



January 2026

Federal Pre-Budget Submission

Rewiring Australia: Policies for **faster and fairer electrification**

Executive summary

Rewiring Australia supports a wide range of policies crucial to accelerating the pace of electrification. We continue to advocate, across Federal and State Governments, for policies that would drive faster electrification in our homes and streets, and a more efficient grid ready for abundant renewable energy across our suburbs and regions to power our homes and cars in a future after fossil fuels.

This submission does not go into detail on all of the options available. We put forward a short list of specific, actionable, cost effective and evidence-backed policy opportunities to improve household access to electrification upgrades and flexible energy usage.

A. Maximise the benefits of the Solar Sharer Offer

The proposed Solar Sharer Offer aims to share the money-saving benefits of solar and flexible energy with more Australians, especially renters and strata. We welcome the initiative, and to achieve this objective, we propose four low-cost, high-impact actions:

1. **Require retailers to offer \$0 smart meter upgrades:** Ensure more Australians can access Solar Sharer by requiring retailers to provide Solar Sharer Offer customers fee-free meter upgrades on customer request supported by rebates

2. **Offer loans for smart meter site remediation:** the need for a switchboard upgrade can prevent the installation of a smart meter. The Government should offer deferred finance for the upfront cost of these upgrades, and consider imposing obligations on landlords to fund site remediation, optionally using this finance, if a tenant wants to use the Solar Sharer Offer
3. **Introduce the *Cheaper Hot Water Program*:** use the SRES to accelerate the rollout of smart controls for existing electric hot water systems, enabling households to save hundreds of dollars every year by timing their energy usage
4. **Establish a 'Renters' right to plug in':** establish product standards for balcony solar, and portable batteries and (bidirectional) electric vehicle (EV) chargers so that renters and mobile Australians can install flexible energy devices too.

B. Electrify Everything Loans for Age Pensioners

Home energy upgrades, including electrification and efficiency improvements, are a highly effective way to reduce energy bills while reducing emissions, as well as improving home comfort, health and safety.

The cost of energy bills and the importance of living in safe, thermally comfortable homes are especially important for retirees on low incomes. These 'asset rich, cash poor' households are a large cohort that will also play an important role in meeting Australia's emission reduction targets, but are very unlikely to have a mortgage to redraw, and unlikely to access conventional green loan products because they have very low incomes to make regular repayments.

Enabling these **low-income households to access deferred, property-secured finance for energy upgrades** would provide an attractive pathway to enable millions of low-income Australians to enjoy the durable savings and health benefits of efficient, all-electric homes at minimal cost to the budget.

A. Maximising the benefits of the Solar Sharer Offer

Making the most of the 3 free hours under the Solar Sharer Offer - and similar flexible plans increasingly offered by energy retailers - means helping households to access a smart meter and then enabling a wider range of flexible devices that can move energy demand. We present four opportunities for the Government to unlock these benefits for a wider range of Australians, especially renters, and give them the opportunity to reduce their energy bills and reduce emissions with highly leveraged 'nudge' investments of taxpayer funds.

1. Mandate fee-free meter upgrades

Recommendation: The federal government should mandate fee-free upgrades for all households, regardless of whether the smart meter is delivered as part of the rollout or is requested by the customer.

This will accelerate the unlocking of **\$420 million of annual savings for households** by removing a key barrier. This is equal to \$700 a year for 600,000 households.

Cost recovery for smart meter upgrades through retail tariffs is already established but providing \$200 as a Government rebate to retailers for customer-initiated upgrades could incentivise the rollout. We estimate that this would cost \$120 million over four years.

In order to access the Solar Sharer Offer, customers must have a smart meter installed. The penetration of smart meters varies across the country: in Victoria close to 100% of homes have a smart meter, while New South Wales lags with less than half of homes having a smart meter. The strongest predictor of having a smart meter in NSW is having solar PV. As it stands, those without solar are most likely to miss out on Solar Sharer, the very people this policy is intended to help - just 11% of renters have solar¹.

The smart meter rollout is delivering no-cost smart meter upgrades to all Australians with the target of 100% coverage by 2030. Electricity customers can also request an upgrade to a smart meter in advance of their place in the scheduled rollout, and around 15% of upgrades are currently delivered at the customer's request² (118,189 across eastern states in the 12 months to Sep 2025, plus an estimated 30,000 per annum in WA). This customer-initiated category might be expected to increase as people want to access the Solar Sharer Offer and similar time-of-use tariffs that reward flexibility.

¹ Energy Consumers Australia (2025). Consumer Energy Report Card.

² AER (2025). Retail energy market performance update for Quarter 1, 2025-26

However, there is widespread confusion about smart meters and how to get one. Different energy retailers have very different approaches to customer smart meter requests, with some offering the upgrade for free (and absorbing the cost based on future customer revenue margins), while other retailers pass through fees up to \$300 for those requesting an upgrade. Both the high prices charged by many retailers and the broader inconsistency in the market, along with other factors like historical examples of retailers automatically shifting customers onto time-of-use tariffs without their opt-in, is driving mistrust and hampering smart meter adoption.

Getting a smart meter should become a clearer and simpler process without upfront fees for consumers instead of a barrier to adopting modern, flexible electricity tariffs that can benefit consumers and the wider grid.

A customer-initiated smart meter upgrade does involve costs to the retailer. In recognition of this, Rewiring Australia proposes that the Government should offer energy retailers a rebate of \$200 for each customer-initiated meter upgrade. This rebate could help provide a balanced incentive and encourage retailers to promote the rollout of smart meters towards the 2030 goal. This rebate would also encourage the promotion of Solar Sharer energy plans and similar flexible time-of-use tariffs more generally as well as enhance the value of these tariffs which would not have to factor in cost recovery for these meter upgrades.

2. Enable smart meter installs with loans for switchboard upgrades

Recommendation: Offer government-backed deferred loans to property owners to finance necessary site remediation for smart meter upgrades.

This crucial enabling investment in modernising homes with smart meters allows households to access modern flexible tariffs like the Solar Sharer Offer, and is required for CER like solar, battery or bidirectional EV charging.

A loan scheme such as this would require \$800m of loans and would impact the underlying cash balance by **\$66 million** in concessional loan costs over ten years. These numbers are estimated based on 400,000 loans for site remediation costs, an average loan of \$2000 and application of modelling carried out by the PBO³.

³ PBO ([2025](#)). Home electrification. 2025 Election Commitment Costing. ECR-2025-6088.

Although smart meter upgrades are being rolled out across the country and aiming to cover all homes by 2030, these meter upgrades cannot be carried out if 'site remediation' is required and the owner is unwilling to fund the upgrade. Most often, the switchboard in the meter box contains asbestos or requires other rectification works to bring it up to code. A switchboard upgrade such as this can cost between \$800 and \$3,500. This additional cost is a barrier to a smart meter for many households.

It is estimated that 10-20% of smart meter upgrades are indefinitely delayed due to remediation requirements - that is at least 400,000-800,000 of the around 4 million meter upgrades remaining across the NEM^{4,5}.

For those who opt to carry out the upgrade, a \$2,000 bill will likely cancel out the benefits of the Solar Sharer Offer. It is not clear exactly how many of the 4 million homes yet to have a smart meter installed are rented. But given that far fewer rented properties have solar installed (estimated around 11%⁶), and that having solar is the best predictor of having a smart meter, rentals are likely to be overrepresented among these homes. We estimate around 1.5 million rented households are still waiting for a smart meter upgrade, many of whom will also need switchboard remediation work. Landlords have no incentive to pay the upfront cost of switchboard remediation, given that the benefits of the Solar Sharer will accrue to the tenant. This means that renters in homes with switchboards or other site issues in need of remediation will be unable to access the benefits of the Solar Sharer Offer.

Low-cost, government-backed finance would help remove the upfront costs for these expensive upgrades where they arise, with the loans repaid when the property is sold. Rewiring Australia in collaboration with economists at the Australian National University has set out a scheme such as this for electrification upgrades in the past, calling it the 'Electrify Everything Loan Scheme'⁷. Following that proposal, the Parliamentary Budget Office (PBO) has carried out analysis⁸ into the likely costs and benefits of such a scheme. The PBO found that issuing \$13bn in loans for a broad range of electrification upgrades over 2025-2029 would cost the underlying cash balance \$1.15bn by 2035, a leverage ratio of 12:1.

A loan scheme could be specifically offered for site remediation costs. If half of the 800,000 sites requiring site remediation used the loan, and the average site remediation cost was \$2000, the program would require \$800 million of loan investments and would

⁴ SNAPI (2024). Response to AEMC's Draft Rule Determination.

⁵ AER (2025). Retail energy market performance update for Quarter 1, 2025-26

⁶ Energy Consumers Australia (2025). Consumer Energy Report Card.

⁷ Rewiring Australia (2024). 2024 – 2025 Pre-Budget Submission to the Australian Government

⁸ PBO (2025). Home electrification. 2025 Election Commitment Costing. ECR-2025-6088

impact the underlying cash balance by **\$66 million** in concessional loan costs over ten years, plus administrative overheads (dependent on administrative model).

This highly leveraged government investment to enable smart meters (which are also crucial for a range of further home upgrades in solar, battery and V2G) would improve distributed electricity infrastructure across the country for the long term, to ensure that the benefits of renewables can be accessed by more households.

The Federal Government should also collaborate with the States to require enabling smart meter installation as a minimum requirement of a modern dwelling under rental regulation. This regulatory update will ensure that renters can access the benefits of the Solar Sharer Offer and the broader energy revolution.

3. Launch the *Cheaper Hot Water Program* to make existing electric hot water systems flexible

Recommendation: Extend SRES to include retrofit 'smart' timer upgrades for electric hot water systems.

Helping Australians install simple timer devices on conventional hot water systems to shift this electricity use to the middle of the day to align with Solar Sharer free period (or other similar flexible plans) would:

- Benefit consumer bills by up to \$500 per year
- Offer outsized benefits to lower-income homes who are more likely to live in homes with conventional hot water
- Deliver improved system and emissions outcomes by moving demand to the solar window

There are 3.5 million homes with electric storage hot water systems⁹. Catalysing the market for smart upgrades to electric hot water systems opens up the potential opportunity for **\$1.75 billion of household savings every year**, supported by shifting demand into the solar window that can be supplied by renewables that are currently subject to economic curtailment.

If 500,000 conventional electric hot water owners used the scheme over 4 years, with an estimated average cost of \$500 per upgrade, and STCs covered \$300 of the

⁹ Department of Industry, Science, Energy and Resources ([2021](#)). Residential Baseline Study for Australia and New Zealand for 2000 to 2040

upgrade cost, this would involve generating **\$150 million** in new STCs, which could be covered either by Government funds (as in the Cheaper Home Batteries Scheme) or by scheme participants.

Rewiring Australia is delivering the *Electrify 2515 Community Pilot*. Research with participants in the Pilot has confirmed that electric hot water systems can make up a quarter of a household's energy bill, \$500 or more, when not operated smartly, even in households with rooftop solar PV. On the other hand, simple optimisation such as a timer can dramatically reduce their running costs and impact on the grid. Moreover, conventional hot water systems are more common in older and rented properties, meaning that a Cheaper Hot Water program would most benefit those most in need.

The opportunity is significant both for consumers and for the electricity network. There are estimated to be 3.5 million electric resistance hot water systems on the NEM offering more than 10 GW of flexible power and 19 GWh/day¹⁰.

- For consumers, using a Solar Sharer Offer could save \$500 every year.
- For the network, each one of these hot water systems is like a 6 kWh battery, already installed, and smart upgrades are excellent value for money, <\$100/kWh.

Crucially, in order to access these benefits, low-cost smart upgrades are required. Costs for smart timers (materials and labour) can range from \$400-\$800 depending on the technology used, but with efficiencies of scale we estimate that average costs would be unlikely to exceed \$500 per household. A smart timer costing around \$120 plus installation or utilising smart controls already embedded in smart meters. At less than \$100/kWh of storage, this is around 25% of the cost of the Cheaper Home Batteries program and offers a full return on investment within a year.

However, subsidies will accelerate and incentivise these upgrades, especially for landlords who have no incentive to pay for this upgrade which will not benefit them. The Government should update the SRES to include smart upgrades for electric hot water so that all households with these systems can effectively load shift and benefit from the Solar Sharer Offer. This is critical for equity for renters. Alongside the cost and energy system benefits, this policy presents an education opportunity for all residential households on the importance and ease of load shifting.

Hot water on a 'controlled load' circuit also faces a challenge. While this used to be cheaper, it is now clearly more expensive than free. We acknowledge that this is a

¹⁰ Roche, D., Dwyer, S., Rispler, J., Chatterjee, A., Fane, S. & White, S. (2023). Domestic Hot Water and Flexibility. Report prepared for ARENA by UTS Institute for Sustainable Futures.

thorny issue, as it stands we are concerned that increasing numbers of customers will opt out of controlled load tariffs, reducing the control of networks.

4. Establish a 'Renters' right to plug in' for portable batteries, solar, and electric vehicle chargers

Recommendation: In collaboration with the states and territories, establish common regulation, rights and responsibilities for a 'renters' right to plug in'.

Renters are one of the key target groups the Solar Sharer Offer is intended to benefit. Without batteries or EV chargers, renters cannot access the full benefits of the Offer. Facilitating renter access to flexible consumer energy resources (CER) would improve equity of the energy transition, while also vastly expanding the flexible CER available to the electricity system to meet the Australian Energy Market Operator's (AEMO) forecast goals.

The Government should fund accelerated work by the Department of Climate Change, Energy, the Environment and Water to coordinate and deliver a framework for a national renters 'right to plug in' that enables balcony solar, suitcase batteries and plug-in (bidirectional) charging devices. The cost of this work should be determined by the Treasury and the relevant department.

About 3 in 10 Australians are renters: 3.3 million households¹¹. They are largely excluded from rooftop solar, batteries, and EV charging because rental providers have no incentive to invest in or even permit these upgrades.

The federal government should facilitate a standards-based approach to enable 'portable CER' (consumer energy resources), such as balcony solar, suitcase batteries, and removable bidirectional EV chargers. This would enable renters to invest in these assets themselves could accelerate the pace of the transition to renewables, while vastly improving the equality of outcomes for renter households.

This would both enable renters to access the benefits and savings of CER and make a significant contribution to the grid and Australia's climate goals:

- If 5% of renters (165,000 households) invested in an average of 10kWh of storage by 2030 (via a mix of smaller batteries and V2G charging), the additional 1.65GWh of additional storage would be equivalent to another four Victorian Big Batteries.
- If 50% of renters had the same *average* storage by 2045, this 16.5 GWh of energy storage alone could deliver almost a third of the coordinated energy storage

¹¹ Australian Bureau of Statistics ([2021](#)). Housing: Census.

AEMO has said is needed across the entire network by that time¹².

Plug-in solar

Portable, 'plug-in' devices aimed at tenants already exist in developed markets. Globally, products like balcony solar are already popular in Europe and portable batteries are expanding. Safe deployment of plug-in solar panels has been demonstrated by Germany and more recently by states in the USA. More than four million systems are estimated to be installed and operational in Germany alone where they are common enough to be sold in Ikea. In Germany systems are limited to 800W while in Utah systems up to 1,200W are permitted.

The safety risks and a range of solutions have been documented in detail in peer reviewed and policy-oriented publications^{13,14,15}. Australia should rapidly agree and set out the national and state certification and safety requirements for plug-in solar, so that renters and strata residents can access solar.

Plug-in batteries and EV charging

The ability to control the timing of electricity consumption is fundamental to benefiting from the Solar Sharer Offer - i.e. drawing power from the grid in the middle of the day. In practice, this means those with smart electric hot water, a battery or an electric vehicle (EV) have the most opportunity to benefit. The vast majority of households with these appliances are owner-occupiers. Renters can't install these appliances (and couldn't take them with them if they did) and rental providers have little incentive to install them. Portable, 'plug-in' batteries, solar panels and EV chargers are key to unlocking these benefits for all Australians.

Portable batteries and EV chargers are less commercially advanced than balcony solar, and the bidirectional nature of batteries and vehicle-to-grid EV chargers requires some additional safety considerations. Our proposed solution is a dedicated outlet for portable consumer energy storage resources, as set out in our draft technical discussion paper¹⁶.

¹² AEMO (2024). 2024 Integrated System Plan

¹³ Clean Energy States Alliance (2026). What States Need to Know about Plug-In Solar.

¹⁴ Gerber et al. (2025). Barriers to Balcony Solar and Plug-In Distributed Energy Resources in the United States. *Energies*, 18(8), 2132.

¹⁵ UL (2025). Interactions of Plug-In PV with Protection of Existing Power Systems.

¹⁶ Rewiring Australia (2026). Technical discussion paper: Enabling Portable Energy Devices and a Renter's Right to Plug In

Three steps are needed from Australian governments to deliver this:

1. Identify and establish the requirements for plug-in solar and a safe dedicated socket for storage across all Australian states and territories.
2. Legislate a renters' 'right to plug in' - to request a socket and ensure that landlords will provide it.
3. Provide low-cost, government-backed finance (as described above) for these upgrades, to ensure that upfront costs are not a barrier for landlords.

B. Electrify Everything Loans for Age Pensioners

*Underlying cash balance impact over 10 years: **-\$327 million***

*Off-budget expenditure: **\$3.14 billion** (loaned over 4 years)*

Home energy upgrades, including electrification and efficiency improvements, are a highly effective way to reduce energy bills while reducing emissions, as well as improving home comfort, health and safety. Treasury's own Net Zero Transformation: Modelling and Analysis notes the average potential savings from full home electrification are over \$4000 per household per year¹⁷. These cost and health benefits are especially important for retirees on low incomes, and as the same modelling notes, energy bills make up 11% of expenditures for low-income homes.

Age pensioners live in about 2.2 million (or 1 in 5) of Australia's 10.9 million households. Moreover, age pension recipients who own their home represent about 1.76 million¹⁸ of the ~7.2 million owner-occupier households, meaning they are a quarter of all Australian owner-occupiers.

These 'asset-rich, cash-poor' households are a large cohort that will play an important role in electrifying Australian homes and meeting Australia's emission reduction targets. They are also very unlikely to have a mortgage available to redraw (just 10.1% of age pensioners have a mortgage¹⁹), and are unlikely to access conventional green loan products because they have very low incomes to make regular repayments.

¹⁷ Treasury (2025: p44). Australia's Net Zero Transformation: Treasury Modelling and Analysis.

¹⁸ 2019 estimated households with pensioners is 1.9 million (see [Webster, Phillips, Research Note: Analysis of pensioner home owner house values, 2019-20](#), p1); estimated growth in households is 14% over 2019-2025 (see [Household and Family Projections, Australia, 2021 - 2046 | Australian Bureau of Statistics](#)); 80.1% of pensioners are owner-occupiers (ABS (2023). New Census insights on income in Australia using administrative data.)

¹⁹ ABS (2023). New Census insights on income in Australia using administrative data.

Rewiring Australia has done detailed modelling of the proposed Electrify Everything Loan: an option for homeowners to borrow a government loan at inflation interest rates, with repayment requirements deferred until property sale. Optional early repayments are possible but not modelled (in line with the voluntary repayment rate below 1% found in for HECS-HELP CPI-based debt).

The Parliamentary Budget Office independently modelled a widely available [Electrify Everything Loan Scheme in a 2025 costing](#), finding:

- A likely massive uplift in rates of electrification based on the incentive appeal of the loan offer, driving approximately \$13 billion in consumer investments in energy upgrades over 4 years
- A modest impact on the Budget representing 8% of the funds invested - with the modelled four year program delivering \$13 billion of loans for just \$1.1 billion impact on the underlying cash balance over 10 years, including administrative overheads.

Rewiring Australia's own model finds slightly higher costs by using a more detailed model of housing turnover that implies a slower 'churn' of housing, and the same \$13b of loans would cost the budget \$1.8 billion over 10 years, and eventually result in a cumulative \$4 billion impact on the underlying cash balance *over 75 years*.

This loan model would be especially well suited for age pensioners. As households who pay a larger relative share of income into energy bills, the ability to replace running costs with efficient, electrified homes financed by home equity is a clear opportunity to deliver benefits to retired Australians.

If the PBO's model is applied to a loan product offered to the **1.76 million** age pension households (representing 24% of Australia's 7.2m owner-occupied households), then a similar rate of uptake would imply **\$3.14b** of loans for home upgrades by pensioners over 4 years. The resulting underlying cash balance after 10 years would be **\$261 million** in concessional loan expenses plus a fixed **\$66m** cost for administration.

There are reasons to assume that costs could be lower for a limited scheme offered to age pensioners than the PBO modelling of a widely available scheme with a new independent agency.

- **Lower concessional costs for shorter average loan terms:** Offering deferred finance to age pensioners would have a lower impact on the Budget than a more widely available loan modelled in PBO costings. While younger recipients might have outstanding loans for many decades, property-secured loans made to age

pensioners will mostly be repaid within a 20 year period when property is sold or estates administered.

- **Administrative option to align to Home Equity Access Scheme:** Services Australia, which administers the Age Pension, already also offers the Home Equity Access Scheme, which enables pensioners to supplement their income with a deferred, property-secured loan at a concessional 3.95% interest rate. A specific Home Equity Energy Upgrade offer, based on a lower CPI interest rate, available over and above current HEAS eligibility, would provide a targeted boost to electrification and efficiency improvements in these homes.
- **Alternative administrative option to align to Clean Energy Regulator (CER) regulation and SRES administration:** the rollout of energy upgrades and the required safety and consumer protection oversight is a role already played by the Clean Energy Regulator as part of administering the SRES scheme and the recommended expanding role of that agency as the CER technical regulator. The provision of a loan offer at the point of sale has some alignment with the provision of SRES subsidies.

About Rewiring Australia

Rewiring Australia is a non-profit research and advocacy organisation dedicated to representing the people, households and communities in the energy system. We deliver practical climate progress by working with government, industry, and communities to electrify everything. Co-founded in 2021 by Dr Saul Griffith and Dan Cass, Rewiring Australia highlights the positive climate and economic outcomes possible for Australia, and the world, with electrification of fossil fuel machines. www.rewiringaustralia.org

In addition to co-founding Rewiring Australia, Saul Griffith is also the co-founder and Chief Scientist of Rewiring America. Rewiring America and Saul worked closely with the Biden Administration in the drafting of the Inflation Reduction Act to drive investment in clean, electric machines and in supporting households and the larger U.S. economy to electrify.