Green paper

NEM Governance Reform

Options for the future electricity system

July 2025

About this report

The report was funded by the RACE for 2030 Cooperative Research Centre (RACE) and prepared by Rob Murray-Leach with support from the Energy Efficiency Council (EEC).

RACE is the cooperative research centre for the energy and carbon transformation.

The EEC is the peak body for Australia's energy management sector. A not-for-profit membership association, the EEC works to:

- Drive world-leading policy on efficiency, electrification and demand flexibility;
- Ensure Australia has the skilled workforce to deliver Australia's energy transition; and
- Support businesses and households to rapidly decarbonise.

Energy Efficiency Council

Level 18, 1 Nicholson St, East Melbourne VIC 3002

Phone: +61 (03) 9069 6588

Email: info@eec.org.au

Web: www.eec.org.au

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Executive Summary

We need to reform Australia's electricity governance so that it is fit for purpose for the 21st century.

Sound governance arrangements are essential to develop and implement the markets and other policies that are urgently needed to ensure that Australia's rapidly changing electricity system is reliable, affordable, sustainable, equitable and meets the needs of consumers.

This green paper identifies challenges and gaps in the existing governance arrangements of electricity systems in the jurisdictions covered by the National Electricity Market (NEM) and suggests directions for reforms to improve governance. The paper particularly focuses on ensuring that governance has a whole-of-system approach that supports investment in both supply-side and demand-side measures, including demand management and consumer energy resources (CER).

Hundreds of dedicated people in governments, market bodies and other institutions are working hard to keep Australia's electricity system functioning and transition it to a 21st century system. Their jobs are made harder by challenges and functional gaps in existing arrangements that include:

- Electricity in the NEM region is governed through a mix of multilateral and unilateral bodies. Without strong coordination and delegation, this arrangement can result in overlaps and gaps in responsibilities, slow decision making and reduced accountability.
- The NEM and its institutions – the Australian Energy Market Commission (AEMC), Australian Energy Regulator (AER), and the Australian Energy Market Operator (AEMO) – were set up to focus on a narrow part of the energy ecosystem. Many issues outside the remit of the market bodies are either: not addressed; addressed unilaterally; or addressed multilaterally through *ad hoc* or bespoke arrangements, such as delegation to Senior Energy Officials (SEO) from multiple governments.
- While there are multiple sources of advice to the Energy and Climate Change Ministerial Council (ECMC) and member governments, there is no body that provides independent strategic advice and modelling advice across all aspects of energy, including energy management and CER. This impacts whole-of-system thinking and coordination.

- There are significant gaps and insufficient coordination in the gathering, analysis and dissemination of energy data and research, which is critical for decision-making.
- The NEM and its institutions are focussed on the supply-side, which impacts investment in demand-side resources and reduces the affordability, reliability and sustainability of the electricity system.
- Many energy institutions are focussed on critical short-term issues, and aren't resourced or structured to support the significant transformation required for a reliable clean energy system.
- Large companies have the resources to engage in energy policy making and some have good access to the policy-making process. In contrast, consumers, researchers and emerging energy industries are insufficiently engaged and involved in decision-making.

This paper identifies broad directions for reform but does not recommend specific solutions which is the focus of a white paper to come. For example, the paper notes that several functions need to be assigned to bodies, but does not specify whether these should be new or existing bodies. The paper suggests that ECMC could:

- Set principles for sound decision-making and delegate more decisions to suitably resourced multilateral bodies, the Australian Government and state and territory governments.
- Improve the governance arrangements for whole-of-system energy modelling.
- Charge and resource a body to: hold critical forms of energy data; share data with policy-makers, industry and researchers; and coordinate energy research.
- Charge and resource an independent multilateral body to provide strategic advice on the future energy system to ECMC, governments, industry and the community. This advice should incorporate all aspects of energy supply, demand management and CER.
- Charge and resource a multilateral body to lead on detailed demand management policy and implementation of policies like building ratings. However, high-level strategic advice on demand-side issues should be delivered by a body that considers both supply and demand.
- Improve consumer engagement and embed consumers and demand-side experts in all governance functions, through measures including board appointments.

As a green paper, this report is designed to elicit discussion and feedback, and does not represent the views of the EEC or RACE. This paper lays the groundwork for a white paper which sets out specific recommendations to improve governance arrangements.

The report was developed through a literature review, targeted interviews with multiple experts in energy governance and a workshop with representatives of industry, industry bodies and non-profits. This report would not have been possible without interviewees' generous contribution of time and expertise. Interviewees' names and organisations have not been listed for privacy reasons.

Summary of gaps in functions and directions for reform

Function	Governance issues		Directions for reform	
	Overall	**Demand-side**	**Overall**	**Demand-side**
Information: data gathering, research and modelling	There is no lead body for energy data and research in Australia. The Australian Energy Market Operator (AEMO) gathers and shares some data, sometimes requiring payment, but much distribution and consumer-level data are either not gathered, translated or shared. AEMO conducts modelling, but has governance issues that affect this function.	The gaps in data, research and modelling are significantly worse on the demand-side, especially for energy management	ECMC could charge a suitably governed and funded body with responsibility for holding multiple forms of energy data and sharing this information with industry and governments in decision-making, and researchers inside and outside government to produce valuable analysis. ECMC could reform AEMO's governance to make it more suited to whole-of-system strategic modelling, or transfer responsibility for the ISP to another body.	
Strategic advice	While there are multiple organisations advising ECMC, there is no suitably structured body providing cross-cutting independent advice to ECMC and individual governments on the future of electricity, and energy more broadly.	There are significant gaps in advice being provided to governments on the demand-side, due to the narrow scope and/or expertise of AEMC, AER, AEMO and SEO.	ECMC could charge a suitably governed and funded multilateral body to provide cross-cutting and independent strategic advice on energy to ECMC, governments, industry and the community. This advice should consider both supply- and demand-side issues in an integrated way. This function could potentially be combined with parts of the data and modelling function.	
Decision-making	The NEL delegates some decisions to AEMC, AER and AEMO, but many decisions fall to ECMC and SEO, which lack the funding and structures needed to rapidly and effectively process these decisions.	The demand-side has been seen as out-of-scope for market bodies, and responsibility is split across many organisations. Decisions often either revert to ECMC or are not made.	ECMC to improve its decision-making, set principles and delegate more decisions to: - Individual governments; or - Suitably resourced multilateral bodies.	Decisions that impact both supply- and demand-side should be set by one body. However, decision-making for specific issues, such as appliance standards, could be delegated to a body that leads on the demand-side.

Function	Governance issues		Directions for reform	
	Overall	**Demand-side**	**Overall**	**Demand-side**
Policy design	The AEMC designs some multilateral policies (e.g. Frequency Control and Ancillary Service markets), but for issues that are seen outside their scope, policy design tends to be done outside the AEMC through bespoke structures or *ad-hoc* arrangements e.g. reviews.	Many demand-side issues are considered out-of-scope for the AEMC, and responsibility is split across a wide range of organisations, such as SEO and the Australian Building Codes Board.	SEO should undertake a review of the arrangements for policy making, converting some *ad hoc* processes into structures with appropriate governance and funding. ECMC should direct market bodies and other existing institutions to consider both supply- and demand-side issues in their policy making.	There are a number of national organisations working on distributed energy supply, including the Clean Energy Regulator and Australian Renewable Energy Agency, but there is a significant gap on demand-management policy. Charging an organisation to lead on demand-management policy and delivery, including issues like appliance standards and building ratings, would streamline arrangements and through scale enable the development of deeper expertise on demand-side policy.
Implementation	In general, the allocation of responsibility and funding is clearer for implementation than policy. If new models emerge, such as a Distribution System Operators model, reform will be required.	Many demand-side issues are considered out-of-scope for AEMO and the AER, and responsibility is split across a wide range of organisations.	If Australia moves to a Distribution System Operator model, governance reform will be required to oversee this model.	
Consumer engagement & consultation	The NEM governance system has substantial input from large-scale energy companies and less input from consumers and demand-side experts.		Consumers and demand-side experts need to be embedded in all governance functions.	
Evaluation	Evaluation is generally under-funded in Australia. When evaluation is conducted, it is often by the body that developed the policy.		Evaluation should be undertaken at multiple levels, ideally by different bodies to the ones that designed or implemented the policy.	

Providing comments on this green paper

This paper is designed to stimulate discussion and does not represent the formal positions of the author, the EEC or RACE.

If you have comments on this paper, please email them to **consultation@eec.org.au** with the subject line: "Comments on NEM green paper". If you would prefer to provide your comments over the phone, please send your phone number to **consultation@eec.org.au** and a staff member will be in contact to arrange a time to discuss your comments.

You can provide comments on any aspect of this paper. However, we particularly encourage people to think about:

- Has the report missed any of the major challenges and gaps in energy governance in the NEM region?
- Do you believe that any of the challenges or gaps identified in this paper are immaterial?
- Do you agree with the rough directions identified in this paper (e.g. allocate responsibility for overarching strategic advice to a new or existing body?)
- Do you have any specific solutions to some of the issues identified in this paper (e.g. a named organisation should have responsibility for overarching strategic advice)

If your comments relate to a particular part of the document, please identify the page number in your response.

1. The role of governance in whole-of-system optimisation

1.1 Whole of system optimisation

The purpose of electricity systems is ultimately to meet consumers' demand for services like warm showers, comfortable offices and metals processing, which are sometimes referred to as 'energy services'. Energy services are produced by supplying appliances, such as fridges, with sources of energy like electricity. To ensure a sufficient supply of electricity we need to invest in a range of measures, that can be broadly split into:

- **Supply-side**, including large generators, utility-scale storage and networks; and
- **Demand-side**, including CER (e.g. rooftop solar and distributed storage) and demand management. Demand management includes the use of energy efficient equipment, permanent load shifting (e.g. moving hot water to the middle of the day), demand-response and fuel switching (e.g. electrification).

Our electricity system is in the midst of a fundamental transformation, requiring major investments in energy infrastructure. We need to invest billions of dollars in a mix of supply- and demand-side measures that is at least satisficed, if not optimised, for reliability, affordability and sustainability. Investing too much or too little in each element of the system will result in electricity that is more expensive or less secure or sustainable. The challenge is made more complex in that:

- Supply and demand need to be co-optimised across millions of pieces of equipment, with new elements constantly being added to the system;
- Investments are split across millions of parties, including households, industrial energy users, generators, Network Service Providers (NSPs) and equipment manufacturers;
- We are not optimising for a single point of time; the electricity system needs to be operating at an acceptable level of reliability and affordability at all times, while carbon emissions decline over that period; and
- Some elements of supply and demand are reasonably predictable (e.g. the output from a wind turbine and the energy used by a water heater). However, there is significant uncertainty around factors that are outside the control of Australia's energy industry,

such as the scale of new types of electricity demand. These uncertainties create risks for investors, including households who invest in CER and energy-using equipment.

1.2 Governments' roles

Responsibility for investment in energy supply and energy using equipment is split between thousands of energy businesses and millions of energy users. However, governments and energy institutions play critical roles in the electricity sector because electricity:

- Is an essential service and core to Australia's economy;
- Is moved using networks that are natural monopolies;
- Has both safety issues and 'reliability externalities', as the supply and use of energy at specific times can impact the functioning of the entire grid; and
- Has carbon emission externalities.

Governments and their institutions have multiple roles in the energy sector, that include:

- Protecting consumers;
- Designing, operating and regulating various markets, including wholesale, network support, frequency control, system restart, ancillary services;
- Regulating expenditure by NSPs;
- Planning energy infrastructure;
- Providing incentives for early adopters of technologies, such as batteries, to foster the development of supply chains and help reduce the costs of those technologies; and
- Regulating carbon emissions.

Governments and energy institutions need to take an active role in developing markets and other policies to enable energy businesses and energy users to optimise between supply- and demand-side measures. The current markets in the NEM are not, on their own, sufficient to drive optimisation of investment and operation of supply- and demand-side measures because:

- The electricity market (in its narrowest sense) was set up to ensure that consumers can access electricity supply from the grid with minimal investment of time, effort, expertise and capital. However, consumers still need to invest all of these to manage demand or install CER. This creates a significant bias towards supply-side investment;
- Current price signals to consumers, such as tariff structures, do not accurately reflect the current or future costs and benefits of those consumers' investments and actions.

Inaccurate prices signals have always impacted energy use, but now also impact generation and storage, with small-scale solar accounting for 10 per cent of electricity generation in 2022-23 and a peak of 43 per cent of the generation mix on 6 November 2024.[1][2]

- NSPs, other energy businesses and consumers are not collectively accurately incentivised or enabled to optimise investment between network and non-network solutions;
- Major factors outside what is traditionally considered the 'energy market' influence investment in supply- and demand-side measures. This includes principal-agent problems in the construction sector and barriers to the adoption of new technologies; and
- Governments have made wide-ranging interventions in energy supply and demand outside the 'traditional' energy market structure, such as: state-based renewable energy targets and associated procurement processes; the Capacity Investment Scheme; and the expansion of Snowy Hydro. With significant concerns around both carbon emissions and energy security as coal-fired generators close and solar penetration increases, government intervention is likely to continue.

Therefore, governments need to coordinate multiple measures to encourage optimised investment by businesses and households in supply- and demand-side measures, including:

- Ensuring that the multiple price signals sent to energy investors and consumers, including but not limited to electricity tariffs, result in overall cost-reflective signals. There is low appetite for governments to set dynamic cost-reflective tariffs, and many consumers are not well positioned to respond to complex tariffs. However, there is scope to make simple tariffs that are more cost-reflective and complement them with price signals, such as energy efficiency certificate schemes, so that consumers face overall reasonably cost-reflective price signals.
- Requiring NSPs to invest in the optimum mix of supply-side and demand-side measures and/or creating markets for network services so that demand-side measures can compete with supply-side measures;

[1] Table O1, Department of Climate Change, Energy, Environment and Water 2024 *Australian Energy Statistics, Table O Electricity generation by fuel type 2022-23 and 2023,* DCCEEW, Canberra.

[2] p4 AEMO 2025 *Quarterly Energy Dynamics Q4 2024*, AEMO, Melbourne.

- Addressing market failures outside energy markets that prevent efficient investment, such as information and principle-agent barriers in the building sector; and
- Linkages in policy across multiple sectors, such as electricity and transport.

In other words, governance of electricity is far broader than just the remit of the NEM market bodies. To make this clear, this paper refers to 'governance of electricity in the NEM region' rather than simply 'governance of the NEM'.

1.3 Structure of this paper

The aim of this green paper is to review whether the governance of energy in the NEM region is fit for purpose and, if not, how it can be improved. To achieve this, this paper first examines the current governance structure and identifies a number of challenges in this structure (Chapter 2). The paper then sets out a framework for identifying gaps in governance functions (Chapter 3), and applies that framework to the current governance structure (Chapter 4)

Governance is a broad term. This green paper focuses on the institutional framework for electricity governance, particularly the roles and responsibilities of governments, ministers, agencies and intergovernmental bodies that are set out through laws and regulations.

2. Challenges in the current governance system

This report is focussed on identifying any gaps in the governance functions in the NEM region. To support this discussion, this chapter sets out the current governance system of electricity in the NEM region and some of the overarching challenges identified by experts in interviews.

2.1 Summary of the current governance system

Australia's electricity systems were originally developed and run by individual states and territories, and governance was almost entirely managed within those jurisdictions. The introduction of transmission lines between states led to more interjurisdictional arrangements and eventually the formation of the NEM in the 1990s. Under the NEM arrangements:

- Major decisions relating to the NEM are made collectively by the governments of Australia, the Australian Capital Territory, New South Wales, Queensland, South Australia, Tasmania and Victoria. Each jurisdiction receives advice from its own departments and decides its position via its cabinet, with joint decision-making largely done through the ECMC;
- The overarching rules of the NEM are set out in the National Electricity Law (NEL), which is a schedule to the National Electricity (South Australia) Act 1996. Any changes to this schedule are mirrored in legislation in other states and territories; and
- The NEL assigns specific responsibilities to three market bodies to oversee the NEM. These bodies are the Australian Energy Market Commission (AEMC), Australian Energy Regulator (AER) and Australian Energy Market Operator (AEMO).

The creation of the NEM enables an energy market to operate across multiple jurisdictions and the delegation of some responsibilities to market bodies improves decision-making efficiency. However, governments are still involved in many decisions about the NEM, and individual jurisdictions have often made decisions to follow jurisdiction-specific approaches to issues. For example, while most governments have adopted the National Energy Consumer Framework, it

does not apply in the Northern Territory and Western Australia, and is only partially applied in Victoria.[3]

The NEM market bodies focus on only part of the energy ecosystem, including wholesale electricity markets, electricity networks and retail. The AEMC, AER and AEMO are assigned narrow roles through the NEL, and no market body was tasked with providing a whole-of-system perspective that covered key issues such as greenhouse gas emissions, emerging energy technologies, and optimising investment between supply-side and demand-side measures.

As a consequence, ECMC has been left with tasks that include jointly developing a clear picture of where energy is heading and coordinating policy between the traditional areas of the NEM and issues such as the uptake of CER and energy management. The strength of ECMC is that it brings all parties together for decision-making, but multi-government decision-making is challenging and time-intensive, and only a small number of matters can be progressed through ECMC per year.

ECMC is primarily supported by bureaucrats from individual governments collaborating together, including Senior Energy Officials (SEO) and multiple sub-groups that report to the SEO. The SEO is a critical forum for multilateral collaboration and negotiation between jurisdictions, but it is neither structured nor staffed to implement energy policy nor provide independent advice, as SEO members are accountable to individual ministers, rather than ECMC.

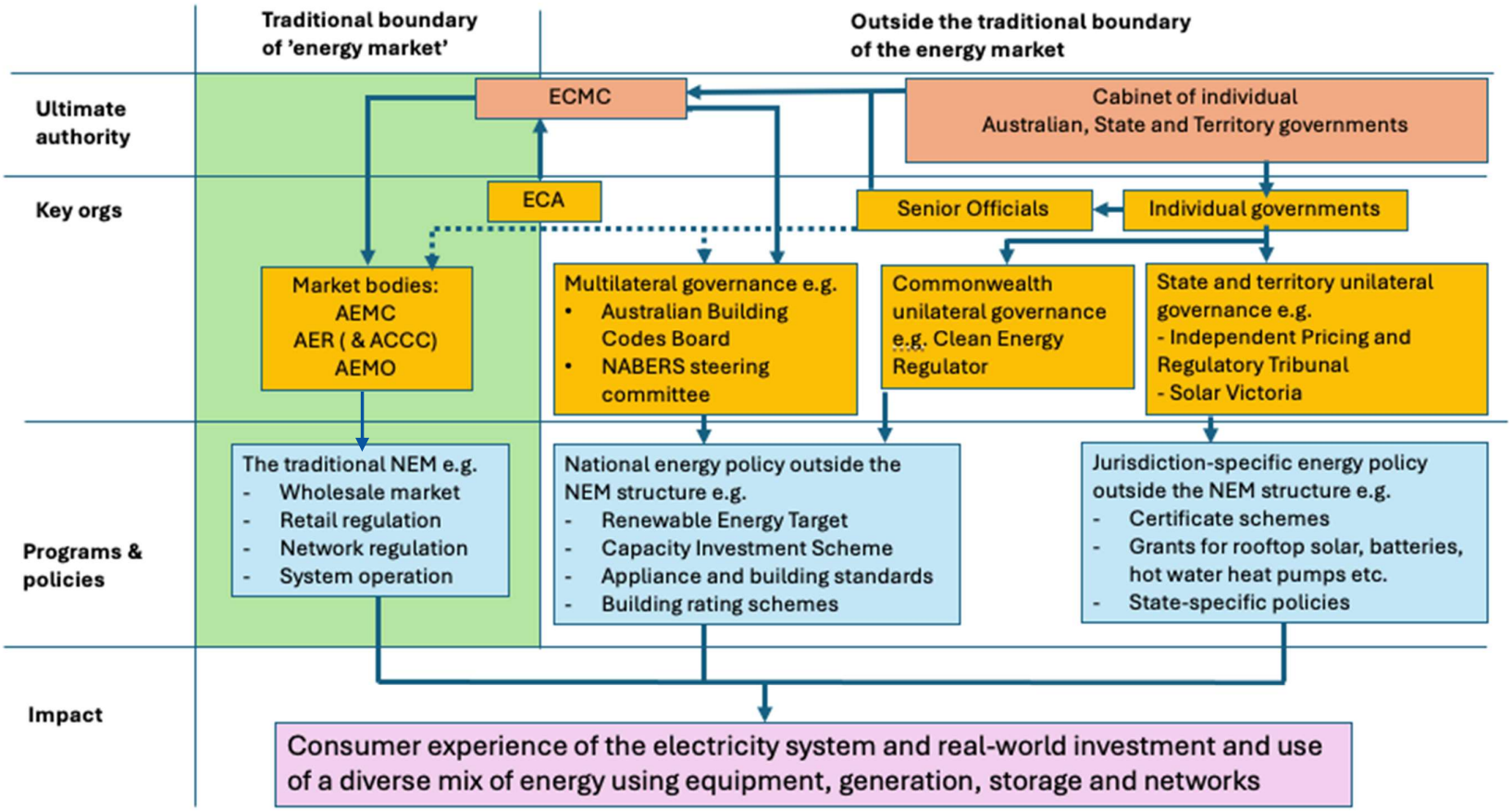
The limited functions of the market bodies and the difficulty of securing agreements through ECMC means that governments have taken many unilateral and multilateral actions outside the NEM framework that influence the electricity system, such as:

- Incentives to households to install solar and batteries;
- Energy efficiency and peak reduction certificate schemes;
- The Capacity Investment Scheme;
- Tenders for dispatchable capacity; and
- Construction, expansion and management of government-owned assets, such as Snowy Hydro 2.0.

[3] Blueprint Institute and McKell Institute 2025 *How the Sausage is Made, Assessing Australian Policymaking Practices in the Energy Sector,* Blueprint Institute and McKell Institute, Sydney.

Figure 1 summarises the current governance of electricity in the NEM region, and Appendix C lists some of the organisations that impact electricity supply and demand in the NEM region.

Figure 1 The governance of electricity in the NEM region



2.2 Summary of challenges

A combination of analysis and interviews with experts identified a range of challenges in the existing governance arrangements that include:

1. A complex mix of multilateral and unilateral governance

The governance of electricity within the NEM region by six governments through a series of multilateral and unilateral bodies creates two potential risks.

First, decisions that involve multiple governments are always much more time- and effort-intensive than decisions that involve a single government or statutory body. It can also be hard to secure a decision if there are significant disagreements between governments, which can be caused by factors such as the politicisation of energy, or a government owning energy assets. This has resulted in significant delays and inefficiencies in decision-making, and governments taking independent action outside the NEM framework that have not always been co-optimised with measures inside the NEM framework.

Second, there are significant overlaps and gaps in governance functions, both between multilateral organisations and between national and jurisdiction-specific organisations. This reduces accountability and efficiency while leaving some issues under-addressed. Some of these gaps are identified in Chapter 4 of this report.

2. Multilateral energy market bodies have a narrow focus

Australia's NEM and its market bodies were set up to focus on a narrow part of the ecosystem of technologies, providers and actions that drive investment in, and use of, energy supply and energy-use equipment. The market bodies have sometimes interpreted their scope conservatively, exacerbating this problem. As a result, several key issues are currently, or have historically been, out-of-scope for market bodies, including: greenhouse gas emissions, supporting the deployment of emerging technologies, and multiple issues relating to demand-management.

Even where issues are covered by market bodies, the splitting of functions between the AEMC, AER and AEMO sometimes results in duplication, gaps or delays between decisions and implementation, particularly when a decision needs to be refined through experience. In contrast, several overseas jurisdictions have a single organisation that undertakes the rule making and regulatory functions that sit with the AEMC and AER respectively.

3. Ad hoc processes for multilateral collaboration outside NEM bodies

Many issues outside the scope of the market bodies are either: not managed multilaterally; managed multilaterally on an *ad hoc* basis; or managed multilaterally through bespoke structures, such as the National Australian Built Environment Rating Scheme (NABERS) Steering Committee. Where decision-making is not specifically delegated to a body, it is generally dealt with by the ECMC and SEO of each government. ECMC and SEO work through a series of periodic meetings, and are not well-structured to rapidly progress certain topics nor a large volume of issues.

Coordinating policy and programs is currently more challenging for demand-side issues than supply-side issues. Most governments have a single agency that leads on supply-side policy, whereas responsibility for demand-side policy is split between multiple departments. In other words, supply-side policy is split vertically (between levels of government) but demand-side policy is split both vertically and horizontally (between departments within a government).

4. Energy governance is not designed or resourced for rapid change

The governance of the NEM was largely established in the 1990s and early 2000s, at a time of relative stability in the energy sector. The governance system prioritised driving efficiencies in the operation of existing assets and providing a stable environment for investing in new, large-scale fossil-fuel generators and electricity networks. This governance system was not set up to manage a rapid period of investment and rapid change in technologies, markets or policies.

The extraordinary pace of change in the energy sector is putting strains on both policy making and implementation. For example, the number of active rule change processes that the AEMC has underway has increased from a peak of 10 in 2005 to 25 in 2024. Likewise, AEMO has gone from evaluating just a handful of project applications per year when it was established, to over 400 enquiries, project applications, and registrations in 2023-24.[4]

5. Short-term focus

Many of Australia's energy institutions are charged with both running the current energy system and designing the future energy system. Given the practical and political imperative of 'keeping the lights on', these institutions are understandably often focussing their resources on short-term issues. While it is critical for long-term reforms to be informed by the experts working on

[4] Blueprint Institute and McKell Institute 2025 *How the Sausage is Made, Assessing Australian Policymaking Practices in the Energy Sector,* Blueprint Institute and McKell Institute, Sydney.

immediate challenges in the energy system, it potentially makes sense to separate out units working on short- and long-term reforms to ensure that the latter receive appropriate focus.

6. Supply-side focus

Governance systems should ensure that the range of markets and policies that influence energy investment collectively encourage an appropriate mix of supply-side and demand-side measures. However, multiple reviews undertaken or commissioned by governments have noted that Australia's energy systems and governance arrangements have a supply-side focus, including the Parer Review (2002) and the Prime Minister's Task Group on Energy Efficiency (2010). As a result, policy, regulatory and market settings in the NEM region policy bias energy investment towards supply-side measures, reducing demand-side investment and electricity reliability, affordability and sustainability.

3 A framework for gap analysis

There are multiple ways to identify gaps in governance functions. Rather than start with a set of narrow assumptions about which governance functions are required, this paper undertakes a gap analysis on the broad 'policy cycle' model, because a primary challenge facing our electricity system is redesigning our energy system.

Governments and energy institutions are not running a static energy system – the energy system is changing profoundly and therefore legislation, policies and governance need to change. Some aspects of our future electricity systems are clear, such as a high penetration of solar generation. However, there are significant uncertainties around: the availability and cost of various technologies; the rate of consumer adoption of goods such as electric vehicles; and how all these components will fit together.

This means that our current challenge isn't designing the perfect governance system to operate an electricity market in 2050; instead we need a governance system that can run the current system, gather data, analyse options and make wise but rapid decisions to iterate our energy market settings as circumstances evolve over the next two decades.

This policy cycle is based on the goal of delivering good public policy, which is typically defined to include: evidence-based decision-making; assessing impacts on various groups; and delivering an overall benefit to society.

3.1 Functions for effective energy policy

Function	In detail
Data, research and modelling	In order to both operate the current electricity system and reform the system, we need multiple forms of information, including energy use and economic data. Given that the majority of energy investment and expertise lies outside government in places like industry, consumers and academia, it is critical that this information is easily accessible. Making information accessible will support research outside government that will support decision-making within government and its institutions. For example, modelling of potential trajectories for the energy system can help inform government decisions around investment in networks, tariffs and incentives for various technologies. Open-source modelling will both support investment by the private sector and enable a wide variety of experts to model divergent scenarios.
Strategic advice	Decision-makers need trusted strategic advice on a diverse range of issues, such as the cost-and-benefits of particular transmission upgrades and the importance of measures such as energy efficiency standards for hot water heat pumps for the energy transition. Ideally, this strategic advice would be cognisant of the full range of demand- and supply-side options and issues to support integrated energy policy.
Decision-making	Based on this advice, decision-makers need to make choices, such as: setting out objectives for the electricity sector; delegating decision-making to another party; and allocating funding and responsibility for an agency to design a new policy or market (e.g. for frequency control).
Designing policies and programs	Once a decision-maker has determined a policy direction, an agency will be required to do the detailed work to design that policy, including cost-benefit analysis. This applies to a wide range of policies and programs, includes markets, incentives, regulations and workforce development.
Implementation	An institution will need to implement policies and programs, including operating markets, allocating incentives, compliance with regulations and providing training for sector development.
Consultation & engagement	Consumers and a broad range of experts need to be involved at multiple stages of the policy cycle in order to foster transparency and trust.
Evaluation	Evaluation should be part of a continuous performance cycle so that changes can be enacted in a timely manner.

3.2 Key challenges for effective demand-side deployment

Good energy policy should consider both supply- and demand-side issues in all stages of policy making, including modelling, strategic advice, decision-making, policy-creation, consultation, implementation and evaluation. Accordingly, this report looks at supply- and demand-side governance together across the seven broad functions set out in Section 3.1. In doing so, it is important to bear in mind key challenges for demand-side deployment.

Function	**Key challenges**
Data, research and modelling – demand-side	Our energy system currently gathers significant information on the supply-side, including generation and transmission, and turns it into useful information. However, there is much less information available in a useful format on energy use, distributed resources and the distribution network. These data gaps, in addition to prioritisation by various parties, have led to significant gaps in demand-side information and modelling, and therefore a reinforcement of supply-side bias.
Strategic advice	There have been significant gaps in strategic advice on the demand-side. The last truly substantial and cross-cutting strategic report on demand-management by governments was released in 2010 (the Report of the Prime Minister's Task Group on Energy Efficiency).
Strategy, policy and implementation: *Ensure that relevant parties receive price signals that stack the costs and benefits of demand-side actions*	Institutions need to ensure that there are price signals to reward motivated and capable parties to deliver the most economic mix of demand- and supply-side measures in the NEM. While appropriate tariffs to consumers are a key component of this (e.g. low tariffs during solar hours), they are not the only component. Other elements include: - Upfront incentives to reward permanent shifts in the timing of consumption that benefit the grid (e.g. installation of batteries or residential building thermal shell upgrades); - Price signals to intermediaries that can help consumers optimise their generation and consumption profiles, including but not limited to wholesale price signals for demand-response aggregators. This issue involves multiple components, which are discussed in more detail below.
Strategy, policy and implementation:	Overall price signals should include network price signals in the stack. A particular focus is required on networks, as tariffs poorly reflect the costs and benefits of consumers' actions on

Price signals around network expenditure	the network, resulting in significant opportunities to reduce energy bills being missed over previous decades. There are critical functions that needs to be undertaken to: review network augmentation plans; identify options for demand-side measures to avoid expenditure; and use a policy lever to direct or encourage these demand-side measures. Policy levers all require different governance functions, and include: - Better regulating NSPs; - Creating incentives for demand-side measures by consumers; - Setting up a 'demand-side buyer'; and - Shifting the current NSP model to one with Distribution System Operators (DSOs) overseen by Distribution Market Operators (DMOs). This latter model extends well beyond network pricing, and integrates in wholesale and other service markets.
Strategy, policy and implementation: *Upfront incentives for system benefits*	Given that truly cost-reflective dynamic tariffs are neither deemed as politically viable nor effective for most consumers at encouraging long-term investments (e.g. insulation), there is a role for upfront incentives and other mechanisms to deliver price-signals to consumers. Four jurisdictions in the NEM have certificate schemes to address this. These programs need to be constantly aligned with changes in the electricity and gas systems, and could be extended to jurisdictions that currently lack them.
Strategy, policy and implementation: *Incentivise early adoption*	Where a product is immature and there is benefit in rapidly moving it down the cost-curve (e.g. heat pump water heaters), institutions can incentivise early adoption.
Strategy, policy and implementation: *Minimum standards for equipment*	Minimum standards for solar panels, batteries, appliances, buildings and vehicles are designed to deliver multiple benefits, including electrical safety, energy efficiency and minimising negative impacts on the grid. These are a critical part of our energy system. While energy efficiency standards for appliances, buildings and vehicles do deliver grid benefits, this is not their only purpose and they are not optimised to deliver their true potential for system-wide benefits. In general, electricity system policy-makers have not fully engaged in ensuring that standards are given appropriate priority and are set to maximise their system-level benefits.

4. Governance function gap analysis and directions for reform

This section examines the gaps in seven major functions of governance systems, and broad solutions to correct those gaps. Stakeholder feedback suggested that two issues need to be improved across all seven functions:

- Consumer engagement and consultation of a wide range of experts; and
- Ensuring that demand- and supply-side issues are given equal consideration. This requires a variety of approaches. Some actions, such as modelling the energy system and the overall architecture of the energy market, require demand- and supply-side issues to be considered together. Other actions, such as the development of appliance standards, may be better carried out by an entity with a narrower remit that can prioritise this task, as long as these actions are coordinated with overall policy directions.

4.1 Data gathering, research and modelling

Data, research and modelling are critical to inform decision-making by both policymakers and investors.

AEMO gathers a significant amount of data to fulfil its function as the system operator, and shares some data, including through the Quarterly Energy Dynamics and Statements of Opportunities. However, there are critical forms of data that AEMO either does not gather, or does not analyse and convert into a de-identified form that can be shared with industry and researchers. Data is particularly limited on the distribution grid and demand-side activities, and this impacts both research and modelling.

Australia also has a wide range of organisations that carry out valuable energy research, including governments, market bodies, the Commonwealth Scientific and Industrial Research Organisation (CSIRO), Cooperative Research Centres (CRCs), universities, non-profits, industry and consultants. While the Energy Research Institutes Council of Australia (ERICA) provides informal coordination of university research through activities like events, it is not structured or resourced to carry out the kind of coordination conducted by a body like the National Health and Medical Research Council (NHMRC).

Efforts have been made to improve coordination and deliver a hub for the data and research necessary for energy decisions in Australia. For example, in 2014 the Australian Government, CSIRO and AEMO worked to develop the National Energy Analytics Research (NEAR) program and in 2022 energy ministers agreed to the National Energy Transformation Partnership (NETP), which included Priority C to better understand demand evolution. However, to date these efforts have not led to an enduring system for data and research collection, coordination and dissemination.

A number of organisations carry out modelling to help guide decisions on the energy system, with the most significant being AEMO's Integrated System Plan (ISP). The ISP is an extremely valuable tool, but includes very limited modelling around distribution grids and demand-side activities, which undermines its utility for decision-making. The AEMC recently passed a rule change to ensure that AEMO considers these issues in more detail. There are also questions about whether AEMO's governance and function as transmission planner make it ideal as the source of modelling, which is effectively strategic advice.

Directions for reform:

- The ECMC or the Australian Government should establish a comprehensive program to coordinate energy data and research across multiple bodies in Australia;
- Australia's energy modelling should be both independent and comprehensive, considering supply- and demand-side issues. To achieve this, either AEMO could reform both its overall governance and the specific governance of its modelling division, or modelling should be moved to an independent body. AEMO governance issues are discussed in the next section; and
- Australia's energy modelling should be based on an open-source model, which would allow governments, industry and researchers to more easily assess the impacts of scenarios (e.g. the impact of distributed batteries in different parts of the grid).

4.2 Strategic advice

There is currently no body providing consistent independent and comprehensive whole-of-system strategic advice to ECMC and individual governments on electricity, in a similar manner to the Climate Change Authority on carbon policy or the Murray Darling Basin Authority on water policy. As a consequence, ECMC has commissioned a rolling wave of independent reviews of

the energy sector. These reviews have been vital, but they are not substitutes for a standing body providing ongoing strategic advice.

The SEO is not well structured to provide independent analysis and advice. The AEMC and AER provides important advice to ECMC, but the scope of their advice is limited by their remits and staff skillset, which are focussed on rule development and regulation respectively. ECA is an independent advisor that is well positioned to critique the current energy system, but is not sufficiently resourced to provide comprehensive energy reform advice.

AEMO was set up primarily as the system operator, but the NEL now specifies that that AEMO has functions in providing advice. AEMO's primary functions mean that it has both access to critical information and deep in-house technical skills that mean it will inevitably be a critical source of advice. The ISP itself is both a modelling exercise and a form of advice that sets strategic direction for energy policy.

AEMO's website now lists one of its primary functions as 'Lead the design of Australia's future energy system'.[5] While this phrase could be read as simply referring to transmission, it accurately reflects that AEMO now has a significant role in providing advice about directions of all aspects energy policy, which is a substantial shift from its original purpose. However, there are a number of challenges with AEMO being the primary source of advice on the future of the energy system, specifically:

- AEMO's governance is not ideal for an independent advisor. AEMO's membership is 60 per cent government and 40 per cent industry, and industry members are overwhelmingly incumbent energy companies. At the very least, this creates issues with optics. While the Vertigan Review did not consider AEMO's ownership structure inappropriate for a system operator, it was not assessing AEMO's changed role as the primary modeller of the energy sector;[6]
- AEMO's board selection process favours individuals with significant expertise in large-scale energy supply, relative to experience in consumer and demand-side issues;

[5] AEMO 2025 *What we do,* AEMO, Melbourne. Available online from: https://aemo.com.au/about/what-we-do

[6] Vertigan, M., Yarrow, G. and Morton, E. 2015 *Review of Governance Arrangements for Australian Energy Markets,* Commonwealth of Australia, Canberra.

- AEMO's multiple responsibilities, including being the system operator and transmission planner, could be in conflict with a role providing advice across all aspects of supply and demand; [7] and
- AEMO staff have extensive expertise in large-scale generation and networks, and less experience in the demand-side. This imbalance in expertise risks creating a supply-side bias that needs to be guarded against.

During discussions with stakeholders, many noted that the Energy Security Board (ESB) filled an important gap as a strategic and cross-cutting advisor to ECMC between 2017 and 2023. The Finkel Review's recommendation that the ESB be formed was, in part, due to a recognition that there was no organisation providing a "whole-of-system perspective" to ECMC.[8] The ESB's ability to perform this long-term strategic advisory function was impacted because it:

- Did not have a traditional organisation structure and was primarily staffed by temporarily seconded staff and consultants; and
- Was given a number of urgent tasks in policy design, which conflicted with its ability to provide independent analysis and advice on the strategic development of the energy sector.

The gap in advice is significantly worse for demand-side issues than supply-side issues, particularly energy management, because the market bodies lack expertise in the demand-side and there is no independent body with carriage of energy management.

Directions for reform:

- A new or existing national body with appropriate governance, funding and skills should be explicitly tasked with providing advice about the future of the energy system to ECMC, covering the full range of supply-side and demand-side perspectives. This organisation would have a critical function in collating and synthesising research from inside and outside government and market bodies, acting as a bridge between the research sector and governments.

[7] Woodley, T. 2024 Submission to the Select Committee on Energy Planning and Regulation in Australia, Australian Senate.

[8] Page 164 in Finkel A., Moses, K., Munro, C., Effeney, T. and O'Kane, M. AC 2017 *Independent Review into the Future Security of the National Electricity Market - Blueprint for the Future,* Commonwealth of Australia, Canberra.

4.3 Decision-making

Making decisions through a process involving multiple governments is both time- and effort-intensive. As noted earlier, ECMC and SEO are not well suited to making a large number of decisions, not least because smaller states and territories have relatively few staff to work across a very large range of issues. As a result, governments often make unilateral policies, resulting in a landscape of energy policy that includes lateral and unilateral measures and unclear lines of accountability.

To address this, some advocates have called for a more national approach to regulation underpinned by stronger transmission, while others have called for a more distributed energy systems with more responsibilities reverting to individual states and territories.[9] At the very least, it is clear that governments should better coordinate multilateral and unilateral measures and attempt to minimise the amount of decision-making made through the ECMC through delegation.

The NEL delegates some decision-making to the AEMC, AER and AEMO. However, the rapid evolution of the energy sector, in combination with the narrow remit of the market bodies, mean that many decisions are still being referred to ECMC or are taken by governments unilaterally. This is particularly the case for demand-side measures, as they are largely outside the market bodies' scope. Decision-making powers on even relatively minor issues, such as the update of appliance standards, have not been fully delegated to an independent body.

This, in combination with the reality that many senior policy makers have much deeper experience in traditional supply-side technologies than demand side issues, means that there has been significantly less progress on national demand-side policy than necessary. It is notable that Australia is ranked significantly worse than other major developed economies on demand management policy and practice.[10]

The Vertigan review recommended that ECMC's work plan should be more focussed, and ECMC and SEO have made efforts to achieve this. However, further efforts are required to ensure that ECMC can focus on higher-order issues, which requires ECMC to delegate more issues to appropriately structured, funded and informed bodies. One of the Finkel Review's other key

[9] For example, see Mountain, B 2024 Submission to the Select Committee on Energy Planning and Regulation in Australia, Australian Senate.

[10] American Council for an Energy Efficient Economy (ACEEE) 2022, *International energy efficiency scorecard 2022*, ACEEE, Washington DC.

reasons for recommending the establishment of the ESB was to have a body with a whole-of-system perspective that could coordinate the existing market bodies and "strengthen the Energy Council's ability to focus and make decisions on broader structural and strategic policy issues."[11]

However, challenges with decision-making are not only at the multilateral level. Within states and territories, while decision-making around energy supply is normally situated within one agency, responsibility for demand-side issues is split much more widely.

Directions for reform:

- The ECMC could set clear principles for decision-making and delegate more decisions to:
    - Suitably resourced multilateral bodies; or
    - Australian, state and territory governments, especially in cases where a decision is best made at that level.
- The Australian, state and territory governments could review the governance arrangements for the demand-side within their jurisdiction, particularly demand-management.

4.4 Policy design

Energy market policy design is the remit of the AEMC. However, due to the AEMC's narrow remit, and the AEMC's interpretation of their remit, the AEMC did not lead the policy design on some of the most significant measures in the energy sector over the last two decades, such as the Renewable Energy Target and the Capacity Investment Scheme. Recently the AEMC has implemented initiatives such as their research forums to improve general policy development, but their remit remains narrow.

Where governments have developed multilateral policy outside the market bodies, it has generally been through *ad hoc* processes, traditionally supported by a task group of officials reporting to ECMC. The challenges for policy design are particularly pronounced for demand-side measures, especially demand-management, as they were often seen as out-of-scope for the AEMC. The situation is better for policy-making than decision-making, with a range of

[11] Page 164 in Finkel A., Moses, K., Munro, C., Effeney, T. and O'Kane, M. AC 2017 *Independent Review into the Future Security of the National Electricity Market - Blueprint for the Future,* Commonwealth of Australia, Canberra.

bespoke multilateral bodies like ABCB and the NABERS Steering Committee able to make policy, but there is a lack of a national dedicated body that leads on demand management.

Individual jurisdictions have also not always assigned the lead for demand-management policy to an appropriately funded and influential body. While several jurisdictions have bodies that lead on small scale energy supply, no Australian jurisdiction has a dedicated policy and implementation body for demand management.

Directions for reform:

- ECMC should direct market bodies and other existing institutions to consider both supply- and demand-side issues in their policy making.
- SEO should undertake a review of the arrangements for policy making, converting some ad hoc processes into structures with appropriate governance and funding.
- ECMC should consider nominating a lead body for demand-management policy and implementation. While strategic advice needs to be integrated across both supply- and demand, there are a range of issues outside energy markets that may be best progressed by a dedicated body.

4.5 Implementation

Implementation includes a wide range of tasks, including regulation, operation of markets and delivery of incentive programs. The AER is charged with compliance of retailers and NSPs, while AEMO is the main implementation body for energy markets including:

- Wholesale energy, including the wholesale demand-response mechanism;
- Frequency services;
- The Reliability and Emergency and Reserve Trader (RERT); and
- Non-traditional services through its consulting arm, such as running the Capacity Investment Scheme on behalf of the Commonwealth Government.

In general, it appears that implementation arrangements are more straightforward than arrangements for decision-making or policy, largely because implementation requires an upfront allocation of responsibility. However, many bodies that have been tasked with demand-side implementation have not allocated sufficient resources to these programs, leading to these measures languishing.

There are also opportunities for significantly more efficiency and scale if multiple programs are housed in the same organisation. For example, there are currently four jurisdictions with energy efficiency or peak demand reduction schemes – if some of the administration of these programs was carried out by a single body on behalf of those four governments it could deliver significant efficiencies, as demonstrated by similar approaches in the United States by organisations like Slipstream.

Directions for reform:

- ECMC should consider nominating a lead body for demand-management policy and implementation.

4.6 Consumer engagement and consultation

Energy is an extremely complicated issue, and there are high costs in terms of expertise and time to getting involved in energy policy. As a result, large energy companies historically dominated market body consultations and rule change submissions compared to consumer groups and smaller organisations.

Market bodies have significantly improved their efforts to consult more widely, and ECA was established to strengthen consumer engagement in energy policy. However, small and large energy consumers and NGOs are still typically outweighed in consultation, and this is made worse by governance arrangements. For example, the board and advisory-bodies of many organisations, and the membership of AEMO, do not have strong representation from consumers or demand-side experts.

Directions for reform:

- Consumer and demand-side experts should be added to boards and advisory bodies, and AEMO's membership structure could be reformed; and
- The budget for consumer outreach and engagement (including but not limited to ECA) may need to be expanded.

4.7 Evaluation

Evaluation is a critical component of the policy cycle. This report does not provide specific commentary on improving evaluation beyond ensuring that it is properly funded and occurs at multiple levels in the policy process.

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Finkel A., Moses, K., Munro, C., Effeney, T. and O'Kane, M. AC 2017 *Independent Review into the Future Security of the National Electricity Market - Blueprint for the Future,* Commonwealth of Australia, Canberra.

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Parer, W. 2002 *Council of Australian Governments Energy Market Review – Towards a Truly National and Efficient Energy Market,* Commonwealth of Australia, Canberra.

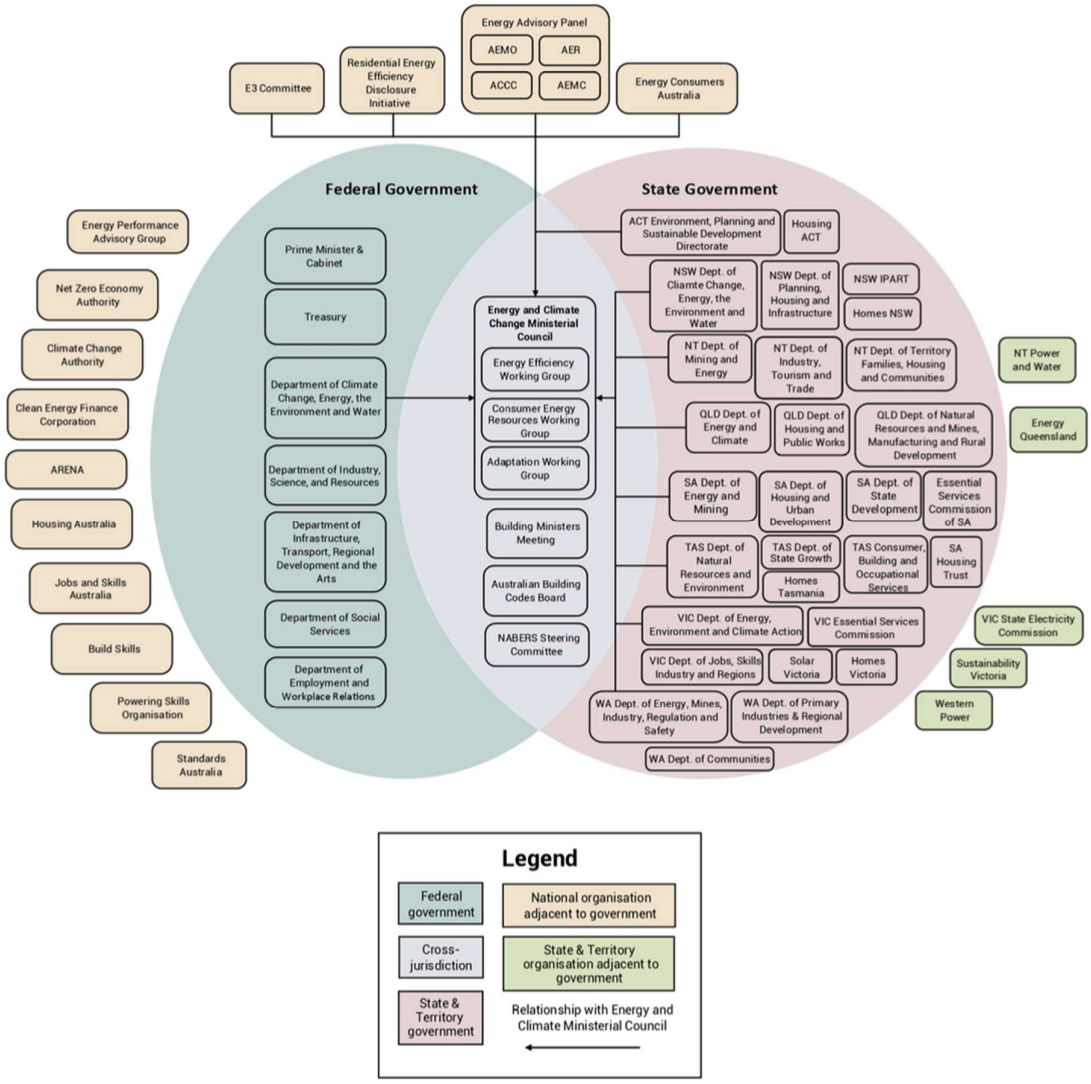
Prime Minister's Task Group on Energy Efficiency 2010, *Report of the Prime Minister's Task Group on Energy Efficiency,* Commonwealth of Australia, Canberra.

Vertigan, M., Yarrow, G. and Morton, E. 2015 *Review of Governance Arrangements for Australian Energy Markets,* Commonwealth of Australia, Canberra.

Submissions to the 2024 Select Committee on Energy Planning and Regulation in Australia from multiple organisations, including:

- Australian Council of Social Services
- Ben-David, R.
- Centre for Independent Studies
- Energy Efficiency Council
- Energy Consumers Australia
- Energy Networks Australia
- Grattan Institute
- Mountain, B.
- The Superpower Institute
- Woodley, T.

Appendix A - Current demand-management governance in Australia



This diagram contains a representative selection of government and government-adjacent organisations involved with demand-side governance, particularly for the built environment and industry sectors. It is not comprehensive.

Source: Australian Council of Social Services, Australian Industry Group, Energy Efficiency Council and the Property Council of Australia ACOSS, AiG, EEC and PCA 2024, *Demanding Better: A reform agenda for harnessing the power and flexibility of demand side energy resources,* ACOSS, AiG, EEC and PCA, Melbourne.

Appendix B - Principles for Governance Reform

The Prime Minister's Task Group on Energy Efficiency concluded that the following principles for governance arrangements

1. Governance changes should aim to improve (across all levels of government):
    - accountability and clarity over responsibilities including leadership roles
    - coordination and collaboration (to minimise duplication, among other things)
    - transparency
    - stability in policy and delivery
    - compliance, reporting and administrative processes
    - stakeholder participation and understanding—for business, not-for-profit organisations and the community
    - support from stakeholders to provide legitimacy (that is, stakeholder 'buy-in')
    - the data and information available to policy-makers and implementers monitoring and evaluation of policies and programs.
2. Action should be taken by the jurisdiction within which the benefits are likely to accrue (the benefits principle).
3. Where national action is justified, or where goods and services are delivered through national markets, they should be subject to nationally consistent regulation, usually most appropriately provided by the Commonwealth.
4. The capacity of jurisdictions to control the policy levers associated with an issue or problem should also be relevant in determining which level of government is best placed to intervene.
5. COAG's complementarity principles should help guide the development of governance arrangements and future policies.
6. Regular reviews of governance arrangements should be undertaken to test their effectiveness.

Appendix C – A selected list of organisations in energy governance

The following is a short list of organisations involved in policy that impacts electricity supply and demand in the NEM regions. The list is intended to be illustrative rather than comprehensive, and focuses on organisations that have a NEM-wide impact. Accordingly, this report does not include many vitally important organisations that operate within specific jurisdictions, such as the NSW Independent Pricing and Regulatory Tribunal and Victorian Essential Services Commission.

Australian Building Codes Board (ABCB)

In Australia each state and territory sets and enforces energy efficiency standards for new buildings through its own legislation. While there are some variations in standards between jurisdictions, there has been significant harmonisation of these standards because all states and territories refer to a national model code called the National Construction Code (NCC).

The NCC is developed by the ABCB, which was established by an intergovernmental agreement between the Australian Government and States and Territories in 1994. The members of the Board are appointed by Australian, state and territory governments. The board is supported by the ABCB Office, which is housed within a department of the Australian Government but jointly funded by multiple governments as set out in the 2020 version of the ABCB Intergovernmental Agreement. The ABCB is overseen by building ministers, although the energy efficiency components of the NCC is strongly influenced by ECMC.

While there is variation between building standards in jurisdictions, and the NCC is arguably not perfect, the ABCB demonstrates that multigovernmental bodies working on information provision and best-practice codes can deliver significant improvements in coordination and harmonisation. However, there are problems in the connection between building standards and the energy system, with standards typically developed based on time-of-use energy cost structures that are out-of-date, rather than likely future cost structures.

Australian Energy Market Commission (AEMC)

The primary function of the AEMC, as set out in the NEL, is to make rules to govern electricity and natural gas markets. The AEMC traditionally makes rule changes based on requests - the high cost of making a rule change proposal, in terms of time and expertise, means that most

rule changes are proposed by governments or large companies, with far fewer from small organisations and consumers. The AEMC can also undertake reviews either by self-initiation or under direction from the ECMC.

The AEMC provides some advice to governments, but this advice tends to be limited to its traditional scope, namely the creation of rules and markets. In addition, the function of the AEMC as the guardian of the rules could be in conflict with providing 'blue-sky' advice. Finally, the AEMC has gaps in its expertise around demand-side technologies and issues.

Australian Energy Market Operator (AEMO)

The core function of AEMO, as set out in the NEL, is to operate the NEM, including the wholesale exchange, in accordance with the rules created by the AEMC - a role that could be summarised as 'keeping the lights on at the lowest cost of wholesale generation'. Through AEMO Services, AEMO runs a number of programs that are reasonably aligned with its core function, including administering the Federal Government's Capacity Investment Scheme.

However, the NEL also specifies that AEMO has functions in providing advice, particularly with respect to the data that it holds, and assigns responsibility to AEMO as the national transmission planner. AEMO now has a significant advisory role, including:

- The highly influential Quarterly Energy Dynamic reports and electricity and gas 'Statement of Opportunities'; and
- The modelling that it undertook for transmission planning (the National Transmission Network Development Plan) has evolved into providing strategic advice for the entire electricity system through the ISP.

Australian Energy Regulator (AER)

The primary function of the AER, as set out in the NEL, is to monitor and enforce compliance with the NEL, its regulations and rules. The AER has a particular focus on the economic regulation of network service providers. The AER provides some advice to governments, but its primary purpose is regulation and it is not set up to provide extensive advice on the future of the energy system.

Australian Renewable Energy Agency (ARENA)

ARENA is an Australian Government organisation that focuses on the research, development and demonstration of clean energy technologies and development of the clean economy. A key component of ARENA's activities is grant funding.

Clean Energy Finance Corporation (CEFC)

The CEFC's goal is to facilitate flows of finance into the clean energy sector. The CEFC provides direct loans to clean energy programs and seeks to 'crowd in' finance from mainstream financial institutes for renewables, energy efficiency and other clean economy projects.

Clean Energy Regulator (CER)

The CER administers Australian Government schemes to measure, manage, reduce and offset carbon emissions in Australia, including the Renewable Energy Target, Safeguard Mechanism and National Greenhouse and Energy Reporting Scheme.

Climate Change Authority (CCA)

The CCA is a statutory body that provides expert advice to the Australian Government on a broad range of climate change policy. The CCA's advice does cross into the energy system; for example the October 2024 Sector Pathway Review included substantial coverage of electricity and energy, and the 2024 Annual Progress Report included a number of significant recommendations related to energy market reform. However, the CCA is not primarily tasked with providing advice on achieving an electricity system that is reliable, affordable and sustainable, and its work in this space is relatively high-level.

Energy Advisory Panel (EAP)

The EAP consists of the heads of the three market bodies (AEMC, AER and AEMO) coming together to collaborate and align their work and report to ECMC. The Energy Commissioner of the Australian Competition and Consumer Commission (ACCC) is an observer.[12] The EAP is a coordination body and does not have the resources to directly undertake any tasks such as research, policy making or implementation.

[12] Energy and Climate Change Ministerial Council – Energy Ministers Sub Group 2023 *Final Communique 19 May 2023*, Commonwealth of Australia, Canberra.

Energy and Climate Change Ministerial Council (ECMC)

The ECMC is the primary mechanism for coordination between the federal government, state and territory governments and energy market bodies. Relevant ministers and the heads of energy market bodies aim to meet at least times per year, with senior officials and various sub-groups meeting multiple times between ECMC meetings.

Energy Consumers Australia (ECA)

ECA is an advisory body that undertakes evidence-based advocacy around the needs of households and small businesses. Engaging in energy advocacy requires detailed knowledge and significant time, which means that households and small businesses, and even the peak bodies representing their interests, have difficulty in advocating for their own interests. ECA provides a critical role in balancing advocacy in Australia. ECA provides some strategic advice to ministers, but is neither resourced nor set up to provide comprehensive advice about the future of energy.

Senior Energy Officials (SEO) and working groups

ECMC is supported by senior officials from each government, referred to as SEO. There are multiple working groups under SEO that are used to coordinate multilateral projects as diverse as the development of new policy ideas and detailed management of existing programs. A number of key programs ultimately report to ECMC through SEO, including:

- **Equipment Energy Efficiency (E3) program**

  Several states and territories used to have their own minimum standards for appliances which significantly increased costs for businesses in Australia. To address this, governments collaborated to develop a national E3 program where state and territory standards were eliminated and replaced with standards under the Commonwealth *Greenhouse and Energy Minimum Standards Act (GEMS Act)*.

  Work on developing and enforcing appliance standards is carried out through collaboration between departments in the federal, state and territory governments, and the E3 Program is jointly funded by governments using the COAG formula. The E3 program is overseen by the ECMC Energy Efficiency Working Group.

  The positives of this arrangement are that governance is clear, funding for E3 is allocated on an annual basis and distributed responsibility means that some progress occurs despite

changes of government. The negatives of the current arrangements are that funding and approval for standards have been impacted by the political cycle, as appliance standards deliver significant benefits that accrue over time rather than in one electoral cycle. Potentially, having standards developed and set by a national dedicated demand-side body that reports to ECMC would address these problems.

- **National Australian Built Environment Rating System (NABERS)**

  NABERS provides energy efficiency and other ratings for various classes of buildings, excluding single dwellings. NABERS has been turned into a national program through two key elements:

  - The rating system itself is developed and updated by the NABERS Office. While the Office is based in the NSW Government, it is overseen by a National Steering Committee comprised of the Australian state and territory governments, which each have voting rights; and
  - The mandate that certain types of buildings should disclose NABERS ratings when they are sold and leased is a Commonwealth Government program.

- **Nationwide House Energy Rating Scheme**

  The Nationwide House Energy Rating Scheme (NatHERS) provides energy efficiency ratings for dwellings. NatHERS is a multilateral program, as states and territories mandate the use of ratings through their building code, but the tool itself is developed and updated by the NatHERS Administrator, which is based in a Commonwealth department. Key decisions on NatHERS are made by the NatHERS Steering Committee, which includes representatives of all governments and reports via SEO working groups to the ECMC.[13]

[13] NatHERS Administrator 2022 *Nationwide House Energy Rating Scheme (NatHERS) Governance and Administrative Arrangements, Version 2 September 2022*, Commonwealth of Australia, Canberra. Available online from https://www.nathers.gov.au/sites/default/files/2022-09/Admin%20Governance%20Arrangements-update%202021.pdf