

AusNet

Customer Insight Series

Quantifying Customer Values

Public Webinar

18 April 2024





Acknowledgement of Country

We acknowledge Aboriginal people as the Traditional Owners and Custodians of the land we live and work on, and we pay our respects to Elders past, present and emerging.





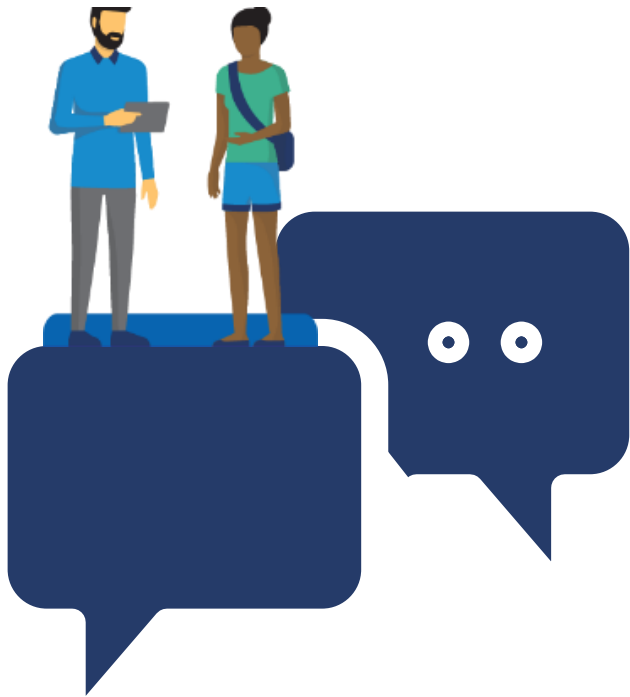
AusNet Tomorrow Customer Insights Series

Series 1: Customer Segmentation (June 2023)

Today

Series 2: Quantifying Customer Values
(April 2024)

There will be time for Q&A at the end



Please open Slido and add your questions
through the session (*and like those you
want answered!*)

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Visit www.slido.com
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What We Share Today

AusNet



This research tells us AusNet customers

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Value reliability higher than AER's current VCR

suggesting the AER's VCR is likely to increase in this year's review



Are open to cost sharing

even where they don't directly benefit, incl. worst served customers and solar exports



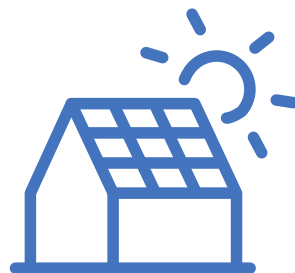
See the value in investment

while still being concerned about affordability



Highly value convenience

incl. a value on flexible EV charging



Highly value "not wasting" solar

(their own and others'), above economic levels



Value resilience above all

other values tested, across all demographics

Project overview

What the Quantifying Customer Values study tell us

- ✓ **Attaches hard numbers** to things customers value that we otherwise can't quantify, so we can build more holistic, customer-centric business plans
- ✓ **Robust data** we can trust
- ✓ **Shows customers' priorities** across investment drivers
- ✓ **Captures value of service improvements and degradations** to support cost-benefit assessments and trade-off discussions
- ✓ **Complements qualitative** engagement

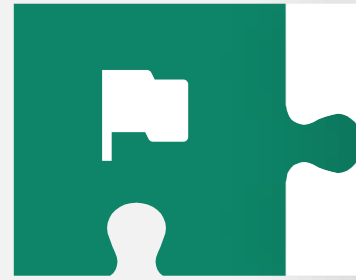
What it *doesn't* tell us

- **Customers' reasoning** isn't captured en masse
- Limited to **perceived value**. There may be things customers can't quantify and/or don't think to quantify when completing the survey
- **How to apply the values** in business planning

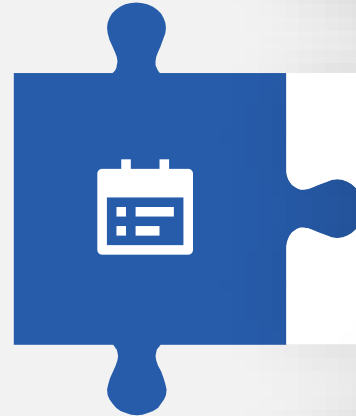


What we did

We closely engaged with EDPR panel members to ensure our approach is robust and, ultimately, build customer and stakeholder confidence in the research findings



Research Design



Qualitative Phase: 12 in-depth interviews



5 customer workshops with ~120 customers



Quantitative Phase: Data collection with cognitive interviews

Research Design & Qualitative Phase

Preparation for the quantitative phase involved:

1

Extensive collaboration with customer advocates
engaged in Electricity Distribution Price Review (EDPR) 2026-31 on the design

2

Engagement with government and regulators

Australian Energy Regulator (AER) & Victorian Department of Energy, Environment & Climate Action (DEECA)

3

12 x 45min in-depth interviews with customers to understand values and inform survey design

Application to Quantitative Phase

Use clear and simple language

Define key terms

Explain the funding structure clearly

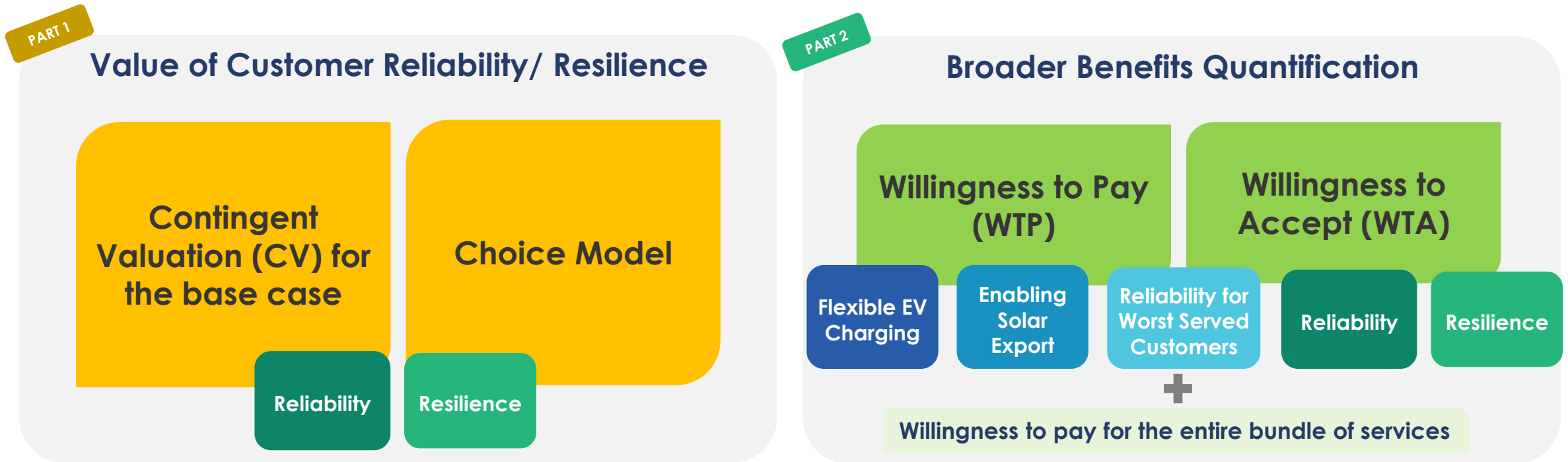
Use consistent language when discussing the future base for the exercise

Clearly differentiate between scenarios for different benefits

Quantitative Phase

AusNet worked with independent research experts Lewers to conduct a 17-minute online survey. Fieldwork ran from November 2023 to January 2024.

Key Measurements



* The Residential and Business cohorts were weighted by feeder group (unban, rural short, rural long) to ensure accurate representation of AusNet's customer base.

Part 1

Value of customer reliability and resilience

Key takeaways

Calculating the value of customer reliability and resilience

1. The AER's current value of customer reliability (VCR) may undervalue the benefit AusNet customers place on reliability
2. The AER's method to quantify unserved energy and calculate outage probabilities could be diluting customers' true value
3. The value of resilience may be better estimated using other methods



The AER's Value of Customer Reliability (VCR)

Measures the amount customers are willing to pay to avoid an outage. It is a key input into many of our business cases.

$$\begin{array}{ccccc} \text{Customer} & & \text{Unserved} & & \text{Probability} \\ \text{Value} & & \text{Energy} & & \text{of that outage} \\ \text{of avoiding} & \div & \text{typically} & \times & \text{scenario} \\ \text{an outage} & & \text{consumed during} & & \text{occurring} \\ \text{scenario} & & \text{the outage} & & \\ & & & & = \text{VCR} \end{array}$$

The AER's metric is based on seven climate/remoteness zones and does not consider outages over 12 hours

Residential VCR results were almost double the AER's 2023 values (based on 2019 AER VCR Review)

AusNet

Business results were lower than the AER's value potentially due to sample composition

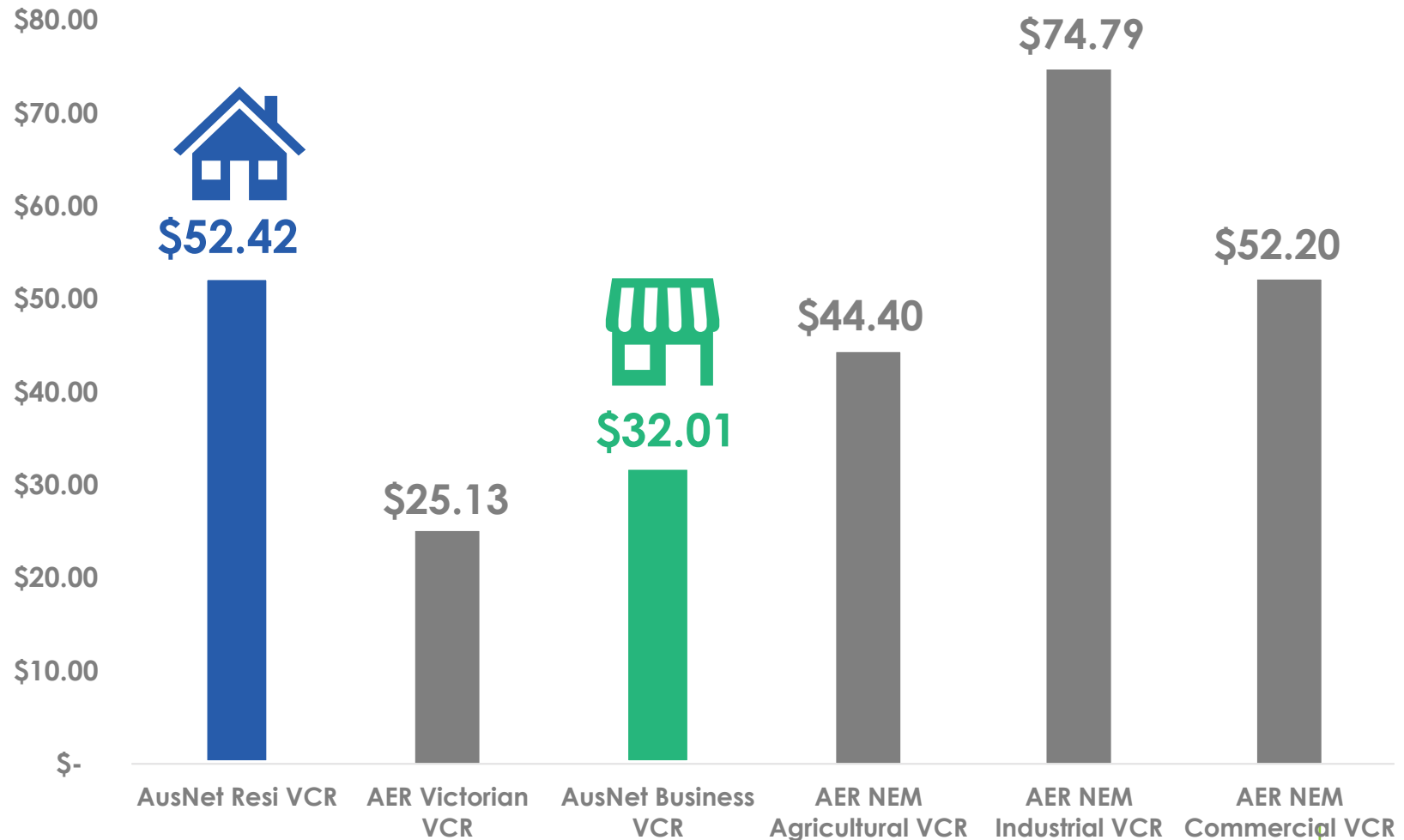
What's Driving the Difference?

Residential:

- Higher WTP to avoid outages
- Lower kWh values
- Different outage probabilities

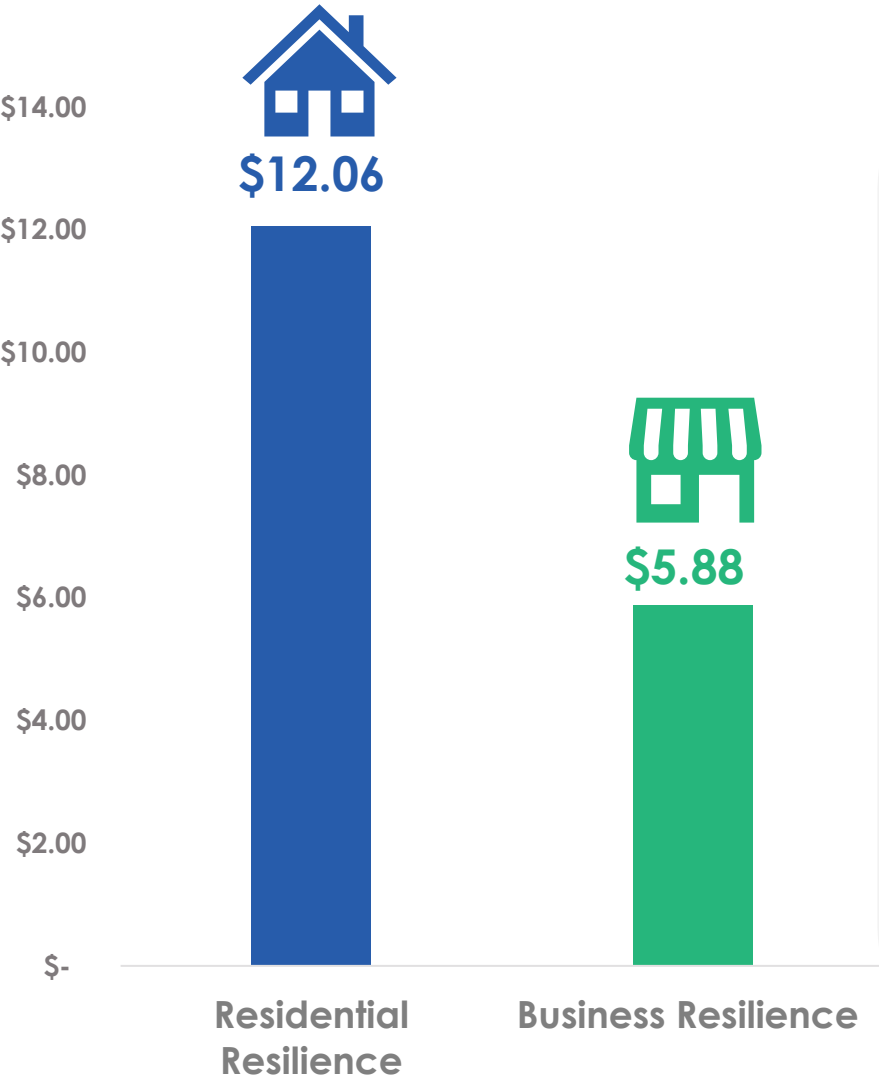
Business:

- Only considering small business



Resilience WTP values were dwarfed due to the large volume of energy consumed during a long-duration outage AusNet

Suggesting another method of assessment might be better to quantify the value of avoiding these outages



This is driven by the large volume of data consumed during long duration outages

Outage Duration	WTP		Unserved Energy		\$/kWh	Outage Probability
12	\$151.83	÷	14.7	=	\$10.35	✗ 0.1%
12 - 24	\$553.53	÷	29.3	=	\$18.86	✗ 5.9%
24 - 36	\$686.05	÷	44.0	=	\$15.58	✗ 0.4%
36 - 72	\$735.07	÷	88.1	=	\$8.35	✗ 2.0%

\$/kWh calculations for residential short customers to avoid a weekday summer outage

Part 2

Quantified broader benefits

Definitions

To comprehensively understand customers' preferences and priorities, we computed three distinct measures of value across five value streams.

Willingness to Accept (WTA)

Minimum compensation a customer would accept to lose a service. It depends on various factors such as the individual's valuation of the item, opportunity costs, and personal circumstances.

Willingness to Pay (WTP)

Maximum amount a customer is willing to pay for a service. This can vary based on factors such as income, preferences, perceived benefits, and market conditions.

Rebased Willingness to Pay (R-WTP)

Maximum amount a customer is willing to pay for a service determined by their willingness to pay for the **entire bundle of services**.



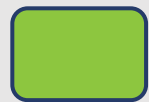
R-WTP adjusts for overall willingness to pay, which is **critical for balancing affordability**



HOUSEHOLDS

Rebased WTP is a more realistic view of customer's willingness and ability to pay for service improvements as a bundle

Dollars expressed as per customer, per annum



Reliability

Avoid/experience one unplanned 1h outage



EV Charging

Investing (or not) to allow for flexible charging

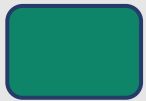


Solar Exports

Investing (or not) to allow unused rooftop PV to be exported to the grid

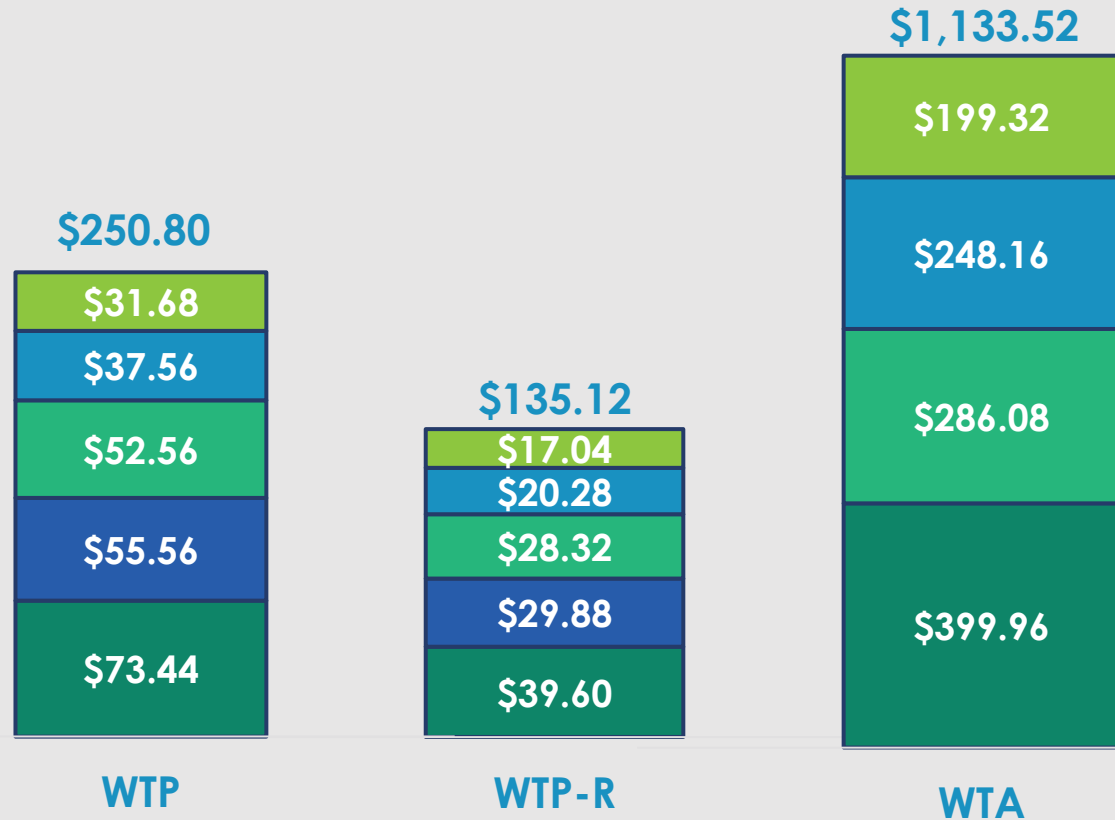


Improving service levels for worst served customers



Resilience

Avoid/Experience One 24h Outage

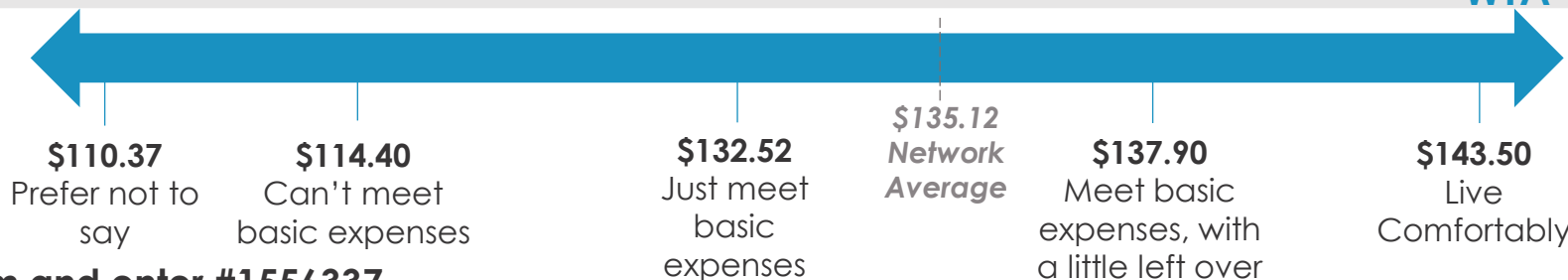


WTP

WTP-R

WTA

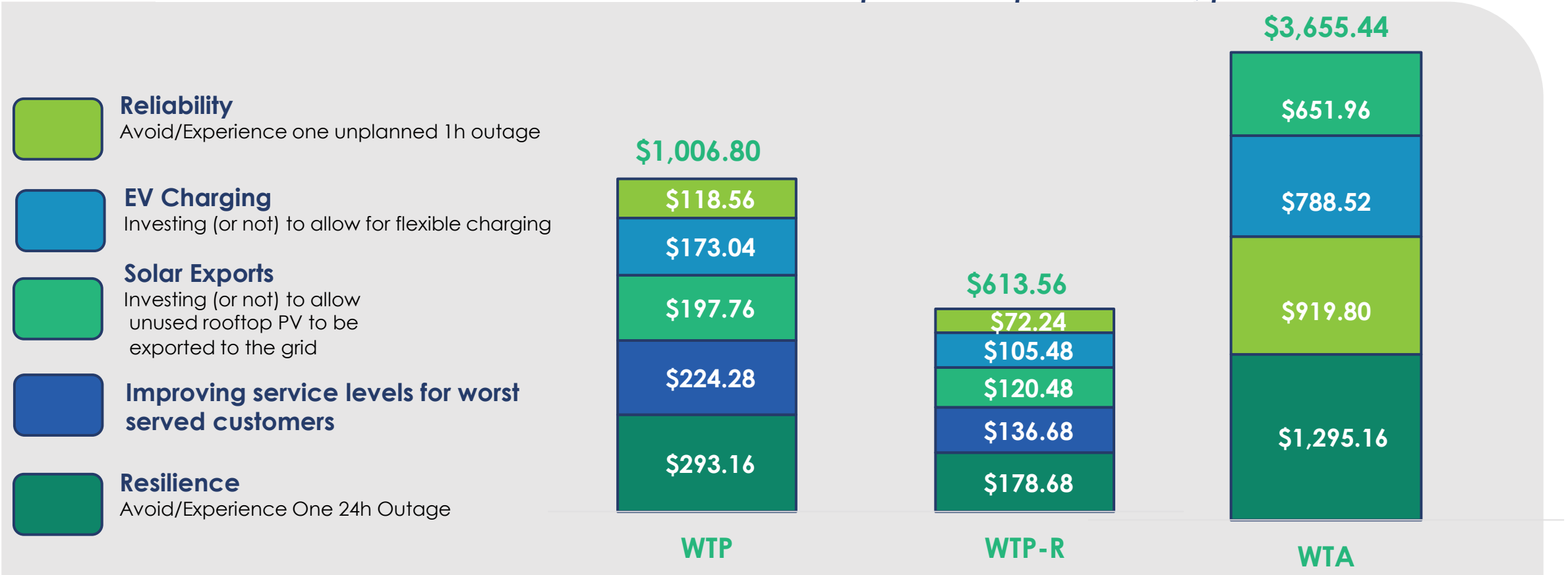
R-WTP increases with capacity to pay, within 30% range



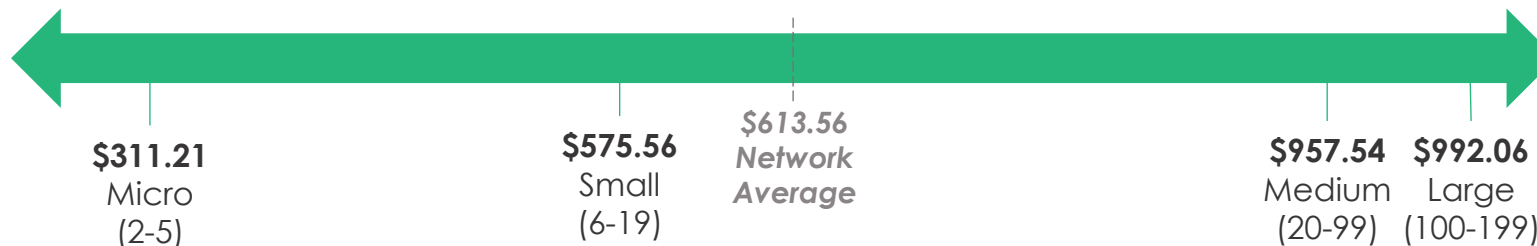
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Business customers' investment priorities differ between WTP and WTA

Dollars expressed as per customer, per annum



R-WTP increases with business size





Flexible EV Charging

Investing (or not) to allow for flexible charging

AusNet

Both households (\$37.56pa) and businesses (\$118.56pa) customers attach a positive value to having flexibility in speed and timing of EV charging.



Willingness to pay

\$37.56
45c per KWh

\$118.56
\$3.37 per KWh

Rebased willingness to pay

\$20.28
14.98% of total

\$72.24
11.48% of total

Willingness to accept

\$248.16
\$2.97 per KWh

\$788.52
\$24.82 per KWh



Sentiment is broadly consistent with customer workshop insights



Car charging managed by the network.
MANAGED CHARGING

-\$5

Today

20%

18%

12%

45%

People can charge at home slowly whenever they want.

Charge using fast chargers or slowly whenever they want.
FAST & FLEXIBLE
\$40*



MANAGED CHARGING
-\$5

Today

6%

31%

63%

FAST & FLEXIBLE
\$40



Flexible EV Charging

Investing (or not) to allow for flexible charging

Customers are willing to contribute to flexible EV charging regardless of their current/future EV ownership status.

- Amount varies up/down with perceived direct benefit to themselves.
- Widespread reluctance to accept managed charging, even from those who do not intend to purchase an EV

WTP more than average

~1 in 5 households
~2 in 5 business

WTP still positive, but lower than average

~4 in 5 households
~3 in 5 of business

Variation from average WTP (\$yearly)



Have EV today*

▲ \$15.43

▲ \$148.14

Intend to purchase before 2031

▲ \$32.03

▲ \$50.87

AVERAGE WTP

\$37.56

\$118.56

Don't intend to purchase before 2031

▼ \$6.04

▼ \$40.12

Never intend to purchase

▼ \$19.79

▼ \$50.97



Solar exports

Investing (or not) to allow solar exports from new solar connections

AusNet

Both households (\$52.26pa) and businesses (\$197.74pa) customers attach a positive value to investing to enable more solar exports.

WTP to avoid 'spilling solar' is higher than avoiding managed charging, with customers keen to minimise electricity wasted.



Willingness to pay

\$52.26
\$4.38 per month

\$197.74
\$16.48 per month

Rebased willingness to pay

\$28.32
20.95% of total

\$120.48
19.46% of total

Willingness to accept

\$286.12

\$651.91



Sentiment is broadly consistent with customer workshop insights



No upgrades to network.
LESS ROOFTOP SOLAR TO GRID
-\$10

Ability to feed to grid capped at 5kW, 5% not allowed due to network constraint.

Today

Upgrades to network, allowing feed back to grid.
MORE ROOFTOP SOLAR TO GRID
+\$45



LESS ROOFTOP SOLAR TO GRID
-\$20

Today

MORE ROOFTOP SOLAR TO GRID
+\$85



Reliability Improvement for Worst-Served Customers

Investing (or not) to improve electricity reliability on the edge of the AusNet network

AusNet

Both households (\$55.65pa) and businesses (\$224.28pa) customers attach a positive value to improve reliability for worst served customers.

Note we did not test a degradation case (i.e. de-investing for more outages).

		
Willingness to pay	\$55.65 \$4.63 per month	\$224.28 \$18.69 per month
Rebased willingness to pay	\$29.88 22.50% of total	\$136.68 29.10% of total
Willingness to accept	Not Asked	Not Asked



Sentiment is broadly consistent with AusNet research and engagement on equity across network



>8 in 10 customers say electricity should be as reliable in regional areas as it is in urban areas (AusNet's Energy Sentiment Tracker, Spring 2023).



Reliability Improvement for Worst-Served Customers

Investing (or not) to improve electricity reliability on the edge of the AusNet network

Interestingly, there was a negative correlation between direct benefit and amount customers are willing to pay to improve reliability for worst-served customers

- Urban customers willing to pay the most to improve reliability for customers with the worst supply
- Reasons may include:
 - a positive correlation with capacity to pay
 - Some customers out of the city are more resigned to having poorer reliability
 - Out-of-city customers may be less willing to pay for potential improvements for others if they feel their own reliability needs improving.

Variation from average WTP (\$yearly)

		
WTP more than average		
Urban Feeders	\$4.69 ▲	\$23.21 ▲
AVERAGE WTP	\$55.65	\$224.28
WTP still positive, but lower than average		
Rural Short Feeders	\$1.80 ▼	\$19.30 ▼
Rural Long Feeders	\$10.82 ▼	



Reliability

Investing (or not) to reduce one 1 hour-long unplanned outage per year

AusNet



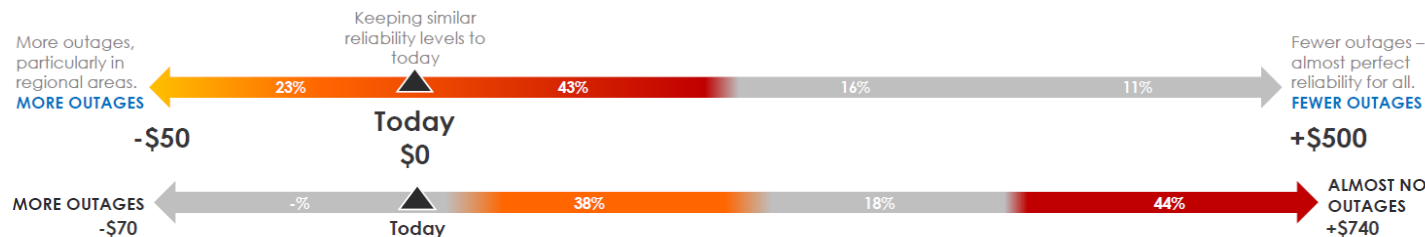
Both households (\$31.68pa) and businesses (\$173.04pa) customers attach a positive value to reduce one 1 hour-long unplanned outage per year.

Willingness to pay	\$31.68 \$2.64 per month	\$173.04 \$14.42 per month
Rebased willingness to pay	\$17.04 12.63% of total	\$105.48 17.19% of total
Willingness to accept	\$199.32 \$16.61 per month	\$919.80 \$76.65 per month
AER's VCR	\$25.36/kWh	Not calculated [^]
AusNet VCR	\$53.42/kWh	\$32.10/kWh

[^] AER VCRs for agriculture, commercial and industrial customers range from \$44.40-74.79



Sentiment is broadly consistent with customer workshop insights





Resilience

Investing (or not) to reduce one 24-hour-long unplanned outage per year

Both households (\$73.44pa) and businesses (\$293.16pa) customers attach a positive value to reducing one 24-hour-long unplanned outage per year.

AusNet



Willingness to pay	\$73.44 \$6.12 per month	\$293.16 \$24.43 per month
Rebased willingness to pay	\$39.60 29.29% of total	\$178.68 29.12% of total
Willingness to accept	\$286.08 \$23.84 per month	\$1,295.26 \$107.94
Resilience Research* (AusNet, 2023)	\$45.35/kWh	\$62.90/kWh

* Conservative estimate of VCR as these are actual costs incurred and therefore do not account for broader economic and social costs of a prolonged outages, including emotional distress and lost productivity



Following the recent storm events in February 2024, AusNet has received \$4.3M worth of claims for spoilt food across 2,929 customers (\$1,468 per customer).



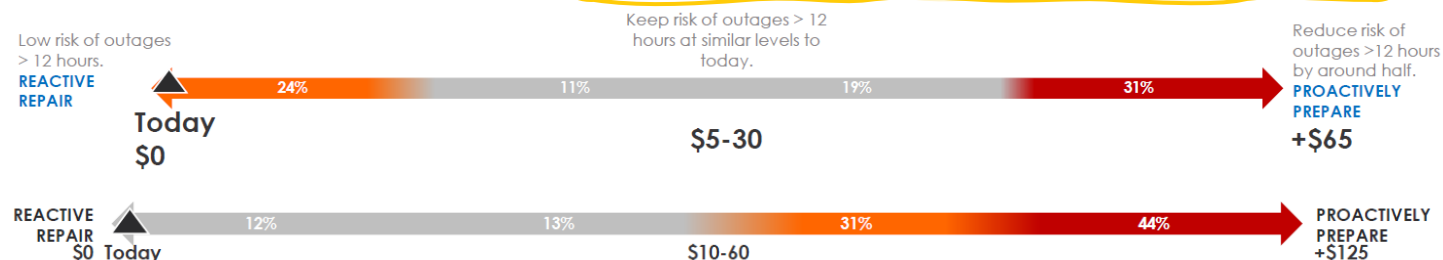
Sentiment is broadly consistent with customer workshop insights



Low risk of outages > 12 hours.
REACTIVE REPAIR

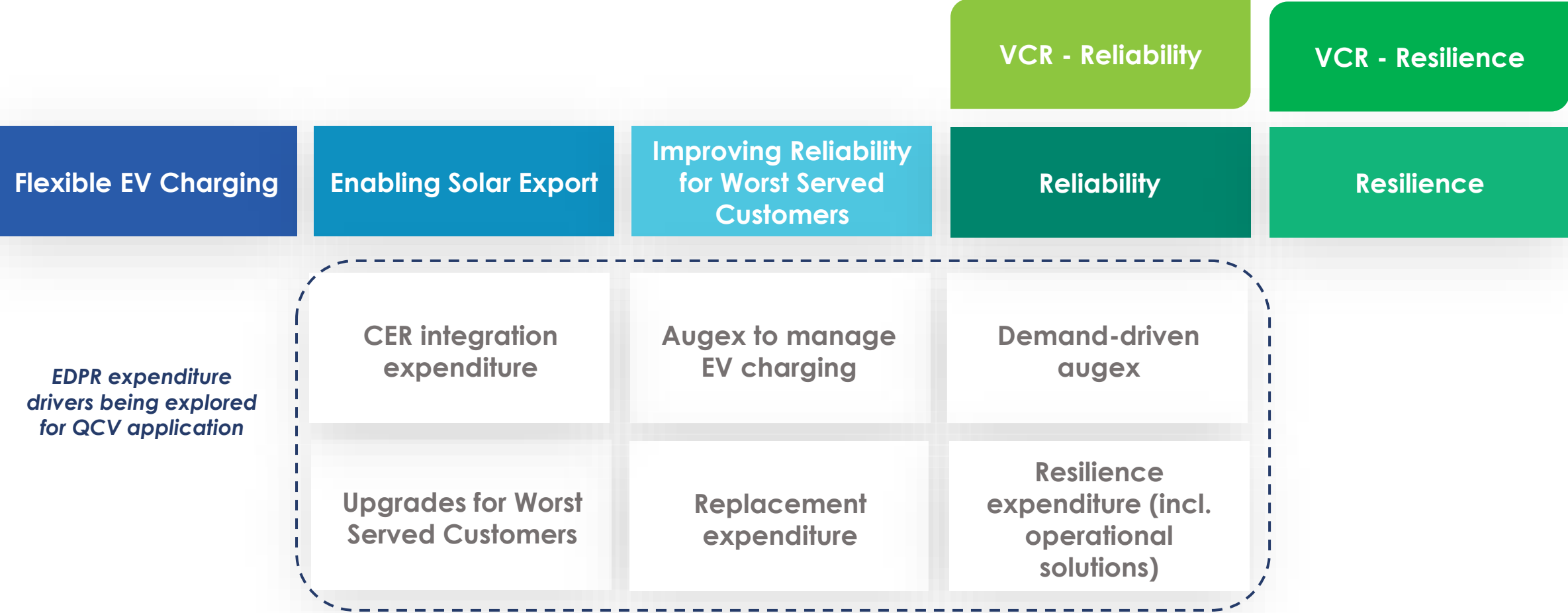
Today
\$0

REACTIVE REPAIR
\$0 Today



Next steps

In collaboration with our EDPR customer panels, we are exploring how to apply the research findings to our investment plans



Our next steps



Continuing to **share findings publicly with key stakeholders and other interested parties** to represent AusNet customers' interests and maximise the value of the study



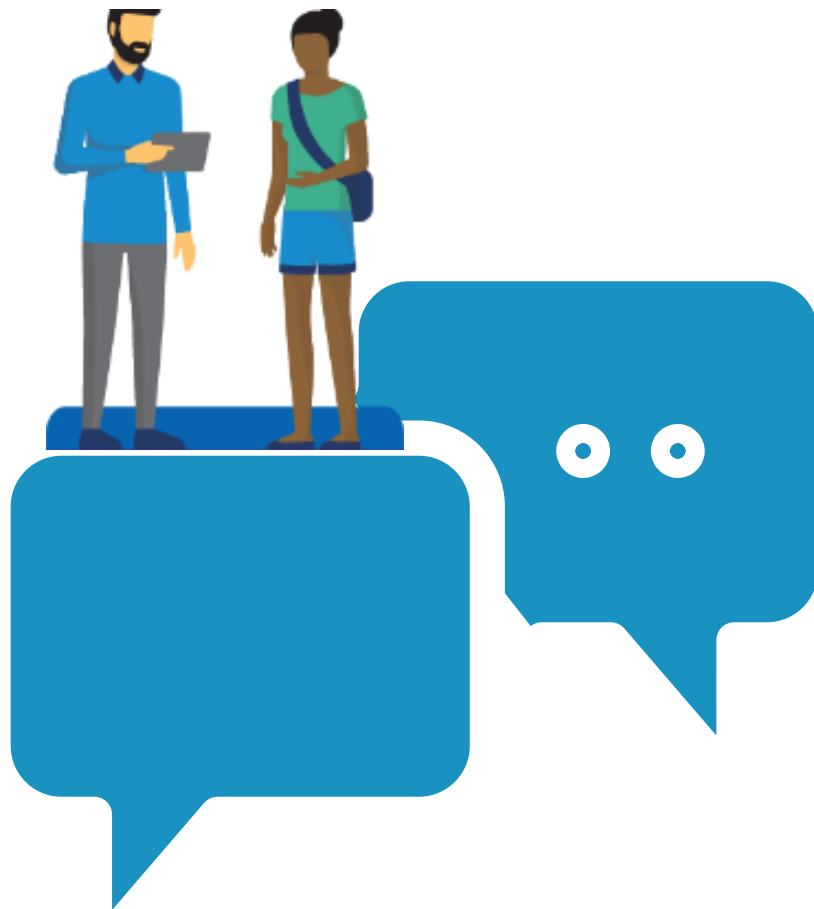
Engaging with our **Electricity Distribution Price Review (EDPR) panels** on how we reflect these values in our 2026-31 business cases



Continuing to engage with **teams across AusNet** to promote customer-focused and more holistic decision-making



Q&A



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Thank You

