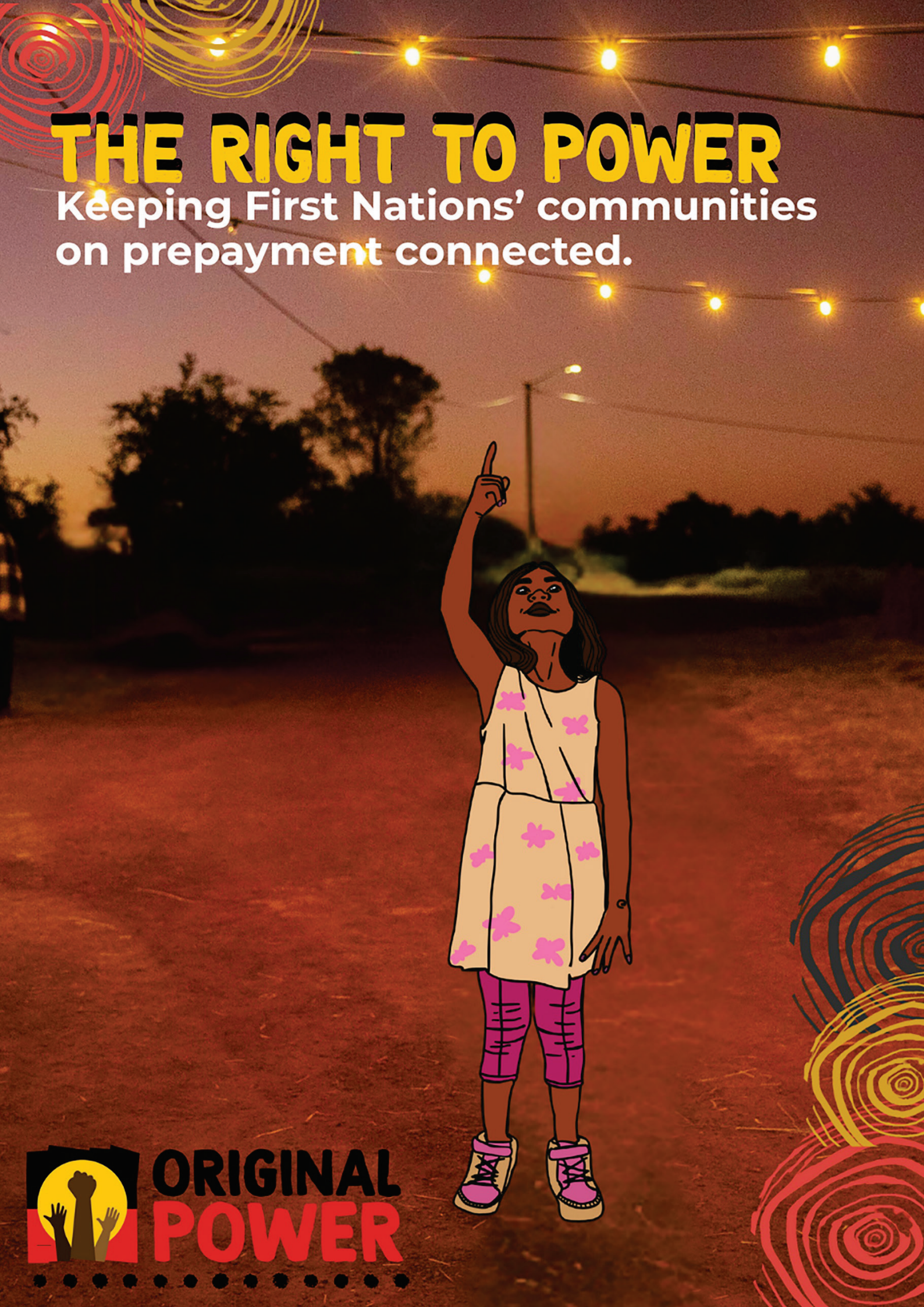
THE RIGHT TO POWER

Keeping First Nations' communities on prepayment connected.



ORIGINAL POWER

Acknowledgement of Country

Original Power acknowledges the Traditional Owners of Country throughout Australia and recognises the continuing rights, interests and connection to lands, sea, waters, and communities. We pay our respect to Aboriginal and Torres Strait Islander cultures, and to Elders past, present and emerging - for they are the safe-keepers of the oldest living cultures in the world, which is a source of shared pride for us all. We draw upon their wisdom, knowledge, and leadership to guide us in our work.

We thank all participating communities, organisations, and individuals, especially those who participated in interviews and provided data for the study.

We acknowledge the valuable input of our Advocates Advisory Group members, including representatives from Energy Consumers Australia, Australian National University, Central Land Council, Financial Counsellors Australia, First Nations Clean Energy Network, Indigenous Consumer Assistance Network, Jabalbina Yalanji Aboriginal Corporation, Justice and Equity Centre, Ngardara Cooperative, Northern Territory Council of Social Service, Nulungu Research Institute, Queensland Council of Social Service, South Australian Council of Social Service, University of Sydney, Tangentyere Council Aboriginal Corporation, University of Adelaide, and Western Australian Council of Social Service.
We also thank the Justice and Equity Centre for their review of National Energy Laws and self-disconnection protections and subsequent contribution to the report.

This project was funded by Energy Consumers Australia (ECA) with a collaboration grant.
Many people at ECA provided additional assistance with this research, including Kerry Connors, Caroline Valente, Ellaha Mokhtar, Adam Collins, Liz Stephens, Dr Brendan French, and we thank you for your unwavering commitment to energy justice and support throughout the project.

Illustrations by Talah Laurie. Title photograph by Rachel Mounsey.

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Cite as: Original Power and the prepay research team (2025) The Right to Power - Keeping First Nations communities on prepayment connected. Melbourne, Australia.
Original Power, in partnership with Western Sydney University, established a team of researcher partners and interviewers across prepayment regions in the NT, QLD, SA and WA.
Refer to page 7 for details of the prepay research team.
This study has been approved by the Western Sydney University Human Research Ethics Committee (HREC).
The Approval number is H16215.

THE RIGHT TO POWER

Keeping First Nations communities on prepayment connected.

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Executive Summary

Australian First Nations households and communities accessing electricity through prepayment arrangements experience extremely high levels of energy insecurity[1]. In many cases, there is an absence of consumer protections, financial hardship assistance, or debt and disconnection relief[2]. Until recently, these arrangements have largely avoided scrutiny.

While awareness of prepayment for electricity has improved[3], our research is the first national project to shine a spotlight on the previously hidden experiences of First Nations households using prepayment. The research incorporates household surveys and household-level energy use data to show that frequent disconnections are impacting food security, health, wellbeing and economic participation for First Nations prepayment customers.

Australia is entering a new era of energy-driven economic development, powered by the potential of lower cost renewables. The consent for access to First Nations' extensive land and sea estates will be needed[4]. It is incumbent on leaders and policymakers to recognise those same communities remain at risk of being left behind; underserved by policy and regulation to pursue opportunities that would secure their own energy futures.

To overcome these structural disadvantages Australian governments must be guided by existing frameworks, including the First Nations Clean Energy Strategy and Closing the Gap targets, and take action to ensure regulators and energy retailers work together to improve the experiences of First Nations people across all key reform areas.

There is considerable scope and opportunity for existing processes to include prepayment customers, and to bring regulation, reporting requirements and policy responses for prepayment customers in line with National Energy Market rules and regulatory standards.

Energy is an essential service that must be accessible by all, regardless of billing arrangements, location or income level. This can be achieved through the application of a nationally consistent consumer protection framework and guaranteed service levels for all customer groups.

The overarching goal of this research and associated proposals for prepayment reform is to **keep First Nations people connected to power**. This is consistent with wider recognition of energy as an essential service and that no-one should be disconnected due to inability to afford the energy they need.

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[1] Longden, T., Quilty, S., Riley, B., White, L. V., Klerck, M., Davis, V. N., & Frank Jupurrurla, N. (2022). Energy insecurity during temperature extremes in remote Australia. Nature Energy, 7(1), 43-54: rdcu.be/cDlYQ

[2] White, L. V., Riley, B., Wilson, S., Markham, F., O'Neill, L., Klerck, M., & Davis, V. N. (2024) Geographies of regulatory disparity underlying Australia's energy transition. Nature Energy 9(1), 92–105.https://doi.org/10.1038/s41560-023-01422-5

[3] Refer to the First Nations Clean Energy Network Research and Information Portal - https://www.firstnationscleanenergy.org.au/research_and_information; plus the catalogue of prepayment materials https://www.firstnationscleanenergy.org.au/search?q=prepayment.

[4] UN Free Prior and Informed Consent – An Indigenous Peoples' right and a good practice for local communities - https://www.un.org/development/desa/indigenouspeoples/publications/2016/10/free-prior-and-informed-consent-an-indigenous-peoples-right-and-a-good-practice-for-local-communities-fao/

High-level recommendations

After extensive research and numerous consultations, we have developed specific and practical recommendations that chart a path towards improving prepayment for electricity and include measures that would improve energy inclusion for all Australians.

We have **6 high-level recommendations and associated actions** that should be implemented to achieve the overarching goal of reducing disconnections to improve energy security and **keep First Nations people connected to power**.

1. Require better reporting by energy retailers, and performance-based monitoring, to achieve meaningful reductions in disconnection events.
2. Adopt clearly defined energy hardship metrics, including an obligation for energy retailers to pro-actively identify and respond to customers in financial hardship.
3. Remove barriers that exclude prepayment customers from accessing, owning and enjoying the full benefits of consumer energy resources (including rooftop solar), energy efficiency and insulation upgrades, and community microgrids.
4. Implement measures to assist vulnerable people during extreme temperatures and other emergency events.
5. Implement national initiatives including a Priority Services Register that improves coordination of targeted support for prepayment and other vulnerable customers.
6. Remove mandated prepayment arrangements and provide prepayment customers with the same consumer protections and choice of energy services that non prepayment meter customers enjoy.

Further detail on the specific steps that should be implemented to reduce disconnections and improve energy security are detailed on pages 12 to 17.

Where and how prepayment operates

Prepayment arrangements are the standard arrangement - either by voluntary choice or as a default option - provided by State and Territory Governments in regions with significant First Nations' populations across the Northern Territory, Western Australia, Far North Queensland, and more recently, parts of South Australia[5]. In some cases, it is a mandated option, and it used to operate in Tasmania, which banned prepay in 2022[6].

Prepayment households pay upfront for access to power, and meters are designed to automatically de-energise the home once the household's credit

[5] Riley, B., Klerck, M., Markham, F., Longden, T., Napaltjari-Davis, V., Quilty, S., & Frank-Jupurrurla, J. (2025). The prepay "poverty premium": Perspective on Australia's Northern Territory prepayment tariff. Energy Research & Social Science, 127, 104189. https://doi.org/10.1016/j.erss.2025.104189

[6] Wilson, S. (2025). Disrupting household energy rights: Examining the policy origins of prepayment for electricity services in Australia. Energy Research & Social Science, 124, 104060. https://doi.org/10.1016/j.erss.2025.104060

expires. These disconnections are defined to be a 'self-disconnection' where an interruption to the supply of energy because a prepayment meter system has no credit (including emergency credit) available[7].

We use the term 'disconnection' as the term 'self-disconnection', misleadingly implies that households are making a voluntary choice to disconnect themselves[8]. Without an advanced warning of low credit, people will be unaware that a disconnection is about to occur.

Prepayment systems disconnect customers when credit runs out, placing the burden of staying connected and the risk of disconnection onto households. In Australia, prepayment for electricity has primarily emerged as a mandatory or default payment system applied to First Nations households in remote areas[9].

Despite the risk of harms from frequent and/or unexpected disconnections, prepayment remains an underexamined area within Australian energy policy and its use continues to be expanded by governments across Australian jurisdictions. While disconnection is a 'measure of last resort' in most parts of Australia, for prepayment customers disconnection is a regular event.

Impetus for the research

Access to energy is vital for safe and healthy homes. It is a prerequisite for participation in the modern economy and accessing services via phone and/or internet. Yet for over 15,000 households and approximately 65,000 First Nations energy customers across Australia, access to this essential service is through a prepayment metering system[10].

There are fundamental differences in the way that prepayment for electricity operates. Many retailers do not collate customer data, which means that payment difficulty and hardship support schemes do not get applied to prepayment customers. This includes cases where retailer domestic and family violence policies exclude prepayment customers due to the inability to identify customers. We also note that some schemes, such as the Home Energy Emergency Assistance Scheme, do not include prepayment customers as they do not receive electricity bills[11].

The implications for health and wellbeing are very significant. Disconnections in extreme and prolonged heat are life threatening public health events that must have policy responses to mitigate.

[7] AEMC, National Energy Retail Rules, Prepayment meter systems Rule 127 – Definitions: https://energy-rules.aemc.gov.au/nerr/437/203329
[8] Longden, T., Quilty, S., Riley, B., White, L. V., Klerck, M., Davis, V. N., & Frank Jupurrurla, N. (2022). Energy insecurity during temperature extremes in remote Australia. Nature Energy, 7(1), 43-54: rdcu.be/cDlYQ
[9] Wilson, S. (2025). Disrupting household energy rights: Examining the policy origins of prepayment for electricity services in Australia. Energy Research & Social Science, 124, 104060: https://doi.org/10.1016/j.erss.2025.104060
[10] Riley, B., Klerck, M., Markham, F., Longden, T., Napaltjari-Davis, V., Quilty, S., & Frank-Jupurrurla, J. (2025). The prepay "poverty premium": Perspective on Australia's Northern Territory prepayment tariff. Energy Research & Social Science, 127, 104189. https://doi.org/10.1016/j.erss.2025.104189
[11] Indigenous Consumer Assistance Network, submission to AER issues paper - https://www.aer.gov.au/system/files/2024-02/ICAN%20%20-%20Submission%20-%20Retail%20Guidelines%20review%20issues%20paper%20-%20Aug%202023.pdf

Research team

Original Power, in partnership with Western Sydney University, established a team of research partners and interviewers across Australia. Many other people provided advice via an Advocates Advisory Group.

Project co-leads:

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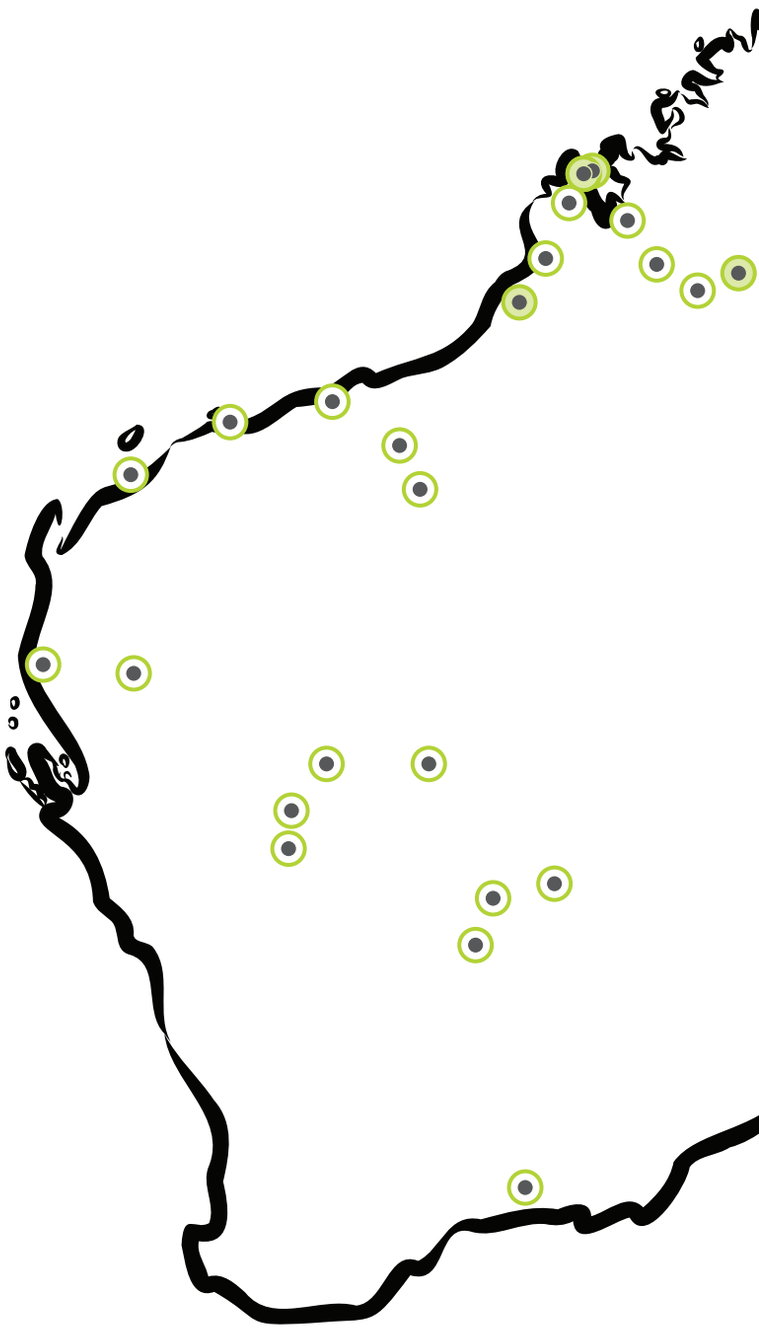

Cowell Electric

- Smart meter data and household surveys
- Smart meter data only

Ergon Energy*

- Community with card-operated meters
- Household surveys only

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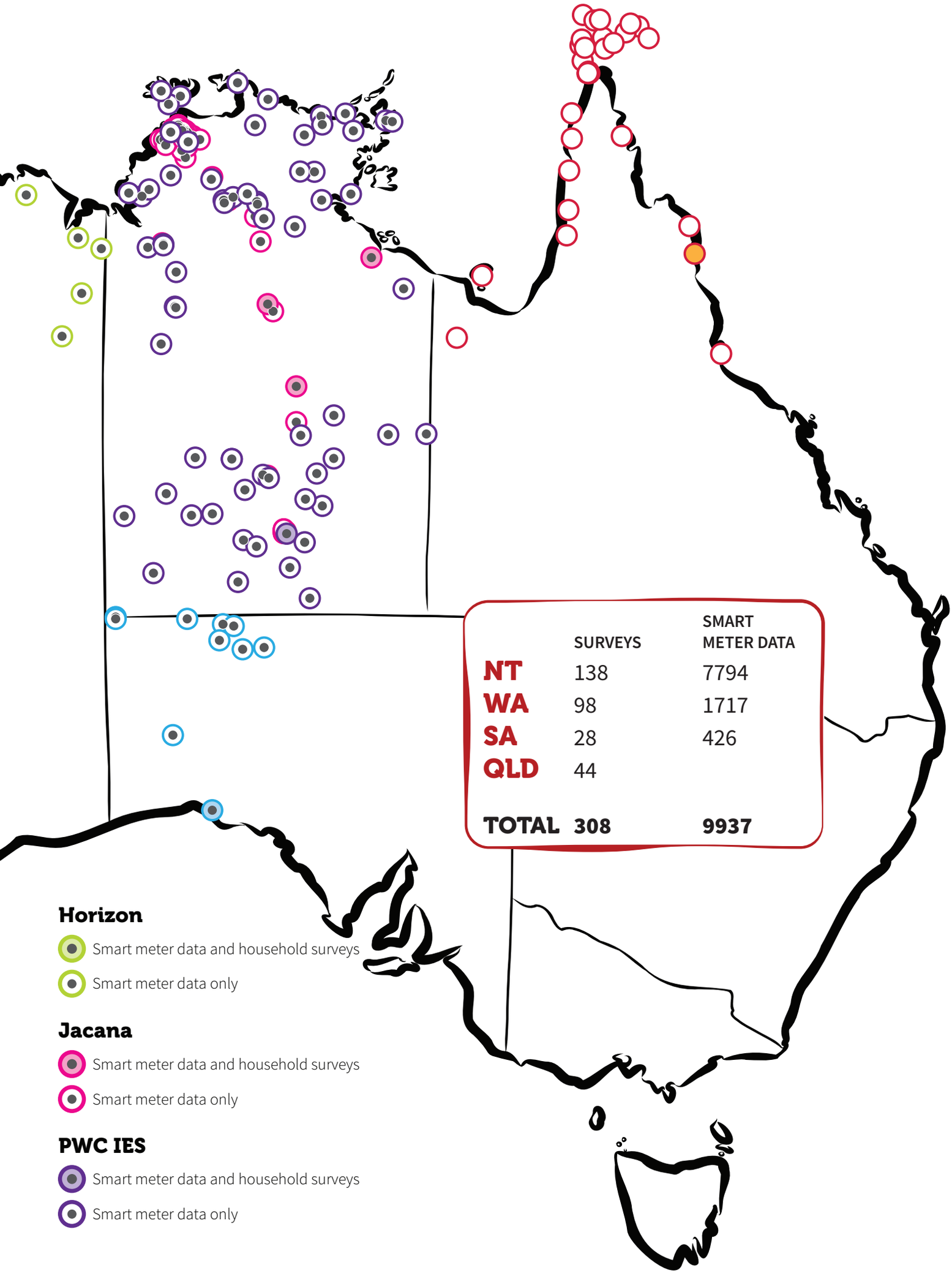
* Qld locations sourced from: White, L. V., Riley, B., Wilson, S., Markham, F., O'Neill, L., Klerck, M., & Davis, V. N. (2024). Geographies of regulatory disparity underlying Australia's energy transition. *Nature Energy*, 9(1), 92-105., https://doi.org/10.1038/s41560-023-01422-5.



	SURVEYS	SMART METER DATA
NT	138	7794
WA	98	1717
SA	28	426
QLD	44	
TOTAL	**308**	**9937**

Horizon

- Smart meter data and household surveys
- Smart meter data only

Jacana

- Smart meter data and household surveys
- Smart meter data only

PWC IES

- Smart meter data and household surveys
- Smart meter data only

Overview of research results

Research design

Energy Consumers Australia tasked us with improving energy sector understanding of the lived experience of First Nations households and communities using prepayment arrangements for electricity.

To do this, Original Power, in partnership with Western Sydney University, designed a project with three key elements:

1. Over **300 prepayment household surveys**,
2. Analysis of **household-level energy use, credit top up, and disconnection event data** provided by 4 of the 5 retailers,
3. **Service provider surveys with 32 participants from 13 organisations** that included interviews asking how retailers, government departments and other service provider organisations support people using prepayment.

Household surveys

Our interviewers asked prepayment households about the causes and impacts of running out of credit and disconnection events. Our research found that the loss of essential electricity supply has wide-ranging impacts for those affected. Most people were concerned that **disconnections meant that they were unable to safely store food (77%) and keep their house at a safe temperature during extreme hot/cold temperatures (73%)**.

The survey responses captured differences across regions and reflected how prepayment for electricity has been set up across Australia. For example, **most people still rely on in-store top ups** when recharging credit due to a lack of accessibility for functional apps or phone services. In Western Australia, many people (51%) used a phone app to top up but 74% topped up at a store. In the Northern Territory, 95% of people topped up credit at a store.

Across prepayment regions there was strong awareness of and support for solar programs to reduce household energy costs – **73% of participants believed that solar could support access to cheaper power**.

49% of participants wanted a notification or warning for the household before power runs out. 48% of participants mentioned lower costs as necessary to help them maintain access to electricity.

Households struggled to stay connected to power during hot days (56%) and cold nights (32%). Otherwise, waiting for payday (41%) and having visitors stay (33%) were times with a greater likelihood of disconnection.

Household smart meter data

By analysing smart meter data from 4 of the 5 Australian energy retailers offering prepayment services, we have built up a picture of electricity usage, expenditure, and disconnection events.

We found that for the last 12 months of data received, there were **over 440,000 disconnection events impacting 8,878 households**. For most customers, this equates to an average of 49 disconnections per year. On average, they last longer than 2 hours.

Using data for the NT, we found that **temperatures above 40°C are associated with significantly increased energy insecurity and disconnections**. Some regions were adversely affected by extreme cold, especially when households had inefficient heating appliances.

Affordability challenges were reported as a key driver of disconnections across all regions. In most regions, the **average expenditure on electricity was over $2,700 per year and 25% of households were spending more than $4,000 a year on energy**. These figures were similar across most regions, except for SA where the tariff is notably lower due to a large subsidy by the South Australian Government to support the introduction of charging for electricity.

The research also explores the effectiveness of concession payments and the National Energy Bill Relief initiative; we found that significant reductions in disconnections have occurred. For example, there were **significant decreases in the number of disconnections across all WA prepayment customers for 2 to 5 weeks after the National Energy Relief Payment and WA Top Up Energy Relief Payment**, which were both paid at the same time in 2023 and 2024.

However, in many parts of the Northern Territory, we found households are **not accessing concessions and rebates because of onerous proof of eligibility processes, difficulties navigating digital sign-ups and lack of coordination** between service providers such as Centrelink, health clinics and energy retailers to ensure people who were entitled to additional support could access it

Our analysis also calculates metrics for energy hardship relevant to prepayment customers. This includes computing the AMEC National Energy Retail Rules definition of payment difficulties. The analysis calculates this metric for the NT and WA for the first time. This is of great importance as these existing hardship metrics have not been validated using real-world data. **7%**

to 13% of customers have experienced payment difficulties using the current AEMC measure. But we note that future research is needed to assess the suitability of hardship measures.

Service provider surveys

Service provider surveys were carried out as online interviews with 30 people from 13 organisations including retailers and utilities, State and Territory government energy departmental staff, First Nations and financial counsellor organisations. Amongst these discussions we were able to confirm that:

- Some retailers do not collate customer data, which means that they **do not apply financial hardship and domestic violence policies to prepayment customers**,
- **Solar programs** applicable to prepayment customers (usually overlapping with First Nations and social housing tenancy arrangements) **restrict the amount of savings shared with customers**, with varying consumer benefit outcomes**,**
- **Protections and support** may be written on paper but aren't applied to customers. People need to pro-actively seek support and be able to navigate complex consumer support processes,
- In some regions **concessions are automatically applied** and **retailers are obligated to be proactive and identify hardship customers using disconnection data,**
- **Housing quality and appliance efficiency** are important – existing schemes need to be improved. Expediency of building houses should not be put ahead of quality.

Survey sites

Northern Territory 138 surveys
LOCATIONS: Amoongana, Borroloola, Marlinja, Tangentyere Town Camps, Tennant Creek
Western Australia Kimberley **98** surveys
LOCATIONS: Ardyaloon, Bidyadanga, Djarindjin, Fitzroy Crossing, Lombadina
Queensland 44 surveys
LOCATION: Wujal Wujal
South Australia 28 surveys
LOCATION: Yalata

Number of smart meters

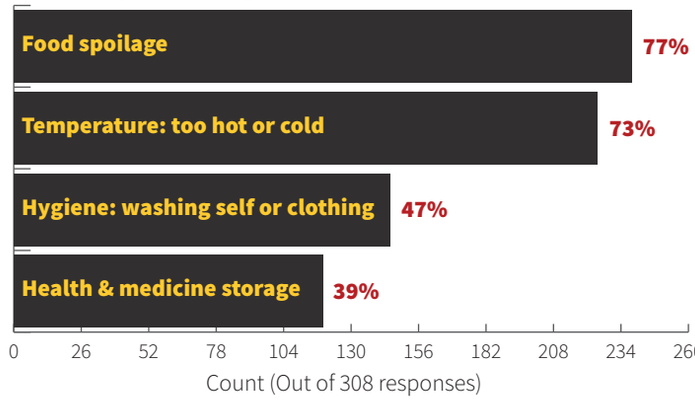
Most recent 12 months of data received:
South Australia 212
Western Australia 1,516
Northern Territory 7,150

Service provider surveys

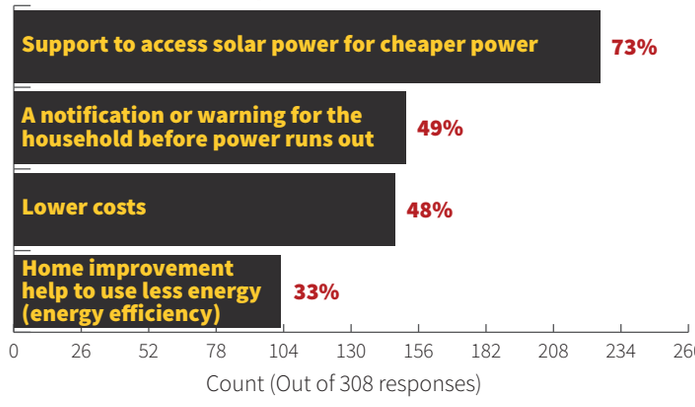
13 organisations that had representatives who participated in a one-on-one or group interview were:

- Australian Energy Market Commission
- Central Australian Women's Legal Service (CAWLS)
- Central Land Council
- Ergon Energy Retail
- Horizon Power
- Indigenous Essential Services
- Northern Territory Council of Social Service
- Northern Territory Legislative Assembly
- Power and Water Corporation
- Queensland Council of Social Service
- South Australia Council of Social Service
- South Australia Department for Energy and Mining (DEM)
- Yalata Anangu Aboriginal Corporation.

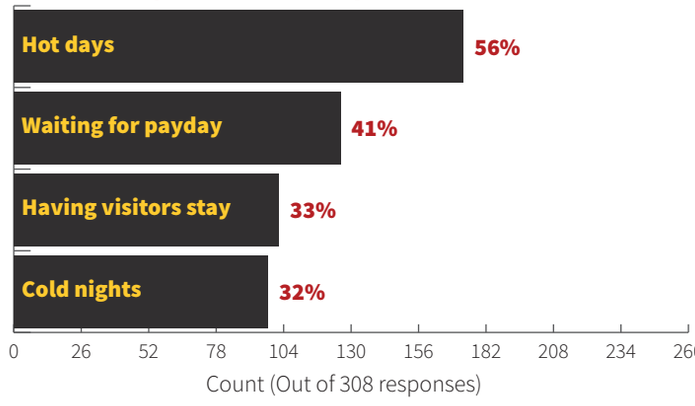
Impact of running out of credit & suffering de-energisation



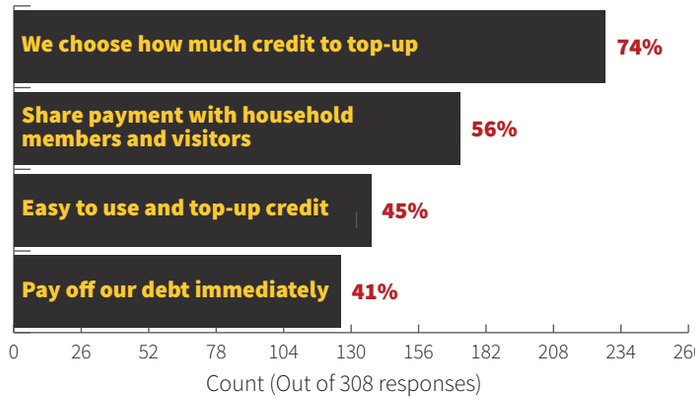
Changes to improve access to electricity



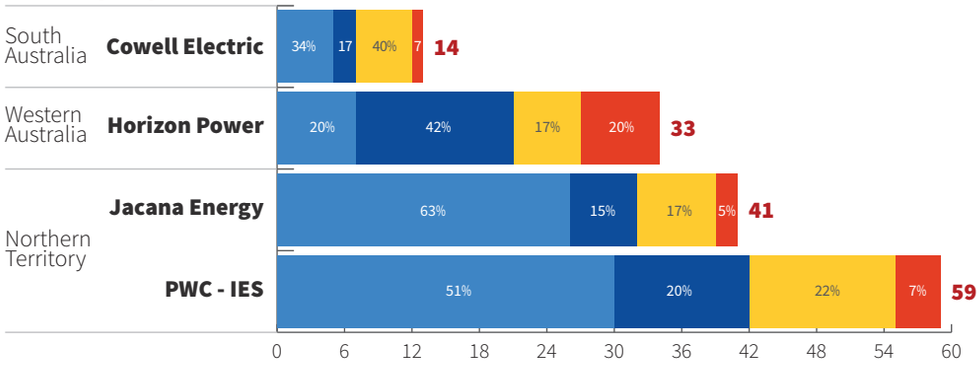
Times when households find it hard to stay connected to power



Features that people valued



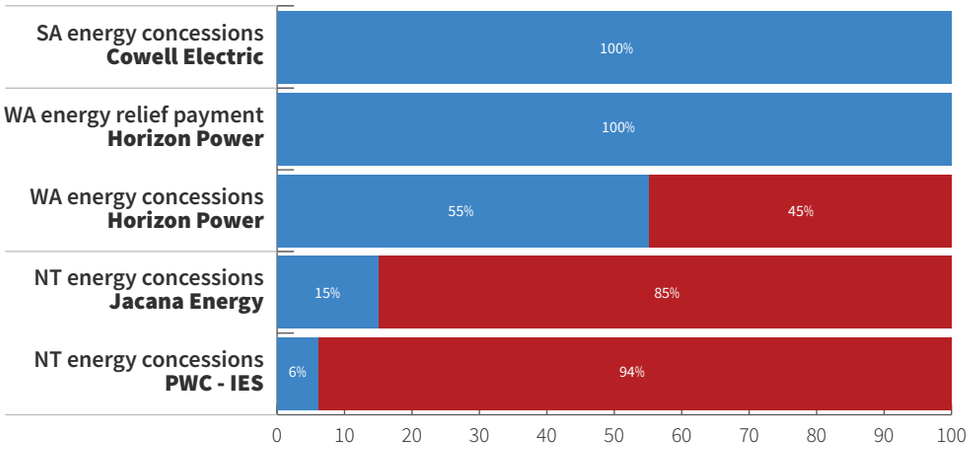
Average number of disconnection events per year



14-59 Disconnections per year

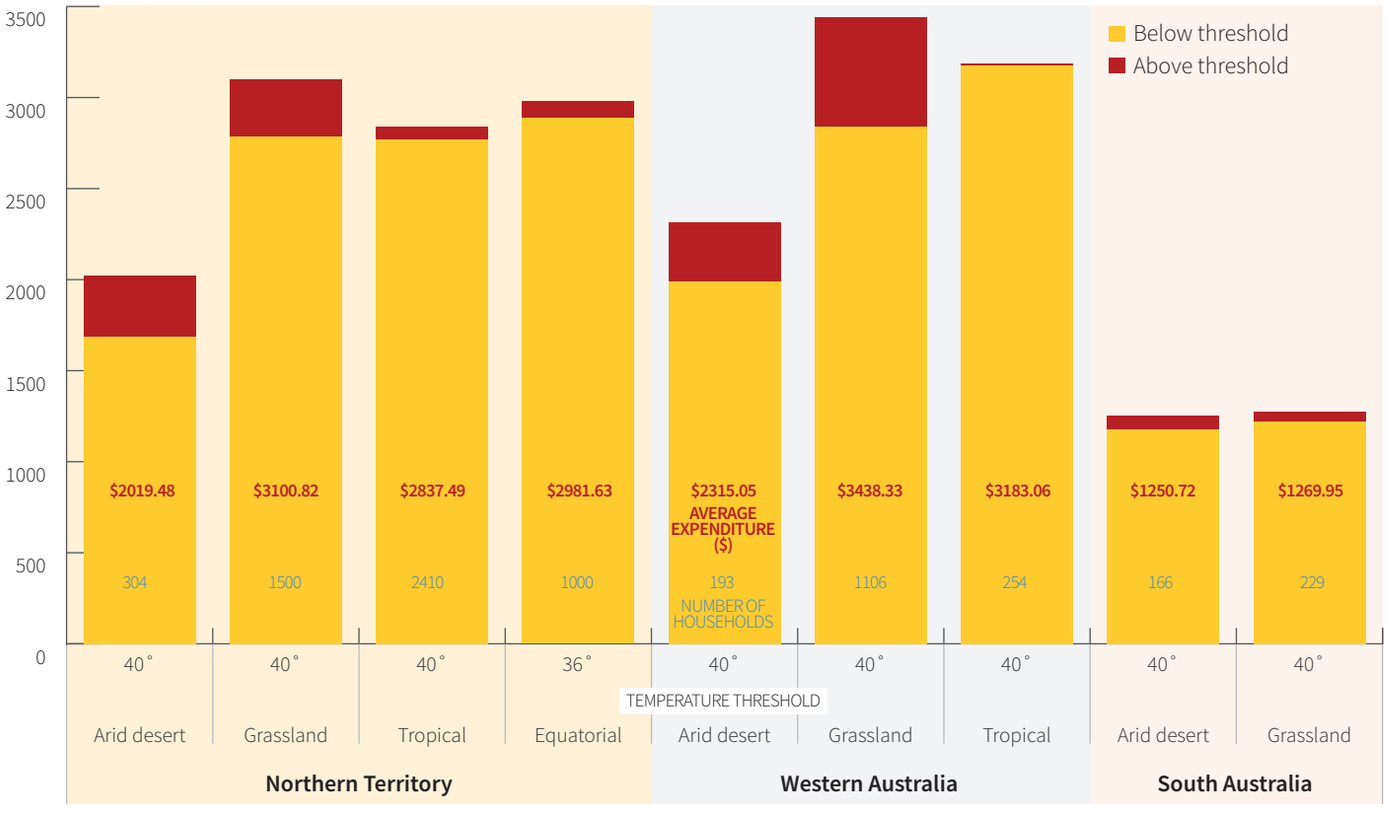
- Same day - less than 1 hr
- Same day - 1 to 2 hrs
- Same day - 2 hrs or more
- Multiple days

Households receiving State/Territory energy concessions



- Percent of households receiving State/Territory energy concessions
- Concessions gap - assuming concessions are universally applied

Average expenditure on electricity per year



Overview of recommendations

1) Mandate better reporting by retailers, performance-based monitoring and regulation to achieve meaningful reductions in disconnection events

a. Mandate reporting of prepayment disconnections (including frequency and duration) and other related events (such as the activation of friendly credit and emergency credit),
b. Set specific targets for disconnection reductions under Closing the Gap metrics – as part of an extension of Target 9b,
c. Remove any exemptions to the application of consistent retail performance reporting requirements across all licensed retailers delivering essential electricity services,
d. Set a lower tariff and extend the Energy Relief payments,
e. Increase the Remote Area Allowance at least in line with increases in retail power prices for prepayment customers.

Relevant agencies: 1a – AER, NT Utilities Commission, Energy WA, DEM SA, Energy QLD; 1b – Productivity Commission, NIAA; 1c - AER, NT Utilities Commission, Energy WA, DEM SA, Energy QLD; 1d – all governments, 1e – Productivity Commission, Services Australia.

Status or action needed

	Northern Territory	Queensland	Western Australia	South Australia	Federal Govt.
a	Disconnection - total and duration - **partially reported** to NT Utilities Commission	**Not reported**	Disconnection - total and duration - **reported** to WA ERA	Disconnections - total and duration - and other events – no. times friendly credit and emergency credit accessed - **reported** to ESCOSA	**Action needed** – ECMC to coordinate jurisdictional reporting and comparison to targets for reduced disconnections
b					**Action needed** - Target 9b not reported on; no other energy indicators
c	NEL - adopted with significant modification; NERL - not adopted; NER - adopted with significant modification; NEER - not adopted	NEL - adopted with some modification; NERL - adopted with some modification; NER - adopted; NEER - adopted with some modification	NEL; NERL; NER; NEER - not adopted	NEL - adopted; NERL - adopted; NER - adopted; NEER - adopted with some modification	**Action needed** - support greater adoption of retail performance measures
d	**33.08 cents/kWh** [12] (variable rate is higher than rate used for other customers)	**32.97 cents/kWh** [13]	**32.37 cents/kWh** (17.05 cents/kWh for communities transferred from Department of Communities) [14]	**10.00 cents/kWh** [15]	**Action needed** - extend the Energy Relief payments
e					**Action needed** - increase the Remote Area Allowance [16]

[12] Power Water - Pricing and tariffs effective from 1 July 2025: https://www.powerwater.com.au/customers/pricing-and-tariffs.
[13] Ergon Energy – Home electricity solutions: https://www.horizonpower.com.au/for-home/home-electricity-solutions/
[14] Horizon Power - Electricity fees & charges - Remote Communities: https://www.horizonpower.com.au/utilities/pricing/.
[15] SA DEM - Remote Area Energy Supply (RAES) - electricity tariffs: https://www.energymining.sa.gov.au/consumers/energy-grid-and-supply/remote-area-energy-supply/about-raes.
[16] We acknowledge broader efforts by the social service sector in Australia to secure an urgent increase to the remote area allowance to be at least in line with its loss in value over time through inflation and apply ongoing indexation that reflects remote prices, for example refer to https://www.acoss.org.au/wp-content/uploads/2024/07/Why-the-Remote-Area-Allowance-needs-to-increase.pdf

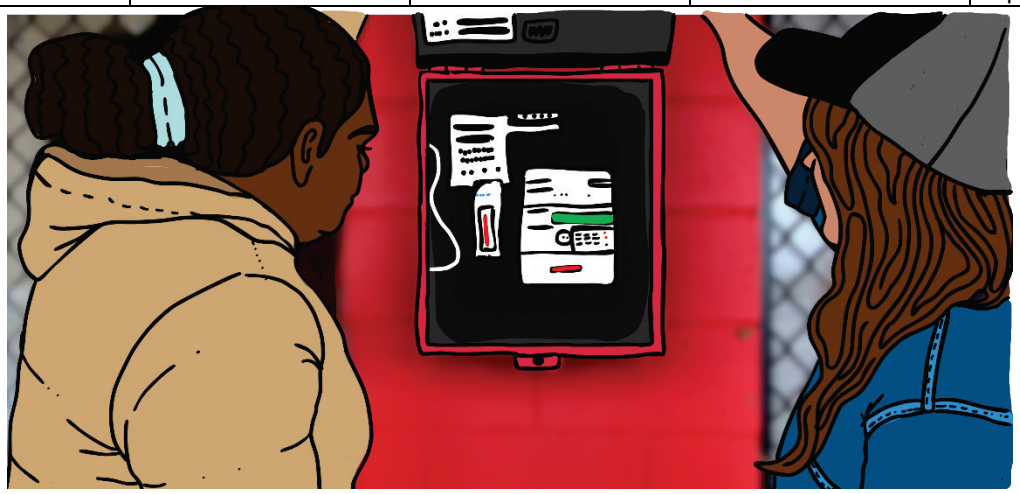
2) Clearly define energy and financial hardship metrics with an obligation for retailers to pro-actively identify and respond to customers in financial hardship

a. Implement a nationally applicable definition of energy and financial hardship for prepayment customers with requirements on retailers to pro-actively help those that meet criteria,
b. Retailers required to pro-actively respond to a customer identified using prepayment hardship metrics by enacting an equivalent financial hardship program to that of post-pay arrangements,
c. Ensure all prepayment customers have an associated customer profile (rather than identification by meter number) to facilitate access to programs and services. Also, an enabling action of Recommendation 5.

Relevant agencies: 2a – DCCEEW, AER, 2b – All retailers - Horizon, Jacana, Power and Water Corp, Ergon, Cowell Electric, reportable to retail licensing bodies; 2c – same as 2b, plus ECMC.

Status or action needed

	Northern Territory	Queensland	Western Australia	South Australia	Federal Govt.
a	**No explicit definition** - retailers use their own definition	**No explicit definition** - retailer use their own definition	WA ERA has a **definition**	ESCOSA Code has a **definition**	**Action needed** - workshop to set hardship measures for prepayment customers
B	Response depends on retailer policy	Response depends on retailer policy	Response depends on retailer policy	Specific procedure defined by ESCOSA	
C	**Some information** tracked for *concession status/payments*	**No association with customers** - identification by meter/card	**Some information** tracked for *concession status/payments*	**Some information** tracked for *direct debits and Centrepay, also hardship details are tracked*	**Action needed** - coordinate ECMC discussions to support the need for customer identification and enhance access to programs/services



3) Remove barriers excluding prepayment customers from accessing, owning and enjoying the full benefit of lower cost consumer energy resources, including rooftop solar, energy efficiency and insulation upgrades, and community microgrids

a. Invest in targeted programs, policy and regulatory reform to ensure equal access to ownership and benefit opportunities from lower cost renewable energy resources, including rooftop, energy efficiency, batteries and microgrid initiatives designed to improve affordability and reduce disconnections,
b. All government-led programs should aim to achieve measurable outcomes in energy affordability and reductions in disconnections,
c. Remove technical, structural and policy exclusions for grid-connection of renewable energy resources that enable prepayment customer and community benefit.

Relevant agencies: 3a – CEFC, ARENA, DCCEEW, Clean Energy Regulator; 3b – DCCEEW - FNCES objective. AER; 3c – All utilities, AEMC.

Status or action needed

	Northern Territory	Queensland	Western Australia	South Australia	Federal Govt.
a	**Action needed**	**Action needed**	**Action needed**	**Action needed**	**Action needed** - invest in targeted schemes that support well-designed programs, policy and regulatory reform
b	**Action needed** - there is no clear requirement	**Action needed** - there is no clear requirement	**Action needed** - there is no clear requirement	**Action needed** - there is no clear requirement	**Action needed** - there is no clear requirement
c	**Action needed**	**Action needed**	**Action needed**	**Action needed**	**Action needed**

4) Assist vulnerable people during extreme temperatures and other emergency events using programmable smart meter protections against disconnection and debt accrual

a. Implement an exemption from disconnection during extreme heat, as a programmable function of customer smart meters and avoids accrual of customer debt,
b. Targeted support for prepayment customer homes including energy efficiency, retrofitting and appliance replacement programs, e.g. re-fund and expand the Social Housing Energy Performance Initiative (SHEPI) and Energy Ahead programs,
c. Phase out inefficient heating and cooling appliances by requiring a minimum number of split system air conditioning units as standard per prepayment household.

Relevant agencies: 4a – DCCEEW, AER, all retailers; 4b – All State/Territory housing departments/ prepayment housing providers; 4c – All State/Territory housing departments/ housing providers.

Status or action needed

	Northern Territory	Queensland	Western Australia	South Australia	Federal Govt.
a	**Action needed**	**Action needed** - note that there is some support during cyclone events	**Action needed** - note that Horizon Power can apply a temporary moratorium on disconnections for the entire community during emergency scenario such as a weather event	**Action needed** - note that licensee must establish and maintain an 'extreme weather policy' by 1 July 2026	**Action needed** – implement extreme event and disaster resilience support program
b	Re-funding, improvements and **expansion needed**	Re-funding, improvements and **expansion needed**	Re-funding, improvements and **expansion needed**	Re-funding, improvements and **expansion needed**	Re-funding, improvements and **expansion needed**
c	**Action needed**	**Action needed**	**Action needed**	**Action needed**	**Action needed**

5) Implement national initiatives including a Priority Services Register that improves coordination of targeted support for prepayment and other vulnerable customers

a. Establish a National Priority Services Register as a way of tracking vulnerable people, including people with life support equipment and an evidence-based list of inclusions of health vulnerabilities, and assist with the automatic application of concessions and rebates,
b. Ensure that national initiatives, such as 'Better Energy Customer Experiences' and 'Improving the application of concessions to bills', are applied to prepayment customers,
c. Implement additional initiatives to close gap between energy concession eligibility and concessions received.

Relevant agencies: 5a – Services Australia, State/Territory health departments; 5b – Services Australia, DCCEEW and AEMC, 5c – all retailers and governments.

Status or action needed

	Northern Territory	Queensland	Western Australia	South Australia	Federal Govt.
a	**Action needed** - adopt the register and make it part of operations	**Action needed** - adopt the register and make it part of operations	**Action needed** - adopt the register and make it part of operations	**Action needed** - adopt the register and make it part of operations	**Action needed** - establish a Federal government coordinating body that can collect and share information across jurisdictions
b	**Action needed**	**Action needed**	**Action needed**	**Action needed**	**Action needed** - include prepayment households in BECE and require customer profiles for the application of concessions and rebates
c	**Action needed**	**Action needed**[17]	**Action needed**	**Concessions applied** to all residencies	**Additional support** to complement the 'Improving the application of concessions to bills' initiative

[17] We note that QCOSS has long advocated for the 'urgent need to improve the accessibility, eligibility and adequacy of concessions and rebates for pre-payment meter customers in remote communities' - QCOSS (2014) Empowering Remote Communities: Experiences of Aboriginal and Torres Strait Islander Customers Using Electricity Pre- Payment Meters in Queensland - https://ican.org.au/wp-content/uploads/2023/10/20140819_QCOSS-Report-on-Remote-PPM-Customers-Final.pdf

6) Remove mandated prepayment arrangements, apply standard consumer protections for prepayment customers and improve functionality of prepayment services to grant customers real choice of energy services

a. Ensure that all prepayment customers have the choice to move to post-pay or other billing arrangements thereby removing all mandated pre-payment arrangements,
b. Advanced warning when credit is low (below $10) via in-home displays, phone app, SMS, or via other means,
c. Ensure that there are different ways to top up, including ways for family to chuck in via Pay-ID for accounts, sharable swipe cards for top ups, and easier in-store top ups for customer and others,
d. Adopt features used in other jurisdictions, including an easy-to-use website portal, phone app, automated phone line, Centrepay, and other direct-debit options,
e. Customers should enjoy an equivalent level of regulatory protection, regardless of location, income or other circumstances, including alignment with Better Energy Customer Experiences (BECE).

Relevant agencies: 1a – AER, ACCC, DCCEEW; 1b – All retailers; 1c – All retailers; 6d – All retailers; 6e – AER, DCCEEW (BECE alignment).

Status or action needed

	Northern Territory	Queensland	Western Australia	South Australia	Federal Govt.
a	**Default option** – with a cost for switching	**Mandated**	**Most used option** - there is the possibility of switching	**Mandated**	**Support** for changes needed
b	**Action needed** - not currently provided	**Action needed** - not currently provided	**Action needed** - only available to people using the app	**Action needed** - not currently provided	**Support** for technological change and enhancements may be needed
c	**Action needed** - various improvements are possible	**Action needed** - various improvements are possible	**Action needed** - various improvements are possible	**Action needed** - various improvements are possible	**Support** for technological change and enhancements may be needed
d	**Action needed** - various improvements are possible	**Action needed** - various improvements are possible	**Most options provided**	**Most options provided**	**Support** for technological change and enhancements may be needed
e	**Action needed** - regulatory protection review and enhancements	**Action needed** - regulatory protection review and enhancements	**Action needed** - regulatory protection review and enhancements	**Continue** regulatory protection **review and enhancements**	**Action needed** - ensure that prepayment households are included in current/future programs and enhanced regulatory protections

Recommendations and the pathway forward

1) Require better reporting by energy retailers, performance-based monitoring and regulation to achieve meaningful reductions in disconnection events

a) Require reporting of prepayment disconnections (including frequency and duration) and other related events (such as the activation of friendly credit and emergency credit),

b) Set specific targets for disconnection reductions under Closing the Gap metrics – as part of an extension of Target 9b,

c) Remove any exemptions to the application of consistent retail performance reporting requirements across all licensed retailers delivering essential electricity services,

d) Set a lower tariff and extend the Energy Relief payments,

e) Increase the Remote Area Allowance in line with increases in retail power prices for prepayment customers.

Background

In the National Energy Retail Rules, there is a requirement that an energy retailer's meter system be capable of identifying every instance of disconnection and the duration of that disconnection[18]. Since these data should be collected, it should also be required that these data be shared with those communities and stakeholders. Note that the Partnership Agreement on Closing the Gap calls for the greater sharing of, and access to, data and information at a regional level[19].

Reporting of disconnection events differs across the country - in most regions there is a requirement to report these data but, in some regions, it is unreported or incomplete[20]. The challenges caused by the inadequate reporting of disconnection events extend to the Closing the Gap framework - the most important nationally endorsed mechanism for measuring progress towards

[18] AEMC - National Energy Retail Rules - Part 8 Prepayment meter systems, Rule 129 System requirements: https://energy-rules.aemc.gov.au/nerr/658/611713#129.
[19] Closing the Gap – Priority Reforms: https://www.closingthegap.gov.au/national-agreement/priority-reforms.
[20] Riley, B., Klerck, M., Markham, F., Longden, T., Napaltjari-Davis, V., Quilty, S., & Frank-Jupurrurla, J. (2025). The prepay "poverty premium": Perspective on Australia's Northern Territory prepayment tariff. Energy Research & Social Science, 127, 104189. https://doi.org/10.1016/j.erss.2025.104189

equity for First Nations people[21][22]. Target 9b within that framework cannot currently be measured - as confirmed by the Productivity Commission – because "there is no data source currently available which includes all required data elements"[23].

Context

We were able to access smart meter data for almost 10,000 customers across 4 of the 5 energy retailers using prepayment for electricity in Australia. Only one energy retailer refused our data request, i.e. Ergon Energy in Queensland. Despite this set back, we can provide an unprecedented snapshot of disconnection rates across the Northern Territory (NT), Western Australia (WA), and South Australia (SA).

In a single year, there were 440,434 disconnection events across 8,878 residences with most of these lasting less than a day (92%). There were 36,212 disconnection events that lasted overnight, i.e. across two or more calendar days.

The average number of disconnection events per customer ranges from 14 disconnections per year to 59 disconnections per year. Monitoring the number of disconnections per year will be an important part of tracking the overarching goal for prepayment reform, which is to **keep First Nations people connected to power** and reducing the rate of disconnections.

For those energy retailers that provided meter alert data, i.e. the two energy retailers in the NT, we were able to separate those disconnection events followed by credit top up and those with disconnection events where emergency credit is accessed. 36% to 56% of events were cases where emergency credit was accessed to reconnect. These could be preventable disconnections, especially if there are substantial enhancements in the provision of early notifications that credit is low **[Recommendation 6b]**.

[21] First Nations Clean Energy Network, Aboriginal Housing Northern Territory, ACOSS, AMSANT, Central Land Council, Darwin Community Legal Centre, Energy Consumers Australia, Justice and Equity Centre, NTShelter, NTCOSS, Original Power, and South Australia Financial Counsellors Association (2025) Joint Submission in response to the Northern Territory Utilities Commission Electricity Performance Code Review (June 2025) - https://www.firstnationscleanenergy.org.au/submission_nt_utilities_commission_electricity_performance_code_review_june_2025.

[22] Wilson, S, Riley, B, Klerck, M, Napaltjari-Davis, V & O'Neill, L (2024). Submission in response to the Utilities Commission of the Northern Territory's Review of the Electricity Industry Performance Code - Consultation paper - https://doi.org/10.13140/RG.2.2.33197.19689

[23] Productivity Commission – Closing the Gap Information Repository - Socio-economic outcome area 9: https://www.pc.gov.au/closing-the-gap-data/dashboard/se/outcome-area9.

Pathway forward

Energy retailers providing services to First Nations communities should be required to report on the data they collect, including disconnections (including frequency and duration) and other related events (such as the activation of friendly credit and emergency credit) **[Recommendation 1a]**.

The Closing the Gap framework provides both an accountability structure and national reporting platform through which energy security in remote First Nations communities could be tracked. We recommend that there are specific targets for disconnection reductions under Closing the Gap metrics – as part of an extension of Target 9b **[Recommendation 1b]**.

There should be no exemptions to retail performance requirements that only apply to prepayment customers **[Recommendation 1c]**.

Affordability was an issue raised during multiple stages of this project. Electricity tariffs for prepayment customers vary significantly from 10 cents/kWh to 34.00 cents/kWh. There are a few immediate changes that will help people stay connected:

- Set a lower tariff and extend the Energy Relief payments **[Recommendation 1d]**,
- Increase the Remote Area Allowance in line with increases in retail power prices for prepayment customers **[Recommendation 1e]**.

2) Clearly define energy and financial hardship metrics with an obligation for energy retailers to pro-actively identify and respond to customers in financial hardship

a) Implement a nationally applicable definition of energy and financial hardship for prepayment customers with requirements on retailers to pro-actively help those that meet criteria,

b) Retailers required to pro-actively respond to a customer identified using prepayment hardship metrics by enacting an equivalent financial hardship program to that of post-pay arrangements,

c) Ensure all prepayment customers have an associated customer profile (rather than identification by meter number) to facilitate access to programs and services. Also, an enabling action of Recommendation 5.

Background

There are varying requirements and practices that apply to addressing energy and financial hardship for prepayment

customers. But, in all jurisdictions there is mention of either support during times of payment difficulty or a requirement to have a hardship policy.

When a hardship program exists, it is typically triggered by a customer asking for help or when debt occurs. So, its real-world application is dependent on people knowing that they can contact their energy retailer to ask for help.

In some jurisdictions, the requirement to have a hardship policy has been implemented in recent years and energy retailers have been working on implementing such a scheme for prepayment customers. However, at the same time there has been a case where a retailer was granted a 2-year exemption from implementing a required hardship program[24] [25].

For post-payment customers, the Australian Energy Regulator is increasing the minimum disconnection amount from $300 to $500, which is an estimate of the average quarterly electricity bill[26]. This does not apply to prepayment customers and people will continue to be disconnected as soon as credit expires [subject to friendly/emergency credit].

Context

During the service provider surveys we were told that if a hardship program existed, then it was typically triggered by a customer asking for help. We were also told that even though a program may exist, how it gets utilised in practice is another matter. This was reflected in discussions with energy retailers.

While one energy retailer mentioned that they had plans to pro-actively identify and respond to customers in financial hardship; another energy retailer mentioned that their hardship program does not apply to prepayment customers as they don't know who the customer is, i.e. they see the meter and card top ups in the system but have no visibility of the customer.

In SA, it is clearly stated that the retailer must monitor customer disconnection rates and durations to identify customers who may be experiencing payment difficulties. Once a customer has self-

[24] NT Utilities Commission (2025) Register of Utilities Commission Code Exemptions - https://utilicom.nt.gov.au/__data/assets/pdf_file/0005/1552703/Register-of-Utilities-Commission-code-exemptions.pdf

[25] Wilson, S, Riley, B, Klerck, M, Napaltjari-Davis, V & O'Neill, L (2025) Supplementary submission in response to the Utilities Commission of the Northern Territory's 2024 Electricity Industry Performance Code Review – Draft decision - https://utilicom.nt.gov.au/__data/assets/pdf_file/0004/1557418/Researchers-Submission-2-Draft-Decision-2024-EIPC-Review.pdf

[26] AER (2025) AER is increasing the minimum disconnection amount from 1 July 2026: https://www.aer.gov.au/news/articles/communications/aer-increasing-minimum-disconnection-amount-1-july-2026

identified or been identified through monitoring of disconnections, the retailer must:

- make reasonable enquiries to identify the reason(s) for the self-disconnections
- provide information about, and a general description of, the standard terms and conditions options available to the prescribed customer,
- provide information about and referral to State Government assistance programs,
- provide current information on independent financial and other relevant counselling services, and
- provide general electricity efficiency advice and/or referral to an electricity efficiency advice service[27].

Even though there are metrics[28] [29] that aim to capture cases of financial hardship for prepayment customers, it is unclear how they were developed and whether they have been validated using real-World data. We compute the two metrics used in various applications. Using these metrics, the first would have classified 7% to 13% of customers as being in financial hardship. The second metric classified 22% to 50% of customers as being in financial hardship.

Pathway forward

There is a need for all energy retailers to pro-actively identify and respond to customers in financial hardship **[Recommendation 2]**. Except for SA, it is unclear whether retailers have this obligation, what should occur, and whether retailers are adhering to it. For example, the Northern Territory Electricity Retail Supply Code specifies that the retailer's hardship policy must contain "processes to identify prepayment meter customers experiencing payment difficulties due to hardship, including identification by the retailer and self-identification by a prepayment meter customer". But there is no metric for pro-active identification by the retailer. Also, the next clause (13.1.8) states that "the retailer may seek an exemption from the Commission from some or all of

[27] ESCOSA - Protections for Cowell Electric's Community Prepayment Customers: https://www.escosa.sa.gov.au/ArticleDocuments/22163/20250618-Electricity-ProtectionsCowellElectricCommunityPrepaymentCustomers-FactSheet.pdf.aspx?Embed=Y

[28] WA Economic Regulation Authority - Performance indicators and definitions handbook for electricity retailers - https://www.erawa.com.au/sites/default/files/24020/2024-Performance-indicators-and-definitions-handbook-for-electricity-retailers.PDF

[29] AEMC National Energy Retail Rules – Rule 141 Payment difficulties and hardship - Dealing with payment difficulties - https://energy-rules.aemc.gov.au/nerr/354/45371

the requirements of clause 13.1.7 in relation to those prepayment meter customers"[30].

We identified three steps that will be required to ensure that all hardship customers receive comparable support.

1. We should implement a nationally applicable definition of energy and financial hardship for prepayment customers with requirements on energy retailers to pro-actively provide assistance to those that meet criteria **[Recommendation 2a]**.
2. Energy retailers should be required to pro-actively respond to a customer identified using prepayment hardship metrics by enacting an equivalent financial hardship program to that of post-pay arrangements **[Recommendation 2b]**. These metrics should be validated using real-World data with regular review and enhancements over time.
3. Providing different types of support to customers will require knowing who lives where. To ensure all prepayment customers have access to programs, services and concession or rebate payments, then the energy retailer will need to have an associated customer profile that matches critical information to the meter **[Recommendation 2c]**.

Some energy retailers hold no customer information. Other retailers need to match customers and meter numbers on a case-by-case basis. In addition to these recommendations, the proposed customer profiles are an enabling action of **Recommendation 5**. These should be customer profiles, not customer accounts, so no one person is liable for the debt of a household. These profiles should contain information on who lives at a residence with a prepayment meter, such as concession status, life support equipment, and contact information.

[30] Utilities Commission of the Northern Territory - Northern Territory Electricity Retail Supply Code: https://utilicom.nt.gov.au/_resources/documents/codes-and-guidelines/2025/Electricity-Retail-Supply-Code-version-5-clean.pdf.

3) Remove barriers excluding prepayment customers from accessing, owning and enjoying the full benefit of lower cost consumer energy resources, including rooftop solar, energy efficiency and insulation upgrades, and community microgrids

a) Invest in targeted programs, policy and regulatory reform to ensure equal access to ownership and benefit opportunities from lower cost renewable energy resources, including rooftop, energy efficiency, batteries and microgrid initiatives designed to improve affordability and reduce disconnections,

b) All government-led programs should aim to achieve measurable outcomes in energy affordability and reductions in disconnections,

c) Remove technical, structural and policy exclusions for grid-connection of renewable energy resources that enable prepayment customer and community benefit.

Background

While Australia has recently led the world in solar energy uptake, First Nations communities are at risk of being left behind due to regulatory hurdles that communities are trying to overcome[31] [32].

Governments have been slow to tackle barriers and create the enabling regulatory, policy and commercial arrangements necessary for inclusion of First Nations and prepayment customers to access the benefits of lower cost renewable energy resources[33].

Remote First Nations communities also face several unique challenges in relation to electricity supply. These include:

- Geographic isolation and supply-side reliability issues.
- Restricted choices with regards to energy suppliers and products.
- Frequent household service disconnections due to the prevalence of prepayment meters.
- A large proportion of residents in urban and remote First Nations communities reside in social housing and are prevented from installing consumer energy resources, in addition to prohibitive upfront capital costs.

[31] Riley, B., White, L. V., Quilty, S., Longden, T., Frank-Jupurrurla, N., Morton Nabanunga, S., & Wilson, S. (2023). Connected: rooftop solar, prepay and reducing energy insecurity in remote Australia. Australian Geographer, 54(3), 325-346. https://doi.org/10.1080/00049182.2023.2214959

[32] Choice - Remote Aboriginal communities left behind in Australia's rooftop solar boom: https://www.choice.com.au/shopping/shopping-for-services/utilities/articles/remote-aboriginal-communities-left-behind-in-solar-boom

[33] Rioux-Gobeil, F., & Thomassin, A. (2024). A just energy transition for Indigenous peoples: From ideal deliberation to fairness in Canada and Australia. Energy Research & Social Science, 114. https://doi.org/10.1016/j.erss.2024.103593

- Uniform tariffs and Community Service Obligations prevent consideration of models of benefit sharing that would incentivise investment in community and consumer owned energy resources.

In most cases, a government-run utility has been set up as a monopoly to provide energy services to First Nations communities. While guaranteeing minimum service levels and allowing for heavily subsidised generation costs, this type of arrangement could place limits on options for communities to participate in the energy transition.

Emerging electricity market scenarios with greater solar and consumer energy resources will require a new way of delivering community energy partnerships and essential services in remote and First Nations communities.

Context

When interviewing people who live in remote communities across Australia, we found that there was strong awareness of and support for solar programs to reduce household energy costs – 78% of survey participants believed that solar could support access to cheaper power.

Most participants working for service providers said that they believed that solar panels and batteries were very important for helping to reduce the rate of self-disconnection events experienced by prepayment customers. These conversations then extended to the different ways that solar could be integrated into the system, community ownership and/or benefit sharing, the importance of batteries, and the need for a wider focus on housing quality and appliance efficiency.

In one case, we were told that additional financial support was needed to reduce the payback period for a government to back the business case of remote solar installations. This type of business case, i.e. one supported and scrutinised by multiple funders and community members, will need to account for the full range of benefits from reduced diesel consumption to local community benefit, which reduces disconnections.

Pathway forward

Investments in targeted programs, policy and regulatory reform are needed to ensure that First Nations communities gain access to ownership and benefit opportunities from lower cost renewable energy resources **[Recommendation 3a]**. Remote locations mean that people are isolated and there may be supply-side reliability issues. In addition to solar and battery programs, there needs to be more support for energy efficiency and appliance replacement schemes, such as those discussed during the service provider survey interviews.

Government programs that incorporate consumer energy resources, including rooftop solar, energy efficiency and insulation upgrades, and community microgrids should aim to achieve measurable outcomes in energy affordability and reductions in disconnections **[Recommendation 3b]**. These schemes should adopt our overarching goal for prepayment reform, consistent with wider recognition of energy as an essential service, which is to **keep First Nations people connected to power** by ensuring that no-one is disconnected due to inability to afford the energy they need. This should extend to housing programs as well.

An important part of enabling action is to remove technical, structural and policy exclusions for grid-connection of renewable energy resources, especially those that enable prepayment customer and community benefit **[Recommendation 3c]**.

Inclusive and effective renewable energy initiatives co-developed with State and Territory Governments, utilities and First Nations communities and consumers can achieve mutual benefit for all parties, including:

- Reducing energy bills,
- Reducing energy burden for vulnerable households,
- Reduce energy generation costs and the need for associated customer service obligations and subsidies,
- Reduce emissions across energy networks and housing stock,
- Provide training and employment to build skills in the trades necessary to implement and manage renewable energy assets.

Box 1 provides examples of renewable energy projects that have been set up with benefits for prepayment customers.

BOX 1 – RENEWABLE ENERGY COMBINED WITH PREPAYMENT SUPPLY ARRANGEMENTS

REMOTE AREA ENERGY SUPPLY PROGRAM, SOUTH AUSTRALIA.

The SA Government's Department of Mines and Energy's Remote Area Energy Supply Program (RAES) is one example of leading practice in renewable energy inclusion for prepayment customers. Under this program deployment of solar microgrids began in 2023 to communities in the APY Lands and Far West Coast alongside the introduction of prepayment supply arrangements in these regions.

These microgrid projects received matched funding by the SA Government and Federal Government's ARENA First Nations' microgrid funding stream.

Prepayment arrangements were introduced in South Australia with an introductory tariff of 10c per kilowatt hour, in recognition of the fact that residents had previously not been paying for power and were likely to experience significant supply disruptions in the adjustment phase to prepayment.

It was initially anticipated that the tariff would rise incrementally to match the standard domestic supply tariff for SA, however the SA Government has instead retained this reduced tariff, offering an important precedent for embedding community benefit in the design of a government-led decarbonisation strategy for remote and prepayment communities.

The RAES scheme will deliver 75% renewable energy penetration, significantly cutting emissions and improving system reliability. Importantly, community members will benefit from a long-term discounted electricity tariff of 10 cents per kilowatt hour indexed to inflation over the 20-year life of the asset, offering meaningful cost of living certainty and energy security.

The integration of renewable energy and battery storage into the microgrid significantly reduces the use of diesel in generation, bringing down supply costs. The project is also intended to deliver a range of community benefits, including land lease agreements, opportunities for local employment and procurement, tailored training programs and capacity-building programs designed to support long-term economic development and ensure communities are not only consulted, but actively involved in the operation and maintenance of their energy systems into the future.

The model delivers a broad, inclusive benefit while freeing up departmental resources for deeper engagement and delivery of the core energy projects and associated housing and energy efficiency upgrades. This administrative model also supports long-term affordability and energy equity in remote communities where cost of living pressures including food, rent and employment scarcity are particularly acute.

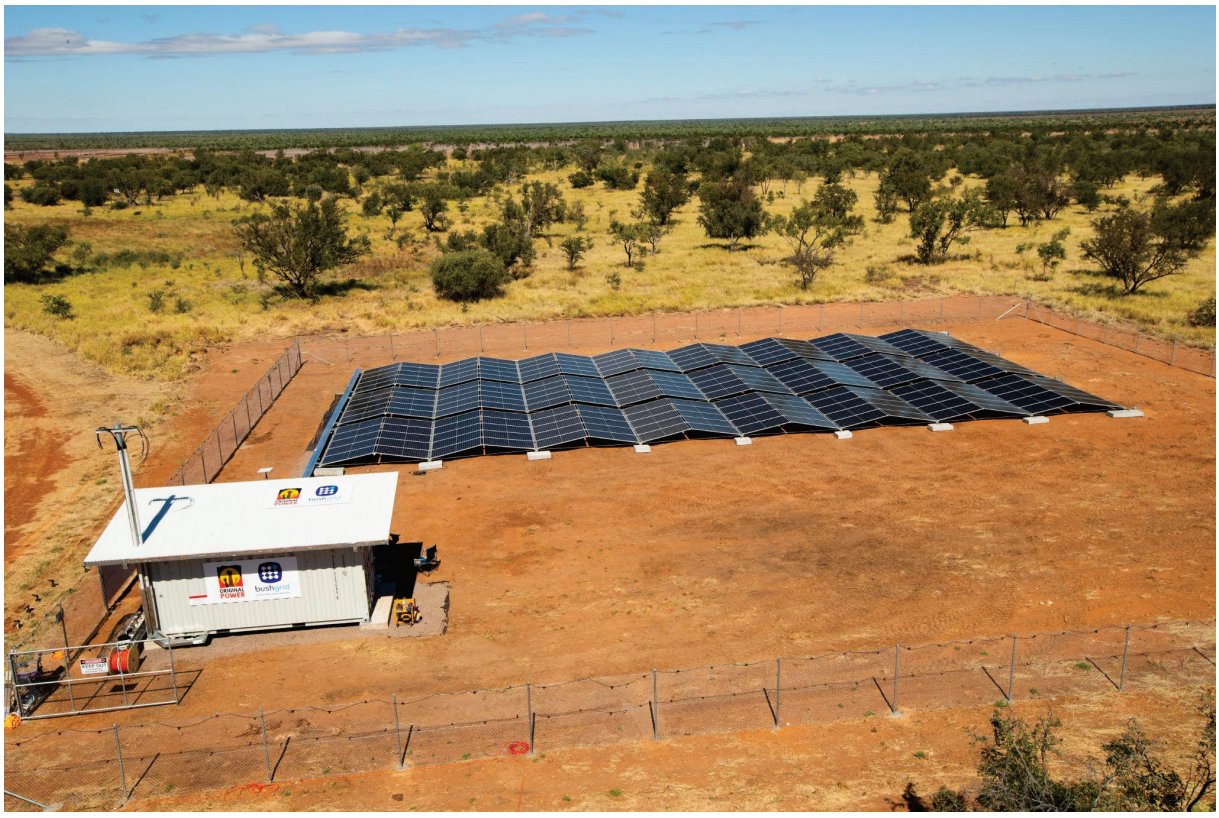
While the model explicitly acknowledges it doesn't significantly reduce the government electricity generation subsidy known as the Community Service Obligation (CSO), it ensures consistent, scalable benefits and supports a replicable design philosophy that can be adapted across future sites.

South Australia's approach demonstrates a strong model for prepayment supply arrangements combined with the benefits of lower cost, more reliable renewable energy supply for remote communities.

Together, these elements make a strong case for integrating reduced tariffs as a core pillar of community benefit in remote microgrid deployment. It also stacks up against all levels of government's expressed commitments to Closing The Gap targets and the four priority reforms (and the the UN Sustainable Development Goal 7 and the United Nations Declaration (UNDRIP 2007).

For more information, refer to ARENA **SA DEM Remote Area Energy Supply Project**: https://arena.gov.au/projects/sa-dem-remote-area-energy-supply-project/

MARLINJA SOLAR MICROGRID, NORTHERN TERRITORY



Marlinja is a small remote community of approximately 60 people, located on the traditional lands of the Mudburra and Jingili people in the Barkly region of the Northern Territory. In 2024 the Marlinja microgrid project became Australia's first First Nations' community-owned and grid-connected solar microgrid.

The project was first proposed by Marlinja residents in 2019 as a potential solution to regular household disconnections and network supply-side disruptions.

The Marlinja microgrid was built and commissioned in July 2024, and comprises 130kW of solar with a 136kWh BESS, connected to the nearby Elliott township electricity grid.

The project was delivered in partnership with First Nations' not for profit renewable energy development partner Original Power, and is owned by the Marlinja community. Its construction was financed primarily through philanthropic donations and generous industry partner contributions.

Innovation in Prepayment and Solar Integration

The project was designed to improve understanding of the regulatory and retail barriers to prepayment customer access to renewable energy, and to develop a scalable model for inclusion of prepayment arrangements in community renewables.

The success of the project relied on an innovative trial by Original Power in which rooftop solar was first integrated with a Liberty 120 prepayment meter to ensure interoperability of both meter and solar credit and consumption reads and the application of a feed-in-tariff.[34]

This trial project demonstrated that solar credit for prepay was a useful mechanism for delivering benefit directly to prepayment customers. In 2022 the project team developed a trial arrangement with NT Government retailer Jacana Energy and prepayment meter manufacturer Secure Meters to develop a 'credit upload' functionality that would allow direct crediting of household meters at a community-scale.

This feature underpinned the Marlinja microgrid project development, providing for the first time a way in which community investment in renewable energy could be deployed at a household prepayment level.

The innovation works through application of a fixed daily credit applied by the retailer to household meters, proportional to that produced at the community solar microgrid.

The commercials of the Marlinja microgrid system aim to replicate the benefits of direct consumption rooftop solar, in social housing and prepayment scenarios where consumer energy resources on homes are not permitted.

[34]Bradley Riley, Lee V. White, Simon Quilty, Thomas Longden, Norman Frank Jupurrurla, Serena Morton Nabanunga & Sally Wilson (2023) Connected: rooftop solar, prepay and reducing energy insecurity in remote Australia, Australian Geographer, 54:3, 325-346, DOI: 10.1080/00049182.2023.2214959

In the case of Marlinja the total value of the energy generated, less a modest servicing fee, is credited to a community meter. This is then disbursed as fixed amount weekly credits to all household prepay meters, proportional to that produced at the microgrid.

This arrangement retains existing retailer relationships to the community, and requires a periodic financial reconciliation process between the project owner and retailer to validate distributions, however the weekly application of credits to household meters is automated through the back end software in the meter.

The successful demonstration of this model of microgrid and prepayment meter integration shows for the first time that prepayment arrangements can be compatible with greater energy inclusion, opening up the possibility that, if more widely adopted, tens of thousands of First Nations energy customers could soon participate in the transition to lower cost, clean energy.

For more information, refer to these Original Power and First Nations Clean Energy Network links:
https://www.originalpower.org.au/marlinja_community_microgrid
https://www.firstnationscleanenergy.org.au/marlinja_microgrid

4) Assist vulnerable people during extreme temperatures and other emergency events using programmable smart meter protections against disconnection and debt accrual

a) Implement an exemption from disconnection during extreme heat, as a programmable function of customer smart meters and avoids accrual of customer debt,

b) Targeted support for prepayment customer homes including energy efficiency, retrofitting and appliance replacement programs, e.g. re-fund and expand the Social Housing Energy Performance Initiative (SHEPI) and Energy Ahead programs,

c) Phase out inefficient heating and cooling appliances by requiring a minimum number of split system air conditioning units as standard per prepayment household.

Background

Extreme heat events are high risk events for very young and older people. There is extensive health literature demonstrating that extreme temperatures increase mortality, including research from the Northern Territory[35]. Across the country, those living in hotter climate zones were 2.3 to 4.6 more times likely to die during extreme heat than those living in Sydney, Melbourne, Adelaide and surrounds[36].

There is also a clear association with health comorbidities, including kidney disease, mental health, cardiovascular hospitalisation and injuries[37]. Extreme heat can also contribute to declines in social cohesion, which in turn contributes to adverse health and social outcomes[38]. These vulnerabilities are well described in the health literature, and strategic approaches to identifying such vulnerabilities can reduce both the outcomes and the economic burden that they are associated with. There is a clear understanding that access to air-conditioned space is

[35] Quilty, S., Jupurrurla, N. F., Lal, A., Matthews, V., Gasparrini, A., Hope, P., Brearley, M. & Ebi, K. L. (2023). The relative value of sociocultural and infrastructural adaptations to heat in a very hot climate in northern Australia: a case time series of heat-associated mortality. The Lancet Planetary Health, 7(8), e684-e693. https://doi.org/10.1016/S2542-5196(23)00138-9

[36] Refer to median climate zone estimates in Table 2 Attributable fraction and reference temperature by regional aggregation in Longden, T. (2019) The impact of temperature on mortality across different climate zones. Climatic Change 157, 221–242. https://rdcu.be/eJYar - compares the hot humid summer, warm humid summer, and hot dry summer, mild winter climate zones with the warm summer, cold winter climate zone.

[37] Faurie, C., Varghese, B. M., Liu, J., & Bi, P. (2022). Association between high temperature and heatwaves with heat-related illnesses: a systematic review and meta-analysis. Science of the Total Environment, 852, 158332. https://doi.org/10.1016/j.scitotenv.2022.158332

[38] Wright M, Ansloos J, Sutherland S, Walker R and Bray A (2023) Climate change, social and emotional wellbeing, and suicide prevention, catalogue number IMH 023, AIHW, Australian Government. https://www.aihw.gov.au/reports/indigenous-mental-health-suicide-prevention/climate-change-social-and-emotional-wellbeing-and/abstract

protective[39], and it can be deduced that access to electricity is also highly important to protect people with health vulnerabilities.

Previous research has shown that prepayment households living in central Australia with high electricity use had a one in three chance of a same-day disconnection during very hot or very cold days[40].

Temperature-related disconnections are driven by an increased need for electricity to maintain thermal comfort and safety during extreme temperatures. These disconnections also compromise the other functioning of the home, including refrigeration, lighting and life support medical equipment, e.g., oxygen concentrators, sleep apnoea machines, home renal dialysis equipment. Extended exposure to extreme heat and cold raises concerns about the impacts on health.

There are several examples of policies that restrict energy disconnection or prevent other adverse events based on health risks and/or outdoor temperatures. These protections can include disconnection prohibitions based on the time of year, e.g. no disconnections during winter months in cold climates. For example, in France there is a winter truce (trêve hivernale) on tenant evictions that aims to reduce homelessness during the coldest periods of the year[41]. Protections also occur during reaching specific temperature thresholds or with a declaration of extreme weather events, including heat wave events [42].

Some of the relevant energy retailers do or will have policies for extreme weather events. Cowell Electric is now required to have an Extreme Weather Policy and needs to establish it by July 2026. Ergon Energy does provide emergency event power cards that stores can provide to customers in the lead up to cyclone events. Horizon Power can apply a temporary moratorium on disconnections for the entire community during emergency scenario such as a weather event.

[39] Barreca, A., Clay, K., Deschênes, O., Greenstone, M., & Shapiro, J. S. (2015). Convergence in adaptation to climate change: Evidence from high temperatures and mortality, 1900–2004. American Economic Review, 105(5), 247-251. https://www.jstor.org/stable/43821887

[40] Longden, T., Quilty, S., Riley, B., White, L. V., Klerck, M., Davis, V. N., & Frank Jupurrurla, N. (2022). Energy insecurity during temperature extremes in remote Australia. Nature Energy, 7(1), 43-54: rdcu.be/cDlYQ

[41] Verdict - The French winter truce began this week — it means the country's low income families can breathe easier: https://www.verdict.co.uk/winter-truce-france/?cf-view.

[42] Flaherty, M., Carley, S., & Konisky, D. M. (2020). Electric utility disconnection policy and vulnerable populations. The Electricity Journal, 33(10), 106859: https://doi.org/10.1016/j.tej.2020.106859

Extreme weather protections or policies – prepayment retailers

Retailer/ utility	Extreme weather protections	Notes
PWC – IES	Not mentioned.	
Jacana	Not mentioned.	
Ergon Energy	*We will not arrange for your premises to be disconnected during the following times (the protected period)— if you are being disconnected for a failure to pay, during an extreme weather event. Your premises may be disconnected within the protected period— if you self-disconnect*[43].	Does not apply to prepayment disconnections associated with no credit.
Cowell Electric	*The licensee must establish and maintain an 'extreme weather policy' to ensure customers have access to information, instructions and support about how customers can remain connected during extreme weather events and how to seek assistance if needed.* *The policy referred to in clause 4.1 must be applied when the licensee reasonably considers that a supply address is at risk of being without energy for a period of time in the lead up to or during extreme weather events, and/or could immediately endanger a residential customer's health and safety*[44].	Policy to be established by 1 July 2026.
Horizon Power	*During an emergency scenario such as a weather event (cyclones, floods, fires) where recharge operator locations may not be open or accessible, Horizon Power can apply a temporary moratorium on disconnections for the entire community*[45].	Debt accrued as emergency credit, which may exceed the normal emergency credit limit

Context

For most of the Northern Territory (NT), we find that there is a temperature threshold of 39.5°C where an increase in temperature-related disconnections become statistically significant. The threshold for the equatorial climate zone is 36°C. Above this temperature, the daily disconnection rate is substantially higher than days with moderate temperatures. For the grassland climate zone, which covers substantial parts of central Australia, there was also a notable increase in disconnections during cold temperatures. Similar results of notable heating needs were found for South Australia with these communities being impacted by both heat and cold extremes.

[43] Ergon Energy – Standard Retail Contract for card-operated meter customers in Queensland: https://www.ergon.com.au/__data/assets/pdf_file/0009/269964/Standard-retail-contract-for-card-operated-meter-customers-3-June-2025-V1.pdf.
[44] ESCOSA – Electricity Retail, Distribution and Generation Licence – Section 4 Extreme weather protections: https://www.escosa.sa.gov.au/ArticleDocuments/22163/20250527-Electricity-RetailGenerationDistributionVariationLicence-CowellElectricSupply.pdf.aspx?Embed=Y.
[45] Horizon Power - Prepaid power assistance – Moratoriums: https://www.horizonpower.com.au/for-home/home-electricity-solutions/prepaid-power/prepaid-power-assistance/.

In the NT household surveys, 84% of participants mentioned that experiencing hot or cold temperatures were an adverse impact of running out of credit and disconnecting from electricity supply. In the Western Australia (WA) surveys, which were completed in the Kimberley region, there were 64% of participants who mentioned experiencing hot or cold temperatures as an adverse impact. The same proportion of participants were concerned about the heat and cold in the Queensland (Qld) surveys conducted in Wujal Wujal.

Responses to the household survey from people living in the Tangentyere Town Camps surrounding Alice Springs did raise cold temperatures and the need for improved heating as a concern.

Pathway forward

Recommendation 4 is to assist vulnerable people during extreme temperatures and other emergency events using programmable smart meter protections against disconnection and debt accrual. While we focus on heat, other extreme events should also be part of this initiative. During the project, cold weather, high humidity, cyclones, flooding, and telecommunication outage events were mentioned as times when people needed assistance.

To assist people during extreme events, there needs to be an exemption from disconnection during extreme heat, which should be implemented as a programmable function of customer smart meters and avoids accrual of customer debt **[Recommendation 4a]**.

Using smart meter data, we were able to estimate the relationship between daily maximum temperatures and the daily disconnection rate. This analysis provided threshold temperatures for the key climate zones – either 40°C or 36°C – refer to the Household smart meter data analysis section for further details.

Since credit top and electricity use data was also available, we have calculated the expenditure on electricity on days with extreme heat events. Box 2 explains how this provides an indicative range of the upper end cost of implementing an exemption from disconnections. Total annual expenditure on electricity during days with extreme heat was $1,575,986 for prepayment households across the Northern Territory, Western Australia and South Australia. Data for Queensland was unavailable. This calculation used the total amount of electricity consumed on the days where the maximum temperature was

above 40°C (or 36°C for the equatorial climate zone). This expenditure was 95% of the amount spent on the National Energy Bill Relief Fund (EBRF) for the same period.

It should be noted that this assistance would have been provided more often in hotter areas. Most expenditure during hot days above 40°C occurred in the grassland area climate zone (72%), followed by the arid desert climate zone (11%) and the tropical climate zone (10%). For equatorial climate zones, a comparable support mechanism would use 36°C as a temperature threshold, which corresponds with 6% of the expenditure total presented in Box 2.

It should be reiterated that this scheme will need to be extended to other extreme events as cold weather, high humidity, cyclones, flooding, and telecommunication outage events. These were discussed as critical events where assistance is needed.

In addition to reducing the impacts of extreme heat via an exemption from disconnection, there needs to be targeted support for prepayment customer homes that focuses on energy efficiency, retrofitting and appliance replacement programs, such as the Social Housing Energy Performance Initiative (SHEPI) program and the Energy Ahead program **[Recommendation 4b]**.

Inefficient heating and cooling appliances were discussed numerous times, either during household surveys, service provider surveys, and different stages of engagement or project design. There is a need to phase out inefficient heating and cooling appliances by requiring a minimum number of split system air conditioning units as standard per prepayment household **[Recommendation 4c]**. This needs to be coupled with other initiatives to ensure that energy affordability is also addressed - refer to **Recommendation 1d**, **Recommendation 3** and **Recommendation 4b**.

BOX 2 – EXPENDITURE DURING EXTREME HEAT EVENTS

There are a range of ways that reimbursement during extreme events could occur. Here we focus on the amount of credit top ups and the total expenditure that occurred during extreme heat days, as defined using the thresholds estimated later in the report. These expenditures provide an indicative range of the upper end cost of implementing an exemption from disconnections during extreme heat days across the Northern Territory, Western Australia and South Australia. We were not provided data for Queensland customers, so were unable to calculate the equivalent numbers. These calculations also utilise the data described in the 'Household smart meter data' section'.

The total annual expenditure on electricity during days with extreme heat was $1,575,986. This calculation used the total amount of electricity consumed on the days where the maximum temperature was above 40°C (or 36°C for equatorial climate zone). The amount of credit top ups that occurred during these extreme heat days was $1,019,159. The expenditure on electricity during extreme heat days are shown in the table below. This includes the numbers for credit top up and daily expenditure during extreme heat days.

On the next page, the percentage of expenditure during extreme heat events are shown as a percent of annual expenditure. We also provide detail on expenditure during extreme heat as a percent of the payments these households received under the National Energy Bill Relief Fund (EBRF).

There is notable variance in expenditure by climate zone, which is expected based on the exposure to extreme heat. Overall, expenditure on electricity during extreme heat is 7.6% of total annual expenditure across prepayment households in the Northern Territory, Western Australia and South Australia. These expenditure estimates are 95% of the amount spent on the National Energy Bill Relief Fund (EBRF) for the same period.

Expenditure on electricity during days above 40°C or 36°C by climate zone

State/Territory	Total by Region		Climate Zone	Temperature threshold	Total by Zone		Time period
	Based on credit top ups	Based on daily expenditure			Based on credit top ups	Based on daily expenditure	
Northern Territory	$415,823	$828,585	Arid desert	40°C	$105,602	$100,987	Jan to Dec 2024
			Grassland	40°C	$201,967	$469,580	
			Tropical	40°C	$43,947	$163,044	
			Equatorial	36°C	$64,307	$94,974	
Western Australia	$571,983	$723,838	Arid desert	40°C	$69,320	$62,737	Jan to Dec 2024
			Grassland	40°C	$500,990	$659,371	
			Tropical	40°C	$1,673	$1,730	
South Australia	$31,353	$23,563	Arid desert	40°C	$18,487	$12,336	Apr 2024 to Mar 2025
			Grassland	40°C	$12,867	$11,227	
All regions	$1,019,159	$1,575,986					Various

Expenditure on electricity during extremes as a percent of total expenditure

State/Territory	Climate Zone	Expenditure by Zone			Number of households	National Energy Relief Payments (NERP)	Daily expenditure during extreme heat as a percent of National Energy Relief Payment (NERP)
		Daily expenditure above threshold	Total expenditure	Percent of expenditure			
Northern Territory	Arid desert	$100,987	$613,922	16.4%	304	$1,041,347	80%
	Grassland	$469,580	$4,649,969	10.1%	1500		
	Tropical	$163,044	$6,832,822	2.4%	2410		
	Equatorial	$94,974	$2,981,630	3.2%	1000		
Western Australia	Arid desert	$62,737	$446,804	14.0%	193	$536,800	135%
	Grassland	$659,371	$3,802,793	17.3%	1106		
	Tropical	$1,730	$808,497	0.2%	254		
South Australia	Arid desert	$12,336	$203,019	6.1%	166	$85,800	27%
	Grassland	$11,227	$290,819	3.9%	229		
All regions		$1,575,986	$20,630,275	7.6%	7162	$1,663,947	95%

Actual reimbursement will differ based on how the system is set up and the intensity of heat during the subsequent summers. Other extreme events, such as flooding and cyclones, should also be incorporated into a scheme that supports exemptions from disconnection during extreme events.

Reimbursement approaches could be based on:
- aggregate expenditure on that day (as shown here),
- estimates of the difference in energy consumption during a moderate and extreme heat day, or
- expenditure during a 12-hour window where disconnections cannot occur during daylight hours.

These last two approaches would involve reimbursement amounts lower than the amounts shown in the tables provided. We note that variations will also occur based on the incidence of extreme events in coming years.

For more information on the analysis that provided the threshold temperatures for the key climate zones – either 40°C or 36°C – refer to the 'Household smart meter data analysis section' for further details. This includes detail on the data set that was used to calculate these expenditure and credit top up numbers.

5) Implement national initiatives including a Priority Services Register that improves coordination of targeted support for prepayment and other vulnerable customers

a) Establish a National Priority Services Register as a way of tracking vulnerable people, including people with life support equipment and an evidence-based list of inclusions of health vulnerabilities, and assist with the automatic application of concessions and rebates,

b) Ensure that national initiatives, such as 'Better Energy Customer Experiences' and 'Improving the application of concessions to bills', are applied to prepayment customers,

c) Implement additional initiatives to close gap between energy concession eligibility and concessions received.

Background

In practice, prepayment customers in remote areas face practical challenges associated with registering for life support equipment programs or protections[46]. This also extends to applying for concession payments associated with energy relief when a retailer is required to verify concession status. The application of concessions and rebates differs across the country. The uptake gap between energy concession eligibility and concessions received has been estimated to be between 7% and 41% in National Energy Market regions[47]. The gap is likely to be much larger in prepayment for electricity communities.

Context

While we find that the National Energy Relief payment has been widely applied, the requirement to register and/or renew concession status means that there were notable differences in State/Territory concessions and rebates received by prepayment customers. In one region (SA), there is automatic application of State concession payments. In other regions, verification of concession is needed. In one case, annual confirmation is needed and this means that very few people receive the energy concession payments.

One of the last questions in the household survey asked people whether they were aware or received help from the State/Territory concession and/or rebate schemes. Knowledge of these schemes was extremely low across all regions.

[46] White, L. V., Riley, B., Wilson, S., Markham, F., O'Neill, L., Klerck, M., & Davis, V. N. (2024) Geographies of regulatory disparity underlying Australia's energy transition. Nature Energy 9(1), 92–105.https://doi.org/10.1038/s41560-023-01422-5

[47] Consumer Policy Research Centre - Mind the Gap report: https://cprc.org.au/report/mind-the-gap/

Pathway forward

We propose that the Federal Government establish a National Priority Services Register as a way of tracking vulnerable people, including people with life support equipment **[Recommendation 5a]**, and assist with the automatic application of concession payments and rebate **[Recommendation 5b]**. This should improve upon the example provided by the UK PSR (refer to Box 3) by implementing four complementary initiatives:

1. The establishment of a national co-ordinating body that has access to information from Services Australia and State/Territory Departments of Health, which can be classified into categories relevant to a PSR and associated schemes, including concession status.
2. This coordinating body should also be tasked with enabling the automatic application of concessions to bills (refer to Box 3).
3. This initiative needs to develop an evidence-based list of inclusions of health vulnerabilities, which is publicly available and accessible to customers, energy retailers, and healthcare and other interested service providers.
4. A new requirement that energy retailers collate and maintain customer profiles, which is **Recommendation 2c**, and a crucial step to ensure that this and various schemes are applied to prepayment customers.

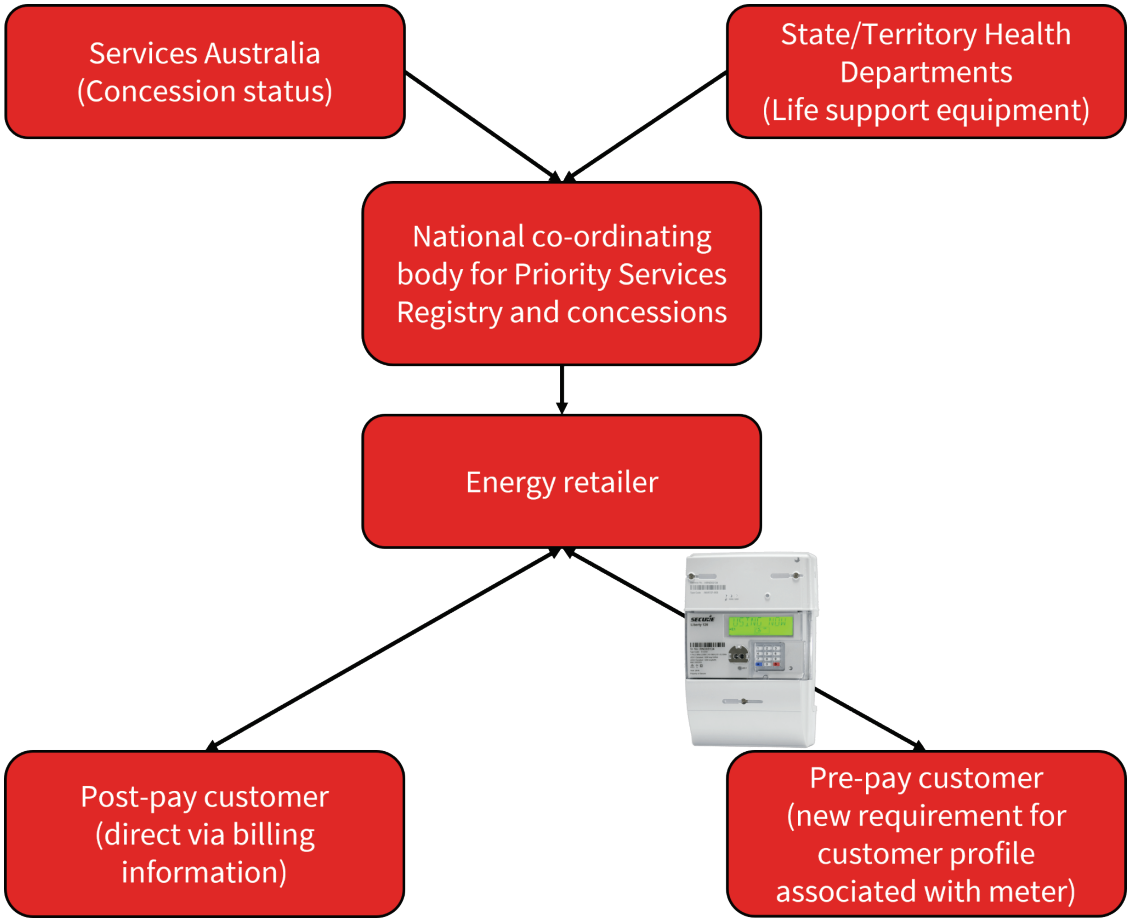
Below is an example of data flows between these parties and how they apply to examples relevant to post-pay and pre-pay customers. Other data could be added, but here we focus on concession status (with Services Australia as the data custodian) and use life support equipment as an example (with State/Territory Departments of Health as the data custodian).

A national coordinating body that manages the PSR and data sharing means that:

- it will no longer be left to customers to keep their information up to date each year (as some schemes now require),
- the uptake gap between energy concession eligibility and concessions will be minimised in all participating regions,
- data security and data sharing agreements can be established using best-practice methods that adhere to

the Office of the National Data Commissioner DATA Scheme[48].

Data flows between parties adopting a National Priority Services Register



All relevant national initiatives should be applied to prepayment customers. Two crucial and contemporary examples are noted in **Recommendation 5b**:

- The Better Energy Customer Experiences (BECE) framework[49] offers an opportunity for coordinated policy reforms that prioritise equitable outcomes for First Nations households.
- Improving the application of concessions to bills is a highly relevant Australian Energy Market Commission (AEMC) draft retail rule change[50].

[48] ONDC - Data Sharing Agreements Guidance note 2025:2 : https://www.datacommissioner.gov.au/data-sharing-agreements
[49] DCCEEW - Better Energy Customer Experiences: https://consult.dcceew.gov.au/better-energy-customer-experiences
[50] AEMC - Improving the application of concessions to bills: https://www.aemc.gov.au/rule-changes/improving-application-concessions-bills

As explained in the Better Energy Customer Experiences section, coordinated policy reform should include:

- A holistic review of applicable State and Territory regulatory regimes to identify gaps and inconsistencies in consumer rights, protections and public reporting of energy performance metrics including for remote communities,
- Adoption of uniform rights and protections for household energy access across relevant State and Territory frameworks equivalent to those available through the evolving NECF and designed to serve the needs and priorities of First Nations households in accessing essential services,
- Adoption of uniform requirements for public retail performance reporting based on a standard set of energy metrics across relevant State and Territory frameworks with AER performance indicators used as the relevant benchmark,
- A coordinated and consistent approach to reforms across jurisdictions based on partnership and co-ordination between governments, utilities, regulators and First Nations organisations,
- A clear timeframe and agenda for implementing reforms.

BOX 3 – HOW THE PRIORITY SERVICES REGISTER (PSR) WORKS IN THE UK

In the United Kingdom, energy suppliers and network operators are required to keep a Priority Services Register.

People can ask to join their supplier or network operator's Priority Services Register if they:

- have reached state pension age,
- are pregnant, or have young children,
- struggle with speaking or reading English.

They can also join if the person is living with a disability or a long-term medical condition, including:

- mental health conditions,
- conditions affecting your sight, hearing or sense of smell,
- conditions that mean you need to use medical equipment that requires a power supply.

Help may also be available if people's circumstances have recently changed, for example if you:

- are recovering from an injury, or need support after a stay in hospital,
- have been bereaved,
- have lost your job.

People who join the PSR, should receive support that includes:

- priority support in an emergency,
- wherever possible, advanced notice of scheduled power cuts,
- an identification and password scheme if someone needs to visit or contact you, helping you feel confident they are genuine,
- the ability to nominate someone to receive communications and bills from your supplier, for example a family member, carer or someone you trust,
- the chance to move your prepayment meter if you can't safely get to it to top up,
- regular meter reading services,
- account info and bills in large print or braille,
- assistance reconnecting your gas supply, if needed.

For more information, refer to ofgem: https://www.ofgem.gov.uk/join-your-suppliers-priority-services-register

BOX 4 – IMPROVING THE APPLICATION OF CONCESSIONS TO BILLS – AUSTRALIAN ENERGY MARKET COMMISSION (AEMC) DRAFT RETAIL RULE CHANGE

An important Australian Energy Regulator (AER) recommendation from the Game Changer package of reforms was to reduce or remove the requirement for customers to provide their eligibility information to energy retailers, and instead for systems to allow for concessions and rebates to be applied automatically.

In the draft determination on 'Improving the application of concessions to bills' a series of actions included:

- Jurisdictions - to work towards harmonising concession application requirements.
- AER - to develop guidance for energy retailers on communicating with customers about concessions and update the Better Bills Guideline and Exempt Selling Guideline to increase information provision to customers.
- Services Australia - with the support of jurisdictions, to provide more detailed, jurisdiction-specific information about concessions to customers when they receive new or updated concession cards.
- Energy retailers - to streamline how customers add concession details to their account.
- DCCEEW - to facilitate the establishment of a cross-agency forum with Jurisdictions, Services Australia and energy retailers to collaboratively address other barriers to concession access, in particular verification challenges and other process barriers.

For more information, refer to: https://www.aemc.gov.au/rule-changes/improving-application-concessions-bills

6) Remove mandated prepayment arrangements, apply standard consumer protections for prepayment customers and improve functionality of prepayment services to grant customers real choice of energy services

a) Ensure that all prepayment customers have the choice to move to post-pay or other billing arrangements thereby removing all mandated pre-payment arrangements,

b) Advanced warning when credit is low (below $10) via in-home displays, phone app, SMS, or via other means,

c) Ensure that there are different ways to top up, including ways for family to chuck in via Pay-ID for accounts, sharable swipe cards for top ups, and easier in-store top ups for customer and others,

d) Adopt features used in other jurisdictions, including an easy-to-use website portal, phone app, automated phone line, Centrepay, and other direct-debit options,

e) Customers should enjoy an equivalent level of regulatory protection, regardless of location, income or other circumstances, including alignment with Better Energy Customer Experiences (BECE).

Background

Most Australians enjoy the benefits of highly developed electricity systems that are designed to protect the long-term interests of households in terms of safety, reliability, price and emissions.

As an essential service, the regulatory and policy settings governing these systems have been continually adapted to meet households' evolving needs, including through the introduction of arrangements to provide customers with choice (including a range of service providers and products), the ability to leverage new technologies such as smart meters and consumer energy resources, whilst also ensuring adequate protections are in place.

Remote First Nations communities, the subject of this report and recommendations, represent a segment of society that has not benefited from these regulatory and policy developments to the same extent as other Australians.

Households in these remote communities are typically not covered by - and therefore do not benefit from - the framework of regulation and policy that applies to urban and regional customers. This includes exclusion from much of the policy and regulation specifically designed to guide Australia's energy transition, including consumers' role in it.

For prepayment customers other challenges arise when it comes to topping up credit. Due to remoteness, topping up on credit can be difficult - residents might be required to travel long distances to the nearest retail outlet. If residents lack access to transportation, and if retail outlets are only open during business hours, weekdays; or if they run out of power cards, purchasing credit once a disconnection occurs can become impossible. Similarly, and even if online top up options are available, difficulties arising from internet connectivity can also cause challenges in topping up credit online.

Context

The survey responses captured differences across regions and reflected how prepayment for electricity has been set up across Australia. Most people still rely on in-store top ups due to a lack of accessibility for functional apps or phone services. In Western Australia, many people (51%) used a phone app to top up but 74% topped up at a store. In the Northern Territory, 95% of people topped up credit at a store.

In most cases, prepayment for electricity has been set up with minimal consultation with local communities. There are features that could be adopted to improve customer experiences. 55% of participants wanted a notification or warning for the household before power runs out.

The two most popular features were being able to choose how much credit to top up and being able share payment amongst household members and visitors.

In addition, people will need information to be able to budget and set up Centrepay and/or other direct-debit options. The importance of historical usage data was discussed a few times in the service provider surveys.

Pathway forward

While prepayment may be preferred over post-payment (which entails a risk of high quarterly bills and/or accruing debt) prepayment customers need to have the choice to move to post-pay or other billing arrangements – there should be no mandated pre-payment arrangements **[Recommendation 6a]**.

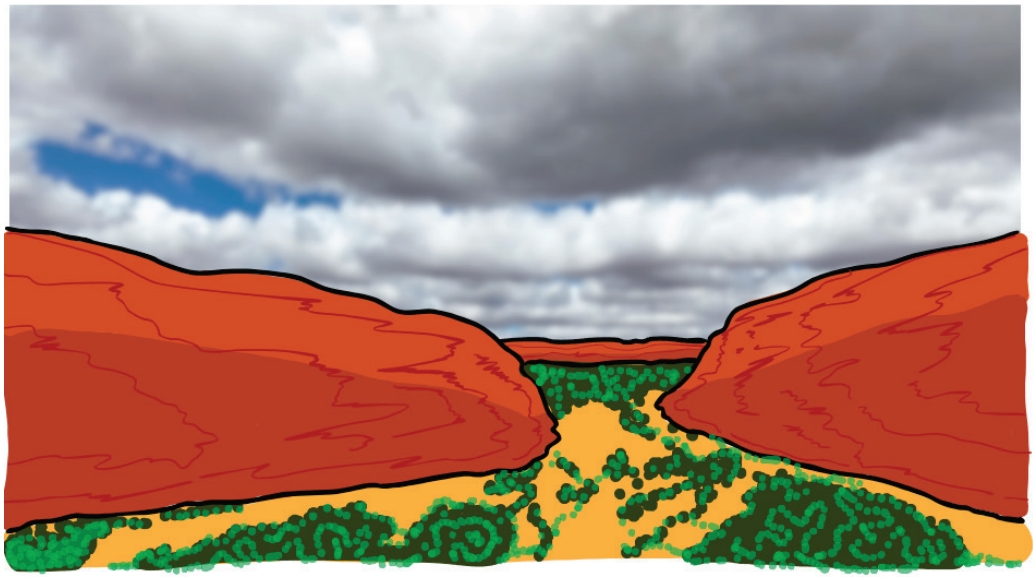
It was clear that people need advanced warning when credit is low (e.g. below $10) so that they can stay connected. These warnings could be provided using in-home displays, phone app, SMS, or other means **[Recommendation 6b]**. Improving

communication about when credit is low may help reduce the rate of disconnections.

In addition to advanced warnings, being able to top up credit using more than one option will be important. Retailers should ensure that there are different ways to top up, including ways for family to chuck in via Pay-ID for accounts, sharable swipe cards for top ups, and easier in-store top ups for customer and others **[Recommendation 6c]**. Being able to share payment amongst household members and visitors was a popular feature and should be boosted so that people can help each other whenever it is needed.

Prepayment has been set up in different ways across the country. Retailers should adopt features used in other jurisdictions, including an easy-to-use website portal, phone app, automated phone line **[Recommendation 6d]**. Most retailers engaged with the research team and their seemed to be an appetite to learn from other examples.

Customers should enjoy an equivalent level of regulatory protection, regardless of location, income or other circumstances **[Recommendation 6e]**. All parties have a role to play in ensuring that this happens but we also note that these are important considerations for the AER and DCCEEW (in terms of BECE alignment – refer to pages 41 to 43).



Alignment with Closing the Gap

The Closing the Gap framework provides an important nationally endorsed mechanism for measuring progress towards equity for First Nations people.

Within this framework, Target 9b commits governments to ensuring that by 2031, all First Nations households receive essential services - such as energy - at a standard equal to or exceeding jurisdictional benchmarks.

However, this target is not currently measured. The Productivity Commission notes that "there is no data source currently available which includes all required data elements"[51]. This should change.

Energy access is a precondition for achieving multiple Closing the Gap socioeconomic outcomes, such as:

- Unreliable or unaffordable electricity directly undermines health outcomes (Outcome Area 1),
- Safe and appropriate housing (Outcome Area 9), and the
- Ability to make informed decisions (Outcome Area 17).

Repeated interruptions to energy supply expose families and households to extreme risks during heatwaves and cold spells, contributing to higher rates of ill health and financial stress.

The Closing the Gap framework provides both an accountability structure and national reporting platform through which energy security in remote First Nations communities could be tracked.

This would require retailers to report against Closing the Gap-aligned indicators. Embedding energy reporting within Closing the Gap also ensures consistency with other essential service areas such as housing, health and education. It will ensure that utilities delivering essential services to First Nations communities are subject to the same accountability standards as elsewhere in Australia. **Reporting these metrics should be a requirement specified in service agreements that relate to First Nations communities.**

[51] Productivity Commission – Closing the Gap Information Repository - Socio-economic outcome area 9: https://www.pc.gov.au/closing-the-gap-data/dashboard/se/outcome-area9.

Alignment with First Nations Clean Energy Strategy

In August 2022 the Federal Government and all state and territory Energy Ministers committed to the co-design of a First Nations Clean Energy Strategy[52] (Strategy) as a priority action under the then newly agreed National Energy Transformation Partnership[53].

The Strategy advanced from a federal election ask from the First Nations Clean Energy Network in 2022[54] to be a 5-year national framework for action that was informed by hundreds of First Nations, industry and government leaders from around Australia. The design of the Strategy was influenced through numerous roundtables, discussions and submissions.

Building on this process, all Australian energy ministers subsequently released the Strategy in December 2024, honouring a commitment to put First Nations front and centre of Australia's clean energy transition. The Strategy sets a vision and pathway for government, industry and First Nations to work in a coherent, coordinated way to address access to affordable clean energy, and ensure benefit-sharing partnerships and First Nations-led projects. The issue of prepayment metering was raised regularly by First Nations people and communities throughout the roundtable process, and it is a prominent theme in the Strategy released by Energy Ministers in December 2024.

The Strategy is underpinned by three goals, 11 objectives and 24 priority areas for action. Relevantly, the first of these goals is '***Power First Nations Communities with Clean Energy***', and corresponding objectives and actions for this goal are: **Address barriers to renewable energy access and supply for First Nations people** (objective); **Review and extend regulatory protections** (priority action).

The Strategy highlights a range of actions relevant to prepayment metering systems, including the critical importance of equitable energy access and the need to address consumer protections for households experiencing energy hardship.

[52] First Nations Clean Energy Strategy - https://www.energy.gov.au/energy-and-climate-change-ministerial-council/working-groups/first-nations-engagement-working-group/first-nations-clean-energy-strategy
[53] National Energy Transformation Partnership - https://www.energy.gov.au/energy-and-climate-change-ministerial-council/national-energy-transformation-partnership
[54] First Nations Clean Energy Network 2022 Federal Election Ask - https://www.firstnationscleanenergy.org.au/the_network_s_federal_election_ask

Alignment with Better Energy Customer Experiences

Due to jurisdictional variations, First Nations households using prepayment are outside of the regulatory scope of the National Energy Customer Framework (NECF) and the AER's activities in relation to energy consumers. Accordingly, regional and remote prepay customers have typically been overlooked by regulatory reporting in relevant States and Territories despite varying levels of oversight across the different regulatory regimes. This has contributed to a lack of visibility regarding household energy insecurity and available protections for these households.

Where consumer protections are available to prepayment customers, these protections are often not suitable for prepayment arrangements, apply only on paper, or are otherwise inadequate.

By overcoming gaps in access to consumer protections and regulatory reporting, the Better Energy Customer Experiences (BECE) framework offers an opportunity for coordinated policy reforms that prioritise equitable outcomes for First Nations households. The April 2025 BECE Consultation Paper noted the link between the BECE process, First Nations households and the First Nations Clean Energy:

In December 2024, all Australian Energy Ministers also welcomed the Commonwealth's release of its First Nations Clean Energy Strategy 2024-2030. Among other actions, this strategy will review regulatory protections, including considering extending regulatory protections for consumers outside of regulated energy markets and interrogating whether existing consumer protections adequately meet the needs of First Nations peoples. ... These actions provide context for work to be undertaken to deliver Better Energy Customer Experiences[55].

The BECE Terms of Reference outlines the following guiding principles:

Essentiality - access to a basic energy supply is subject to additional protections because it is essential to Australians. The extent to which protections apply should be proportionate to

[55] DCCEEW - Consultation Paper – Better Energy Customer Experiences: https://consult.dcceew.gov.au/better-energy-customer-experiences

their connection to health, safety, wellbeing and economic and societal participation.

Efficiency - Consumer protections should be effective, as simple as possible and minimise transaction costs and barriers.

Agency - Frameworks should build customer trust and confidence in engaging with the energy market, including where consumers engage with the market in a limited capacity. Protections should ensure customers are provided with sufficient information to make informed decisions and be supported by practical mechanisms for redress, such as accessible and low-cost dispute resolution.

Equity - Frameworks should support equitable outcomes. Customers should enjoy an equivalent level of regulatory protection, regardless of location, income or other circumstances.

Deliverability - The proposed solution should be designed with an eye to implementation and must strike the right balance between legislation, regulation and guidance to ensure it is enforceable and adaptable. Protections should seek to reduce complexity for customers engaging with energy markets.

The BECE framework envisages a process commencing with the fundamental premise that all people are equally entitled to affordable, clean and reliable access to the energy services they need to sustain health, wellbeing and inclusion, and this access should not be dependent upon where they live or the business-arrangements of their service provider.

The BECE framework accordingly provides an avenue for pursuing meaningful reform of prepayment arrangements, as recommended by this report. Drawing on these recommendations, and to prioritise First Nations energy outcomes at the household level, the following coordinated policy reform work involving the Commonwealth, State and Territory governments, under the BECE framework could include:

- A holistic review of applicable State and Territory regulatory regimes to identify gaps and inconsistencies in consumer rights, protections and public reporting of energy performance metrics including for remote communities
- Adoption of uniform rights and protections for household energy access across relevant State and Territory frameworks equivalent to those available through the evolving NECF and designed to serve the needs and

priorities of First Nations households in accessing essential services

- Adoption of uniform requirements for public retail performance reporting based on a standard set of energy metrics across relevant State and Territory frameworks with AER performance indicators used as the relevant benchmark
- A coordinated and consistent approach to reforms across jurisdictions based on partnership and co-ordination between governments, utilities, regulators and First Nations organisations
- A clear timeframe and agenda for implementing reforms.

HOUSEHOLD SURVEYS

Household surveys – Northern Territory

Household surveys were carried out in Northern Territory communities between October 2024 and July 2025. The table below provides the number of surveys by area and the percentage of households who participated in the surveys. Most surveys were carried out in the Tangentyere Town Camps by researchers from Tangentyere Council. Across all these survey sites, we covered two climate zones, i.e. most people reside in the grassland zones and Borroloola is in the tropical zone. Overall, we were able to survey 15% of households in these selected communities. This was approximately 2% of prepayment households across the NT.

Number of surveys by area

Area name	Number of surveys	Number of households	Percent of households
Amoongana	5	56	9%
Borroloola	41	145	28%
Marlinja	15	18	83%
Tangentyere Town Camps	58	270	21%
Tennant Creek	19	420	5%
All	138	909	15%

Features that people valued and features they didn't like

During the survey, the interviewer asked whether there was anything that people liked about pre-payment for electricity. For the 138 households surveyed in the NT, being able to choose how much credit to top up (75%) and being able share payment amongst household members and visitors (70%) dominated the responses **[Recommendation 6c]**.

Very few people believed that the meter gave them useful information (6%). There is often no other information source for these customers, which makes it hard for people to anticipate low credit and disconnection events **[Recommendation 6b]**.

The interviewer also asked whether there was anything that people did not like about pre-payment for electricity. Here, the responses are spread across more responses. Most households were concerned about automatic and immediate disconnection (65%) and struggled to afford to keep the power on, e.g. they either found that debts and extra charges are hard to keep up

with (51%) or were unable to afford top up credit (33%) **[Recommendation 1a and 1d]**.

The reliance on in-store top ups, meant that many found it difficult to top up or top up outlets were too far away (43%). There were a few survey participants who mentioned needing to walk to town to top up **[Recommendation 6c]**. And people often had their daily activities disrupted by an unexpected disconnection.

Upon discussing what people did not like, people told the interviewer[56] that:

> **"When we are cooking power goes off and our food still raw, we have to wait until someone help put power back on before we eat."**
>
> **"In the cold time power go off at night, we just sleep anyway until morning. If we got a lot of blankets, it's alright, if we don't have enough, we freeze and can't sleep."**
>
> **"At least give us a warning when our power credit is low, not everybody checks the power box every minute or hour."**
>
> **"Outlets that have the system sometimes breaks down and I have to look for someone with car to take me to top up and we have to go all over town to look for an outlet where the system works."**
>
> **"We should have an office to gain access to power for those without a vehicle."**

Improvements to be made

The interviewer also asked what changes would improve access to electricity. Most people wanted support to access solar power for cheaper power (86%) and a notification or warning for the household before power runs out (65%) **[Recommendation 3a and 6b]**.

More than a third of households noted that lower costs (36%) and bringing back Centrepay (34%), i.e. the ability to make automatic deductions from account or payments, would help them remain connected to electricity **[Recommendation 6d]**.

Upon discussing what could be improved, people told the interviewer that:

> **"When top up system is broken, or mobile network is down, putting a stop to disconnections would be great."**

[56] Note that these quotes are not direct quotes. They are the interviewer notes and paraphrasing (or translations) recorded into the survey.

"We used to have Centrepay, a little bit of money came out to pay for electricity."

"Solar panel might be better for us; more power, save money."

"Stop charging us extra money when we lose our powercard and get a new card. We are already struggling to keep our power going."

"Only way we know (that) we got no (credit for) power is when everything goes off."

"Give us some kind of warning so we can top up straight away."

How people top up

As noted, before, most people rely upon in-store top ups in town (95%). Based on these household surveys, very few people are using online options in the NT. This may be due to the requirement by one retailer to have both the Meter Serial Number, which is shown on the meter[57], and the National Meter Identifier (NMI), which can only be accessed via calling the retailer[58].

Without alternatives for topping up credit, access to transport becomes an issue as survey participants told the interviewer that:

"Got a vehicle, which makes (it) easy to get to the store."

"I'm young and I walk to the nearest shop to top up power."

"I have no car, and all the stores are long way from where I live. When I run out of power, I just have to wait next day to put power on or wait until pay day."

"No car, too far away to walk. Only get help during the weekdays but weekend we struggle to find our way to town."

"When power runs out late at night, I find it hard to pay for power, no car to go to the nearest shop, so we sleep in the dark, hot or cold nights."

"I don't have a car to go into town to top up quickly. My power goes off for 3-6 hours."

Times when it is hard to stay connected

People find it difficult to keep connected in the days leading up to payday (70%) and during hot days (67%) **[Recommendation 4a]**. Having visitors stay (30%) was a time with heightened electricity

[57] Jacana – Prepayment digital top up: https://topup.jacanaenergy.com.au/.
[58] Jacana – Ways to top up your meter – online: https://jacanaenergy.com.au/your-home/meters-and-usage/prepaid-meters.

demand and led to difficulties in staying connected. A notable number of surveys conducted in Tangentyere Town Camps during colder months captured the experiences of people struggling during cold nights.

Temperatures and other extreme events were discussed often with people telling the interviewer that it was hard to stay connected during:

> **"Wet season when we can't cross river."**
>
> **"When it's cold time we make fire outside and keep warm."**
>
> **"Summer is worst because we have all kinds of fans on and air-conditioning. Winter we can make fire outside and get warm."**

Impact of being disconnected

These surveys also provide a snapshot of what can happen when people are disconnected from electricity. Food spoilage (89%) and extreme hot/cold temperatures (84%) were the adverse impacts most reported. Being unable to maintain hygiene (54%) and inadequate health or medicine storage (45%) were also often reported.

There were other impacts of being disconnected as participants told the interviewer that:

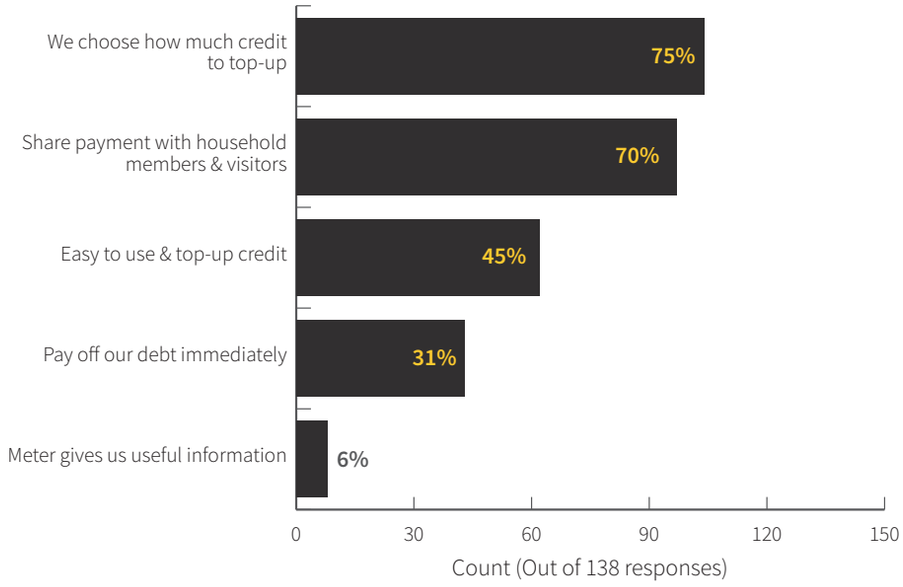
> **"It also affects our water in community as our water pump needs a power connection to pump water to our home. No power also means no water for my community."**
>
> **"I don't have any fridge or anything, so it doesn't worry for me. If my power goes out, I sit with no power until family helps."**
>
> **"We need power to charge our phone so we could make emergency calls if one of us gets sick or hurt."**
>
> **"I need to have shower, keep myself clean, but that's a problem, no power, no hot water."**
>
> **"When power runs out all my food gets sour and no good, we got to chuck it out. And my medicine goes off, I got to chuck it out."**

Limited knowledge of concession schemes

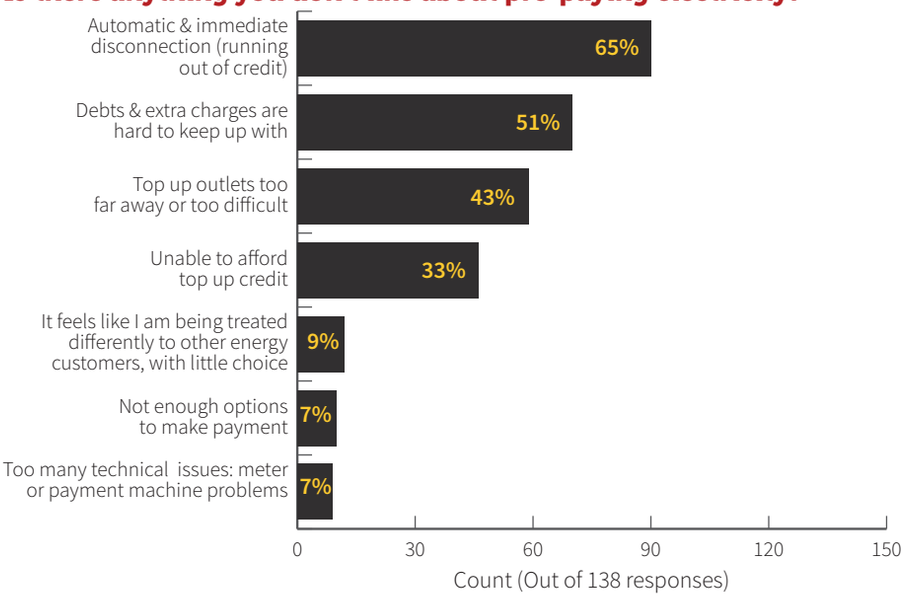
The interviewer also asked people whether they were aware or received help from the NT Concession Scheme or the NT Seniors Recognition Scheme. Knowledge of these schemes was low. Only 14% of people surveyed knew that some in the household received the NT Concession Scheme. It was only 8% for the NT Seniors Recognition Scheme **[Recommendation 5b]**.

Northern Territory

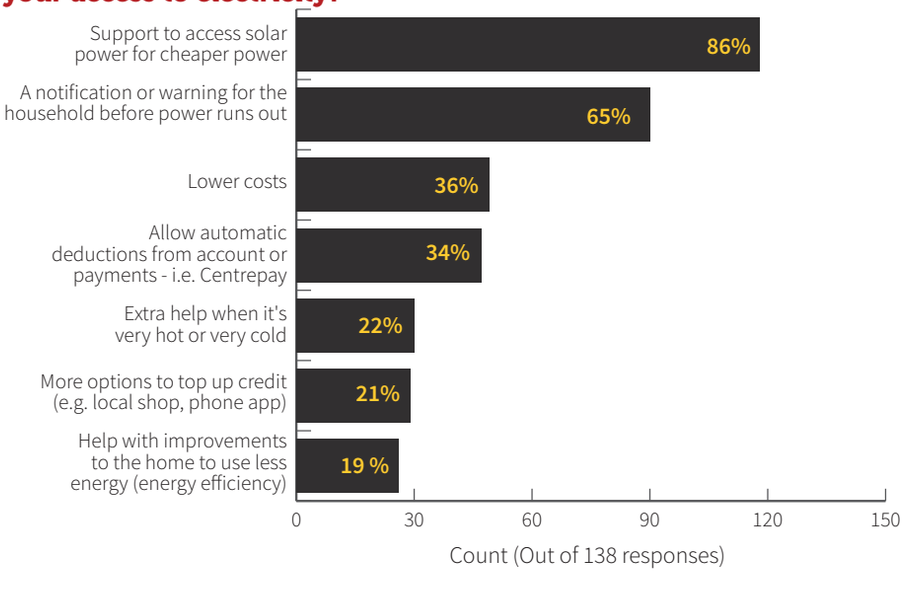
Is there anything you like about pre-paying electricity?



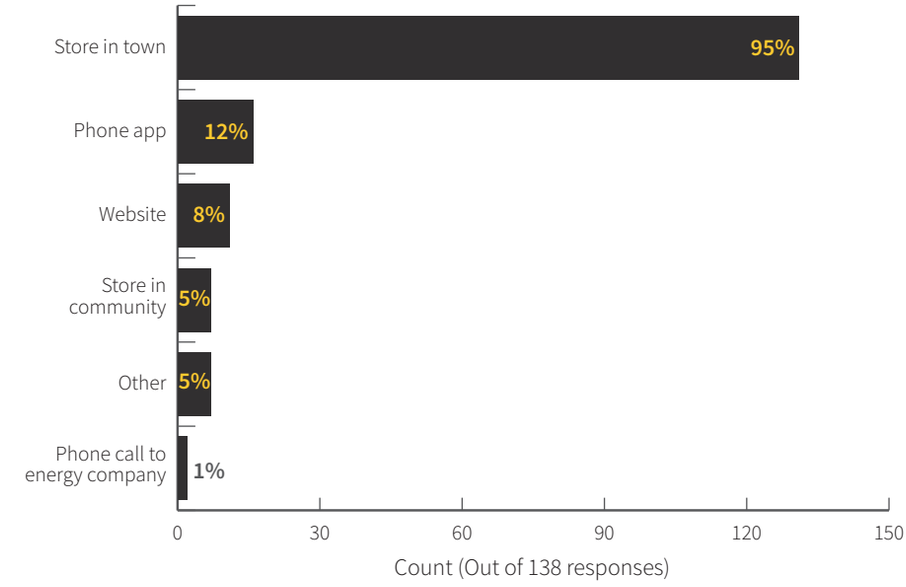
Is there anything you don't like about pre-paying electricity?



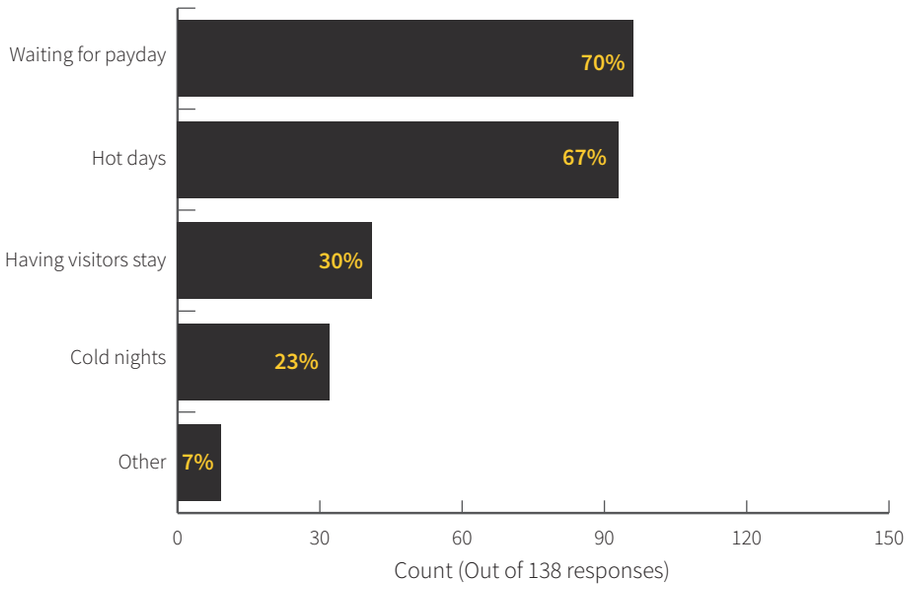
What changes to pre-payment arrangements would improve your access to electricity?



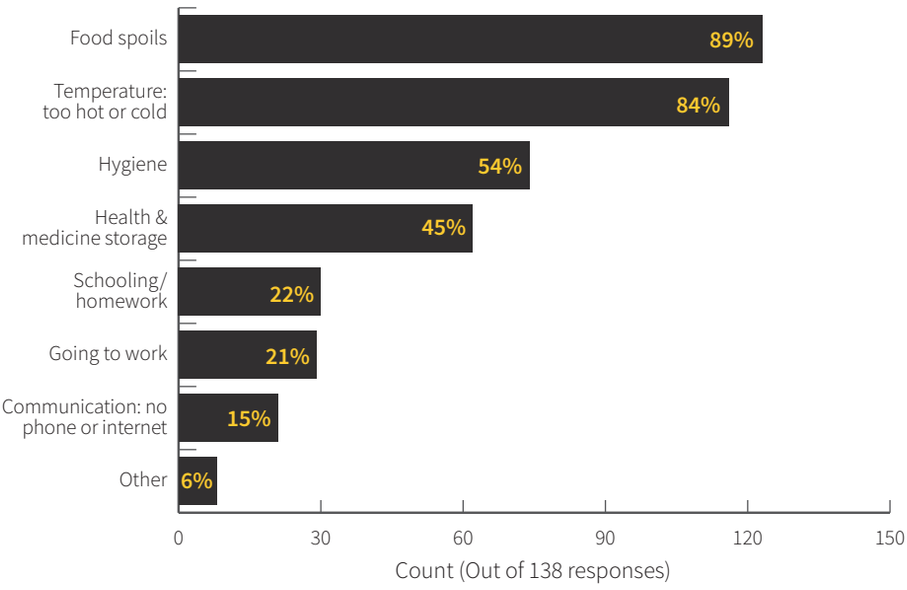
How do you top up your meter?



When do you find it hard to keep your power connected?



How does running out of electricity impact your household?



Household surveys – Western Australia – Kimberley

Household surveys were carried out in Western Australian communities between November 2024 and February 2025. The table below provides the number of surveys by area and the percentage of households who did the surveys. The surveys were carried out across the Kimberley by researchers from Nulungu Research Institute at the University of Notre Dame Australia. Most surveys were carried out in Bidyadanga and Ardyaloon. Overall, we were able to survey 18% of households in these selected communities. This was approximately 6.6% of prepayment households across WA.

Number of surveys by area

Area name	Number of surveys	Number of households	Percent of households
Ardyaloon	32	80	40%
Bidyadanga	36	145	25%
Djarindjin	17	42	40%
Fitzroy Crossing	7	263	3%
Lombadina	6	13	46%
All	98	543	18%

Features that people valued and features they didn't like

Interviewers asked whether there was anything that people liked about pre-payment for electricity. For the 98 households surveyed in WA, being able to choose how much credit to top up (86%) and being able to pay off debt immediately (78%) were the most favoured features.

In contrast to the NT survey, in this case many respondents believed that the meter gave them useful information (61%), which could also be associated with people using an app to top up. The ability to top up in multiple ways meant that most people believed that it was easy to top up credit (58%).

Upon discussing what people did like, people told the interviewer[59] that:

"We get information on usage and credit left."

[59] Note that these quotes are not direct quotes. They are the interviewer notes and paraphrasing (or translations) recorded into the survey.

"Can top up other people's credit using the app."

"You can see what you are using and what you have left."

When asked whether there was anything that people did not like about pre-payment for electricity; affordability stands out as the key issue with 61% of people saying that they were unable to afford top up credit **[Recommendation 1d]**. Only 23% households were concerned about automatic and immediate disconnection, which is much less than in the NT survey.

Upon discussing what people did not like, people told the interviewer that:

"On the weekend, the shop doesn't open, so I have to get a lift to roadhouse."

"Hot time too expensive."

"Having to top up manually when your away from home. The power meter needs a physical presence to reset."

Improvements to be made

We also asked what changes would improve access to electricity. Most people wanted lower costs (91%), support to access solar power for cheaper power (83%), and help with improvements to the home to be more energy efficiency and use less energy (66%) **[Recommendation 3a]**.

More than a third of households noted that they need extra help when it's very hot or very cold (36%).

A notification or warning for the household before power runs out was selected by a fifth of participants (20%).

Upon discussing what could be improved, people told the interviewer that:

"We need a notification when there is low credit.

"Paper powercards were easier."

"This house has solar on the roof, but we are not getting any benefit."

"No more box air-conditioning and houses should be insulated."

"Being able to top up without being at home when travelling away from home."

"Need someone to press button at house so if it disconnects when we are away, even if we top up credit, we will lose all our food."

How people top up

In the communities where the survey was conducted, there were only 2 options for topping up: the Horizon Power app or an in-store top up. Paper power cards were no longer available in these communities.

In these Kimberley communities, most people top up at a store in their community (74%). Over half of participants use the Horizon phone app to top up (51%). Very few people need to travel to a town centre to top up (9%), which was a common occurrence for NT communities.

Times when it is hard to stay connected

These surveys were conducted between November and February. Most respondents were feeling the heat and said that they find it difficult to keep connected during hot days (77%). Having visitors stay (65%) was a time with heightened electricity demand and this led to difficulties in staying connected.

Affordability was also a concern with over half of participants mentioning a difficult period where they were waiting for payday (55%).

Impact of being disconnected

Figure 6 provides a snapshot of what can happen when people are disconnected from electricity. Food spoilage (66%) and extreme hot/cold temperatures (64%) were the adverse impacts most reported **[Recommendation 4a]**.

Many reported issues with communication – either phone or internet (45%) and difficulties being able to maintain hygiene (36%).

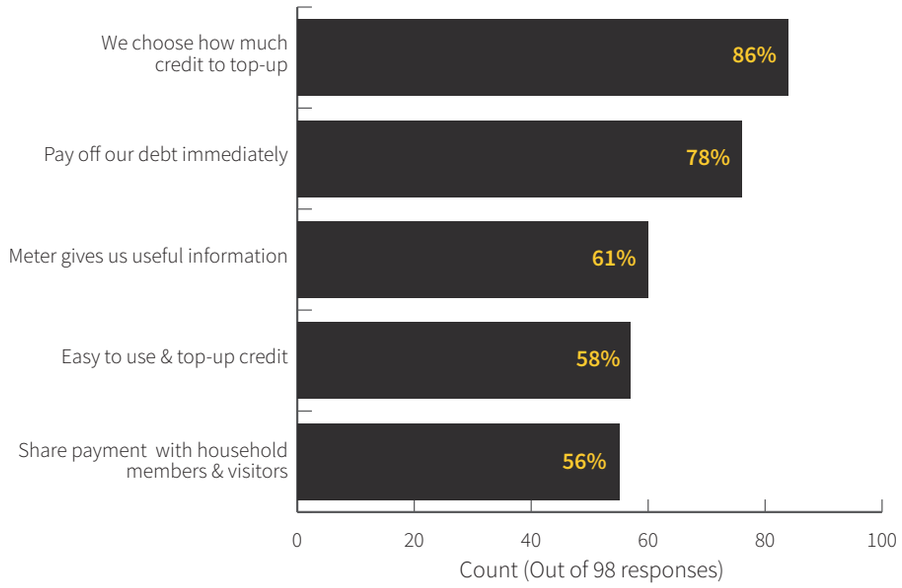
More than a fifth also reported impacts to health or medicine storage (27%).

Limited knowledge of concession schemes

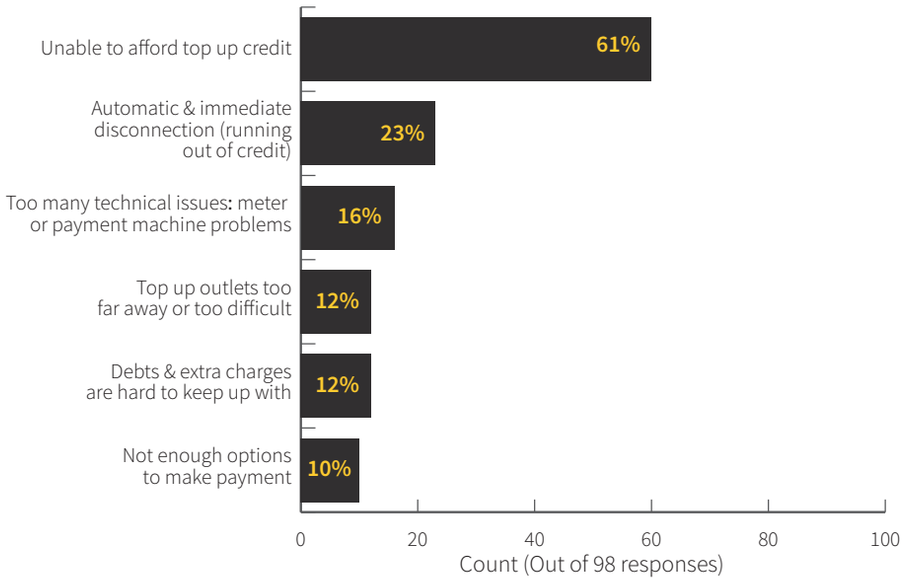
One of the last questions in the survey asked people whether they were aware or received help from the WA government initiatives and concession payments. Knowledge of these schemes was extremely low amongst these participants in the Kimberley. Only 1 person surveyed knew of any of these schemes but was unsure whether they would qualify and could receive these types of support **[Recommendation 5b]**.

Western Australia

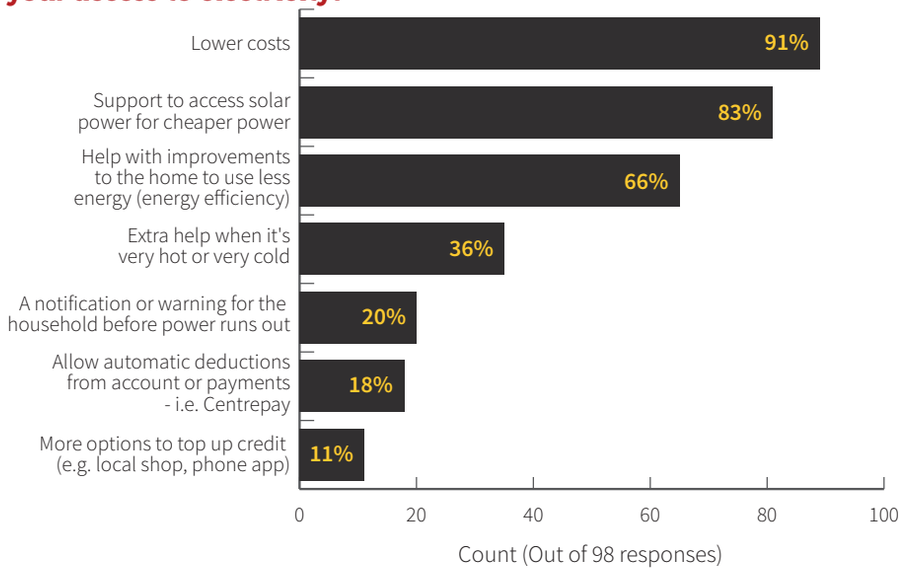
Is there anything you like about pre-paying electricity?



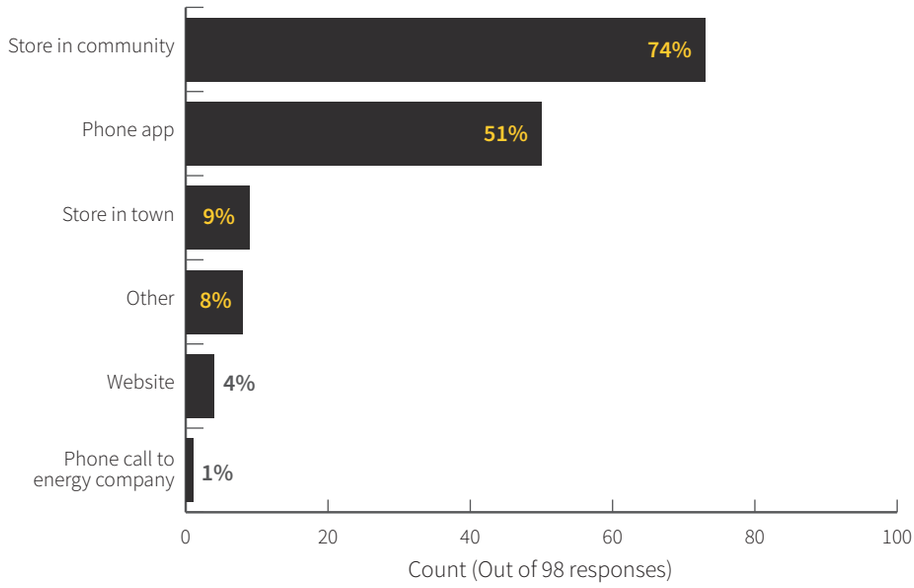
Is there anything you don't like about pre-paying electricity?



What changes to pre-payment arrangements would improve your access to electricity?



How do you top up your meter?



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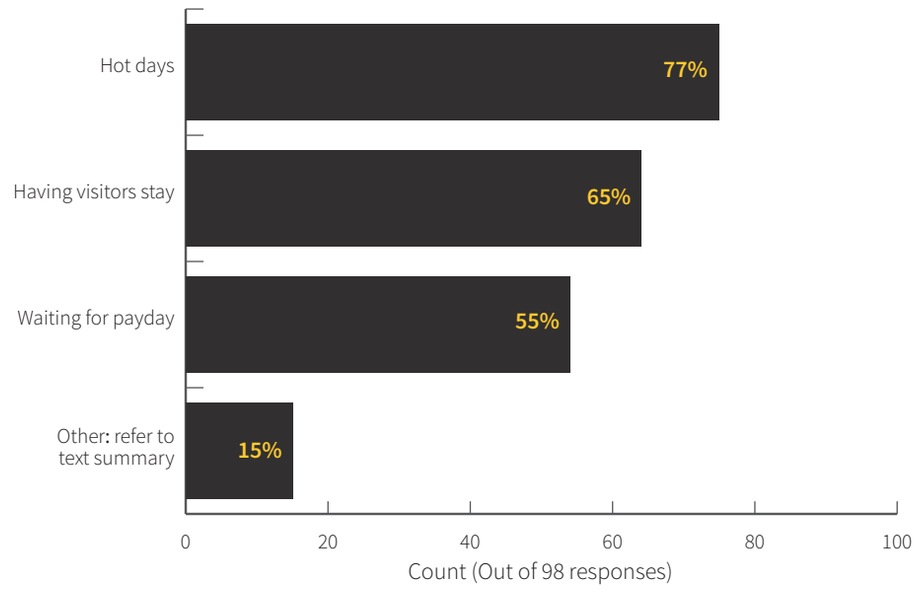
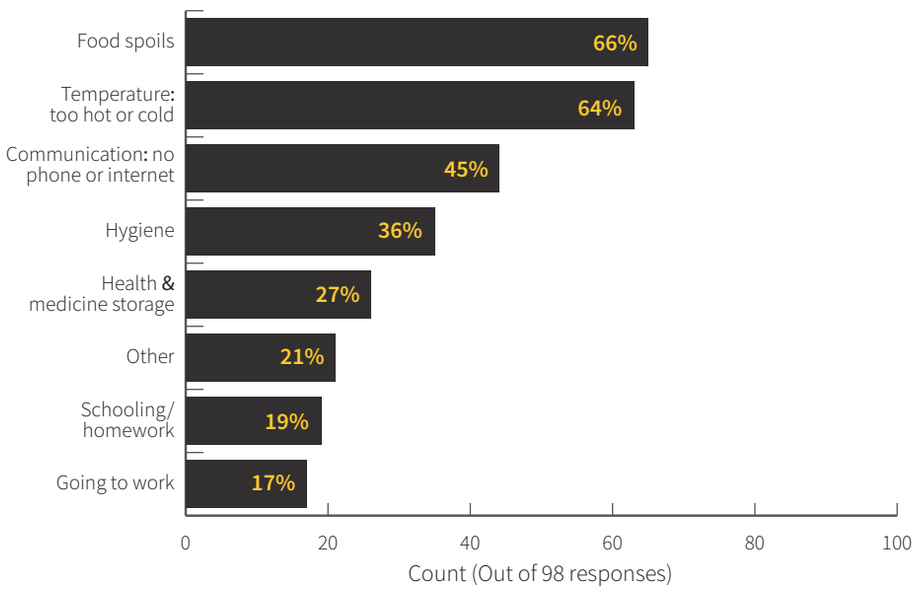


How does running out of electricity impact your household?



Household surveys – Queensland – Wujal Wujal

Household surveys were carried out in Wujal Wujal in October and November 2024 and May 2025. 44 surveys were carried out by a team from Jabalbina Yalanji Aboriginal Corporation. There were 68 private dwellings in Wujal Wujal reported by the 2021 Census, so the response rate was 65%.

Features that people valued and features they didn't like

When asked whether there was anything that people liked about pre-payment for electricity. 64% believed that prepayment for electricity is easy to use and topping up credit was convenient. Being able to choose how much credit to top up (73%) was the most favoured feature. People also believed that it was easy to use and top up credit (36%). Being able to share payment with household members and visitors was valued by almost a third of participants. Only a few people believed that the meter gave them useful information (9%).

The interviewer also asked whether there was anything that people did not like about pre-payment for electricity. Disconnections were a concern for 45% of participants.

Upon discussing what could be improved, people told the interviewer that:

> **"Not enough options to get power [back on], especially after hours."**
>
> **"Ensure all houses have solar power to reduce the cost of power."**
>
> **"Should be more dollars for the emergency [credit option], it is only $15."**

A few people mentioned that they liked the powercards and prepayment but wanted it to become more efficient or needed help during extreme weather. Only one person mentioned that they would prefer post-payment.

One resident found prepayment easy to use but mentioned that it depends on how much electricity a household uses per day. They mentioned:

> **"It's very hard to keep up with power when having people stay over and having to wait for pay day to buy a power card."**

Improvements to be made

We also asked what changes would improve access to electricity. Most people wanted a notification or warning for the household before power runs out (75%).

More than a third of households noted that they wanted more options to top up credit (36%).

How people top up

Most people rely upon in-store top ups in the community (91%). 50% of participants topped up credit at the local council office. People can't use online or phone options to top up. Other than in-store options, people were able to top up at the local council office.

Access to transport was an issue and a few respondents told the interviewer that topping up was difficult as they didn't have a car or transport option.

Times when it is hard to stay connected

People find it difficult to keep connected in the days leading up to payday (34%). Having visitors stay (16%) was a time with heightened electricity demand and led to difficulties in staying connected.

Impact of being disconnected

The survey also provides a snapshot of what can happen when people are disconnected from electricity. Food spoilage (86%) and extreme hot/cold temperatures (75%) were the adverse impacts most reported.

Being able to maintain hygiene (70%) and keeping connected to phone or internet (66%) were also often reported.

There were other impacts of being disconnected as people told the interviewer that:

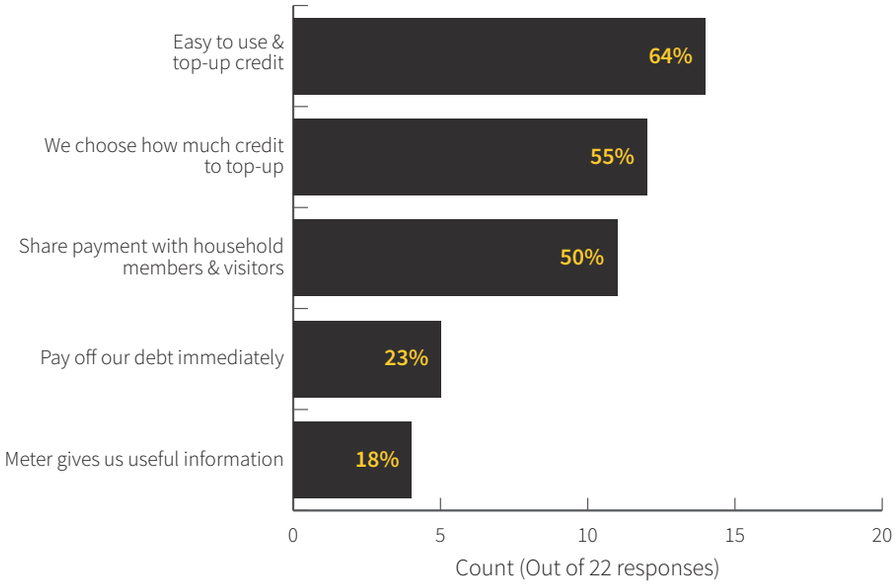
"We need to keep our medicines stored in a cool place."

Limited knowledge of concession schemes

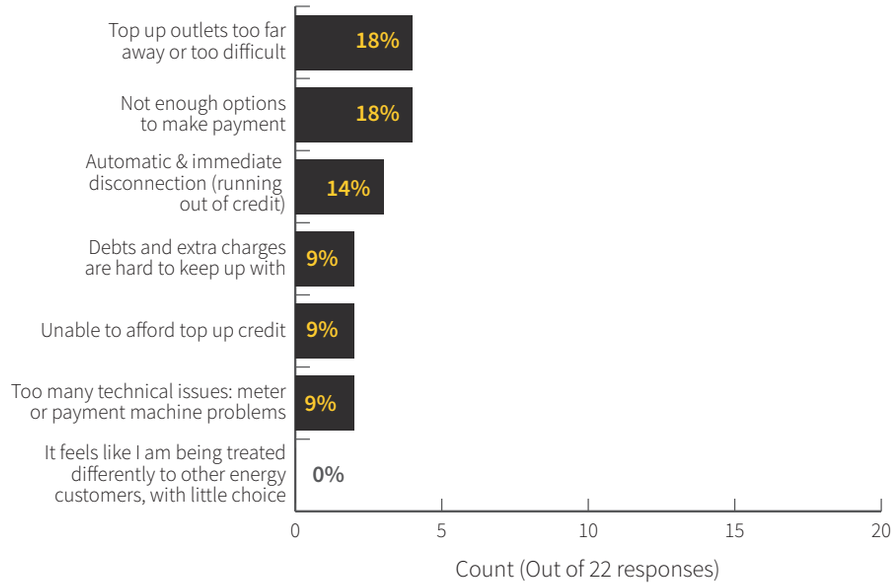
The interviewers asked people whether they were aware or received help via Queensland Government rebates. Most people knew that they received the Queensland Government Cost of Living Rebate (88%). There was confusion about whether people with concession cards received the Queensland Government Electricity Rebate for eligible pensioners and seniors.

Queensland

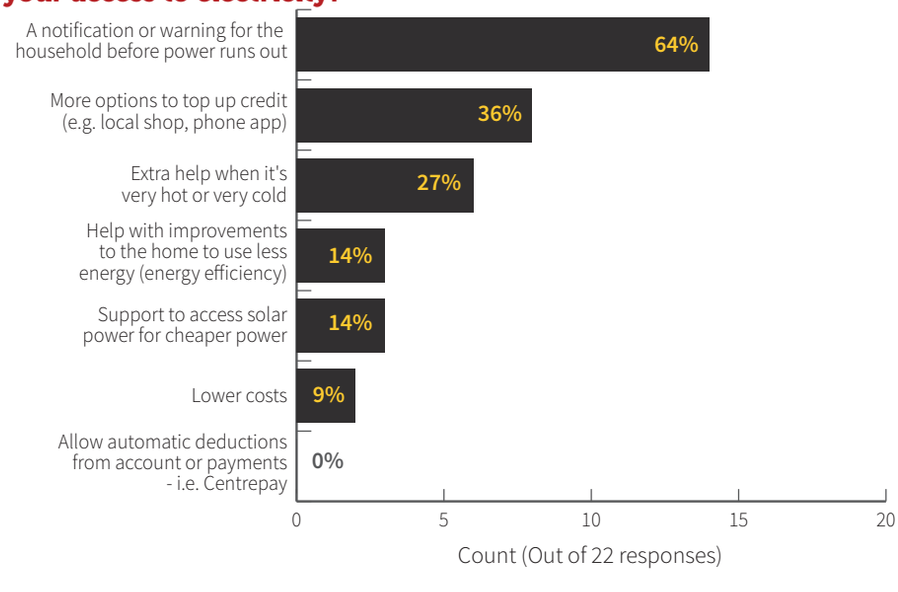
Is there anything you like about pre-paying electricity?



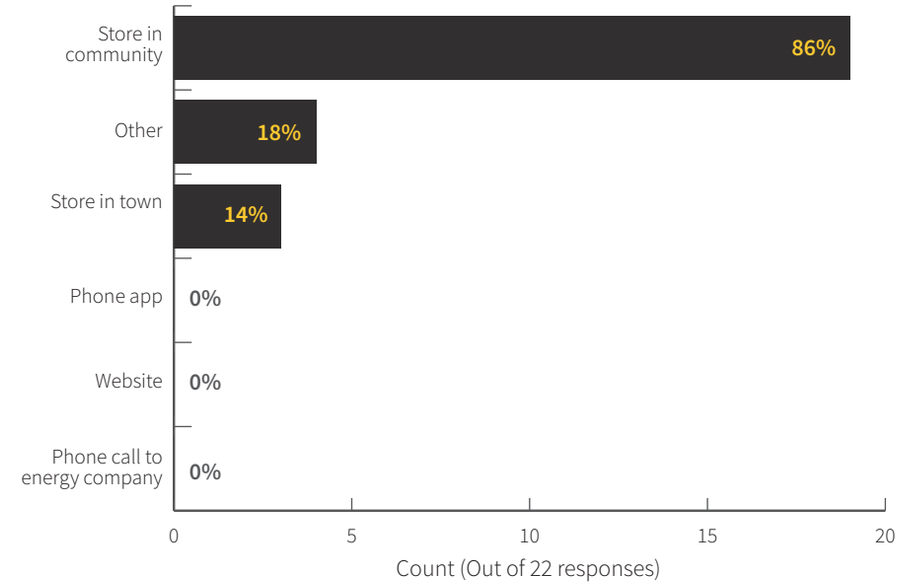
Is there anything you don't like about pre-paying electricity?



What changes to pre-payment arrangements would improve your access to electricity?



How do you top up your meter?



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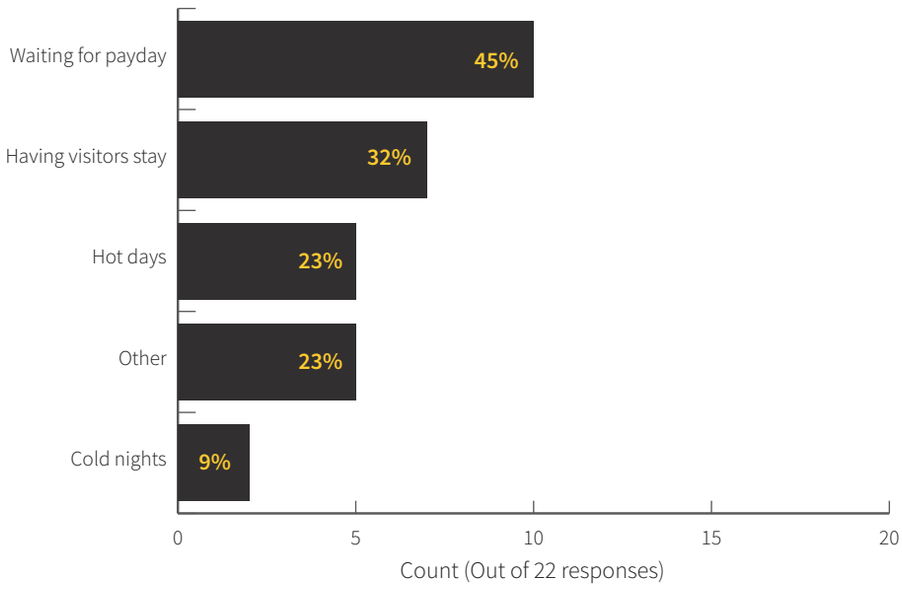
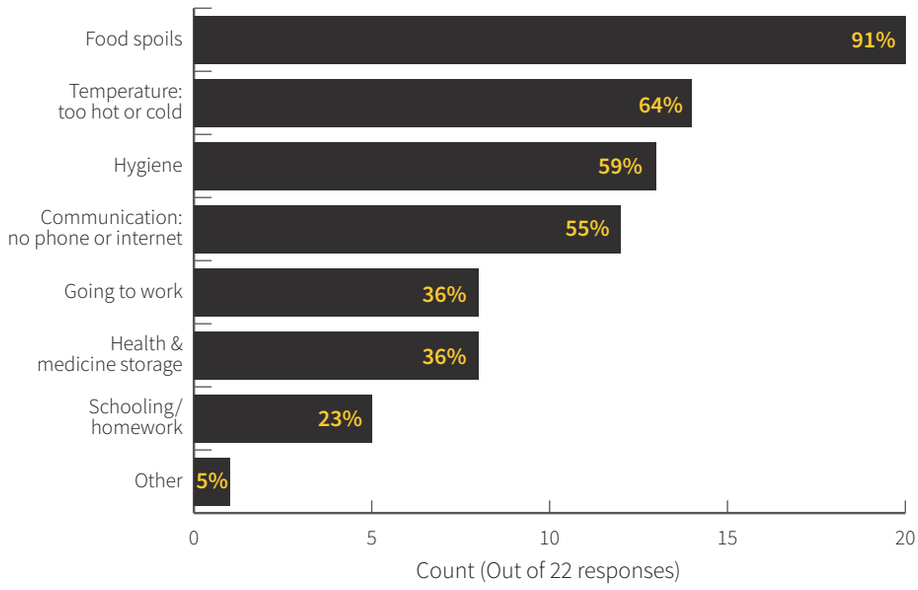


How does running out of electricity impact your household?



Household surveys – South Australia – Yalata

Household surveys were carried out in Yalata and Ceduna in August 2025. 28 surveys were carried out. There were 59 private dwellings in Yalata reported by the 2021 Census, so the response rate was 47%.

Features that people valued and features they didn't like

When asked whether there was anything that people liked about pre-payment for electricity, being able to choose how much credit to top up (29%) was the most favoured response. Only a few people believed that the meter gave them useful information (11%).

The interviewer also asked whether there was anything that people did not like about pre-payment for electricity. 39% of participants said that they were unable to afford to top up credit. Almost a third of participants were concerned about disconnections.

Most people wanted support to access solar power for cheaper power (61%). Otherwise, a notification or warning before power runs out was the next favoured option. Upon discussing what could be improved, a respondent told the interviewer that they would benefit from:

> **"A noise that tells us when it [the power] will go off."**

How people top up

Most people rely upon in-store top ups in the community (82%). A substantial proportion of people use prearranged direct debits to add credit to their meter.

Times when it is hard to stay connected

People find it difficult to keep connected on cold or hot days (39%). 21% of participants said that the question wasn't relevant to them as they hadn't experienced a disconnection.

Impact of being disconnected

Our survey also provides a snapshot of what can happen when people are disconnected from electricity. Extreme hot/cold temperatures (46%) and food spoilage (43%) were the adverse

impacts most reported. About one fifth of people said that adverse health and medicine storage were issues faced during disconnection.

Being able to maintain hygiene (18%) and keeping connected to phone or internet (18%) were also reported.

There were other impacts of being disconnected as people told the interviewer that:

> **"Washing baby needs you have to stop what you are doing and fix it."**
>
> **"Trying to keep the house cool and warm for baby and hot water for baby bottle."**
>
> **"Need warm shower, I am a sick lady."**
>
> **"Trying to keep the house cool and warm for baby and hot water for baby bottle."**

Some of those who hadn't experienced a disconnection mentioned:

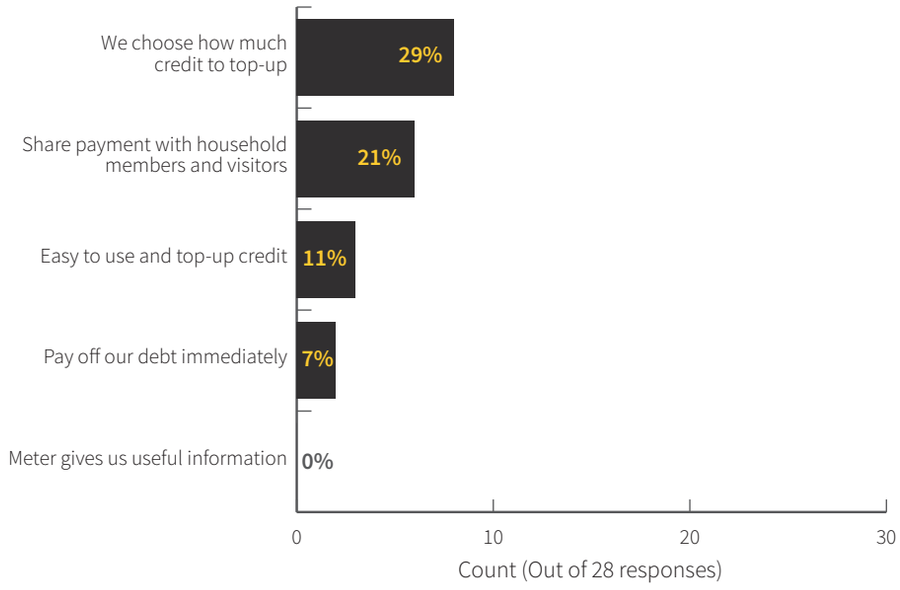
> **"No disconnection at this time but it could spoil food."**
>
> **"Does not often run out because we have a payment plan."**
>
> **"No impact because I pay often."**
>
> **"It doesn't get cut off because I'm getting in front."**

Limited knowledge of concession schemes

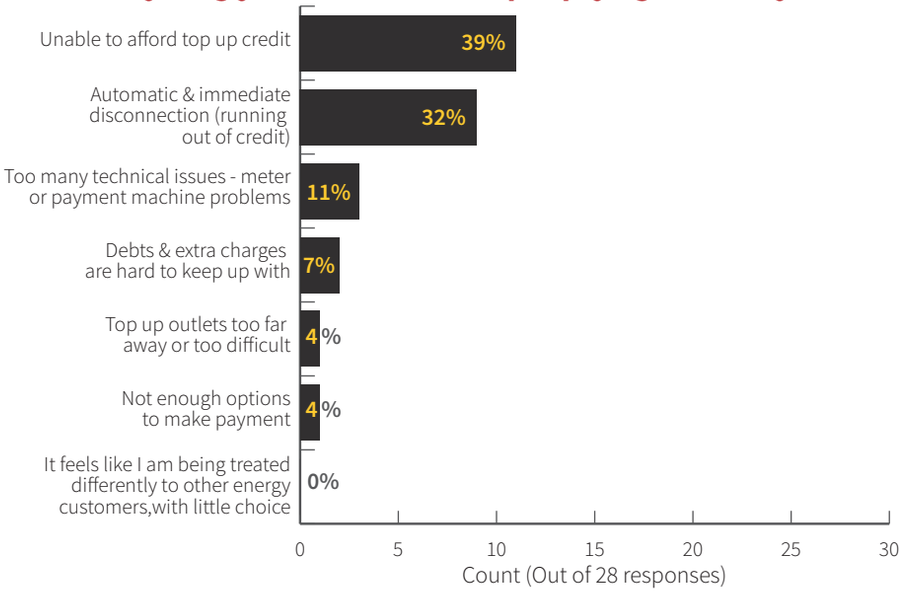
One of the last questions in the survey asked people whether they were aware or received help via South Australian Government rebates. Most people (>80%) were unaware or believed they were unable to receive an energy bill concession or the cost of living concession.

South Australia

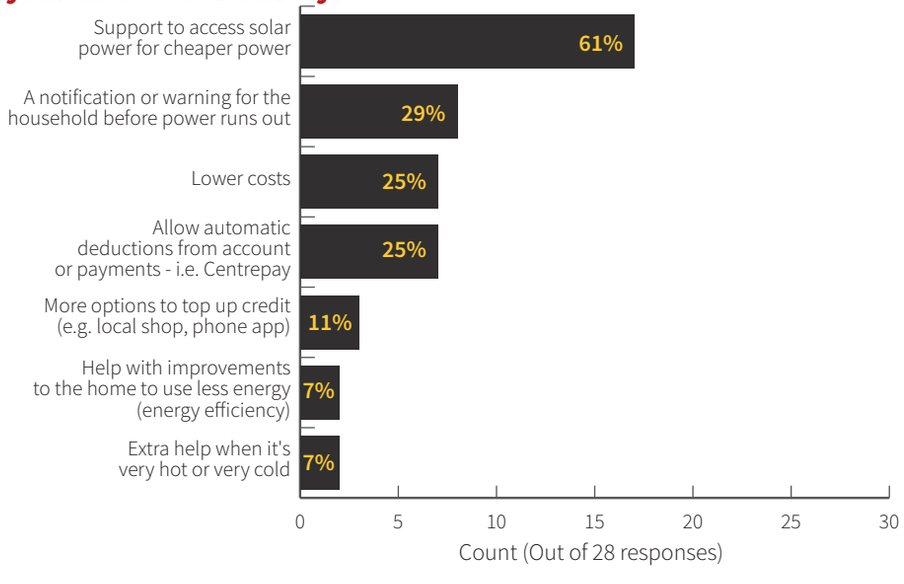
Is there anything you like about pre-paying electricity?



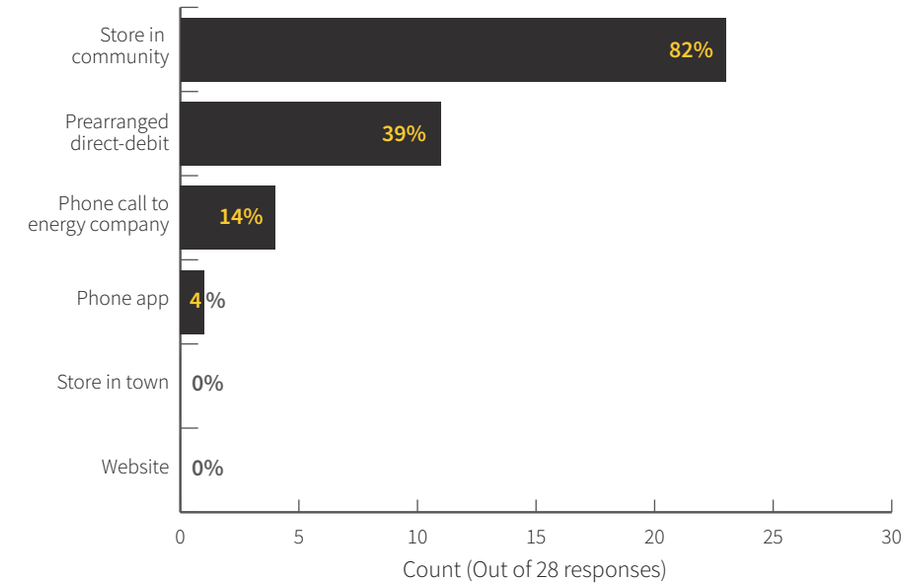
Is there anything you don't like about pre-paying electricity?



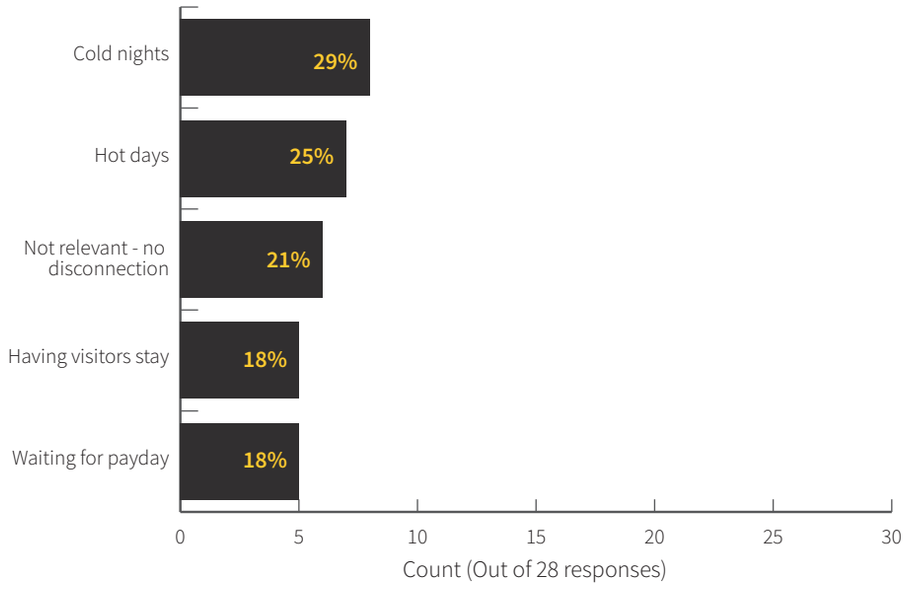
What changes to pre-payment arrangements would improve your access to electricity?



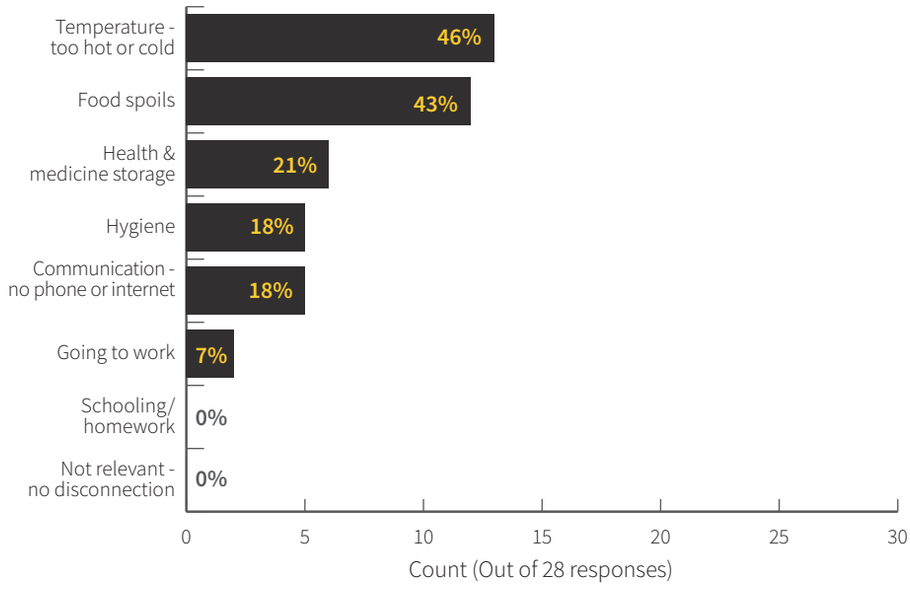
How do you top up your meter?



When do you find it hard to keep your power connected?



How does running out of electricity impact your household?



HOUSEHOLD SMART METER DATA ANALYSIS

Overview of meter data

To further improve our understanding of the experiences of communities using prepayment for electricity, we also made requests for de-identified smart meter data that captures daily electricity usage, credit top ups, concession payments, and disconnection events.

We were able to obtain meter data from 4 of the 5 Australian energy retailers offering prepayment services. These data capture all prepayment customers with smart meters in the NT, WA, and SA. This coincides with over 65% of Australian prepayment customers. Refer to the table below for an overview of these data.

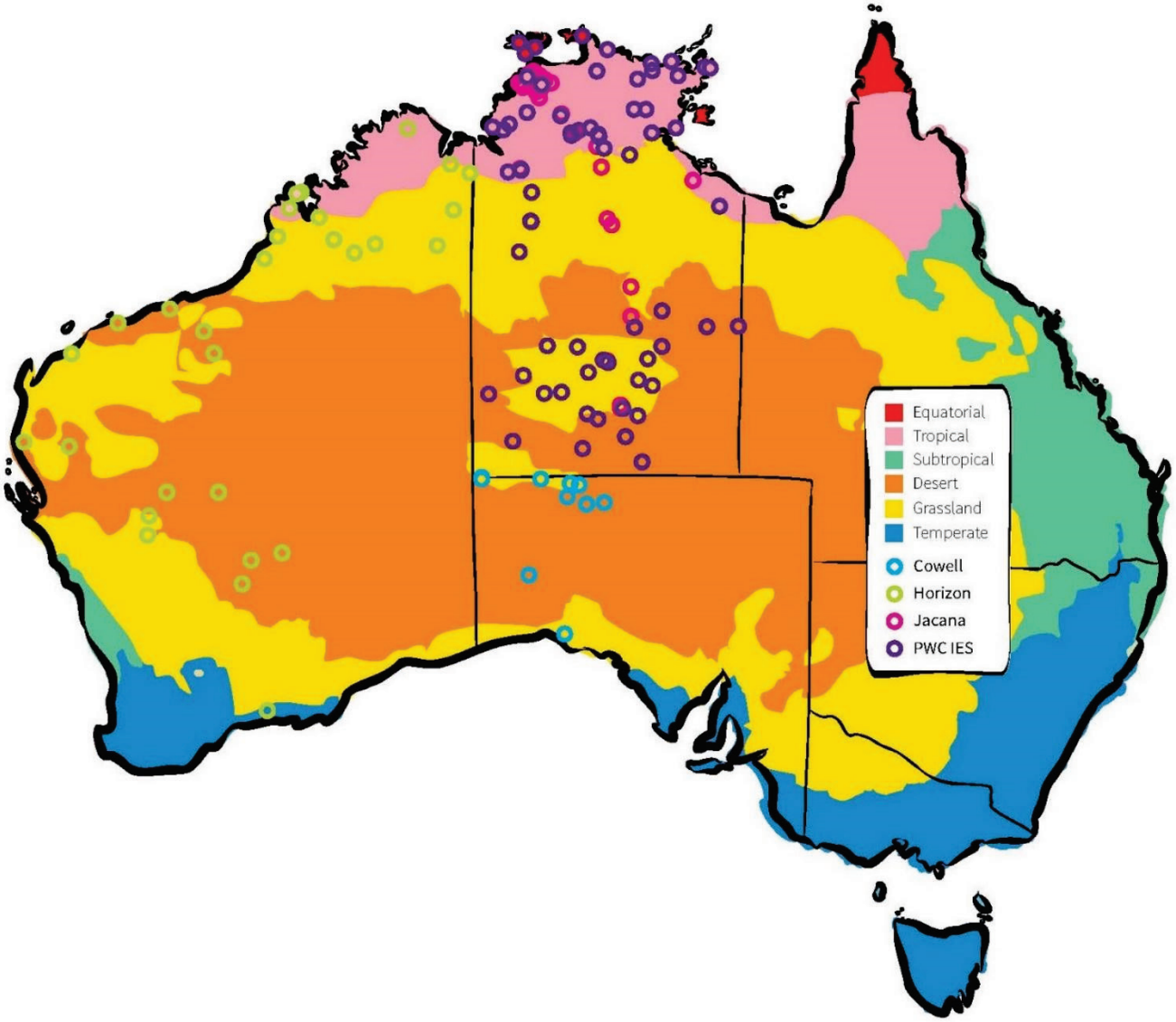
In addition to three States and Territories, these data also capture a range of climate zones across Australia. The map on the next page provides the locations of these data sets across different geographies of Australia. In the sections that follow, results are presented by energy retailers and by climate zone (when associated with temperature data).

Data requests made, and data received

Indicator	PWC - IES	Jacana Energy	Horizon Power	Cowell Electric	Ergon Energy
Data request made	✓	✓	✓	✓	✓
Data received	✓	✓	✓	✓	×
Description of data	Electricity use; Credit top ups; Concession payments; Meter alerts; Disconnection events	Electricity use; Credit top ups; Concession payments; Meter alerts; Disconnection events	Electricity use; Credit top ups; Concession payments; Disconnection events	Electricity use; Credit top ups; Concession payments; Disconnection events	Multiple requests made; all data requests refused.
Time period	July 2023 to June 2025	January 2023 to December 2024	January 2023 to December 2024	April 2024 to March 2025	N/A
Number of residences/ meters	5,213	2,581	1,528[60]	426	5,144[61]

[60] There were 1,528 meters based on NMI and 1,717 based on customer numbers. The analysis of disconnection events for the Horizon Power data uses customer numbers as this is the household level indicator provided in these data sets.
[61] Queensland Competition Authority - information request: 2025–30 GSL scheme review https://www.qca.org.au/wp-content/uploads/2023/07/submission-energy-queensland-response-to-qca-information-request-june-23.pdf

Locations captured in meter data across NT, WA and SA energy retailers



Since the data received varies in the time-period they cover, these next sections focus on the last 12 months of data received. In these 12-month periods, there were over 440,000 disconnection events impacting 8,878 households, which reported disconnection events. In most regions, this equates to an average of more than 30 disconnections per year. In these next sections, we explore the reasons why this number remains so high.

Disconnection events

The next table presents the total number of disconnection events by energy retailer. For the most recent year of data received, there were 440,434 disconnection events across 8,878 residences in the NT, WA and SA. These time periods differ by energy retailer, so this information is also shown.

Most of these disconnections were associated with a re-connection of power on the same day (92%) but there were a notable number that lasted overnight or more (8%). For most retailers, this split between the same day and multiple day disconnection events is similar across energy retailers. Horizon Power had a greater proportion of multiple day disconnections.

Since the NT energy retailers provided meter alert data, we have been able to separate these disconnection events into two groups:

- those that are followed by a credit top up and re-connection, and
- those re-connections that occurred after the use of emergency credit.

The table below shows the breakdown of the number of these events. Many of those disconnections where emergency credit is accessed could be preventable disconnections, especially if there are substantial enhancements in the provision of early notifications that credit is low **[Recommendation 6b]**.

Total disconnection events by energy retailer – last 12 months of data received

Indicator		**PWC - IES**		**Jacana Energy**		**Horizon Power**		**Cowell Electric**	
Time period		July 2024 to June 2025		January 2024 to December 2024		January 2024 to December 2024		April 2024 to March 2025	
Number of residences/meters reporting disconnections		4,925		2,225		1,674		212	
Prepayment meter disconnection events	**Total**	292,036	100%	90,376	100%	55,159	100%	2,863	100%
	Same day	272,256	93%	85,420	95%	43,898	80%	2,648	92%
	Multiple day	19,780	7%	4,956	5%	11,261	20%	215	8%
Disconnection events followed by credit top up	**Total**	186,228	64%	40,135	44%				
	Same day	169,765	58%	36564	40%				
	Multiple day	16,463	6%	3571	4%				
Disconnection events where emergency credit is accessed	**Total**	105,808	36%	50,241	56%				
	Same day	102,491	35%	48856	54%				
	Multiple day	3,317	1%	1385	2%				

In addition to comparing the aggregate number of disconnections, we compare the average number of times these different disconnection events occur by duration.

In the NT, households experienced an average of 41 to 59 disconnection events per year. We separate same day and multiple day disconnections. The totals for same day disconnections were 38 and 55 events. Same day disconnections under an hour were most common (26 to 30 events) but longer events were experienced often, i.e. 13 to 25 times per year.

In WA, households experienced an average of 33 disconnection events per year. In this case, same day disconnections lasting 1 to 2 hours were most common (14 events).

In SA, there were fewer disconnection events with an average of 14 disconnection events per year. However, in this case, same day disconnections lasting more than 2 hours were most common (5 events).

Average number of events per customer by duration and energy retailer – last 12 months of data received

	PWC - IES	Jacana Energy	Horizon Power	Cowell Electric
Prepayment meter disconnection events				
Total	59.3	40.6	33.0	13.5
Same day - less than 1 hr	30.3	25.7	6.6	4.6
Same day - 1 to 2 hrs	11.9	5.9	13.9	2.3
Same day - 2 hrs or more	13.1	6.8	5.7	5.4
Multiple day	4.0	2.2	6.7	1.0
Disconnection events followed by credit top up				
Total	37.8	18.0		
Same day - less than 1 hr	13.2	6.5		
Same day - 1 to 2 hrs	9.9	4.4		
Same day - 2 hrs or more	11.4	5.5		
Multiple day	3.3	1.6		
Disconnection events where emergency credit is accessed				
Total	21.5	22.6		
Same day - less than 1 hr	17.1	19.2		
Same day - 1 to 2 hrs	2.0	1.5		
Same day - 2 hrs or more	1.7	1.3		
Multiple day	0.7	0.6		

Accessing meter alert data allowed us to assess whether disconnections that ended with a credit top up or activating emergency credit took longer to be resolved. Depending on the retailer, 36% or 56% of disconnections were cases where emergency credit was accessed. Most of these disconnections ended with re-energisation within an hour (89% to 91%).

When breaking the data down into the duration of disconnection events, the difference in these events becomes clearer, as shown below. While same day disconnections tend to last, on average, more than 2 hours, the average disconnection duration for events where emergency credit is activated is much less than an hour. Most of these disconnections are short duration, taking minutes to re-connect.

Duration of prepayment meter disconnection events – hours – last 12 months of data received

	25th perc.	Median	Mean	75th perc.
Hours taken to re-connect - Same day disconnection *				
PWC - IES	0.65	1.38	2.26	2.43
Jacana Energy	0.60	1.33	2.30	2.45
Horizon Power	0.97	1.93	2.06	1.98
Cowell Electric	0.50	1.63	2.75	4.27
Hours taken to re-connect - Multiple day disconnection *				
PWC - IES	41.35	69.77	149.86	137.45
Jacana Energy	41.87	69.67	195.86	139.87
Horizon Power	26.07	47.25	211.73	126.05
Cowell Electric	28.33	46.48	71.27	62.10
Hours taken to re-connect - Same day disconnection - accessing emergency credit				
PWC - IES	0.03	0.13	0.76	0.57
Jacana Energy	0.03	0.13	0.61	0.32

Note: * the calculation of these events differs. For PWC – IES and Jacana Energy these are the disconnection events followed by credit top up but for Horizon Power and Cowell Electric they are the reported events.

The short duration of disconnection events where emergency credit is accessed is an indication that many disconnection events could be preventable. The shorter duration is likely to be associated with no need to travel to town to top up credit. For these disconnection events, people disconnect and then can access emergency credit at the meter. But with better education about the functionality of the meter and advanced warning when credit is low (e.g. below $10) via in-home displays, phone app, SMS, or via other means **[Recommendation 6a]**, many of these disconnection events could be prevented.

To understand these disconnection events, we also recommend that reporting not only focuses on prepayment self-disconnections (including frequency and duration) but also provides information on other related events (such as the activation of friendly credit and emergency credit) **[Recommendation 1a]**.

Activation of friendly credit and emergency credit

As explained elsewhere, friendly credit is applied when people are unlikely to be able to top up. In the NT, this form of credit is applied an average of 39 to 58 times per customer in a given year. In total, there were 372,515 cases of friendly credit being applied across the NT.

Emergency credit needs to be activated by the customer. In this case, it was activated 27 to 28 times per customer in a given year. In addition to this, there were 193,802 cases of emergency credit being used.

Most cases of accessing emergency credit (81%) occurred after a disconnection event. Advanced warning when credit is low **[Recommendation 6b]** could be an impactful way to ensure that emergency credit can be used without a disconnection occurring. These advanced warnings may be important for achieving the overarching goal for prepayment reform, which is to **keep First Nations people connected to power** by reducing the rate of disconnections.

Number of times friendly credit and emergency credit were activated per customer by energy retailer – last 12 months of data received

	25th perc.	Mean	Median	75th perc.
Friendly credit				
PWC - IES	16	58	51	91
Jacana Energy	3	39	20	67
Emergency credit				
PWC - IES	7	27	22	42
Jacana Energy	1	28	16	47

Number of times friendly credit and emergency credit were activated per energy retailer – last 12 months of data received

	Total
Friendly credit	
PWC - IES	285,081
Jacana Energy	87,434
Emergency credit	
PWC - IES	132,366
Jacana Energy	61,436

Expenditure on electricity

The credit top up data received included both payments made by individuals and concessions or rebates applied by the utility. The next table summarises these data using different aggregations and statistics. Total expenditure includes all payments for electricity and is determined by electricity use, the tariff applied, and concession or rebates paid. In the NT, average total expenditure was $2,496 to $2,551. Expenditure was higher in WA with an average of $3,427. In SA a lower tariff was applied, which meant that average expenditure was $1,838.

Credit top ups capture the out-of-pocket expenditure on electricity. For the NT, these numbers are similar to total expenditure as concessions or rebates applied were not as high or common as in the other regions. Across the NT and WA, out of pocket expenditure was between $2,392 and $2,553. Expenditure was notably lower in SA where the average was $1,238.

Differences in expenditure will be determined by multiple factors, such as daily electricity use, energy efficiency, and heating/cooling needs. Within these data, two of the main determinants of out-of-pocket expenditure were the tariff applied, and the amount of concession or rebate payments made.

Concessions and rebates

The WA had the highest amount of concession or rebate payments made with an average of $949 and median of $700. As captured by the median, WA prepayment meters had a $400 payment from the Federal Government (National Energy Relief Payment) and a $300 top up from the WA Government applied. Other targeted WA payments increase the average concession or rebate payments to $945.

While all regions applied the National Energy Relief Payment payments, the amount shown in the table on the next page differs based on the time period used in the analysis, which is based on the data received.

There was a large difference in the amounts of State/Territory concession or rebates applied to meters. In the NT, concession or rebates are rarely applied to meters, which is reflected in $0 amounts for the 25th percentile, median and 75th percentile.

For WA, there was the WA Government top up that accompanied the National Energy Relief Payment, which is reflected in a median of $300. This WA top up payment will no longer be made, so these numbers are likely to change in subsequent

assessments. The average of $600 captures the $300 payment and other additional targeted WA concession payments.

In SA, prepayment customers received concession payments automatically without need of verifying concession status. Refer to the service provider surveys for more discussion of why this occurred.

Expenditure and concession payments – last 12 months of data received

	25th perc.	Median	Mean	75th perc.
Total expenditure				
PWC - IES	$1,280.00	$2,797.54	$2,551.00	$4,030.00
Jacana Energy	$1,405.00	$2,842.34	$2,496.00	$3,954.00
Horizon Power	$1,960.00	$3,502.12	$3,426.50	$4,744.00
Cowell Electric	$1,529.04	$1,824.78	$1,838.48	$2,203.48
Credit top ups				
PWC - IES	$1,020.00	$2,200.00	$2,490.43	$3,652.00
Jacana Energy	$1,000.00	$2,043.00	$2,392.10	$3,435.00
Horizon Power	$1,044.00	$2,369.00	$2,553.15	$3,634.50
Cowell Electric	$916.18	$1,191.74	$1,237.95	$1,577.02
Concession or rebates - Total				
PWC - IES	$300.00	$300.00	$296.15	$300.00
Jacana Energy	$325.00	$325.00	$440.01	$325.00
Horizon Power	$700.00	$700.00	$948.96	$1,031.57
Cowell Electric	$601.46	$612.02	$586.83	$681.74
Concession or rebates - NERP				
PWC - IES	$300.00	$300.00	$248.45	$300.00
Jacana Energy	$325.00	$325.00	$283.11	$325.00
Horizon Power	$400.00	$400.00	$349.71	$400.00
Cowell Electric	$225.00	$225.00	$238.07	$300.00
Concession or rebates - State/Territory				
PWC - IES	$0.00	$0.00	$47.69	$0.00
Jacana Energy	$0.00	$0.00	$156.91	$0.00
Horizon Power	$300.00	$300.00	$599.26	$631.70
Cowell Electric	$376.46	$381.74	$348.77	$387.02

The table on the next page provides the percent of households receiving State/Territory energy concessions. As SA applies concession payments automatically without need of verifying concession status there is no concession gap. In WA, there was a top up of the National Energy Relief Payment, which was universally applied. Other WA concessions were received by 55% of households.

Calculating the concessions gap would require an assessment of the proportion of households would qualify for individual payments. Here, we assume concessions are universally applied (or at least one person in the household would qualify for a payment). This could overestimate the concessions gap but for comparison to the SA energy concessions and WA energy relief payment we use this assumption.

With this assumption, the concessions gap is largest in the Northern Territory. Only 6% to 15% of households received a concessions payment based on the data we received.

The Northern Territory (NT) Concession Scheme provides up to $1,200 each financial year but people need to do an annual renewal[62]. Eligibility includes being a recipient of at least one of four Centrelink benefits: age pension, disability support pension, carer payment, and parenting payment (single). The website notes that **"We'll contact you when it's time to renew, usually in January each year. It's important you respond and submit your renewal so we can continue your membership and avoid overpayment or cancellation"**[63].

Percent of households receiving State/Territory energy concessions

Region	Data provider and concession type	Percent of households receiving energy concessions (as identified using credit top up data)	Concessions gap - assuming concessions are universally applied
South Australia	**Cowell Electric SA energy concessions**	100%	0%
Western Australia	**Horizon Power WA energy relief payment**	100%	0%
	Horizon Power WA energy concessions	55%	45%
Northern Territory	**Jacana Energy NT energy concessions**	15%	85%
	PWC - IES NT energy concessions	6%	94%

[62] NT Government (2025) Electricity concessions - https://nt.gov.au/community/concessions-and-payments/nt-concession-scheme/concessions/electricity

[63] NT Government (2025) Eligibility - https://nt.gov.au/community/concessions-and-payments/news/2025/eligibility

Impacts of energy relief payments

In 2023 and 2024, WA prepayment meters had credit applied as part of the National Energy Relief Payment and WA Top Up Energy Relief Payment. In 2023, the payments totalled $500. In 2024, the payments totalled $750. These were applied across all customers on specific days of the year – half mid-year and half at the end of year.

This section of the analysis focuses on the relative change in disconnection events in the weeks before and after these payments.

The next set of graphics illustrate that there were significant decreases in the number of disconnections across all WA prepayment customers for 2 to 5 weeks after the National Energy Relief Payment and WA Top Up Energy Relief Payment.

How long this impact lasted depended on the time of year. The green segment of the line shows the impact of the concession payments for the mid-year and end of year periods.

- Mid-year payments had a longer impact on reduced disconnections. After 5 weeks, there were still half the number of disconnections than usual.
- The impact of the end of year payments was about 3 weeks, which is likely to be due to greater electricity use for cooling.

Here, we have focused on the energy relief payments made in WA as they were:

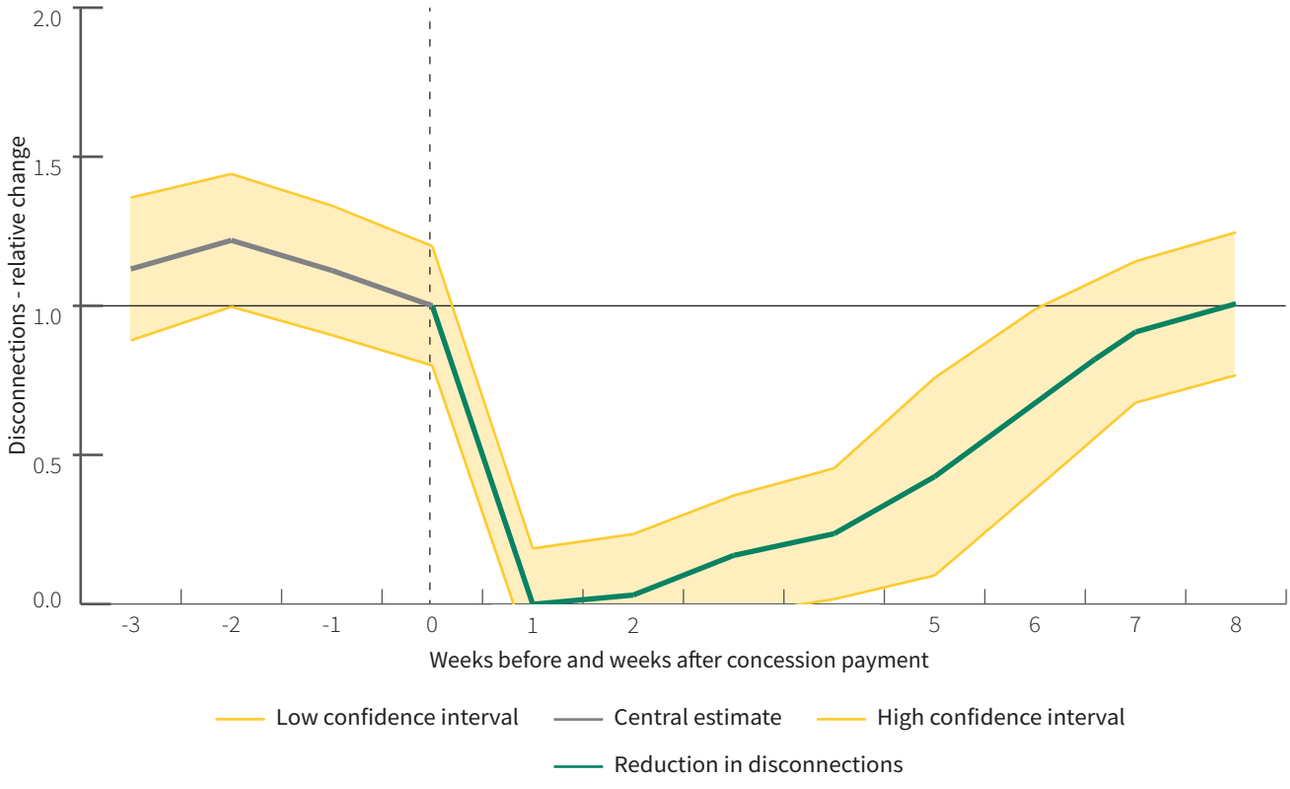
1. the largest rebate payment, and
2. the payments occurred on the same day.

This made the regression design straight-forward and the results are clear.

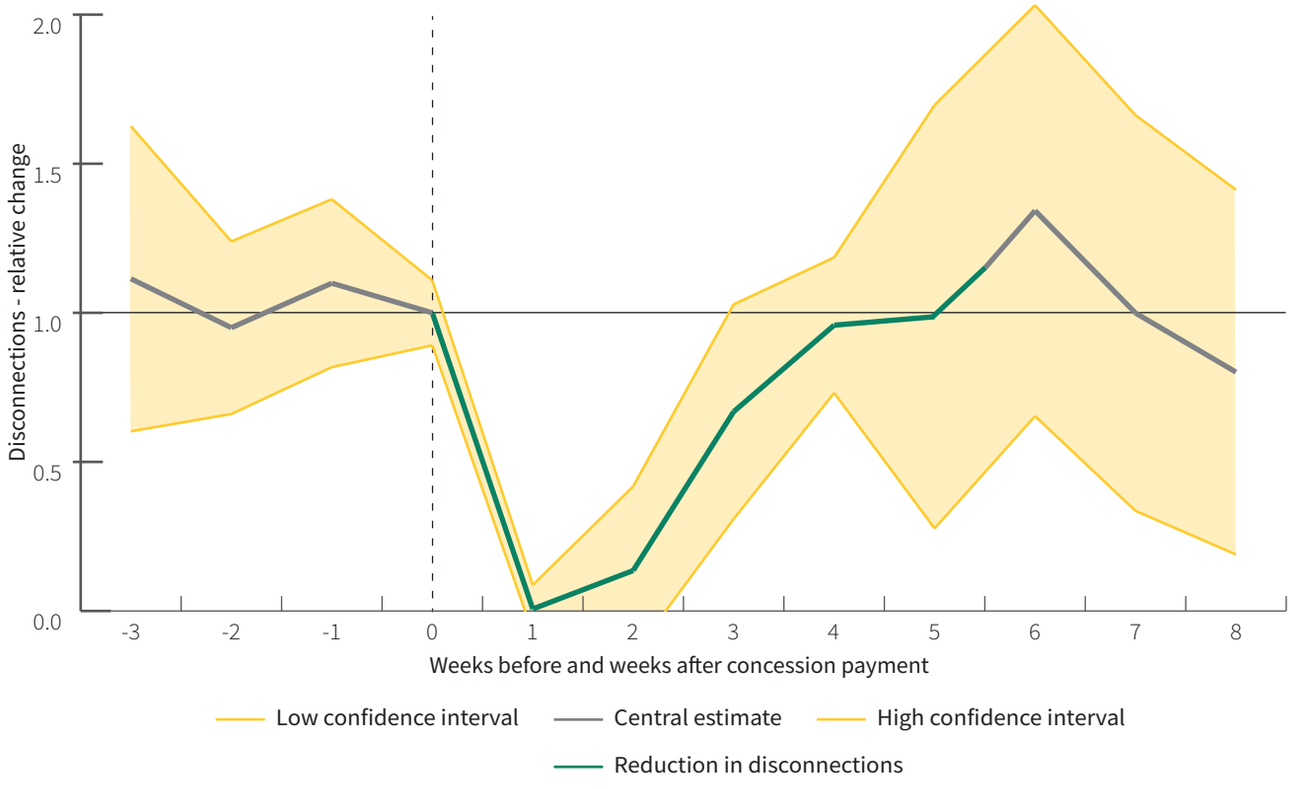
Future analysis will measure the decreases in disconnection events due to concession or rebate payments across other regions.

Impact of the National and WA Top Up Energy Relief Payment on disconnections

Mid-year payments



End of year payments



Hardship metrics

There are energy hardship metrics relevant to prepayment customers. As noted elsewhere, these metrics appear in the AMEC National Energy Retail Rules, the SA Prepayment meter system code and the WA Code of Conduct for Supply of Electricity to Small Use Customers.

The SA Prepayment meter system code and AMEC National Energy Retail Rules definition of payment difficulties is when: a small customer has self-disconnected 3 or more times in any 3-month period for longer than 240 minutes on each occasion.

For the WA it is specified that there should be assistance for customers experiencing payment problems if: a energy retailer identifies that a residential pre-payment meter customer has been disconnected 2 or more times in any 1-month period for longer than 120 minutes on each occasion.

It is unclear how these metrics were developed, but they could be useful in proactively identifying customers who need assistance. Using the NERR metric, 7% to 13% of customers were experiencing payment difficulty (Table below). In the case of the WA Code of Conduct metric, there were much higher levels of payment difficulty with 22% to 50% customers.

We were told that utilities (outside of SA[64]) rarely contact customers to help them with energy hardship and provide assistance. Yet here we show that a notable proportion of customers require assistance. This supports our proposal for requirements on energy retailers to pro-actively provide assistance to those prepayment customers that meet a criterion for hardship and payment difficulty **[Recommendation 2a and 2b]**.

Percent of customers in payment difficulty – last 12 months of data received

Definition	Trigger - number of disconnections	PWC - IES	Jacana Energy	Horizon Power	Cowell Electric
Number of disconnections in any 3-month period for longer than 240 minutes on each occasion	One time	29%	23%	27%	25%
	Two times	16%	12%	19%	19%
	Three times	**9%**	**7%**	**13%**	**13%**
Number of disconnections in any 1-month period for longer than 120 minutes on each occasion	One time	59%	51%	48%	31%
	Two times	**50%**	**38%**	**38%**	**22%**
	Three times	39%	26%	30%	14%

[64] In SA, Cowell Electric is required to 'monitor customer disconnection rates and durations to identify customers who may be experiencing payment difficulties' - https://www.escosa.sa.gov.au/ArticleDocuments/21905/20231212-Electricity-APY-ProtectionsCommunityPrepaymentCustomers-FactSheet.pdf.aspx.

Impacts of extreme temperatures by climate zone

The next set of graphics illustrate how the number of disconnections were impacted by daily maximum temperatures across climate zones. These regression results for the data from the NT are presented as the relative change in disconnections compared to the median temperature for the climate zone. Across most regions, daily maximum temperatures above 40°C are associated with significant decreases in disconnections.

There were three types of analysis used to create these visual summaries. First, non-parametric regressions were run to determine the shape of the temperature-disconnection relationship. Second, a threshold regression was estimated and found that there was a significant increase in disconnections above 39.5°C. The third component is using the median temperature for that climate zone to anchor the estimates and convert them into the relative change in disconnection compared to the median temperature.

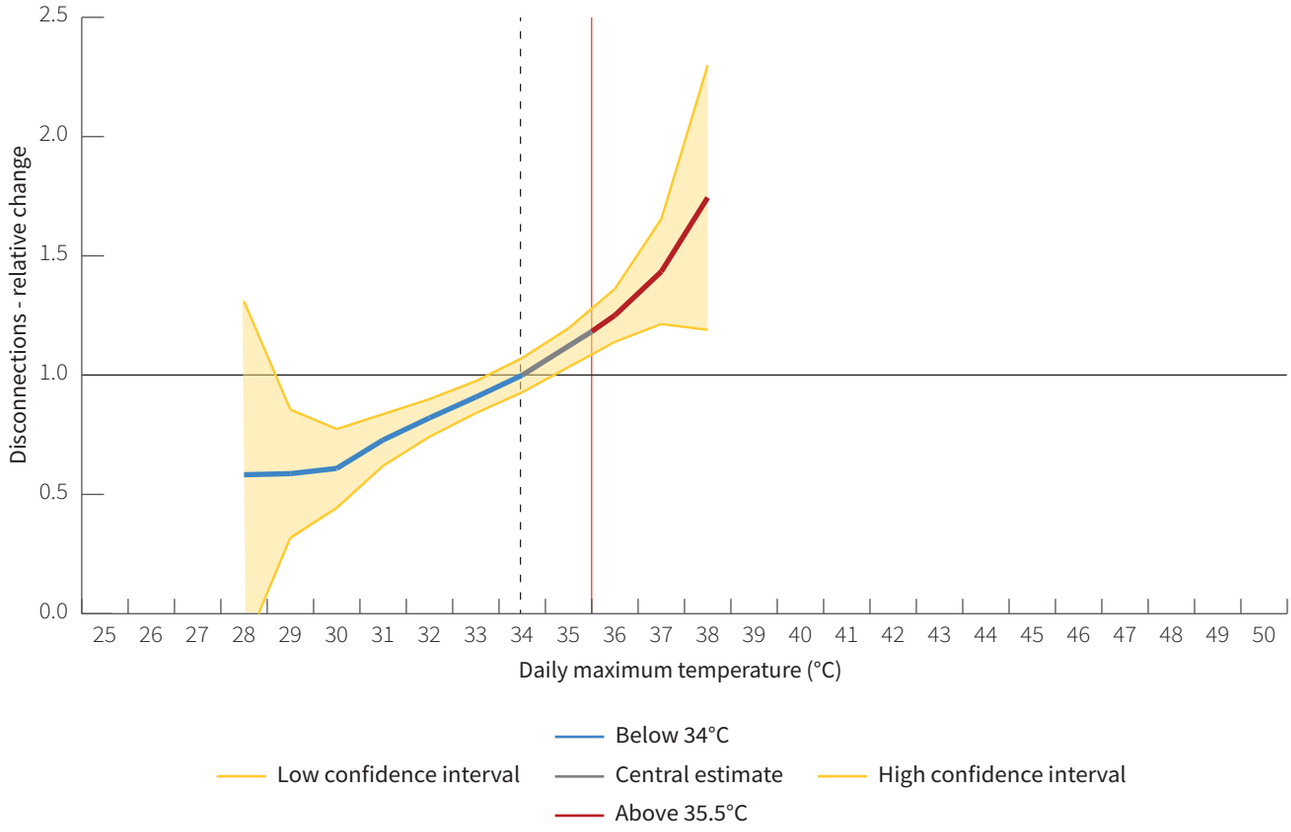
By combining these three types of analysis, we produce estimates for temperature-related disconnections that are colour coded into hot, cold, and moderate temperatures. These three groupings are based on the median and threshold temperatures.

Recommendation 4a is to implement an exemption from disconnection during extreme heat, as a programmable function of customer smart meters and avoids accrual of customer debt. This would be an important protection for customers who need assistance during the hottest days of the year. If this initiative were implemented across the NT in 2024, it would have cost about $351,516. This would have been about 5% of total expenditure, which is lower than the amount of assistance provided by the National Energy Relief Payment (9-10%). The assistance would have been provided more often in hotter areas. The majority of hot days above 40°C were in the grassland area climate zone (57%), followed by the arid climate zone (30%) and the tropical climate zone (13%). For equatorial climate zones, a comparable support mechanism may account for the combination or temperature and humidity and/or incidences of cyclones.

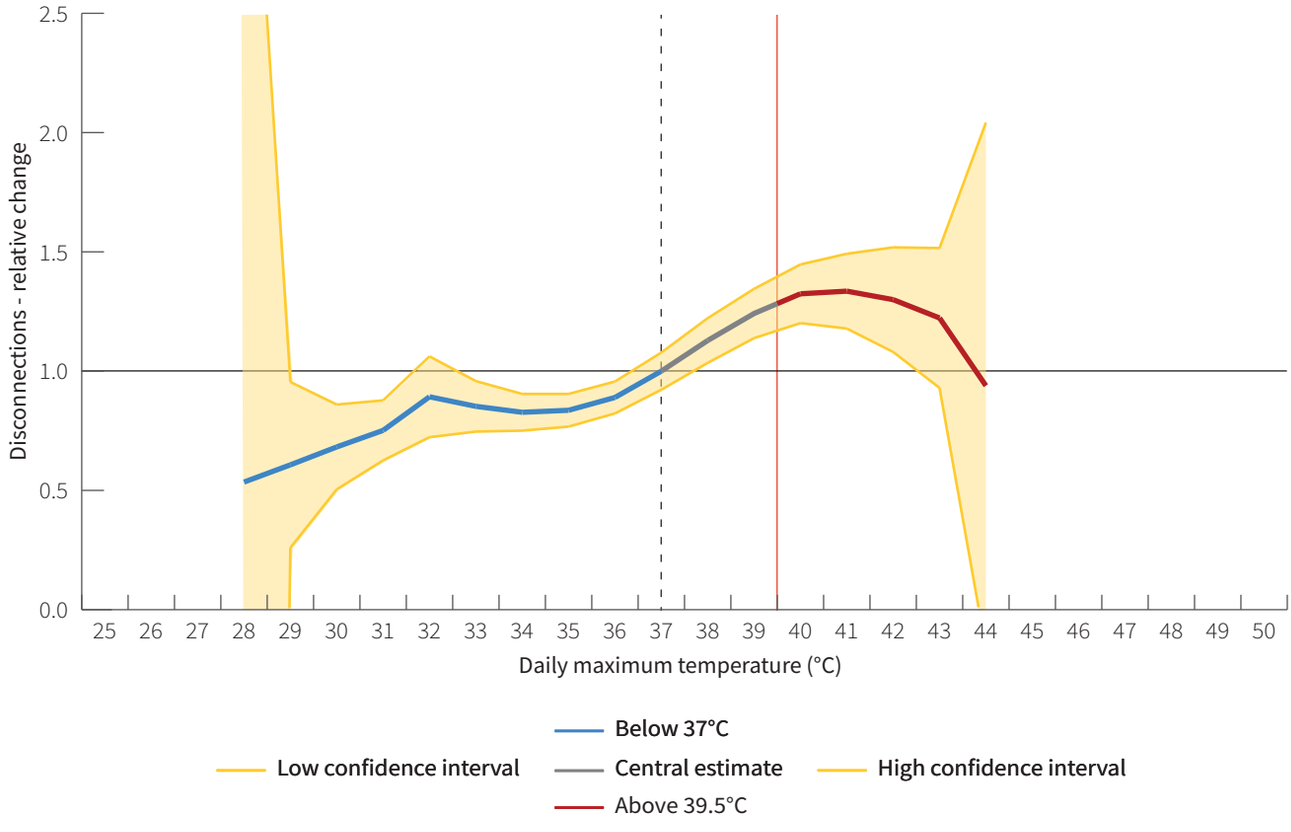
In the case of WA, no notable temperature effect was found but this was due to the end of year National Energy Relief Payment and WA Top Up Energy Relief Payment occurring in December. Hence this captures the key heat peak periods in the data received.

Change in disconnections by daily maximum temperatures

NT equatorial areas

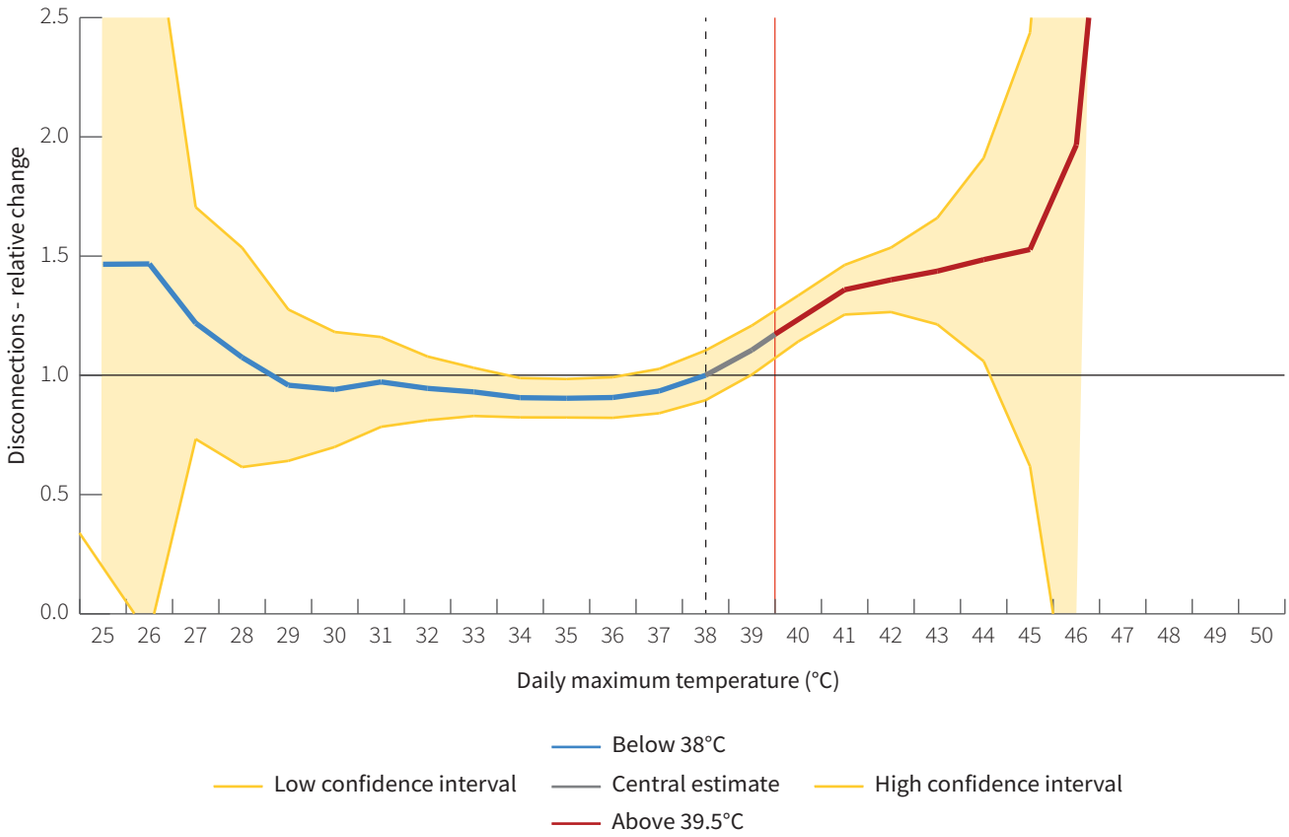


NT tropical areas

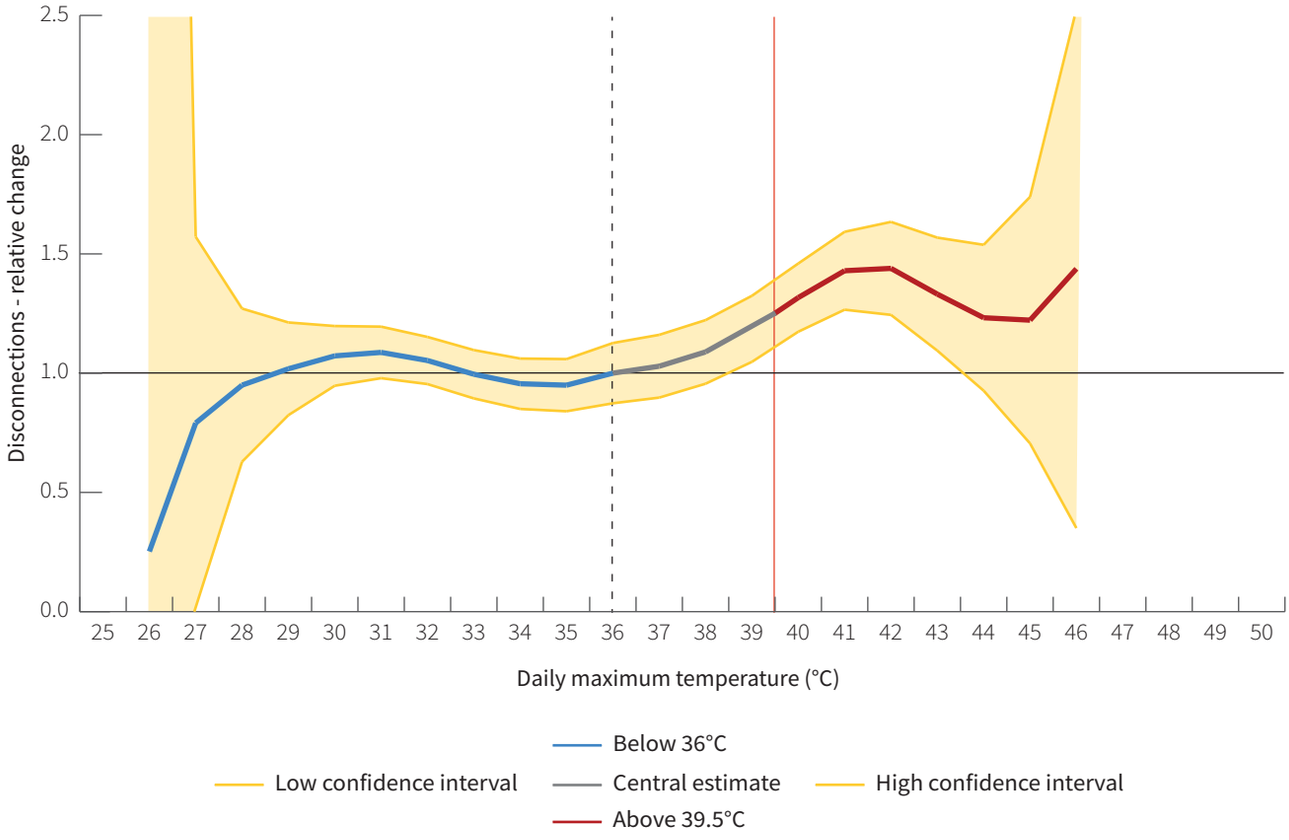


Change in disconnections by daily maximum temperatures

NT grassland areas



NT arid areas



INTERVIEWS WITH SERVICE PROVIDERS

Service Provider Surveys

Service provider surveys were carried out as online interviews with 32 people from a range of organisations. These interviews were conducted between January 2025 and August 2025. One person provided typed responses to the questions, and this was treated in the same way as the interview transcripts. The 13 organisations that had representatives who participated in a one-on-one or group interview were:

- Australian Energy Market Commission,
- Central Australian Women's Legal Service (CAWLS),
- Central Land Council,
- Ergon Energy Retail,
- Horizon Power,
- Indigenous Essential Services,
- Northern Territory Council of Social Service,
- Northern Territory Legislative Assembly,
- Power and Water Corporation,
- Queensland Council of Social Service,
- South Australia Council of Social Service,
- South Australia Department for Energy and Mining (DEM),
- Yalata Anangu Aboriginal Corporation.

We had a set of guiding questions, but interviewees were able to make clarifications and discuss a range of topics as most questions were open-ended.

Upon reviewing the transcripts of the interviews, we have summarised the discussions using six themes:

1. Hardship programs, face-to-face contact and customer information,
2. Consumer protections that do not apply to prepay customers,
3. Importance of installing solar panels and batteries,
4. Housing quality,
5. Information on historical energy use and setting up direct debits,
6. Appliance efficiency and affordability.

Hardship programs, face-to-face contact and customer information

When it comes to hardship programs, there are notable differences in the requirements by jurisdictions and the practices of energy retailers. Most energy retailers have a program or procedure, which applies to prepay or post-pay customers, but as discussed elsewhere, if a prepay hardship program exists then it has typically been triggered by people asking for help, rather than proactive identification of customers.

In some cases, it became clear that energy retailers do not keep detailed records on customers. In these cases, the information they do collect, and monitor, is either related to the top up card or meter but not associated with the customer. For example, one participant from an energy retailer mentioned that:

> **"Prepayment customers don't have access to the [post-payment] hardship programme … my team can apply a hardship payment [to the meter], but that is the [extent of] ongoing support … it's linked to the card … we don't know who the customer is."**

This also applied for other customer information and the participant mentioned that the procedures for prepayment customers also differ when it comes to family violence and other issues:

> **"We don't know the person, so we don't flag them for family violence and things like that."**

This was not the case across all energy retailers. Either due to regulatory requirements or voluntary schemes, some energy retailers do have a more appropriate relationship with their customers. For example, another participant from a different energy retailer described their efforts to provide face to face customer service and they mentioned that:

> **"We've got customer service staff and financial hardship staff based in regional offices and they will on a regular basis go out to a community or outlying towns and provide a face-to-face customer service. Customers can come up and access assistance with [the process of] applying concessions to their accounts, financial hardship, payment plans."**

It should be noted that face to face customer service is not the only option for identifying hardship customers. Another energy retailer has recently revamped their hardship program to include pro-active identification of customers, and in this new version of

the program, a hardship metric[65] will be monitored using a daily report and for those customers identified as being in payment difficulty it will instigate an:

> **"Outbound call to provide support services to those households that are struggling to keep their power on. We will assist the clients with emergency relief funds and refer them on to support services within their communities to assist them further with any financial hardship."**

In another discussion proactively identifying hardship customers was discussed and the participant was unaware of proactive contact:

> **"I [have] never [heard of] any direct [financial counselling] referrals from [the energy retailer]. It's always the other way around. … I find their hardship policies a little bit cold. I've asked for debt waivers when domestic violence is directly involved. … It's very hard to get a debt waiver".**

In one jurisdiction, there is a clear requirement that the energy retailer contacts people undergoing payment difficulties and hardship. One person that we spoke to confirmed that:

> **"[This is a] clause in the licence. Retailers are meant to make reasonable enquiries. [During this call they are supposed to] identify the reasons for self-disconnection, provide information about state government assistance, provide information on independent financial counselling services, and provide general electricity efficiency advice. Whether that's happening, I don't know."**

Expecting people to opt-in and ask for help from support systems means that the burden is on the individual to find out how they can be helped. For example, another participant mentioned that:

> **"The identification process [requires] the customer to self-identify. [The person needs to say that] I am having hardship; I need to access some additional support. That's a very big responsibility to put on a hard-pressed consumer. Even in the post-payment context, we have trouble with people self-identifying and asking for [support]. The risk that they won't receive [support] is not all on them in the post-payment context because energy retailers are required to do it."**

In terms of self-nominating for help, signing up for concession payments and verifying concession status was discussed. One participant had requested access to numbers on how many

[65] The metric that will be used is that detailed in the SA Prepayment meter system code and AMEC National Energy Retail Rules where the definition of payment difficulties is when: a small customer has self-disconnected 3 or more times in any 3-month period for longer than 240 minutes on each occasion.

people were receiving the [relevant State or Territory] concession in their area. Based on that data they estimated that:

> **"There were only [a few] people who are signed up to the [relevant State or Territory] concession scheme and that's 0.8% of [residents]. … Why are there so few people on the concession scheme? I don't think people know about this concession scheme. But even if you do know you have to sign up to it online and there aren't services that are helping people to sign up online. So, you've got the empty concession scheme."**

The burden of proving eligibility for concession payments isn't always placed on the household as one region has decided to automatically apply concessions:

> **"[We] could see what an onerous job it would be to [verify the details of one nominated person per house] … this group of customers have a very high likelihood that at least one person in each household would qualify for that concession. And so, [the relevant government department] said they were happy to apply it to all the households, which meant that there is a system where concessions get paid on a weekly basis directly to the meter. … [We also understood that some people may move between communities, so it makes sense with] the transient nature of [people moving]. It was just going to be too hard."**

Consumer protections that do not apply to prepay customers

One of the key issues that has been raised with respect to the operation of prepayment is whether there are electricity consumer protections that do not apply to prepayment customers [66].

In most cases, participants were able to identify at least one protection that did not apply to prepayment customers. But there were some differences in the ways that people responded when discussing consumer protections.

In many cases, participants either discussed protections that did not apply or were able to detail how their region has set up regulations and regularly review disconnection rates.

> **"[There] was a massive body of work, [which required] regulation change that needed to go through … to build the customer protections [we have in place]."**

In contrast, participants from one energy retailer were unable to identify a consumer protection that did not apply to prepayment customers.

Some participants were candid when it came to discussing consumer rights or protections that did not apply. For example, one participant immediately identified that:

> **"The big ones are explicit informed consent and protection from disconnection. Protection from disconnection is the protection that underpins all [other energy] consumer protections. That's the big one that's missing. … Making disconnection the first option when you're experiencing payment difficulty, [and] not the last option means that there's a fundamental disconnect between [consumer protections] and the structure of prepayment. They're really at odds with each other."**

Another participant compared what occurs for post-payment and prepayment customers:

> **"If you're using post-payment there's a number of steps you go through before you're disconnected, so things like payment plans, seeking financial counselling support, a hardship programme, there's so many so many steps before disconnection, it is an absolute last resort. You can have thousands of dollars in debt and be paying back $5 a week or something like that. And if you're committing to that payment**

[66] White, L. V., Riley, B., Wilson, S., Markham, F., O'Neill, L., Klerck, M., & Davis, V. N. (2024) Geographies of regulatory disparity underlying Australia's energy transition. Nature Energy 9(1), 92–105.https://doi.org/10.1038/s41560-023-01422-5

plan, you know you won't be disconnected. Whereas prepayment disconnection is the first thing."

As noted, even though consumer protections may apply they may not be implemented in practice. One participant mentioned that:

"Theoretically some of the protections may technically exist, but in practice they do not, and I think that goes to the heart of the problem that we see. With prepayment arrangements, even if some of the frameworks may technically confer equal protections in relation to protecting you or giving you access to payment assistance. … The practical effect is that those protections may as well not exist. … There is no one watching. There is no regulator having any oversight of what is going on."

For the most part, prepayment for electricity has been set up in a way where the risk of having few people reach out to ask for help is a burden that disproportionately falls on the consumer, rather than the energy retailer. This was clarified by another participant who mentioned that:

"The duty and the responsibility to maintain the connection and to offer support, does not fall on the energy retailer equally in a prepayment arrangement. In a post-payment arrangement the responsibility, however theoretical, falls on the energy retailer to have these supports and protections available, and [the energy retailer has] to ensure they're available to people in certain circumstances, including hardship."

"The responsibility of getting it wrong falls on the energy retailer. … If you're judged to have disconnected someone without going through those processes, you are legally responsible, which means that the energy retailer has a responsibility to manage that risk. The potential harm to the consumer in a prepayment framework is that the consumer bears all the risk and all of the harm".

Another participant who was not from an energy retailer, mentioned that they had heard that energy retailers do not know who their customers are and that:

"The meter is the only contact point, so for those consumer protections to occur and even for that phone call to happen, it's really crucial that there is a contact person who's [contact details are] up to date and associated with that meter."

One notable difference in how people are treated across the country is the example of life support equipment customers. When asked whether they were aware of any electricity consumer

protections that do not apply to prepayment customers, one participant from an energy retailer noted that:

> **"The main one is life support protections that are provided to our postpaid customers. The nature of prepaid means that they're not eligible for life support protections whilst they're on prepay. But what we do there is move them to a post-paid account. So, whilst life support prepaid customers are not eligible for life support, we can mitigate that by moving them to a postpaid."**

Not all participants agreed that switching a life support equipment customer to post-payment was a good idea. A participant from another energy retailer mentioned that they knew of customers who did not want to switch to post-payment:

> **"Until last year, if there was identified life support equipment at that property, a customer was unable to be on the life support register and have a prepayment meter, so we would have to change the meter whether the customer wanted us to or not. What we found was that a lot of customers did not want us to. … So, we've known for some time that to force a prepayment meter customer to change to a credit meter might be addressing one need but creating another risk."**

> **"We lobbied [the regulator] to allow us to keep a prepayment meter in place, but prevent that meter from turning off, so [we are] still extending the same protections with the prepayment meter in place. [This way] the household can share those expenses, can keep that visibility of their daily spend etc."**

Importance of installing solar panels and batteries

When asked to respond to a Likert scale question, most participants said that they believed that solar panels and batteries were very important for helping to reduce the rate of self-disconnection events experienced by prepayment customers.

These discussions also focused on the different ways that solar could be integrated into the system, community ownership and/or benefit sharing, the importance of batteries, and the need for a wider focus on housing quality and appliance efficiency.

In one case, the motives for setting up solar in remote areas was initially better reliability and security of energy supply but then extended to other considerations:

> **"[For] the remote sites, [we wanted to lower diesel reliance and] stop the noise, stop the diesel engines, reduce the maintenance, reduce the fuel. [The project also supported] remote telemetry as well because it's a cost to travel 4 hours to flick a switch when we can automate it."**

But there was a need to get the business case right and get support from another funder that would reduce the payback period:

> **"Because of the remoteness, cost for hybrid power stations are excessive. We base the payback on diesel savings alone. While we could take into account servicing, consumables and other diesel generation related costs, the reality is that new technology comes with software licences, increased technology and data needs and specialist engineering costs. When these systems are mature enough for "plug and play", paybacks may improve."**

Getting this payback period down was important for government support:

> **"Without additional external funding, the payback for new hybrid power stations is too high, and diesel will continue to be the source of supply."**

The additional financial support was gained after convincing the funder that there would be benefits for the local community via lower energy costs. While there would be fuel savings, the lower cost of energy was set at the discretion of senior project partners.

Without that financial support, a solar roll out would have become piece meal and more expensive. When asked whether

there were lessons learned that other jurisdictions could benefit from, it was noted that:

> **"[It could be important to] bundle the stations [and coordinate the work.] … Otherwise, it would be piece meal and that's really costly. You could double the price again if you had to keep going backwards and forwards. … [My recommendation would be to] standardise your stations. Standardise your drawings, the operations and everything else in it as well. So, you'll gain efficiency dividends out of it. [In reality, there will be] different sized stations. They're going to be slightly different. But I think the controls and how these things talk and communicate that's difficult. So, it's trying to make your system standardised so that you can rubber stamp [and roll] out [the same design] for the others."**

The discussion above was based on one owner and operator of solar systems across numerous sites. One participant from an energy retailer mentioned that there are different ways that ownership can work:

> **"There's a lot of different ownership structures … [it] could be owned entirely by [an external party who] owns and manages them with guaranteed outcomes; there could be shared ownership between [that party] and the community, or there could be entire ownership by the community."**

They then discussed how wide the benefits could be:

> **"The benefits of solar and a battery can extend beyond simply just a credit onto a metre, it can really extend into a community, it provides energy, self-determination and ownership. It can improve jobs and skills in the community. So I think there's a monumental opportunity and [we are] probably [only] scratching the surface here."**

> **"Having solar on a rooftop provides some additional energy security, you're able to utilise the energy that's available to you during the day to help with cooling the home, which can provide additional comfort in the home."**

Batteries were important in remote settings where they can help improve the reliability of the electricity network and help integrate higher amounts of solar:

> **"Beyond that, if we talk about batteries, [imagine] you're in a remote setting then it can help shore up reliability on the network. If there's network outages that occur, batteries provide a backup capability and that can be done in various different forms. [It could] power a single circuit in the home. During a blackout scenario, there are even certain inverters**

that can provide a backup circuit without the presence of the battery as well."

"Batteries can really help smoothing the intermittency with solar and can therefore lead to a high penetration of solar into the network, if it's well managed."

One participant made it clear that technology alone is not a solution, and that a solar program also had to address broader issues:

"The technology itself is not an inherent solution, and schemes that have been implemented have focused on the technology without addressing the circumstances, and what is the outcome we're actually trying to achieve. If you're not addressing people's living circumstances and making sure that that solar is part of a house that's more affordable and healthy to live in, then it probably isn't going to be part of the solution."

They clarified that solar could be an important part of a broader scheme that focuses on:

"Ensuring that the housing is efficient [and] ensures that people have got the right service delivery models. The frameworks [established] in order to deliver those services could be incredibly important. To put it bluntly, there's not much use of having solar on the roof if there's a very old broken air-con running all the time. If anything, it might even encourage people to use more."

Another participant mentioned that they knew of discussions about previous projects that were critical of minimal benefit sharing and that:

"People are saying there's been no change to the tariffs … so it actually hasn't changed what people are paying and therefore we're unlikely to see a change in the rate of disconnections. It's an extremely important provision that you've got [a project with] behind the meter benefits to the customer."

The same conversation then went onto to discuss the need to support community ownership and provide support to local communities so that they can establish the structures that make these projects a reality:

"There are programmes and projects that people can get involved with … one of the big challenges has been setting up the corporate, collective or governance frameworks for how communities can take ownership of solar [projects]. … That's just one of the things on our mind, [the need to] support communities more broadly with projects like that. The kind of

support that's needed to get those collectives up and running or those corporations up and running. There's a bit of work involved there. … It would be good to have a bit more support or like some champions at a higher level within government who are thinking through that. … benefit sharing is not really being considered in the Renewable Portfolio Standard (RPS).”

Housing quality

While our questions did not specifically mention housing, housing quality and design often came up when discussing energy affordability or roof-top solar. Some participants didn't pull their punches when discussing housing quality and we were told:

> **"The houses themselves are pretty ******, so if you built better, [if they] had insulation, that's also going to be really helpful."**

> **"A lot of these homes are owned by the Department and they're not energy efficient homes; they haven't been maintained appropriately to support energy efficiency. It's challenging for us, [we are] trying to support [residents but] they're quite often at the mercy of the challenges that come around getting homes maintained and repaired."**

And the criticism was directed at both old and new builds:

> **"We've probably all been hearing that a lot of the new builds that are being rolled out, the houses are hotter than [outside temperatures] … steel frame transportable [houses] don't have that thermal mass, so they're getting hotter and colder. The block builds would take longer to heat up, but once they're hot, they're hot. It's been hot all summer, really hot. And you know, obviously [there are] really low standards."**

People were aware of expediency being put ahead of better designs and strategically positioning the building on that site:

> **"It's not just about building more houses; those houses have to be climate and culturally appropriate. And it's kind of head against the brick wall, in terms of getting movement from the government on [housing] design."**

> **"[We have been told that improving the] design of houses had kind of been put to one side because [the department] were prioritising expediency of building houses".**

> **"You've got this bizarre situation where in some communities you'll have some housing that has been quite [well-]optimised for that site and other housing that is almost just chucked there. It hits the five-star rating objectively and that is enough."**

Information on historical energy use and setting up direct debits

Since people don't get a bill or a quarterly statement, it can be difficult to understand when and how people are using power. Being able to access information on how much electricity people use became important for energy literacy but also budgeting purposes.

One participant mentioned that their team had done a lot of work to ensure that prepayment customers stayed connected. This support involved having an organisation visit communities to set up Centrepay and direct-debit deductions:

> **"[In our region, the retailer can use] a phone recording of people agreeing to set up Centrepay … for each community, one of the things that we did is make sure that there was help … [this assistance included in-person assistance to] set up that process and make sure they have the right information. … [This included the retailer providing] average consumption of the previous period so that there were informed discussions about how much they've been consuming or paying. So, the customer knows that X amount of dollars might be suitable."**

These communications with customers were not a one-off event, they involved repeat contact if the retailer believed that people had set up a Centrepay or direct-debit deduction that seemed too high or too low:

> **"It is extra work, [setting up a payment may mean that people] end up overpaying and then underpaying depending on the season. [Doing this properly involves] a continuous loop … building relationships with customers so that the [retailer] can have conversations about the amount of credit on a meter and about [how they] tailor this for the summer period and then during winter. I think the challenge is having updated contact details. If you've got someone on the ground, then you're able to have those conversations. … [the retailer] monitors if people start [accumulating credit], $200 triggers them to make a call. It's not prescribed, but [an adjustment to deductions] is suggested at crucial times, [such as] when there is a notable credit amount."**

One participant was keen to see energy audits being discussed with residents and community members:

> **"You can get these energy audit kits, which I'd love to have … so you could go around and assess [individual] houses. … I've tried [to arrange] energy audits on people's places just to give them an idea of where all the power is being drawn from. There needs to be a lot more education with community members too**

about their power usage. [But] it's not just about educating community members, [you have to be] able to actually tell people in their own homes what they could do to improve [their energy usage]. … with energy audit kits, you could actually go through and do that with the client so they can see [what appliance] is the main drawer."

Education came up a few times and this participant clarified that it shouldn't only focus on energy literacy or how to top up and make payments. It should also involve a conversation where people set a budget based on historical energy use:

"[Education shouldn't only be focused on] showing people how to use the meter and pay, but around sharing the cost [of electricity] in the household. [In SA, the rollout is recent and people can] pay [via] direct debit and so [there's been an effort to] set people up, sitting down with people talking to them about their energy use, working out [how much to pay per week]."

But this type of budgeting is difficult when people do not get access to historical data in an easy-to-use format. Another participant told us that past energy usage became important when working out a budget or getting debt relief:

"When I'm negotiating a power deal [I need to call the energy retailer so that they can] tell me what the clients average fortnightly usage was, because that's important. [We need to set up a budget] based on their historical patterns. [The energy retailer provides the data] when you ask. … They're pretty open [to this data request] because they want to get me on board [to help set up a] repayment plan and it's got to be realistic. So, we worked together, it's beneficial for both of us that they provide that information."

The difficulty of not knowing historical energy use also came up when another participant discussed automatic deductions via Centrepay or direct debits timed to match other types of income:

"For households that wanted to look at Centrepay as an option, it would be really good to make that a possibility for people who are on Centrelink payments [as] a regular fortnightly payment. [No matter if people work or not we should set] up a system so that people can [set up a regular payment] on their payday, whether it's a Centrelink payday or if they work at the shop or the health clinic. [It should be the case that] anyone can set up that system to have a regular fortnightly amount coming out of their pay and that people are given the information [to] know how much is needed. That's the issue we've had, trying to work out how much is the household paying per fortnight? How much money do people in that

house need to make available to cover the power each fortnight?"

The types of customer information that is held by the energy retailer came up again when discussing whether prepayment customers could use direct debits and/or Centrepay:

"For [those] customers with a [post-payment] account [they] can enter into a direct debit [arrangement] and pay fortnightly. They can [also] pay via Centrepay. [But] with the prepaid, they don't have that option because it's tied to a card. We don't see the customer. … These customers need to budget. Whereas [for post-payment customers] if you've got a direct debit from Centrepay or from your bank account, it just happens."

Prepayment has been set up in different ways across the country and sometimes the technology used becomes a barrier or enabler for providing top up options or providing customers with information that they want. One participant from an energy retailer was keen to see change happen and be informed by those using prepayment for electricity:

"Very minor changes [in the way prepayment has been set up] could result in big wins or quick wins. … Some people will use [an online or app option to] see what their current bill amount is, whereas you can use [technology] in other ways. … [They could set up] Centrepay and manage energy in different ways as well. Smart meters and prepayment apps have got to be tailored to the end user or the customer whether they have that [technical] ability or not. Obviously, that [tailoring] will make the interface and the engagement with the technology a lot better."

Appliance efficiency and affordability

In addition to housing quality, a few service providers were keen to discuss the quality and energy efficiency of the appliances used in the home. It is important to distinguish between those appliances that are installed in the home and those that individuals buy for themselves. People may not be able to switch to a more efficient appliance without support:

> **"You can't just go out and buy a more efficient appliance, there's not that choice or anything like that. So, it's really [dependent] on the government [to provide better appliances and have] more efficient housing design. … It is important and not on the consumer or customer, because there's not the means out there [and] people [don't] have [many] choices or options."**

For example, an inability to purchase efficient heating appliances came up for those communities that experience cold temperatures.

One scheme that addressed the issue of local stores selling inefficient white goods. Participants from this retailer mentioned that:

> **"Because of the cost to transport white goods to those communities, the stores selling those white goods were only buying the [appliances with the] lowest star rating. So that was driving [up] energy costs for those customers. So, what we did with [government support] was we funded the difference [between low and high efficiency appliances] to get the more efficient appliances into those communities. … We made sure [that the appliances on sale] had the five-star rating [and was available] for the same cost [of a low efficiency appliance]."**

> **"They had to give us their old, less efficient fridge, and then we arranged for that to be removed and disposed of appropriately. So, they couldn't keep both fridges. They had to [replace a] less efficient [appliance] but they got a new 5-star energy efficient appliance in response. … [the scheme will replace] dishwashers, dryers, washing machines, air conditioners were part of that as well. Fridges, freezers."**

Participants from another energy retailer discussed schemes to replace inefficient appliances, both large and small:

> **"The program includes education awareness, but there's tangible outcomes in terms of appliance upgrades … If we deem that replacing an appliance will assist them to manage their energy [use or] debt and improve their energy efficiency then, yeah [we replace] things like fridges, freezers, washing**

machines, air conditioners, those sorts of things. … Those old fridges and freezers with broken seals can use a lot of power."

"With [respect to] air conditioners most of our customers reside in government housing that have box air conditioners. … box air conditioners that are not properly maintained or aged [become] incredibly inefficient. And most of these homes will have three or four of these running. So our ability to replace some of those with more efficient units and provide education about how to use those efficiently goes a long way."

"We've certainly advocated for a move away from the box air conditioners."

As noted, the focus wasn't only on the large appliances. At the start of the program, other low-cost replacement options would also be a focus of building an understanding of why energy use had become so high.

"We've got both low cost and high-cost replacement. Fridges and freezers and things like that are high cost. … Early in the programme, [we can also] provide some low-cost appliance replacement [with items] like pedestal fans, electric frying pans, kettles, toasters, smaller things."

"Part of that programme is [to] go into the customer's home and do a visual inspection of what's in the home, the fabric of the home, and how they're using electricity. [Using that] initial assessment we make recommendations about [appliance replacement]. [Some small appliances, like] electric frying pans wear and tear very, very quickly. They become quite energy inefficient."

"There's two advantages there [education and appliance replacement] and it helps the customers start to lower their energy use, but it also really engages them in terms of taking part in this programme and learning more about how they're using their energy and how they can save [using our] suggestions and recommendations."

Such a program has practical lessons to learn from, especially in terms of needing to replace broken appliances or fund installations:

"We don't leave the customers with a dodgy [appliance]. We will remove it for them and dispose of it for them at our cost. … Anything that requires installation, there's been once or twice where we [have] needed to do something that requires some electrical work. So, we've engaged an electrician, and we've paid for it. There's no disadvantage to the customer by getting a new appliance. We're making sure we're cleaning up and all that sort of stuff."

But having a large program that combines both education and appliance replacement needs solid and reliable funding:

> **"[The program] we've been talking about, it's reliant upon funding. … We're looking to extend that and seek more funding … we're very hopeful that we will get further funding and we'll be able to continue that work."**

Another participant discussed how education on energy efficiency (across age groups, including adults and school kids), attitudes to energy use, housing quality, and poor maintenance were all relevant to the whole picture of energy use in remote communities.

> **"We're trying to get to the point where we look at the systems as a whole. Because [these remote communities] they are islands."**
>
> **"You need [to account for] power for pumping water … [it is important to consider] how much consumption the schools use and even the government people that work out there as well."**
>
> **"[Those government people] they're not directly paying for electricity either. So, an agency will get the bill for the electricity consumption. So, someone who's working up there will turn their air conditioner on in the morning, go to work, [that way] it's nice and cool when they come home, and they just burn up 8 hours of energy. But they really don't care because they're not paying for it."**
>
> **"It's still a whole of government cost. These things need to start being modelled as a whole cost of government, not what it costs for an individual department."**

ADDITIONAL MATERIALS

Contribution from the Justice and Equity Centre

Why the National Energy Legal Framework isn't actually 'National' and not all consumers are equal.

The National Electricity Law (**NEL**) and the National Energy Retail Law (**NERL**) are the key laws forming the foundation of the national framework regulating our essential energy services. The NEL sets up the electricity market and how it operates, while the NERL governs how access to energy is sold and supported. Under these laws, the Australian Energy Market Commission (**AEMC**) makes Rules known as the National Electricity Rules (**NER**) and the National Energy Retail Rules (**NERR**). These rules are regulated by the Australian Energy Regulator (AER).

Because energy is an essential service, strong and specific consumer protections are needed to ensure people and communities have consistent access to a dependable and affordable energy supply. The NERL and NERR provide the basis for a suite of consumer protections collectively known as the National Energy Customer Framework (**NECF**) for all jurisdictions adopting them. While these rules are intended to be national, they are not Commonwealth laws that apply consistently to all of Australia. Instead, they are laws passed separately by each State and Territory once they have been agreed. The NEL and the NER are initiated by the South Australian parliament under:

- the *National Electricity (South Australia) Act 1996* and *National Electricity (South Australia) Regulations*, and
- the *National Energy Retail Law (South Australia) Act 2011* and the *National Energy Retail Regulations.*

Other states and territories then adopt the same laws in their own jurisdictions. However, because the NEL and NERL are both effectively opt-in regimes and each jurisdiction has separate legislation, the NEL and NERL have not been adopted in the same way in all states and territories. Most jurisdictions have modified them significantly to respond to local community and political circumstances. Some have not adopted them at all. The table below summarises which jurisdictions have adopted each piece of the national energy law framework.

Because jurisdictions have adopted (or not adopted) the national laws in different ways, there are substantial differences in how energy regulations apply, depending on where a person lives. For example, if a state or territory has fully adopted all four instruments - the NEL, the NER, the NERL and the NERR- then the NECF will apply. In other words, it will be a NECF jurisdiction. But there is still scope for local modifications or 'derogation'. So even NECF jurisdictions operate under a varied version of the framework. These variations to an already complex framework make it very difficult to understand the consumer protections people are entitled to in any particular State, Territory or circumstance.

Jurisdiction	NEL	NERL	NER	NERR
SA	Adopted[1]	Adopted[2]	Adopted	Adopted with some modification
NSW	Adopted with some modification[3]	Adopted with some modification[4]	Adopted	Adopted with some modification
QLD	Adopted with some modification[5]	Adopted with some modification[6]	Adopted	Adopted with some modification
NT	Adopted with significant modification[7]	Not adopted	Adopted with significant modification	Not adopted
WA	Not adopted	Not adopted	Not adopted	Not adopted
VIC	Adopted[8]	Adopted with significant modification[9]	Adopted	Adopted with significant modification
TAS	Adopted with some modification[10]	Adopted with some modification[11]	Adopted	Adopted with some modification
ACT	Adopted[12]	Adopted with some modification[13]	Adopted	Adopted

1 *National Electricity (South Australia) Act 1996* (SA).
2 *National Energy Retail Law (South Australia) Act 2011* (SA);
3 *National Electricity (NSW) Law 1997*
4 *National Energy Retail law (Adoption) Act 2012*
5 *Electricity – National Scheme (Queensland) Act 1997*
6 *National Energy Retail Law (Queensland) Act 2014*
7 *National Electricity (Northern Territory) (National Uniform Legislation) Act 2015*
8 *National Electricity (Victoria) Act 2005*
9 *National Energy Retail Law (Victoria) Act 2024; National Energy Retail Law (Victoria) Regulations 2024*
10 *Electricity – National Scheme (Tasmania) Act 1999*
11 *National Energy Retail Law (Tasmania) Act 2012*
12 *Electricity (National Scheme) Act 1997*
13 *National Energy Retail Law (ACT) Act 2012*

Disconnection protections for prepayment customers

Most energy is provided and regulated on a 'post pay' basis and this is the default for most people regulated under the NECF. However, several jurisdictions allow or require prepayment arrangements for energy in some circumstances or for some particular communities. Due to the way energy protections and regulations work, prepayment arrangements fundamentally alter the relationship between the retailer and the customer, making most of the usual protection arrangements more complicated or even irrelevant. Accordingly, specific consumer protections are required for prepayment. Depending on the jurisdiction, consumer protections for prepayment will be provided either under the NECF, a different local instrument or some combination of the two.

This means there are different protections in relation to disconnection depending on whether someone is a post-pay or prepay energy customer. The table below compares some of these protections from different states and territories where prepayment arrangements are commonly used, against those for prepay energy customers under the NECF.

The table shows there is significant variation in the protections people have in different places. For example, prepayment customers in a NECF jurisdiction will be much better off than those in the Northern Territory in relation to emergency credit. Western Australia, on paper, has stronger protections than other jurisdictions in relation to hardship under prepayment. There is a further question as to how regulations work in practice, with wide variation in the actual experience of people covered by these regulations.

Where energy is an essential service, this inconsistency in the legal protections available to energy customers in different locations and circumstances – a variation they cannot control - is concerning and unacceptable, leading to substantial inequities in access and the levels of essential services provided.

Protection	**NECF**	**NT**	**SA**[14]	**WA**
Emergency credit available when a customers credit runs out	The amount equal to 3 days of electricity to within $1.[15]	No provision.	$10[16]	$20[17]

[14] Note: The NECF applies to South Australian prepay energy customers who are connected to the National Energy Market, while the Prepayment meter system code applies to customers who are connected to standalone networks. Prepay energy customers in South Australia are largely connected to standalone networks, and as such the South Australia column is based on the Prepayment meter system code.

[15] National Energy Retail Rules, rule 129(6).

[16] Prepayment meter system code, clause 2.8.1.

[17] Code of conduct for supply of electricity to small use customers, Part 6 of the *Electricity Industry Act 2004* (WA), clause 60(1).

Protection	NECF	NT	SA[18]	WA
Prohibitions on disconnection	Disconnection is prohibited otherwise than between the hours of 10am and 3pm on a weekday.[19]	No provision.	Disconnection is prohibited before 8am and after 3pm on weekdays, Fridays, days before public holidays, weekends or between December 20 – 31.[20]	If credit has run out, disconnection can occur during normal business hours. If emergency credit has run out disconnection can occur at any time.[21]

Protection	NECF	NT	SA[22]	WA
Hardship threshold	Customers are considered to be in financial hardship if they:[23] • inform the retailer that they are experiencing payment difficulties, or • self-disconnect 3 or more times in any 3-month period for longer than 240 minutes on each occasion.	The retailer is required to have a process to identify prepayment meter customers experiencing payment difficulties due to hardship, including identification by the retailer and self-identification by the customer. These processes are decided by the retailer. [24]	Customers are considered to be in financial hardship if they:[25] • inform the retailer that they are experiencing payment difficulties, or • self-disconnect 3 or more times in any 3-month period for longer than 240 minutes on each occasion.	Customers are considered to be in financial hardship if they:[26] • inform the retailer that they are experiencing payment difficulties, or • self-disconnect 2 or more times in any 1-month period for longer than 120 minutes on each occasion.

18 Note: The NECF applies to South Australian prepay energy customers who are connected to the National Energy Market, while the Prepayment meter system code applies to customers who are connected to standalone networks. Prepay energy customers in South Australia are largely connected to standalone networks, and as such the South Australia column is based on the Prepayment meter system code.

19 National Energy Retail Rules, rule 129(3).

20 Prepayment meter system code, clause 2.19.1

21 Code of conduct for supply of electricity to small use customers, Part 6 of the *Electricity Industry Act 2004* (WA), clause 60(2).

22 Note: The NECF applies to South Australian prepay energy customers who are connected to the National Energy Market, while the Prepayment meter system code applies to customers who are connected to standalone networks. Prepay energy customers in South Australia are largely connected to standalone networks, and as such the South Australia column is based on the Prepayment meter system code.

23 National Energy Retail Rules, rule 141(2).

24 Electricity Retail Supply Code (NT), clause 13.1.7.

25 Prepayment meter system code, clause 2.15.1.

26 Code of Conduct for Supply of Electricity to Small Use Customers 2022, clause 66(1).

Protection	NECF	NT	SA[27]	WA
Hardship supports	If a customer is experiencing payment difficulties, the retailer must contact the customer to:[28] • offer to remove the prepayment meter to install a standard meter at no cost, • provide information about available contract options, any government rebate, concession or relief scheme, its customer hardship policy and available financial counselling services.	The retailer is required to have a hardship policy in relation to customers experiencing payment difficulties that sets out:[29] • processes to contact customers to discuss options to address their difficulties. • processes to notify customers of appropriate government concession programs and appropriate financial counselling services, and • general information on how customers may improve their electricity efficiency.	If a customer is experiencing payment difficulties, the retailer must contact the customer to:[30] • identify the reason(s), • offer to make arrangements for the installation of a standard meter at no cost to the customer, • provide information about the standard terms and conditions options available to the customer, • provide current information about and referral to State Government assistance programs • provide current information on independent financial and other relevant counselling services, and • provide general energy efficiency and/or referral to an energy efficiency advice service.	If a customer is experiencing payment difficulties: • they may request that the prepayment meter is replaced with a standard meter at no cost,[31] • a retailer must provide information about the different types of meters available, any available concessions and how to access them, relevant financial assistance programs, how to contact relevant consumer representatives, and independent financial and other counselling services.[32] • A retailer must give reasonable consideration to a request for a reduction of the customer's fees, charges or debts.[33]

27 Note: The NECF applies to South Australian prepay energy customers who are connected to the National Energy Market, while the Prepayment meter system code applies to customers who are connected to standalone networks. Prepay energy customers in South Australia are largely connected to standalone networks, and as such the South Australia column is based on the Prepayment meter system code.

28 National Energy Retail Rules, rule 141(2).

29 Electricity Retail Supply Code (NT), clause 13.1.7.

30 Prepayment meter system code, clause 2.15.1.

31 Code of conduct for supply of electricity to small use customers 2022, clause 67

32 Code of conduct for supply of electricity to small use customers 2022, clause 66(2).

33 Code of conduct for supply of electricity to small use customers 2022, clause 66(3).

Protection	NECF	NT	SA[34]	WA
Disconnection records	The retailer's meter system must be capable of identifying every instance of disconnection and the duration of that disconnection.[35]	No provision.	The retailer's prepayment meter system must be capable of identifying every instance of disconnection and the duration of that disconnection.[36]	The retailer's prepayment meter system must be capable of providing to the retailer at least once each month the number of instances of disconnection and the duration of each of those disconnections.[37]

34 Note: The NECF applies to South Australian prepay energy customers who are connected to the National Energy Market, while the Prepayment meter system code applies to customers who are connected to standalone networks. Prepay energy customers in South Australia are largely connected to standalone networks, and as such the South Australia column is based on the Prepayment meter system code.

35 National Energy Retail Rules, rule 129(5); 141(1).

36 Prepayment meter system code, clause 2.19.2.

37 Code of conduct for supply of electricity to small use customers 2022, clause 60(5).

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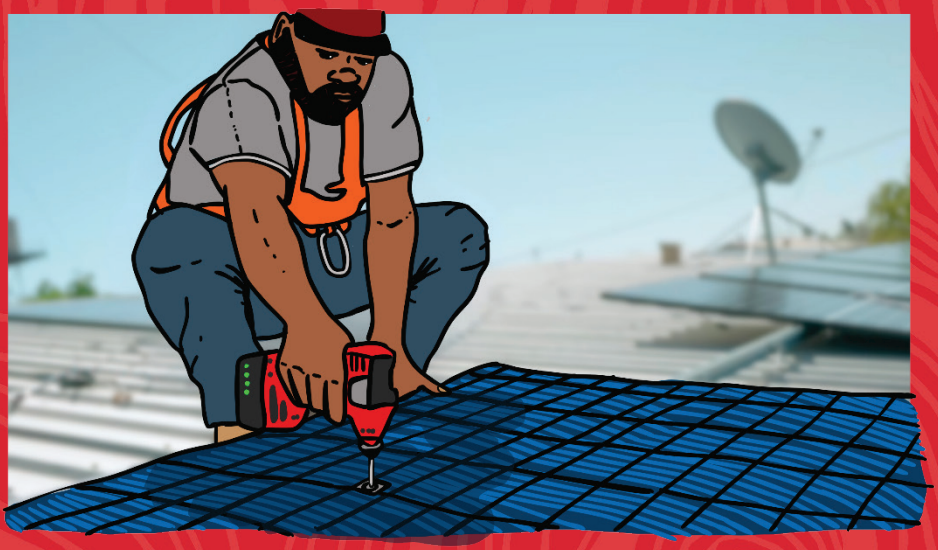

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