

National Energy Performance Strategy

Tony Wood, Alison Reeve, and Esther Suckling

Recommendations

All sectors

- Choose a limited number of initiatives to focus on.
- Improve the consideration of demand-side technology in the next iteration of the Integrated System Plan
- Make implementation of the National Energy Performance Strategy a standing item on the National Cabinet agenda
- Design signature election commitments to align with the aims of the National Energy Performance Strategy. This includes Rewiring the Nation, the National Reconstruction Fund, the Powering the Regions Fund, the Electric Vehicle Strategy, the Help to Buy Fund, and the Housing Australia Future Fund.
- Set targets for sectors or sub-sectors, rather than nationally
- Invest in better data collection and policy evaluation

Housing and homes

- Implement minimum rental standards, and include energy performance measures in these.
- Implement the 2004 commitment to disclose house energy ratings at the point of sale or lease.
- Fund skills development and tools for property managers to make it quicker and easier to rate properties.

Industry

- Ensure energy performance is considered as part of determining 'best practice' for new facilities under the Safeguard Mechanism
- Ensure rules for accessing multi-year monitoring baselines under the Safeguard Mechanism maintain the incentive for facilities to make incremental improvements in energy performance.
- Encourage state governments to harmonise and expand White Certificate schemes to make it easier for the industrial sector to participate.
- Use an instant asset write-off to reduce net upfront costs for energy saving assets.

1 Introduction

This submission is made by Tony Wood, Alison Reeve, and Esther Suckling of the Grattan Institute. Grattan Institute is an independent think-tank focused on Australian domestic public policy. Grattan aims to improve policy outcomes by engaging with decision-makers and the community.

In November 2022, the Department of Climate Change, Energy, Environment and Water released a consultation paper for the National Energy Performance Strategy. In this submission, we build on our submission to the Safeguard Mechanism reform process,¹ and two previous Grattan Institute reports:

- *The next industrial revolution: Transforming Australia to flourish in a net-zero world* (2022)
- *Towards net zero: Practical policies to reduce industrial emissions* (2021)

Successive governments have identified the contribution to GDP and to greenhouse gas abatement that improved energy performance could deliver. Successive inquiries, reports, frameworks, agreements, plans and strategies have identified the barriers, the opportunities, and proposed policy responses.² But energy performance (whether energy efficiency, demand management, or energy productivity) is persistently resistant to change. Australia continues to compare poorly to international peers.

Energy is embedded in every aspect of the economy and society – from homes and buildings to factories and mine sites. Every sector has

its own challenges. Some have made remarkable and largely unsung progress, such as the improvements in appliance energy efficiency. Others are stuck.

This ubiquity is why previous energy performance strategies, plans, and frameworks have resembled shopping lists. It is also why they have lost focus over time.

There is now impetus to do better. Australia has a bipartisan commitment to achieve net zero emissions by 2050; and a legislated target and emissions budget for 2030. At the same time, Australia's energy system is in a period of unprecedented transformation. Improving energy performance is an opportunity to make this transformation smoother, more equitable, and cheaper.

This means recognising that not all energy performance improvements are of equal value. Choosing the wrong equipment can lock in long-term emissions, even if the equipment is more efficient. For example, installing a more efficient gas boiler will save energy, and lower emissions. But if it has a 20-year life, the new boiler locks in 20 years of emissions. Installing an electric boiler may not save as much energy in absolute terms, but it does not lock in emissions because the electricity supply is decarbonising, and the owner could choose to use 100 per cent renewable energy.

Improving energy performance will require multiple policies across multiple sectors, and patience and persistence. Much of past success has stemmed from regulation, and it is likely this will be the best tool in many cases in the future. A successful National Energy Performance Strategy requires much better data, and a commitment to evaluation and policy adjustment. It requires prioritisation: amongst all the things governments can (and should) do, which should they do first? Which

1. Wood et al (2022).

2. See for example Ministerial Council on Energy (2004), Productivity Commission (2005), COAG (2009), DCCEE (2010), COAG (2010), COAG Energy Council (2015)

do they need to start now because the logistics of change will be slow?
Are there immediate easy wins?

Lastly, it requires embedding change so that improving energy performance becomes normal and invisible, and doesn't flag when government's attention turns elsewhere.

What should the National Energy Performance Strategy aim to do?

- **Identify:** Look for the areas where there are potential economic gains and emissions abatement from energy efficiency, that are currently under-supported by policy.
- **Prioritise:** Focus on activities that avoid long-term lock-in of emissions; that will take a long time to complete; or that have immediate impacts on household or commercial budgets.
- **Track:** Collect data as policies are implemented
- **Evaluate:** Evaluate effectiveness of each policy regularly, and adjust as required.

The Strategy does not have to contain every existing initiative. As part of prioritising, it can identify current policies that are providing continuous improvement over time, and can continue to do so. These don't need special strategic attention. Examples might be the Equipment Energy Efficiency (E3) program or the National Built Environment Rating System (NaBERS).

Ideally, the Strategy should contain five to seven opportunities where sustained attention and resourcing can make a significant difference.

2 Discussion questions

In the following section, we address the discussion questions raised in the consultation paper. We have not responded to questions where we cannot add value.

2.1 Governance

2.1.1 Incorporating demand considerations into energy system planning

Current system planning does not include granular variation in demand as it does for generation. For example, the Integrated System Plan uses detailed input data on the expected cost trajectory for individual generation technologies. Other than rooftop PV (which is only a demand-side measure because it occurs behind the meter), it does not look at the relative costs of demand management or energy performance technologies, nor does it test whether different levels of technology penetration could change the economics of generation and transmission.

Energy National Cabinet Reform Committee should instruct the Australian Energy Market Operator to improve the consideration of demand-side technology in the next iteration of the Integrated System Plan. This should include granular input data on the cost and potential of energy efficiency measures; and should include scenarios with demand management and energy efficiency, to test the capacity of these to reduce the need for investment in networks and generation

2.1.2 Better institutional co-ordination

Energy touches every part of the economy, and so too will better energy performance. Industry energy performance is affected by industry policy as much as climate policy. Building energy performance

is governed by Building Ministers and the Australian Building Codes Board. Transport energy performance sits with the transport ministers. Data is held by various organisations and is incomplete. Action to improve energy performance has fractured into myriad individual initiatives. From the perspective of those outside government, there is little sign of overall co-ordination, prioritisation, or systems thinking.

Meanwhile, other portfolios make important policy decisions and stimulate private sector investment in ways that have far-reaching consequences for the energy system. The energy system is expected to accommodate these while also undergoing an unprecedented transition.

While energy ministers are able to request consideration of energy performance by other ministerial portfolios, they lack the authority to demand it.

Another governance body is not the answer. Rather, implementing the National Energy Performance Strategy should be a standing item for National Cabinet's agenda. Energy ministers can continue to be responsible for other initiatives.

This would have two effects. First, because National Cabinet's agenda is crowded and First Ministers' time is precious, it would force prioritisation amongst the many opportunities for improvement. Second, it would provide a channel for other ministerial portfolios to be tasked with responsibilities to improve energy performance, with the authority of First Ministers behind it.

Implement election promises with energy performance in mind

At the federal level, new policies and programs are being designed as the government implements its election commitments. Many of these

– such as Rewiring the Nation, the National Reconstruction Fund, the Powering the Regions Fund, the Electric Vehicle Strategy, reforms to the Safeguard Mechanism, Help to Buy, and the Housing Australia Future Fund – will lock in patterns of energy production and use that will last for decades. It is important that policy design for these new initiatives aligns with the aims of the National Energy Performance Strategy.

- The business cases for transmission lines funded through Rewiring the Nation consider whether demand management could reduce costs before investment decisions are taken.
- The National Reconstruction Fund should apply a merit criteria in funding applications for businesses that can demonstrate improvements in energy performance.
- Assistance to trade-exposed industries through the Powering the Regions Fund should not support businesses to lock in poor energy performance.
- The Electric Vehicle Strategy should consider energy tariff reforms and incentives to minimise the impact of unconstrained vehicle charging on the distribution network.
- The Help to Buy Fund should consider raising the property price cap for houses with higher energy efficiency ratings (discussed further in Section 2.3).
- Homes built through the Housing Australia Future Fund should meet high energy performance standards. Beyond the \$200 million committed to housing repair, maintenance, and improvements in remote Indigenous communities, the fund should dedicate ongoing spending on upgrading the energy performance of social and community housing (discussed further in Section 2.3).

2.2 Focus on data and evaluation, not targets

The purpose of improving energy performance is not to improve energy performance for its own sake. It is to build a more productive economy that can thrive in a net-zero world.

Because energy is embedded in every aspect of the economy and society, achievement of energy performance targets can be influenced as much by changes in these (for example, smaller household size, a shift from manufacturing to services) as by any policies. And because energy use and barriers to changing it are so diverse, policies will vary.

There are also a number of policies in place which may improve energy performance even though they are not energy performance policies – such as the reformed Safeguard Mechanism

Given this, we suggest that a single over-arching target representing energy productivity, energy efficiency, or energy intensity, is probably not useful.

It would be more useful to set targets for sectors or sub-sectors, as part of designing policies to improve energy performance in those sectors. And, we suggest investing in better data collection and better evaluation, so that sector-specific policies can be tracked and adjusted over time to remain effective.

2.3 Low-income households and renters

2.3.1 Change the Help to Buy scheme to avoid locking poorer families into low-performing housing

The Help to Buy scheme assists first-home buyers to purchase a home. Buyers can have a deposit of as little as 2 per cent, with the government owning up to 40 per cent equity in the property. The price of eligible homes is capped, with caps varying by location. Eligible

buyers must earn no more than \$90,000 per year for singles, or \$120,000 per year for couples.

The Help to Buy price cap is necessary to avoid stimulating further house-price increases, and to contain the cost of the scheme. However, it risks locking buyers into homes that have poor energy performance.

Homes with high energy performance tend to command higher purchase prices. In the ACT (the only jurisdiction to have implemented mandatory disclosure of energy efficiency ratings at point of sale or lease), the 2022 median price per square metre for homes with a rating of 1.5 stars or less was \$1288/sqm. For homes with 6 stars, it was \$2567.³

An ACT home with a rating of 1.5 stars uses 337 per cent more energy than one rated at 6 stars.⁴ If all this extra energy comes from gas (which is likely, given the ACT's cold climate and reliance on gas heating), it equates to an additional cost of ownership for an average-sized 1.5 star home of \$5,732 per year⁵— or one-and-a-half extra mortgage repayments each year.⁶

The government should amend the Help to Buy scheme to raise the price cap for homes with higher star ratings. This would make it easier for buyers to pay off their home loans, which in the long term exposes the government to less risk. It would improve access to more comfortable, healthier homes for low-income families. And it would send an important signal to the housing market that, in a net zero economy, homes with better energy performance should be more highly valued.

3. Powell (2022).

4. Grattan calculation using NaBERS star bands and climate zones: NaBERS (2022a), NaBERS (2022b).

5. Grattan calculation based on average ACT house size of 256.3 sqm and ACT gas tariff of \$0.042680/MJ: Taylor (2022), ACTEW-AGL (2022).

6. Based on a \$600,000 loan with less than 5 per cent deposit using calculator from Rate City (2023).

2.3.2 Use the Australia Housing Future Fund to simulate supply of higher-performing homes

The Australian Housing Future Fund is intended to provide the funding to deliver the Government's commitment of 30,000 new social and affordable homes in the fund's first five years. It has also earmarked \$200 million for the repair, maintenance and improvement of housing in remote Indigenous communities.

If these houses are built to comply with the National Construction Code, they will achieve a minimum energy performance rating of 7 stars. The Future Fund could explore the costs and benefits of increasing the star rating for new homes. It could also explore funding energy upgrade agreements to improve the energy performance of existing social and community housing.

2.3.3 Minimum rental standards could improve energy performance in rental properties

Minimum rental standards are different in different states, and only two states include energy.⁷

Consistent rental standards for energy performance, including a pathway to lifting the average energy efficiency star rating for rental properties, should be a priority for Energy Ministers.

Disclosure of energy efficiency performance at the point of sale or lease was agreed to by energy ministers in 2004. The purpose of disclosure is to give tenants the information they need to assess the running costs of different properties, and make their own trade-offs between rent and energy bills.

7. The ACT Government requires rental properties to have ceiling insulation (from 1 April 2023). The Victorian Government requires an energy efficient heater to be installed.

Twenty years later, only the ACT has implemented it. It is well beyond time for other states catch up. The federal government could incentivise this by making access to any initiatives in the National Energy Performance Strategy conditional on the states and territories implementing mandatory disclosure. To complement this, the federal government could fund skills development and rating tools access for property managers to make it easier and quicker to rate properties. There should also be penalties on landlords for wrongful disclosure.

2.4 Industry

2.4.1 A stringent Safeguard Mechanism will improve energy performance and reduce emissions

Proposed reforms to the Safeguard Mechanism should drive better energy performance in large industrial facilities. Over half the emissions from the industrial sector come from fuel consumption,⁸ and these are the easiest emissions to tackle.

The proposed approach to multi-year monitoring baselines could act as a disincentive to improve energy performance of existing facilities. The government should release more detail about how access to multi-year monitoring will be assessed, and ensure that it maintains the incentive for facilities to make incremental improvements to energy performance.

The reformed Safeguard Mechanisms proposes requiring new facilities to meet a baseline of ‘international best practice, adapted for an Australian context’. Given Australia’s energy performance compares so poorly with other countries, too much weighting towards the Australian context will lock in poorly performing facilities for twenty years or more, leaving a legacy of higher emissions and higher energy consumption. This should be taken into account when determining ‘best practice’.

8. Wood et al (2021).

2.4.2 Smaller industrial facilities

Outside of the Safeguard are thousands of smaller industrial facilities. Business owners and staff in these facilities often lack expertise in energy management or do not have the time to focus on it.⁹ And energy efficient equipment can cost more than conventional equipment, and this cost must be born upfront, with the savings only recouped over a number of years. For small firms, with less liquidity and less certainty over how long they will be in business, this can be a strong barrier to change.

Energy efficiency obligations should be harmonised

In our 2021 report, *Towards net zero: practical policies to reduce industrial emissions*, we recommended expanding and harmonising state-based energy efficiency obligation schemes (also known as White Certificate schemes), and reforming them to make it easier for the industrial sector to participate.

We do not see additional value in moving to a national White Certificate scheme. The Commonwealth has tried this before, and found it difficult to make the costs and benefits stack up on a national basis.¹⁰ It would be better for state-based schemes to continue, with greater harmonisation between them, so that state-specific circumstances can be addressed.

Use an instant asset write-off to align costs and benefits

An instant asset write-off encourages business investment in new assets. It allows businesses to claim an immediate tax deduction for the cost of an asset in the year it is first used.

9. EEC (2016, p. 35).

10. DCCEE (2012).

As noted above, one of the barriers to improving energy efficiency (and achieving the associated emissions reductions) is that the costs of a new asset are paid upfront, but the ongoing savings are realised over a number of years. However, when businesses are already struggling with higher energy prices, there is less spare cash to spend on new equipment.

An instant asset write-off reduces the net upfront cost, which may make the ongoing savings more attractive.

The Federal Government should extend the instant asset write-off for assets that reduce gas or electricity consumption, and encourage smaller industrial firms to use the instant asset write-off to help finance upgrades. This should be a temporary measure, which ends when energy prices return to levels closer to the long-term average.

Bibliography

- ACTEW-AGL (2022). *ACT Standard plan natural gas prices*.
<https://www.actewagl.com.au/-/media/files/new-plan-pricing-pdfs/act-standard-gas-prices-july-2022.pdf>.
- COAG (2009). *National Partnership Agreement on Energy Efficiency*. Council of Australian Governments.
https://web.archive.org.au/awa/20120316201854mp_/http://www.federalfinancialrelations.gov.au/content/national_partnership_agreements/environment/energy_efficiency/national_partnership.pdf.
- (2010). *National Strategy for Energy Efficiency*. Council of Australian Governments. <https://webarchive.nla.gov.au/awa/20140514153858/http://pandora.nla.gov.au/pan/82622/20140515-0011/www.coag.gov.au/node/185.html>.
- COAG Energy Council (2015). *National Energy Productivity Plan*. Council of Australian Governments. https://web.archive.org.au/awa/20160304004532mp_/https://scer.govspace.gov.au/files/2015/12/National-Energy-Productivity-Plan-release-version-FINAL.pdf.
- DCCEE (2010). *Report of the Prime Minister's Task Group on Energy Efficiency*. Department of Climate Change and Energy Efficiency.
https://web.archive.org.au/awa/20110602031850mp_/http://www.climatechange.gov.au/~media/submissions/pm-taskforce/report-prime-minister-task-group-energy-efficiency.pdf.
- (2012). *National Energy Savings Initiative - Progress report*. Department of Climate Change and Energy Efficiency.
<https://webarchive.nla.gov.au/awa/20140211205804/http://www.innovation.gov.au/Energy/IndustrialEnergyEfficiency/NationalEnergySavingsInitiative/Pages/ProgressReport.aspx>.
- EEC (2016). *Australian Energy Efficiency Policy Handbook*. Energy Efficiency Council.
<https://www.eec.org.au/uploads/Documents/Platoform%20Documents/Australian%20Energy%20Efficiency%20Policy%20Handbook%20%E2%80%93%20July%202016.pdf>.
- Ministerial Council on Energy (2004). *National Framework for Energy Efficiency*. Ministerial Council on Energy.
https://web.archive.org.au/awa/20130904094742mp_/http://www.ret.gov.au/Documents/mce/_documents/8MCECommunique27August20042004082714194520041124163539.pdf.
- NaBERS (2022a). *NaBERS climate zone map*. Australian Government.
https://www.nathers.gov.au/themes/custom/govcms8_uikit_starter/climate-map/index.html.
- (2022b). *NaBERS star bands*. Australian Government.
<https://www.nathers.gov.au/sites/default/files/2023-01/2022%20NatHERS%20Starbands.xlsx>.
- Powell, N. (2022). *Domain Sustainability in Property Report 2022*. Domain.
<https://www.domain.com.au/research/domain-sustainability-in-property-report-1147058/>.
- Productivity Commission (2005). *The Private Cost Effectiveness of Improving Energy Efficiency*. Productivity Commission. <https://www.pc.gov.au/inquiries/completed/energy-efficiency/report/energy.pdf>.
- Rate City (2023). *Compare rates*. <https://www.ratecity.com.au/home-loans/repayments-on-600000-mortgage?minDeposit=5&showAll=false>.
- Taylor, J. (2022). "House Sizing Australia: Trends, Averages, and Standards". *Architecture & Design*.
<https://www.architectureanddesign.com.au/features/list/house-sizing-australia-trends-averages-and-standar>.
- Wood et al (2021). Wood, T., Reeve, A. and Ha, J. *Towards net zero: Practical policies to reduce industrial emissions*. Grattan Institute.
<https://grattan.edu.au/report/towards-net-zero-practical-policies-to-reduce-industrial-emissions/>.
- Wood et al (2022). Wood, T., Reeve, A. and Suckling, E. *Keep it simple: Redesigning the Safeguard Mechanism to drive emissions reductions*. Grattan Institute.
https://grattan.edu.au/wp-content/uploads/2022/09/Safeguard_submission_2022.pdf.