National Energy Performance Strategy

Consultation paper

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# Ministers’ foreword

Household budgets and Australian industry are under pressure from higher energy bills. The invasion of Ukraine and a decade of delay, denial and failed energy policies has consequences for Australian households and businesses.

We want to empower Australians to take control over their energy use. Work is underway to put downward pressure on bills, but there is much to do to secure an affordable, reliable and clean energy system.

As we approach this task, we want to support Australian jobs, take action on climate change and ensure all Australians are able to access affordable energy.

Improving energy performance is essential to this effort. It puts downward pressure on the energy bills of Australian households and businesses. Effective measures can also make our businesses more competitive, support Australian jobs and reduce the strain on the energy system – all while reducing greenhouse gas emissions.

Every kilowatt we save reduces energy bills. Improving performance improves the whole system – lowering costs for everyone and easing future requirements for generation and transmission infrastructure.

We are already experiencing the devastating impacts of climate change. Every unit of energy we avoid wasting contributes to meeting our emissions reduction targets. Improving energy performance is one of the most cost-effective ways to reduce emissions.

Action is already underway, from raising minimum energy efficiency requirements under the Nationwide House Energy Rating Scheme (NatHERS) star ratings system to expanding the National Australian Built Environment Rating System (NABERS) to include warehouses and cold stores, schools and aged care facilities. We’ve also expanded the Australian Renewable Energy Agency’s (ARENA) mandate to allow the agency to support energy efficiency and electrification technologies.

In the long-term, Australians know what our future needs to look like: highly energy efficient homes, workplaces and industry using efficient appliances and equipment – all powered by a reliable, affordable and renewable grid.

Significant investment is already underway to address supply-side challenges in the energy market through Powering Australia and Rewiring the Nation. But addressing supply is only one side of the coin; we also need leadership on the demand-side of the market so Australians can take control of their energy use.

We are seeking the input of all stakeholders who want to play a constructive role in reducing costs and emissions and look forward to your input about the Australian Government’s role, to improve energy performance across the economy.

**The Hon Chris Bowen MP**

Minister for Climate Change and Energy

**Senator the Hon Jenny McAllister**

Assistant Minister for Climate Change and Energy

# 1. Improving Energy Performance

## 1.1 The Benefits of Better Energy Performance

Improving energy performance has substantial benefits.[[1]](#footnote-2) These include delivering long-term and permanent cost reductions for consumers, assisting to meet Australia’s emission reduction targets, improving the security of our energy system and improving health and comfort.

### i. Lowering Energy Consumer Costs

Energy efficient homes lower Australians’ energy bills. Research in Victoria found 2-star homes could reduce energy use and bills by over 45% by retrofitting to a 5-star equivalent rating.[[2]](#footnote-3)

Australia’s residential building sector accounts for around 24% of electricity consumption.[[3]](#footnote-4) More energy efficient homes require less energy to cool in summer, heat in winter, and are more comfortable to live in.[[4]](#footnote-5)

Efficient appliances play their part too. Existing minimum energy efficiency and labelling requirements save the average household between $140 and $220 per year on electricity bills, with the bulk of benefit through air conditioners, lighting and refrigerators.[[5]](#footnote-6)

Commercial and service activities in Australia account for 22% of overall electricity use, the majority of which is attributed to the operation of commercial buildings. [[6]](#footnote-7) Improving the energy performance of offices and work sites can save significant costs for businesses.

Improving the performance of industrial processes can also support businesses to lower costs; with mining, manufacturing and construction accounting for 43% of Australia’s energy consumption.[[7]](#footnote-8) With focus and investment, we can make Australian businesses more competitive and support jobs.

### ii. Reducing Emissions

Improved energy performance is a cost-effective means for Australia to meet our national emissions reduction target of 43% by 2030 and net zero by 2050. For example, improving energy performance in sectors such as the residential buildings and commercial and services sectors can significantly reduce Australia’s emissions, with the sectors responsible for around 11% of national greenhouse gas emissions each.[[8]](#footnote-9)

The International Energy Agency (IEA) considers energy efficiency ‘the first fuel’ representing more than 40% of the emissions abatement needed by 2040,[[9]](#footnote-10) which along with electrification and behavioural change, will drive the 35% reduction in energy intensity by 2030 needed in their Net Zero by 2050 Scenario.[[10]](#footnote-11)

Electrification will play a key role in the energy transition and in supporting the Australian Government’s emissions reduction objectives. According to the IEA, early action on energy efficiency including electrification and fuel switching can avoid the consumption of around 37 exajoules by 2030.[[11]](#footnote-12) There are also opportunities to improve energy performance in sectors that are currently reliant on gas and liquid fuels.[[12]](#footnote-13)

### iii. Taking Pressure off the System

Australia’s energy sector is undergoing a rapid transformation, with the transition to renewables changing the way electricity is generated and consumed. From 2020-2021, renewable generation grew to 31.4% of total generation in the National Electricity Market (NEM), or 27% Australia wide. The Australian Energy Market Operator’s (AEMO) 2022 Integrated System Plan (ISP) step change scenario estimates 82-83% renewable generation in the NEM in 2030-31. Achieving this scenario will be more difficult in the absence of efforts to reduce energy demand. A forward plan for energy performance will support new energy generation and network infrastructure, improve certainty in supply infrastructure needs, and save additional costs for consumers.

### iv. Improving Health and Comfort

Better energy performance also improves health, wellbeing and the environment. Healthcare professionals warn that people living in poor quality housing without efficient heating or cooling are ‘extremely vulnerable’ to climate change health impacts.[[13]](#footnote-14) A recent randomised control trial estimated modest upgrades to the efficiency of the homes of vulnerable individuals in Victoria led to healthcare savings of $887 per person over just one winter.[[14]](#footnote-15)

## 1.2 Toward a National Strategy

State and territory governments have existing measures in place to improve energy performance. Many parts of industry have committed to emissions reduction targets that improve energy performance, and taken steps to reduce their energy consumption. Australian consumers have been investing in the energy performance of their own home and businesses in a range of ways, but more is needed.

To unlock the benefits of energy performance, the Australian Government will establish a framework to lower energy demand and increase energy performance. While there are existing efforts, a new national strategy will help to prioritise, coordinate and harmonise government, industry and household efforts to improve energy performance across the economy.

Many of Australia’s key trading partners already have plans in place to realise the benefits of improved energy performance. The current energy crisis has accelerated some actions under these plans. For example, Korea has announced the development of a market mechanism to improve energy performance across key sectors, and the US is making major investments in energy through its Inflation Reduction Act of 2022 to reduce energy waste and cut costs for homes and businesses.[[15]](#footnote-16) On 10 June 2022, following the IEA’s 7th Annual Global Conference on Energy Efficiency, participating countries and regions, including Australia, agreed to a joint statement recognising urgent action on energy efficiency is needed, particularly during a time of global energy volatility.[[16]](#footnote-17)

This is a long-term task. The Australian Government aims to deliver the National Energy Performance Strategy (the Strategy) in mid-2023, but it will not be the final word on energy performance. The Strategy will be adaptive and scalable over time to allow for the changing dynamics of Australia’s energy markets, technologies, and needs of energy consumers, and to ensure it continues to contribute to our emission reduction goals. At the same time, it will provide a framework through which the Australian Government provides clear guidance on a longer-term direction.

The Australian Government will work with state and territory governments – many of which are advanced in implementing policies – to understand how existing and planned measures complement this Strategy, and where there are opportunities for greater coordination and additional measures.

# 2. Strategy Focus Areas

In recognition of the significant policy challenges involved in improving energy performance across the economy, we are seeking initial stakeholder views on five focus areas – governance, residential, commercial, industry, and supply chains. Some sectors of the Australian economy are in the midst of other processes aimed, in part, at improving energy performance, such as the National Electric Vehicle Strategy for the transport sector, and reforms to the Safeguard Mechanism for the large resources and industrial sectors. The Australian Government will collaborate closely with stakeholders to ensure the National Energy Performance Strategy is complementary to these reforms.

## 2.1 Governance

### i. Energy Governance

To meet the future needs of the energy market, we need to strengthen the role of demand-side considerations in energy system planning, and strengthen governance frameworks to ensure this supports ongoing consideration of measures to improve energy performance.

The Government has started action by establishing the National Energy Transformation Partnership (the Partnership), which provides a framework for national alignment and cooperative action by governments to support the smooth transformation of Australia’s energy sector. [[17]](#footnote-18)

Development of the Strategy will leverage initiatives under the Partnership, as well as work underway as part of the Energy Security Board’s Data Strategy. It will build on cross-jurisdictional work already being undertaken through policies such as the Trajectory for Low Energy Buildings (the Trajectory) and the Addendum to the Trajectory for Low Energy Buildings – Existing Buildings.

The National Energy Performance Strategy will also seek to identify any further gaps, barriers or opportunities to be addressed through working with key institutions such as the AEMO and the CSIRO, as well as considering best-practice international examples.

To better drive climate action and energy policy by governments, National Cabinet agreed to establish the Energy and Climate Change Ministerial Council, a new body bringing together ministers responsible for climate action and energy policy from the Australian and state and territory governments.[[18]](#footnote-19) The Council will have primary responsibility for energy policy and strategic climate policy, such as progress toward emissions targets and management of the energy system’s transition to net zero.

These are all important steps towards improving energy governance in Australia. In developing and delivering the Strategy, further consideration of the roles and arrangements of different entities will be considered, including government agencies, markets bodies, consumer groups, supply chain participants and industry sectors.

**Questions for consultation**

* How can demand considerations be better integrated into Australian energy governance and what are the priorities for change?
* What new or modified coordination mechanisms or institutional responsibilities would be appropriate to better drive energy performance action in the future?

### ii. Targets

Australia is lagging behind on demand-side action. The IEA acknowledges the importance of providing clear targets to spur the development and implementation of energy performance measures and to improve their effectiveness.[[19]](#footnote-20) Well-designed targets can also provide an agreed means to track progress and provide greater certainty to investors.[[20]](#footnote-21)

Many of Australia’s top trading partners have well-established and ambitious targets that drive better energy performance. Targets vary from regional, national and sectoral, and are based on different metrics to create and measure targets depending on data availability, knowledge and expertise.[[21]](#footnote-22)

The European Union (EU) has a 42% energy efficiency target based on Europe’s final energy consumption, calculated in million tonnes of oil equivalent (Mtoe). This target represents the bulk of abatement needed to meet the EU target of 55% emissions reduction by 2030.[[22]](#footnote-23)

Japan has an Energy Efficiency Benchmark System that covers 70% of the industrial and commercial sectors to 2030. Each sub-sector has a specific target, performance indicator and metrics. For example, cement manufacturing has a benchmark of 3,739 megajoules per tonne (MJ/t), and leased offices are required to improve energy efficiency by 15%.[[23]](#footnote-24)

The Strategy will take a step-by-step approach to considering energy efficiency targets for Australia, starting with taking stock of existing policies and available tools and data.

**Questions for consultation**

* Would an energy efficiency target or targets be suitable for Australia?
* What is the most appropriate methodology for designing and implementing a target that effectively drives demand side action towards Australia’s overall net zero target?
* How should progress towards an energy efficiency target be measured?

## 2.2 Residential

### i. General

Improving the energy performance of residential buildings will assist households to reduce their cost of living. Energy performance upgrades also empower consumers to take control of their energy use, improve the comfort of their homes and make sustainable choices to help reduce household emissions.

Australia’s residential building sector accounts for around 24% of electricity consumption and is responsible for around 11% of national greenhouse gas emissions.[[24]](#footnote-25)

Federal, state and territory governments have existing policies in place to help residents improve the energy performance of their homes. The Australian Government has existing national policies that encourage energy performance improvements in buildings and for appliances and equipment; including the National Construction Code (NCC), NatHERS, the Greenhouse and Energy Minimum Standards (GEMS) and the Equipment Energy Efficiency (E3) program.

The recently announced changes to the NCC increase the minimum level of thermal performance for new houses from 6 to 7-stars under the NatHERS star rating system, and introduce a new whole-of-home annual energy use budget.

Federal, state and territory governments have also worked together in consultation with industry and other key stakeholders to release the draft National Framework for Disclosure of Residential Energy Efficiency earlier this year, which builds on existing disclosure work. Additionally, there is room to improve the transparency of Australia’s existing housing stock, expand and improve the scope of GEMS and E3 Program, and consider new measures for longer-term improvements. While government measures have helped households to improve energy performance, there are opportunities to refine and expand the scope of these programs. This will require close government coordination and effective communication to ensure households and businesses can take advantage of these opportunities.

**Questions for consultation**

* What are the key opportunities to improve the energy performance of new and existing residential buildings?
* What opportunities are there to improve or streamline existing policies aimed at empowering consumers to undertake energy performance improvements in their homes?
* What are key financial and non-financial barriers to the uptake of energy performance improvement opportunities? How can these barriers be overcome?
* How can demand management and electrification support lowering energy bills and emissions?
* How does poor energy performance impact on disadvantaged communities?

### ii. Low-income households

People on low incomes face greater challenges to improving the energy performance of their home. Not only are they more exposed to fluctuations in energy prices, they have limited access to better performing buildings and more efficient appliances.

While there are existing policies in place in states and territories, more can be done to assist low-income households.

**Questions for consultation**

* What are the opportunities to improve the energy performance of residential buildings for low-income households?
* What are the financial and non-financial barriers to uptake of energy efficiency upgrades for low-income households, and what can be done to overcome them?
* What actions should be prioritised to assist low-income households to improve energy efficiency in their homes?
* What delivery mechanisms would be most effective to provide targeted support?

### iii. Renters

Around 30.6% of Australia’s housing stock is rented, with renters often paying more for energy than similar owner-occupied households.[[25]](#footnote-26) Renters face significant barriers in making substantial energy performance improvements. Owners tend to be in a better position to make improvements, but do not accrue the energy savings. This is often referred to as a ‘split incentive.’

Governments are in the process of developing a National Framework for Minimum Rental Energy Efficiency Requirements, which was a recommendation under the Trajectory. A Disclosure Working Group led by the Commonwealth Government and consisting of state and territory government officials, industry, peak body and consumer group representatives, is responsible for the co-design of this framework. There may be additional measures which can assist tenants to improve energy performance.

**Questions for consultation**

* What are the key opportunities to improve energy performance of residential buildings for renters?
* What options are available to overcome the split incentive for renters and landlords?
* What options are available to support public and community housing tenants?
* How can the energy performance of rental homes be made more transparent to prospective tenants?
* How can governments and private sector support renters to improve energy performance?

### iv. Apartments

Approximately 16% of Australia’s housing stock are apartments or flats.[[26]](#footnote-27) A Victorian study found that nearly half of apartments still have a NatHERS energy rating lower than 6 stars.[[27]](#footnote-28) Apartment occupants sometimes have limited capacity to change energy suppliers or reduce their energy usage. The responsibility for significant structural modifications such as adding rooftop solar or improving insulation is often outside of the occupant’s control.

Changes in energy usage by buildings has a significant impact on the reliability of the energy grid. Apartment buildings offer additional opportunities in supporting the reliability of the grid through electrification, implementing renewables, storage and EV access.

While there have been government measures in place to assist apartment occupiers and owners to reduce their energy usage, such as the former Commonwealth Solar Communities Program and NSW’s Smart Green Apartments program, additional and longer-term support could help overcome barriers and support apartment occupants, owners and strata to take up opportunities to improve energy performance.

**Question for consultation**

* How can governments support better energy performance in apartments and similar dwellings?

### v. Regional, Remote and First Nations

Experience of the energy system, building standards and access to equipment and skills varies across Australia’s geography. Regional and remote communities can face additional or separate challenges from urban Australia. There are also opportunities for regional communities to benefit substantially from the clean energy transformation.

First Nations communities, in particular, face significant challenges in energy security. The Australian Government has recently allocated funding to co-designing the First Nations Clean Energy Strategy with First Nations communities. The Australian Government will seek to consider the role of energy performance in ensuring energy security for First Nations communities.

**Questions for consultation**

* How are communities in different geographic locations impacted by poor energy performance and what needs to be done to ensure access to improvements?
* What are the key opportunities to ensure the benefits of improved energy performance are available to First Nations Australians, and Australians located in remote communities?

## 2.3 Commercial

Empowering businesses to improve the energy efficiency of their buildings, appliances and processes has flow-on benefits including reducing operating costs, increasing property value and attracting higher rental returns.[[28]](#footnote-29)

Commercial and service activities in Australia account for 22% of overall electricity use and 11% of greenhouse gas emissions, the majority of which is attributed to the operation of commercial buildings.[[29]](#footnote-30)

Federal, state and territory governments have a range of existing policies to improve energy performance in commercial buildings. Governments are working together to update the energy efficiency requirements in the NCC and have recently expanded NABERS to include warehouses, cold stores, and aged care facilities. The Australian Government is also leading by example to drive energy performance improvements through its commitment to a Net Zero Australian Public Service by 2030.

Businesses often require substantial investments in energy management and monitoring systems, feasibility studies and energy audits to identify potential savings opportunities. These capital costs can be financially challenging for small-to-medium businesses (SMEs), and energy-intensive industries with complex technology requirements. SMEs also face unique challenges arising from:

* a limited ability to engage with energy costs and capacity to progress energy performance measures
* competing internal priorities for capital, resources and relevant skills
* the challenges that come from moving beyond business-as-usual.

While measures to date have improved energy performance for commercial buildings, further opportunities lie in investing in new and emerging digitally-enabled, grid-integrated technologies such as smart meters, appliances and devices. Additional measures could also be developed to help overcome split incentives.

**Questions for consultation**

* What are the key opportunities to improve the energy performance of new and existing commercial buildings and operations?
* What are the most cost-effective private interventions businesses, including small businesses, can make to improve the energy performance of their buildings and operations?
* What are the barriers to investment in better energy efficiency for commercial businesses?
* How can government further empower and assist businesses to realise savings through energy performance measures?
* How can government support businesses to better utilise digitalisation to improve energy performance?

## 2.4 Industry

Mining, manufacturing and construction account for 43% of Australia’s energy consumption.[[30]](#footnote-31) Improving energy performance in industry supports jobs, makes Australia more competitive internationally and reduces emissions.

While some businesses have made sophisticated changes to their business processes and facilities to improve their sustainability and energy performance, there are challenges that prevent businesses from making improvements.

The Australian Government recognises these challenges and provides support through ARENA and the Department of Climate Change, Energy, the Environment and Water’s (DCCEEW) Industrial Energy Transformation Studies Program; the cross-governmental E3 Program; and funding from CEFC for industries such as agriculture, infrastructure and transport. The Safeguard Mechanism, and its current reforms, will further incentivise large facilities to improve the energy efficiency associated with their direct emissions. ARENA’s mandate has also recently been expanded to support consideration of energy performance and electrification technologies.

Building on these programs, the Government has committed to supporting industry to take advantage of opportunities in a net zero economy through the Powering the Regions Fund and the National Reconstruction Fund; with regions, agriculture, transport, and renewable and low emissions technologies nominated as priority funding areas.

The Australian Government is also supporting energy-intensive industry to adapt and help to overcome these challenges by investing in feasibility studies and research for new technologies, improving transparency and lifting equipment standards.

**Questions for consultation**

* What are the most cost-effective interventions industry can make to improve the energy efficiency of their new and existing operations?
* What are the potential financial and non-financial barriers to investment in better energy efficiency for industry?
* What can be done in addition to existing measures to reduce these barriers to investment?
* How can electrification and demand management support Australian businesses to be competitive and reduce emissions?

## 2.5 Supply chains and workforce

Making the necessary upgrades to energy performance across the economy is a significant task. To enable action in each sector of the economy, an understanding of relevant supply chains and how they can be strengthened is crucial to inform development of the Strategy.

In the majority of cases, improving the energy performance of existing buildings requires substantial retrofitting, as well as upgrading their appliances. New opportunities will emerge for businesses to deliver energy performance. At the same time, upgrades will increase demand for new products and construction materials which will pose challenges for our supply chains. There will also be a proportionate increase in demand for skilled and accredited tradespeople to deliver upgrades safely and to a high quality. Improving supply chains and creating jobs will underpin making the necessary upgrades to energy performance across the economy.

Work is underway. Addressing supply chain vulnerabilities is one of the goals of the Australian Government’s National Reconstruction Fund. Energy Ministers have committed to assessing the supply chain needs and included the clean energy supply chain as a priority theme under the National Energy Transformation Partnership. The Government is committed to growing our local manufacturing capabilities and will work closely with domestic appliance manufacturers to support the transition to improved energy performance.

The Australian Government has a number of additional policies which will help improve skills. The Government has committed $95.6 million over 9 years from 2022-23 for 10,000 new energy apprentices to build the clean energy workforce. The Government has also set aside $9.6 million over 4 years from 2022-23 for a New Energy Skills Program to provide additional training pathways. Building on this, Jobs and Skills Australia will develop a Clean Energy Capacity Study, providing evidence and insights to support Australia’s clean energy sector workforce. Development of the Strategy will be supported and informed by a national Energy Workforce Strategy; a comprehensive national approach to ensuring Australia’s future energy system has a pipeline of highly-skilled and diverse workers to support the energy transition.

The National Energy Performance Strategy will draw on, and where possible, contribute to existing priorities aimed at strengthening the clean energy supply chain. This includes through increased technology adoption by Australian manufacturers and development of modern sovereign manufacturing capability, which will support longer-term job creation. The Government will support Australian jobs, not just through lower energy costs, but by assisting industries to make the most of the transformation of Australia’s energy system.

**Questions for consultation**

* What support is needed for Australian manufacturing or other supply focused businesses to improve energy performance?
* What are the most critical supply issues hindering energy efficiency action?
* What is needed in the finance sector to help accelerate the uptake of energy performance investments?

# 3. Consultation

Ongoing consultation on the development of the Strategy is the foundation of good policy. This includes engaging with the wider energy sector, all levels of government, industry peak bodies, social and consumer groups, academics, communities and end-users of energy. Working with state and territory governments will also help avoid duplication and streamline existing policies and frameworks.

We invite your submissions over coming months on how the government can create a framework to drive down energy prices and emissions through improved energy performance.

**How to make a submission**

We invite your views on the focus areas for Australia’s National Energy Performance Strategy.

You can make submissions via our Consultation Hub by clicking the *Make a Submission* button.

<https://consult.dcceew.gov.au/neps-consultation-paper>

The deadline for submissions will be Friday 3 February 2023.

# 4. Privacy Notice

We will collect your personal information if you decide to make a submission in response to this consultation process. Please read this Privacy Notice before submitting your response.

**What is personal information?**

Personal information means information or an opinion about an identified individual, or an individual who is reasonably identifiable, whether the information or opinion is true or not and whether the information or opinion is recorded in a material form or not.

Our department is bound by the Australian Privacy Principles in Schedule 1 of the [*Privacy Act 1988*](https://www.legislation.gov.au/Series/C2004A03712) *(Cth).* The Privacy Act regulates how we may collect, use, disclose and store personal information. We also hold personal information in accordance with the [*Archives Act 1983*](https://www.legislation.gov.au/Series/C2004A02796) *(Cth).*

You can provide an anonymous submission. However, the department may not be able to contact you about your submission and/or may be unable to take your submission into account as part of the consultation process.

**What personal information will be collected?**

In this consultation, we will collect your personal information, including your name, organisation, industry, email (or other contact details), location, comments and opinions. By completing and submitting this Form, you consent to the collection, use and disclosure of all personal information provided in this Form as set out in this Privacy Notice.

If your submission contains the personal information of another individual, you need to inform that individual of the contents of this statement and obtain their consent to us collecting their personal information.

**How we will use and disclose your personal information**

We will use and disclosure your personal information to:

* Inform the development of the National Energy Performance Strategy and related policies or activities of the department
* Contact you about your submission, including if we require further information or feedback
* Keep you informed about future consultation activities or other opportunities that we consider may interest you, unless you expressly ask us not to.

Your personal information may be disclosed as reasonably necessary for the above purposes, including to:

* Departmental personnel
* External consultants engaged by the department in relation to the National Energy Performance Strategy and related activities
* The Minister, their delegates, and other Australian Government agencies and entities.

We will not use or disclose personal information without your consent, except where authorised or required by law. Your personal information will not be disclosed to overseas recipients unless we notify you.

We use technology by Converlens Pty Ltd to provide this consultation service and website. Our contractual arrangements require Converlens to comply with the Privacy Act and store data securely in Australia.

**Publication**

We may publish information about this consultation process on our website and other publicly available sources. You can tell us whether you agree to your submission being published (or not) by ticking the boxes on the Consultation Website under the heading “Confidentiality”.

**Privacy Policy and contact us**

For more information, please refer to [our department’s Privacy Policy](https://www.dcceew.gov.au/about/commitment/privacy) or [Converlens’ Privacy Policy](https://converlens.com/privacy.html). The department’s Privacy Policy also contains information about how to access or correct your personal information or make a complaint. Alternatively, email the department at privacy@dcceew.gov.au.

# 5. Glossary and acronyms

AEMO – Australian Energy Market Operator

AES – Australian Energy Statistics

ARENA – Australian Renewable Energy Agency

CEFC – Clean Energy Finance Corporation

CSIRO – The Commonwealth Scientific and Industrial Research Organisation

DCCEEW – Department of Climate Change, Energy, the Environment and Water

E3 program – The Equipment Energy Efficiency program

Energy performance – This paper uses “energy performance” to encapsulate the broad management of energy demand. It includes energy efficiency, load shifting, fuel switching and behaviour change.

Energy Security Board’s Data Strategy – A data strategy for the National Electricity Market

EU – European Union

GEMS – Greenhouse and Energy Minimum Standards

IEA – International Energy Agency

ISP – Integrated System Plan

Mtoe – Million tonnes of oil equivalent (when referring to energy usage)

NABERS – National Australian Built Environment Rating System

NatHERS – Nationwide House Energy Rating Scheme

National Reconstruction Fund – An Australian Government fund providing finance for projects that diversify and transform Australia’s industry and economy.

NCC – National Construction Code

NEM – National Electricity Market

Powering the Regions Fund – An Australian Government fund providing direct financial support for energy efficiency improvements in existing and new industries in regional Australia.

Safeguard Mechanism – The Safeguard Mechanism requires Australia’s largest greenhouse gas emitters to keep their net emissions below an emissions limit (a baseline). This applies to facilities with direct scope 1 emissions of more than 100,000 tonnes of CO2 equivalent per year.

SMEs – Small-to-medium businesses

The Partnership – The National Energy Transformation Partnership

The Strategy – The National Energy Performance Strategy

Trajectory for Low Energy Buildings – The Trajectory is a national plan that aims to achieve zero energy and carbon-ready commercial and residential buildings in Australia.

1. This paper uses “energy performance” to encapsulate the broad management of energy demand. It includes energy efficiency, load shifting, fuel switching and behaviour change. [↑](#footnote-ref-2)
2. Sustainability Victoria (2016). [2016, Energy Efficiency Upgrade Potential of Existing Victorian Houses](https://assets.sustainability.vic.gov.au/susvic/Report-Energy-Energy-Efficiency-Upgrade-Potential-of-Existing-Victorian-Houses-Sep-2016.pdf). [↑](#footnote-ref-3)
3. Australian Energy Statistics (2022) [Australian Energy Update Table F](https://www.energy.gov.au/sites/default/files/Australian%20Energy%20Statistics%202022%20Energy%20Update%20Report.pdf); DCCEEW 2020 [National inventory by economic sector: data tables and methodology](https://www.dcceew.gov.au/climate-change/publications/national-greenhouse-accounts-2020/national-inventory-by-economic-sector-data-tables-and-methodology) [↑](#footnote-ref-4)
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