, which was first flagged by the AEMC's power of choice review.

Consolidation	Rule 2018 No. 3 (NER version 107, NT NER version 22)
Date Made	3 April 2018
Commenced	10 April 2018
Proponent	AER
Category	Expedited

Minor changes 2018

Minor rule changes are made annually, or as needed, to correct minor errors and make non-material changes to the rules. They improve the quality of the rules in terms of accuracy and consistency

Consolidation	Rule 2018 No. 4 (NER versions 107 and 110, NT NER versions 22 and 24)
Date Made	3 Apr 2018
Commenced	10 Apr 2018, 1 Jul 2018
Proponent	AEMC
Category	Expedited

Electricity rule made

Benefit/impact

Reporting of aggregate generation capacity for MT PASA

This rule improves the transparency and consistency of AEMO's forecasts to signal whether or not electricity supply is projected to meet demand in the medium-term.

This forecasting exercise is called the medium-term projected assessment of system adequacy, or MT PASA, and is used to assess whether the reliability standard is projected to be met across a two-year horizon.

The final rule will improve the transparency and quality of information provided to the market through the MT PASA process, and provide regulatory certainty for AEMO when preparing the MT PASA.

Consolidation	Rule 2018 No. 5 (NER version 108)
Date Made	24 May 2018
Commenced	31 May 2018
Proponent	AEMO
Category	Expedited

Reliability Panel governance arrangements

The Reliability Panel determines standards and some of the guidelines used by AEMO and participants, which help maintain a secure and reliable power system for consumers. Its members represent a range of participants in the national electricity market including consumer groups, generators, network businesses, retailers and AEMO.

This rule clarifies and updates provisions in the NER relating to the Reliability Panel's governance arrangements to promote effective execution of responsibilities, transparency, and appropriate and timely consultation processes.

Consolidation	Rule 2018 No. 6 (NER version 110, NT NER version 24)
Date Made	7 June 2018
Commenced	1 July 2018
Proponent	Reliability Panel
Category	Expedited

Reinstatement of long notice reliability and emergency reserve trader

The reliability and emergency reserve trader (RERT) is one of the tools available to AEMO to help avoid blackouts. It's a type of strategic reserve that allows AEMO to pay a premium for additional generation or demand response that's not already in the market to be on standby when shortages are projected.

The AEMC has made a rule to allow AEMO to procure generation and demand response capacity nine months ahead of a projected reserve shortfall under the RERT framework.

Increasing the procurement lead time to nine months effectively reinstates what was known as the long-notice RERT.

The ability for AEMO to contract for generation or demand response capacity nine months in advance of a projected shortfall means there will be more options for AEMO to choose from. This may improve the efficiency of the procurement process and put downward pressure on costs.

Consolidation	Rule 2018 No. 7 (NER versions 109 and 111, NT NER versions 23 and 25)
Date Made	21 June 2018
Commenced	21 June 2018, 13 July 2018
Proponent	AEMO
Category	Expedited

Table B Determinations to not make a rule in response to an electricity rule request

Electricity rule request	Reasons		
<p>Non-scheduled generation and load in central dispatch</p>	<p>The AEMC did not make a rule requiring additional market participants to participate in the central dispatch process.</p> <p>The request would have required large industrial companies and smaller generators to inform AEMO of their planned consumption and generation, and to follow AEMO's instructions.</p> <p>Overall, the benefits to the market from the proposed changes were considered limited and uncertain at this time, while the costs of the proposed change would be likely to flow through to consumers in the form of higher prices.</p>	<p>Determination date</p>	<p>12 Sep 2017</p>
		<p>Proponent</p>	<p>ENGIE, Snowy Hydro</p>
		<p>Category</p>	<p>Standard</p>
<p>Alternatives to grid-supplied network services</p>	<p>The AEMC's final determination on this rule request from Western Power recommended a broad package of changes to laws, rules and other instruments to protect consumers in off-grid arrangements and expressed support for enabling off-grid electricity supply.</p> <p>We recommended that the COAG Energy Council amend the National Electricity Law (NEL) to allow network businesses to receive regulated returns for off-grid services they provide to consumers who transition off the grid as an alternative to network replacement.</p> <p>Under the current NEL, a change to the National Electricity Rules to allow off-grid supply to be a regulated service would lead to inconsistencies with the law and make the proposed rule change invalid.</p> <p>The COAG Energy Council requested that the AEMC undertake a review of changes required to the national electricity frameworks for stand-alone power systems.</p>	<p>Determination date</p>	<p>19 Dec 2017</p>
		<p>Proponent</p>	<p>Western Power</p>
		<p>Category</p>	<p>Standard</p>
<p>Inertia ancillary service market</p>	<p>The AEMC made a final determination not to introduce a market mechanism for power system inertia at this time.</p> <p>Instead, the potential for an inertia market mechanism was considered through the frequency control frameworks review.</p> <p>In June 2018, AEMO published its inertia requirements methodology and inertia requirements & shortfalls for the national electricity market. Using the methodology detailed in that document, AEMO has not identified any inertia shortfalls for 2018.</p>	<p>Determination date</p>	<p>6 Feb 2018</p>
		<p>Proponent</p>	<p>AGL Energy</p>
		<p>Category</p>	<p>Standard</p>

Table C Electricity rules under consideration at 30 June 2018

Electricity rule request	Status at 30 June 2018						
<div data-bbox="153 488 376 712" style="background-color: #005580; color: white; border-radius: 50%; width: 140px; height: 100px; display: flex; align-items: center; justify-content: center; text-align: center;"> <p style="margin: 0;">Generator technical performance standards</p> </div>	<p>Generators play a fundamental role, not just in supplying energy but also in helping AEMO and network businesses keep the power system secure and the lights on. This can include having the technical capability to control their voltage and frequency, and the ability to stay connected even when there is a major disturbance to the power system.</p> <p>The AEMC has proposed significant changes to technical performance standards for generators seeking to connect to the national electricity grid, and the process for negotiating those standards.</p> <p>This major piece of work is the result of a rule change request from AEMO and months of cross-industry collaboration.</p> <p>The draft rules provide a foundation for a secure, least cost transition as new generators with different technical characteristics join the power system.</p> <p>They tighten some standards where needed and set clearer roles and responsibilities so all parties - generators, networks and AEMO - know what they have to do when negotiating the required standards for a particular location.</p> <p>This rule change request relates to a recommendation made in the Finkel review for the AEMC to review and update connection standards in the National Electricity Rules.</p> <p>It forms part of the AEMC's broader package of system security work which includes a range of measures to help AEMO and networks manage a transforming power system with reduced inertia and system strength.</p> <p>We held a full day technical workshop on 26 June; at the end of the year in review we were awaiting submissions on the draft determination.</p>	<table border="1"> <tr> <td style="background-color: #005580; color: white;">Proponent</td> <td style="background-color: #e6f2ff;">AEMO</td> </tr> </table>	Proponent	AEMO	<table border="1"> <tr> <td style="background-color: #005580; color: white;">Initiated</td> <td style="background-color: #e6f2ff;">19 Sep 2017</td> </tr> </table>	Initiated	19 Sep 2017
Proponent	AEMO						
Initiated	19 Sep 2017						
		<table border="1"> <tr> <td style="background-color: #005580; color: white;">Category</td> <td style="background-color: #e6f2ff;">Standard</td> </tr> </table>	Category	Standard			
Category	Standard						
<div data-bbox="153 1597 376 1821" style="background-color: #005580; color: white; border-radius: 50%; width: 140px; height: 100px; display: flex; align-items: center; justify-content: center; text-align: center;"> <p style="margin: 0;">Register of distributed energy resources</p> </div>	<p>Small scale batteries are being installed in homes and businesses across Australia and take-up is expected to accelerate as costs fall. It has been projected that 100,000 batteries could be installed by 2020, and one million by 2030. These resources provide opportunities to manage the power system in new ways, particularly with advanced metering and remote control.</p> <p>The AEMC's draft determination for this rule change proposes that AEMO establish a register of distributed energy resources in the national electricity market, including small scale battery storage systems and rooftop solar.</p>	<table border="1"> <tr> <td style="background-color: #005580; color: white;">Proponent</td> <td style="background-color: #e6f2ff;">COAG Energy Council</td> </tr> </table>	Proponent	COAG Energy Council	<table border="1"> <tr> <td style="background-color: #005580; color: white;">Initiated</td> <td style="background-color: #e6f2ff;">6 Mar 2018</td> </tr> </table>	Initiated	6 Mar 2018
Proponent	COAG Energy Council						
Initiated	6 Mar 2018						
		<table border="1"> <tr> <td style="background-color: #005580; color: white;">Category</td> <td style="background-color: #e6f2ff;">Standard</td> </tr> </table>	Category	Standard			
Category	Standard						

Register of distributed energy resources (continued)

The register would give network businesses and AEMO visibility of where distributed energy resources are connected to help in planning and operating the power system as it transforms.

The rule change request follows work by the COAG Energy Council's energy market transformation project team on the benefits of a register of small scale battery storage systems. It also builds on a Finkel review recommendation to develop a framework for collecting information on distributed energy resources.

At 30 June we were awaiting submissions on the draft determination.

Proponent	COAG Energy Council
Initiated	6 Mar 2018
Category	Standard

Estimated meter reads

We consolidated three rule requests relating to inaccurate estimated electricity usage - from Minister Josh Frydenberg and private individuals Ms Kirsty Johnson and Dr Daryl Dodt - in estimated meter reads.

Under the National Energy Retail Rules, electricity and gas retailers must base customers' energy bills on an actual reading of the meter if one is available. Retailers may base bills on an estimated read if an actual read is not provided.

The proposed rule would allow customers to have their electricity or gas bill based on their own reading of the meter. This could reduce the risk of customers:

- being exposed to higher bills based on overestimated energy use
- having to repay significant sums due to previous bills based on underestimated energy use.

This proposed rule change is part of a package of initiatives from ministers following the Australian Government's roundtable discussions with energy retailers last year.

At the end of the 2017-2018 financial year we were preparing the draft determination for publication in August.

Proponent	Minister Josh Frydenberg, Ms Kirsty Johnson, Dr Daryl Dodt
Initiated	17 May 2018
Category	Standard

Participant compensation during market suspension

AEMO suspends the spot market when the market cannot operate as normal, for example, if there is no electricity supply due to a 'black system event'. Market suspension is extremely rare and has only happened twice in the history of the national electricity market.

This rule request proposes a new compensation framework for participants who incur loss during a market suspension event. It was lodged together with another request relating to pricing during market suspension. The latter was considered urgent and was progressed using expedited processes.

The aim of the proposed new framework is to allow participants to recover their costs. This would encourage participants to work collaboratively with AEMO to restore or maintain supply, rather than wait for a direction from AEMO and then recover any losses through the directions compensation process.

This rule change request relates to a recommendation made by AEMO in its final incident report for the black system event which occurred in South Australia in late 2016.

Proponent	AEMO
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Initiated	17 May 2018
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Category	Standard
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Metering installation timeframes

Customers typically require a new electricity meter when they need a new connection, when their old meter needs replacing, or when they want to access new products and services such as solar panels.

Currently, there are no set timeframes for retailers when providing customers with a new electricity meter, except in the case of faulty meters, which must be replaced within 10 business days.

This rule request proposes to require retailers to install new electricity meters for customers within a defined timeframe and puts forward several changes that are intended to help speed up the installation process. It also proposes extending the timeframe to repair a faulty meter to 20 business days to align with the current steps involved in faulty meter replacement.

At 30 June we were awaiting submissions from stakeholders on the draft determination.

Proponent	Minister Josh Frydenberg, Australian Energy Council
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Initiated	31 May 2018
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Category	Standard
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Establishing values of customer reliability

Values of customer reliability (VCRs) indicate the value different types of customers place on having reliable electricity supply under various conditions.

They are a key input in determining the reliability standard and settings for both transmission and distribution networks, and wholesale markets. In the national electricity market, VCRs have only been estimated a limited number of times, with no single body responsible.

This rule request from the COAG Energy Council proposes making the AER responsible for calculating VCRs.

This would result in a single methodology for calculating VCRs and a more consistent output.

At 30 June we were preparing the final determination.

Proponent	COAG Energy Council
Initiated	10 May 2018
Category	Expedited

Enhancement to the Reliability and Emergency Reserve Trader

Mechanisms that allow AEMO to contract for out-of-market reserves to act as a safety net have been a feature of the national electricity market since its commencement. Strategic reserves remain an important feature of the framework as one of the last resort alternatives to involuntary load shedding.

When power shortages are projected, AEMO can use the RERT - a type of strategic reserve - by paying a premium for additional generation or demand response to be on standby.

The current RERT framework, with the procurement trigger being based on the reliability standard, has been designed to balance the benefits to consumers of having reliable electricity supply against the costs associated with increasing the levels of reliability in the NEM.

This rule request from AEMO seeks broad changes to the Reliability and Emergency Reserve Trader framework.

AEMO considers that changes to the RERT framework will help manage the risk of shortfalls in light of greater uncertainty and a tightening supply-demand balance.

The consultation paper was published in June 2018 with stakeholder submissions due by 26 July 2018.

Proponent	AEMO
Initiated	21 June 2018
Category	Standard



**Global settlement
and market
reconciliation**

AEMO is responsible for settlement in the national electricity market - making sure that market generators are paid for the energy they provide and retailers pay for the energy they use.

Currently, a local retailer is appointed to a distribution area and bears responsibility for all unaccounted for energy (UFE) in their area. UFE includes unaccounted for technical losses, estimation errors and commercial losses.

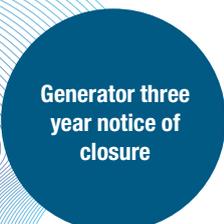
Under current rules, UFE costs may only be passed through to customers of the local retailer, rather than all customers in the distribution area. However, more retail competition has meant that a growing number of customers are served by independent retailers, not local retailers. This means that UFE is potentially being shared among fewer customers.

The aim of the proposed new framework is to treat all retailers equally by allocating a share of UFE to all retailers in a distribution area. Under global settlement, AEMO would also be able to fully reconcile the market. This would allow settlement errors to be more easily identified, reducing the likelihood of disputes.

In this rule request, AEMO proposes that the IT system capability for global settlement should be developed at the same time as the design and build activities required for the introduction of five minute settlement in 2021.

At 30 June 2018 we were awaiting submissions to the consultation paper.

Proponent	AEMO
Initiated	7 June 2018
Category	Standard



**Generator three
year notice of
closure**

This rule request from Energy Security Board Chair, Dr Kerry Schott AO, proposes requiring large electricity generators to provide at least three years' notice before closing.

The request is based on a recommendation in the Finkel review's policy package, designed to achieve an orderly transition to a low emissions future.

At 30 June we were considering submissions to the consultation paper.

Proponent	Dr Kerry Schott AO
Initiated	10 May 2018
Category	Standard

Table D Gas rules made by the AEMC in 2017-2018

Gas rule made	Benefit/impact		
<p>Improvements to natural gas bulletin board</p>	<p>The bulletin board, managed by AEMO, provides up-to-date gas system and market information to help participants make more informed decisions about trading, investing in, or using gas.</p> <p>The AEMC has made a rule to enhance the breadth and accuracy of information provided to the market through the natural gas bulletin board. It will increase the amount and frequency of data reported on the bulletin board, along with greater data accuracy requirements and a stronger compliance framework. This rule is part of the AEMC's package of gas market reforms, endorsed by the COAG Energy Council, which are designed to support faster and more efficient gas trading and access to pipeline transportation along the east coast of Australia.</p>	Consolidation	Rule 2017 No. 3 (Schedule 3 NGR version 34; Schedule 2 NGR version 38; Schedule 1 to be consolidated in a new version of the NGR on commencement)
		Date Made	26 Sep 2017
		Commenced	3 Oct 2017, 15 May 2018, 30 Sept 2018
		Proponent	COAG Energy Council
		Category	Standard
<p>Changes to periodic review of market parameters in STTM</p>	<p>The AEMC has made a final rule that aligns AEMO's periodic review of market parameters for the gas short term trading market (STTM) with the Reliability Panel's review of the reliability standard and settings in the national electricity market.</p> <p>The increased interconnection of gas and electricity markets is a key driver for this rule change. The rule is expected to promote the provision of accurate market signals to STTM participants, and reduce AEMO's administrative burden.</p>	Consolidation	Rule 2017 No. 4 (NGR version 35)
		Date Made	10 Oct 2017
		Commenced	10 Oct 2017
		Proponent	AEMO
		Category	Expedited
<p>Unintended scheduling results - decision timing</p>	<p>Under the National Gas Rules, market participants in the Victorian declared wholesale gas market may be eligible for compensation if an unintended scheduling result has occurred.</p> <p>The AEMC has made a rule extending the time AEMO has to determine whether an unintended scheduling result took place in the Victorian declared wholesale gas market.</p> <p>By extending the timeframe, AEMO will be able to use final settlement data which should improve the decision making process.</p>	Consolidation	Rule 2017 No. 5 (NGR version 36)
		Date Made	31 Oct 2017
		Commenced	1 Nov 2017
		Proponent	AEMO
		Category	Expedited
<p>Minor changes 2018</p>	See Table A	Consolidation	Rule 2018 No. 1 (Schedule 1 NGR version 37; Schedule 2 to be consolidated into a new version of the NGR on commencement)
		Date Made	3 Apr 2018
		Commenced	10 Apr 2018, 30 Sep 2018
		Proponent	AEMC
		Category	Expedited

Table E Gas rules under consideration at 30 June 2018

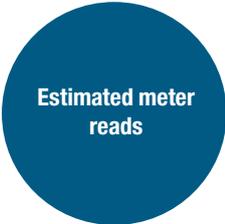
Gas rule request	Status at 30 June 2018		
 <p>Estimated meter reads</p>	See Table C	Proponent	Minister Josh Frydenberg
		Initiated	17 May 2018
		Category	Standard
 <p>Cross period revenue smoothing</p>	<p>The AER's final decision for Jemena Gas Networks' 2015-2020 access arrangement period was delayed due to judicial review and merits review proceedings.</p> <p>The AEMC's draft rule would help minimise network price volatility that could occur as a result of the delay.</p> <p>At 30 June we were awaiting submissions on the draft determination.</p>	Proponent	Jemena Gas Networks (NSW)
		Initiated	27 Mar 2018
		Category	Standard

Table F Retail rules made by the AEMC in 2017-2018

Retail rule made	Benefit/impact		
 <p>Notification of end of fixed benefit period</p>	<p>The AEMC is making energy retailers notify electricity and gas customers when benefits in their contract, such as a discount, are about to end or change.</p> <p>Notices have to include the date on which the customer's benefits will change and a reference to the energy comparison website www.energymadeeasy.gov.au, which provides information on a range of alternative deals for energy shoppers.</p> <p>By October 2018, retailers will be required to provide even more detailed information, including how much a customer will pay if they stay on the same deal after the change.</p> <p>This means customers will know when their benefit is changing, and be able to readily compare their existing deal with other deals and choose a better one if they want to.</p> <p>The new rule is expected to reduce the number of customers remaining on contracts with expired or reduced benefits, or rolling onto standing offers which tend to be higher priced. It will also increase consumer engagement and improve retail competition.</p> <p>The AEMC extended the proposed rule's coverage so that it also applies to gas retailers and to all benefits, not just financial benefits.</p>	Consolidation	Rule 2017 No. 2 (NERR versions 9 and 11)
		Date Made	7 Nov 2017
		Commenced	14 Nov 2017, 1 Feb 2018
		Proponent	Minister Josh Frydenberg
		Category	Expedited

Retail rule made

Benefit/impact

Notification of end of fixed benefit period (continued)

This rule was made in response to a rule request from the Honourable Josh Frydenberg MP, Minister for the Environment and Energy on behalf of the Australian Government. The rule request was submitted following the Australian Government's roundtable discussions with energy retailers in August 2017, and reflects recommendations made in the AEMC's 2017 retail energy competition review.

Next steps: retailers must commence including more detailed information in notices to relevant customers no later than 1 October 2018.

Consolidation	Rule 2017 No. 2 (NERR versions 9 and 11)
Date Made	7 Nov 2017
Commenced	14 Nov 2017, 1 Feb 2018
Proponent	Minister Josh Frydenberg
Category	Expedited

Strengthening protections for customers requiring life support equipment

There are already rules in place that limit when electricity retailers and distributors are able to interrupt supply to customers requiring life support equipment such as a ventilator or kidney dialysis machine, for example to undertake planned maintenance. In these limited circumstances, customers must be given at least four business days written notice.

This final rule aims to formalise and strengthen the protection framework by clarifying that protections apply from the time customers first inform their retailer or distributor they require life support equipment. In addition, retailers and distributors will be required to provide information on the customer's rights and obligations under the life support rules within five days of the initial contact.

This should make sure that all customers receive the legal protection the life support rules are intended to provide.

Next steps: transitional arrangements apply from 1 February 2018. The final rule will come into effect from 1 February 2019.

Consolidation	Rule 2017 No. 3 (Schedule 3 NERR version 11; Schedules 1 and 2 to be consolidated into a new version of the NERR on commencement)
Date Made	19 Dec 2017
Commenced	1 February 2018, 1 February 2019
Proponent	AER
Category	Standard

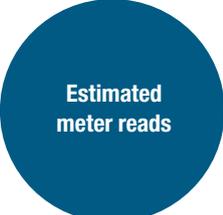
Minor changes 2018

See Table A

Consolidation	Rule 2018 No. 1 (Schedule 1 NERR version 12; Schedule 2 to be consolidated into a new version of the NERR on commencement)
Date Made	3 Apr 2018
Commenced	10 Apr 2018, 1 Feb 2019
Proponent	AEMC
Category	Expedited

Retail rule made	Benefit/impact		
 <p>Preventing discounts on inflated energy rates</p>	<p>The AEMC has made a new rule to prohibit energy retailers from making discounts appear bigger than they actually are.</p> <p>The rule aims to stop pseudo-discount deals that leave consumers worse off.</p> <p>It will prohibit retailers from discounting off market retail contracts where all the rates in the contract (such as usage rates and daily charges) are above the equivalent rates in a standing offer.</p> <p>This rule was requested by the Federal Minister for the Environment and Energy, the Hon Josh Frydenberg, and is part of the reform package from ministers following the Australian Government's roundtable with energy retailers last year to help deliver more affordable energy for consumers.</p>	Consolidation	Rule 2018 No. 2 (NERR version 13)
		Date Made	15 May 2018
		Commenced	1 July 2018
		Proponent	Minister Josh Frydenberg
		Category	Expedited

Table G Retail rules under consideration at 30 June 2018

Retail rule request	Status at 30 June 2018		
 <p>Estimated meter reads</p>	See Table C	Proponent	Minister Josh Frydenberg, Ms Kirsty Johnson, Dr Daryl Dodt
		Initiated	17 May 2018
		Category	Standard
 <p>Register of distributed energy resources</p>	See Table C	Proponent	COAG Energy Council
		Initiated	6 Mar 2018
		Category	Standard
 <p>Metering installation timeframes</p>	See Table C	Proponent	Minister Josh Frydenberg, Australian Energy Council
		Initiated	31 May 2018
		Category	Standard

Retail rule request

Status at 30 June 2018

Advance notice of price changes

This rule request from the Federal Minister for the Environment and Energy and the NSW Minister for Utilities and Resources proposes requiring retailers to give customers advance notice of any price increases on their energy bills.

Under existing rules, notice of a price increase is required, as a minimum, no later than the customer's next bill. This means the customer is notified anywhere from a few days after the change comes into effect to up to three months afterwards, depending on the customer's bill cycle.

The Commonwealth and NSW governments are of the view that customers should be informed of any changes to their energy prices before those changes happen.

Armed with advance notice of price changes, consumers may be prompted to shop around and find a better offer. This may encourage retailers to provide more competitive offers, with the effect of driving down prices.

The draft determination for this rule change is due to be published just after the close of the year in review.

Proponent	Minister Josh Frydenberg, Minister Don Harwin
Initiated	26 Apr 2018
Category	Standard

Table H Market reviews and advice summary table

COAG Energy Council initiated reviews

AEMC project	Proponent	Start date	End date	Status at 30 June 2018
Review of the Victorian declared wholesale gas market	COAG Energy Council	4 Mar 2015	14 Jul 2017	Completed
Electricity network economic regulatory framework review 2017	COAG Energy Council	31 Aug 2016	18 Jul 2017	Completed
2017 retail energy competition review	COAG Energy Council	22 Dec 2016	25 Jul 2017	Completed
2017 energy sector strategic priorities	COAG Energy Council	13 Jan 2017	31 Oct 2017	Completed
2017 residential electricity price trends	COAG Energy Council	18 Jan 2017	18 Dec 2017	Completed
Modelling of a clean energy target	COAG Energy Council	31 Jul 2017	13 Nov 2017	Completed
2018 retail energy competition review	COAG Energy Council	5 Dec 2017	14 Jun 2018	Completed
Review of regulatory arrangements for embedded networks	COAG Energy Council	15 Dec 2017	28 Nov 2017	Completed
Review of the application of gas pipeline capacity trading reforms in the Northern Territory	COAG Energy Council	20 Dec 2017	20 Mar 2018	Completed

AEMC project	Proponent	Start date	End date	Status at 30 June 2018
Review into the scope of economic regulation applied to covered pipelines	COAG Energy Council	5 May 2017	3 July 2018	Preparation of final report
Electricity network economic regulatory framework review 2018	COAG Energy Council	6 Feb 2018	26 July 2018	Preparation of final report
Biennial review into liquidity in wholesale gas and pipeline trading markets	COAG Energy Council	20 Dec 2017	16 August 2018	Preparation of final report
Coordination of generation and transmission investment	COAG Energy Council	9 Mar 2016	Continuing	Preparation of final report
Review of the system black event in South Australia on 28 September 2016	COAG Energy Council	6 Jan 2017	Continuing	Initial analysis Further progress pending release of AER's report

Other reviews and advice

AEMC project	Proponent	Start date	End date	Status at 30 June 2018
Distribution market model	AEMC	1 Dec 2016	22 Aug 2017	Completed
Last resort planning power – 2017 review	Rules requirement	22 Aug 2017	7 Nov 2017	Completed
Frequency control frameworks review	AEMC	7 Jul 2017	26 July 2018	Preparation of final report
Reliability frameworks review	AEMC	11 Jul 2017	26 July 2018	Preparation of final report
NSW embedded networks and stand-alone systems advice	NSW Government	7 Mar 2018	Continuing	Stage one completed. Scope of potential stage two to be confirmed.

Reliability panel projects

AEMC project	Proponent	Start date	End date	Status at 30 June 2018
Reliability standard and settings review 2018	Rules requirement	30 Mar 2017	30 Apr 2018	Completed
2017 annual market performance review	Rules requirement	16 Aug 2017	20 Mar 2018	Completed
Review of the frequency operating standard	AEMC	30 Mar 2017	Continuing	Preparation of stage 2 draft report

Table I Market reviews and advice completed

Review name	Overview	Expected benefits/impacts from recommendations
 <p>Review of the Victorian declared wholesale gas market</p>	<p>In March 2015 the Victorian Government, with the agreement of the COAG Energy Council, asked the AEMC to conduct a review of the Victorian declared wholesale gas market (DWGM). The terms of reference for the review required the AEMC to consider:</p> <ul style="list-style-type: none"> • the ability of market participants to manage price and volume risk in the DWGM and options to increase the effectiveness of risk management activities • whether market signals and incentives are providing for efficient use of, and efficient and timely investment in, pipeline capacity on the declared transmission system (DTS) • if, and to what extent, the current DWGM arrangements inhibit trading of gas between the DTS and interconnected facilities and pipelines • whether the DWGM arrangements continue to facilitate market entry and promote competition in upstream and downstream markets and how this could be improved 	<p>The AEMC has made a number of recommendations which should lower barriers to entry, streamline trading practices and improve transparency to help support greater competition in the Victorian market:</p> <ul style="list-style-type: none"> • introduce a clean and simple wholesale price for the Victorian trading hub, making it easier for buyers and sellers to manage risk and lower transaction costs, lowering costs for consumers • establish a new forward trading exchange making it easier for buyers and sellers to trade gas and lock in a future price, and helping businesses plan and manage price volatility (the new exchange will be standardised with other exchanges, making it easier to trade between states and creating more liquidity) • improve the allocation and trading of pipeline capacity rights, making it easier to trade unused pipeline capacity rights enabling gas traders to better manage scheduling risks <p>The recommendations are the next step in delivering the COAG Energy Council's redesign of the east coast gas market which is focussed on making it easier to buy and sell gas.</p> <p>The reforms will help the reliability of electricity supply in both Victoria and other states, as gas fired generators would benefit from having better access to available supplies.</p> <p>East coast gas markets are seeing a period of growth and change, as conventional gas reserves decline and unconventional gas resources become increasingly important with the growing influence of international prices trends. The gas market framework must be flexible and resilient enough to respond to this change, ensuring efficient market outcomes in the long term interest of consumers.</p>
 <p>Electricity network economic regulatory framework review 2017</p>	<p>Electricity networks are moving away from being one-way delivery systems and becoming managers of multidirectional flows of energy.</p> <p>Decentralised energy production is now a feature of the national electricity market. Consumers are increasingly generating their own electricity especially through rooftop solar systems and more businesses want to generate their own power from sources like gas, solar, wind or biomass.</p> <p>The economic regulatory framework for electricity networks must be able to provide sufficient flexibility for network businesses to adapt to these changes.</p>	<p>The AEMC's first annual monitoring report considered how the economic regulatory framework can best support the continual evolution of electricity networks.</p> <p>It found that:</p> <ul style="list-style-type: none"> • more consumers are adopting distributed energy resources as these technologies become cheaper and better. As a result, networks will increasingly need to support two-way flows of electricity as well as integrating a range of other decentralised energy resources into their operations • the entry of new technologies and business models into the market indicates the framework is allowing the continual evolution of electricity networks • there are a number of examples where network businesses have used incentives under the current regulatory framework for non-network solutions, as an alternative to building more poles and wires.

Review name	Overview	Expected benefits/impacts from recommendations
 <p>Electricity network economic regulatory framework review 2017 (continued)</p>	<p>Recognising the importance of providing early warning of market developments that may need to be addressed by changes to the National Electricity Rules, the COAG Energy Council has asked the AEMC to undertake annual monitoring of the economic regulatory framework.</p>	<p>The report also set out aspects of the regulatory framework that may need to be assessed moving forward so that it remains fit for purpose and network businesses can adapt as the electricity market transforms.</p> <p>Key areas for future monitoring and analysis are:</p> <ul style="list-style-type: none"> • implementation of network pricing reform • networks' incentives to deliver services at the lowest possible cost • exploring the development of a competitive distribution market
 <p>2017 retail energy competition review</p>	<p>This annual review of energy retail competition assesses the state of competition in the small customer electricity and natural gas retail markets in all national electricity market jurisdictions.</p> <p>Retail competition reviews are conducted in accordance with the framework set out in the Australian Energy Market Agreement (AEMA).</p> <p>A range of information sources are used to form an evidence base to assess the state of competition against the following five competitive market indicators:</p> <ul style="list-style-type: none"> • the level of customer activity in the market • customer satisfaction with market outcomes • barriers to retailers entering, expanding or exiting the market • the degree of independent rivalry • whether retail energy prices are consistent with a competitive market 	<p>The AEMC's 2018 retail energy competition review found that higher prices combined with complex and confusing energy offers have driven consumer confidence to new lows.</p> <p>Only one in four consumers now say energy retailers are working in their long-term interests, down 10 per cent from last year.</p> <p>Satisfaction with value for money in energy is lower than banking, water, broadband and mobile sectors. Energy is the only sector to have had decreased satisfaction over the past year. Trust in the energy sector has dropped from 50 per cent in 2017 to 39 per cent in 2018.</p> <p>More people are adopting new technologies to source their own energy as solar PV becomes more financially beneficial for households and small businesses. This is good news for those who are able to engage with market transformation and take matters into their own hands. At the same time it risks increasing costs for those who are unable to make those changes and have to stay on the traditional energy supply model.</p> <p>It's imperative that appropriate consumer protections are in place, and that retailers do more to actively promote them, so vulnerable consumers and small businesses are not left behind.</p> <p>The review recommended:</p> <ul style="list-style-type: none"> • AEMC assess whether changes to the national energy customer framework (NECF) are required to protect consumers receiving services from new energy service providers • AEMC assess how retailers support customers in financial difficulty • retailers and comparison service providers establish an industry code of conduct, and if this isn't established - that regulatory measures are considered • all comparison websites display the proportion of retailers and plans represented on their site • AER report on customer numbers, switching rates and contract types for residential and small business customers • AEMC work with industry to make data on electricity contracts available to the market to make the wholesale cost of energy more transparent
 <p>2018 retail energy competition review</p>		

Review name**Overview****Expected benefits/impacts from recommendations****2017 energy sector strategic priorities**

The review of governance arrangements for Australian energy markets, undertaken for the COAG Energy Council in 2015, recommended that the AEMC prepare a major policy paper every three years containing advice on strategic priorities for the COAG Energy Council.

Following that recommendation, the COAG Energy Council has tasked the AEMC with providing advice to inform the council's future priorities as the technology driven transformation of the energy sector continues to accelerate.

The AEMC's advice sets out priority areas that governments and energy market bodies need to focus on to tackle the challenges in the energy sector and builds on recommendations made by the Finkel review.

The AEMC worked with AEMO, the AER and Energy Consumers Australia in developing this advice. It has also been informed by extensive consultation and stakeholder engagement processes.

From among a broad set of industry issues and goals, the advice identifies priority actions:

- implementing a national emissions reduction mechanism that is integrated with energy policy, along with an agreed emissions trajectory for the national electricity market
- making the market work for consumers, particularly in relation to prices and participation options
- redesigning parts of the wholesale electricity and the gas markets to be fit for the emerging industry requirements
- improving sectoral governance.

This advice is provided as an input into the processes of the Energy Security Board and the COAG Energy Council towards finalising and implementing a strategic energy plan.

Having a prioritised set of objectives will help our energy sector become more diverse, more responsive and more rewarding for consumers, with positive flow-on effects for Australia's GDP and employment.

This advice shows what needs to be done, when and by whom. It's a transparent way for energy consumers and stakeholders to understand how energy market transformation will be delivered over the coming months and years.

2017 residential electricity price trends

This report is the eighth annual residential electricity price trends report prepared by the AEMC at the request of the COAG Energy Council. The report provides information on the supply chain components expected to affect the trends in residential electricity prices for each state and territory of Australia over the three years from 2016/2017 to 2019/2020.

The AEMC's annual report on price trends provides an overall picture of factors driving electricity prices for households in each state and territory. While the report is not a forecast of prices, it analyses cost trends across the electricity supply chain including generation and the regulated networks sector; and price impacts resulting from government environmental and system security policies.

This year's report showed wholesale electricity costs are now the single biggest driver of change in residential electricity bills - unlike earlier price trends reports which found network costs were the main driver.

Prices rose sharply this year by almost 11 per cent on a national basis as consumers felt the impact of Hazelwood and Northern coal-fired plants retiring and the lack of replacement investment, combined with high gas prices.

But these price rises are expected to be reversed over the next two years as around 4,000 MW of RET-funded wind and solar generation enters the system. This new generation will boost supply, resulting in downward pressure on prices.

Review name	Overview	Expected benefits/impacts from recommendations
		<p>However, the report also found that over time, low wholesale prices contribute to the closure of coal-fired plants. Without new investment to replace these older generators, wholesale costs will start to increase again as supply falls.</p> <p>To this end, the AEMC is working with other market bodies on the Energy Security Board on the national energy guarantee design.</p>
	<p>In August 2017 the governments of South Australia, Queensland, Victoria and the Australian Capital Territory tasked the AEMC with developing design options for a Clean Energy Target (CET).</p>	
	<p>Embedded networks are private electricity networks which serve multiple customers and are connected to another distribution or transmission system in the national electricity market through a parent connection point. Examples of embedded networks include shopping centres, retirement villages, apartment complexes and caravan parks.</p> <p>In December 2016 the COAG Energy Council asked the AEMC to undertake a review of embedded networks. This followed the AEMC's embedded networks rule change, completed in December 2015.</p> <p>During our work on this rule change, we raised a number of substantial retail market issues that could not be resolved at the time due to the limited scope of the rule change request.</p> <p>This review will identify and assess issues regarding retail arrangements for embedded network customers.</p>	<p>Embedded networks are private electricity networks serving multiple premises. There are now more than 200,000 embedded network customers in the national electricity market. Embedded networks can provide benefits to consumers, provided they are appropriately regulated and customers are fully informed.</p> <p>Our review of regulatory arrangements for embedded networks found many embedded network customers are not receiving better prices and are less able to change supplier if they are unhappy. In practice, embedded network customers receive fewer consumer protections than customers with standard supply arrangements.</p> <p>The final report recommended new rules and laws to give more access to retail competition and consumer protections to customers who purchase power from embedded network providers.</p> <p>We have also made a number of recommendations that should be progressed by the COAG Energy Council, state and territory governments and the AER as a matter of priority. These include improving monitoring and enforcement, access to ombudsman schemes and information provision.</p>
	<p>The COAG Energy Council has tasked the AEMC with conducting a review to determine whether the capacity trading reform package recommended in the AEMC's east coast gas review should extend into the Northern Territory.</p> <p>Terms of reference were developed in conjunction with the Northern Territory Government and the Gas Market Reform Group.</p> <p>The AEMC was also directed to consider and comment on the likely effect of the reforms, if applied, on gas consumers in the Northern Territory and within the wider east coast gas market.</p>	<p>The AEMC has recommended the Northern Territory implement a package of gas pipeline capacity trading reforms to make it cheaper and easier to move gas around the market.</p> <p>The final report, which was published in March 2018, found that the proposed capacity trading reform package would have significant benefits for both the Northern Territory and east coast markets.</p>

Review name	Overview	Expected benefits/impacts from recommendations
 <p>Distribution market model</p>	<p>The distribution market model project is part of the AEMC's technology work program. The findings will be used to help inform our advice to government and the AEMC's analysis of rule changes submitted by stakeholders in response to emerging issues.</p> <p>The project's purpose is to explore options to put consumers and their energy service providers in the driver's seat - giving them more control over how their distributed energy resources are used.</p>	<p>The final report, released in August 2017, outlined a vision for a competitive distribution market which would enable consumers to get the most value out of their rooftop solar panels, batteries and other distributed energy resources as we move to a lower emissions future.</p> <p>Distributed energy resources include a range of technologies, such as battery storage, electric vehicles and smart household appliances like refrigerators and dishwashers, which are connected to the electricity distribution network.</p> <p>These resources can provide services to different parts of the electricity market. For example they can:</p> <ul style="list-style-type: none"> • help consumers reduce electricity bills • help electricity networks manage peaks in demand • compete in the wholesale electricity market by exporting electricity • help consumers trade energy with their neighbours. <p>The report sets out a future where consumers can buy and sell energy and related services at the distribution level in a more dynamic way - choosing from all the various revenue streams - in response to price signals and their own preferences.</p> <p>To achieve this vision, some essential changes to energy markets are already underway. This includes the introduction of a competitive market for smart meters and the move to cost reflective tariffs, which provide consumers with more accurate price signals on investing in, and using, distributed energy resources.</p> <p>But it is a longer term vision and the AEMC also identified the need for a number of 'enablers'.</p> <p>In particular, there needs to be better technical understanding of distribution networks, in order to help facilitate distribution level markets and the coordination of such markets with the wholesale market to broaden the opportunities for distributed energy resources.</p>
 <p>Last resort planning power - 2017 review</p>	<p>The last resort planning power is an oversight mechanism conferred on the AEMC to complement the planning roles of AEMO, as national transmission planner, and transmission network companies. It allows the AEMC to require network companies to consider and consult on options to alleviate constraints on the interconnected transmission network when these companies have not initiated this process themselves.</p>	<p>After reviewing system planning reports prepared by AEMO and transmission businesses, the AEMC confirmed there is no need to exercise the last resort planning power for 2017.</p> <p>This year's report finds transmission network companies are adequately considering the need for inter-regional transmission investment in their planning activities.</p> <p>The AEMC is required to report annually on the last resort planning power. The AEMC has not exercised the last resort planning power since it was conferred on it in 2007.</p>

Review name	Overview	Expected benefits/impacts from recommendations
 <p>Reliability standard and settings review 2018</p>	<p>The reliability standard and settings focus on the future performance of the NEM. Their purpose is to:</p> <ul style="list-style-type: none"> • establish the level of reliability consumers can expect from key aspects of the physical system (generators and interconnectors), by setting the reliability standard • protect the long term integrity of the market by limiting the extent to which wholesale prices can rise and fall, to limit market participants' exposure to prices that could threaten the financial viability of a prudent market participant • allow for sufficient investment to provide electricity to the agreed reliability standard <p>Every four years the Reliability Panel is required to review the reliability standard and the reliability settings. Through this periodic review the Panel considers whether the standards and settings remain suitable for current market arrangements.</p>	<p>The Reliability Panel's final report found that the current reliability standard and settings are appropriate and should be extended to 2024.</p> <p>In reviewing the standard and settings, the Panel modelled a range of different futures - including a world with more household battery storage systems and more wind generation. It also factored in the current state of uncertainty in the market and how the market is transforming.</p> <p>Setting the reliability standard involves a trade-off between the prices consumers pay for electricity and the cost to consumers of not having electricity there when it's needed. In undertaking this review, the Panel was cognisant of getting the balance right to avoid what some have called 'gold plating' with excess capacity built but not required for years.</p> <p>The Panel noted that removing the difference between the current standard of 99.998 per cent of demand met and 100 per cent could require considerable additional investment in generation measured in the billions of dollars.</p>
 <p>2017 annual market performance review</p>	<p>The annual market performance review is a requirement under the National Electricity Rules.</p> <p>It provides the Panel with the opportunity to consider specific events that have occurred in the national electricity market over the previous financial year, and to assess the performance of the power system against standards and guidelines determined by the Reliability Panel.</p> <p>The annual market performance review may assist governments, policy makers and market institutions to monitor the performance of the power system, and to identify the likely need for improvements to the various measures available for delivering reliability, security and safety.</p>	<p>The 2017 annual market performance review's final report, which looked at the power system's performance for the 2016-2017 financial year, found that there is enough generation capacity over the short and medium term. But keeping technical parameters like frequency and voltage within technical limits is becoming more challenging.</p> <p>In 2016-2017 the power system operated outside secure technical limits on 11 occasions, including South Australia's system-wide blackout.</p> <p>Eleven incidents within 12 months is historically high, up from seven the year before, four in 2014-2015, and two and one in the years prior.</p> <p>The report noted the package of new tools introduced by the AEMC in 2017 to help AEMO address the immediate issues concerned with the stability of the power system resulting from the changing generation mix.</p> <p>The report also acknowledged the significant body of work underway on maintaining the security of the national electricity market, including the AEMC's frequency control frameworks review and the generator technical performance standards rule change.</p>

Table J Market reviews and advice current at 30 June 2018

Review name	Overview	Expected benefits/impacts from recommendations
<p>Coordination of generation and transmission investment</p>	<p>In response to the AEMC's recommendations in the final report for the Optional firm access, design and testing review, the COAG Energy Council has asked the AEMC to implement a biennial regime to report on drivers of change that impact transmission and generation investment.</p> <p>The AEMC will undertake a two-stage approach to reporting.</p> <p>At least every two years we will publish a stage one report consisting of a high-level analysis of whether drivers in the NEM have changed substantially such that a more detailed examination of the conditions is warranted.</p> <p>Where a second stage is required, the AEMC will conduct an in-depth assessment of how the driver(s) have changed.</p> <p>We will also consider whether the implementation of a model that would introduce more commercial drivers into transmission and generation investment, or other changes to the regulatory framework, would meet the National Electricity Objective.</p>	<p>We published the final coordination of generation and transmission investment stage one report in July 2017. It found that the drivers of transmission and generation investment have changed significantly in recent years and recommended that the review progress to a second stage. The second stage provided an opportunity to identify ways to better coordinate the investment in generation and the transmission network that is required as the generation mix changes, at least cost for consumers.</p> <p>In the stage two discussion paper we set out options for clustering new generators in zones to reduce the costs of new transmission infrastructure needed to connect these generators to the grid. This means new low emissions generators can join the power system at the lowest possible cost.</p> <p>We also found there may be significant congestion on transmission networks in the future as more generators connect to the grid and sought stakeholder views on the increase in new types of generation capability, such as large-scale battery storage, connecting directly to the transmission network. At 30 June we were preparing the paper for the next stage of the review in September 2018 where issues relevant to the role of AEMO's integrated system plan will be considered as part of the Energy Security Board's coordinated process for work on these issues.</p>
<p>Review of the system black event in South Australia on 28 September 2016</p>	<p>The COAG Energy Council's terms of reference for this review direct the AEMC to build on the work conducted by the AER and AEMO, focussed on the compliance of market participants with requirements in the National Electricity Law and the National Electricity Rules, and technical issues contributing to the system black event that occurred in South Australia on 28 September 2016.</p> <p>The AEMC is required to provide a report to the COAG Energy Council within six months of the completion of both AEMO and the AER's reports.</p>	<p>AEMO's fourth and final incident report for the event was published on 28 March 2017.</p> <p>The AER expects to publish its compliance report into the system black event in South Australia later in 2018.</p> <p>Once the AEMC receives the AER's report, we will provide more information about how we intend to proceed.</p>

Review name	Overview	Expected benefits/impacts from recommendations
<p>Review into the scope of economic regulation applied to covered pipelines</p>	<p>The COAG Energy Council tasked the AEMC with reviewing the effectiveness of gas pipeline regulation to address concerns that consumers may be paying more than necessary for gas pipeline services.</p> <p>This request follows the AEMC's east coast wholesale gas market and pipeline frameworks review, the ACCC's inquiry into the competitiveness of wholesale gas prices in eastern and southern Australia, and Dr Michael Vertigan's December 2016 paper on the current regulatory test for the regulation of gas pipelines.</p>	<p>Just after the close of the year in review, the AEMC released a package of recommendations on stronger regulation of gas pipeline would help pipeline users negotiate lower prices and better deals for shipping gas. If implemented, gas users, like manufacturing businesses, that rely on gas, gas-fired electricity generators, and retailers who supply small businesses and households would be better off as a result.</p> <p>More services would be subject to access arrangements, prices would be set at more efficient levels, contract terms would be more balanced, and arbitration would act as a more credible back-stop if negotiations fail.</p> <p>The AEMC has also recommended giving regulators oversight of a wider range of pipeline services, and allowing all stakeholders, including pipeline users, to have more input into regulators' decisions on appropriate prices, services and conditions. This would mean pipeline users are better represented and better protected.</p> <p>In developing these recommendations, the AEMC worked closely with the ACCC as it continued its gas market inquiry, the AER, the Economic Regulation Authority of Western Australia and the Gas Market Reform Group. Stakeholders also provided valuable input in a series of workshops and bilateral meetings.</p> <p>This work is another step in the ongoing redesign of Australia's gas markets.</p>
<p>Biennial review into the growth in liquidity in wholesale gas and pipeline trading markets</p>	<p>Gas markets are currently being redesigned to support faster and more efficient gas trading and access to pipeline transportation along the east coast of Australia. The changes are based on a package of reforms developed by the AEMC and endorsed by the COAG Energy Council.</p> <p>In December 2017 the COAG Energy Council asked the AEMC to conduct a biennial review into the growth of liquidity in the wholesale gas and pipeline capacity trading markets.</p> <p>The terms of reference require the AEMC to monitor changes in liquidity, report on the effectiveness of reforms and identify the need for any further reforms, if appropriate.</p>	<p>The draft report, which was published in April 2018, found that liquidity on the Wallumbilla gas supply hub has increased over the past two years. This positive change was reflected in almost all metrics of liquidity that formed part of the analysis.</p> <p>Where information was available, metrics were also calculated for other facilitated gas markets including the Moomba gas supply hub, the short-term trading markets, the Victorian declared wholesale gas market and pipeline capacity markets. Results for these other markets were more diverse across all metrics.</p> <p>The draft report noted that with only two years of data, it is too early to assess the trends for gas market liquidity from these initial metrics. Also, because the Moomba gas supply hub has only been in operation since June 2016, more time should be given for any of the related liquidity metrics to develop.</p> <p>Importantly, these baseline measures will enable the AEMC to track progress and assess the effectiveness of reforms and the case for further reform to wholesale gas and pipeline trading markets over the longer term.</p> <p>At 30 June 2018 we were preparing the final report for publication in August.</p>

Review name

Overview

Expected benefits/impacts from recommendations

2018 electricity network economic regulatory framework review

The annual review of the economic regulatory framework for electricity networks is part of the AEMC's work to support the continual evolution of the energy sector.

In light of the significant growth in decentralised energy resources, the review will examine whether the economic regulatory framework is robust, flexible and continues to support the efficient operation of the energy market in the long term interest of consumers.

We do this by monitoring changes and developments in the national electricity market and where necessary, recommend changes to the economic regulatory framework to the COAG Energy Council.

In July 2018 the AEMC published the final report for the 2018 economic regulatory framework review.

This year's review focussed on networks' incentives to deliver services at the lowest possible cost. As recommended by the Finkel review, this included testing whether network businesses have a bias towards traditional network solutions over demand-side measures.

The review found that the regulatory framework is currently flexible enough to support integration of distributed energy resources like solar PV, batteries and price-responsive appliances, especially as major changes in recent years have reduced network costs and introduced cost-reflective pricing so households and businesses can make the most of their investments.

However, we are monitoring the need for more changes to support likely future scenarios where there is a much higher penetration of distributed energy resources and more multi-directional energy flows.

The report found that incentive-based regulation continues to be the right approach for deciding how much revenue a network can recover from consumers. But as new technologies offer more non-network solutions as alternatives to 'poles and wires' investment, the method of expenditure assessment and remuneration may need to change in the future.

The report also looked at how the regulatory framework may need to change more broadly to support a grid with more distributed energy resources. The Commission will work with AEMO, Energy Networks Australia and other stakeholders on potential models for the optimisation of distribution-level markets.

Next steps: As part of the 2019 economic regulatory framework review, the AEMC will consider changes to the expenditure assessment and remuneration provision of the rules to develop arrangements that better align capital expenditure and operating expenditure arrangements.

Review name	Overview	Expected benefits/impacts from recommendations
 <p>Frequency control frameworks review</p>	<p>The electricity sector in Australia is experiencing a period of change as the proportion of newer types of electricity generation, such as wind and solar, increases. These new sources of electricity are changing the way Australia's power system works.</p> <p>Challenges in maintaining power system security are emerging because of the physics of maintaining technical generation parameters like grid frequency.</p> <p>The AEMC initiated this review to address current concerns with frequency performance in the national electricity market and to consider how best to integrate faster frequency control services offered by new technologies into the current regulatory and market arrangements.</p> <p>It will progress a number of recommendations made by the AEMC in our system security market frameworks review for possible changes to market arrangements that will lead to more efficient outcomes for energy consumers while delivering a secure operating system.</p> <p>Recommendations may include proposed revisions to technical standards, refinements to existing markets for frequency control services, and the establishment of new markets or other changes to the regulatory and market framework.</p>	<p>With more wind and solar now in the system, and coal-fired generators exiting, the technical characteristics of the electricity grid are changing. This makes it more challenging to keep the system secure and maintain frequency within the required limits under normal operating conditions</p> <p>The frequency control frameworks review's final report was published in July 2018. It described how frequency performance in the national electricity market has worsened in recent years, and recommended changes to help make the power system more secure at the least cost.</p> <p>The recommendations aim to address frequency performance in the national electricity market, remove barriers to distributed energy resources participating in system security frameworks and explore how best to integrate faster frequency control services offered by new technologies into the current regulatory and market arrangements.</p> <p>Proposed changes include:</p> <ul style="list-style-type: none"> • improved incentives for generators to use their equipment more effectively to keep frequency within secure limits • market development options to promote investment in batteries and other new technologies that can provide least-cost frequency control services • AEMO undertaking monitoring and publishing regular reports on frequency performance • AER monitoring and reporting on the performance of FCAS markets. <p>Next steps: the AEMC will continue to work closely with AEMO and other stakeholders on a longer-term, collaborative work plan to address the security needs of the system at least cost.</p>
 <p>Reliability frameworks review</p>	<p>This AEMC-initiated review is looking at ways to deliver a reliable power system - one that has enough electricity available when consumers need it - at the lowest cost. It includes consideration of several recommendations from the Finkel panel's independent review into the future security of the national electricity market that relate to reliability.</p> <p>The AEMC will work collaboratively with AEMO, the Reliability Panel and the AER on the development of proposals and recommendations.</p>	<p>The Energy Security Board has proposed the national energy guarantee to produce a clear investment signal so the cleanest, cheapest and most reliable generation can get built in the right place at the right time.</p> <p>The reliability frameworks review's directions paper, published in April 2018, considered complementary changes to market design to support the national energy guarantee's objective.</p> <p>It consulted on four key transition elements:</p> <ul style="list-style-type: none"> • demand response - which would provide a source of reliability to support the national energy guarantee • transparency of forecasting demand for electricity so market participants can make better informed operational and investment decisions • day-ahead markets and whether stakeholders need improvements to information provision • least cost ways for AEMO to access strategic reserves.

Review name	Overview	Expected benefits/impacts from recommendations
 <p>Reliability frameworks review (continued)</p>	<p>Stakeholder input included a reference group to provide high-level input into the review and a technical working group to provide technical advice.</p>	<p>Stakeholders provided comprehensive submissions on the issues raised in the discussion paper.</p> <p>A final report for this review is due in mid-2018 which will present our findings in relation to the four key streams and any recommended changes to regulatory frameworks.</p>
 <p>NSW embedded networks and stand-alone systems advice</p>	<p>The NSW Government has asked the AEMC to provide advice on jurisdictional issues related to the regulation of embedded networks and stand-alone power systems.</p>	<p>The AEMC will conduct a gap analysis of existing NSW regulatory frameworks related to embedded networks and stand-alone power systems and provide advice to inform the design of an appropriate framework.</p> <p>This work is being undertaken in the context of the AEMC's previous work in the review of regulatory arrangements for embedded networks and the alternatives to grid supplied network services rule change. It will also be undertaken in conjunction with reviews by the AEMC during 2018-2019 of the national frameworks for the regulation of embedded networks and stand-alone power systems.</p>
 <p>Review of the frequency operating standard</p>	<p>Under the National Electricity Rules, AEMO must keep the power system stable and securely operating at a frequency close to 50 hertz. The specific frequency requirements that AEMO must meet under different power system conditions are set out in the frequency operating standard, which is determined by the Reliability Panel.</p> <p>This review is an integrated part of the AEMC's system security work program. It is investigating the appropriateness of the settings in the standard, in light of the ongoing energy market transformation as conventional synchronous generation leaves the market and non-synchronous generation such as wind and solar panels enters the market.</p>	<p>The AEMC's Reliability Panel has set a new frequency operating standard (FOS) for the national electricity market that gives clearer guidance on how frequency should be controlled during extreme events.</p> <p>The new FOS differs from the current FOS in a number of key ways, including:</p> <ul style="list-style-type: none"> • the inclusion of a FOS for protected events • a revised requirement relating to multiple contingency events • a revised definition of 'generation event' • the revision of the definitions in the FOS relating to island operation • a revised limit for accumulated time error in the mainland. <p>Stage one of the review primarily addressed technical issues and changes stemming from the new emergency frequency control schemes rule.</p> <p>Stage two will consider the various components of the frequency operating standard, including the settings of the frequency bands and time requirements for maintenance and restoration of system frequency. We will commence stage two in August 2018 following the publication of the frequency control frameworks review's final report.</p>

Financial performance



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Report of the Auditor-General

INDEPENDENT AUDITOR'S REPORT



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To the Chairperson Australian Energy Market Commission

As required by section 31(1)(b) of the *Public Finance and Audit Act 1987* and section 26(2) of the *Australian Energy Market Commission Establishment Act 2004*, I have audited the financial report of the Australian Energy Market Commission (the Commission) for the financial year ended 30 June 2018.

Opinion

In my opinion, the accompanying financial report gives a true and fair view of the financial position of the Australian Energy Market Commission as at 30 June 2018, its financial performance and its cash flows for the year then ended in accordance with the Treasurer's Instructions issued under the provisions of the *Public Finance and Audit Act 1987* and Australian Accounting Standards.

The financial report comprises:

- a Statement of Comprehensive Income for the year ended 30 June 2018
- a Statement of Financial Position as at 30 June 2018
- a Statement of Changes in Equity for the year ended 30 June 2018
- a Statement of Cash Flows for the year ended 30 June 2018
- notes, comprising a summary of significant accounting policies and other explanatory information
- a Certificate from the Chairperson, Chief Executive and the Financial Controller.

Basis for opinion

I conducted the audit in accordance with the *Public Finance and Audit Act 1987* and Australian Auditing Standards. My responsibilities under those standards are further described in the 'Auditor's Responsibilities for the Audit of the Financial Report' section of my report. I am independent of the Commission. The *Public Finance and Audit Act 1987* establishes the independence of the Auditor-General. In conducting the audit, the relevant ethical requirements of APES 110 Code of Conduct for Professional Accountants have been met.

I believe that the audit evidence obtained is sufficient and appropriate to provide a basis for my opinion.

Responsibilities of the Commissioners for the financial report

The Commissioners are responsible for the preparation of the financial report that gives a true and fair view in accordance with the Treasurer's Instructions issued under the provisions of the *Public Finance and Audit Act 1987* and the Australian Accounting Standards, and for such internal control as management determines is necessary to enable the preparation of the financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

The Commissioners are responsible for overseeing the entity's financial reporting process.

Auditor's responsibilities for the audit of the financial report

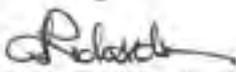
My objectives are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this financial report.

As part of an audit in accordance with Australian Auditing Standards, I exercise professional judgement and maintain professional scepticism throughout the audit. I also:

- identify and assess the risks of material misstatement of the financial report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Commissioners
- evaluate the overall presentation, structure and content of the financial report, including the disclosures, and whether the financial report represents the underlying transactions and events in a manner that achieves fair presentation.

My report refers only to the financial report described above and does not provide assurance over the integrity of electronic publication by the entity on any website nor does it provide an opinion on other information which may have been hyperlinked to/from the report.

I communicate with the Chief Executive regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during the audit.


Andrew Richardson
Auditor-General
20 September 2018

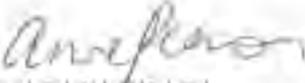
Certification of the financial statements

Australian Energy Market Commission Financial Statements for the year ended 30 June 2018

Certification of the Financial Statements

We certify that the:

- financial statements of the Australian Energy Market Commission ("the Commission"):
 - are in accordance with the accounts and records of the Commission; and
 - comply with relevant Treasurer's instructions; and
 - comply with relevant accounting standards; and
 - present a true and fair view of the financial position of the Commission at the end of the financial year and the result of its operations and cash flows for the financial year.
- Internal controls employed by the Commission over its financial reporting and its preparation of the financial statements have been effective throughout the financial year.


Anne Pearson
Chief Executive


Tricia Khoo
Financial Controller


John Pierce
Chairperson

Date: 18 September 2018

Statement of comprehensive income

For the year ended 30 June 2018

	Note	2018 \$'000	2017 \$'000
Expenses			
Employee benefits expenses	6	15,898	13,752
Supplies and services	9	9,244	9,019
Depreciation and amortisation expense	10	330	314
Net loss on disposal of non-current assets	11	1	6
Total expenses		25,473	23,091
Income			
Interest revenues	12	185	209
Other revenues	13	1,572	262
Total income		1,757	471
Net cost of providing services		(23,716)	(22,620)
Revenues from Government			
Contributions from participating jurisdictions	14	24,409	22,164
Net result		693	(456)
Total comprehensive result		693	(456)

The net result and total comprehensive result are attributable to the participating jurisdictions as owners.

The above statement of comprehensive income should be read in conjunction with the accompanying notes.

Statement of financial position

For the year ended 30 June 2018

	Note	2018 \$'000	2017 \$'000
Current assets			
Cash and cash equivalents	15	13,623	13,223
Receivables	16	591	629
Total current assets		14,214	13,852
Non-current assets			
Property, plant and equipment	17	991	455
Intangible assets	18	1,040	328
Total non-current assets		2,031	783
Total assets		16,245	14,635
Current liabilities			
Payables	19	1,130	864
Employee benefits	20	1,215	992
Other liabilities	21	2,374	2,123
Total current liabilities		4,719	3,979
Non-current liabilities			
Payables	19	81	63
Employee benefits	20	765	615
Provisions	22	338	329
Total non-current liabilities		1,184	1,007
Total liabilities		5,903	4,986
Net assets		10,342	9,649
Equity			
Retained earnings		8,325	7,632
Contributed capital		2,017	2,017
Total equity	23	10,342	9,649

The total equity is attributable to the participating jurisdictions as owners.

Unrecognised contractual commitments	24
Contingent assets and liabilities	25

The above statement of financial position should be read in conjunction with the accompanying notes.

Statement of changes in equity

For the year ended 30 June 2018

	Note	Contributed capital \$'000	Retained earnings \$'000	Total equity \$'000
Balance at 30 June 2016		2,017	8,088	10,105
Net result for 2016-17		-	(456)	(456)
Total comprehensive result for 2016-17		-	(456)	(456)
Balance at 30 June 2017		2,017	7,632	9,649
Net result for 2017-18		-	693	693
Total comprehensive result for 2017-18		-	693	693
Balance at 30 June 2018	23	2,017	8,325	10,342

All changes in equity are attributable to the participating jurisdictions as owners.

The above statement of changes in equity should be read in conjunction with the accompanying notes.

Statement of cash flows

For the year ended 30 June 2018

Note	2018 \$'000	2017 \$'000
Cash flows from operating activities		
Cash outflows		
Employee benefits payments	(15,377)	(13,300)
Payments for supplies and services	(10,196)	(10,205)
Payments for paid parental leave scheme	(31)	(12)
Cash used in operations	(25,604)	(23,517)
Cash inflows		
Receipts from participating jurisdictions	24,652	23,436
Other receipts	1,981	372
Interest received	187	222
GST recovered from the ATO	692	824
Receipts for paid parental leave scheme	31	12
Cash generated from operations	27,543	24,866
Net cash provided by operating activities	1,939	1,349
Cash flows from investing activities		
Cash outflows		
Purchase of property, plant and equipment	(703)	(127)
Purchase of intangibles	(836)	(163)
Cash used in investing activities	(1,539)	(290)
Net cash used in investing activities	(1,539)	(290)
Net increase in cash and cash equivalents	400	1,059
Cash and cash equivalents at the beginning of the period	13,223	12,164
Cash and cash equivalents at the end of the period	13,623	13,223

The above statement of cash flows should be read in conjunction with the accompanying notes.

Notes to & forming part of the financial statements

For the year ended 30 June 2018

1 Basis of financial statements

1.1 Reporting entity

The Commission is a body corporate established under South Australian law.

The Commission does not control any other entity and has no interests in unconsolidated structured entities. The Commission has not entered into any contractual arrangements which involve the sharing of control or significant influence over another entity.

The objectives and activities of the Commission are detailed in Note 2.

Additionally, from March 2018, the Commission administers resources on behalf of the Energy Security Board ("ESB"). The ESB was established by the COAG Energy Council to coordinate the implementation of the reform blueprint produced by Australia's Chief Scientist, Dr Alan Finkel AO. The ESB will also provide whole-of-system oversight for energy security and reliability to drive better outcomes for consumers. The ESB Board comprises the independent Chair and Deputy Chair, together with the Chairs of the Commission, the Australian Energy Regulator, and the Chief Executive Officer of the Australian Energy Market Operator.

Transactions and balances relating to these administered resources are not recognised as the Commission's income, expenses, cash inflows or cash outflows, assets or liabilities. They are recognised as administered income, expenses, cash inflows, cash outflows, assets or liabilities under Note 28.

1.2 Statement of compliance

These financial statements have been prepared in compliance with section 23 of the *Public Finance and Audit Act 1987*.

The financial statements are general purpose financial statements. The accounts have been prepared in accordance with relevant Australian Accounting Standards (Reduced Disclosure Requirements) and comply with South Australian Treasurer's Instructions and Accounting Policy Statements promulgated under the provisions of the *Public Finance and Audit Act 1987*.

The Commission has applied Australian Accounting Standards that are applicable to not-for-profit entities, as the Commission is a not-for-profit entity. The Commission applies Tier 2 Australian Accounting Standards reporting requirements.

1.3 Basis of preparation

The financial statements have been prepared on a 12 month period and presented in Australian currency. The historical cost convention is used unless a different measurement basis is specifically disclosed in the note associated with the item measured on a different basis.

All amounts in the financial statements and accompanying notes have been rounded to the nearest thousand dollars (\$'000).

1.4 Taxation

The Commission is not subject to income tax. The Commission is liable for payroll tax, fringe benefits tax and goods and services tax (GST).

Income, expenses and assets are recognised net of the amount of GST except:

- when the GST incurred on a purchase of goods or services is not recoverable from the Australian Taxation Office (ATO), in which case the GST is recognised as part of the cost of acquisition of the asset or as part of the expense item applicable; and
- receivables and payables, which are stated with the amount of GST included.

The net amount of GST recoverable from, or payable to, the ATO is included as part of receivables or payables in the statement of financial position.

Cash flows are included in the statement of cash flows on a gross basis and the GST component of cash flows arising from investing and financing activities, which is recoverable from, or payable to, the ATO is classified as part of operating cash flows.

Notes to & forming part of the financial statements

For the year ended 30 June 2018

2 Objectives and activities

2.1 Objectives

The Australian Energy Market Commission (“the Commission”) was established on 22 July 2004 pursuant to the *Australian Energy Market Commission Establishment Act 2004 (South Australia)*. The Commission operates in Australia from a single office in Sydney, NSW.

The Commission’s key functions under the AEMC Establishment Act, the National Electricity Law, National Gas Law, and the National Energy Retail Law, are to:

- a) consider rule change requests and make rule determinations;
- b) conduct market reviews on request of the Ministerial Council on Energy (MCE), or on the AEMC’s own initiative; and
- c) provide advice on request from the MCE.

2.2 Activities

The Commission undertakes the following activities:

- a) make and revise the energy rules;
- b) undertake reviews and provides advice to governments and others on improvements to regulatory and energy market arrangements;
- c) responsible for developing electricity guidelines and standards together with the Reliability Panel; and
- d) undertake major projects which may involve a combination of reviews and rule changes conducted over an extended period of time.

3 Summary of significant accounting policies

a) Comparative information

The presentation and classification of items in the financial statements are consistent with prior periods except where specific accounting standards and/or accounting policy statements have required a change.

b) Rounding

All amounts in the financial statements and accompanying notes have been rounded to the nearest thousand dollars (\$’000).

c) Events after the reporting period

Adjustments are made to amounts recognised in the financial statements, where an event occurs after 30 June and before the date the financial statements are authorised for issue, where those events provide information about conditions that existed at 30 June.

Note disclosure is made about events between 30 June 2018 and the date the financial statements are authorised for issue where the events relate to a condition which arose after 30 June 2018 and which may have a material impact on the results of subsequent years. Refer to Note 27.

d) Income

Income is recognised to the extent it is probable that the flow of economic benefits to the Commission will occur and can be reliably measured.

Income has been aggregated according to its nature and has not been offset unless required or permitted by a specific accounting standard, or where offsetting reflects the substance of the transaction or other event.

The following are specific recognition criteria:

Contributions received from participating jurisdictions

The Commission’s funding is provided through contributions by the participating jurisdictions within the meaning of the National Electricity Law and the National Gas Law and the National Energy Retail Law. South Australia’s contribution to the

Notes to & forming part of the financial statements

For the year ended 30 June 2018

Commission is an expense of the SA Government and not an inter-agency transaction.

Contributions are recognised as an asset and income when the Commission obtains control of the contributions or obtains the right to receive the contributions and the income recognition criteria are met (i.e. the amount can be reliably measured and the flow of resources is probable).

Generally, the Commission has obtained control or the right to receive for:

- Contributions with unconditional stipulations - this will be when the agreement becomes enforceable i.e. the earlier of when the receiving entity has formally been advised that the contribution has been approved; agreement/contract is executed; and/or the contribution is received.
- Contributions with conditional stipulations – this will be when the enforceable stipulations specified in the agreement occur or are satisfied; that is income would be recognised for contributions received or receivable under the agreement.

All contributions received by the Commission have been contributions with unconditional stipulations attached and have been recognised as an asset and income in the period in which they are earned.

e) Expenses

Expenses are recognised to the extent that it is probable that the flow of economic benefits from the Commission will occur and can be reliably measured.

Expenses have been aggregated according to their nature and have not been offset unless required or permitted by another accounting standard, or where offsetting reflects the substance of the transaction or other event.

The following are specific recognition criteria:

Employee benefits expenses

Employee benefits expenses include all costs related to employment including wages and salaries, non-monetary benefits and leave entitlements. These are recognised when incurred.

Superannuation

The amount charged to the statement of comprehensive income represents the contributions made by the Commission to the superannuation plan in respect of current services of current Commission staff.

Depreciation and amortisation

All non-current assets, having a limited useful life, are systematically depreciated/amortised over their useful lives in a manner that reflects the consumption of their service potential. Amortisation is used in relation to intangible assets such as software, while depreciation is applied to tangible assets such as property, plant and equipment.

Asset residual values, useful lives and amortisation methods are reviewed and adjusted if appropriate on an annual basis.

Changes in the expected useful life or the expected pattern of consumption of future economic benefits embodied in the asset are accounted for prospectively by changing the time period or method, as appropriate, which is a change in accounting estimate. These have not changed.

Depreciation/amortisation is calculated on a straight-line basis over the estimated useful life of the following classes of assets:

Class of assets	Useful life (years)
Plant and equipment	3-20
Intangibles	4-5
IT infrastructure	3-4

Net gain / loss on disposal of non-current assets

Any gain/ (loss) on disposal of assets are recognised at the date control of the asset is passed to the buyer and are determined after deducting the written down value from the proceeds of the asset sale at the time.

Notes to & forming part of the financial statements

For the year ended 30 June 2018

f) Current and non-current classification

Assets and liabilities are characterised as either current or non-current in nature. Assets and liabilities that are to be sold, consumed or realised as part of the normal operating cycle even when they are not expected to be realised within twelve months after the reporting date have been classified as current assets or current liabilities.

g) Assets

Assets have been classified according to their nature and have not been offset unless required or permitted by a specific accounting standard, or where offsetting reflects the substance of the transaction or other event.

Cash and cash equivalents

Cash and cash equivalents in the statement of financial position and for the purposes of the statement of cash flows, include cash at bank and cash on hand and in other short-term, highly liquid investments with maturities of six months or less that are readily converted to cash and which are subject to insignificant risk in changes in value.

Cash is measured at nominal value.

Receivables

Receivables include funding receivable, net GST input tax credits recoverable, interest receivable, prepayments and other accruals.

Receivables are generally settled within 30 days after issue of an invoice. Collectability of receivables is reviewed on an ongoing basis. An allowance for doubtful debts is raised when there is objective evidence that the Commission will not be able to collect the debt. Bad debts are written off when identified.

Non-current assets

Acquisition and recognition

Non-current assets are initially recorded at cost plus any incidental cost involved with the acquisition. Non-current assets are subsequently measured at fair value less accumulated depreciation. All non-current tangible assets with a value equal to or in excess of \$2,000 are capitalised.

Revaluation of non-current assets

All non-current tangible assets are valued at written down current cost (a proxy for fair value); and revaluation of non-current assets or group of assets is only performed when its fair value at the time of acquisition is greater than \$1 million and estimated useful life is greater than three years. No revaluation was performed for the year ended 30 June 2018 as the Commission did not have non-current assets which met the revaluation criteria.

Impairment

All non-current tangible and intangible assets are tested for indication of impairment at each reporting date. Where there is an indication of impairment, the recoverable amount is estimated. The recoverable amount is determined as the higher of the asset's fair value less costs of disposal and depreciated replacement cost. An amount by which the asset's carrying amount exceeds the recoverable amount is recorded as an impairment loss.

Intangible assets

An intangible asset is an identifiable non-monetary asset without physical substance. Intangible assets are measured at cost. Following initial recognition, intangible assets are carried at cost less any accumulated amortisation and any accumulated impairment losses.

The useful lives of intangible assets are assessed to be either finite or indefinite. The Commission only has intangible assets with finite lives. The amortisation period and the amortisation method for intangible assets are reviewed on an annual basis.

The acquisition of, or internal development of software is capitalised when the expenditure meets the definition criteria (identifiably, control and the existence of future economic benefits) and recognition criteria (probability of future economic benefits and cost can be reliably measured) and when the amount of the expenditure is greater than or equal to \$2,000.

Notes to & forming part of the financial statements

For the year ended 30 June 2018

h) Liabilities

Liabilities have been classified according to their nature and have not been offset unless required or permitted by a specific accounting standard, or where offsetting reflects the substance of the transaction or other event.

Payables

Payables include creditors, accrued expenses, net GST payable, employment on-costs and Paid Parental Leave Scheme payable.

Creditors represent the amounts owing for goods and services received prior to the end of the reporting period that are unpaid at the end of the reporting period. Creditors include all unpaid invoices received relating to the normal operations of the Commission.

Accrued expenses represent goods and services provided by other parties during the period that are unpaid at the end of the reporting period and where an invoice has not been received.

The Paid Parental Leave Scheme payable represents amounts which the Commission has received from the Commonwealth Government to forward onto eligible employees via the Commission's standard payroll processes. That is, the Commission is acting as a conduit through which the payment to eligible employees is made on behalf of the Department of Human Services.

All payables are measured at their nominal amount, are unsecured and are normally settled within 30 days from the date of the invoice or date the invoice is first received.

Employee benefit on-costs include payroll tax, workers compensation levies and superannuation contributions in respect to outstanding liabilities for salaries and wages, long service leave and annual leave.

The Commission makes contributions to several externally managed superannuation schemes on behalf of employees. These contributions are treated as an expense when they occur. There is no liability for payments to beneficiaries as they have been assumed by the respective superannuation schemes. The only liability outstanding at reporting date relates to any contributions due but not yet paid.

Leases

The determination of whether an arrangement is or contains a lease is based on the substance of the arrangement. The Commission has entered into operating leases.

Operating leases

The Commission has an operating lease for its office accommodation. Operating lease payments are recognised as an expense in the statement of comprehensive income on a straight-line basis over the lease term. The straight-line basis is representative of the pattern of benefits derived from the leased asset.

Lease incentives

All incentives for the agreement of a new or renewed operating lease are recognised as an integral part of the net consideration agreed for the use of the leased asset. Incentives received to enter into operating leases are recognised as a liability. The aggregate benefits of lease incentives received by the Commission in respect of operating leases have been recorded as a reduction of rental expense over the lease term, on a straight-line basis.

Employee benefits

These benefits accrue for employees as a result of services provided up to the reporting date that remain unpaid. Long-term employee benefits are measured at present value and short-term employee benefits are measured at nominal amounts.

Salaries, wages, annual leave and personal/carer's leave

The liability for salary and wages are measured as the amount unpaid at the reporting date at remuneration rates current at reporting date. The annual leave liability is expected to be payable within 12 months and is measured at the undiscounted amount expected to be paid.

Notes to & forming part of the financial statements

For the year ended 30 June 2018

No provision has been made for personal/carer's leave as all personal/carer's leave is non-vesting and the average personal/carer's leave taken in future years by employees is estimated to be less than the annual entitlement for personal/carer's leave.

Long service leave

The liability for long service leave is measured as the present value of expected future payments to be made in respect of services provided by employees up to the end of the reporting period using the projected unit credit method. The estimated liability for long service leave is based on actuarial assumptions over expected future salary and wage levels, experience of employee departures and periods of service. These assumptions are based on employee data across South Australian Government entities.

Expected future payments are discounted using market yields at the end of the reporting period on government bonds with durations that match, as closely as possible, the estimated future cash outflows.

The unconditional portion of the long service leave provision is classified as current as the Commission does not have an unconditional right to defer settlement of the liability for at least 12 months after reporting date. The unconditional portion of long service leave relates to an unconditional legal entitlement to payment arising after 10 years of service. However, the liability is classified as non-current if it is not expected to be settled wholly before 12 months after the reporting date.

Provisions

Provisions are recognised when the Commission has a present obligation as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation.

Provisions are measured at the present value of management's best estimate of the expenditure required to settle the present obligation at the reporting date. If the effect of the time value of money is material, provisions are discounted for the time value of money and the risks specific to the liability. The Commission has no requirement to recognise a workers compensation provision as workplace injuries are insured through iCare insurance (NSW), Zurich (ACT), WorkCover (QLD), EML (VIC) and Allianz West (WA).

Provision for make good

The Commission has recognised a provision for make good as a result of its obligation to return refurbished leasehold improvements to their original condition at the end of its operating lease for office accommodation.

i) Unrecognised contractual commitments and contingent assets and liabilities

Commitments include operating, capital and outsourcing arrangements arising from contractual or statutory sources are disclosed at their nominal value.

Contingent assets and contingent liabilities are not recognised in the statement of financial position, but are disclosed by way of a note and, if quantifiable, are measured at nominal value.

Unrecognised contractual commitments and contingencies are disclosed net of the amount of GST recoverable from, or payable to, the Australian Taxation Office. If GST is not payable to, or recoverable from, the Australian Taxation Office, the commitments and contingencies are disclosed on a gross basis.

4 New and revised accounting standards and policies

The Commission did not voluntarily change any of its accounting policies.

5 Economic dependency

The continued existence of the Commission in its present form is dependent on Government policy in each of the jurisdictions who fund the Commission, and the Commonwealth Government. The Commission is unable to borrow funds and retains capital and cash reserves sufficient to meet the majority of its liabilities and unrecognised contractual commitments.

To assist with revenue certainty, in December 2017 the Council of Australian Governments' Energy Council advised the approval of funding of \$28.889m for 2018-19.

Notes to & forming part of the financial statements

For the year ended 30 June 2018

6 Employee benefits

6.1 Employee benefits expenses	2018 \$'000	2017 \$'000
Salaries and wages	12,510	10,807
Long service leave	219	160
Annual leave	1,130	951
Employment on-costs - superannuation	1,250	1,007
Payroll and Fringe Benefits Tax	789	764
Relocation expenses	-	63
Total employee benefit expenses	15,898	13,752

Employees are appointed under common law contracts and are not employees under the South Australian *Public Sector Act 2009*. Commissioners are appointed by the Governor of South Australia on the recommendation of the Minister following nomination by the Ministerial Council on Energy or the Commonwealth as appropriate in accordance with the *Australian Energy Market Establishment Act 2004*.

6.2 Remuneration of employees	2018 No.	2017 No.
The number of employees whose remuneration received or receivable falls within the following bands:		
\$147,001 – \$149,000*	-	1
\$149,001 – \$159,000	3	2
\$159,001 – \$169,000	4	1
\$169,001 – \$179,000	2	6
\$179,001 – \$189,000	5	-
\$189,001 – \$199,000	5	2
\$199,001 – \$209,000	6	6
\$209,001 – \$219,000	4	1
\$219,001 – \$229,000	-	1
\$229,001 – \$239,000	1	2
\$259,001 – \$269,000	-	2
\$269,001 – \$279,000	1	-
\$279,001 – \$289,000	-	1
\$289,001 – \$299,000	2	1
\$309,001 – \$319,000	1	-
\$319,001 – \$329,000	2	-
\$369,001 – \$379,000	-	1
\$429,001 – \$439,000	1	-
Total number of employees	37	27

* This band has been included for the purposes of reporting comparative figures based on the executive base level remuneration rate for 2017-2018.

The table includes all employees who received remuneration equal to or greater than the base executive remuneration level during the year, as established by the South Australia Department of Treasury and Finance.

Notes to & forming part of the financial statements

For the year ended 30 June 2018

Remuneration of employees reflects all costs of employment including salaries and wages, payments in lieu of leave, superannuation contributions, salary sacrifice benefits and fringe benefits and any net fringe benefits tax paid or payable in respect of those benefits. The total remuneration received by these employees for the year was \$7,916,000 (2017: \$5,660,000).

7 Remuneration of Commissioners

The following persons held the position of Commissioner during the financial year:

John Pierce (Chair) (appointed 2 June 2010 and re-appointed 2 June 2015)

Neville Henderson (appointed 19 October 2009 and re-appointed 19 October 2014, and retired 16 February 2018)

Brian Spalding (appointed 19 April 2010, re-appointed 19 April 2013, and 19 April 2016)

Charles Popple (appointed 17 February 2018)

Allison Warburton (appointed 12 March 2018)

Michelle Shepherd (appointed 11 June 2018)

	2018 No.	2017 No.
The number of Commissioners whose remuneration received or receivable falls within the following bands:		
\$10,000 – \$19,999	1	-
\$90,000 – \$99,999	2	-
\$170,000 – \$179,999	1	-
\$210,000 – \$219,999	1	2
\$570,000 – \$579,999	-	1
\$580,000 – \$589,999	1	-
Total number of Commissioners	6	3

Remuneration of Commissioners reflects all costs of performing Commission member duties including sitting fees, salaries and wages, superannuation contributions, salary sacrifice benefits and fringe benefits and any net fringe benefits tax paid or payable in respect of those benefits. The total remuneration received or receivable by Commissioners for the year was \$1,178,000 (2017: \$1,002,000).

Remuneration of committee members

Committee Members during the 2017-18 financial year were:

Audit and Risk Management Committee

Brian Spalding (appointed 19 April 2010 and re-appointed 19 April 2013, and 19 April 2016, resigned 23 April 2018)

Jim Mitchell (Chair) (appointed 1 July 2015 and re-appointed 1 July 2017)

Jane Byrne (appointed 1 July 2015 and re-appointed 1 July 2017)

Allison Warburton (appointed 23 April 2018)

Reliability Panel

Neville Henderson (appointed 3 November 2009, and re-appointed 19 October 2014, and retired 16 February 2018)

Brian Spalding (appointed 17 February 2018, as Chair)

Notes to & forming part of the financial statements

For the year ended 30 June 2018

	2018 No.	2017 No.
The number of committee members whose remuneration received or receivable falls within the following bands:		
\$0 – \$9,999	2	-
\$10,000 – \$19,999	-	2
Total number of members	2	2

Remuneration of committee members reflects all costs of performing committee member duties including sitting fees, salaries and wages, superannuation contributions, salary sacrifice benefits and fringe benefits and any net fringe benefits tax paid or payable in respect of those benefits. The total remuneration received or receivable by committee members for the year was \$15,000 (2017: \$24,000).

Unless otherwise disclosed, transactions between members are on conditions no more favourable than those that it is reasonable to expect the entity would have adopted if dealing with the related party at arm's length in the same circumstances.

8 Related party transactions

The Commission is a statutory authority established pursuant to the *Australian Energy Market Commission Establishment Act 2004*.

The Commission is not owned or controlled by the South Australian Government. Related parties of the Commission include all key management personnel, their close family members and any entities controlled by those persons.

Key management personnel

Key management personnel of the authority include the Commissioners, the Chief Executive and six members of the senior management team who have responsibility for the strategic direction and management of the Commission.

Total compensation for the Commission's key management personnel is \$3,613,000 (2017: \$3,111,000).

Transactions with key management personnel and other related parties

There were no transactions with key management personnel or other related parties in the financial year.

9 Supplies and services

	2018 \$'000	2017 \$'000
Property expenses [^]	1,708	1,661
Information technology expenses	993	966
Accounting, legal and audit expenses	409	304
Project contractor and consultancy expenses [#]	2,882	3,180
Other contractor and consultancy expenses	840	572
Project support expenses [*]	672	424
General office administration expenses	204	154
Travel and accommodation expenses	650	676
Recruitment expenses	233	310
Staff training expenses	552	681
Other staff related expenses	101	91
Total supplies and services	9,244	9,019

Notes to & forming part of the financial statements

For the year ended 30 June 2018

[^] Includes operating lease payments, which are recognised as an expense on a straight-line basis over the lease term, as it is representative of the pattern of benefits derived from the leased assets. These payments totalled \$1,186,000 (2017: \$1,184,000).

[#] Includes professional services such as economic advice, modelling, and legal advice directly related to project work on rule changes, market reviews and expert panels.

^{*} Includes stakeholder communication, venue hire, research data and statutory advertising directly related to project work on rule changes, market reviews and expert panels.

The total supplies and services amount disclosed includes GST amount not recoverable from the ATO due to the Commission not holding a tax invoice or payments related to third party payments.

The number and dollar amount paid/payable in total to each consultant that fell within the following bands:

	No.	\$'000	No.	\$'000
Below \$10,000	4	11	-	-
Above \$10,000	24	3,137*	28	3,088
Total paid/payable to the consultants engaged	28	3,148	28	3,088

* These amounts included fees for various modelling and advice relating to the ESB, which totalled \$405,000 (2017: \$NIL). These fees were recovered from the Department of the Environment and Energy and disclosed under 'Other Revenues'. Accordingly, excluding these recovered amounts, 23 consultants were engaged for the year, which totalled \$2,743,000.

10 Depreciation and amortisation expense

	2018 \$'000	2017 \$'000
Plant and equipment	18	24
IT infrastructure	150	131
Intangible assets	162	159
Total depreciation and amortisation	330	314

11 Net loss on disposal/write-off of non-current and other assets

	2018 \$'000	2017 \$'000
Plant and equipment		
Proceeds from disposal	-	-
Less net book value of assets disposed	1	6
Net loss from write-off of plant and equipment	(1)	(6)
IT infrastructure		
Proceeds from disposal	-	-
Less net book value of assets disposed	-	-
Net loss from write-off of IT infrastructure assets	-	-
Total assets		
Total proceeds from disposal	-	-
Less total value of assets disposed	1	6
Total net loss from disposal of assets	(1)	(6)

Notes to & forming part of the financial statements

For the year ended 30 June 2018

12 Interest revenues

	2018 \$'000	2017 \$'000
Interest earned on bank accounts	185	209
Total interest revenues	185	209

13 Other revenues

	2018 \$'000	2017 \$'000
Recovery of project and staff secondment costs	1,572	262
Total other revenues	1,572	262

14 Contributions from participating jurisdictions

	2018 \$'000	2017 \$'000
Operational funding	24,409	22,164
Total contributions from participating jurisdictions	24,409	22,164

15 Cash and cash equivalents

	2018 \$'000	2017 \$'000
Cash at bank and on hand	7,304	7,007
Short-term deposits	6,319	6,216
Total cash and cash equivalents	13,623	13,223

Short-term deposits

Short-term deposits are made for varying periods of three months and six months. The deposits are lodged with the ANZ bank and earn interest at the respective short-term deposit rates.

16 Receivables

	2018 \$'000	2017 \$'000
Current		
Interest receivable	40	42
Prepayments	368	347
GST input tax recoverable	-	218
Other receivables	183	22
Total receivables	591	629

Allowance for doubtful debts

As at 30 June 2018, there was no objective evidence that a receivable was impaired. Therefore the Commission has not recognised any allowance for doubtful debts.

Notes to & forming part of the financial statements

For the year ended 30 June 2018

17 Property, plant and equipment

	2018 \$'000	2017 \$'000
Plant and equipment, at cost (deemed fair value)	205	209
Accumulated depreciation at the end of the period	(101)	(85)
Total plant and equipment	104	124
Work in progress	533	-
Total plant and equipment and work in progress	637	124
IT infrastructure, at cost (deemed fair value)	1,017	898
Accumulated depreciation at the end of the period	(710)	(583)
Total IT infrastructure	307	315
Work in progress	47	16
Total IT infrastructure and work in progress	354	331
Total property, plant and equipment	991	455

All property, plant and equipment assets are classified as a level 2 asset for the purposes of the fair value hierarchy.

Impairment

There were no indications of impairment of property, plant and equipment at 30 June 2018.

Reconciliation of non-current assets

The following table shows the movement of non-current assets during 2018.

	2018 \$'000	2017 \$'000
Plant and equipment		
Carrying amount at beginning of the period	124	120
Acquisitions	-	28
Disposals/write-offs	(3)	(2)
Depreciation adjustment for write-offs	2	2
Depreciation and amortisation	(19)	(24)
Carrying amount at the end of the period	104	124
Work in progress	533	-
Total plant and equipment	637	124
IT infrastructure		
Carrying amount at beginning of the period	331	195
Acquisitions	126	258
Disposals/write-offs	(22)	(206)
Depreciation adjustment for write-offs	22	199
Depreciation and amortisation	(150)	(131)
Carrying amount at the end of the period	307	315
Work in progress	47	16
Total IT infrastructure	354	331
Total property, plant and equipment	991	455

Notes to & forming part of the financial statements

For the year ended 30 June 2018

18 Intangible assets

	2018 \$'000	2017 \$'000
Computer software, at cost (deemed fair value)	3,070	2,943
Accumulated amortisation	(2,721)	(2,624)
Total computer software	349	319
Work in progress	691	9
Total intangible assets	1,040	328
Reconciliation of computer software		
Carrying amount at beginning of the period	328	324
Acquisitions	182	154
Disposals/write-offs	(65)	-
Amortisation adjustment for write-offs	65	-
Amortisation	(161)	(159)
Carrying amount at the end of the period	349	319
Work in progress	691	9
Total intangible assets	1,040	328

All intangible assets are classified as a level 2 asset for the purposes of the fair value hierarchy.

Impairment

There were no indications of impairment on intangible assets at 30 June 2018.

19 Payables

	2018 \$'000	2017 \$'000
Current		
Creditors	26	99
Accrued expenses	861	625
GST input tax payable	79	-
Employment on-costs	164	140
Total current payables	1,130	864
Non-current		
Employment on-costs	81	63
Total non-current payables	81	63
Total payables	1,211	927

Notes to & forming part of the financial statements

For the year ended 30 June 2018

20 Employee benefits

	2018 \$'000	2017 \$'000
Current		
Accrued salaries and wages	341	236
Annual leave	855	711
Long service leave	19	45
Total current employee benefits	1,215	992
Non-current		
Long service leave	765	615
Total non-current employee benefits	765	615
Total employee benefits	1,980	1,607

Australian Accounting Standard - AASB 119 - Employee Benefits, contains the calculation methodology for long service leave liability. The actuarial assessment is performed by the SA Department of Treasury who provide the basis for the measurement of long service leave.

21 Other liabilities

	2018 \$'000	2017 \$'000
Current		
Unearned revenue	2,110	1,867
Deferred lease incentive*	264	256
Total other liabilities	2,374	2,123

* Deferred lease incentive is the net difference between total rent paid year to date for the office accommodation lease, and the year to date costs calculated on a straight line basis.

22 Provisions

	2018 \$'000	2017 \$'000
Non-current		
Provision for make good	338	329
Total non-current provisions	338	329
Reconciliation of provision for make good		
Carrying amount at beginning of the period	329	331
Provision to make good leasehold premises	9	(2)
Carrying amount at end of the period	338	329

Notes to & forming part of the financial statements

For the year ended 30 June 2018

23 Equity

	2018 \$'000	2017 \$'000
Contributed capital		
New South Wales	750	750
Victoria	556	556
Queensland	432	432
South Australia	173	173
Tasmania	54	54
Australian Capital Territory	36	36
Western Australia	14	14
Northern Territory	2	2
Total contributed capital	2,017	2,017
Retained earnings	8,325	7,632
Total equity	10,342	9,649

The Funding Agreement with the Jurisdictions provides for the maintenance of a Capital reserve to meet any adverse funding situation or unexpected cash flows. Each State and Territory provided their portion of the funds for the Capital reserve which is intended to be retained by the Commission for its lifetime.

24 Unrecognised contractual commitments

24.1 Capital commitments	2018 \$'000	2017 \$'000
Capital expenditure contracted for at the reporting date but are not recognised as liabilities in the financial report, are payable as follows:		
Within one year	29	-
Total capital commitments	29	-

24.2 Expenditure commitments - other	2018 \$'000	2017 \$'000
Within one year	1,225	902
Later than one year but not longer than five years	131	169
Total commitments - other	1,356	1,071

The Commission's other commitments are for agreements for provision of services.

Notes to & forming part of the financial statements

For the year ended 30 June 2018

	2018 \$'000	2017 \$'000
24.3 Operating lease commitments		
Commitments for minimum lease payments in relation to non-cancellable operating leases, contracted for at the reporting date but not recognised as liabilities are payable as follows:		
Within one year	1,188	1,138
More than one year but not later than five years	2,420	3,608
Later than five years	-	-
Total operating lease commitments	3,608	4,746
Representing		
Non-cancellable operating leases	3,608	4,746
Total operating lease commitments	3,608	4,746

The Commission's operating leases are for office accommodation. Office accommodation is leased from Perron Investments Pty Ltd and Perpetual Trustee Company Limited. A lease commenced 1 June 2013 and is non-cancellable with a term of eight years (expiring on 31 May 2021) with an option to renew for a further five years. Rent is payable monthly in advance. The lease rental increments are fixed at 4.0% per annum for the lease term.

25 Contingent assets and liabilities

The Commission is not aware of any contingent assets and liabilities.

26 Financial risk management/ Financial instruments

26.1 Financial risk management

Risk management is managed by the Commission's corporate services and legal sections and risk management policies are in accordance with ISO 31000 - International Standard for Risk Management – Principles and guidelines.

26.2 Liquidity risk

The Commission is funded principally from contributions by the Jurisdictions. On an annual basis, the Commission submits its annual budget together with a three year forward estimate to the COAG Energy Council for approval.

26.3 Categorisation of financial instruments

Details of significant accounting policies and methods adopted including the criteria for recognition, the basis of measurement, and the basis on which income and expenses are recognised with respect to each class of financial asset, financial liability are disclosed in Note 2 Summary of significant accounting policies.

The Commission does not recognise any financial assets or financial liabilities at fair value, but does disclose fair value in the notes. All of the resulting fair value estimates are included in level 2 as all significant inputs required are observable.

The carrying value less impairment provisions of receivables and payables is a reasonable approximation of their fair values due to the short-term nature of these (refer Notes 3, 16 and 19).

Notes to & forming part of the financial statements

For the year ended 30 June 2018

Categorisation analysis of financial assets and liabilities

Category of financial asset and financial liability	Note	2018 Carrying amount/ Fair value (\$'000)	2017 Carrying amount/ Fair value (\$'000)
Financial assets			
Cash and cash equivalents	15	13,623	13,223
Receivables ^{(1), (2)}	16	223	65
Total financial assets		13,846	13,288
Financial liabilities			
Financial liabilities at cost			
Payables ⁽¹⁾	19	656	564
Total financial liabilities		656	564

(1) Receivable and payable amounts disclosed here exclude amounts relating to statutory receivables and payables. In government, certain rights to receive or pay cash may not be contractual and therefore in these situations, the requirements will not apply. Where rights or obligations have their source in legislation such as levy receivables/payables, tax equivalents, Commonwealth tax etc. they would be excluded from the disclosure. The standard defines 'contract' as enforceable by law. All amounts recorded are carried at cost.

(2) Receivables amount disclosed here excludes prepayments. Prepayments are presented in Note 16 as trade and other receivables in accordance with paragraph 78(b) of AASB 101 – Presentation of financial statements. However, prepayments are not financial assets as defined in AASB 132 – Financial instruments presentation, as the future economic benefit of these assets is the receipt of goods and services rather than the right to receive cash or another financial asset.

27 Events after reporting period

There are no events occurring after 30 June that have a material financial implication on the financial statements.

28 Disclosure of administered items

From March 2018, the Commission administers resources on behalf of the ESB. Refer to Note 1.1 for further details.

Transactions and balances relating to these administered resources are not recognised as the Commission's income, expenses, cash inflows or cash outflows, assets or liabilities. They are recognised under Note 28 as administered income, expenses, cash inflows, cash outflows, assets or liabilities.

	2018 \$'000	2017 \$'000
Administered income:		
Contributions from the Commonwealth	4,156	-
Interest revenue	3	-
Total administered income	4,159	-
Administered expenses:		
Secondment fees	230	-
Supplies and services	432	-
Total administered expenses	662	-
Net result	3,497	-

Notes to & forming part of the financial statements

For the year ended 30 June 2018

28 Disclosure of administered items (continued)

	2018 \$'000	2017 \$'000
Administered current assets:		
Cash	3,669	-
Total administered assets	3,669	-
Administered current liabilities:		
Accrued expenses - due to the AEMC	172	-
Total administered liabilities	172	-
Net administered assets	3,497	-
Administered equity		
Retained earnings	3,497	-
Total administered equity	3,497	-
Changes in equity		
Balance at 1 July	-	-
Net result	3,497	-
Balance at 30 June	3,497	-
Cash flows from operating activities		
Cash inflows:		
Contributions from the Commonwealth	4,156	-
Interest received	3	-
Total administered income	4,159	-
Cash outflows:		
Secondment fees	(132)	-
Payment for supplies and services	(358)	-
Total administered expenses	(490)	-
Net cash inflows/(outflows) from operating activities	3,669	-
Net increase/(decrease) in cash	3,669	-
Cash at 1 July	-	-
Cash at 30 June	3,669	-

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Statutory reports

MCE statements of policy principles

There are currently no statements of policy principles made by the Ministerial Council on Energy.

External consultants

The AEMC supplements its own resources with consultants. In 2017-2018 the total amount expended was \$2.74m.

External consultants – spending bands

Number and dollar amount of consultancies that fell within the following	No.	2017-2018 \$000
Below \$10,000	4	11
Above \$10,000	24	3,137
Subtotal	28	3,148
Expenditure reimbursed by the Commonwealth for consultants procured on behalf of the Energy Security Board	2	-405
TOTAL	27	2743

External consultants – project descriptions

Company	Project description
Apogee Energy	Advice on energy storage economics and financial risk management issues for five minute settlement
Axiom Economics	Analysis and drafting for the reliability frameworks review
Cambridge Economics Policy Associates	Identification of and advice on options to improve the coordination of generation and transmission investment; advice on economic regulation for contestability of energy services; modelling of financial incentives facing network service providers
Colmar Brunton	Small business consumer research for the 2018 retail energy competition review
Creative Energy Consulting	Development of a market sourcing approach for the provision of inertia; advice on FCAS frameworks for the frequency control frameworks review

Company	Project description
Deloitte Touche Tohmatsu	Review of outsourced IT model
DigSILENT Pacific	Technical consulting services for generator technical performance standards
Energy Options Australia	Consultancy services on the embedded network market in Australia
Ernst & Young	Assessment of the incidence and costs of congestion on the national electricity market
Fairway Boulevard	Peer review of the 2017 energy sector strategic priorities draft report
Farrier Swier Consulting	Advice on the economic regulation of gas pipelines
Finncorn Consulting	Input to the 2018 retail energy competition review
Frontier Economics	Advice on the integration of energy and climate policies; modelling and advice on residential electricity price trends; electricity market modelling and design options for a clean energy target
FTI Consulting	Advice on electricity wholesale market design options
Greenview Strategic Consulting	Review of arrangements for participation of distributed energy resources in system security frameworks
Herbert Smith Freehills	Provision of legal support on projects
Houston Kemp Economists	Advice and policy development for the review into the scope of economic regulation applied to covered pipelines
Ironstone Capital Advisory	Advice on impact of emissions reduction policy on financing of new generation capacity
Johnson Winter & Slattery Lawyers	Provision of legal support on projects
King & Wood Mallesons	Provision of legal support on projects
List G – Tom Clarke	Provision of legal support on projects
Marketwise Solutions	Economic advice on five minute settlement
Minter Ellison	Provision of legal support on projects
NERA Economic Consulting	Advice on specific design features of day ahead markets for the reliability frameworks review
Phacelift Consulting Services	Technical advice on five minute settlement
PricewaterhouseCoopers	Advice on taxation obligations
Seyfarth Shaw	Employment law advice

1 The Ministerial Council on Energy (MCE) is referenced in the AEMC's governing legislation and is a legally enduring body comprising the Federal, State and Territory ministers responsible for energy. On 1 July 2011 the MCE was amalgamated with the Ministerial Council on Mineral and Petroleum Resources. The amalgamated body is now called the COAG Energy Council.

2 One external consultant was utilised by both the AEMC and the Energy Security Board

AEMO's use of powers of direction

A report of the AEMC under section 27 of the Australian Energy Market Commission Establishment Act 2004 (SA) must include a report on AEMO's use of powers of direction. AEMO can direct registered participants to undertake actions that are in AEMO's view necessary to help deliver power system security. A registered participant who is subject to a direction from AEMO may be entitled to compensation for complying with the direction. AEMO can also issue instructions to any registered participants. Participants complying with an instruction are not able to obtain compensation. The directions below were issued by AEMO between 1 July 2017 and 30 June 2018 in relation to power system security under clause 4.8.9(a) of the National Electricity Rules (NER).

1. Between 2 September 2017 and 4 September 2017, AEMO issued a direction to a participant in South Australia (SA) to maintain power system security under clause 4.8.9 of the National Electricity Rules (NER).

The direction was issued between 0430 hrs on 2 September and 0630 hrs on 4 September 2017. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

2. On 17 September 2017, AEMO issued a direction to a participant in South Australia (SA) to maintain power system security under clause 4.8.9 of the National Electricity Rules (NER).

The direction was issued between 0733 hrs and 0905 hrs on 17 September 2017. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

3. Between 22 September 2017 and 24 September 2017, AEMO issued 3 directions to participants in South Australia (SA) to maintain power system security under clause 4.8.9 of the National Electricity Rules (NER).

The 1st direction was issued between 1805 hrs on 22 September 2017 and 1700 hrs on 24 September 2017. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 2nd direction was issued between 1135 hrs on 23 September 2017 and 1915 hrs on 24 September 2017. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 3rd direction was issued between 1400 hrs and 1700 hrs on 23 September 2017. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

4. Between 7 October 2017 and 8 October 2017, AEMO issued a direction to a participant in South Australia (SA) to maintain power system security under clause 4.8.9 of the National Electricity Rules (NER).

The direction was issued between 1445 hrs on 7 October 2017 and 1700 hrs on 8 October 2017. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

5. Between 9 October 2017 and 11 October 2017, AEMO issued 3 directions to participants in South Australia (SA) to maintain power system security under clause 4.8.9 of the National Electricity Rules (NER).

The 1st direction was issued between 2000 hrs on 9 October 2017 and 0700 hrs on 11 October 2017. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 2nd direction was issued between 0600 hrs on 10 October 2017 and 0700 hrs on 11 October 2017. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 3rd direction was issued between 2130 hrs on 10 October 2017 and 0700 hrs on 11 October 2017. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

6. Between 27 October 2017 and 30 October 2017, AEMO issued 3 directions to participants in South Australia (SA) to maintain power system security under clause 4.8.9 of the National Electricity Rules (NER).

The 1st direction was issued between 1330 hrs on 27 October 2017 and 2230 hrs on 28 October 2017. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 2nd direction was issued between 1430 hrs on 28 October 2017 and 1400 hrs on 30 October 2017. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 3rd direction was issued between 1500 hrs on 28 October 2017 and 1600 hrs on 29 October 2017. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

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7. Between 4 November 2017 and 6 November 2017, AEMO issued 2 directions to participants in South Australia (SA) to maintain power system security under clause 4.8.9 of the National Electricity Rules (NER).

The 1st direction was issued between 1615 hrs on 4 November 2017 and 0900 hrs on 5 November 2017. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 2nd direction was issued between 0942 hrs on 5 November 2017 and 0600 hrs on 6 November 2017. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

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8. Between 1 December 2017 and 3 December 2017, AEMO issued 2 directions to participants in South Australia (SA) to maintain power system security under clause 4.8.9 of the National Electricity Rules (NER).

The 1st direction was issued between 2000 hrs on 1 December 2017 and 1800 hrs 3 December 2017.

The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 2nd direction was issued between 0000 hrs on 2 December 2017 and 1500 hrs 3 December 2017. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

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9. Between 23 December 2017 and 26 December 2017, AEMO issued 3 directions to participants in South Australia (SA) to maintain power system security under clause 4.8.9 of the National Electricity Rules (NER).

The 1st direction was issued between 1430 hrs on 23 December 2017 and 1305 hrs on 24 December 2017.

The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 2nd direction was issued between 1450 hrs on 23 December 2017 and 1125 hrs on 26 December 2017. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 3rd direction was issued between 1510 hrs on 23 December 2017 and 1330 hrs on 26 December 2017.

The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

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10. Between 12 January 2018 and 15 January 2018, AEMO issued 4 directions to participants in South Australia (SA) to maintain power system security under clause 4.8.9 of the National Electricity Rules (NER).

The 1st direction was issued between 2000 hrs on 12 January 2018 and 0600 hrs on 15 January 2018.

The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 2nd direction was issued between 2005 hrs on 12 January 2018 and 0700 hrs on 14 January 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 3rd direction was issued between 2010 hrs on 12 January 2018 and 0530 hrs on 14 January 2018.

The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 4th direction was issued between 1229 hrs on 14 January 2018 and 0500 hrs on 15 January 2018.

The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

11. Between 29 January 2018 and 4 February 2018, AEMO issued 2 directions to participants in South Australia (SA) to maintain power system security under clause 4.8.9 of the National Electricity Rules (NER).

The 1st direction was issued between 1800 hrs on 29 January 2018 and 1000 hrs on 31 January 2018.

The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 2nd direction was issued between 0920 hrs on 31 January 2018 and 0900 hrs on 4 February 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

12. Between 23 February 2018 and 26 February 2018, AEMO issued a direction to a participant in South Australia (SA) to maintain power system security under clause 4.8.9 of the National Electricity Rules (NER).

The direction was issued between 1200 hrs on 23 February 2018 and 0600 hrs on 26 February 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

13. Between 17 March 2018 and 19 March 2018, AEMO issued 3 directions to participants in South Australia (SA) to maintain power system security under clause 4.8.9 of the National Electricity Rules (NER).

The 1st direction was issued between 1302 hrs and 1600 hrs on 17 March 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 2nd direction was issued between 1635 hrs on 17 March 2018 and 1730 hrs on 18 March 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 3rd direction was issued between 1745 hrs on 18 March 2018 and 0700 hrs on 19 March 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

14. Between 20 March 2018 and 21 March 2018, AEMO issued a direction to a participant in South Australia (SA) to maintain power system security under clause 4.8.9 of the National Electricity Rules (NER).

The direction was issued between 2000 hrs on 20 March 2018 and 0600 hrs on 21 March 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

15. Between 24 March 2018 and 26 March 2018, AEMO issued 3 directions to participants in South Australia (SA) to maintain power system security under clause 4.8.9 of the National Electricity Rules (NER).

The 1st direction was issued between 1350 hrs on 24 March 2018 and 0700 hrs on 26 March 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 2nd direction was issued between 1903 hrs on 24 March 2018 and 0400 hrs on 26 March 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 3rd direction was issued between 1906 hrs on 24 March 2018 and 0500 hrs on 26 March 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

16. Between 27 March 2018 and 28 March 2018, AEMO issued 2 directions to participants in South Australia (SA) to maintain power system security under clause 4.8.9 of the National Electricity Rules (NER).

The 1st direction was issued between 1720 hrs on 27 March 2018 and 0630 hrs on 28 March 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 2nd direction was issued between 1950 hrs on 27 March 2018 and 0500 hrs on 28 March 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

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17. Between 29 March 2018 and 3 April 2018, AEMO issued 7 directions to participants in South Australia (SA) to maintain power system security under clause 4.8.9 of the National Electricity Rules (NER).

The 1st direction was issued between 1445 hrs on 29 March 2018 and 0630 hrs on 3 April 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 2nd direction was issued between 1445 hrs on 29 March 2018 and 1500 hrs on 30 March 2018. The 3rd direction was issued between 1500 hrs on 30 March 2018 and 1530 hrs on 31 March 2018. The 4th direction was issued between 1530 hrs on 31 March 2018 and 1600 hrs on 1 April 2018. The 5th direction was issued between 1630 hrs on 1 April 2018 and 1530 hrs on 2 April 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 6th direction was issued between 1447 hrs on 29 March 2018 and 1830 hrs on 31 March 2018. The 7th direction was issued between 2100 hrs on 31 March 2018 and 1800 hrs on 2 April 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

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18. Between 7 April 2018 and 16 April 2018, AEMO issued 12 directions to participants in South Australia (SA) to maintain power system security under clause 4.8.9 of the National Electricity Rules (NER).

The 1st direction was issued between 1400 hrs on 7 April 2018 and 1600 hrs on 12 April 2018. The 2nd direction was issued between 1400 hrs on 12 April 2018 and 1400

hrs on 16 April 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 3rd direction was issued between 1400 hrs on 7 April 2018 and 1600 hrs on 10 April 2018. The 4th direction was issued between 2100 hrs on 10 April 2018 and 1600 hrs on 12 April 2018. The 5th direction was issued between 1400 hrs on 12 April 2018 and 1400 hrs on 16 April 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 6th direction was issued between 1415 hrs on 7 April 2018 and 1430 hrs on 8 April 2018. The 7th direction was issued between 1630 hrs on 12 April 2018 and 1100 hrs on 16 April 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 8th direction was issued between 2100 hrs on 10 April 2018 and 1600 hrs on 12 April 2018. The 9th direction was issued between 1400 hrs on 13 April 2018 and 1500 hrs on 15 April 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 10th direction was issued between 1400 hrs on 13 April 2018 and 1700 hrs on 14 April 2018. The 11th direction was issued between 1930 hrs on 14 April 2018 and 1400 hrs on 16 April 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 12th direction was issued between 1400 hrs on 13 April 2018 and 1400 hrs on 16 April 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

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19. Between 23 April 2018 and 14 May 2018, AEMO issued 27 directions to participants in South Australia (SA) to maintain power system security under clause 4.8.9 of the National Electricity Rules (NER).

The 1st direction was issued between 1825 hrs on 23 April 2018 and 1300 hrs on 1 May 2018. The 2nd direction was issued between 1300 hrs on 1 May 2018 and 1300 hrs on 4 May 2018. The 3rd direction was issued between 1525 hrs on 4 May 2018 and 2000 hrs on 5 May 2018. The 4th direction was issued between 2105 hrs on 5 May 2018 and 1530 hrs on 6 May 2018. The 5th direction was issued between 1430 hrs on 6 May 2018 and 1700 hrs on 8 May 2018. The 6th direction was issued between 1420 hrs on 7 May 2018 and 1600 hrs on 11 May 2018. The 7th direction was issued between 1430 hrs on 11 May 2018 and 1600 hrs on 12 May 2018. The 8th direction was issued between 1700 hrs on 12 May 2018 and 1500 hrs on 13 May 2018. The 9th direction was issued between 1500 hrs on 13 May 2018 and 1500 hrs on 14 May 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 10th direction was issued between 1720 hrs on 8 May 2018 and 2200 hrs on 9 May 2018. The 11th direction was issued between 2315 hrs on 9 May 2018 and 1700 hrs on 12 May 2018. The 12th direction was issued between 1400 hrs on 13 May 2018 and 0130 hrs on 14 May 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 13th direction was issued between 1710 hrs on 23 April 2018 and 1300 hrs on 27 April 2018. The 14th direction was issued between 1200 hrs on 27 April 2018 and 2010 hrs on 27 April 2018. The 15th direction was issued between 1715 hrs on 1 May 2018 and 1700 hrs on 5 May 2018. The 16th direction was issued between 1300 hrs on 5 May 2018 and 1430 hrs on 8 May 2018. The 17th direction was issued between 1420 hrs on 7 May 2018 and 1720 hrs on 8 May 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 18th direction was issued between 2300 hrs on 24 April 2018 and 1600 hrs on 25 April 2018. The 19th direction was issued between 1400 hrs on 26 April 2018 and 2100 hrs on 27 April 2018. The 20th direction was issued between 2247 hrs on 27 April 2018 and 1530 hrs on 30 April 2018. The 21st direction was issued between 1400 hrs on 30 April 2018 and 1600 hrs on 2 May 2018. The 22nd direction was issued between 1445 hrs on 10 May 2018 and 1330 hrs on 12 May 2018. The 23rd direction was issued between 1700 hrs on 12 May 2018 and 1400 hrs on 13 May 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 24th direction was issued between 1820 hrs on 23 April 2018 and 1000 hrs on 24 April 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 25th direction was issued between 1325 hrs on 2 May 2018 and 0500 hrs on 4 May 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 26th direction was issued between 1430 hrs on 6 May 2018 and 1530 hrs on 7 May 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 27th direction was issued between 2230 hrs on 9 May 2018 and 2330 hrs on 9 May 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

20. Between 18 May 2018 and 22 May 2018, AEMO issued 6 directions to participants in South Australia (SA) to maintain power system security under clause 4.8.9 of the National Electricity Rules (NER).

The 1st direction was issued between 1200 hrs on 18 May 2018 and 1520 hrs on 18 May 2018. The 2nd direction was issued between 1400 hrs on 20 May 2018 and 0400 hrs on 22 May 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 3rd direction was issued between 1200 hrs on 18 May 2018 and 1520 hrs on 18 May 2018. The 4th direction was issued between 2300 hrs on 19 May 2018 and 1330 hrs on 22 May 2018. The directed

participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 5th direction was issued between 1730 hrs on 20 May 2018 and 2115 hrs on 22 May 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 6th direction was issued between 1630 hrs on 22 May 2018 and 2350 hrs on 22 May 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

21. On 22 May 2018, AEMO issued a direction to a participant in Queensland (QLD) to maintain power system security under clause 4.8.9 of the National Electricity Rules (NER).

The direction was issued between 1025 hrs on 22 May 2018 and 1105 hrs on 22 May 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant did make claims for additional compensation under NER clause 3.15.7B.

22. Between 23 May 2018 and 29 May 2018, AEMO issued 4 directions to participants in South Australia (SA) to maintain power system security under clause 4.8.9 of the National Electricity Rules (NER).

The 1st direction was issued between 1800 hrs on 23 May 2018 and 1400 hrs on 24 May 2018. The 2nd direction was issued between 1500 hrs on 27 May 2018 and 1600 hrs on 29 May 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 3rd direction was issued between 1414 hrs on 25 May 2018 and 1400 hrs on 27 May 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 4th direction was issued between 1414 hrs on 25 May 2018 and 1400 hrs on 27 May 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

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23. Between 13 June 2018 and 17 June 2018, AEMO issued 3 directions to participants in South Australia (SA) to maintain power system security under clause 4.8.9 of the National Electricity Rules (NER).

The 1st direction was issued between 2000 hrs on 13 June 2018 and 1400 hrs on 15 June 2018. The 2nd direction was issued between 1400 hrs on 15 June 2018 and 1600 hrs on 16 June 2018. The 3rd direction was issued between 1245 hrs on 16 June 2018 and 1330 hrs on 17 June 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

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24. Between 24 June 2018 and 30 June 2018, AEMO issued 2 directions to participants in South Australia (SA) to maintain power system security under clause 4.8.9 of the National Electricity Rules (NER).

The 1st direction was issued between 1839 hrs on 24 June 2018 and 1230 hrs on 25 June 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

The 2nd direction was issued between 1630 hrs on 28 June 2018 and 0015 hrs on 30 June 2018. The directed participant received compensation for the provision of energy pursuant to the direction, in accordance with NER clause 3.15.7(c). The directed participant made no claims for additional compensation under NER clause 3.15.7B.

Use by registered participants of inspection and testing rights

From 1 July 2017 to 30 June 2018 AEMO was not informed of any inspections conducted under clause 5.7.1, or any tests conducted under clause 5.7.2 of the National Electricity Rules. These provisions relate to the right of registered participants to enter the facilities and test the equipment of other participants to assess compliance with technical requirements.

Compliance

Compliance

This report details our performance from 1 July 2017 to 30 June 2018 in accordance with the Australian Energy Market Commission Establishment Act (SA) and the Australian Energy Market Commission Establishment Regulations Act 2005 (SA).

This index indicates where each of the items which the AEMC must report on is located within the report.

1. A report of the AEMC under section 27 of the Act must include a report on the following in respect of the financial year concerned:

- a) the National Energy Law provisions and other legislative provisions that confer functions on the AEMC *p16*
- b) the AEMC's relationship to other bodies involved in the administration of National Energy Laws *p4*
- c) the membership and organisation of the AEMC *p19*
- d) the AEMC's strategic plans and the relationship of the plans to objectives set out in the National Energy Laws *pp12-13, p18*
- e) the AEMC's activities and their efficiency and effectiveness *pp27-41*
- f) the AEMC's financial affairs *pp102-129*
- g) disclosures made by Commissioners under section 22 of the Act *p60*
- h) positions in the employment of the AEMC, including salary levels for the positions, any positions created or filled and any positions abolished or vacated *p11, p20, p23, pp118-119*

- i) the extent to which external consultants have been engaged by the AEMC, the nature of the work undertaken by the consultants and the total cost to the AEMC of the consultancies *pp132-133*
- j) the occupational health, safety and rehabilitation programs of the AEMC and their effectiveness *p56*
- k) any instances of fraud in the operations of the AEMC and the strategies implemented to prevent and control fraud *p61*
- l) in relation to electricity:
 - I. the extent to which the operation of the Rules has met the national electricity market objective and the strategic development of the Rules to meet the national electricity market objective *pp72-89*
 - II. any statements of policy principles that have been issued by the MCE in relation to the AEMC and any directions that have been given by the MCE to the AEMC *p132*
 - III. the rule making activities of the AEMC under the National Electricity Law, including:
 - A) requests for Rules in each of the categories of jurisdictional derogations, participant derogations, non-controversial Rules and urgent Rules, and *pp27-29*
 - B) the stages at which proposed Rules are in the Rule making procedure, and *pp72-89*
 - C) decisions of the AEMC not to proceed with requests for Rules, and *p79*
 - D) Rules made, and *pp72-78, pp85-88*
 - E) Rules that have come into operation *pp72-78, pp85-88*

- IV. MCE directed reviews and AEMC initiated reviews under the National Electricity Law *pp89-101*
- V. market development functions *pp12-13, pp31-41*
- VI. recommendations made by the AEMC for the MCE to request the making of Rules *pp89-101*
- VII. the composition and activities of the Reliability Panel and of any other panels or committees that have been established by the AEMC *pp42-46, p61*
- VIII. AEMC's use of powers of direction in relation to power system security under clause 4.8.9(a) of the Rules *pp134-139*
- IX. The use by registered participants of inspection and testing rights under clauses 5.7.1 and 5.7.2 of the Rules *p139*
- X. The extent and effectiveness of demand side participation in the national electricity market, including measures that could be undertaken to enhance demand side participation in the national electricity market *p33, p36, p99*

2. The AEMC's report must include its audited financial statements for the financial year and the Auditor-General's report on the financial statements. *pp102-129*

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