Accelerating home energy efficiency upgrades in Australia: A policy gap analysis



UNSW Centre for Sustainable Development Reform

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We acknowledge that this report was prepared on the unceded territory of the Bedegal people, the Traditional Owners of the land where UNSW Kensington campus is located. This report also concerns the many lands of Traditional Owners across Australia. We recognise the enduring connection of Aboriginal and Torres Strait Islander peoples to Country across Australia and pay our respects to Elders past, present and emerging.

Disclaimer:

The authors have used all due care and skill to ensure the material is accurate at the date of this report. The authors do not accept any responsibility for any loss that may arise from anyone relying on its contents.

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Glossary of Abbreviations



CEFC Clean Energy Finance Corporation

EER Energy Efficiency Rating

EEIS Energy Efficiency Improvement Scheme (ACT)

ESS Energy Savings Scheme (NSW)

EUAH Energy Upgrades for Australian Homes

FiT Feed-in Tariff

GEMS Greenhouse and Energy Minimum Standards

HEUF Household Energy Upgrades Fund

NABERS National Australian Built Environment Rating System

NCC National Construction Code

NatHERS Nationwide House Energy Rating Scheme

NEPS National Energy Performance Strategy

PDRS Peak Demand Reduction Scheme (NSW)

REPS Retailer Energy Productivity Scheme (SA)

SHEPI Social Housing Energy Performance Initiative

SHS Sustainable Household Scheme (ACT)

SHP Solar Homes Program (VIC)

SRES Small-scale Renewable Energy Scheme

TLEB Trajectory for Low Energy Buildings

VEUP Victorian Energy Upgrades Program

VPP Virtual Power Plant

Summary

Accelerating Australia's home energy upgrades is important for making homes more comfortable, lowering energy bills and reducing emissions. As part of the Energy Upgrades for Australian Homes (EUAH) project, this paper details the mapping of home energy upgrades policies across Australia's three jurisdictions – Commonwealth, states/territories, and local government. This policy mapping reveals gaps and opportunities for reform to accelerate home energy efficiency across Australia's housing stock.

Mapping Australia's home energy upgrade policies reveals a fragmented landscape that demands greater coordination across all levels of government. The Australian Capital Territory and Victoria are leading in effective policy development, followed by New South Wales, South Australia, Western Australia and Tasmania. In contrast, Queensland and the Northern Territory show little policy commitment and, in some important respects, backward momentum. Across all of these jurisdictions, critical gaps persist in regulatory standards, upgrading the building envelope to improve thermal efficiency of all housing stock, financing upfront costs of upgrades (particularly for low-income households), and developing effective policies for the rental sector. Addressing these gaps requires both commitment to existing models, such as the Home Energy Ratings Disclosure Framework, alongside new policy options. The next wave of policy development needs to respond to the diversity of home equity and incomes among owner-occupiers. Forthcoming research in EUAH will directly address new models for green finance within the Australian context, drawing on international lessons.

Critically, rental accommodation requires specific and targeted policy attention. Landlords often remain unaware of their properties' energy inefficiency and the resulting tenant discomfort. This is compounded by significant upfront cost barriers. Comprehensive minimum energy efficiency standards for rental properties should be adopted across all jurisdictions. Additionally, targeted financing for landlords should be considered, but should be integrated with broader tax reform discussions addressing intergenerational equity and tenant cost-of-living pressures.

Local councils and community organisations are already demonstrating effective and locally-attuned solutions that warrant expanded support through coordinated Commonwealth and state funding. Such funding must also cover the costs of administrative support for programs to prevent council resources being diverted from other important sustainability initiatives.

Policy makers across Australian jurisdictions are exploring 'one-stop-shop' models to help households navigate the complexities of home energy upgrades. This approach could significantly improve policy coherence and accessibility, warranting continued research and development.

Key highlights



States and territories demonstrate varying levels of policy commitment. The ACT and Victoria demonstrate the strongest policy commitment, followed by NSW, SA, Tasmania and WA. In contrast, Queensland and the NT currently have limited policy commitment to improving home energy efficiency.

Across all jurisdictions, critical gaps in policy exist, particularly:

- in improving thermal efficiency for all housing stock;
- electrification for low-income households;
- appropriate financing models to cover the upfront costs of upgrades; and
- effective national policies for incentivising the rental sector.

Many councils and community organisations are already delivering effective, locally-adapted solutions and this should be further expanded through coordinated Commonwealth and state/territory funding that includes administrative support.



1. Introduction

The need for policy reform

Australia's federal, state and territory governments have all committed to net zero emissions by 2050, with most jurisdictions also setting interim targets. Achieving these targets will require a commitment to improving home energy efficiency across all Australian housing stock. In addition to reducing emissions, addressing the home energy efficiency of Australian homes is essential for improving comfort for households and reducing high energy bills. On 18 September 2025, the Australian government announced its 2035 climate target of 62-70% reduction in emissions on 2005 levels as part of the plan to net zero by 2050. The Built Environment Sector Plan, accompanying the target, recognises the critical role that improving home energy efficiency will play in meeting those targets.² It also recognises that improving access to home energy upgrades for all Australian households will require a coordinated effort by federal, state and territory governments.

It is well recognised that Australia faces significant challenges in improving residential energy efficiency due to policy fragmentation, diverse climate zones, different building types and aging housing stock.³ Historically, policy settings have been highly effective in stimulating the uptake of solar PV across Australian jurisdictions, through the market certificate schemes, direct rebates and feed-in-tariffs, backed by mandatory installer training and accreditation.⁴

This policy attention has facilitated one in three Australian homes with solar installations by November 2024⁵. Policy settings at the Commonwealth, state and territory level have been less effective in improving the building envelope of older housing stock along with electrification of heating, cooling, cooking and water in homes. Addressing the building envelope to address thermal efficiency is critical as millions of Australian homes were built before mandatory efficiency standards were first introduced into the National Construction Code in 2010. Research indicates that these homes have an average of 1.8 stars out of 10 on the NatHERS rating⁶. Enduring challenges for upgrading homes are also well documented. These include: the prohibitive upfront cost of home energy efficiency upgrades; the need for greater commitment to upgrading social and affordable housing; the low uptake of energy upgrades in the rental sector (affecting approximately 30% of Australians); complex governance issues in strata properties; and access to financial mechanisms for low-income households. In addition, there remains challenges in education and upskilling industry workforce, along with a critical shortage of qualified professionals to deliver retrofits at the necessary scale⁷.

¹ DCCEEW (2025) Setting our 2035 Target on Path to Net Zero, https://www.dcceew.gov.au/about/news/setting-2035-target-path-net-zero (cited 18/9/2025)

² Treasury & DCCEEW (2025) Built Environment Sector Plan, (September 2025) https://treasury.gov.au/sites/default/files/2025-09/p2025-698821.pdf

Armstrong, G. & Graham, T. (2023) Climate-Ready Homes: Building the case for a renovation wave in Australia, Climateworks Centre, https://www.climateworkscentre.org/resource/climate-ready-homes-building-the-case-for-a-renovation-wave-in-australia/; Fox, C., O'Neill, N., & Berry, M. (2024). A National Roadmap for Improving the Building Quality of Australian Housing Stock (AHURI Final Report No. 426). Australian Housing and Urban Research Institute Limited. https://www.ahuri.edu.au/research/final-reports/426; Wingrove, K., Heffernan, E., & Daly, D. (2024). Increased home energy use: Unintended outcomes of energy efficiency focused policy. Building Research & Information, 52(5), 577–595.

⁴ Sommerfeld, J., & Buys, L. (2014). Australian consumer attitudes and decision making on renewable energy technology and its impact on the transformation of the energy sector. Open Journal of Energy Efficiency, 3(3), 85–91.; Australian Government, Department of Climate Change, Energy, the Environment and Water. (2024, July 30). Australia hits rooftop solar milestone. Energy gov.au.

https://www.energy.gov.au/news/australia-hits-rooftop-solar-milestone#:~:text=Solar%20uptake%20has%20been%20driven,a%20year%20on%20energy%20bills

AEMO (2024) Supporting Secure Operation with High Levels of Distributed Resources,

https://aemo.com.au/-/media/files/initiatives/der/managing-minimum-system-load/supporting-secure-operation-with-high-levels-of-distributed-resources-q4-2024.pdf?la=en

⁶ CSIRO (2021) It's in the stars how Scientists Figure Out Your Home Energy Rating, https://www.csiro.au/en/news/all/articles/2021/september/its-in-the-stars-how-scientists-figure-out-your-homes-energy-rating

See for example the various submissions made by Energy Consumers Australia, https://energyconsumersaustralia.com.au/our-work/submissions; First Nations Clean Energy Strategy, https://energy.strategy; Jayalath, A., Vaz-Serra, P., Hui, F. K. P., & Aye, L. (2024). Thermally comfortable energy efficient affordable houses: A review. Building and Environment, 111495; Armstrong, G., Danahay, J. & Dewar, M. (2024) Enabling Australia's Home Renovation Wave, Climateworks Centre, August 2024, pdf. Justice

https://www.climateworkscentre.org/wp-content/uploads/2024/08/Enabling-Australias-home-renovation-wave-Report-Climateworks-Centre-August-2024.pdf; Justice and Equity Centre (2025) Roadmap for Efficient and Electric Homes,

https://jec.org.au/wp-content/uploads/2025/05/JEC-Roadmap-for-Efficient-and-Electric-Homes.pdf; Rewiring Australia (2024) Pre-budget Submission to the Australian Government, https://www.rewiringaustralia.org/report/2024-2025-pre-budget-submission-to-the-australian-government



Across all levels of government, policy development is shifting. While some policy changes represent positive momentum, others are undermining effective change. Several key federal, state and territory policies are currently under review and new policies are being developed. There is also active advocacy across academia, industry, local government and civil society⁸. This report contributes to that policy development. It identifies gaps and opportunities in energy upgrades policy and finance options to pursue the overarching project objective of upgrading 1 million Australian homes by 2030 to reduce emissions, lower the cost of energy bills, enhance home comfort and improve health for all Australians. Consistent with the scope of EUAH, the focus of this report is on policy for home energy upgrades, while recognising that these are interconnected with electricity markets, grid infrastructure and Virtual Power Plants (VPPs). Electric vehicles and their infrastructure for charging are also part of home upgrades but are not the focus of EUAH or this report⁹.

Structure of this Report

This report begins with an overview of the upgrade and policy options, along with a summary of the responsibilities for home energy upgrade policy for each of the three levels of Australian government -Commonwealth, state/territory, local government. It then overviews the current policy landscape and policy gaps, with a focus on the Commonwealth and states/territories governments as of 30 June 2025. The next section summarises the contribution of local government and community approaches in addressing home energy upgrades. The fourth section provides a brief overview of lessons learnt from the international policy approaches. The following section makes policy recommendations to enable home energy upgrades across Australia's housing stock before the final section, the Conclusion. The Annexures to this report summarise the current policies for home energy upgrades in effect as of 30 June 2025. Annexure A to this report is a summary of the Commonwealth policies. Annexure B is a summary of each of the Australian state and territories policies. Annexure C provides an overview of policy development at the local government level, grouped by state and territories.

⁸ As above

 $^{9 \}hspace{0.5cm} \textbf{It is noted that electric vehicles are addressed under the RACE for 2030 EV pillar <math display="block"> \underline{\text{https://www.racefor2030.com.au/race-for-evs/}}$

2. Developing policy for home energy efficiency upgrades

Typology of energy upgrades and policy approaches

Developing policy for home energy upgrades across Australia must address our eight diverse climate zones, along with different housing stock and the varied socio-economic dynamics of occupants (such as different incomes in home-owners, renters and social housing). Home energy upgrades include the following types of initiatives:

- Building envelope improvements through adding insulation, reducing air leakages and improving window performance;
- Electrification of energy generation such as solar PV backed by batteries;
- Upgrading **appliances** to be more efficient (that is, replacing appliances with low star ratings and high energy usage);
- Electrification of home infrastructure (cook tops, heating and cooling systems and water heating);
- Information and education that give homeowners knowledge and confidence when deciding what upgrade to prioritise; and
- **Technologies** that enhance knowledge and upgrade decisions, such as home energy management systems, energy audits and digital platforms for home energy optimisation.

Policy mechanisms for addressing home energy upgrades are also varied and include:

- **Regulatory standards** building codes, appliance efficiency standards, energy efficiency disclosure rules, accrediting suppliers and installers;
- Capital/Incentives to reduce the cost of upgradesrebates, tax credits, feed-in tariffs, white certificate schemes, time-of-use rates, grants and direct cash payments;
- Financing Support to address the high upfront costs zero or low interest loans, finance attached to the property (ie paid back over time and attached to rates or utility bills) and loan guarantees to spread costs over time; and
- Support services such as information, technical assistance, workforce training and accreditation, one stop shops to help navigate rebates and suppliers, education and vetting suppliers to reduce risks for participants.

In practice, each initiative can be subject to several different policy mechanisms. One example of this working effectively in the Australian context is the different mechanisms by the Commonwealth and states co-exist to drive momentum in solar PV (discussed further below). The options available to each level of government are also shaped by their jurisdiction around home energy upgrade policy. The next section explains this jurisdictional responsibility at each level of Australia's government.



Jurisdiction for energy upgrades

The Commonwealth government has no express constitutional powers to regulate energy, including home energy efficiency upgrades. Instead, it relies on powers over trade and commerce, taxation, and external affairs under Section 51 of the Commonwealth Constitution to direct the broad national agenda. State and territory governments hold primary constitutional responsibility for building regulation, energy generation and residential energy programs¹⁰. This has necessitated the need for cooperative federalism arrangements. One such example is the Australian Building Codes Board (ABCB), a joint initiative of the Commonwealth and state and territory governments that develops the National Construction Code (NCC) for new builds and major refurbishments for existing

homes. States and territories give it legal effect through their own legislation. In other respects, states and territories exercise significant policy discretion in setting energy efficiency targets, designing upgrade programs, and establishing compliance frameworks. This results in diverse approaches across jurisdictions. Local governments derive their powers from state legislation, with delegated authority over local planning and development matters¹¹, such as compliance with the provisions in the NCC as part of the Development Assessment process. Facilitating home energy efficiency upgrades are not 'core business' for local governments, yet many councils are active in policy and program development, discussed further below.

Kallies, A. (2021). The Australian energy transition as a federalism challenge: (un) cooperative energy federalism?. Transnational Environmental Law, 10(2), 211-235; Godden, L. (2023). Energy law and regulation in Australia. Handbook of Energy Law in the Low-carbon Transition, 369-386.

¹¹ Kallies (2021)

3. Findings of Policy Mapping Across Jurisdictions

A changing policy landscape

As noted above, at the time of writing there are several reviews of key policies as well as new developments at the Commonwealth, state and territory level. This includes the Commonwealth Built Environment Sector Plan, the national Home Energy Ratings Disclosure Framework for disclosure of NatHers star rating at the point of sale and lease, updating minimum rental standards in South Australia to include energy efficiency provisions, along with the Commonwealth battery scheme that commenced on 1 July 2025. The policy mapping below is set within a larger policy landscape impacting home energy upgrades. These include net zero commitments by the Commonwealth, state and territories but with different interim targets, vastly different targets and trajectories for decarbonisation of grid electricity generation, along with varying approaches across jurisdictions to workforce development impacting home energy upgrades.

Many of these wider policy settings are also actively being reviewed and reformed, making for a dynamic policy landscape. This research mapped all policies related to home energy efficiency upgrades across the federal, state and territories of Australia. It also mapped the policy initiatives and programs implemented by local councils to support home energy efficiency upgrades at the local level. The next subsection is a gap analysis of the policy mapping of Commonwealth policies (summarised in Annexures A), state and territories policies (Annexure B).

Gap analysis across Australian jurisdictions

The policy mapping reveals a fragmented policy environment with significant variation in ambition and implementation across jurisdictions. Building standards reflect national coordination through the NCC framework, with most states (except the Northern Territory and Tasmania) now requiring 7-star NatHERS ratings (NCC 2022)¹². Yet this also faces challenges with recent policy announcements (discussed further below). In other policy settings, there are deep differences across state and territory jurisdictions. The Australian Capital Territory (ACT) and Victoria have developed the most comprehensive suite of policies, followed by New South Wales (NSW), South Australia (SA) and Western Australia (WA). Queensland and the Northern Territory demonstrate weak policy commitment and households in these jurisdictions must rely on federal programs and market mechanisms.

¹² It is noted that at the time of writing, the federal gove<mark>rnment has announced a freeze on further updates to the NCC. See https://minister.dcceew.gov.au/watt/media-releases/joint-media-release-action-red-tape-and-approvals-build-more-homes-more-quickly</mark>

Building standards

Some recent developments are important steps in addressing long standing policy gaps in building standards aimed at energy efficiency in new homes and substantial renovations. The national Home Energy Ratings Disclosure Framework is designed to facilitate market transparency by requiring disclosure of energy efficiency ratings at the point of sale or lease in existing housing stock. This requires adoption by states and territories, with indications of different positions emerging. Further emerging policy is developing the methodology unpinning the NatHERS into a rating tool for evaluating the thermal performance of established homes. This is significant because currently the rating tool cannot evaluate how major refurbishments comply with the NCC, despite this being a requirement in state and territory building legislation.

Not all policy momentum is positive. States and territories have not uniformly adopted the 7-star NatHERS rating. Further, in August 2025 the federal government announced a freeze on updates to the NCC¹³ and Queensland's Productivity Commission is also reviewing its commitment¹⁴. These policy positions represent a significant backyards step for the next generation of Australian housing that will require expensive and complex retrofits in the context of increasingly extreme climates.

Residential gas transition

A critical policy gap exists in residential gas transition strategies, with only the ACT and Victoria implementing full bans on gas connections in new residential buildings, within geographical limits¹⁵. There is a strong push from community organisations, researchers and civil society to prohibit household connections to gas across all jurisdictions on grounds of both emissions' reduction and the mounting evidence that gas has detrimental health effects for respiratory health in households¹⁶.

White certificate schemes

Energy efficiency certificate schemes (white certificates) are implemented in only the ACT, NSW, SA and Victoria. These schemes obligate energy retailers to meet reduction targets by purchasing tradeable certificates generated from household and business energy efficiency upgrades. The ACT operates the Energy Efficiency Improvement Scheme for retailers, NSW operates the Energy Savings Scheme, SA's Retailer Energy Productivity Scheme (REPS) has operated since 2021 (currently under review), and Victoria runs the Victorian Energy Upgrades program. Western Australia, Queensland, Tasmania, and Northern Territory lack white certificate schemes entirely, representing a significant gap in market-based energy efficiency policy coverage across Australian jurisdictions.

DCCEEW (2025) Joint Media Release: Action on red tape and approvals to build more homes, more quickly, the Hon. Murray Watt MP (24 August 2025) https://minister.dcceew.gov.au/watt/media-releases/joint-media-release-action-red-tape-and-approvals-build-more-homes-more-quickly

¹⁴ Queensland Productivity Commission (2025) Opportunities to Improve Productivity of the Construction Industry: Interim report, https://qpc.qld.gov.au/docs/construction-productivity/Interim%20Report%20-%20Opportunities%20to%20improve%20productivity%20of%20the%20 construction%20industry.pdf

¹⁵ These regulatory measures do not address the high numbers of households reliant on bottle gas to deliver energy needs, particularly for homes outside of metropolitan areas where the main gas networks do not extend.

¹⁶ Knibbs, L. D., Woldeyohannes, S., Marks, G. B., & Cowie, C. T. (2018). Damp housing, gas stoves, and the burden of childhood asthma in Australia. Medical Journal of Australia, 208(7); Climate Council of Australia (2021) Kicking the Gas Habit: How gas is harming our health, https://www.climatecouncil.org.au/wp-content/uploads/2021/05/Kicking-the-Gas-Habit-How-Gas-is-Harming-our-Health.pdf

RESIDENTIAL GAS TRANSITION

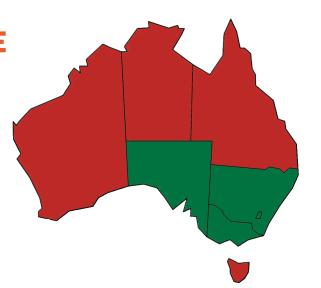
Action: ACT and VIC

No action: All other states and NT

WHITE CERTIFICATE SCHEMES



No action: All other states and NT

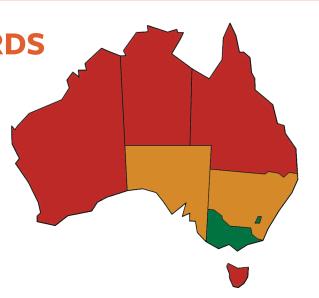


MINIMUM STANDARDS FOR RENTALS

Action: ACT, VIC

In development: SA and NSW

No action: All other states and NT





Access to renewable energy generation

The policy landscape has successfully driven significant uptake of solar PV systems through the Commonwealth Small Scale Renewable Energy Scheme (SSRES) under the federal Renewable Energy Target (RET), along with state and territory feed-in tariffs. Research reveals the equity implications of these policy measures, with uptake concentrated in higher income, owner-occupier households¹⁷. In all jurisdictions, premium feed-in tariffs are being phased down or out over time, replaced by very low market rates. Addressing peak generation and peak demand challenges, home batteries are now receiving increased attention through targeted rebate programs by the Commonwealth and several states, most recently Western Australia.

Across Australia there are clear inequities in extending renewable energy generation to low-income households, First Nations housing and social housing. The extension of the Social Housing Energy Performance Initiative (SHEPI) scheme, a collaboration between the Commonwealth, states and territories to address social housing, is a welcomed policy response but will only cover a proportion of Australia's social houses (see below in this section for further discussion).

Current policy gaps in building envelopes upgrades and finance options

The policy focus on 'active' technology deployment in the form of solar and batteries 18 is important, but policy support has not adequately addressed the remaining upfront costs for comprehensive retrofits of the envelope of existing buildings, such as insulation and double glazing. This is significant because electrification through solar and batteries does not deliver the co-benefits of improved health and comfort associated with thermal upgrades. Research indicates that electrification can provide a 'gateway' for other energy upgrades¹⁹. Yet others observe that without thermal upgrades, comfort may be reduced by electrification in homes less than three stars, risking unintended consequences of poor consumer experiences and increasing emissions from fossil fuelled electricity during the transition²⁰.

Low or no interest loans represent an important policy mechanism to assist households to cover the remaining high upfront costs of upgrades. On 30 June 2025, low interest loans were available by the Commonwealth through the Home Energy Upgrade Fund (HEUF), along with the ACT and Tasmania. The HEFU, delivered through the Clean Energy Finance Corporation (CEFC), enables select financial institutions to offer low-interest loans for home energy efficiency upgrades.

Best, R., Chareunsy, A., & Li, H. (2021). Equity and effectiveness of Australian small-scale solar schemes, Ecological Economics, 180, 106890; Best, R., Chareunsy, A. & Taylor, M. (2023). Emerging inequality in solar panel access among Australian renters. Technological Forecasting and Social Change, 194, 122749. Judson, E., & Zirakbash, F. (2022). Investigating the potential of solar energy for low-income communities in Australia to reduce hardship, debt and inequality. Energy Research & Social Science, 84, 102386.

¹⁸ The distinction here is that active technologies that are more efficient but are interconnected with grid energy consumption that make up a significant proportion of household bills, whereas insulation and double glazing are 'passive' as they require very little additional energy in operational phase.

¹⁹ Comber et al., (2025) Accelerating Energy Upgrades by Improving the Household Journey https://online.fliphtml5.com/jczqfe/etme/#p=1

Pears et al., (2023) Replacing Gas Heating with Reverse Cycle Aircon Leaves Some People Feeling Cold: Why and What's the Solution, The Conversation, https://theconversation.com/replacing-gas-heating-with-reverse-cycle-aircon-leaves-some-people-feeling-cold-why-and-whats-the-solution-213542#:~:text=In%20 heating%20mode%2C%20the%20warm,shifting%20to%20all%2Delectric%20homes?

While this provides a viable option for households with established home equity, it excludes many lowincome owner-occupiers who cannot secure additional loans or manage extra repayments²¹. The scheme's effectiveness is further limited by the small number of participating lenders, most who require borrowers to be existing customers or refinancing their entire mortgage to access HEUF loans. Some lenders have now exhausted their capacity under the scheme. What is clear is that this model is not sufficient in scale or scope to address the diversity of circumstances across Australian homes. Additional policy mechanisms are needed, drawing from lessons from overseas to avoid policy failure and entrenching inequality. Some of these lessons are briefly summarised below, but forthcoming research in EUAH will provide a deeper analysis and recommend alternative models for green finance suitable for the Australian context.

Rental reform urgently needed

The reliance on voluntary measures and market forces in most jurisdictions has proven insufficient to drive meaningful improvements in rental property energy performance, with mandatory minimum standards required to overcome this market failure. On 30 June 2025 only the ACT has both mandatory disclosure and minimum standards for rentals, which are focused on ceiling insulation. The legislated minimum standards in Victoria, to be phased in from March 2026, represent a significant expansion and increase in standards to include insulation, draught proofing and hot water systems, with a clear gap in setting standards for cooktops²². In welcomed policy development, at the time of writing the South Australian Parliament is considering a bill

addressing both disclosure and minimum standards for rentals, including heating, cooling, insulation and water efficiency²³. NSW is also currently considering mandatory energy efficiency rental standards as part of its Consumer Energy Strategy²⁴, but has not yet introduced legislation. As this analysis reveals, the current regulatory gap across jurisdictions leaves millions of renters in energy-inefficient properties without recourse, perpetuating energy poverty and undermining broader efficiency objectives²⁵. In addition, behavioural drivers for landlords need more attention on policy development. Research identifies that landlords currently lack awareness of the energy performance of rental homes if they have never lived in them and are more motivated by financial incentives than environmental concerns in making upgrade decisions²⁶.

Minimum standards, while necessary, are not sufficient to address the issue, commonly referred to as the 'split incentive problem', where landlords bear the upfront costs of efficiency improvements while tenants receive the ongoing energy bill benefits. Some policy development is occurring around incentivising solar, such as the Solar for Rentals schemes in NSW, Queensland and Victoria, but again the focus here is on energy production and does not include improving the building envelope. In line with recent advocacy by Healthy Homes for Renters²⁷, a collaboration of 120 organisations, far greater policy attention is required across jurisdictions to address the upfront cost for landlords whilst not forcing rents to increase, particularly given current cost-of-living pressures. Specific policy levers must target landlords and be accompanied by an effective communication campaign that addresses behavioural factors. A further lever that requires consideration is the linking of home energy upgrades with tax reform on rental properties, which is addressed further below

²¹ Initial household mapping from work package 3 EUAH identifies the different financial situations across Australian households. These include: high equity/high income; high equity/no income; low equity/high income; low equity/low income; landlord/tenant.

²² The original Victorian policy focus on energy efficient heaters.

²³ Parliament of South Australia (2024) Residential Tenancies (Minimum Standards) Amendment Bill 2024 (SA) https://www.legislation.sa.gov.au/lz?path=/b/current/residential%20tenancies%20(minimum%20standards)%20amendment%20bill%202024_hon%20robert%20simms%20mlc (cited 28/6/2025).

DCCEEW (2024) Consumer Energy Strategy, https://www.energy.nsw.gov.au/sites/default/files/2024-09/NSW_Consumer_Energy_Strategy_2024.pdf

Energy Efficiency Council (2024) Minimum Standards for Rental Properties ACT: Submission

https://www.eec.org.au/uploads/submissions/2024%20September%20EEC%20submission%20-%20ACT%20minimum%20rental%20standards.pdf; Energy

Consumers Australia (2024) Minimum Energy Efficiency Standards for Rental Properties: Submission to the ACT Government,

https://energyconsumersaustralia.com.au/sites/default/files/wp-documents/submission-doc-act-gov-minimum-energy-efficiency-standards-rental-properties.pdf;

Healthy Homes for Renters (2025), Joint Statement Re Rental Standards,

https://static1.squarespace.com/static/602f0d14c4c0a77efc25e152/t/67b7d8f925036273a94aa9e1/1740101914307/Joint+statement+re+rental+standards.pdf

See for example Lang, M., Lane, R., Zhao, K. & Raven, R. (2022). Energy efficiency in the private rental sector in Victoria, Australia: When and why do small-scale private landlords retrofit?. Energy Research & Social Science. 88. 102533. Lang, M., Zhao, K., Lane, R. & Raven, R. (2023). Pro-social concerns characterise landlords' energy efficiency retrofit behaviour: evidence and implications for energy efficiency policy in Victoria, Australia. International Journal of Housing Policy. 25. 1-23.

²⁷ Healthy Homes for Renters (2025), https://static1.squarespace.com/static/602f0d14c4c0a77efc25e152/t/67b7d8f925036273a94aa9e1/1740101914307/Joint+statement+re+rental+standards.pdf (cited 1/3 2025)

Positive policy directions and opportunities for extension

One area where an enduring policy gap is beginning to be addressed in some jurisdictions is the energy upgrades for apartment buildings²⁸. Electrification and retrofit decisions require coordination across multiple owners, body corporate approval processes, and often significant electrical infrastructure upgrades that current policy frameworks do not adequately support.

The ACT has a joint funding model with the Commonwealth, with grants up to \$100,000 and zero interest loans for solar installations for apartments. Recent reforms in NSW also address the challenges of strata buildings, including grants up to \$150, 000, changes to strata voting thresholds impacting upgrades (from 75% to 50%) and mandated sustainability discussions at all owners' corporation meetings from July 2025. WA and the ACT have also implemented reduced voting thresholds to 50% for energy upgrades, while Victoria and Queensland are currently reviewing their strata laws with similar threshold reductions expected. Here again, recent policy attention is necessary and should be extended across all jurisdictions. More attention is also needed to assist strata owners navigating upgrades, including access to legal assistance in drafting by-laws and other procedural assistance. Further research led by UNSW and co-funded by RACE for 2030 will also identify policy opportunities²⁹.

More recently, upgrading social and affordable homes has received an increased policy attention, with the increase in funding for the SHEPI program, providing for joint funding with the states. This is welcomed policy attention for amongst the most vulnerable people who have limited capacity to make changes to their homes. Yet, current policy settings lack cohesion across jurisdictions and there are currently no clear plans to evaluate the success of this program to inform a broader roll-out across all social housing. In addition, specific policy attention is needed for First Nations housing in line with the First Nations Clean Energy Strategy³⁰.

Navigating the complex policy landscape across jurisdictions, housing stock types and climate zones is complex³¹. Only the ACT has a model for a one-stop shop, adopting a concierge like model that supports decision making and linking people to accredited trades people. Different models exist internationally, ranging from concierge models through to delivery models. Recent policy interest by the Commonwealth and Victoria is welcomed and more work is needed to design the best models across Australia.

²⁸ It is noted that research demonstrates that apartments are more energy efficient on average than single story homes. See Armstrong & Graham (2023) Climate Ready Homes: Building the case for a renovation wave in Australia https://www.climateworkscentre.org/resource/climate-ready-homes-building-the-case-for-a-renovation-wave-in-australia/

²⁹ See https://www.racefor2030.com.au/project/realising-retrofit-opportunities-for-apartment-buildings/

³⁰ First Nations Clean Energy Strategy 2024-2030, https://www.energy.gov.au/sites/default/files/2024-12/First%20Nations%20Clean%20Energy%20Strategy.pdf

³¹ Temby, H., & Ransan-Cooper, H. (2021). We want it to work': understanding household experiences with new energy technologies in Australia. Final report of the VOICES project (Victorian Energy and Water Ombudsman's Investigation of Consumer Experiences).



Workforce training and accreditation

Workforce training and accreditation remains an important aspect of home energy upgrades policy. A comprehensive review is outside the scope of this report and important work has recently been released by the Energy Efficiency Council (EEC)³². It is, however, recognised that installers and tradespeople are key trusted intermediaries in home energy upgrades, yet policy settings do not facilitate them to support households to make energy upgrade decisions. Further, research within EUAH reveals that households reported regularly receiving misinformation and discouragement from upgrading from tradespeople ³³. The training and workforce development landscape shows promise through the emerging national framework for heat pump installation, launched by the EEC and with funding from NSW and Victorian government, but implementation is voluntary³⁴. EEC has also developed standards for industry installation of insulation³⁵. Victoria's policies offer a leading example, covering electricians along with incentivising heat pump installations through rebates linked to accredited plumbers³⁶.

Policy gaps in funding local solutions

There are currently no dedicated fundings streams from the Commonwealth, states or territories to local councils to facilitate home energy upgrade programs³⁷. The Australian Local Government Climate Review 2024 recommended a dedicated yearly funding of \$400 million for climate adaptation and resilience, although this does not specifically identify home energy upgrades³⁸. Despite the gap in dedicated funding, many local councils and community groups are actively facilitating home energy upgrades through linking households to existing Commonwealth and state programs or through their own program development. The current program development at the local level is summarised in the next section. Dedicated funding would allow these efforts to be expanded, recognising that local governments and community organisations are well attuned to the different socio-economic dynamics and housing stocks in the communities they serve. This is further discussed in the next section.

³² Energy Efficiency Council (2025) Residential Energy Efficiency Workforce Roadmap, https://www.eec.org.au/uploads/Projects/250224%20-%20Roadmap%20(1).pdf

Comber, J. & Soleimani K. (2025) Accelerating Energy Upgrades by Improving the Household Journey https://online.fliphtml5.com/jczqfe/etme/#p=1

³⁴ Energy Efficiency Council 2024) https://www.eec.org.au/policy-advocacy/projects/Roadmap-for-Heat-Pump-Hot-Water-Systems-in-Australia-2024

³⁵ Energy Efficiency Council (2025) Certified Insulation Installer, https://eeccertified.org.au/certified-insulation-installer/

³⁶ Building and Plumbing Commission (2025) Heat Pump Installation, https://www.vba.vic.gov.au/plumbing/heat-pumps (cited 2/7/2025)

³⁷ Note - there is a Commonwealth scheme to assist local governments to upgrade their own building stock through the Community Energy Upgrades Funding scheme https://www.energy.gov.au/news/round-2-community-energy-upgrades-fund-closing-soon

Better Futures Australia, Ironbark Sustainability and ICLEI Oceania (2024) Local Government Climate Review 2024, https://www.ironbarksustainability.com.au/fileadmin/public/downloads/2024/IRO_GEN_001_Local_Government_Climate_Review_2024_FA1.pdf (cited 10/3/ 2025)

Table 1: Select policy comparison by jurisdiction

POLICY AREAS	стн	ACT	NSW	NT	QLD	SA	TAS	VIC	WA
7 STAR NATHERS RATING	National framework	✓ Jan 2024	Oct 2023	★ 5-star only	M ay 2024	With moratorium	* 6-star only	May 2024	May 2025
GAS CONNECTION RESTRICTIONS	No national ban	Full ban new builds	X No ban	X No ban	X No ban	X No ban	X No ban	Full ban new builds	X No ban
MANDATORY DISCLOSURE	National Framework	EER required all sales	Voluntary to mandatory	X No disclosure	X No disclosure	Under consideration for rentals	X No disclosure	X No disclosure	X No disclosure
MINIMUM STANDARDS (RENTALS)	No national standards	R5 insulation	Under consideration	X No standards	X No standards	Under consideration	X No standards	Heaters – more comprehensive from Oct 25	X No standards
WHITE CERTIFICATE SCHEME	X No scheme	E EIS	ESS	X No scheme	X No scheme	REPS	X No scheme	V EU	X No scheme
CAPITAL INCENTIVES/ REBATES	STCs + batteries July 2025	EEIS + rebates to \$5k	ESS + battery rebates	Battery grants to \$12k	Battery rebates to \$4k	REPS scheme	ESL scheme	VEU + Solar Homes	Battery rebates July 25
FEED IN TARIFFS	X N/A	Market rate	Market rate	Regulated	12.4c/kWh regional	Market rate	Regulated	Market rate July 2025	DEBS time-varying
SOCIAL AND AFFORDABLE HOUSING	SHEPI partnerships with states	SHEPI \$12.9 million	SHEPI 24k homes	SHEPI- 600 properties	SHEPI - 32k homes	SHEPI - 3.5k homes	SHEPI - 1.6k properties	SHEPI \$209 million	SHEPI 63.2 million
FINANCE PROGRAMS FOR ALL HOMES	HEUF \$1b fund	Zero interest to \$15k	No dedicated finance	No dedicated finance	No dedicated finance	No dedicated finance	Zero interest to \$10k	Interest-free solar only	No-interest planned for batteries
STRATA APARTMENTS	Some state partnerships	\$100K and zero interest loans	\$150K per project	\$4.7 mill for 300 homes	No dedicated finance	No dedicated finance	No dedicated finance	\$140K per building	\$19.9 million for 1600 homes
LANDLORD/ RENTERS SPECIFIC FINANCE	Could access HEUF and battery	Could access EEIS	Could access ESS	Could access battery scheme	Solar for Renters \$3,500	Can access REPS	Could access ESL scheme	Could access VEU scheme	Could access battery scheme
HEAT PUMP WORKFORCE DEVELOPMENT	Voluntary framework	X No program	X No program	X No program	No program	X No program	X No program	Heat pumps	X No program
ONE STOP SHOP	Under consideration	Sustainable Home Advice	X No service	X No service	X No service	X No service	X No service	Under consideration	X No service

4. Local government and community programs

Across Australia many local councils and community groups are playing an important and active role in facilitating upgrades that address their local climatic conditions, housing stock and socio-economic dynamics. As of 30 June 2025, at least 129 of the 537 local councils across Australia have initiated their own policies and programs to address energy upgrades for local residents – see summary in Annexure C. Local government programs vary significantly in scope and ambition. Many councils offer energy audits, education and information, often linking people to existing federal and state schemes. Other councils have well-developed programs that include rebates, bulk buy schemes and hand-holding upgrades. Victorian councils have the most significant program development, whereas limited programs exist across Queensland and Northern Territory councils. This suggests that state or territory policy commitment is a factor in local government program development aimed at facilitating local government initiatives.

Discussions with local council representatives in the context of the EUAH project reveals that key factors influencing the capacity of local government to develop home energy upgrade programs include: the financial viability of the council; their human resources (particularly the presence of a sustainability professionals); the internal politics of council; and the expectation of the people they represent. While some councils have several programs across different energy upgrade challenges, others are limited. The most active policy development is concentrated in metropolitan cities and large regional councils, potentially reflecting the relative financial viability of these local governments.

It is again here recognised that home energy upgrades are not central responsibility of local councils and there are insufficient dedicated funding streams to facilitate their policy development and implementation. Discussions with representatives of local councils in the context of EUAH research have highlighted the need for more available federal or state and territory program funding and for this to include program costs to avoid drawing resources from other important climate and sustainability programs³⁹.

Local government initiatives

On the regulatory front, alongside Victorian state government, several councils in Victoria and NSW have banned gas connections in new residential buildings through their local planning controls. In many cases the driver for these bans is both emissions reduction and the now well documented negative respiratory impacts of gas⁴⁰. Apart from this regulatory lever, what is notable about local government programs is they often target equity gaps in existing Commonwealth, state and territory policies. For example, some councils have specific initiatives to assist renters, strata apartments and CALD communities. Merri-bek council in Victoria hosts a leading program that links people to available rebates, provides rebates for solar and insulation and provides a hand holding service, with a focus on low-income households⁴¹. Darebin council's Solar Saver Rates Program has pioneered a no-interest loan for low-income households to install solar, paid back through council rates over 10 years⁴².

³⁹ It is also noted that the Australian Local Government Climate Review 2024 draws attention to the need to properly fund staffing and internal resources of councils in climate policy more broadly.

⁴⁰ It is noted that councils have varying but sometimes limited oversight over new builds and significant renovations as private certifiers undertake a significant proportion of assessments and use state-based requirements.

⁴¹ It is also now part of the state government pilot program for a one-stop shop

City of Darabin (2025) Darebin Solar Saver Rates Program
https://www.darebin.vic.gov.au/files/assets/public/v/1/waste-environment-and-climate/documents/externalfaqsdarebinsolarsaverratesprogramdecember2023.pdf
(cited 2/9/2025)



Peak bodies are playing an important co-ordinating role at the state level. Effective alliances have also been formed between local governments facing similar climatic, housing stock and demographics to upscale home energy upgrade efforts at the local level. Examples include the Eastern Alliance for Greenhouse Action (EAGA) in Melbourne that coordinates the Solar Savers program for bulk purchase and vetting installers across multiple councils and the Western Sydney Regional Organisation of Councils (WSROC) in NSW. These collaborations allow for larger scope in project design and delivery, presenting opportunities for a scalable model for funding the role of local government in accelerating energy upgrades.

In addition, there are numerous partnerships between local governments and community organisations addressing enduring gaps in state policy settings. For example, the Electric Homes Program is a collaboration between Greater City of Geelong and not-for-profit, Geelong Sustainability. The program offers bulk buy discounts on vetted electric appliances, solar systems, and energy efficiency products through trusted local suppliers.

Community organisations

There is also considerable momentum for community organisations (independent of councils) to mobilise upgrades at the local level. Rewiring Australia, a notfor profit organisation focused on electrification of households, has grown from a local movement in the northern suburbs of the Illawarra in NSW to a national movement. In other instances, such as the Gippsland Climate Change Network, home energy upgrades are part of a larger regional agenda by community organisations to support decarbonisation⁴⁴. Funding has historically been limited for community initiatives to accelerate upgrades, but this is showing some positive signs of improvement. In August 2024, the Australian Renewable Energy Agency (ARENA) provided \$5.41 million to Rewiring Australia, Brighte and Endeavour Energy to electrify the homes of 500 people in the Northern Illawarra as a pilot project⁴⁵. In Victoria, the Community Electrification Engagement Program Fund recently announced funding of \$110,000 per lead organisation to support communities to electrify.46

As the above analysis illustrates, local government and community organisations are playing a critical role in supporting and accelerating home energy efficiency upgrades. These initiatives offer place-based responses to persistent policy gaps and inequities.

⁴³ Victorian Greenhouse Alliance, https://www.victoriangreenhousealliances.org; Eastern Alliance for Greenhouse Action, https://wsroc.com.au; WSROC, https://wsroc.com.au;

⁴⁴ Gippsland Climate Change Network (2025) Gippsland Climate Change Network, https://www.gccn.org.au (cited 3/9/2025)

⁴⁵ ARENA (2024) https://arena.gov.au/blog/energy-australia-arenawire-electrify/. The project covers upgrades of efficient electrical appliance, household batteries, replaces gas stoves and heaters with electric and includes a Home Energy Management System (HEMS) to allow households to monitor and manage their usage in real-time online. At the time of writing, 60 pilot households upgraded by 1 June 2025.

⁴⁶ Sustainability Victoria (2025) Community Electrification Engagement Program Fund, https://www.sustainability.vic.gov.au/grants-funding-and-investment/grants-and-funding/community-electrification-engagement-program-fund (cited 7/8/2025)

5. Overview of international case studies

As the above analysis identifies, there is a need for additional policy models to address the high upfront costs of energy efficiency upgrades, particularly for low-income owner-occupied households and renters. Overseas examples of policy mechanisms offer some important lessons for Australian policy makers. While not addressed here in detail, it is noted that the international experience of attaching loans to the property has been complex. The UK experience highlights the need for policy simplicity as well as understanding behavioural drivers for energy uptake⁴⁷. The US-PACE model has successfully increased home energy upgrades but draws attention to the potential risks in developing models that create a super-lien, disrupting existing mortgage market principles⁴⁸. Generous tax concessions used in Italy have also had good uptake but were disproportionately taken up by higher-income households, caused inflationary pressure on building costs and raised critical issues of workforce readiness.49

Tax reform in Australia, particularly in the context of negative gearing properties (impacting on rental properties), has historically been highly contested in Australia. Yet there is a growing recognition that a broad reform agenda is required to address productivity and intergenerational equity⁵⁰. Equity issues are also central to the need to develop new models for home energy upgrades, including rental properties, apartments and low-income households. Home energy upgrades should be part of the broader discussion on tax reform, with more research needed on specific models to incentive upgrades while not escalating cost of living pressures for renters or creating barriers to home ownership. The next phase of policy analysis by CSDR for EUAH will focus on new models for green finance informed by international lessons.

⁴⁷ Acheampong, A. (2016). Low uptake of the Green Deal: Examining financial, decision-making and awareness reasons (Doctoral thesis, University of Southampton). University of Southampton Research Repository. https://eprints.soton.ac.uk/457120/; Department of Energy and Climate Change. (2017, March). Evaluation of the Green Deal Communities PRS funding. https://assets.publishing.service.gov.uk/media/5a81c937ed915d74e34000ca/Evaluation_of_the_Green_Deal_Communities_PRS_funding.pdf Dowson, M., Poole, A., Harrison, D., & Susman, G. (2012). Domestic UK retrofit challenge: Barriers, incentives and current performance leading into Green Deal. Energy Policy, 50,

Deason, J. & Murphy, S. (2018). Assessing the PACE of California residential solar deployment: Impacts of Property Assessed Clean Energy programs on residential solar photovoltaic deployment in California, 2010–2015 (LBNL-2001113). Lawrence Berkeley National Laboratory.

https://eta-publications.lbl.gov/sites/default/files/berkeley_lab_r-pace_pv_deployment_-_final_03202018.pdf

Sledge, D. & Bae, K. (2024). Do residential property assessed clean energy (PACE) financing programs impact housing markets? Journal of Environmental Economics and Management, 126, 102914.

County of Sonoma v. Federal Housing Finance Agency, 710 F.3d 987 (9th Cir. 2013); Leon County v. Federal Housing Finance Agency, 816 F. Supp. 2d 1205 (N.D. Fla. 2011) and Town of Babylon v. Federal Housing Finance Agency, 699 F.3d 221 (2d Cir. 2012).

⁴⁹ Corsello, F., & Ercolani, V. (2024, December). The role of the Superbonus in the growth of Italian construction costs (Occasional Papers No. 903). Bank of Italy. https://www.bancaditalia.it/pubblicazioni/qef/2024-0903/QEF_903_24.pdf
Calidori, N., Galbiati, I., Frigo, G., & De Vidovich, L. (2025). Not enough (yet): A capabilities assessment of the implementation of energy poverty policies in Italy. Energy Research & Social Science, 120, 103879.

See for example, the Green Paper issued by Federal MP for Wentworth, Alegra Spender, November 2024 https://drive.google.com/file/d/1xQHRYNLk2LGAKSQUPdhPnrNQyDyhXRLp/view; ACCOSS (undated), Tax Reform for the Common Good https://www.acoss.org.au/tax_reform_for_the_common_good/ (cited 3/5/2025) The Australian Treasurer, Jim Chalmers, conducted a roundtable for August 2024 to discuss tax reform. https://www.abc.net.au/news/2025-06-23/labor-tax-reform-chalmers-government-superannuation/105447022

6. Recommendations

Our gap analysis reveals a fragmented policy environment for home energy upgrades with significant variation in ambition and implementation across jurisdictions. The ACT and Victoria, have the most comprehensive policy development, followed by NSW, SA, WA and Tasmania. In contrast, Queensland and NT have limited policies to effect positive change. The current policy landscape for home energy upgrades is shifting across federal, state and local jurisdictions. While some policy shifts are promising, others indicate backward momentum (such as the federal freeze on the NCC).

Enduring policy gaps exist across all jurisdictions to facilitate upgrades of the building envelope of existing buildings, energy upgrades for rental properties and low-income households. Policy development focused on solar PV (and more recently batteries) does not adequately address energy poverty, particularly where people cannot afford to turn on appliances and their homes have poor thermal efficiency.

A greater focus on thermal upgrades is needed to improve comfort, with the additional benefit of reducing emissions through reduced energy needs as electricity grids further decarbonise.

Based on the above analysis, the following recommendations are made:

- All state and territory jurisdictions should adopt the 7 star NatHERS rating to ensure new building stock is energy efficient to face future climates. The Commonwealth, state and territory governments should remain committed to its updates. This protects the next generation of housing stock from requiring complex and expensive upgrades to the building envelope.
- State and territory governments should adopt a clear pathway and timeline for phasing in gas bans in all residential homes, beginning with new builds and extending to existing homes.
- All state and territory governments should adopt mandatory disclosure of home energy ratings at the point of sale or lease to promote market transparency and lift standards.
- Minimum standards for rentals should be implemented by all states and territories. Such standards should address a range of measures, including improving the building envelope along with heating, cooling and electrification.
- The Commonwealth, states and territories should devote greater policy attention to addressing the thermal upgrades of existing buildings along with high upfront costs of upgrades. Such policy development must offer viable options for lowincome owner-occupied households currently unable to access finance for upgrades.

- Different policy approaches are urgently required to address the gap in performance for rental properties. Access to specific finance along with tax reform that links negative gearing to energy efficiency upgrades should be considered as part of a broader tax reform agenda.
- International experience offers important lessons for attaching loans to properties and generous tax concessions for energy upgrades. Further research underway by CSDR is assessing these models and international experience to avoid the replication of poor policy development in the Australian context.
- Navigating the complex and changing policy landscape is difficult for households, necessitating further policy attention to appropriate models for one-stop-shops.
- Dedicated Commonwealth and/or state and territory funding is required to accelerate the important role of local governments and community organisations in facilitating home energy upgrades that suit their local dynamics and demographics. Such funding streams must include funding to administer programs to avoid drawing sustainability resources from other important programs. One effective model is to fund coalitions of local councils who are geographically adjoined along with collaborations between councils and community groups attuned to the local challenges in housing stock and demographics.

7. Conclusion

Addressing the discomfort of living in many Australian homes, lowering energy bills and reducing emissions requires policy reform at the Commonwealth, state and local level. The policy mapping detailed in this report reveals both strong positive commitments to address these issues, but in some cases backward steps have undermined progress.

The recommendations in this report highlight where further progress can be made with greater uptake of current models across all states and territories (such as minimum rental standards, white certificate schemes and mandatory disclosure at the point of sale or lease). It also suggests the need for new models to specifically address inequities around low-income households and renters, along with the need for accelerating place-based solutions.



Annexure A – Commonwealth Legislation and Policies

Overarching legislation and schemes

Climate Change Act 2022 legislates net zero by 2050 and interim target of 43% reduction in emissions on 2005 levels by 2030.⁵¹

Net Zero Plan 2050 - A national framework guiding Australia's transition to net zero greenhouse gas emissions by 2050. Covers all major economic sectors with six sectoral emissions reduction plans including Built Environment plan for residential and commercial buildings. Sets government priorities, policies and measures to drive emissions reductions and support low emissions investment.⁵²

Built Environment Sectoral Plan - providing pathway for built environment transition to net zero. Covers 11 million private dwellings, 1 million commercial buildings, structures, parks and water infrastructure. Takes holistic approach to emissions reduction including operational building emissions (heating, cooling, lighting) and embodied emissions in construction materials. Focuses on ensuring liveable, resilient built environment with equitable net zero transition.⁵³

Trajectory for Low Energy Buildings (TLEB) -

National plan agreed by Commonwealth, state and territory energy ministers in 2019. Aims to achieve zero energy and carbon-ready buildings in Australia. Key initiative addressing Australia's 40% energy productivity improvement target by 2030. Proposes implementing cost effective energy efficiency increases in National Construction Code and improving existing buildings.⁵⁴

National Energy Performance Strategy (NEPS) -

Framework coordinating action to improve energy performance through energy efficiency, demand flexibility, and electrification. Released April 2024 with \$15.2 million government investment to 2026. Provides long-term framework to manage energy demand supporting legislated emissions reduction and renewable energy targets. Includes expanding NABERS to new commercial building types and measures for HVAC&R energy efficiency and electrification. ⁵⁵

Greenhouse Energy Minimum Standards (GEMS)

Program - National framework under GEMS Act 2012 regulating appliance and equipment energy efficiency. Sets mandatory minimum efficiency requirements for products and Energy Rating Label requirements. In 2022–23, reduced electricity consumption by 5.5-8.5 gigawatt hours, saving households and businesses \$1.3-2.1 billion. Recent expansions include increased standards for televisions, computer monitors, digital signage displays, and phase-out of inefficient halogen lamps.⁵⁶

National Housing Accord - National target to build 1.2 million new well-located homes over 5 years from July 2024. \$350 million Commonwealth funding over 5 years supporting 10,000 affordable homes at 7+ star energy efficiency rating. Includes \$3 billion New Home Bonus for states/territories exceeding targets and \$500 million Housing Support Program for infrastructure. Combined total of 20,000 affordable homes (including state/territory matching).⁵⁷

Nationwide House Energy Rating Scheme

(Nathers) - Expanded scheme providing 'Whole of Home' energy performance rating predicting annual energy use including appliances, solar and batteries. Demonstrates compliance with National Construction Code requirements. From mid-2025, will offer energy ratings for existing homes to help householders understand energy performance, identify upgrades, and access green loans at reduced interest rates.⁵⁸

⁵¹ https://www.legislation.gov.au/C2022A00037/latest/text

 $[\]underline{\text{https://www.dcceew.gov.au/climate-change/emissions-reduction/net-zero}}$

⁵³ https://www.industry.gov.au/news/net-zero-sector-plans-industry-resources-and-built-environment

⁵⁴ https://www.dcceew.gov.au/energy/energy-efficiency/buildings/trajectory-low-energy-buildings

⁵⁵ https://www.dcceew.gov.au/energy/strategies-and-frameworks/national-energy-performance-strategy

https://www.dcceew.gov.au/energy/energy-efficiency/appliances-lighting-and-equipment

⁵⁷ https://treasury.gov.au/policy-topics/housing/accord

⁵⁸ https://www.nathers.gov.au/



Building Standards

National Construction Code 2022 - Australia's primary building technical design and construction provisions. Sets minimum safety, health, amenity, accessibility and sustainability requirements. Key changes: minimum thermal performance increased from 6 to 7 stars (May 2024); new Whole of Home annual energy use budget (rated out of 100); estimated \$183 annual savings on power bills for new homes. Phased implementation across states/territories with varying transition periods⁵⁹. At the cut-off date for this report, the freeze on the NCC had not yet been announced.

Home Energy Ratings Disclosure Framework under the Trajectory for Low Energy Buildings - National approach to implementing energy performance disclosure schemes at point of sale or lease. Defines how home energy ratings are provided to households, outlines policy parameters for government implementation, and provides market environment guidance. Expected implementation mid-2026 with some jurisdictions preparing phased pilots⁶⁰.

Residential Efficiency Scorecard Program - Voluntary program providing 1-10 star energy rating for existing homes. Assesses energy use, comfort and provides improvement recommendations. Delivered by accredited assessors at \$250-500 cost depending on home size. Currently endorsed by NatHERS with future full integration planned⁶¹.

Capital/Incentive Schemes

The Small-scale Renewable Energy Scheme (SRES) reduces the cost of most new residential and business rooftop solar systems through tradeable certificates called small-scale technology certificates (STCs). Commenced on 2011 when Renewable Energy Target was split into two schemes and has no specific target.⁶²

The Community Solar Banks Program is a \$100 million program announced in October 2022 as part of Labor>s Powering Australia Plan to deliver 85 solar banks around Australia, giving over 25,000 households that are unable to install rooftop solar access to cheaper energy. The program partners with state and territory governments to provide shared solar systems including: grants for body corporates to install shared rooftop solar in multi-unit dwellings; and subsidising plots in 'solar gardens' for renters and low-income households. 63

The Cheaper Home Batteries Program is a \$2.3 billion program launching 1 July 2025, providing around 30% discount on upfront cost of installing eligible small-scale battery systems. In 2025, the subsidy will be a maximum of \$372 per kilowatt-hour of usable battery capacity, with actual battery price reduction likely to be around \$330 per usable kWh after administrative fees. Over one million new batteries expected by 2030, with discount delivered through the SRES.⁶⁴

⁵⁹ https://www.nathers.gov.au/blog/nathers-news-0

⁶⁰ https://consult.dcceew.gov.au/home-energy-ratings-disclosure-framework-version-2

⁶¹ https://www.homescorecard.gov.au/

⁶² https://cer.gov.au/schemes/renewable-energy-target/small-scale-renewable-energy-scheme

⁶³ https://www.dcceew.gov.au/energy/renewable/community-solar-banks

⁶⁴ https://www.dcceew.gov.au/energy/programs/cheaper-home-batteries

Finance Programs

Energy Savings Package \$1.6 billion Budget 2023-24 investment for energy saving upgrades across homes, businesses and social housing. Addresses older homes and appliances not meeting modern energy standards. Includes cost-of-living relief without adding to inflation.⁶⁵

The Household Energy Upgrades Fund as part of the Energy Savings Package. Provided \$1 billion for the Clean Energy Finance Corporation to partner with banks and other lenders to offer low-cost finance and mortgages for energy performance upgrades to more than 110,000 homes. Supports battery-ready solar PV, modern appliances and home improvements. Eligible technologies: solar PV/batteries, solar hot water, double-glazed windows, insulation, air-conditioners, ceiling fans, heat pumps, EV chargers, energy monitoring, pool pumps, induction cooktops. 66

Solar for Apartments Program - Joint

Commonwealth and state government initiative providing shared solar installations for apartment buildings across multiple jurisdictions. The Australian Government contributes through its \$100 million Community Solar Banks program, partnering with state and territory governments to deliver funding. Program structure varies by jurisdiction.⁶⁷

Social and Affordable Housing

The Social Housing Energy Performance Initiative (SHEPI) was introduced in 2023-24 Budget with initial Commonwealth investment of \$300 million to upgrade around 60,000 social housing properties across Australia. Program expanded in November 2024 with additional \$500 million, bringing total Commonwealth funding to \$800 million to reach more than 100,000 social housing properties until 2029. Co-funded with all state and territory governments, providing energy efficiency upgrades including solar systems, reversecycle air conditioners, heat pump hot water systems, LED lighting, ceiling fans, window shading, insulation and draught proofing. Targets most vulnerable households, with average age of social housing properties being 44 years old (built before minimum energy efficiency standards). Expected one-third energy consumption savings⁶⁸.

Other Schemes

The **Energy Bill Relief Fund** first introduced in 2023-24 and extended to December 2025, offering up to \$150 in rebates to households from July 2025⁶⁹.

https://www.energy.gov.au/rebates/household-energy-upgrades-fund; https://www.cefc.com.au/where-we-invest/special-investment-programs/household-energy-upgrades-fund/; https://www.energy.gov.au/news/energy-future-plan

https://www.energy.gov.au/rebates/household-energy-upgrades-fund; https://www.cefc.com.au/where-we-invest/special-investment-programs/household-energy-upgrades-fund/

^{67 &}lt;a href="https://www.dcceew.gov.au/energy/renewable/community-solar-banks">https://www.dcceew.gov.au/energy/renewable/community-solar-banks

⁶⁸ https://www.dcceew.gov.au/energy/programs/social-housing

⁶⁹ https://minister.dcceew.gov.au/mcallister/media-releases/helping-australians-save-energy-save-energy-bills

Annexure B – State/Territory Legislation and Policies

Australian Capital Territory

Overarching Policies

Climate Change and Greenhouse Gas Reduction Act 2010⁷⁰ and ACT Climate Change Strategy 2019-25 ⁷¹ sets target of net zero by 2045 and interim target of 50% reduction by 2030.

Integrated Energy Plan 2024-2030⁷²

Energy Efficiency (Cost of Living) Improvement Act 2012⁷³

Building Standards

7 star NatHERS rating for new builds – the ACT was the first jurisdiction to fully adopt the 2022 Construction Code, including the requirement for new builds to meet a minimum of a 7-star energy efficiency rating under the NatHERS scheme, This was effective from January 15, 2024⁷⁴.

New minimum energy efficiency standards for rental properties Changes to the Residential Tenancies Act 1997 (ACT) required minimum standards for ceiling insulation upgrades to R5 level, with a phase-in period from 1 April 2023 to 30 November 2026⁷⁵. Landlords can access zero-interest loans through the Sustainable Household Scheme to meet these requirements.⁷⁶

Ban on gas in new residential buildings - The ACT government passed the Climate Change and Greenhouse Gas Reduction (Natural Gas Transition) Amendment Act 2022, which amends the Climate Change and Greenhouse Gas Reduction Act 2010 by prohibiting new fossil fuel gas network connections in residential and commercial areas (industrial areas remain permitted until further regulation)⁷⁷.

The Energy Efficiency Rating (EER) disclosure scheme, operating since March 1999, requires mandatory disclosure of energy performance for all existing residential properties offered for sale or lease⁷⁸. For rental properties, any existing energy efficiency rating must be disclosed at the point of sale or lease, though obtaining a rating for older properties is optional. The assessment is conducted by accredited assessors and produces a report that includes the star rating and recommendations for improving the dwelling's energy efficiency.⁷⁹

⁷⁰ https://www.legislation.act.gov.au/a/2010-41/

 $^{71 \}quad \underline{\text{https://www.climatechoices.act.gov.au/policy-programs/act-climate-change-strategy}}$

⁷² https://www.climatechoices.act.gov.au/policy-programs/act-climate-change-strategy

https://www.climatechoices.act.gov.au/policy-programs/energy-efficiency-improvement-scheme/legislation#:~:text=The%20Energy%20Efficiency%20(Cost%20 of,commenced%20on%201%20January%202013

^{74 &}lt;a href="https://www.cmtedd.act.gov.au/open_government/inform/act_government_media_releases/vassarotti/2024/seven-stars-for-new-building-quality-and-accessibility-standards-in-the-act">https://www.cmtedd.act.gov.au/open_government/inform/act_government_media_releases/vassarotti/2024/seven-stars-for-new-building-quality-and-accessibility-standards-in-the-act

^{75 &}lt;a href="https://yoursayconversations.act.gov.au/minimum-energy-standards">https://yoursayconversations.act.gov.au/minimum-energy-standards (cited 16/5/2025)

⁷⁶ https://www.act.gov.au/housing-planning-and-property/renting/minimum-housing-standard-for-ceiling-insulation-in-rental-properties#:~:text=The%20higher%20 the%20R%2Dvalue,of%20R2%20meet%20the%20standard

⁷⁷ https://www.climatechoices.act.gov.au/energy/canberras-electrification-pathway/preventing-new-gas-network-connections; https://classic.austlii.edu.au/au/legis/act/bill/ccaggrgtab2022679/

 $^{78 \}qquad \underline{\text{https://www.planning.act.gov.au/professionals/regulation-and-responsibilities/responsibilities/energy-efficiency} \\$

⁷⁹ https://www.planning.act.gov.au/planning-projects/building-regulatory-system/review-of-the-acts-energy-efficiency-rating-disclosure-scheme#:~:text=The%20 review%20found%20that%20the,of%20energy%20efficiency%20for%20homes

Capital/Incentive Schemes

The Home Energy Support Program provides up to \$5,000 in rebates for eligible homeowners with concession cards. Offers one rebate of 50% of total installation cost (up to \$2,500) for rooftop solar and another rebate of 50% of total installation cost (up to \$2,500) for reverse cycle heating and cooling, hot water heat pumps, electric stove tops and ovens, or ceiling insulation. Requires holding an Australian Government Pensioner Concession Card, Veterans> Affairs Gold Card, or Health Care Card. 80

The Energy Efficiency Improvement Scheme (EEIS) requires electricity retailers to help households and businesses save energy under the Energy Efficiency (Cost of Living) Improvement Act 2012. Tier 1 retailers (with at least 5,000 customers and selling at least 500,000 MWh annually) must deliver eligible energy-saving activities to households and small-to-medium businesses. Since 2013, the scheme has directly helped around 80,000 households and businesses, including more than 21,000 priority households.⁸¹

Feed-in tariffs are voluntary and rates are not regulated in the ACT, with rates varying significantly between retailers. The legacy Small and Medium Feed-in Tariff Scheme was established in 2009 but closed to new entrants on 13 July 2011⁸²

Wood Heater Removal Program. ACT homeowners may be eligible for a \$500 rebate, while those holding a concession card—such as an Australian Government Pensioner Concession Card, Department of Veterans' Affairs Gold Card, or Australian Government Health Care Card—can receive a \$1,250 rebate to assist with removal costs.⁸³

Finance Programs

The **Sustainable Household Scheme** provides zero-interest loans from \$2,000 to \$15,000 for eligible ACT households to invest in energy-efficient products including rooftop solar panels, household battery storage systems, electric heating and cooling systems, hot water heat pumps, electric stove tops, electric vehicles, electric vehicle charging infrastructure, ceiling insulation, and installation costs. Loan repayment terms up to 10 years with no upfront costs or fees.⁸⁴

Solar for Apartments Program. Apartment complexes in the ACT may qualify for up to \$100,000 in grant funds and a zero-interest loan for solar installations that benefit all residents under the Solar Banks Initiative, co-funded by the Commonwealth Government and the ACT Government's Sustainable Household Scheme. Owners corporations managing eligible complexes can apply if the average unimproved value of a unit is \$300,000 or less in any year from 2022. The premises must be a Class A unit plan under the Unit Titles Act 2001, be a completed development at the time of application, and must not have existing or previous rooftop solar. Additionally, the owners corporation must meet the loan provider's (Brighte) requirements to demonstrate the ability to repay the loan component.85

Wood Heater Removal Program. ACT homeowners may be eligible for a \$500 rebate, while those holding a concession card—such as an Australian Government Pensioner Concession Card, Department of Veterans' Affairs Gold Card, or Australian Government Health Care Card—can receive a \$1,250 rebate to assist with removal costs.⁸⁶

Sustainable Apartments Pilot - A government-funded initiative providing detailed feasibility studies for the electrification of 7 apartment complexes at no cost to owners corporations. The pilot focuses on complete electrification of apartment complexes, replacing all systems powered by fossil fuels with suitable electric solutions. The findings will be summarised and shared with the broader owners corporation community in the ACT and other jurisdictions to support electrification of complex buildings.⁸⁷

 $^{{\}color{blue}80} \quad \underline{\text{https://www.climatechoices.act.gov.au/policy-programs/home-energy-support-rebates-for-homeowners}}$

⁸¹ https://www.climatechoices.act.gov.au/policy-programs/energy-efficiency-improvement-scheme

⁸² https://www.climatechoices.act.gov.au/energy/solar/solar-feed-in-tariff

⁸³ https://www.climatechoices.act.gov.au/policy-programs/wood-heater-removal-program?SQ_VARIATION_1832132=0

⁸⁴ https://www.climatechoices.act.gov.au/policy-programs/sustainable-household-scheme

 $^{85 \}quad \underline{\text{https://www.climatechoices.act.gov.au/policy-programs/solar-for-apartments-program} \\$

⁸⁶ https://www.climatechoices.act.gov.au/policy-programs/wood-heater-removal-program?SQ_VARIATION_1832132=0

https://www.climatechoices.act.gov.au/policy-programs/sustainable-apartments-pilot



Social and Affordable Housing

ACT SHEPI Scheme - The \$12.9 million Australian Government investment to install rooftop solar and battery systems in up to 7,500 social housing properties across the ACT. These systems will be connected to a Virtual Power Plant to reduce energy bills and grid pressure while cutting emissions. This builds on previous electrification and insulation work completed under SHEPI and the ACT's Home Energy Support: Social Housing Program. 88

One Stop Shop and Information

The Sustainable Home Advice Program provides free home energy assessments for ACT residents (homeowners and renters), expert advice on energy efficiency improvements, and free workshops. The program offers guidance on transitioning from fossil-fuel gas to all electric, home improvements to increase energy efficiency, and information about ACT Government rebates and programs.⁸⁹

Your Energy Journey Tool - An online tool that helps households and businesses discover where they can make energy efficiency upgrades and save money. The tool provides tailored recommendations and links to support and advice services that can help switch from gas.⁹⁰

Make Your Next Choice Electric Tool - Developed in partnership with CHOICE, this online tool helps Canberra households create their own energy transition plan and switch off gas. It showcases the latest energy efficient electric appliances on the market that are best suited to individual household needs and includes a total cost of ownership calculator for electric vehicles.⁹¹

Home Energy Action Kit - Available from libraries to assist ACT residents perform a home energy self-assessment and develop their own home energy action plans. ⁹²

Retrofit Readiness Program - A new program offering free advice and electrification planning for those living in multi-unit buildings such as apartments, helping to reduce obstacles for apartment residents in electrification efforts.⁹³

⁸⁸ https://www.dcceew.gov.au/about/news/social-housing-residents-across-act-to-receive-energy-upgrades

⁸⁹ https://www.climatechoices.act.gov.au/policy-programs/sustainable-home-advice-program

⁹⁰ https://energy.act.gov.au/your-energy-journey/

⁹¹ https://energy.act.gov.au/

⁹² https://www.climatechoices.act.gov.au/policy-programs/home-energy-action-kit

⁹³ https://www.act.gov.au/our-canberra/latest-news/2024/june/new-integrated-energy-plan-to-help-electrify-canberra

New South Wales

Overarching policies

Climate Change (Net Zero Futures) Act 2023

- legislates net zero by 2050 on 2005 levels, 50% reduction by 2030 and 70% by 2035

Net Zero Plan Stage 1: 2020-203094

NSW Consumer Energy Strategy⁹⁵

NSW Electricity Strategy⁹⁶

Climate Change Fund including Energy Security Safeguard⁹⁷

Building Standards

State Environmental Planning Policy Sustainable Buildings (SB SEPP) - Establishes the regulatory framework for sustainable building development in NSW, incorporating energy efficiency requirements and environmental performance standards for new developments.⁹⁸

7 star rating for new builds - In New South Wales, the "7-star requirement" refers to the mandatory 7-star energy efficiency rating for new homes under the Building Sustainability Index (BASIX) system, which became effective from October 2023, aiming to reduce greenhouse gas emissions.⁹⁹

Scorecard for existing buildings - NSW took part in the national Scorecard pilot (2019), with assessments carried out in Sydney. However, the NSW Government has not integrated the Scorecard into any official programs or regulations. 100

Mandatory disclosure at point of sale or lease - In 2024 NSW announced plans to introduce a home energy rating disclosure program based on the national frameworks, starting voluntary in 2025, but no mandatory requirement is in force yet.¹⁰¹

Capital/Incentive Schemes

The **Energy Savings Scheme** commenced in 2009, providing financial incentives through Energy Savings Certificates (ESCs) for installing energy-efficient equipment including lighting, air conditioning, hot water systems and pool pumps. This is a tradable certificate scheme. The current ESS Rule commenced on 19 June 2024. Currently under review – Public consultation was held March-April 2025, with updates expected mid-2025. ¹⁰²

The **Peak Demand Reduction Scheme** commenced 1 November 2022 and aims to reduce peak demand by providing financial incentives to households and businesses to reduce energy consumption during peak demand. Incentives are available for installing eligible battery storage systems, air conditioners, pool plums, large heat water pump heaters. ¹⁰³

The **Battery Incentive Scheme** launched 1 November 2024, providing \$1,600-\$2,400 for battery installation and \$250-\$400 for VPP connections. Incentives can be claimed twice with a minimum three-year gap. This is only available to battery installations up until 30 June 2025 and cannot be combined with the federal government's Cheaper Home Batteries Program discount (commencing 1 July 2025) ¹⁰⁴. However, from 1 July, the NSW government incentive to connect a battery to at Virtual Power Plant (VPP) will nearly double to \$1500 and can be combined with the federal battery discount. ¹⁰⁵

 $^{94 \}qquad \underline{\text{https://www.energy.nsw.gov.au/nsw-plans-and-progress/government-strategies-and-frameworks/reaching-net-zero-emissions/net-zero} \\$

^{95 &}lt;a href="https://www.energy.nsw.gov.au/nsw-plans-and-progress/government-strategies-and-frameworks/energy-strategy-st

 $[\]underline{\text{https://www.energy.nsw.gov.au/nsw-plans-and-progress/government-strategies-and-frameworks/nsw-electricity-strategy}. \\$

⁹⁷ https://www.energy.nsw.gov.au/nsw-plans-and-progress/government-strategies-and-frameworks/taking-action-climate-change/nsw

⁹⁸ https://www.planning.nsw.gov.au/policy-and-legislation/buildings/sustainable-buildings-sepp#:~:text=State%20Environmental%20Planning%20Policy%20 (Sustainable,more%20sustainable%20buildings%20across%20NSW)

⁹⁹ https://www.planning.nsw.gov.au/policy-and-legislation/buildings/sustainable-buildings-sepp/sustainability-standards-residential-development-basix#:~:text=BASIX%20stands%20for%20Building%20Sustainability,at%20the%20NSW%20Planning%20Portal

 $^{100 \}quad \underline{https://www.homescorecard.gov.au/_data/assets/pdf_file/0032/588191/NationalScorecardReleaseEvaluation_FINAL.pdf}$

¹⁰¹ https://www.eec.org.au/news/eec-news/article/media-release-new-nsw-strategy-to-boost-electrification-and-energy-efficiency-in-homes#:~:text=One%20key%20 commitment%20is%20to,a%20voluntary%20program%20in%202025

^{102 &}lt;a href="https://www.energy.nsw.gov.au/households/rebates-grants-and-schemes/household-energy-saving-upgrades">https://www.energy.nsw.gov.au/households/rebates-grants-and-schemes/household-energy-saving-upgrades

 $^{103 \}quad \text{https://www.energy.nsw.gov.au/nsw-plans-and-progress/regulation-and-policy/energy-security-safeguard/peak-demand-reduction-scheme} \\$

 $^{{\}color{blue} \underline{https://www.energy.nsw.gov.au/households/rebates-grants-and-schemes/household-energy-saving-upgrades/install-battery} \\$

^{105 &}lt;a href="https://www.energy.nsw.gov.au/households/rebates-grants-and-schemes/household-energy-saving-upgrades/connect-your-battery-virtual">https://www.energy.nsw.gov.au/households/rebates-grants-and-schemes/household-energy-saving-upgrades/connect-your-battery-virtual



The NSW Solar for Apartment Residents Grant Program launched 28 February 2025 with \$25 million funding, providing up to \$150,000 per project (50% of costs) for shared solar on apartment buildings with 3-55 units. Applications close 1 December 2025. 106

Energy Bill Buster Program - launched in the 2022-23 NSW Budget with \$128 million funding over eight years, designed to help approximately 1 million eligible households. The program allows households currently receiving the Low Income Household Rebate to forfeit their annual \$285 rebate for 10 years in exchange for an upfront payment of approximately \$2,850, which can be used toward either a free 3kW solar system installation or energy efficiency upgrades valued up to \$4,000. For households unable to install solar systems, such as renters or apartment dwellers, the program offers alternative energy-efficient appliances and upgrades including fridges, dryers, air conditioners, hot water systems, window shading, and draught sealing. 107

Community Housing Energy Performance grant program - Delivered under the Social Housing Energy Performance Initiative, this program provides targeted funding for Community Housing Providers to implement energy efficiency upgrades in their housing stock, improving affordability and comfort

for tenants. 108

Social and Affordable Housing

NSW SHEPI Initiative - The \$175 million partnership with Commonwealth Government to upgrade over 24,000 social housing homes by June 2027 with heat pumps, air conditioning, solar systems, insulation and other efficiency measures. Additional \$18.3 million available for Community Housing Providers. 109

 $[\]underline{\text{https://www.nsw.gov.au/grants-and-funding/solar-for-apartment-residents-soar-grant-program;}}$

¹⁰⁷ https://www.ipart.nsw.gov.au/Home/Industries/Energy/Retail-prices/Solar-Energy

 $[\]underline{\text{https://www.nsw.gov.au/grants-and-funding/community-housing-energy-performance-grant}}$

 $^{{\}color{blue} 109 \quad \underline{https://www.energy.nsw.gov.au/government-and-local-organisations/programs-grants-and-schemes/shepi/faq-shepi}}$

Northern Territory

Overarching Policies

Climate Change Response: Towards 2050 - Originally developed as the Territory's climate strategy framework with an aspirational target of net zero emissions by 2050 and an interim target of 43% by 2030. Also target of 50% renewable energy for grid connected sources. Targets not legislated. At the time of writing, the policy is uncertain. The CLP government abandoned the 2030 interim target, while retaining the net zero to 2050 commitment. 110

Building Standards

The Northern Territory has not adopted the 7 star NatHERS rating. It applies NCC 2022 Volume Two NT Part H6 Energy Efficiency provisions for residential buildings. Class 1 buildings (houses) and Class 10 buildings with conditioned space must achieve either: 1) a minimum 5-star NatHERS energy rating using house energy rating software, or 2) comply with NT Parts 13.1 through 13.6 of the ABCB Housing Provisions. Class 2 buildings (apartments) must achieve minimum 3 stars per unit with 3.5 stars average across all units.¹¹¹

Capital/Incentive Schemes

The Home and Business Battery Scheme (HBBS) provides grants of \$400 per kilowatt hour of useable battery system capacity, up to a maximum grant of \$12,000 (increased from \$5,000 as of 1 December 2024). Available to NT homeowners, businesses, and not-for-profit organisations for battery systems on the Clean Energy Councils approved battery list. 112

The Multi Dwellings Grant Scheme provides grants of up to \$7,500 per individual dwelling to support up to 50% of total installation costs for shared solar systems, solar sharing technology, smart meters and battery storage systems. The scheme is part of a \$4.7 million partnership between the Australian and Northern Territory governments, expected to support around 300 apartments with shared solar installations.

It is expected to provide up to \$500 in annual electricity savings per dwelling. Applications opened in October 2024 and remain open until June 30, 2025, with funding sourced from the Australian Government's Community Solar Banks program. 113

Feed in tariffs - the government-owned electricity retailer Jacana Energy offers feed-in tariffs for customers exporting excess energy to the grid. As of 1 July 2025, the current standard tariff rate is 18.66 cents per kWh (3pm-9pm peak rate), doubled from the previous 9.33 cents per kWh. The premium feed-in tariff scheme is closed to new entrants, with existing premium customers transitioning to standard rates after four years.¹¹⁴

Social and Affordable Housing

The Solar for Social Housing Trial represents a targeted pilot program led by Jacana Energy to test renewable energy solutions in government-owned residential properties. The trial involves 30 Territory Family, Housing and Communities (TFHC)-owned houses across the Darwin-Palmerston and Tennant Creek regions having rooftop solar installed in 2024. The trial operates through a commercial partnership model, where private partners install, own, and operate rooftop solar assets, selling the generated energy to Jacana Energy via 10-year Power Purchase Agreements. 115

Public Housing Renewables Program Trial – includes a trial of 15 houses in Alice Springs with updates of solar and batteries to test interaction with VPP. Commenced in May 2023 and part of the Alice Springs Future Grid Initiative.¹¹⁶

Under the **SHEPI scheme**, joint Australian and Northern Territory Government initiative providing \$10 million (\$5 million each government) for energy upgrades to more than 600 remote social housing properties. Focuses on installing efficient reverse cycle air conditioners to reduce energy bills and improve thermal comfort in the Territory's diverse climate conditions, with priority given to remote and waterstressed communities in Central Australia and Barkly regions.¹¹⁷

^{110 &}lt;a href="https://climatechange.nt.gov.au/nt-climate-change-response/action-items">https://climatechange.nt.gov.au/nt-climate-change-response/action-items

¹¹¹ https://nt.gov.au/__data/assets/pdf_file/0012/1295589/building-note-113-energy-efficiency.pdf

¹¹² https://nt.gov.au/industry/business-grants-funding/home-and-business-battery-scheme

 $[\]underline{ \ \ \, }\underline{ \ \ }\underline{ \ \ }\underline{ \ \ \, }\underline{ \ \ }\underline{ \$

¹¹⁴ https://www.solarquotes.com.au/systems/feed-in-tariffs/nt/

¹¹⁵ https://www.jacanaenergy.com.au/solar-social-housing-trial

¹¹⁶ https://newsroom.nt.gov.au/article?id=667ab02bcb0f056e5b1613cb693ccbd0

https://minister.dcceew.gov.au/bowen/media-releases/joint-media-release-10-million-boost-cooling-and-heating-more-600-territory-homes; https://www.ecogeneration.com.au/nt-homes-get-10m-cooling-upgrade; https://dhlgcd.nt.gov.au/housing-projects-and-programs/housing-initiatives-and-strategies#:~:text=The%20Social%20Housing%20Energy%20Performance%20 Initiative&text=The%20Northern%20Territory%20(NT)%20SHEPI,to%20withstand%20changing%20environmental%20conditions

Queensland

Overarching policies

Clean Economy Jobs Act 2024 – legislated net zero by 2050 and interim target of 30% reduction on 2005 levels by 2030.¹¹⁸

Queensland Building Plan, Net Zero Roadmap and Clean Economy Pathway¹¹⁹

Queensland Energy and Jobs Plan¹²⁰

Local Renewable Energy Zones (LREZ) projects as part of the federal Community Solar Banks program¹²¹

Building Standards

7 star rating for new builds - Updated energy efficiency standards for new homes commenced 1 May 2024 in Queensland. New houses must achieve a 7-star rating for the building shell, with multi-unit buildings requiring an average 7-star rating and no individual unit below 6-star.¹²²

Capital/Incentive Schemes

Climate Smart Energy Savers Program Residential energy efficiency program offering rebates up to \$1,000 for eligible energy-efficient appliances and home improvements, targeting households with annual income under \$70,000. Program includes free energy assessments, discounted appliances through bulk purchasing schemes, and weatherisation services for low to moderate-income households across Queensland.¹²³

Supercharged Solar for Renters Program Provides rebates of up to \$3,500 to eligible landlords for installing solar photovoltaic systems on rental properties with existing tenancy agreements. Expected to benefit approximately 6,500 renting households with savings of more than \$700 per year on electricity bills, depending on location and system size. 124

PeakSmart air conditioning program operated by Energex and Ergon Energy commenced in 2011, offering rebates up to \$400 for households and businesses that install PeakSmart-compatible air conditioning systems. Residential customers are eligible for up to five units per property. PeakSmart technology reduces air conditioner performance during peak demand events, typically occurring only a few times per year. 125

The Solar Bonus Scheme Feed in tariff - the Solar Bonus Scheme provides eligible customers who applied before 10 July 2012 with a premium feed-in tariff of 44 cents per kilowatt hour, locked in until 1 July 2028. The Queensland Competition Authority sets the annual solar feed-in tariff for regional Queensland at 12.377 cents per kilowatt hour for 2024-25. South-east Queensland has no mandatory minimum feed-in tariff, with retailers setting their own voluntary rates. ¹²⁶

Social and Affordable Housing

Solar for Public Housing Trial Pilot program installing solar photovoltaic systems on approximately 3,000 public housing properties to reduce energy costs for social housing tenants and demonstrate renewable energy integration across the public housing portfolio. Trial includes monitoring of energy savings, tenant bill reductions, and technical performance to inform broader social housing solar deployment.¹²⁷

Under the **SHEPI scheme**, Queensland committed \$116 million in joint funding with the federal government announced in September 2024 for energy upgrades in over 32,000 social housing properties. Upgrades include thermal improvements, solar PV, efficient appliances, and hot water systems to reduce energy consumption and bills for vulnerable households. 128

¹¹⁸ https://www.legislation.qld.gov.au/view/pdf/asmade/act-2024-016

¹¹⁹ https://www.energyandclimate.qld.gov.au/climate/net-zero-roadmap; https://www.epw.qld.gov.au/__data/assets/pdf_file/0028/48493/queensland-2035-clean-economy-pathway.pdf

^{120 &}lt;a href="https://statements.qld.gov.au/statements/96232">https://statements.qld.gov.au/statements/96232

¹²¹ https://www.energex.com.au/our-network/our-network-batteries#:~:text=The%20Queensland%20LREZ%20is%20a,have%20access%20to%20solar%20power; https://www.dcceew.gov.au/energy/renewable/community-solar-banks

 $[\]underline{ \text{https://www.housing.qld.gov.au/initiatives/modern-homes/residential-energy-efficiency-standards} \\$

^{123 &}lt;u>https://statements.qld.gov.au/statements/100109</u>

 $[\]underline{ \text{https://www.energyandclimate.qld.gov.au/energy/save-money-on-energy/supercharged-solar-for-renters-program} \\$

^{125 &}lt;a href="https://www.qld.gov.au/housing/home-energy-savings/your-home">https://www.qld.gov.au/housing/home-energy-savings/your-home

 $[\]underline{\text{https://www.qld.gov.au/housing/buying-owning-home/energy-water-home/solar/feed-in-tariffs/market-feed-in-tariffs-seq}\\$

^{127 &}lt;a href="https://statements.qld.gov.au/statements/80369">https://statements.qld.gov.au/statements/80369

 $[\]underline{\text{https://www.housing.qld.gov.au/initiatives/social-housing-energy-performance-initiative}}$

Other Schemes

The **Battery Supply Chain Database** launched as Australia>s first Battery Supply Chain Database in 2022, providing information on equipment suppliers, maintenance services, and recycling options to help homeowners make informed decisions about battery storage systems.¹²⁹

Home modifications and energy savings and Save money on energy Consumer education and advisory programs providing information on residential energy efficiency improvements, appliance selection guidance, home modification options, and energy bill reduction strategies. Programs include online resources, workshops, and personalised advice services targeting households seeking to reduce energy consumption and utility costs. 130

Discontinued Programs (non exhaustive)

The Climate Smart Energy Savers Program provided \$300-\$1,000 rebates for energy-efficient appliances with 4-star ratings or better before concluding when funding was exhausted. More than 72,700 households participated, with 54% of funding supporting low-income households and an average rebate of \$440. The program was part of the Queensland Energy and Jobs Plan helping residents reduce energy use and emissions.¹³¹

The Supercharged Solar for Renters Program ran from 5 March 2019 to 30 June 2020, encouraging landlords and tenants in Bundaberg, Gladstone and Townsville to share the value of installing solar systems with rebates of up to \$3,500. During the trial, 670 solar systems were installed across the 3 local government areas, with 4 megawatts of solar power installed and more than \$2.25 million in rebates paid to eligible landlords. Tenants participating in the trial are an average of \$600 per year better off. 132

The **Battery Booster Program** commenced in 2022, providing rebates up to \$3,000 for households with income under \$180,000, or up to \$4,000 for households where the highest earner made \$66,667 or less. The program requires existing or new solar systems of at least 5kW capacity and battery systems with minimum 6kWh storage. Applications are processed through approved installers with mandatory safety inspections conducted at no cost to customers. ¹³³

¹²⁹ https://www.nrmmrrd.qld.gov.au/manufacturing/strategy/australian-battery-supply-chain-database

 $^{{\}tt 130} \quad {\tt https://www.qld.gov.au/energy/save-money-on-energy-savings; https://www.energyandclimate.qld.gov.au/energy/save-money-on-energy-savings; https://www.energyandclimate.gov.au/energy-savings; https://www.energy-savings.gov.au/energy-savings; https://www.energy-savings.gov.au/energy-savings.gov.au/energy-savings; https://www.energy-savings.gov.au/energy-savings; https://www.energy-savings.gov.au/energy-savings; https://www.energy-savings.gov.au/energy-savings; https://www.energy-savings.gov.au/energy-savings.gov.au/energy-savings.gov.au/energy-savings.gov.au/energy-savings.gov.au/energy-savings.gov.au/energy-savings.gov.au/energy-savings.gov.au/energy-savings.gov.au/energy-savings.gov.au/energy-savings.gov.au/energy-savings.gov.$

^{131 &}lt;a href="https://statements.qld.gov.au/statements/100109">https://statements.qld.gov.au/statements/100109

^{132 &}lt;a href="https://www.energyandclimate.qld.gov.au/energy/save-money-on-energy/supercharged-solar-for-renters-program">https://www.energyandclimate.qld.gov.au/energy/save-money-on-energy/supercharged-solar-for-renters-program

 $[\]underline{ \text{https://www.qld.gov.au/housing/home-energy-savings/battery-booster-program} \\$

South Australia

Overarching Policies

Climate Change and Greenhouse Emissions Reduction Act 2007 (SA) – legislated net zero by 2050 and 50% reduction by 2030.¹³⁴

South Australia's Net Zero Strategy 2024-2030¹³⁵

Resilient South Regional Climate Action Plan 2024-2029¹³⁶

Building Standards

7 star rating for new builds -New homes must meet 7 stars using NatHERS software and achieve a Whole of Home rating of 60 out of 100, while apartments require an average 7-star rating with no unit below 6 stars and a Whole of Home rating of 50 out of 100. South Australia has implemented a 10-year moratorium on National Construction Code provisions that may impede housing affordability, maintaining minimum energy efficiency requirements at the 7-star equivalent level.¹³⁷

Water heater installation requirements under the Water Industry Act 2012 Mandatory standards requiring installation of energy-efficient water heating systems in new residential and commercial developments, with specifications for system performance, renewable energy integration, and compliance with state energy efficiency targets.¹³⁸

Review of SA's renting laws Legislative review process examining rental market regulations, including provisions for energy efficiency improvements, solar access rights, disclosure and landlord-tenant responsibilities for energy performance upgrades in rental properties. Currently before Legislative Committee.¹³⁹

Capital/Incentive Schemes

Retailer Energy Productivity Scheme (REPS)

requires energy retailers to meet productivity targets by delivering 31 eligible energy productivity activities to homes and businesses. Residential households can receive free or discounted home retrofits including LED lights, low-flow showerheads, and hot water systems. Priority Group households (holders of pension/health care cards, rental agreements \$500 or less per week, participants in retailer hardship programs, and SAFCA referrals) eligible for additional discounts and free activities. Activities include insulation, heating and cooling upgrades, and Virtual Power Plant participation. Scheme focuses on lowincome households and supports energy demand management, demand response, and energy efficiency improvements. Administered by Essential Services Commission of South Australia, replacing former Retailer Energy Efficiency Scheme (REES) which operated 2009-2020. Current targets apply 2021-2025 period. 140. Currently under review.

South Australia's Virtual Power Plant (SA VPP) is a network of thousands of solar and Tesla Powerwall home battery systems across South Australia developed with support from the Government of South Australia, Tesla and electricity retailer Energy Locals, forming Australia>s largest virtual power plant. Tesla launched Phase 4 of the SA VPP in 2023 with a \$33 million expansion funded entirely by Tesla, adding an additional 3,000 South Australian households including community housing sector properties for the first time. Tenants of more than 6,500 Housing SA homes benefit from the SA VPP, receiving Tesla Powerwall systems installed at no cost. 141

Feed in tariffs State regulatory framework establishing minimum feed-in tariff rates for small-scale solar systems, with rates set annually by the Essential Services Commission of South Australia. 142

¹³⁴ https://www.legislation.sa.gov.au/lz?path=%2FC%2FA%2FCLIMATE%20CHANGE%20AND%20GREENHOUSE%20EMISSIONS%20REDUCTION%20ACT%202007

¹³⁵ https://cdn.environment.sa.gov.au/environment/docs/SA-Net-Zero-Strategy-WEB.pdf

¹³⁶ https://cdn.environment.sa.gov.au/environment/docs/Resilient-South-Regional-Climate-Action-Plan.pdf

^{137 &}lt;a href="https://www.dhud.sa.gov.au/news/stories/national-construction-code-certainty#:~:text=From%201%20October%202024%2C%20newly,stages%20in%20their%20ows%20homes">https://www.dhud.sa.gov.au/news/stories/national-construction-code-certainty#:~:text=From%201%20October%202024%2C%20newly,stages%20in%20their%20ows%20homes

¹³⁸ https://www.sa.gov.au/__data/assets/pdf_file/0006/35259/Water-Heater-Review-Report-Oct-2013.pdf

 $^{139 \}quad \underline{\text{https://www.cbs.sa.gov.au/campaigns/review-of-sas-renting-laws\#::-:text=These\%20changes\%20to\%20rights\%20and,effect\%20on\%201\%20September\%202023}$

¹⁴⁰ https://www.energymining.sa.gov.au/industry/energy-efficiency-and-productivity/retailer-energy-productivity-scheme-reps

^{141 &}lt;a href="https://www.energymining.sa.gov.au/consumers/solar-and-batteries/south-australias-virtual-power-plant">https://www.energymining.sa.gov.au/consumers/solar-and-batteries/south-australias-virtual-power-plant

^{142 &}lt;a href="https://www.sa.gov.au/topics/energy-and-environment/energy-bills/solar-feed-in-payments">https://www.sa.gov.au/topics/energy-and-environment/energy-bills/solar-feed-in-payments

Social and Affordable Housing

As part of the **SHEPI scheme**, the partnership between the Australian and South Australian governments delivering \$35.8 million in energy upgrades to up to 3,500 SA Housing Trust households including roof insulation, gas-to-electric appliance upgrades, LED lighting installation, draft-proofing and window glazing. The initiative targets properties with an average age of 44 years that were constructed before minimum building standards were introduced. 143

Other

Home energy audit using a Home Energy Toolkit

Self-assessment resource enabling householders to conduct energy efficiency evaluations of their properties, identifying improvement opportunities and providing guidance on energy-saving measures, appliance upgrades, and home modification options. 144

Saving energy website Online information platform providing energy efficiency guidance, rebate information, energy-saving tips, and resources for residential and business energy users to reduce consumption and utility costs.¹⁴⁵

Energy Advisory Service Professional advisory service offering personalised energy efficiency advice, system design guidance, and implementation support for households and businesses seeking to reduce energy consumption and transition to renewable energy systems.¹⁴⁶

Discontinued Programs (non-exhaustive)

The Home Battery Scheme has closed and new applications are not being accepted. The scheme was discontinued by the Malinauskas Labor government in 2022 as part of the state's budget decisions. All remaining subsidies were allocated by late 2022, with approved recipients having until December 2023 to complete their installations. The program aimed to support 40,000 solar battery installations but did not reach this target, with fewer than 20,000 installations completed when it was discontinued. The rebate amount had been reduced from its original \$6,000 to \$2,000 over the program's duration.¹⁴⁷

The **Switch for Solar trial** closed to applications on 31 August 2022, with existing applicants having until 31 December 2022 to complete their installations. The program was discontinued alongside the Home Battery Scheme as part of the government>s 2022-23 budget changes. The initiative had been expanded from an initial pilot of 1,000 households to 5,000 households before closure. Participants could exchange their annual energy concession and Cost of Living Concession payments (totaling \$446.51) for a free 4.4kW solar system over a 10-year period, with data showing participants achieved average savings of \$538 above their foregone concessions. ¹⁴⁸

¹⁴³ https://www.dcceew.gov.au/about/news/upgrading-home-energy-3500-sa-households

^{144 &}lt;a href="https://www.sa.gov.au/topics/energy-and-environment/using-saving-energy/do-a-home-energy-audit">https://www.sa.gov.au/topics/energy-and-environment/using-saving-energy/do-a-home-energy-audit

¹⁴⁵ https://www.sa.gov.au/topics/energy-and-environment/using-saving-energy/retailer-energy-productivity-scheme#:~:text=Saving%20energy,-Calculate%20 running%20costs&text=Households%20and%20businesses%20could%20be,installing%20energy%20efficient%20lighting

^{146 &}lt;a href="https://www.sa.gov.au/topics/energy-and-environment/energy-advisory-service">https://www.sa.gov.au/topics/energy-and-environment/energy-advisory-service

https://www.energymining.sa.gov.au/consumers/solar-and-batteries/hbs-closed#:~:text=The%20Home%20Battery%20Scheme%20(HBS)%20has%20closed,am%20and%204:30%20pm%20(South%20Australian%20time)

¹⁴⁸ https://www.energymining.sa.gov.au/home/news/generic-images/2021/concession_holders_to_be_given_free_solar_systems#:~:text=South%20Australian%20 concession%20holders%20can,systems%20for%20the%20pilot%20program.

Tasmania

Overarching Policies

Climate Change (State Action) Act 2008 – legislates net zero by 2050 and 30% reduction by 2030¹⁴⁹

Climate Action 21 strategy¹⁵⁰

Climate Action plan 2023-25¹⁵¹

Tasmanian Housing Strategy 152

Tasmanian Renewable Energy Action Plan 153

Building Standards

6 star rating for new builds - Tasmania currently requires newly built homes to have a minimum 6-star energy efficiency rating using software tools accredited under NatHERS, coupled with complying with provisions for energy-saving features and building sealing, which is consistent with or ahead of the rest of Australia. The Tasmanian Government will invest in a research partnership with the University of Tasmania to commence further research with the aim of developing condensation and energy standards for different construction typologies and climate zones, to inform NCC 2025. Tasmania is deferring its application of the 7-star NatHERS energy efficiency rating provisions until the next iteration of the NCC in 2025. ¹⁵⁴

Capital/Incentive Schemes

The **Annual Electricity Concession** provides a daily discount to eligible Tasmanian customers, with the concession rate increased by \$61 to 157.460 cents per day, and eligible concession account holders receiving a \$119 bill credit applied directly to bills. ¹⁵⁵

Feed in tariffs - Tasmania has a regulated minimum solar feed-in tariff set at 8.935 cents per kilowatt-hour for the 2024-25 financial year, which is 17.8% lower than the previous year's rate of 10.869 cents per kWh due to decreased wholesale electricity prices. Electricity retailers can pay more than the minimum, with the regulated rate being the highest minimum feed-in tariff among Australian states. ¹⁵⁶

^{149 &}lt;a href="https://www.legislation.tas.gov.au/view/html/inforce/current/act-2008-036">https://www.legislation.tas.gov.au/view/html/inforce/current/act-2008-036

¹⁵¹ https://recfit.tas.gov.au/what_is_recfit/climate_change/action_plan

^{152 &}lt;a href="https://www.tasmanianhousingstrategy.tas.gov.au/">https://www.tasmanianhousingstrategy.tas.gov.au/

 $^{{\}tt 153} \quad {\tt https://www.stategrowth.tas.gov.au/news/archived_news/tasmanian_renewable_energy_action_plan_2020_giving_young_tasmanians_their_say}$

https://www.premier.tas.gov.au/site_resources_2015/additional_releases/building-ministers-meeting;
NatHERS - https://www.nathers.gov.au/governance/national-construction-code-and-state-and-territory-regulations

¹⁵⁵ https://www.sro.tas.gov.au/electricity-concessions/annual-electricity-concession

^{156 &}lt;a href="https://www.economicregulator.tas.gov.au/electricity/pricing/feed-in-tariffs">https://www.economicregulator.tas.gov.au/electricity/pricing/feed-in-tariffs

Finance Programs

The Energy Saver Loan Scheme provides interest-free loans of between \$500 and \$10,000 over 1-3 years to eligible applicants to fund the purchase price and installation of energy efficient products including solar panels, home batteries, reverse cycle air conditioners, insulation, induction stoves and heat pump hot water systems. The scheme is available to Tasmanian individuals for their principal place of residence, landlords with residential tenants, and small businesses and community organisations with electricity consumption lower than 150MWh per year. The loans have no establishment or account-keeping fees, with the scheme administered by Brighte. 157

Tasmanian Energy Efficiency Loan Scheme Targeted financing program providing low-cost loans for energy efficiency upgrades including building envelope improvements, heating system upgrades, and renewable energy installations for residential and small commercial properties.¹⁵⁸

Energy Saver Subsidy that couples with the No Interest Loans Scheme Grant program providing direct subsidies to eligible low-income households in conjunction with no-interest loans, reducing the overall cost of energy efficient appliances and home improvements for vulnerable households.¹⁵⁹

Social and Affordable Housing

Homes Tasmania Energy Efficiency Program - under the SHEPI scheme, this \$16.6 million partnership between the Australian and Tasmanian governments delivers energy upgrades to over 1,600 social housing properties including heat pump hot water systems, insulation, draught proofing, LED lights, and window glazing. Around 11% of the state's social housing properties receive upgrades under the program, with both governments contributing \$8.3 million each.¹⁶⁰

Social housing stock upgrade A retrofit program targeting energy performance improvements across Tasmania's social housing portfolio through building envelope upgrades, heating system replacements, and renewable energy installations to reduce tenant energy costs and improve housing quality.¹⁶¹

Public housing heating and energy efficiency initiatives Targeted program addressing heating adequacy and energy efficiency in public housing properties through installation of efficient heating systems, insulation upgrades, and weatherisation measures to improve tenant comfort and reduce energy costs. ¹⁶²

Other

Annual Electricity Concession provides a daily discount to eligible Tasmanian customers, with the concession rate increased by \$61 to 157.460 cents per day, and eligible concession account holders receiving a \$119 bill credit applied directly to bills. 163

 $^{157 \}quad \underline{\text{https://business.gov.au/grants-and-programs/energy-saver-loan-scheme-tas}\\$

https://www.bulletpoint.com.au/tasmanian-energy-efficiency-loan-scheme/#:~:text=The%20Tasmanian%20Energy%20Efficiency%20Loan%20Scheme%20provides%20zero%20interest%20loans,double%20%2F%20triple%20glazing

¹⁵⁹ https://www.premier.tas.gov.au/latest-news/2024/september/helping-families-with-cost-of-living-challenges

^{160 &}lt;a href="https://www.dcceew.gov.au/about/news/energy-efficiency-upgrades-tas-homes">https://www.dcceew.gov.au/about/news/energy-efficiency-upgrades-tas-homes

¹⁶¹ https://www.guybarnett.com.au/index.php/download_file/2228/1/

^{162 &}lt;a href="https://www.parliament.tas.gov.au/_data/assets/pdf_file/0027/83367/TasCOSS-Briefing-Note-Inquiry-into-Homes-Tasmania-For-Legislative-Council-members_Redacted.pdf">https://www.parliament.tas.gov.au/_data/assets/pdf_file/0027/83367/TasCOSS-Briefing-Note-Inquiry-into-Homes-Tasmania-For-Legislative-Council-members_Redacted.pdf

https://www.sro.tas.gov.au/electricity-concessions/annual-electricity-concession

Victoria

Overarching policies

Climate Action Act 2017 (Vic) – legislated net zero by 2050, with interim targets of 28-33% reduction by 2025,45-50% by 2030, 75-80% by 2035¹⁶⁴

State Electricity Commission (SEC) Renewal and Strategic Plan 2023-2035¹⁶⁵

Building Electrification Regulatory Impact Statement¹⁶⁶

Building Standards

7 star rating for new builds - Updated energy efficiency standards for new homes commenced 1 May 2024 in Victoria, requiring new homes to meet 7-star NatHERS rating and Whole of Home requirements. Victoria removed barriers to installing efficient electric hot water systems under the new code to support households investing in solar panels and choosing all-electric new homes. 167

Ban on natural gas - The Victorian government banned natural gas connections for all new homes requiring a planning permit from 1 January 2024 through Amendment VC250 to the Victoria Planning Provisions. The policy was implemented following the December 2023 Gas Substitution Roadmap update and applies to new dwellings, apartments, and residential subdivisions. The ban includes small second dwellings which must not connect to reticulated natural gas regardless of planning permit requirements. This policy followed the Constitutional enshrinement of Victoria's fracking ban in March 2021 through the Constitution Amendment (Fracking Ban) Act 2020. 168

Residential Efficiency Scorecard Program Energy performance assessment system providing a star rating (1-10 stars) for existing homes' energy use and comfort levels, rating homes based on average annual energy cost similar to appliance star ratings.

Currently a voluntary program available for existing detached houses, townhouses, units and apartments, providing recommendations for energy efficiency improvements and comfort ratings for hot and cold weather performance. Assessments delivered by government-accredited assessors through the Victorian Energy Upgrades program, with eligible households receiving discounts up to \$140 on assessments. Originally developed by Victoria since 2016, the program has been adopted nationally under the Nationwide House Energy Rating Scheme, serving over 5,150 Victorian households. 169

Enhanced minimum standards for rental properties

Energy efficiency and safety standards for Victorian rental properties commencing 30 October 2025 for all new rental agreements. Requirements include ceiling insulation installation where none exists, draught sealing of external doors, energy-efficient electric heating and cooling in main living areas, and replacement of hot water systems with electric heat pump or solar systems at end-of-life. Additional standards mandate 3-star cooling rating for main living areas, 4-star shower heads, and blind cord anchors for safety. Government estimates potential annual savings of \$791 for renters, with upgrade costs approximately \$5,000 for rental providers. ¹⁷⁰

Building Electrification Regulatory Impact Statement and new electrification and efficiency standards and regulations for Victorian buildings Regulatory framework establishing mandatory electrification and energy efficiency requirements for new and existing buildings, including compliance mechanisms, assessment procedures, and enforcement provisions to support state decarbonisation objectives.¹⁷¹

Energy Smart Housing Manual Technical guidance document providing best practice information on energy efficient building design, construction techniques, appliance selection, and renewable energy integration for residential construction and renovation projects. ¹⁷²

¹⁶⁴ https://www.climatechange.vic.gov.au/legislation/climate-action-act-2017

^{165 &}lt;a href="https://www.secvictoria.com.au/__data/assets/pdf_file/0007/1321/SEC-Strategic-Plan.pdf">https://www.secvictoria.com.au/__data/assets/pdf_file/0007/1321/SEC-Strategic-Plan.pdf

https://www.vic.gov.au/sites/default/files/2025-03/building-electrification-regulatory-impact-statement_3785-%281%29.pdf

^{167 &}lt;a href="https://www.vba.vic.gov.au/consumers/home-renovation-essentials/energy-efficient-requirements#:~:text=7%2Dstar%20standard%20%26%20">https://www.vba.vic.gov.au/consumers/home-renovation-essentials/energy-efficient-requirements#:~:text=7%2Dstar%20standard%20%26%20 Whole%2D,watch%20the%20NatHERS%20explanation%20video.

¹⁶⁸ https://www.planning.vic.gov.au/guides-and-resources/strategies-and-initiatives/victorias-gas-substitution-roadmap; https://www.legislation.vic.gov.au/bills/constitution-amendment-fracking-ban-bill-2020

¹⁶⁹ https://www.energy.vic.gov.au/households/save-energy-and-money/residential-efficiency-scorecard; https://www.homescorecard.gov.au/

^{170 &}lt;a href="https://www.energy.vic.gov.au/households/electric-and-efficiency-standards-for-buildings">https://www.energy.vic.gov.au/households/electric-and-efficiency-standards-for-buildings

¹⁷¹ https://engage.vic.gov.au/building-electrification; https://www.energy.vic.gov.au/households/electric-and-efficiency-standards-for-buildings

¹⁷² https://www.sustainability.vic.gov.au/energy-efficiency-and-reducing-emissions/building-or-renovating/build-for-energy-efficiency/energy-smart-housing-manual

Capital/Incentive Schemes

The Victoria Energy Upgrades (VEU) Program, formerly known as the Victorian Energy Efficiency Target (VEET) scheme, commenced in 2009 and offers incentives for households and businesses to upgrade to energy-efficient products including lighting, heating, cooling, and appliances. The program provides discounts through Victorian Energy Efficiency Certificates (VEECs) as a tradable scheme, with approved businesses ('accredited providers') creating certificates when energy-efficient products are installed, which are then sold to energy retailers to meet annual emissions targets. Currently under review - The Victorian Government expanded and strengthened the VEU program through the Victorian Energy Efficiency Target Amendment (Energy Upgrades for the Future) Bill 2025, with key amendments commencing 21 May 2025. A new VEU Registry system launched on 3 June 2025, and recent updates include minimum 5-year warranty requirements for all products and co-payment requirements introduced from 1 February 2025. 173

The **Solar Homes Program** provides rebates for eligible households installing solar panels (up to \$1,400), solar hot water systems (up to \$1,000), and previously offered solar battery rebates. The program also offers interest-free loans up to \$1,400 matching the solar panel rebate amount. Eligibility requires owner-occupiers with combined household taxable income under \$210,000, property value under \$3 million, and the property must not have received solar rebates in the last 10 years.¹⁷⁴

Residential Electrification Grants under Gas
Substitution Roadmap Large-scale grant program
enabling approved providers to deliver embedded
renewable energy and energy efficient products
in Victorian homes at scale, directly benefiting
householders through reduced upfront costs. Solar
Victoria has committed almost \$4 million to seven
electrification projects, facilitating bulk solar panels
and hot water rebates for new estates with 50 or more
homes without individual homeowner applications.

Program complements Gas Substitution Roadmap policies and new 7-star building efficiency standards while providing economic opportunities for Victorian businesses through local content requirements.¹⁷⁵

Solar for Apartments Program under Solar Homes Program and Community Solar Banks Program Joint Victorian and Commonwealth government program providing rebates up to \$2,800 per participating household or maximum \$140,000 per building for up to 50 apartments to install rooftop solar systems. Targets owners corporations with buildings up to 8 storeys, with average annual savings up to \$500 per participating household. Systems can include individual units directly connected to residential lots or single large systems with solar sharing technology. Applications for Round 2 closed 28 February 2025. ¹⁷⁶

Home heating and cooling upgrades program The original Home Heating and Cooling Upgrades program concluded and is no longer accepting applications, with final installations completed by 30 June 2023. The program provided base rebates of \$1,000 towards purchasing and installing energy-efficient reverse-cycle air conditioners for eligible households with approved concession cards or combined household income under \$90,000. Current heating and cooling rebates are now available through the Victorian Energy Upgrades program.¹⁷⁷

The Essential Services Commission previously set minimum feed-in tariff rates annually, requiring electricity retailers to pay solar customers at least the minimum rate for electricity exported to the grid. For 2024-25, the flat rate minimum feed-in tariff was 4.9 cents per kilowatt hour, with time-varying options ranging from 2.1 to 8.4 cents per kilowatt hour depending on the time of day. Following an amendment to the Electricity Industry Act 2000, the Essential Services Commission no longer sets minimum feed-in tariffs from 1 July 2025. From this date, electricity retailers may set their own feed-in tariffs, though these cannot be below zero cents per kilowatt hour. 178

¹⁷³ https://www.energy.vic.gov.au/victorian-energy-upgrades/homes

¹⁷⁴ https://www.solar.vic.gov.au/solar-homes-program

^{175 &}lt;a href="https://www.solar.vic.gov.au/electrification-grants">https://www.solar.vic.gov.au/electrification-grants

¹⁷⁶ https://www.solar.vic.gov.au/improving-access-solar-apartment-buildings; https://www.dcceew.gov.au/energy/renewable/community-solar-banks

 $[\]underline{\text{https://www.solar.vic.gov.au/solar-homes-program-reporting\#past-programs}}$

^{178 &}lt;a href="https://www.energy.gov.au/rebates/electricity-feed-tariff-vic">https://www.energy.gov.au/rebates/electricity-feed-tariff-vic

Finance Programs

The **Solar Battery Loan Program** - Solar Victoria is no longer taking applications for interest-free loans for battery installation, though existing loans up to \$8,800 are still available for eligible households until remaining loans run out. Previously eligible households required owner-occupiers with household income under \$210,000, property value under \$3 million, existing or planned 5kW+ solar system, and proposed battery capacity of at least 6kWh, with loans repayable over 4 years.¹⁷⁹

Workforce training

Solar Victoria training and workforce development package Training and workforce development program delivering solar and heating, ventilation and air-conditioning industry training to support program delivery and renewable energy sector growth. Includes fully subsidised solar training for eligible electricians and fourth-year electrical apprentices to become qualified solar photovoltaic designers and installers. Mandatory safety training through the Working safely on rooftop renewable energy systems skill set, required for all on-site installers before program registration. Since 2021, the program has supported over 6,000 workers through industry training. 180

Heat Pump Installer Training and Accreditation - In March 2024, Victorian agencies joined to improve heat pump hot water system installation compliance across the state. Solar Victoria offers free training for accredited plumbers and fourth-year plumbing apprentices to design and install energy-efficient heat pumps and solar hot water systems, funded by \$1 million investment and delivered through to May 2025 by the Plumbing Industry Climate Action Centre (PICAC). Plumbers must hold Victorian Building Authority (VBA) accreditation in water supply and refrigerated air conditioning for refrigerant pipework connections, or water supply only for self-contained units. Compliance certificates are required for installations exceeding monetary thresholds, with penalties up to \$94,000 for work without proper accreditation. 181

Social and Affordable Housing

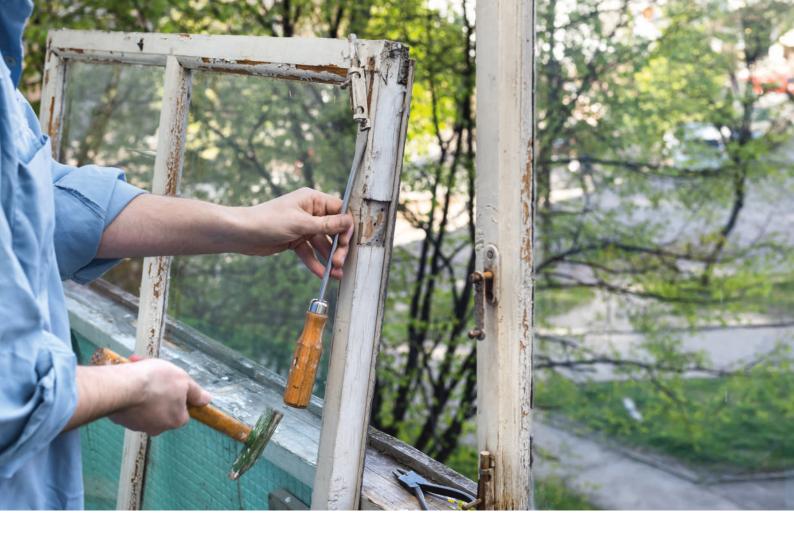
Energy Efficiency in Social Housing Program Victorian and Australian Government partnership under **SHEPI scheme** investing \$209.4 million to improve energy efficiency and liveability of social housing properties across Victoria, delivering up to 45,000 individual energy efficiency upgrades including 5,000 fully electrified homes. Phase 1 commenced November 2020 delivering approximately 19,000 upgrades, with Phase 2 running June 2024 to June 2027 targeting homes with gas appliances and low energy efficiency. Upgrades include reversecycle air conditioners for heating and cooling, heat pump hot water systems, and electric ovens and cooktops including induction systems. Residents report hundreds of dollars in savings and health improvements including better management of asthma and respiratory conditions. 182

^{179 &}lt;a href="https://www.solar.vic.gov.au/solar-battery-loan">https://www.solar.vic.gov.au/solar-battery-loan

¹⁸⁰ https://www.solar.vic.gov.au/training-workforce-development

^{181 &}lt;a href="https://www.vba.vic.gov.au/plumbing/heat-pumps">https://www.solar.vic.gov.au/upskilling-plumbers

^{182 &}lt;a href="https://www.homes.vic.gov.au/energy-efficiency-social-housing-program">https://www.homes.vic.gov.au/energy-efficiency-social-housing-program



Other Schemes

SEC one-stop-shop and electric home planner State Electricity Commission consumer service providing integrated advice, planning tools, and implementation support for household electrification through a free digital platform and vetted installer network. The platform surveys users about their home and energy usage, then provides tailored plans including appliance suggestions, indicative costs, return on investment, government rebates, and emissions reductions. Currently operating as pilot programs in Ballarat, Casey, and Merri-bek, allowing customers to connect with vetted installers for free house visits and detailed quotes. Modelling shows average Victorian households can reduce annual energy bills by around 32 percent or \$1,400 by switching to all-electric, rising to 62 percent savings or over \$2,700 annually with solar installation. The one-stop-shop is currently under development through pilot programs, with full rollout planned following evaluation of pilot results. 183

The **Energy Assistance Program** provides support to eligible concession cardholders through energy-saving advice, installation of energy-efficient appliances, and minor home modifications to improve energy efficiency.¹⁸⁴

Community Electrification Engagement Program

Fund Grant program supporting community organizations, local governments, and advocacy groups in delivering electrification education, engagement activities, and demonstration projects to accelerate community adoption of electric technologies. ¹⁸⁵

Health and Energy Hardship Program including Energy Assistance Program Support services providing energy bill assistance, appliance replacement, and energy efficiency improvements for vulnerable households experiencing energy hardship, administered through health and community service partnerships. 186

¹⁸³ https://www.secvictoria.com.au/powerup

¹⁸⁴ https://www.energy.vic.gov.au/households/help-paying-your-energy-bills/energy-assistance-program

 $[\]underline{\text{https://www.sustainability.vic.gov.au/grants-funding-and-investment/grants-and-funding/community-electrification-engagement-program-$

^{186 &}lt;a href="https://vcoss.org.au/health-and-wellbeing/2024/10/health-and-energy-hardship/;">https://vcoss.org.au/health-and-wellbeing/2024/10/health-and-energy-hardship/; https://www.energy.vic.gov.au/households/help-paying-your-energy-bills/energy-assistance-program

Western Australia

Overarching policies

Western Australian Climate Policy commitment to net zero by 2050 and 50% reduction in emissions by 2030. Not legislated.¹⁸⁷

Energy Transformation Strategy (2019-2021 and 2021-2025) 188

Distributed Energy Resources Roadmap (2020-2025)¹⁸⁹

Building Standards

Adopted 7 star rating for new builds – Western Australia is soon to adopt a minimum 7-star and a Whole of Home rating under the latest National Construction Code (NCC 2022). Taking effect from 1 May 2025, new homes in WA will be required to meet NCC 2022 energy efficiency requirements and the condensation management provisions. ¹⁹⁰

Capital/Incentive Schemes

Residential Battery Scheme - The Western Australian Government announced the launch a \$387 million Residential Battery Scheme on or before 1 July 2025, offering rebates of up to \$5,000 for Synergy customers (\$500 per kWh for up to 10 kWh) and up to \$7,500 for Horizon Power customers (\$750 per kWh for up to 10 kWh). The scheme will support 20,000 battery installations with up to 19,000 rebates for Synergy customers and up to 1,000 for Horizon Power customers, alongside no-interest loans of up to \$10,000 for eligible lower to middle-income households repayable over 10 years. Batteries must have at least 5 kWh storage capacity and be Virtual Power Plant (VPP) ready to qualify for the rebate. 191

The Distributed Energy Buyback Scheme (DEBS) replaced the premium feed-in tariff schemes. The current scheme offering eligible customers time-of-export payments for electricity exported to the grid from rooftop solar PV systems, batteries and electric vehicles. DEBS rates for Synergy customers as of 1 July 2024 are 10 cents per kilowatt-hour for electricity exported between 3pm to 9pm and 2 cents per kilowatt-hour for electricity exported between 9pm and 3pm. 192

Energy Ahead Program - Previously known as the Household Energy Efficiency Scheme, this is a \$13 million program being delivered in partnership by Energy Policy WA, Synergy, Horizon Power, and non-government organisations. The program aims to help up to 10,000 households improve home energy efficiency through services including energy audits, installation of energy-efficient lighting, draught-proofing, and replacement of low-efficiency appliances such as refrigerators. Each household receives up to \$100 worth of energy efficiency items as part of their home energy assessment.¹⁹³

¹⁸⁷ https://www.wa.gov.au/government/publications/western-australian-climate-policy

^{188 &}lt;a href="https://www.wa.gov.au/organisation/energy-policy-wa/energy-transformation-strategy-2019-2021;">https://www.wa.gov.au/organisation/energy-policy-wa/energy-transformation-strategy-2019-2021; https://www.wa.gov.au/system/files/2021-07/Energy-Transformation-Strategy-Stage2-July2021.pdf

¹⁸⁹ https://www.wa.gov.au/government/distributed-energy-resources-roadmap

^{190 &}lt;a href="https://www.nathers.gov.au/blog/nathers-news-7-march">https://www.nathers.gov.au/blog/nathers-news-7-march

¹⁹¹ https://www.wa.gov.au/organisation/energy-policy-wa/wa-residential-battery-scheme

^{192 &}lt;a href="https://www.wa.gov.au/organisation/energy-policy-wa/energy-buyback-schemes#:~:text=DEBS%20rates,kilowatt%2Dhour%20(kWh).">https://www.wa.gov.au/organisation/energy-policy-wa/energy-buyback-schemes#:~:text=DEBS%20rates,kilowatt%2Dhour%20(kWh).

¹⁹³ https://www.wa.gov.au/government/announcements/energy-ahead-formerly-the-household-energy-efficiency-scheme



Social and Affordable Housing

SHEPI scheme- A joint project with \$63.2 million investment between the Australian and Western Australian Governments to upgrade up to 4,300 social housing properties across the state. The initiative runs until 2027 and targets residents in the Kimberley, Pilbara, Gascoyne, Mid-West and Goldfield regions to help remote and regional social housing residents in hotter climates reduce their energy bills and keep their homes cooler in summer. Energy upgrades include installation of efficient hot water systems, LED lighting, and other energy performance improvements. ¹⁹⁴

Other Schemes

"Switch Your Thinking" initiative - A collaborative sustainability initiative originally founded by the Cities of Armadale, Gosnells and Shire of Serpentine-Jarrahdale, now expanded to 41 local governments across WA with \$500,000 in State Government funding for an 18-month pilot program. The program provides energy efficiency education through workshops, 200 do-it-yourself energy audit toolkits available for loan at local libraries across metropolitan Perth and regional WA, home energy self-assessments, thermal imaging cameras, plug-in energy monitors, and discounts on sustainable products and services through the "Rewards for Residents" and "Rewards for Business" programs. 195

The Energy Concession Extension Scheme -

RevenueWA pays eligible households an annual subsidy to assist with electricity costs. Eligibility requires the household to be billed through an eligible electricity arrangement and for a resident to hold a qualifying concession card (excluding the WA Seniors Card alone). Tenants must have lived in the property or have a lease for at least three months, and those billed by Synergy, Horizon Power, BHP or Rio Tinto should contact their provider directly. ¹⁹⁶

Energy Savings Quick Guide for Households on WA Government website - Information resource providing practical energy saving tips for residential consumers.¹⁹⁷

^{194 &}lt;a href="https://www.dcceew.gov.au/energy/programs/social-housing">https://www.dcceew.gov.au/energy/programs/social-housing

¹⁹⁵ https://switchyourthinking.com/

¹⁹⁶ https://www.wa.gov.au/government/publications/apply-the-energy-concession-extension-scheme

^{197 &}lt;a href="https://www.wa.gov.au/government/multi-step-guides/energy-savings-quick-guide-households">https://www.wa.gov.au/government/multi-step-guides/energy-savings-quick-guide-households

Annexure C – Local Government Policies and Programs

Australian Capital Territory

The Australian Capital Territory (ACT) is not included in this analysis because it does not have local councils; instead, local government functions are administered directly by the ACT Legislative Assembly.

New South Wales

Across the state, policy activity is relatively widespread. Among 128 councils, 40 have home energy upgrade programs. Metropolitan councils, especially those in Greater Sydney, lead in both volume and depth of programming. The City of Sydney, Randwick, and Waverley are some councils that have developed extensive portfolios that combine regulatory, financial, and community engagement strategies. Several regional councils have also implemented well-developed programs suited to their local contexts. One example of a joint initiative is the Illawarra Shoalhaven Joint Initiative (Wollongong, Shellharbour, Kiama and Shoalhaven) offering education, guidance and bulk-buy of vetted suppliers, along with participation in a VPP in partnership with a private provider. ¹⁹⁸

Examples of Key Policy Approaches

- Regulatory approaches Some councils have adopted provisions in planning instruments requiring all electric new buildings, including City of Sydney¹⁹⁹, Parramatta²⁰⁰, Waverley²⁰¹, Newcastle²⁰² and Blue Mountains.²⁰³
- Financial Incentives: Examples include Randwick offers rebates for solar systems, EV chargers, and hot water upgrades²⁰⁴; Ku-ring-gai's Smart Units program supports energy-efficient appliances in apartment buildings²⁰⁵. Willoughby runs a Solar Bulk Buy program to encourage community-level adoption.²⁰⁶
- Support for Navigating Upgrades Parramatta
 City Council and not-for-profit, ZapCat, provides a
 hand-holding service to address energy upgrades,
 including numerous strata apartments, and offer a
 5% discount on installations.
- Community Education: Many councils have thermal image cameras available, conduct home energy audits and run education programs.

 $[\]underline{\text{https://www.shellharbour.nsw.gov.au/council/news-and-publications/media-releases/illawarra-shoalhaven-councils-unite-to-launch-region}$

¹⁹⁹ https://news.cityofsydney.nsw.gov.au/media-releases/all-electric-buildings-citys-future

 $[\]underline{\textbf{200}} \quad \underline{\textbf{https://www.smh.com.au/national/nsw/as-city-of-sydney-ponders-a-gas-ban-this-council-is-planning-to-take-it-a-step-further-20230824-p5dzb1.html}$

²⁰¹ https://www.waverley.nsw.gov.au/environment/climate_resilience_and_reducing_emissions/go_electric

 $^{202 \}quad \text{https://newcastle.nsw.gov.au/development/land-use-planning/development-control-plan-and-technical-manuals/development-control-plan-(dcp)} \\$

 $[\]underline{\text{https://350.org.au/press-release/blue-mountains-city-council-latest-council-to-move-towards-all-electric-gas-free-new-homes-and-businesses/}$

²⁰⁴ https://www.randwick.nsw.gov.au/business/business-resources/sustainability-rebates

²⁰⁵ https://www.krg.nsw.gov.au/Environment/Sustainable-living/Claim-a-rebate/Smart-Units-rebates

 $^{{\}tt 206} \quad {\tt https://www.willoughby.nsw.gov.au/Environment/Sustainable-Living/Renewable-Energy/Solar-Power-Bulk-Buy}$

Northern Territory

Limited programs across the Territory's 17 local councils, attributable in part to geographical size of councils and remoteness. Two programs of particular note - Alice Springs Town Council (historical) and East Arnhem Regional Council.

Examples of Key Policy Approaches

- Community Energy Efficiency: The Manymak
 Energy Efficiency Project, delivered by East Arnhem
 Regional Council in partnership with Power and
 Water Corporation, focuses on reducing energy
 poverty in remote Indigenous communities
 through infrastructure upgrades and culturally
 tailored education.²⁰⁷
- Urban Solar Demonstration: The Alice Solar
 City program, led by Alice Springs Town Council,
 promoted rooftop solar and energy efficiency
 across homes and public buildings in an arid desert
 setting, while also running large-scale community
 education campaigns. Discontinued²⁰⁸

Both programs relied on collaborations with utilities and Commonwealth agencies, underscoring the critical role of external technical and financial support in enabling policy implementation in remote NT communities.

South Australia

Of the South Australia's 68 councils, 16 have home energy upgrade programs. Policy activity is heavily concentrated in metropolitan Adelaide, where councils such as Adelaide City and Charles Sturt have rolled out structured sustainability programs. Regional engagement is more selective.

Examples of Key Policy Approaches

- Financial Incentives: Adelaide City Council provides broad sustainability rebates²⁰⁹, while Holdfast Bay²¹⁰ offer targeted incentives such as green living or solar upgrade rebates.
- Solar Bulk-Buy Programs: Mitcham²¹¹ and Unley²¹² councils run coordinated solar purchasing initiatives to lower the cost barrier for households and increase community-wide renewable uptake.
- Energy Audit Toolkits: Many councils offer residents electricity monitors and thermal cameras to assess energy consumption and identify efficiency opportunities.

²⁰⁷ https://www.powerwater.com.au/about/projects/past-projects/manymak-energy-efficiency-project

²⁰⁸ https://alicespringsfuturegrid.com.au/knowledge-bank/alice-solar-city-report

 $^{{\}color{blue} \underline{\textbf{https://www.cityofadelaide.com.au/about-council/grants-sponsorship-incentives/incentives-for-sustainability/} }$

^{210 &}lt;a href="https://www.holdfast.sa.gov.au/services/green-living-rebates">https://www.holdfast.sa.gov.au/services/green-living-rebates

²¹¹ https://www.mitchamcouncil.sa.gov.au/our-environment/Community-Renewables-Program

^{212 &}lt;a href="https://shinehub.com.au/unley/">https://shinehub.com.au/unley/



Tasmania

Out of 29 local councils in Tasmania, 9 have implemented home energy upgrade policies.

Examples of Key Policy Approaches

- Bulk-Buy and Heating Programs: Huon Valley²¹³ and Kingborough²¹⁴ councils coordinate bulk-buys for energy-efficient appliances.
- Community Education and Engagement: Many councils, including Hobart²¹⁵ and Kingborough²¹⁶, complement toolkits with local workshops and guidance resources to build community awareness and skills.

Queensland

Out of 77 local councils, only five have documented home energy upgrade initiatives.

Examples of Key Policy Approaches

- Digital Education Programs: Sunshine Coast Council provides a publicly accessible online course focused on home cooling strategies and passive design principles.²¹⁷
- Council Resources: Townsville offers Tropical Energy Saver Toolkits suited to humid climates²¹⁸, while Noosa lends portable induction cooktops along with monitors to encourage energy-smart behavior²¹⁹.

 $[\]underline{\ \ }\underline{\ \ \ }\underline{\ \$

²¹⁴ https://www.kingborough.tas.gov.au/event/home-energy-bulk-buy/

 $^{215 \}quad \text{https://www.hobartcity.com.au/City-services/Sustainable-Hobart/Sustainable-homes/Energy-efficiency/Home-Energy-Audit-Toolkit-HEAT} \\$

^{216 &}lt;a href="https://www.kingborough.tas.gov.au/services/climate-change/energy/">https://www.kingborough.tas.gov.au/services/climate-change/energy/

²¹⁷ https://www.sunshinecoast.qld.gov.au/environment/sustainability-and-climate-change/sunshine-coast-design/freeonlinecourse

https://www.townsville.qld.gov.au/about-council/news-and-publications/media-releases/2016/march/library-toolkits-take-the-heat-out-of-energy-bills

https://www.noosa.qld.gov.au/About-Council/News-and-publications/Media-releases/2023/Energy-efficiency-kits-to-help-residents-cut-power-costs-and-emissions

Victoria

Out of 79 councils in the state, 40 have home energy upgrade programs and demonstrating different approaches. Metropolitan and regional councils demonstrate strong engagement, often by adapting shared models.

Examples of Key Policy Approaches

- **Regulation** A number of councils passed ban on gas in new developments in planning instruments prior to the state policy ban.
- Council collaborations for bulk buy and vetting: The Eastern Alliance on Greenhouse Action (EAGA) is a collaboration of councils in Melbourne's east that co-ordinate the Solar Savers program involving its formal members and other councils. This is a bulk buy program that includes vetting suppliers with accreditation from the Clean Energy Council²²⁰.
- Council subsidies with a one-stop shop Merr-bek council has a comprehensive program that includes council subsidies (up to \$2000 for insulation or \$3000 for solar) along with participation in the Solar Savers program and a single point of contact at council. Other examples of financial incentives include Casey Council, who offers a Draught Proofing Rebate²²¹, while Manningham provides subsidies for rooftop solar and battery installations²²².

- Rates based finance The Darebin council has
 a pioneering program to support low-income
 households to pay back solar installations through
 rates with no interest over 10 years²²³. The City
 of Manningham is also engaging with a
 rates-based program.
- Energy Audits, Education and Engagement:

 Numerous councils combine technical support
 with community outreach and library-based home
 energy kits, including Mornington Peninsula²²⁴ and
 Moonee Valley²²⁵, while Boroondara partners with
 the Residential Efficiency Scorecard program to
 offer subsidised home assessments²²⁶.

Western Australia

Out of 137 local councils in WA, 17 have implemented formal energy or sustainability initiatives. Policy activity is heavily concentrated in Perth's metropolitan area and parts of the southwest.

Examples of Policy Approaches

- Upgrades for Collective Living City of Perth allows for grants of up to \$25,000 to install solar and batteries and upgrade lighting water, heating and cooling for residential strata, student and aged accommodation.²²⁷
- Education, workshops and Audit Toolkits: A number of councils participate in the Switch Your Thinking initiative that provide residents with access to thermal cameras, electricity monitors, and DIY guides to assess home energy use.

²²⁰ https://solarsavers.org.au/about/

²²¹ https://www.casey.vic.gov.au/home-energy-rebates

https://www.manningham.vic.gov.au/about-council/environment-and-sustainability/responding-climate-change/how-be-more-energy-efficient#:~:text=Manningham%20Council%20subsidies%20up%20to,installation%20of%20solar%20or%20batteries.

 $^{{\}tt 223} \quad {\tt https://www.darebin.vic.gov.au/files/assets/public/v/1/waste-environment-and-climate/documents/externalfaqsdarebinsolarsaverratesprogramdecember 2023.pdf}$

²²⁴ https://www.mornpen.vic.gov.au/Environment/Climate-Change/What-can-you-do-about-climate-change/Save-Energy#:~:text=Homeowners%20and%20 businesses%20are%20eligible,heating%20systems%20and%20much%20more.

²²⁵ https://mvcc.vic.gov.au/live/my-house/sustainability/live-sustainably/

https://www.boroondara.vic.gov.au/services/environment-and-sustainability/climate-action/save-energy-your-home#:~:text=Home%20energy%20assessments,-We've%20partnered&text=The%20national%20Residential%20Efficiency%20Scorecard,your%20energy%20costs%20and%20emissions.

 $^{{\}color{blue} \underline{https://www.wa.strata.community/post/new-perth-grant-makes-strata-energy-upgrades-more-affordable}}$



Cooperative Research Centres Program





UNSWCentre for
Sustainable
Development Reform