

SA Power Networks

# Energy Charter Disclosure Report 2023



SA  
Power  
Networks

Empowering South Australia

# Acknowledgement of Country

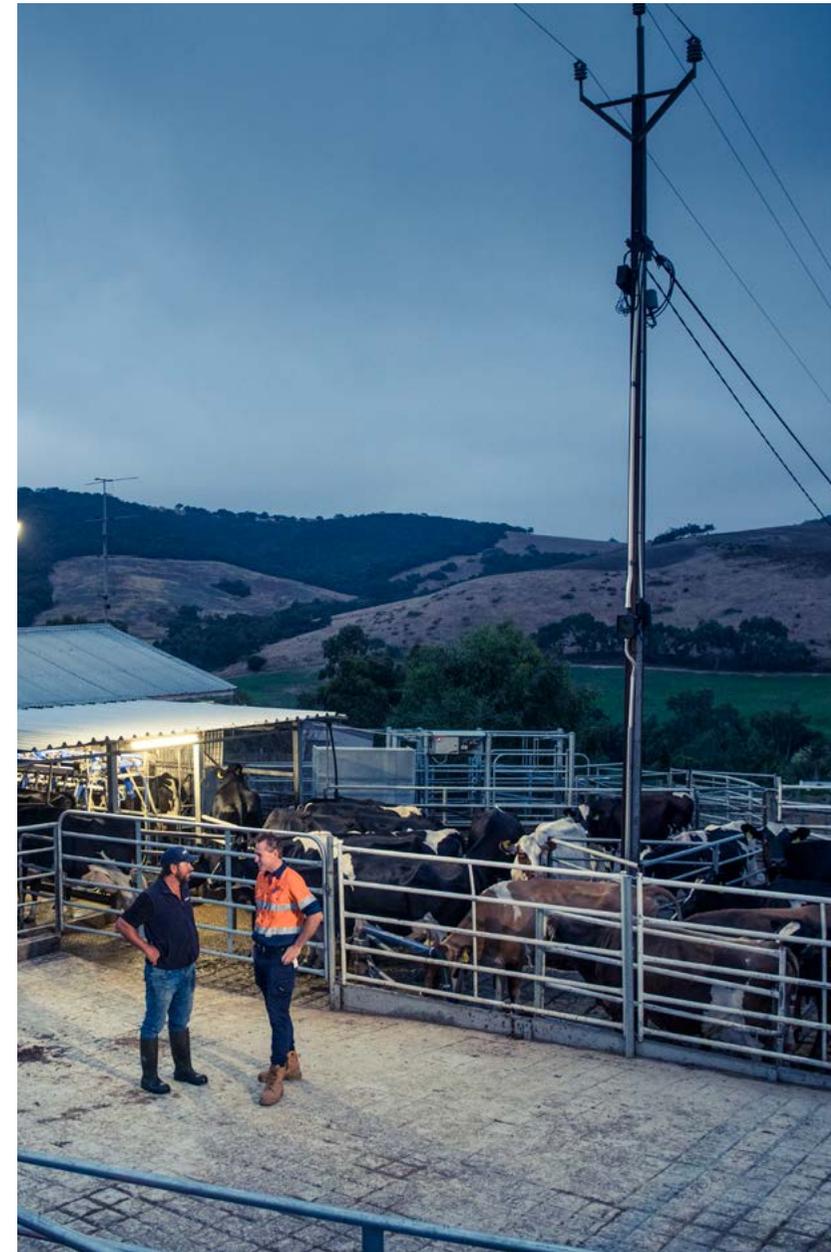
SA Power Networks acknowledges the multiple Traditional Owners of the lands that host the South Australian electricity network and their connections to land, sea and community. We would also like to pay our respects to Elders past and present, and acknowledge that these are living cultures.



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**Disclaimer** This report has been prepared as at 9 February 2024, covering the 2023 calendar year. This report and the information contained in this report is for general information only, is subject to change and correction and should not be taken, read or relied upon as anything other than general information. To the extent permitted by law SA Power Networks makes no representation and gives no warranties in relation to the accuracy, completeness or suitability of the information for a particular purpose



# CEO introduction



**Andrew Bills**  
Chief Executive Officer  
SA Power Networks

Almost all South Australian households, and most of the State's businesses, rely on SA Power Networks to meet their energy needs. We play a major role in the social, environmental, and economic well-being of the State, and we take that responsibility seriously.

Since 2006, the Australian Energy Regulator has consistently rated SA Power Networks as the most efficient electricity distributor in the National Electricity Market, on a like-for-like basis. Achieving efficiency for our customers is critical, but we also need to meet customer's energy needs safely, reliably and sustainably.

Within the growing complexity of a rapidly changing energy landscape, an overwhelming message from our customers is that they want to understand, in plain and simple terms, how they can derive benefit from the energy transition, by taking simple yet meaningful actions around energy use and investments.

Joining the business in May 2023 I found much to be genuinely proud of. Our people have worked hard to ensure a network which is now the oldest in

Australia performs reliably and safely. They also respond heroically when we are faced with widespread damage and outages caused by extreme weather events. I have been excited by the company's ambition to improve customer service, support the changing energy needs of customers, but also innovating to ensure we can support the rapid transition in South Australia to a net-100% renewable energy system.

This progress is happening amidst a backdrop of significant cost of living and energy affordability challenges for our customers. Keeping a lid on our network price has been a top priority and we have worked hard and engaged deeply with the South Australian community to keep our distribution charges lower, in real terms, than when the business was privatised in 1999.

We are now striving to influence affordability beyond our distribution charge, with a growing focus on advocacy to improve the broader energy landscape. Issues like the efficiency of South Australian homes and access for more vulnerable households to Consumer

Energy Resources, matter deeply to our customers. And we are increasingly using our voice to try and drive positive outcomes.

Joining the Energy Charter as a signatory was one of my first priorities in this business. It will help accelerate our customer journey, because it keeps us accountable to South Australians about the targets we set, and the progress we make, on the initiatives which impact them.

This is our first report on our current maturity and aspirations against the Charter principles. We have marked ourselves hard and have some ambitious goals for improvement. We are incredibly lucky to have a Community Advisory Board and Reference Group which are highly engaged and want to actively participate in this process. I am very grateful for their time and dedication.

I am pleased to lodge this first report and look forward to reporting progress in future years.

# Our customers and communities

SA Power Networks is South Australia's sole electricity distributor, delivering power to 1.7 million South Australians in a network that covers an area of almost 180,000 square kilometres.

Our customers are spread across SA and include residential homes, businesses large and small, metropolitan and regional communities, customers with/ without solar PV, and those who are experiencing vulnerable circumstances.

The State is leading the nation and the world in a rapid transition to a net-100% renewable energy supply and a shift from a centralised, one-way energy system to a highly distributed one. In large part, this has been driven by customers, more than 350,000 of whom already have rooftop solar PV; about 10% have home batteries; and many are investing in electric vehicles.

Combined with larger-scale solar and wind farms, this investment in consumer energy resources (CER) is driving the State toward achieving a net-100% renewable energy supply as early as 2026 or 2027.

Distribution networks are at the centre of a more customer focused energy system, which means that SA Power Networks has had to be highly innovative in developing services that support customer choice in how they generate, use and store energy. The distribution network continues to be the main platform for customers to share the energy which they generate.

There are a myriad of challenges to ensuring this happens. These include an ageing network, rapid change in technology, National rules which slow the speed of change and restrict us from acting in areas where we believe we can help customers, and the priority of keeping system costs down while needing to invest in innovation, digitalisation, and automation.

## About SA Power Networks

- › **Sole distributor** in South Australia
- › Supply South Australia's **1.7 million** population
- › Connecting over **915,000** homes and businesses
- › **1,800 employees** in more than 30 sites across the State
- › Recruited over **600 apprenticeships** since 2003
- › Peak demand **3,193MW**
- › Electricity distributed **9,858GWh**
- › Network coverage over **178,000km<sup>2</sup>**
- › Route length around **90,000km**
- › **Oldest network assets** in the NEM

## Operating context

- › South Australian Government committed to **100% net renewable** energy generation in SA by **2030**
- › **72%** of energy demand in South Australia **met by variable renewables** – second only to Denmark
- › Around **\$20 billion of renewable energy projects** in the pipeline in South Australia
- › **~350,000** solar PV systems enabled
- › **~40,000** home batteries enabled
- › **37%** of customers in South Australia with solar – highest in the National Energy Market (NEM)
- › **12** Virtual Power Plants (VPPs) in South Australia
- › **100%** of distribution network demand regularly met by renewables
- › **Ranked #1** distributor for efficiency by the Australian Energy Regulator (AER)

## ADDRESSING SOUTH AUSTRALIA'S KEY CHALLENGES AND OPPORTUNITIES

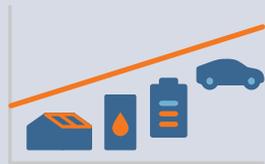
### Energy affordability



### Oldest distribution assets and lowest replacement rates



### Electrification driving peak demand growth



### World leading customer energy resources uptake

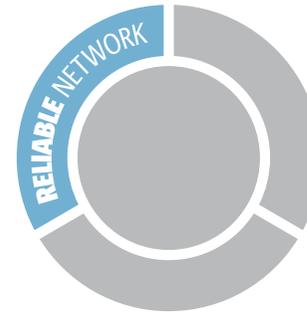


SA Power Networks engages deeply with customers and stakeholders to understand their needs and aspirations for planning long-term investment in the network.

Throughout our extensive engagement process on our 2025-2030 Regulatory Proposal, we heard consistently from customers that they want us to maintain network safety and reliability, support

continued take-up of CER and the broader energy transition, provide good service, and keep bills as low as possible. We are very conscious of the need to balance affordability, amidst growing cost-of-living pressure, with the need to rejuvenate an ageing electricity network that customers rely on, whilst ensuring we innovate as we respond to changing customer needs.

## Main customer engagement themes



A reliable, resilient and safe electricity network



Customer experience, choice and empowerment



Enabling clean energy and unlocking future value for our state



Affordable and equitable energy supply

# Customer and community highlights





# Increasing customer solar export opportunities through customer centred innovation

Rapid growth of rooftop solar is helping households lower energy bills but is a big challenge for network stability.

When solar exports are peaking but electricity demand is low, rooftop solar supplies most or all our State's energy needs. It is a key priority to support our customers in choosing the cheapest form of electricity generation, by providing a network which can efficiently support continued investment in rooftop solar.

SA Power Networks has risen to the challenge in several ways, including moving to dynamic management of

voltages at substations that serve around 80% of customers. But our biggest innovation is Flexible Exports (FE), a world-first connection offer allowing customers who install smart inverters to double their solar exports to 10kW per phase most of the time, while only limiting solar exports in the rare times of localised network constraint.

FE enables more customers to continue to connect and get more from their through dynamically enabling exports. We believe that it is a democratic approach to sharing the benefits of solar.

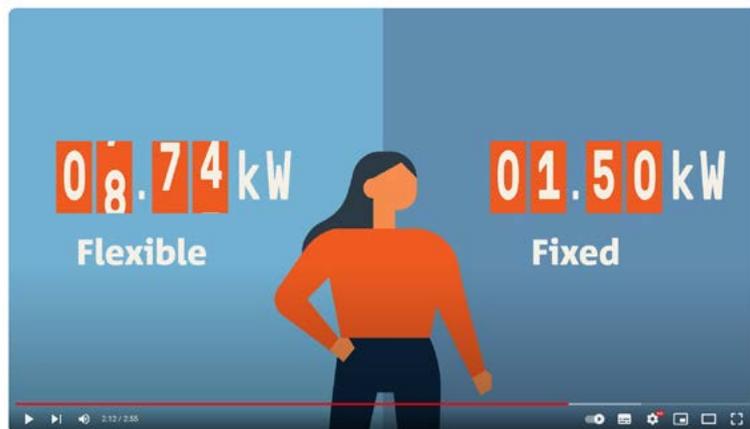
A customer centred approach was essential to the design of this project. We engaged with over 6,000 stakeholders across the energy sector including customers, solar retailers/installers, internationally based manufacturers who have developed a new generation of compliant inverters, and government and regulatory bodies.

The early response has been incredibly positive. Three quarters of eligible customers are choosing Flexible Exports and they're achieving 10kW export limits 98% of the time. By having the Flexible Exports connection offer available as a

standard service, it is expected that SA customers will help avoid more than \$100M in network augmentation over the coming decade.

Flexible exports won several awards for innovation in 2023, including the Premier's Award for Mining and Energy for Innovation and Collaboration, and the Australian Institute of Energy's SA Energy Project of the Year.

Following a successful trial in 2023, Flexible Exports will be extended across South Australia in 2024.



*Flexible Exports Explained*



## Darren's story

Darren stretched his solar further with Flexible Exports.

He lives in one of the first areas of South Australia able to access Flexible Exports.

Initially, Darren believed his export limit would be capped at 5kW, however he soon discovered that Flexible Exports enabled exports of up to 10kW.

Now that Darren has been using Flexible Exports for almost a year, he can clearly see the gains.

He is more conscious of his daily consumption and how it impacts his energy bills. He can clearly see his usage and export data which helps him understand when to best leverage time-of-use for his household appliances.

*"I'm \$2,500 better off in one year!*

*It's close to one year since I've installed my solar system with Flexible Exports, but I'm still in front financially.*

*My power bills were on average around \$2,000 per year before this.*

*The last bill I paid was about \$100 and my current bill is around \$150, and I was given a credit of over \$600 for the summer months.*

*I'm still in credit! I'm expecting, come at the end of the year, I'll be in credit at least \$500 or more.*

*So instead of paying \$2,000 a year, I'm in credit by \$500." — Darren, a Flexible Exports Customer*



# Deep customer engagement was key to shaping our Regulatory Proposal

Our 2025-30 Regulatory Proposal involved a robust State-wide engagement program. We needed to understand what matters to the South Australian community and focus our consultation accordingly.

We collaborated with our Community Advisory Board (CAB) and its Reset Subcommittee to develop and implement the program.

Early engagement with our key stakeholders helped us refine the program themes. From there, we undertook an iterative, scenario-based, and outcomes focused approach

to engagement and forecasting expenditures. The various price/service trade-offs and resultant customer bill impacts were clearly defined. A notable change in our engagement approach was to involve customers through the entire process, rather than attempting to develop ‘the one right number’ and then trying to explain and seek support for our proposal.

We commenced the development of key themes and priorities in late 2021 and then consulted with customers and stakeholders in a ‘Broad and Diverse’ stage. This included six regional workshops and six targeted workshops

with diverse and marginalised groups including hearing impaired, Aboriginal and Culturally and Linguistically Diverse (CALD) customers. Subsequently we undertook ‘Focused Conversations’ on priority topics, where the price/service trade-offs of different expenditure scenarios were discussed. Each Focused Conversation was aligned to the IAP2 spectrum of engagement to ensure clarity on the level of influence and time/support/resources provided.

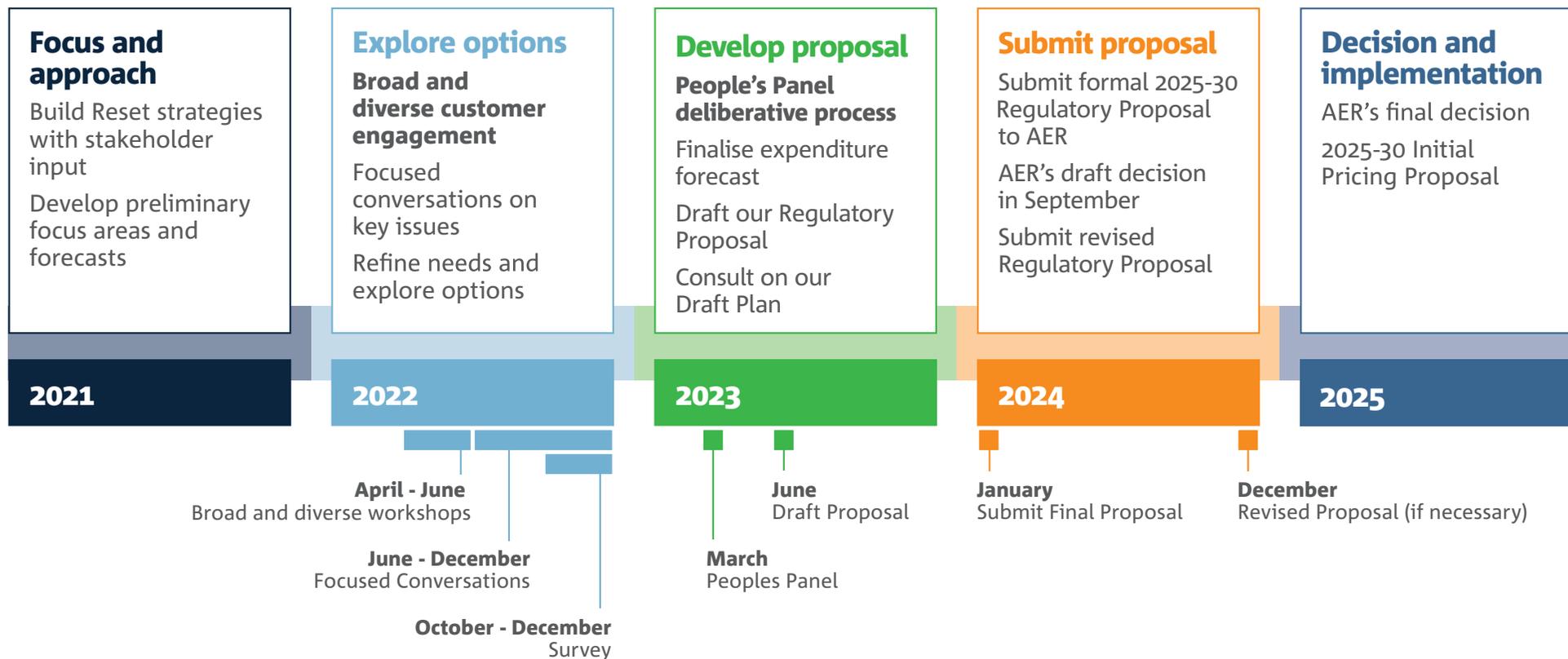
The engagement culminated in early 2023 with a democratically elected ‘People’s Panel’ deliberating on the whole package of recommended

initiatives to determine the price/service balance for customers. The Panel comprised 51 everyday citizens from a broad cross-section of the SA community.

The People’s Panel recommendations underpinned our Draft Proposal published in July 2023, and was further refined and updated to ensure it appropriately reflected customer and stakeholder expectations and priorities.

Our engagement process was recognised as a finalist in the Industry Consumer Engagement Award, by Energy Networks Australia.





### Customer outcomes:

- › Developed a Regulatory Proposal for 2025-30 that directly reflects consumer priorities.
- › Leveraged existing consultative groups for deeper engagement and complex discussions.
- › Direct engagement with SA Power Networks executives and senior leaders who participated in all stages of our engagement program.
- › Increased consumer knowledge through information sharing and engagement activities.
- › Evidence based advocacy positions to champion initiatives that respond to cost-of-living pressures.



# Supporting our community during the 2022-23 River Murray flood

Described as the worst natural disaster in SA history, the 2022-23 River Murray Flood event caused the disconnection of power to around 3,350 properties, either due to direct flooding or clearance breaches to upstream powerlines.

About 4,000 Stobie poles and 400 kilometres of powerline were standing in water for many months – creating a major community safety challenge. Thankfully there was not one report of electric shock. SA Power Networks undertook a significant community engagement program to support the safety and wellbeing of River communities. Our communication included regular drop-in community hubs at towns along the River, media statements, attending community meetings, social media, SMS and direct face-to-face meetings with customers who were most vulnerable to the flood conditions. At all times we encouraged people to take early action which would minimise damage and recovery time once the waters receded.

While many customers were reconnected in early 2023, many properties which were severely damaged or destroyed could not be reconnected to supply. SA Power Networks remains ready to reconnect to these properties as soon as they receive safety certification.

Key elements of ensuring community safety while endeavouring to maintain supply wherever possible, included:

- › A risk-based approach to maintaining energisation while adopting just-in-time processes for de-energisation before inundation or a clearance breach.
- › Strong collaboration with government agencies to adopt the engineering and administrative controls necessary to protect community and infrastructure.
- › Adoption of modern AI and LiDAR data gathering to map the River and flood waters in 3D and real time, to expedite decisions impacting customers and to remove workers from a hazardous environment.
- › Development of comprehensive procedures and processes to protect employees working in flooded areas.
- › Extensive community engagement and communication, beyond any previous emergency event in which SA Power Networks had been involved.

Faced with uncertainty and daily changing circumstances, the community was worried about being disconnected from power as well as losing their homes, businesses, and local infrastructure to the flood. They needed clear, accurate, timely information to ensure they were informed to plan as best they could and keep themselves safe. SA Power Networks not only recognised physical safety as an issue, but also community wellbeing.

To support the community, we:

- › Kept customers along the river informed by sending 34,000 SMS messages.
- › Supported the community through attending 40 government run community meetings and organised 38 SA Power Networks -initiated community hubs where people could speak directly to our employees with their concerns.
- › Hosted 11 stakeholder engagement meetings attended by regional MPs, local councils and heads of peak bodies/industry associations.

- › Helped alleviate customer stress by engaging with retailers to ensure customers would not be charged for supply for the period they were disconnected and waived network charges for reconnection for affected customers.
- › Participated in a range of Government-led daily and weekly emergency management and communications meetings.

Our response was acknowledged with a Premier's Award for Safety and Wellbeing in Energy.

Use of LIDAR was acknowledged with an award in the Australian Financial Review's Top 100 Most Innovative Companies List AUS/NZ (Agriculture, Mining and Utilities category, 10th place).

## Customer feedback received after the flood event

“My wife Karen and I would like to express our appreciation for the efforts your team undertook restoring power to our property at Walker Flat following the 2022-23 River Murray flood.

Throughout the flooding event (for us we were without power from 14/12/22

to 18/3/23), your respective teams undertook an extensive consultation process. The teams at the community pop-up meetings were always helpful and surpassed our expectations. They came with laptops and were able to interrogate SA Power Networks systems to give us the best information they could.

The teams on the ground undertaking the arduous process of reconnection were always courteous whilst at the same time expediting their work.

What was outstanding to us was the fact that SA Power Networks is a private company whereas most of the other

bodies involved in the flood recovery were Government bodies which makes the SA Power Networks effort special. Please pass on our thanks and appreciation to your teams.”



Pop up information hub – Morgan, SA



SA Power Networks employees measure powerline clearance levels near Renmark, SA

# SA Power Networks – metrics summary



As we seek to progress our maturity against the Energy Charter Principles, we will report on the following metrics to help track our performance.

Measure		Result (2023)	Target (2024)
<b>Principle 1 – We will put customers at the centre of our business and the energy system</b>			
Customer Satisfaction (out of 10)	Calculated by aggregating the Planned, Unplanned, New Connections and General Enquiries performance.	7.7	7.8
Combined Grade of Service Score	Calculated by aggregating the Faults and Emergencies, General Enquiries, Builders and Contractors, and New Energy Services phone lines, calls answered within 30 seconds.	90.4%	85%
Brand Health Score	Measure over time of changes in public perception of our performance as manager of the distribution network of South Australia.	5.1	4.9
<b>Principle 2 – We will improve energy affordability for customers</b>			
AER Benchmark Performance	The efficiency ranking SA Power Networks scores compared to other distributors in the National Electricity Market.	1	1
Average annual distribution bill per residential customer	The typical distribution network cost average per household.	\$567	\$566
Social Value Scorecard	The \$ value SA Power Networks creates for its community (over and above regulatory requirements).	Social value scorecard developed	Establish baseline data

Measure		Result (2023)	Target (2024)
<b>Principle 3 – We will provide energy safely, sustainably and reliably</b>			
Employee Safety: Total Recordable Injury Frequency Rate (TRIFR)	The number of recordable injuries per million hours worked, including fatalities, lost time, medically treated injuries and restricted work cases.	7.7	<= 8
Sustainability: Business Carbon Footprint	Our Business Carbon Footprint measure currently measures Scope 1 and 2 emissions, but this will be updated to include Scope 3 emissions from 2022.	On track	Publicly disclose near term and long-term scopes 1,2 and 3 GHG reduction targets
Reliability: System Average Interruption Duration Index (SAIDI unplanned)	The number of minutes, due to unplanned interruptions, on average that a customer will be without supply for the year, excluding Major Event Days (MEDs).	143	150
CER Capacity (solar and batteries) (MW)	The amount of productive CER (eg rooftop solar and batteries) SA Power Networks can usefully connect to the network.	2,670 MW	3,050 MW
<b>Principle 4 – We will improve the customer experience</b>			
% complaints referred to Ombudsman	The percentage of complaints that have been referred to the Ombudsman.	8.25%	7.25%
Complaint Satisfaction	A score out of 10 by customers who made a complaint, how satisfied they were with the process / resolution.	5.2	5.5 / 10
<b>Principle 5 – We will support customers facing vulnerable circumstances</b>			
Life Support Breaches		0	0

# Principles



## PRINCIPLE 1

# We will put customers at the centre of our business and the energy system

We aim to become a more customer-focused organisation. We will continue to strengthen our workplace culture through an engaged, aligned, and high performing workforce, focusing on collaboration and innovation to deliver on customer aspirations. We value ongoing, meaningful engagement with our customer groups, genuinely listening to feedback to build trust and respect with our customers and community.

### Maturity assessment

Elementary	Emerging	Evolved	Empowered	Exceeding
		2023 Current	2025 Aspiring	

### Achievements 2023

- Joined the Energy Charter as a full signatory. We recognise that by putting customers at the centre of our business and working across industry, we can support equitable outcomes and opportunities for the entire community from the energy transition.
- Rationalised our Corporate Performance Measures to a set of enterprise measures and set targets for 2024 and 2030. This ensures our reporting aligns directly to our Strategic Plan, providing accountability and transparency for our customers on what we say we will deliver.
- Engagement with our Community Advisory Board, Reference Groups and Working Groups is one of the many ways we ensure that the customer voice is considered in our decision-making. We adhere to the IAP2 customer engagement spectrum. We conducted a review of our consultative group structure with all key stakeholders to ensure our model is fit for purpose and we continually improve our engagement. Our new model will ensure that what we heard through our regulatory engagement was accounted for and prepares us for our next Reset engagement process.
- Established and embedded customer satisfaction scores in employee performance objectives across four key services areas: Planned and unplanned work, general enquiries, and new connections. This ensures employee incentives are aligned to delivering better customer outcomes.
- Completed our Employee Culture and Engagement survey to understand the culture of our organisation and identify areas for improvement. Our overall Employee Engagement was 70%, benchmarking higher than the overall Utilities Australia score. Post survey, we ran focus groups to identify opportunities and actions from the survey outcomes. By lifting engagement across the business, we can improve our performance, innovation, retention and attraction of talent, resulting in better outcomes for customers.
- Supported the school-based community through our VEX Robotics competition, supporting STEM development and an early-careers program. The VEX Robotics competition encourages innovation to solve real-world problems and gives students opportunities for hands on experience in STEM, broadening their thinking about career pathway options.
- Supported the annual GovHack competition, bringing diverse people together to innovate and create with open government data. Teams had two days to develop an idea for how the data could be reused for better social and economic outcomes in the community. Collaborating with GovHack, we ran a dedicated energy challenge as part of the hackathon, Amp up SA: Forecasting electric transport for grid resilience, which delivered innovative ideas with meaningful community benefits.

# PRINCIPLE 1

## Achievements 2023 (continued)

- › Developed a Stakeholder Sentiment metric to assess how well we are engaging with stakeholder groups. We completed the survey design and collected baseline data for the new metric. By understanding our customer expectations, we can partner better with our customers at the level that suits their needs.
- › Implementation of an Enterprise Data Platform and the introduction of a Data Governance Program to put holistic, trusted data in the hands of the people who need it to make efficient, effective, and innovative data-driven decisions to enable the safer, more reliable, and more efficient operation of our network.
- › Our customers received improved customer-friendly communications via multiple channels - face to face, social media, and through direct SMS messaging services. During events such as the 2022–23 Murray River floods, our communications helped keep River communities safe through timely and accurate information, but also built trust with South Australians and partner organisations like the State Emergency Service (SES) and local government.
- › Ensuring the customer voice is heard and considered in our future decision making, we supported multiple research and cross-sector collaborative surveys, including the combined Water and Utilities survey. This helps us to better understand our customer perceptions, values and expectations of the industry and the future energy transition.

## Future commitments 2024

- › Establish a benchmark and future targets for the Stakeholder Sentiment metric.
- › Establish a customer insights capability across the business which provides visibility into areas of improvement and future growth opportunities.
- › Improve our employee engagement and customer focused culture through various initiatives.
- › Implement a new Stakeholder Engagement and Consultative Group governance model, ensuring meaningful engagement on key topics and consumer priorities, and including a direct communication line to senior executives.
- › Continue to embed Energy Charter principles across the business and support #BetterTogether initiatives.
- › Increase Executive and Board visibility of Energy Charter initiatives and reporting to promote alignment of culture with Charter principles.
- › Focus on automation and AI through automating our key business processes and using machine learning and artificial intelligence to improve efficiency, and develop a more seamless customer experience.
- › Increase the content of our Enterprise Data Platform, expanding the coverage of our Data Governance program, and focus on uplifting the quality of data in our systems to further improve our forecasting and decision-making.

## PRINCIPLE 2

# We will improve energy affordability for customers

We want to contribute to a more affordable and equitable energy supply and this has been central to the development of our investment plans and initiatives for the 2025-30 regulatory period.

Despite SA's extensive network, the lowest ratio of customers to powerlines in the NEM, and our relatively low levels of energy throughput, the Australian Energy Regulator has ranked SA Power Networks as the most efficient distributor in the NEM every year since 2006.

Cost of living pressure is a concern for our customers, however they have also been very clear that they do not want electricity price reductions at any cost. In our consultations, customers recognised the challenge we have with an ageing network and that some customers are being poorly served. So, while holding our charges at current levels, our Regulatory Proposal seeks increased investment to maintain current levels of safety risk and supply reliability. It also proposes modest new investment to improve the service outcomes for some of our worst-served rural and remote customers.

There is also widespread support for SA Power Networks to continue to enable the energy transition and support the uptake of rooftop solar PV. This is helping to transition from centralised, fossil fuel-based generation to a cleaner, greener and cheaper distributed energy future.

We continue to refine our tariff structures to encourage and reward customers with lower prices if they consume electricity at non-peak times to avoid consuming electricity at higher priced peak times when the network may become constrained. This encourages more efficient utilisation of our network, putting downward pressure on future network augmentation costs.

From 1 July 2025, to support greater equity in our tariffs, we are proposing to introduce new export tariffs. These tariffs will recover the costs of the systems and investments needed to support more solar on our network. These tariffs will only be charged to customers who export electricity, above a daily free threshold, meaning the customers who don't have solar will no longer be paying as much to support those who do.

Apart from direct influence on the distribution component of electricity bills, SA Power Networks has stepped up its advocacy on public policy measures which can improve energy affordability and

equity more broadly. We are increasingly hearing that our customers want us to have a greater voice on the energy landscape, beyond that which is within our regulatory remit.

### Maturity assessment

Elementary	Emerging	Evolved	Empowered	Exceeding
		2023 Current		
			2027 Aspiring	

## PRINCIPLE 2

### Achievements 2023

#### Tariff trials

- › Residential Electrify is an energy-based opt-in tariff designed for customers who predominantly or solely meet their energy needs with electricity and have sufficient flexibility to optimise their usage by shifting it outside peak demand periods. By encouraging this behaviour, we can defer or minimise network investment and lower the unit cost of electricity by maximising how much energy flows through our network.

#### Cost reflective tariff uptake

- › The number of residential customers on cost reflective, time of use tariffs has increased to 361,000 at December 2023, which is 44% of residential customers in South Australia. This allows customers to take advantage of lower cost time periods.
- › We advocated for and supported the AEMC recommendation for a rule change to accelerate the roll out of smart meters by 2030. This will allow more customers to access time of use tariffs sooner, empowering them to optimise their energy usage and reward them sooner for using the distribution network efficiently.

#### Export tariff

- › In our 2025-30 Regulatory Proposal we proposed new export tariffs for residential, small and medium business customers, to be applied when they export solar generation above a daily free threshold. Customers who choose our Residential or Small Business Electrify tariffs can also earn credits when they export in the summer peak periods. Export tariffs recover the costs to relieve solar related congestion from those customers who are benefiting from solar. We believe export tariffs will improve the equity of cost recovery from customers.

#### Advocacy to improve energy affordability

- › We have advocated on key energy affordability and equity policies, including improvement of SA's energy concession system, targeted financial support for customers to invest in household efficiency and CER, and improving energy outcomes for renters. We are the first Distributed Network Service Provider (DNSP) to join the Healthy Homes initiative, a coalition of over 100 organisations focused on improving efficiency standards in Australia's rental properties.

#### Damage and outage claims scheme

- › Like many jurisdictions in the NEM, SA does not have a compensation scheme for electricity customers impacted by a power surge, where SA Power Networks was not negligent or acting in bad faith. With the potential financial impact being considerable, the inability to be compensated for such an event can create or exacerbate difficult financial circumstances for electricity customers. We have been working with the SA Government on a proposed small claims scheme under the National Energy Retail Law, which if enacted, would give customers the opportunity to claim compensation in certain events.

#### Facilities access portal

- › A new Facilities Access public-facing portal was launched to improve the process for customers and third parties to utilise our infrastructure across South Australia. Streamlining the process and providing greater visibility provides more opportunities to lease assets, particularly to interstate customers who mostly do remote scoping. Leasing assets reduces deployment costs but also benefits communities with telecommunications infrastructure providing improved mobile and internet services.

#### Regulatory Proposal submission

- › In our Regulatory Proposal engagement we discussed various scenarios with stakeholders, showing the annual bill impact for an average household. It was the first time that we had monetised the various levels of service we could provide.
- › We recognised that support for vulnerable customers was a strong engagement theme and have responded with the proposal to develop a new 'Vulnerable Customer Assistance Program' and progress the 'Knock to stay connected' program within our existing levels of funding.
- › Our 2025-30 Regulatory Proposal includes revenue to increase investment in network assets and to cover inflation. These costs are compensated by a significant reduction in depreciation allowances, because many of our assets are nearing the end of their useful life. This means that a proposed 22% increase in investment in the network can be delivered to customers without any material increase in the distribution component of their electricity bill.

## PRINCIPLE 2

### Future commitments 2024

- › Proactively engage with Government and other key customer and industry stakeholders to continue to advocate for improved energy affordability and equity for South Australians.
- › We will continue to run tariff trials in 2024. The majority of tariff trials in 2024 have been proposed for inclusion in our Tariff Structure Statement for 2025-30.
- › Continue to embed our new operating model, which will be central to supporting the effective and efficient delivery of our business initiatives.
- › Continue preparation of our 2025-2030 Regulatory Proposal, including a proposed revenue path which lowers customer prices in the first three years of the next period to give more immediate relief, with the consequent year four price increases offset by SA Government's PVFiT scheme concluding.



## PRINCIPLE 3

# We will provide energy safely, sustainably and reliably

The safety of our people, customers and community is the key priority for SA Power Networks. There are three main areas of focus:

- › The safety of our people and contractors while undertaking work and work-related activity.
- › Reducing the risk of electric shock.
- › Minimising the potential for bushfire starts in high-risk areas.

We rank as the safest distributor in the NEM and we continue to evolve our workforce safety approach with a strong focus on minimising fatal risk potential.

Reliability is a key concern for customers, particularly as they increasingly become reliant on electricity to meet the energy needs of their homes, businesses and transport.

SA Power Networks achieves a high-level of reliability as we strive towards regionally-based 'Average Reliability Targets' established by the Essential Services Commission of South Australia (ESCOSA). We are however conscious that some customers receive poorer service and to address this we have targeted reliability projects to improve outcomes for our worst-served customers.

Sustainability is not just about preserving natural resources and the environment but includes social equity and economic development. Our Sustainability Strategy outlines our vision, goals and initiatives to achieve a more sustainable business, community and environment. Our aim is to support and strengthen our customers and communities, collaborate on opportunities with government and stakeholders, empower our workers, and protect the natural environment.

### Maturity assessment

Elementary	Emerging	Evolved	Empowered	Exceeding
			2023 Current	2029 Aspiring



## PRINCIPLE 3

### Achievements 2023

#### Safety

- › Our Fatal Risk Critical Controls project identified 12 fatal risk categories and a review of our controls was conducted, identifying those that are critical to prevent fatalities. This key analysis has set the foundation for stage two in 2024, reducing risk to our employees and our community.
- › We maintained our strong focus on minimising the potential for fire starts through our Bushfire Preparation Program. We also improved our communications with MPs to enhance understanding of our bushfire minimisation efforts and how we manage the network on days of high fire danger.
- › Our community safety campaigns tackle some of the key hazards for customers and the community, specifically electric shocks (Zaps from Taps), vehicle incidents involving Stobie poles, safety around downed powerlines, farm safety, ensuring customers maintain private assets, and bushfire awareness. These campaigns are designed to increase risk awareness and enhance customer safety behaviour, with targeted campaigns for metropolitan and

rural customers through digital and traditional channels. Latest follow up research confirms their effectiveness with 70% of customers who saw the downed lines and traffic incident campaigns saying it would change their behaviour if confronted with such a situation.

- › A refresh of the Health and Wellbeing Framework for employees was conducted and based on high-level feedback, the framework was expanded to include new offerings to support employees relating to depression, anxiety, and family relationships.
- › We matured SA Power Networks' cyber security capability by adopting a 'threat-led approach' to provide a greater understanding of our cyber threats, proactive threat management, enhance our response and reduce the impact of cyber security incidents. For this work, SA Power Networks received international recognition for leadership and innovation at the Exabeam Spotlight23 Cyber Security Warrior Awards, and the Thought Leadership: Cybersecurity Trailblazer award at the global AttackIQ Purple Hats Customer Awards.

### Zaps from Taps safety campaign - customer feedback provided by electrical worker

"Just a bit of feedback about the bus advertisement. I did a shock job yesterday and the customer was inspired to call as she was in her car driving behind a shock ad on Port road. She stated she would not have

thought to call SA Power Networks without the ad and would have wasted time and money with plumbers and electricians first. This is not the first time the ads have been referred to, it's good to know they work."



## PRINCIPLE 3

### Reliability

- › The Asset Management Transformation Program (AMTP) is improving the way we manage an asset's entire lifecycle – from planning and execution to ongoing monitoring and review.

The program is about ensuring that all work we do on our assets meets the needs of our customers, while balancing risk, performance, and cost.

We developed our Asset Management 2035 Vision and supporting roadmap with extensive collaboration with internal and external stakeholders to ensure we understand community expectations and benefits.

- › The Risk Cost Model was a foundational initiative in the AMTP program. This improved risk valuation system plays a crucial role in identifying and prioritising key tasks according to the guidelines set out by the AER, ensuring consistency and real-world impact. Improved asset management benefits customers through more prudent spend to ensure a safe and reliable network.

- › The Field Satellite Connectivity pilot project fitted 11 vehicles with Starlink technology, giving remote-based crews access to high-speed internet from anywhere in the State at any time.

Crews are now able to respond faster, resolve more issues onsite, reduce repeat visits, provide more informed and timely advice to customers, and increase productivity. Combined with the move to digital switching, it is allowing field crews to complete their work up to three times sooner, ensuring customers are reconnected faster, and work is completed more efficiently and cost effectively.

- › Our commitment to reducing lightning damage on the network, particularly in rural areas, has seen the continuation of the upgrade of porcelain insulators to lightning-resilient ones. Additionally, covers were installed under problematic vegetation and animal guards were deployed to protect wildlife and minimise interruption.
- › We continued our reliability improvement program through additional switch installations on the network, specifically focusing on feeder automation, and targeted feeders with consistently low reliability to provide a more reliable service for our customers.

- › Tree trimming around powerlines is SA Power Networks' largest operational expense and highest corporate risk, with those costs passed on to South Australian energy consumers.

In 2023 we advocated strongly through the Urban Forest Inquiry and Future Trees Project on 'Right Tree, Right Place', to improve integration of Adelaide's urban canopy with electrical infrastructure, thereby improving safety and compliance at least cost to our customers.

Through our revised Vegetation Management Protocol, we have reaffirmed our commitment to work collaboratively with our key stakeholders to continually improve how we manage vegetation near powerlines.

### Sustainability

- › Sustainability is not just about preserving natural resources and the environment but includes social equity and economic development. Detailed information on all our Sustainability achievements can be found in our [2023 Sustainability Report](#).

## PRINCIPLE 3

# SA Power Networks Group Sustainability highlights 2023



**72%**  
of electricity use  
in SA  
met by renewables



**Renewables powered  
86.9%**  
of State electricity use  
over month of October (averaged),  
setting a new global benchmark for  
variable renewable energy in a major grid



Launched world's  
**1st**  
**Flexible Exports**  
initiative



**37%**  
customers in SA  
with solar  
– highest in NEM



**#1**  
Benchmark ranking for  
total factor productivity  
by the AER



Reduced our  
GHG emissions by  
**26%**  
compared to last year



Established  
science-based  
greenhouse gas emissions  
reduction targets



Diverted  
**88%**  
of our waste  
from landfill



Lodged our first  
Reconciliation  
Action Plan



**0**  
fatal incidents  
(employees and  
contractors)



Reduction in average  
annual distribution  
bill per residential  
customer



**\$1.65m**  
invested  
in community  
partnerships and grants



Achieved  
**\$5m**  
in donations through  
the Employee Foundation



Award-winning  
safety and wellbeing  
approach to River  
Murray Flood response



**0**  
Environmental fines,  
prosecutions or EPA  
Licence breaches



**97%**  
of our spend is with  
Australian-based  
companies



**0**  
Significant notifiable  
cyber security  
breaches



Award-winning  
cyber security  
team

## PRINCIPLE 3

### Future commitments 2024

#### Safety

- › Undertake a safety review to assess how fatal and serious harm risks are managed, and actions required to mitigate identified gaps.
- › Improve community safety through mitigation of Adelaide CBD fault levels.
- › Scope and develop a new safety leadership training program for new frontline leaders employed by SA Power Networks.
- › Refresh farm safety campaigns to tackle inattentiveness around powerlines on farms, and tip truck safety awareness.
- › Continue to focus on decreasing injury frequency rates.

#### Reliability

- › Continue the Asset Management Transformation Program (AMTP), including the incorporation of customer-focused objectives into our Strategic Asset Management Plan.
- › Continue to activate Flexible Exports across the network.
- › Deliver the Advanced Distribution Management System (ADMS) upgrade, advanced network models, network visibility and Customer Energy Resources (CER) Management Systems.
- › Continue stakeholder engagement to increase approved planting list diversity and investigate opportunities for improvement in our vegetation management program.
- › Renew our commitment to prioritise high-value reliability improvements that directly benefit large numbers of customers.
- › Develop a strategy to improve supply restoration times on our rural and remote networks.
- › Explore the application of AI to enhance network safety and reliability through intelligent and automated solutions and decision making.

#### Sustainability

- › Continue to develop an Action Plan on Biodiversity and Nature.
- › Develop a Climate Change Transition Roadmap which describes our journey to Net Zero.
- › Undertake climate scenario analysis across SA Power Networks' operations (Refer to Sustainability Report for more information).



## PRINCIPLE 4

# We will improve the customer experience

Understanding and improving on the customer experience is critical. In 2023 we focused on understanding the future technology which will support customers interacting with us. As we prepared for our 2025-30 Regulatory Proposal, we delivered on foundational initiatives such as the research, discovery and regulatory submission for our digital transformation, centred on investment in digital platforms to improve customer visibility and communication. This includes several initiatives to improve the customer and employee experience, utilising modern technology for more seamless interactions, better communications, and greater visibility of delivery of our services.

We continued to focus on improving our communication channels to provide our customers with simplified and accurate information during outages and when interacting with our services. Our education campaigns, through our digital channels and our engagement programs, enabled us to improve customer knowledge on a range of energy topics, but also fostered positive relationships with our community. Hearing directly from the community on issues important to them, and what specific advice they are seeking, helps us understand our community needs and expectations which we can use to improve our service delivery and communication.

### Maturity Assessment

Elementary	Emerging	Evolved	Empowered	Exceeding
		2023 Current	2027 Aspiring	



## PRINCIPLE 4

### Achievements 2023

- › We partnered with the NBN to develop a new Application Programming Interface (API) to share near-real time power supply information between the companies, including more precise information on planned and unplanned outages. This innovative solution improves customer experience through improving outage notification accuracy by over 50%, boosting operational efficiency and leading to better restoration times.
- › Our customers must have fair access to the complaints process and deserve a timely and efficient response to their complaint. To assist this process, we reviewed and improved our Complaints Management Framework through customer journey mapping, persona creation and identifying procedure improvements.
- › To provide customers with better visibility of their claim, we reviewed and simplified our online Claims Form to streamline the customer experience.
- › We grew our social media channels, reaching 100,000 Facebook followers, allowing us to directly communicate to customers through a digital channel of their preference. Customers find this channel particularly valuable during unplanned outages due to extreme weather events.
- › We implemented several technology systems to enable us to gather feedback, insights and sentiment from our customers when engaging with us through social media and our website. We act on these insights with information, education and escalate where needed, which improves the overall customer experience.
- › More than 867,000 customers have signed up to our free SMS communication service, providing alerts and updates for planned and unplanned outages. This subscription service means our customers are kept informed in real time, which not only keeps our community safer but ensures customers can plan better by providing timely and accurate information.

### Future commitments 2024

- › Continue to utilise various channels to inform customers about energy issues, including opportunities to reduce their energy costs and support their energy investment choices.
- › Evolve our customer service measures to ensure relevance to customer service expectations. Development of a future CSIS (Customer Service Incentive Scheme) – focusing on first call resolution and more accurate outage information updates.
- › Deliver a consolidated connections portal, leveraging existing technology and deliver process improvements to make the minor connections experience more efficient.
- › Research and map the foundational requirements for a business Customer Insights Capability.
- › Continue to evolve our Complaints Framework to ensure data-driven learnings about customer experience are shared with the business and opportunities for improvement are identified and implemented.

## PRINCIPLE 5

# We will support customers facing vulnerable circumstances

Vulnerability is not a label, it is a situation in which customers find themselves at a point in time. This can be short or long term, and customers can move in and out of vulnerability. We understand the importance of supporting our customers across a range of circumstances, ensuring everyone has access to energy and that no-one is left behind as part of the energy transition.

In 2023, we continued to progress our Vulnerable Customer Strategy and became a signatory to the Charter's Cost of Living Statement of Support, committing to working across industry to address cost-of-living pressures.

We know how important it is to listen to our customers and community with lived experience. Through our ongoing Community Reference Group and our extensive Regulatory engagement program, we heard from a range of voices and ensured these views were given a strong focus in our future commitments.

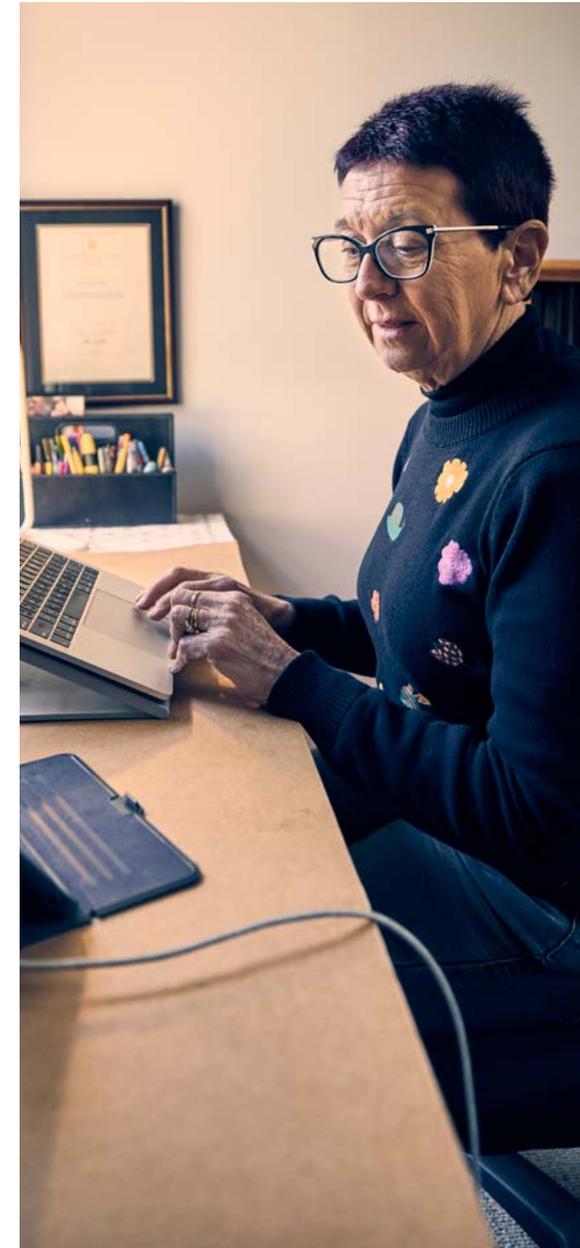
Customers told us they find the energy market complex and want simple information that is accessible to everyone. To assist, we will continue to improve community energy literacy and awareness of available energy concessions and rates. We will also continue our advocacy on a range of customer energy issues such

as improving energy efficiency standards for rental housing and an effective State Government energy advisory service.

Through our community partnership and grants program we will continue to support a range of organisations and community groups across the state. These commitments strengthen the important connection to our customers and continues to make a real difference to local communities at grass roots level.

### Maturity Assessment

Elementary	Emerging	Evolved	Empowered	Exceeding
		2023 Current	2026 Aspiring	



## PRINCIPLE 5

### Achievements 2023

- › We continued our support for the ConnectEd Program trial into 2023, a State-wide network of energy advisors and financial counsellors to improve energy efficiency and affordability for vulnerable households.
  - › Grants were deployed via program coordinators to purchase products for energy efficiency, lower energy costs, and to reduce electricity debts. Alongside this, advisors provided energy literacy information and advocated for retailer debt matching payments, and eligible rebate and concession applications.
  - › The program provided tangible support that was tailored to the individual's circumstances, ranging from debt reduction through to purchasing heated electric blankets and energy efficient fridges.
  - › Feedback from program advisors was that the grant allowed them to achieve important positive outcomes for clients who were financially stressed and unable to achieve these outcomes otherwise.
  - › We worked with Charter signatories and collaborators to co-design the Knock to Stay Connected National Customer Code, which will help deliver a Nationally consistent, customer-led approach to help customers stay connected to their energy. Through face-to-face visits, customers at risk of disconnection for non-payment are encouraged to engage with their retailer to avoid disconnection and are provided information on other supports and concessions available.
  - › As part of the #BetterTogether Energy Literacy – Train the Trainer, we scoped initial program requirements in South Australia to understand the customer benefits and partner capability for delivery. We developed an initial plan for development and program implementation in 2024.
  - › We continued to co-lead the #BetterTogether - Better Protections for Life Support Customers, partnering with Life Support Medical Advisory Group (LMAG) to identify opportunities working to improve protections including targeted definition review of Life Support Equipment, creating a National Template Medical Form, Template back up plans, and an awareness and engagement campaign.
  - › Consultation sessions were held with customers and stakeholders to gain feedback on the proposed changes, with further co-development work continuing in 2024. We promoted energy efficiency and literacy through our digital channels, with services and measures that customers can take to lower their energy use and save money, including the Concessions Awareness Campaign. We reached over 831,000 unique viewers and had 2,740 people engage with our digital content (appendix).
  - › We attended 13 community events across metropolitan and rural South Australia, connecting with over 8,000 community members. We had meaningful conversations to increase customer understanding on how to save money with energy efficiency tips, get rate and energy provider comparisons, time of use metering and a range of other energy topics.
  - › Our Reconciliation Action Plan (RAP) Working Group, including several First Nations employees, developed our first draft Reflect RAP which was conditionally endorsed in January 2024. As part of the development, we commissioned a local emerging indigenous artist to create an artwork that reflects our reconciliation journey.
- As part of our sponsorship program:
- › We partnered with 40 organisations across South Australia supporting variety of initiatives including vulnerable communities, environmental and social sustainability, development pathways for women, regional social inclusion and increasing opportunities for First Nations Peoples.
  - › We refreshed our Community Grants Program assessment criteria, with a heightened focus on location, project impact, grant beneficiaries and reach into the community, across the areas of safety, sustainability, innovation for growth or supporting the community. We included members of our consultative groups on the assessment panel to provide even greater accountability and transparency in the process. In total we funded 30 projects across the State, with over half of the funding supporting activities in regional and remote communities.

## PRINCIPLE 5

### Energy access for vulnerable South Australians through SA Power Networks' Partnership with ConnectEd

Fatima lives in a Housing SA Property with her three children and had been dependent for years on portable, costly heaters to keep warm after several years of chemotherapy impacted her sensitivity to cold, driving up her power bill.

Owning good quality and efficient household appliances is something many of us take for granted. Imagine having to constantly choose between heating your home or putting food on the table. This is a reality for one in five Australian households living below the poverty line.

The introduction of a trial, funded in 2022 by SA Power Networks in close collaboration with utility literacy program ConnectEd, is helping shift the energy equity needle in South Australia. With an initial investment of \$50,000, ConnectEd worked with its State-wide network of energy advisors and financial counsellors to improve energy efficiency and affordability for vulnerable and low-income households. Within six months, the trial has seen grants approved for over 70 households and individuals to purchase new energy efficient appliances and pay down their energy debt.

Fatima's Financial Counsellor at ConnectEd partner, UnitingCare Wesley Bowden, knew that the grant, air conditioner and support from energy specialists in the ConnectEd program would help her save money. The ConnectEd team engaged a Retailer Energy Productivity Scheme (REPS) supplier to install a new 3.5kW air conditioner which was positioned above Fatima's front door to make sure it worked as efficiently as possible. The staff went the extra mile and draught sealed the front door and the kitchen back door to prevent air escaping and costing Fatima more on her bills.

The program aims to reduce and stabilise energy bills, while positively impacting household finances and mental stress for most of the clients who have been funded.

"SA Power Networks was happy to support this trial and partner with ConnectEd to support customers in need to improve their energy efficiency and reduce their energy debt" said Alex Lewis, SA Power Reset Engagement Manager.

### Future Commitments 2024

- › Our first RAP will be implemented by our RAP Coordinator, one of our First Nation employees, under the guidance and direction of our RAP Working Group.
- › Support our vulnerable customers through funding to increase the number of financial counsellors in South Australia.
- › Continue to work with our Community Reference Group on initiatives to assist vulnerable customers and seek their feedback on Energy Charter initiatives and reporting.
- › Energy Literacy program will be developed and implemented.
- › We will continue to work with retailers to implement the Knock to Stay Connected program into business operations and work with customer groups to improve information for customers.
- › Continue to engage with stakeholders and explore opportunities to progress #BT Better Protections for Life Support Customers.

# APPENDIX

SA Power Networks Sustainability Report

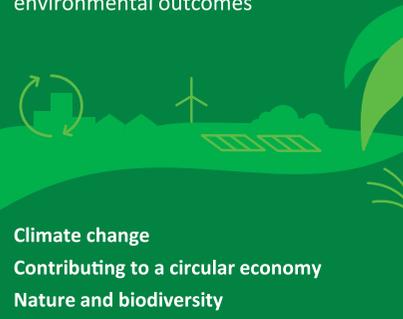
## Sustainability Strategy



Our goal

Empowering a prosperous, equitable, low carbon and environmentally responsible future for South Australia

Our focus areas

<p><b>Transforming energy</b></p> <p>Enabling the net zero transition through transformation of our energy system</p>  <p>Decarbonisation Abundant, reliable, affordable energy Sustainable finance</p>	<p><b>Building an inclusive, diverse, and high performing workforce</b></p> <p>Ensure a safe and inclusive workforce, ready and willing to embrace new capabilities</p>  <p>Health, safety and wellbeing Inclusion and diversity Talent and workforce</p>	<p><b>Conserving the environment</b></p> <p>Contributing to positive environmental outcomes</p>  <p>Climate change Contributing to a circular economy Nature and biodiversity</p>	<p><b>Connecting and protecting communities</b></p> <p>Enhancing the wellbeing of our community</p>  <p>Social value Genuine engagement, respect and reconciliation Community safety A fair and just transition Bushfire risk management</p>
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**Integrated governance**  
Integrating sustainability into how we manage our impact on the economy, environment and people

Integrating sustainability into corporate governance and risk management	Cyber security and privacy	Partnerships and advocacy	Responsible supply chain
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UN SDGs  
Our global contribution

**Sustainable Development Goals (SDGs)**  
We will have a material impact on five of the 17 SDGs adopted by the United Nations in 2015 to end poverty, fight inequality, improve the natural environment and tackle climate change.



# APPENDIX

## Digital Channels – Energy efficiency and literacy examples

**SA Power Networks**  
Published by Sprinklr • 29 November 2023

Are you considering buying an appliance to improve your home's energy efficiency? You could save hundreds or even thousands of dollars – potentially more for certain households – through South Australia's Retail Energy Productivity Scheme.

This scheme could help you save BIG on your next appliance upgrade – think air-conditioners, hot-water systems, and white goods.

Many people are unaware of this scheme; watch our quick 5-minute guide to learn more.

Energy Efficiency Council  
#EnergyEfficiency #SustainableLiving #SaveEnergy #SaveMoney



**Harry** | **Cecilia** | **Merrily**

43 likes, 7 comments, 9 shares

**SA Power Networks**  
Sponsored - Paid for by SA Power Networks • 15 May 2023

Discover SA Power Networks' solution for the future of SA's solar connections with the new Flexible Exports option.

Dive deep into the benefits of the Flexible Exports option as it enables solar customers to export more energy with flexible choices up to 10kW per phase, which doubles the current standard export limit of 5kW.

We're working to double the amount of solar we can accommodate on our network by 2025, ensuring freedom and efficiency of clean energy use for South Australians.

Stay informed about the rollout of the Flexible Export option in your local area. Take action towards a more efficient solar future.

Learn More:  
<https://www.sapowernetworks.com.au/your-power/smarter-energy/flexible-exports/>

**Empower your Solar with the New Flexible Exports Option**



sapowernetworks.com.au  
Export Up To 10kW Back To The Grid With Flexible...  
Learn more

**SA Power Networks**  
Published by Sprinklr • 15 May 2023

You're feeling the chill, and you pop on the heater. What temperature range is recommended to heat your home efficiently?  
Type A, B, C or D.

We'll let you know the correct answer tomorrow at 5pm!

18-21°C <b>A</b>	21-24°C <b>B</b>
24-27°C <b>C</b>	14-16°C <b>D</b>

52 likes, 244 comments, 5 shares

**SA Power Networks**  
Published by Sprinklr • 16 May 2023

If you answered A, on last night's quiz, you would be correct!!!  
If you're using heating to beat the freezing weather, make sure you set the correct temperature. The optimum range is 18-21°C. Every degree above can add up to 10% to running costs.

But before you even turn on your heater, why not consider some cheaper ways to get warm? We've got a list of ideas to get your warmer for less. [sapowernetworks.co/News-Feeling-The-Chill](https://sapowernetworks.co/News-Feeling-The-Chill)

18-21°C <b>A</b>	21-24°C <b>B</b>
24-27°C <b>C</b>	14-16°C <b>D</b>

62 likes, 69 comments, 17 shares

## APPENDIX

### Community Grants Recipient

#### Racing with Renewable Energy: Adelaide University Shines in the Bridgestone World Solar Challenge

In a testament to innovation and sustainable engineering, students from the University of Adelaide recently undertook the ultimate solar-powered adventure across the Australian Outback. With the support of our Community Grants program, the Adelaide University Solar Racing Team (AUSRT) embarked on the Bridgestone World Solar Challenge, a 3,000 kilometre journey from Darwin to Adelaide in October 2023, showcasing their custom-designed solar vehicle, Lumen II. The Adelaide University Solar Racing team, led by Ruby Allen, is comprised of Electrical and Mechanical Engineering students, many of whom are in their final year of study. The team meticulously designed, engineered, and crafted the Lumen II, which presented a challenging design cycle – having to modify a previously built car to meet tough new regulations.

Expressing gratitude for the grant, Ruby shared, “Without the help of our generous sponsors such as SA Power Networks, the Lumen II solar car and AUSRT would

not have been able to participate in the 2023 BWSC after coming out of a difficult pandemic and complete rebuilding of the team.” Ruby Allen reflected on the team’s journey, stating, “The Lumen II traversed a gruelling 1300 kilometres across the Australian Outback, overcoming challenges such as bushfires, strong headwinds, and smoggy skies.”

“The challenging conditions made it difficult for the Lumen II to generate adequate solar power, which led to the car running out of battery in Ti Tree, Northern Territory. The AUSRT decided to load the car onto the trailer and take the Lumen II back to Adelaide safely.”

Despite these challenges, the team finished 17th out of 28 competing teams worldwide. This accomplishment has fuelled their ambition, and they are now setting their sights on the 2025 Bridgestone World Solar Challenge, where they plan to design and build a brand-new solar-powered car.





**Empowering** South Australia