

# SA Power Networks Regulatory Proposal Engagement 2025-30

Focussed conversation – Export Tariffs

Workshop 7 – 16 November 2022



**Empowering** South Australia

# Acknowledgement of Country

*'I would like to begin by acknowledging the multiple Traditional Owners of the lands that host the South Australian electricity grid.'*

*I would also like to pay my respects to Elders past and present and acknowledge that these are living cultures by paying respect to emerging leaders.'*



# Housekeeping

Diverse group of stakeholders, keen to hear all voices

## Hybrid session

- Questions, comments in chat function online
- Raise hand if want to speak ( )
- Cameras on preferable (particularly when asking a question)
- Session will be recorded

## Parking Bay

- We'll use the chat function to capture 'parked' items

## Follow up

- Discussion summary will be circulated post-workshop
- Offline chats welcome (SAPN staff)
- Workshop series scheduled

# Stakeholder Invitees

Members of the Tariff Working Group and others:

- SA Power Networks Community Advisory Board + Reset Sub-Committee
- Australian Energy Regulator
- AER's Consumer Challenge Panel (CCP30)
- Essential Services Commission of SA
- Central Irrigation Trust
- Energy & Water Ombudsman SA
- SA Wine Industry Association
- Uniting Care Wesley Bowden
- SA Small Business Commissioner
- Dept. Energy & Mining
- Yates Electrical
- Electric Vehicle Council
- Business SA
- Pangolin Associates
- The Energy Project
- Energyplex
- Smart Energy
- Sun Energy

# SA Power Networks staff presenting and listening:

- Jess Vonthethoff – Executive General Manager Customer & Community
  - Helen White – Manager Revenue & Pricing
  - James Bennett – Manager Regulation
  - Brendon Hampton – Head of Network Strategy
  - Bryn Williams – Network Strategy Manager
- 
- Richard Sibly – Head of Regulation
  - Joe Caruso – Major Customer Manager
  - Alex Lewis – Reset Engagement Manager
  - Martin Coelho – Billing and Credit Manager
  - Adam Neill – Billing Compliance Lead
  - Amanda Hudson – Customer Consultation Lead

# Overview – Focussed Conversation

- |                 |                                                                                                                                                                                                                                           |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9:30am-9:45am   | <b>Welcome and Introduction</b> <ul style="list-style-type: none"><li>• Welcome</li><li>• Recap: Workshop 6</li><li>• Overview: Workshop 7</li></ul>                                                                                      |
| 9:45am-11:15am  | <b>INVOLVE/COLLABORATE – Small Generation Customers</b> <ul style="list-style-type: none"><li>• Customer Impact Analysis</li><li>• Tariff Structures</li><li>• Negative Charges/Credits</li><li>• Pricing Signal Considerations</li></ul> |
| 11:15am-11:30am | <b>Break</b>                                                                                                                                                                                                                              |
| 11:30am-12:20pm | <b>INVOLVE/COLLABORATE – Large Generation Customers</b> <ul style="list-style-type: none"><li>• Pricing signal considerations</li></ul>                                                                                                   |
| 12:20-12:30pm   | <b>Wrap Up</b> <ul style="list-style-type: none"><li>• Final questions, comments?</li><li>• Next steps, close</li></ul>                                                                                                                   |

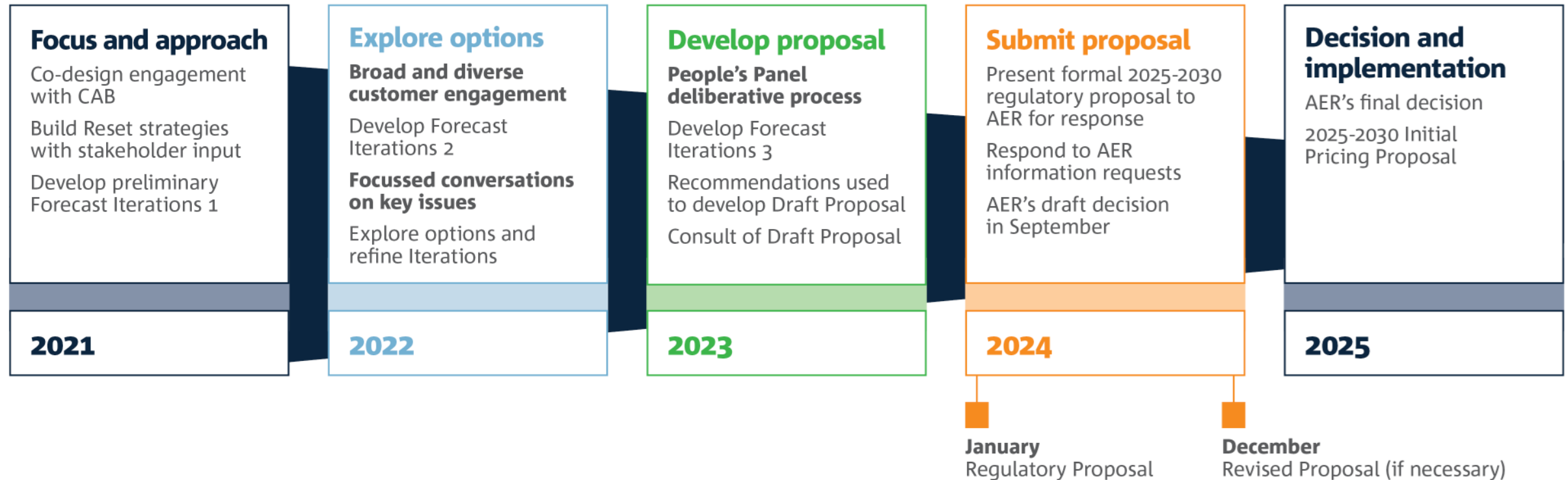
# Recap - Reset



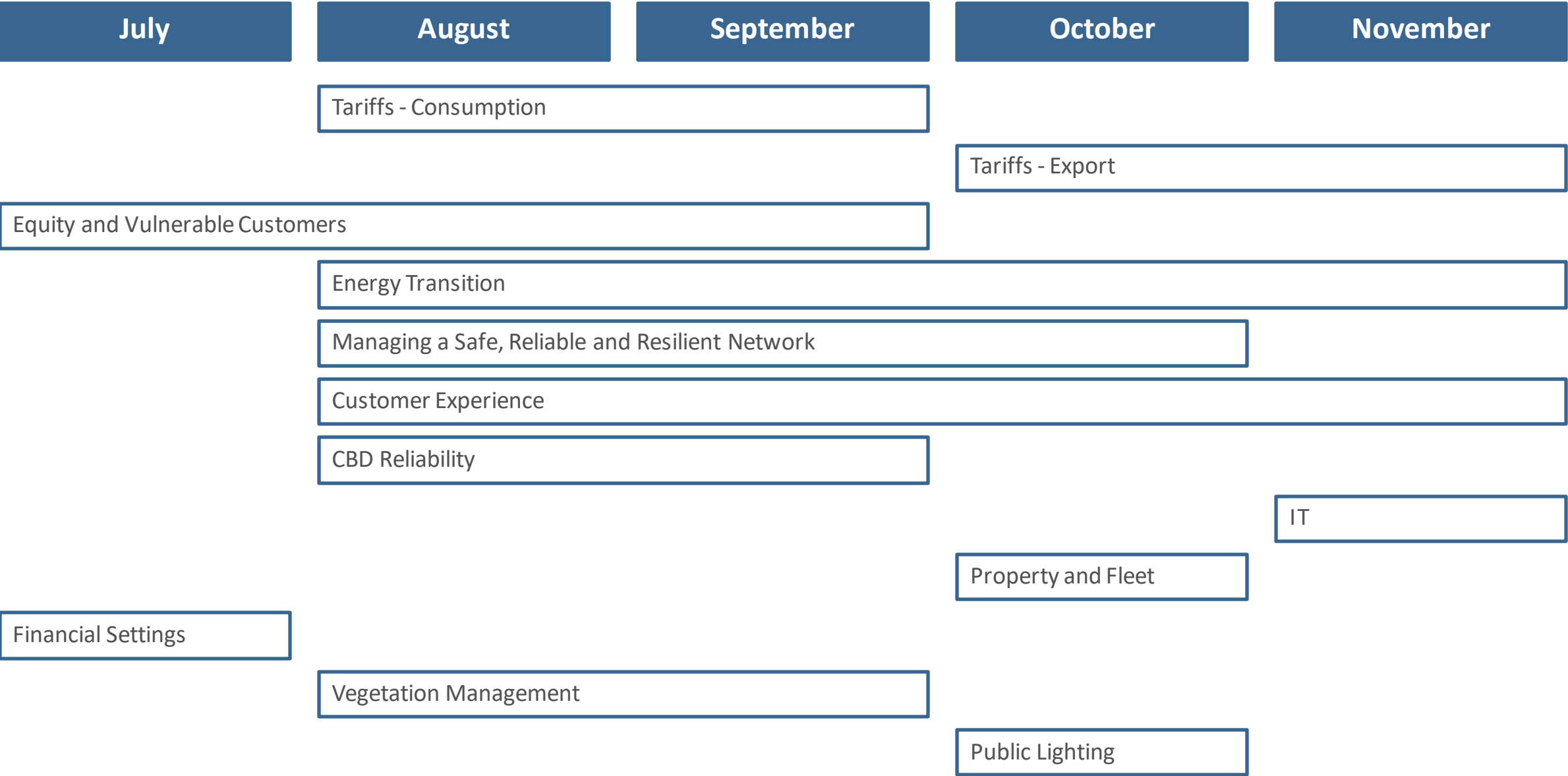
# The Price Reset process

As a monopoly service provider, our prices are approved by an independent regulator

In building our **Regulatory Proposal** and **Tariff Structure Statement** we engage deeply with customers and the community



# Focussed conversations timeframe



# 2025-2030 Reset Engagement: Background

## Five year regulatory period

### Customer and Stakeholder Engagement

#### Revenue Determination (RD)

Approved by the Australian Energy Regulator (AER)  
Adjusted annually for CPI, Incentive Schemes and Cost of Debt  
Overall amount of revenue SAPN can recover from customers

#### Tariff Structure Statement (TSS)

Describes the tariff classes and structures, policies and procedures for assigning customers to tariffs, tariff charging parameters, and how the revenue will be recovered

#### Annual Pricing Proposal (APP)

Details the proposed prices for the agreed tariff structures to take effect at the commencement of each regulatory year - 1 July

Year 1

Year 2

Year 3

Year 4

Year 5

# Recap: Workshop 6

- Setting the scene
  - SA Load profiles
  - SA v NSW Pool prices
  - Profile of DER on the distribution network today
  - Basic export level
  - Grade of service
- Small Generation
  - Basic export levels
  - Tariff structures for Type 6 and Interval Meters
  - Credit pricing

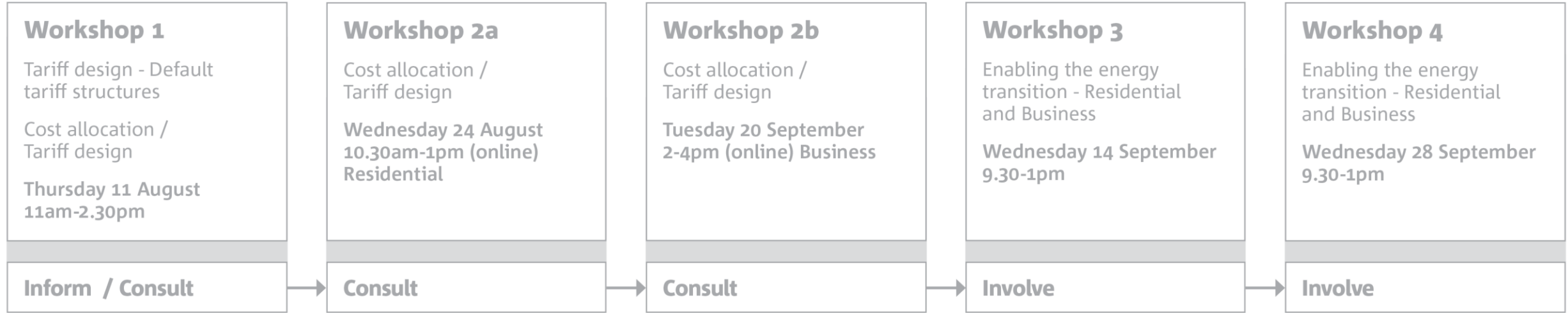
# Today's Focussed Conversation



# Purpose: Today's Focussed Conversation

- Today's Focussed Conversation (workshop) is the seventh in a series of Tariff related Reset discussions:

## Consumption tariffs



## Export tariffs



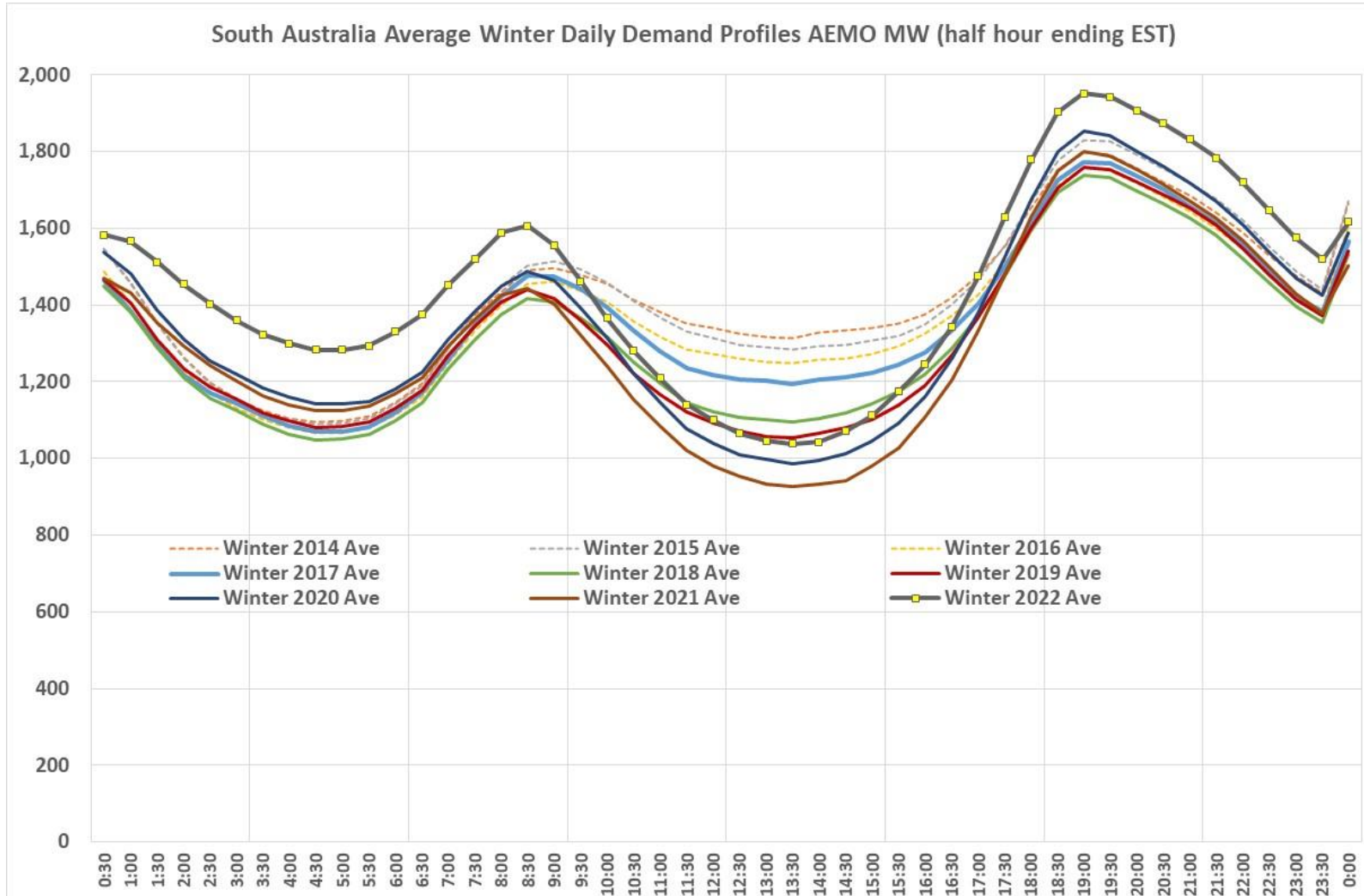
# Purpose: Today's Focussed Conversation

## Outcomes of today's Workshop 7:

- Continue discussion on the customer impacts of different sized PV systems for Small Generation customers <30kW.
- Continue discussion on a credit component of an export tariff for Small Generation customers <30kW.
- Understand and commence discussion on the components of Large Generation customer >30kW export tariff structures and what a tariff could look like.

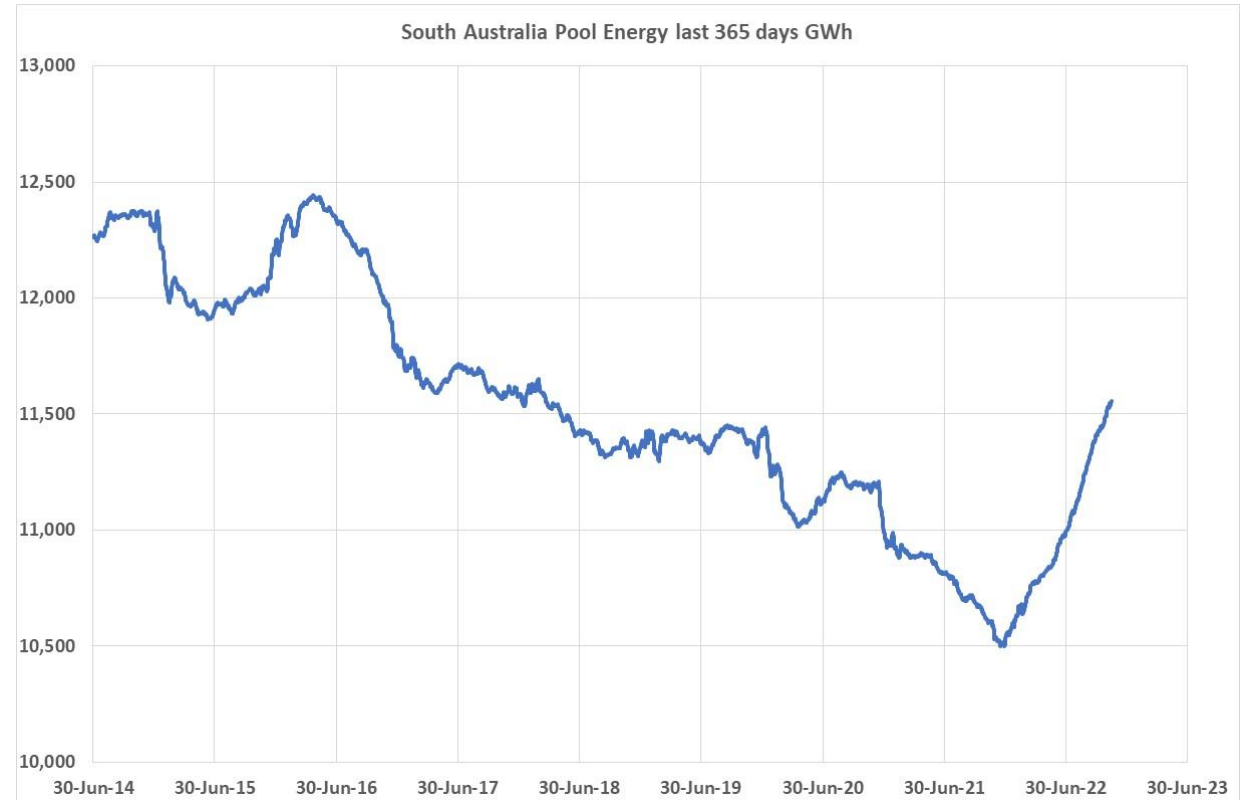
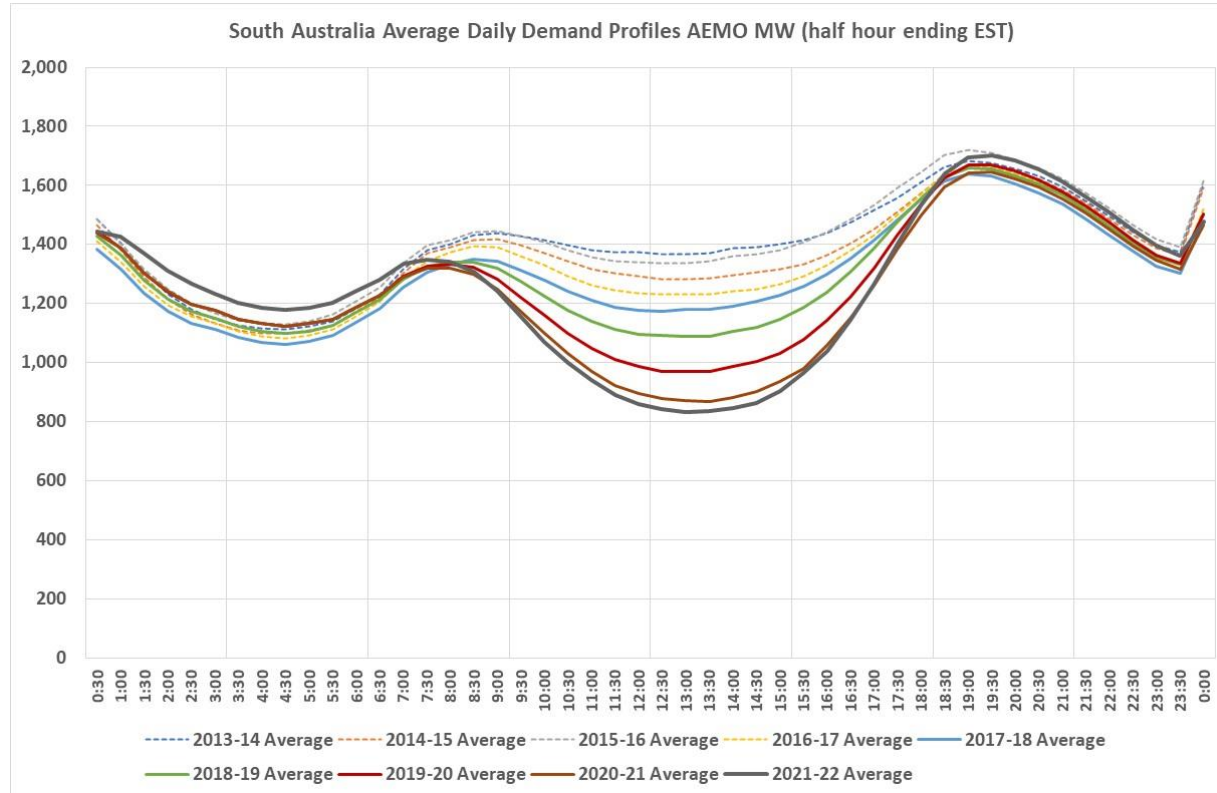
# SA Pool Daily Demand – Correction

New load connected to Transmission from Christmas 2021

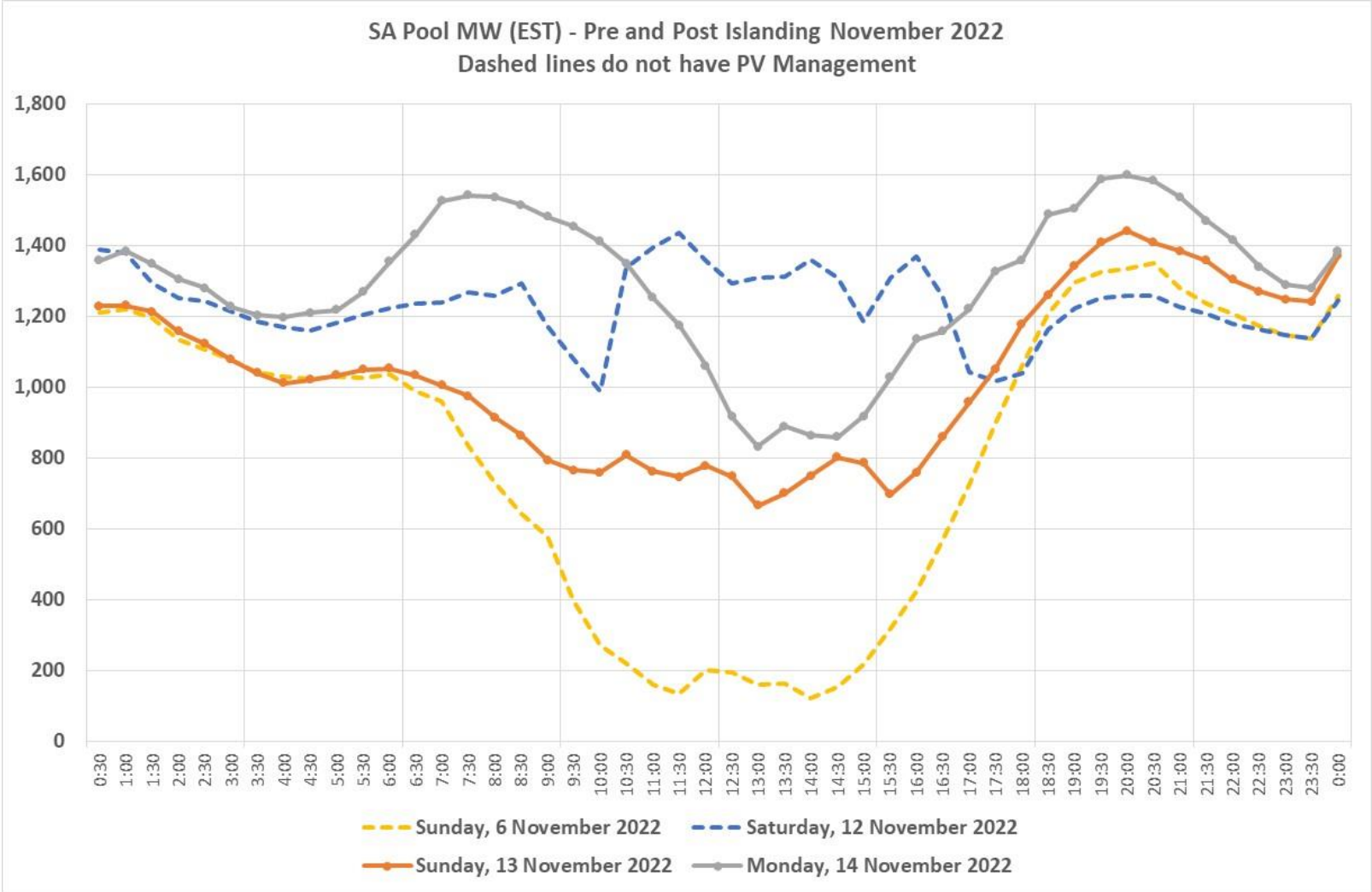


# SA Pool Daily Demand - Correction

New load connected to Transmission from Christmas 2021



# SA Pool Last Weekend (Islanding of SA)



# Large DER Installations

## Distributed Energy Resources in the Network – kW

| Calendar Year<br>Approved | Not<br>Commissioned | up to 2.5 | >2.5 to 5 | >5 to 10 | >10 to 30 | >30 to 200 | >200 to<br>500 | >500 to<br>5000 | >5 to<br>30MW | Total kW<br>commissioned |
|---------------------------|---------------------|-----------|-----------|----------|-----------|------------|----------------|-----------------|---------------|--------------------------|
| 2000                      |                     | 52        | 6         |          |           |            |                |                 |               | 58                       |
| 2001                      |                     | 91        | 3         |          |           |            |                |                 |               | 93                       |
| 2002                      |                     | 226       | 35        | 10       |           |            |                |                 |               | 270                      |
| 2003                      |                     | 287       | 23        |          |           | 64         |                |                 |               | 375                      |
| 2004                      |                     | 227       | 5         | 8        |           |            |                |                 |               | 240                      |
| 2005                      |                     | 303       | 51        |          | 20        |            |                |                 |               | 374                      |
| 2006                      |                     | 367       | 160       | 7        |           |            |                |                 |               | 535                      |
| 2007                      |                     | 1,067     | 428       | 23       | 17        |            |                |                 |               | 1,534                    |
| 2008                      |                     | 3,844     | 777       | 103      | 55        |            |                |                 |               | 4,779                    |
| 2009                      |                     | 8,795     | 1,863     | 305      | 142       | 166        |                |                 |               | 11,271                   |
| 2010                      |                     | 17,860    | 16,626    | 3,618    | 1,080     | 1,643      |                |                 |               | 40,827                   |
| 2011                      |                     | 45,684    | 112,596   | 26,661   | 5,002     | 155        |                |                 |               | 190,097                  |
| 2012                      |                     | 17,571    | 67,697    | 25,779   | 7,358     | 276        |                |                 |               | 118,680                  |
| 2013                      |                     | 3,769     | 65,699    | 70,322   | 30,997    | 2,598      |                |                 |               | 173,385                  |
| 2014                      |                     | 2,051     | 25,971    | 19,845   | 12,218    | 2,906      |                | 750             |               | 63,741                   |
| 2015                      |                     | 1,712     | 22,788    | 18,802   | 12,494    | 4,008      | 500            |                 |               | 60,303                   |
| 2016                      |                     | 1,920     | 19,172    | 31,195   | 16,123    | 6,369      | 1,000          | 2,850           |               | 78,629                   |
| 2017                      |                     | 2,311     | 19,593    | 57,433   | 35,386    | 15,463     | 475            | 2,750           |               | 133,411                  |
| 2018                      |                     | 1,453     | 16,971    | 75,060   | 48,159    | 36,558     | 5,517          | 1,080           |               | 184,797                  |
| 2019                      |                     | 942       | 10,162    | 117,593  | 106,888   | 41,293     | 2,325          | 5,850           | 11,645        | 296,697                  |
| 2020                      |                     | 866       | 8,337     | 160,787  | 170,664   | 33,157     | 1,302          | 3,100           |               | 378,213                  |
| 2021                      |                     | 1,199     | 5,708     | 102,605  | 107,703   | 18,128     | 446            | 550             |               | 236,339                  |
| 2022                      |                     | 1,651     | 8,206     | 81,982   | 113,829   | 28,831     | 15,443         | 93,320          | 119,268       | 462,530                  |
| Grand Total               |                     | 114,248   | 402,876   | 792,138  | 668,133   | 191,615    | 27,007         | 110,250         | 130,913       | 2,437,180                |

SA Power Networks

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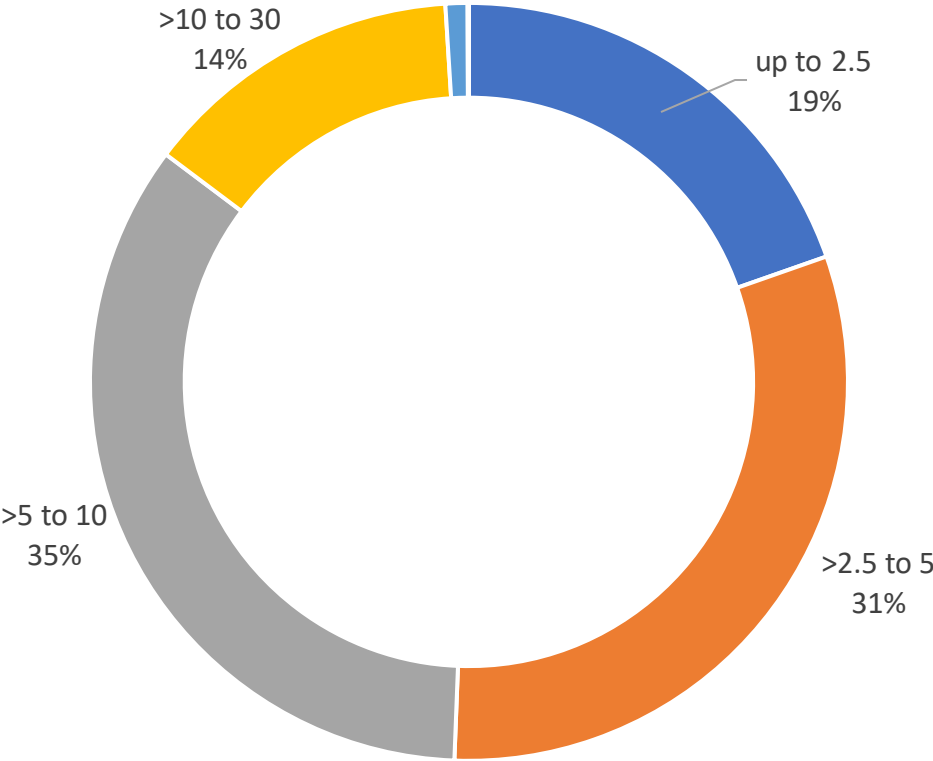
- Large Systems are correct, but some were 'approved' earlier but added to DER Register later in CY 2022
- In 2016 – 2020 there was 77% more kW commissioned for 17% less approvals compared to 2011 – 2015.
- With the reduction in panel costs, a standard Residential PV system offering is now 6.5kW panels and 5kW inverter.
- Few Utility scale systems, rather infrastructure (e.g. SA Water), Retail Shopping Centres and other significant customer loads adding large solar for use primarily in-house.
- Do such systems need the registration with AEMO that Mark Yates was implying? Or are customer-use facilities exempt if not exporting >5MW?

# Export Tariffs – Small Generation Customers <30kW

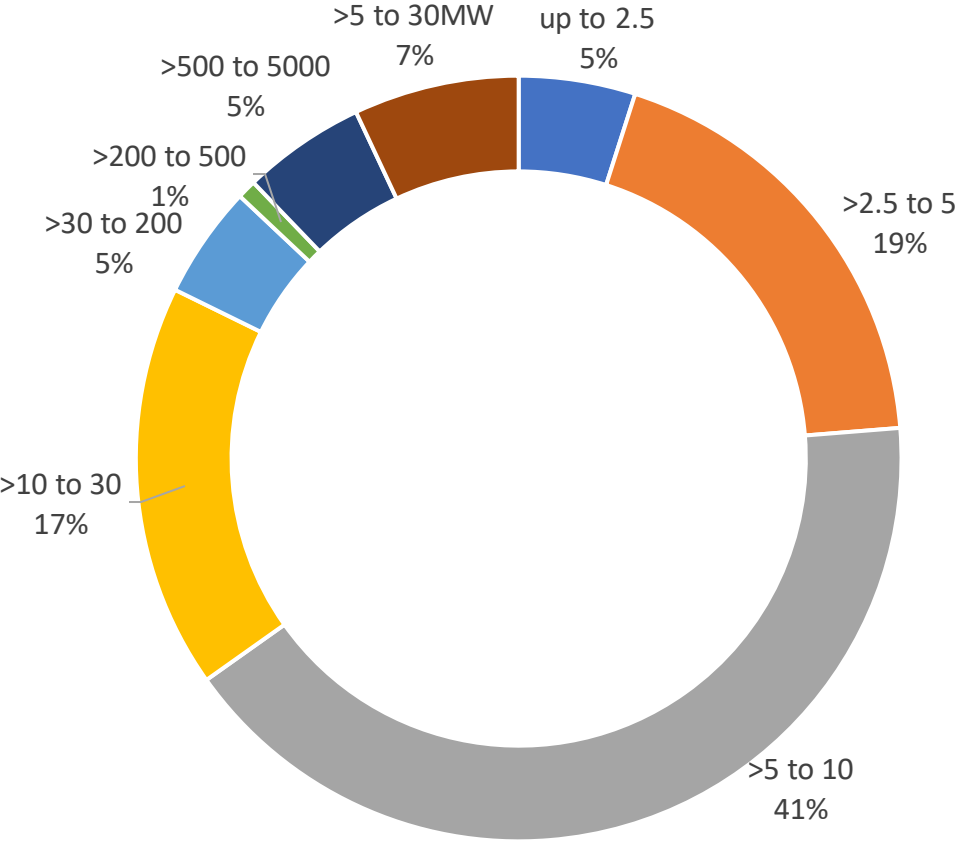


# Scene Setting – Recap

PV Installations by kW Size PV Commissioned  
1% of systems are larger than 30 kW

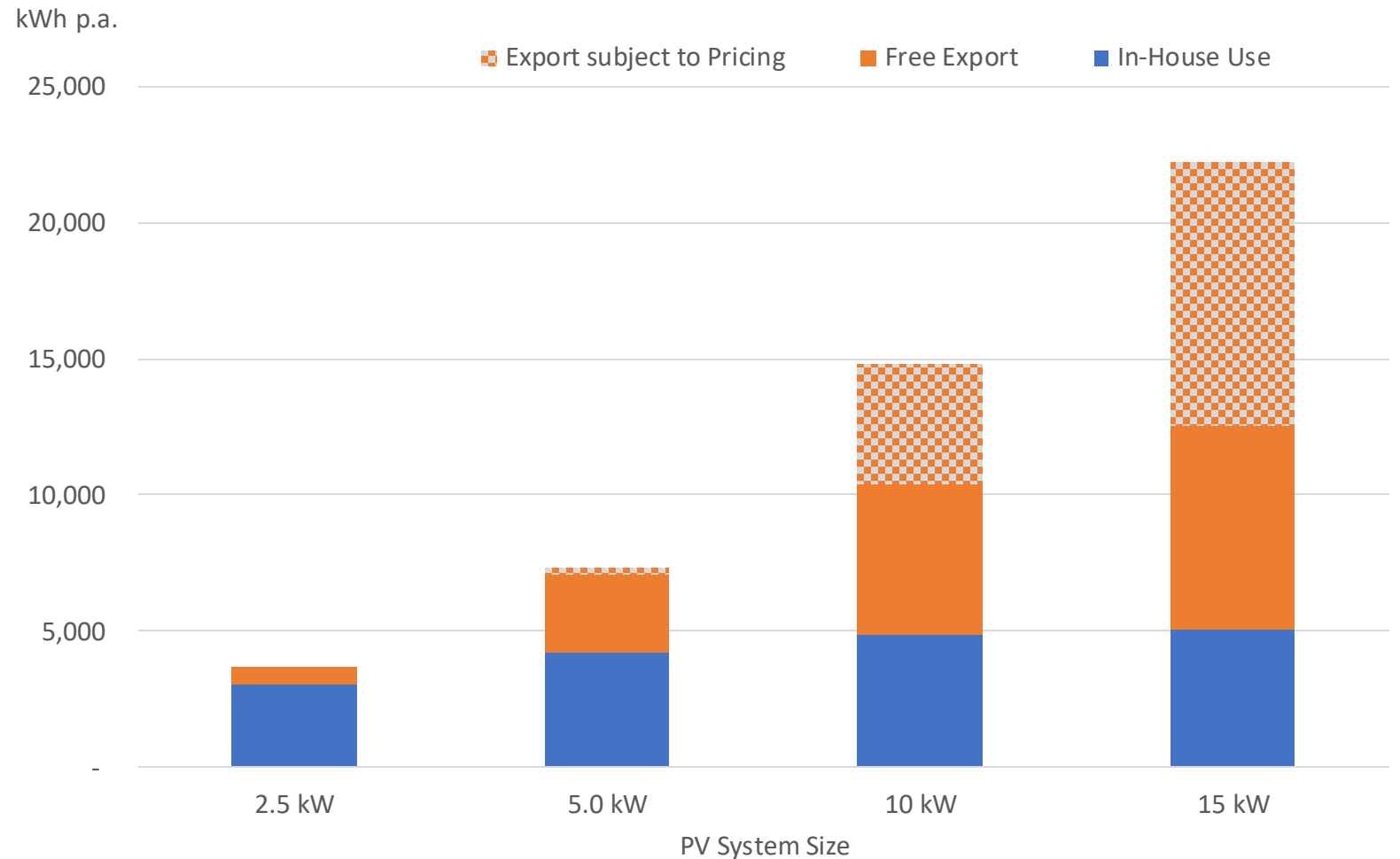


Export Energy 2021-22 by kW Size PV Commissioned



# PV System Output – kWh per annum | Customer 1

- Usage is based on 8MW p.a. profile of consumption with a swimming pool.
- Using the same consumption profile we have modelled the outcome for different sized PV systems.
- Export subject to pricing is 10am – 4pm
- A smaller PV system uses all the generation either in house or exports within the free export limit.
- A larger PV system enables greater in house use and export within the free export limit, however also has a larger amount subject to export pricing.



# Return on Investment from PV System per annum inc. GST | Customer 1

AGL Standing Retail Offer was used in the data analysis. AGL is the reatiler for 38% of Residential customers.

## Retail Energy In-House Benefit

- 21.76 c/kWh RSR

## Network In-House Benefit

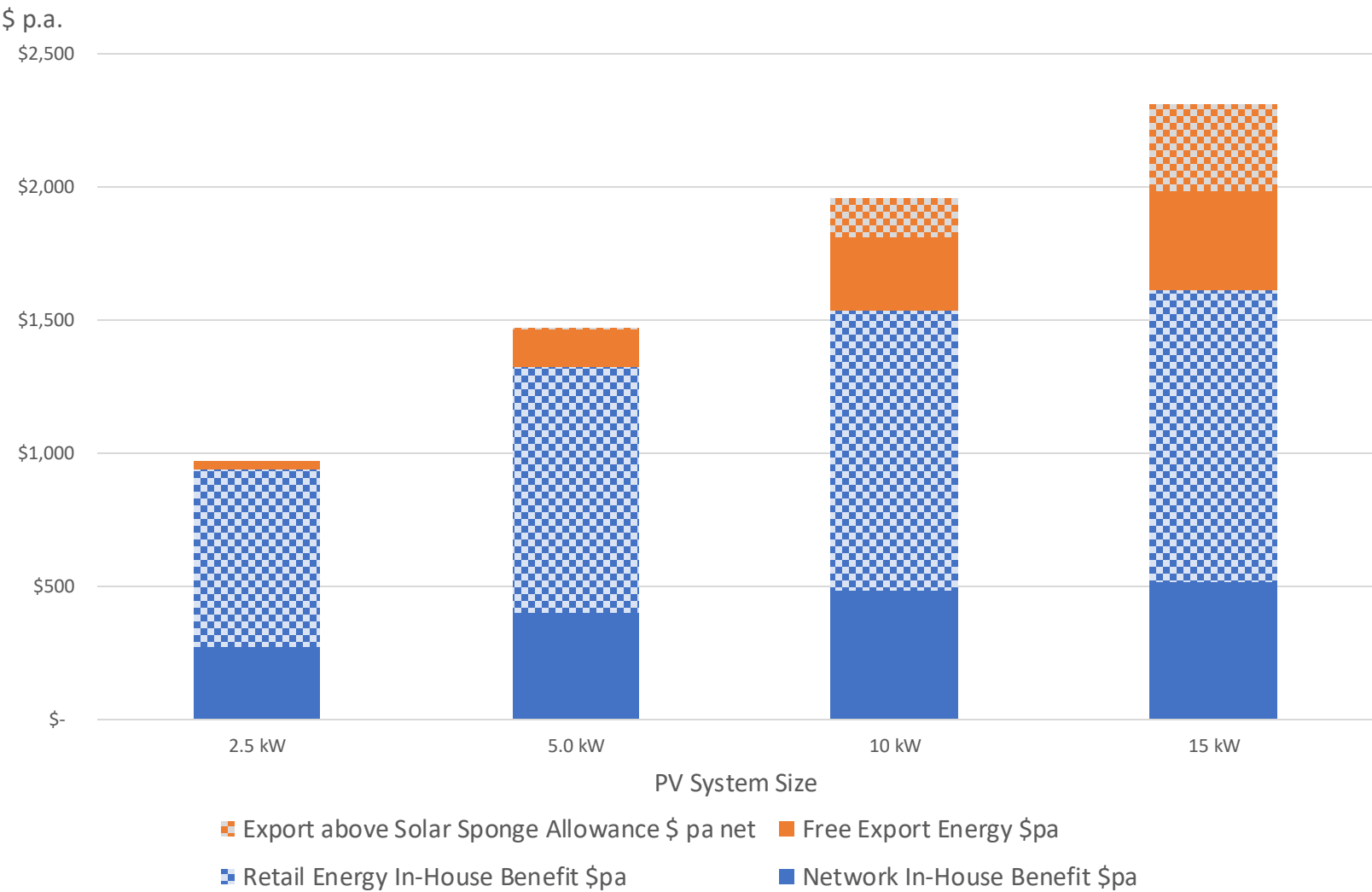
- NUoS 2022-23
- 14.78 c/kWh RSR

## Export above Solar Sponge Allowance NET calculation

- 1.65 c/kWh SAPN Export charge
- 5 c/kWh Feed in Tariff from Retailer
- Net 3.35 c/kWh

## Free Export Energy

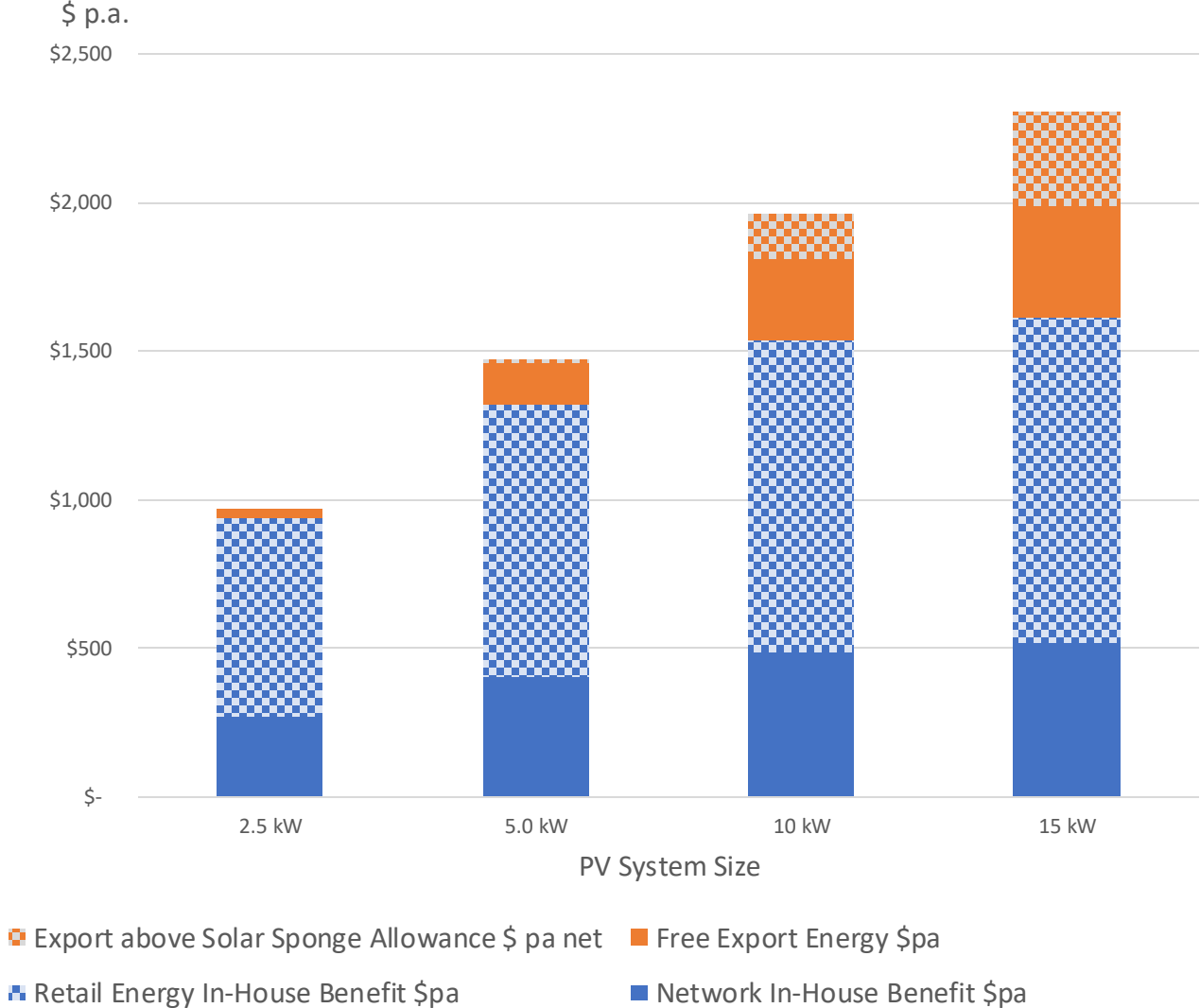
- 5 c/kWh Feed in Tariff from Retailer



# Return on Investment from PV System per annum inc. GST | Customer 1

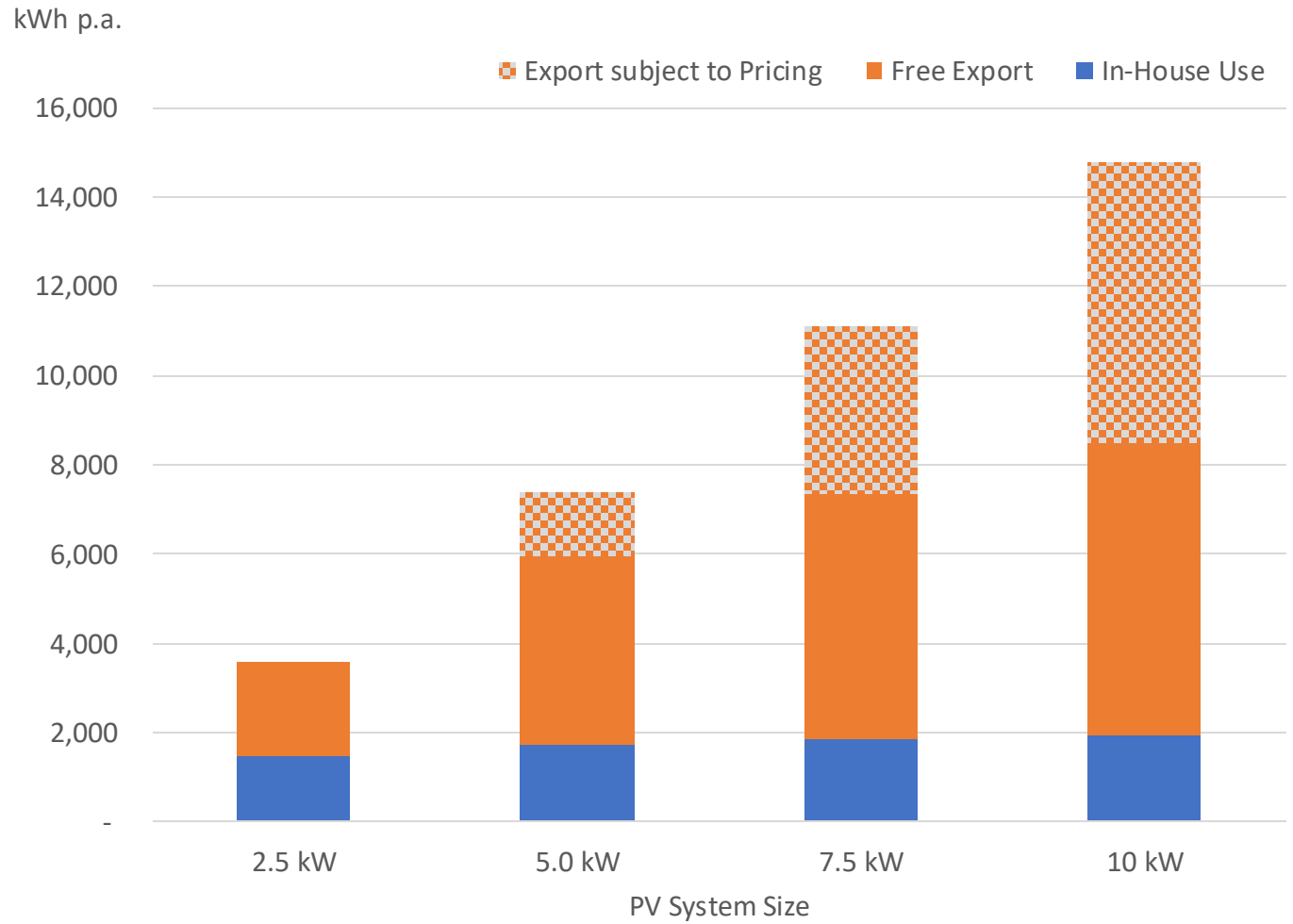
| PV System Size | PV Investment @ \$1,000 per kW | Annual Return on Investment | Payback Years | Payback Years ex Export Charge @1.65 c/kWh |
|----------------|--------------------------------|-----------------------------|---------------|--------------------------------------------|
| 2.5kW          | \$2,500                        | \$968                       | 2.6           | 2.6                                        |
| 5kW            | \$5,000                        | \$1,472                     | 3.4           | 3.4                                        |
| 10kW           | \$10,000                       | \$1,962                     | 5.1           | 4.9                                        |
| 15kW           | \$15,000                       | \$2,309                     | 6.5           | 6.1                                        |

- Payback period will decrease with higher Feed in Tariff or increased in house consumption during the Solar Sponge window 10am-4pm
- Payback period will increase with lower Feed in Tariff or decreased in house consumption during the Solar Sponge window 10am-4pm



# PV System Output – kWh per annum | Customer 2

- Usage is based on 4MW p.a. profile of consumption with 2 persons.
- Using the same consumption profile we have modelled the outcome for different sized PV systems.
- Export subject to pricing is 10am – 4pm
- A smaller PV system uses all the generation either in house or exports within the free export limit.
- A larger PV system enables greater in house use and export within the free export limit, however also has a larger amount subject to export pricing.



# Return on Investment from PV System per annum inc. GST | Customer 2

AGL Standing Retail Offer was used in the data analysis. AGL represents 38% of Residential customers.

## Retail Energy In-House Benefit

- 21.76 c/kWh RSR

## Network In-House Benefit

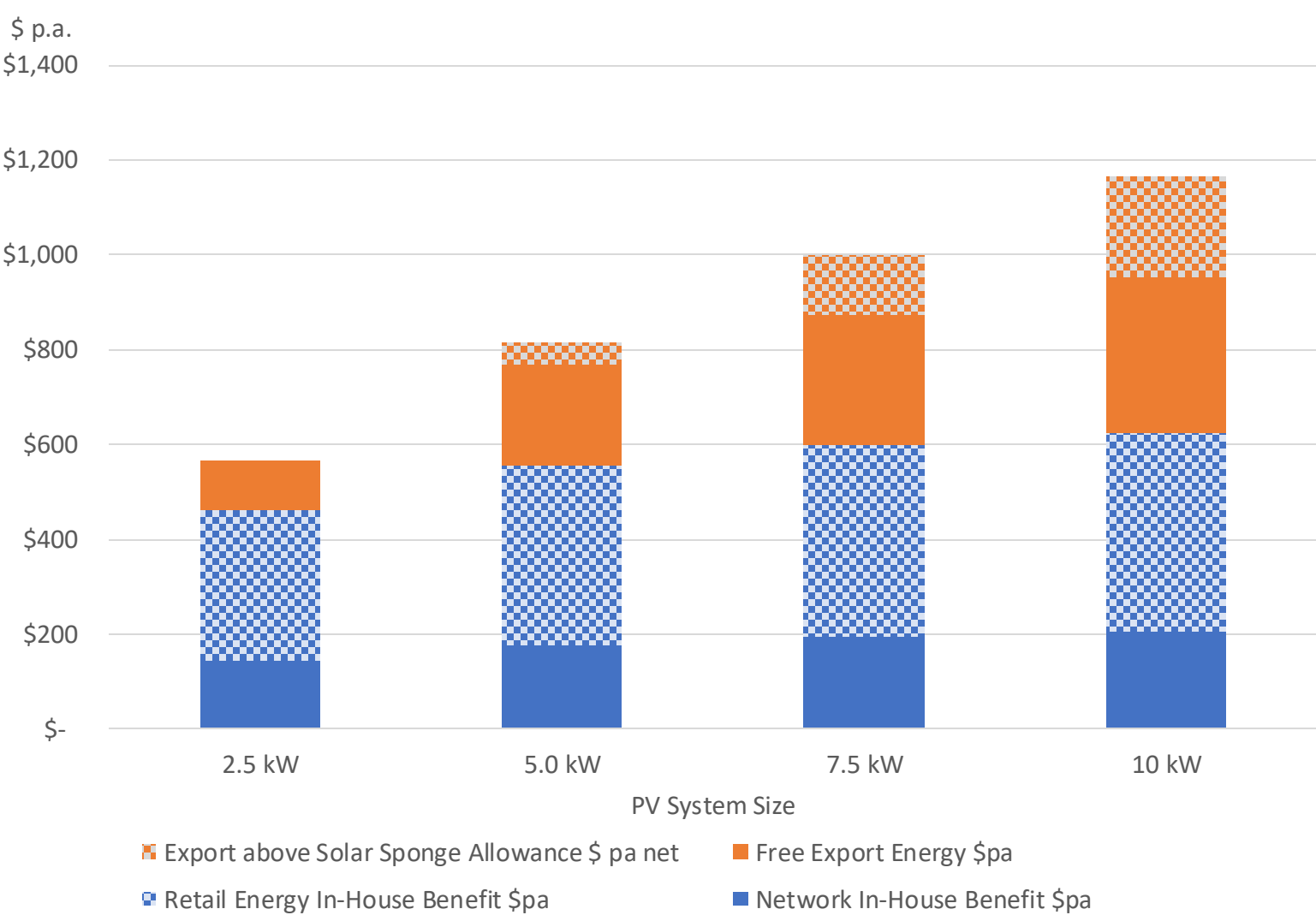
- NUoS 2022-23
- 14.78 c/kWh RSR

## Export above Solar Sponge Allowance NET calculation

- 1.65 c/kWh SAPN Export charge
- 5 c/kWh Feed in Tariff from Retailer
- Net 3.35 c/kWh

## Free Export Energy

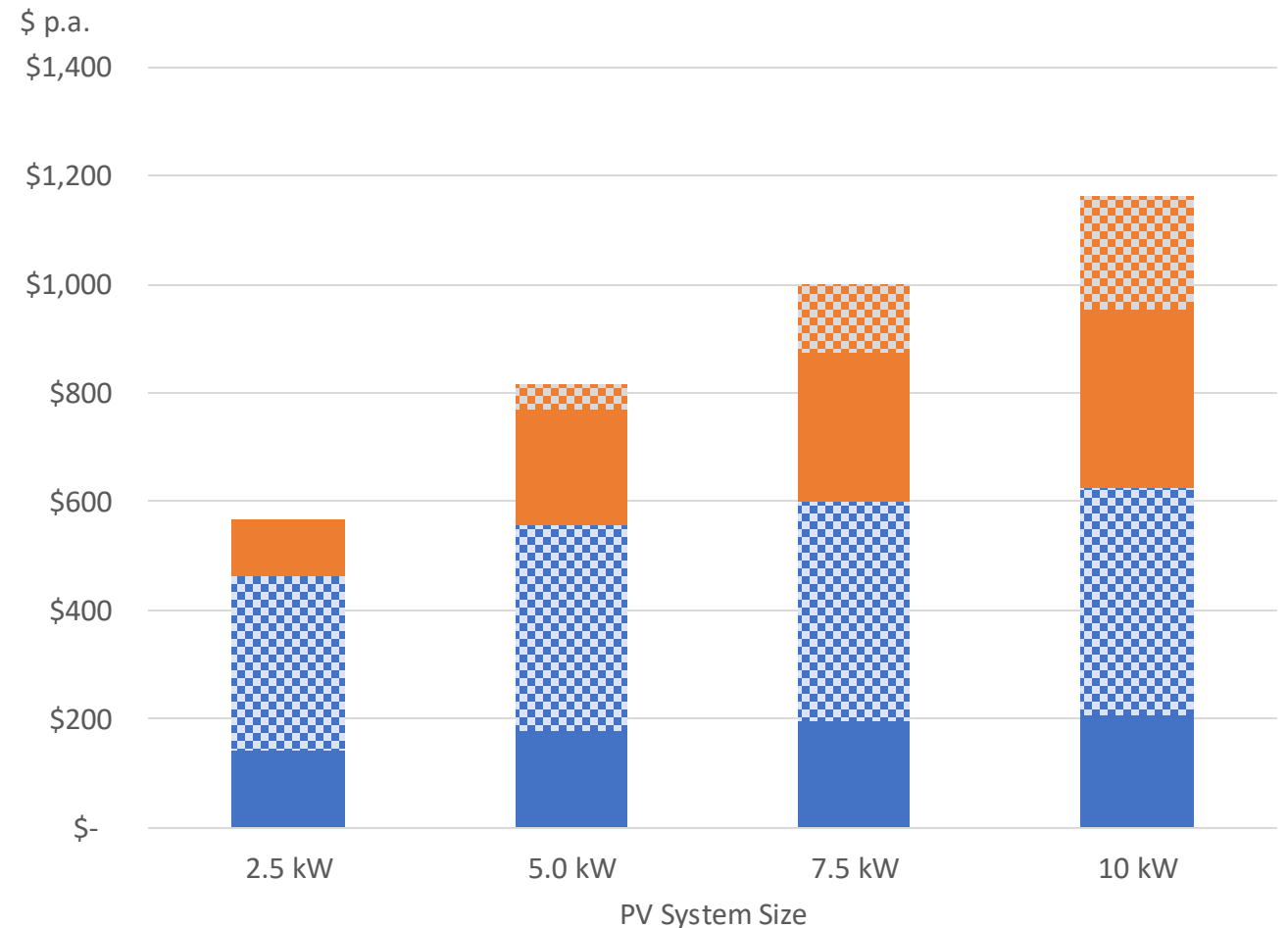
- 5 c/kWh Feed in Tariff from Retailer



# Return on Investment from PV System per annum inc. GST | Customer 2

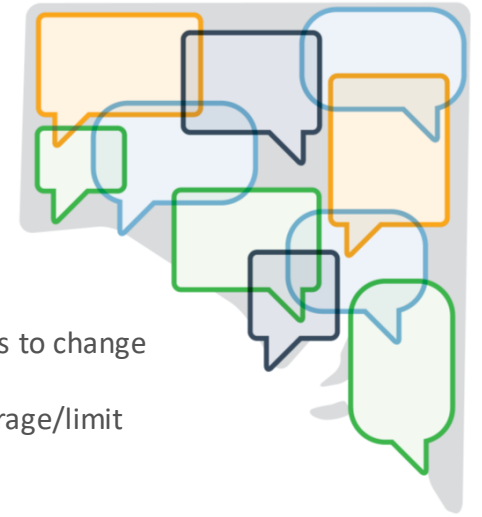
| PV System Size | PV Investment @ \$1,000 per kW | Annual Return on Investment | Payback Years | Payback Years ex Export Charge @1.65 c/kWh |
|----------------|--------------------------------|-----------------------------|---------------|--------------------------------------------|
| 2.5kW          | \$2,500                        | \$568                       | 4.4           | 4.4                                        |
| 5kW            | \$5,000                        | \$816                       | 6.1           | 6.0                                        |
| 7.5kW          | \$10,000                       | \$999                       | 7.5           | 7.1                                        |
| 10kW           | \$15,000                       | \$1,165                     | 8.6           | 7.9                                        |

- Payback period will decrease with higher Feed in Tariff or increased in house consumption during the Solar Sponge window 10am-4pm
- Payback period will increase with lower Feed in Tariff or decreased in house consumption during the Solar Sponge window 10am-4pm



▣ Export above Solar Sponge Allowance \$ pa net     ▣ Free Export Energy \$pa  
▣ Retail Energy In-House Benefit \$pa     ▣ Network In-House Benefit \$pa

# Discussion | Questions | Comments | Observations



*What further analysis would you like presented to enhance your understanding of SA Power Networks' approach to export tariffs for Small Generation customers?*

## DISCUSSION

- Concerns around design and resilience of the transmission network, particularly as there have been a number of transmission towers fall over in recent years in severe weather events.
- Why would in-house usage in sample customer data (slide 21) vary?
- How does data vary across the year (monthly vs annual)?
- Is the proposal all year round, no seasonal change (flat) and there is no export tariff outside the hours of 10 and 4 - do you think it likely that people would be exporting before 10am and after 4pm?
- Impact of external pricing on export tariffs.
- Does the modelling account for growth in numbers of customers installing solar?
- Is this true cost recovery, or incentivised cost recovery.
- If SA Power Networks outperforms the approved capital expenditure allowance related to solar enablement, are those CESS (Capex Sharing Scheme) benefits provided only back to solar customers through reduced solar export tariffs, or are they smeared across all customers?
- Will solar customers be paying reduced NUoS?
- When will all customers be on Time of Use (ToU) tariffs? How will this work in 2025 when half of customers will be on interval meters?
- Ownership of smart meters and customers' smart information/data, and

concerns that this may undermine SA Power Network's efforts to change behaviour.

- Do projected 'payback' (return on investment) periods encourage/limit customers to have smaller systems?
- Is the metering export fee high enough to change behaviour?
- *NOTE – PV system size on slides 24-26 was incorrect and has been corrected).*

## ACTIONS

- Provide monthly data for customer profiles (currently annual)
- Clarify implications of export enablement underspend\*
- Provide further information on AEMC's metering consultation process^.

## RESET ACTIONS – SA Power Networks

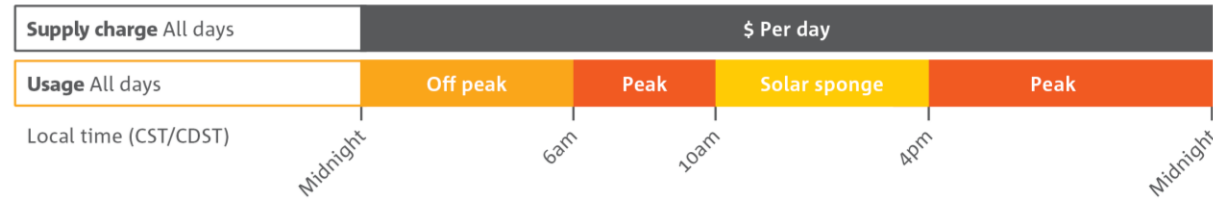
- Provide additional information on DER expenditure and recovery reporting for consideration to the CAB sub committee.

\*Reset matter for consideration/discussion in future workshop

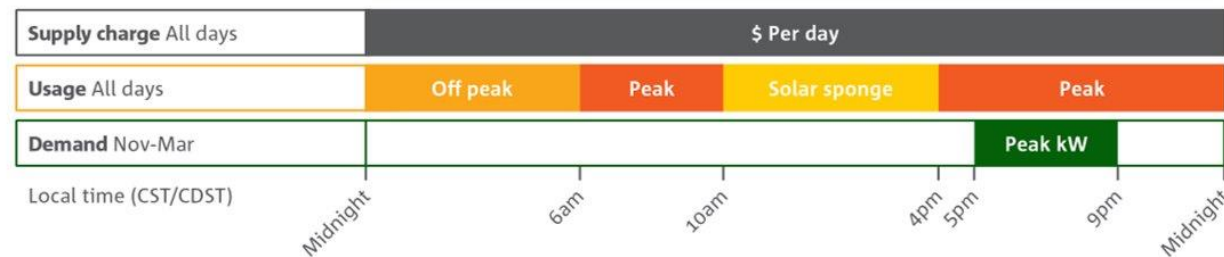
^BAU matter for response by SA Power Networks

# Tariff Structures – Interval Meter

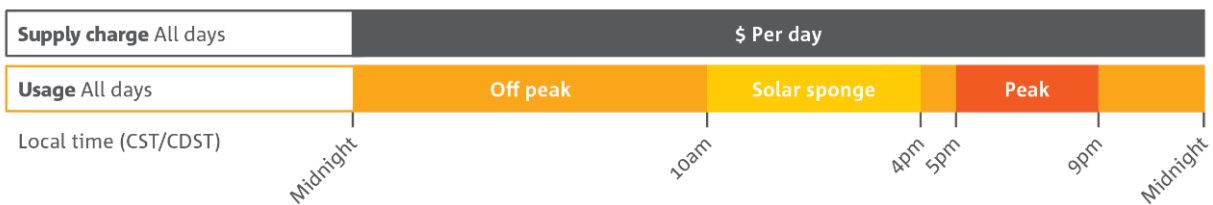
## RTOU | Residential Time of Use



## RPRO | Residential Prosumer



## RELE | Electrify

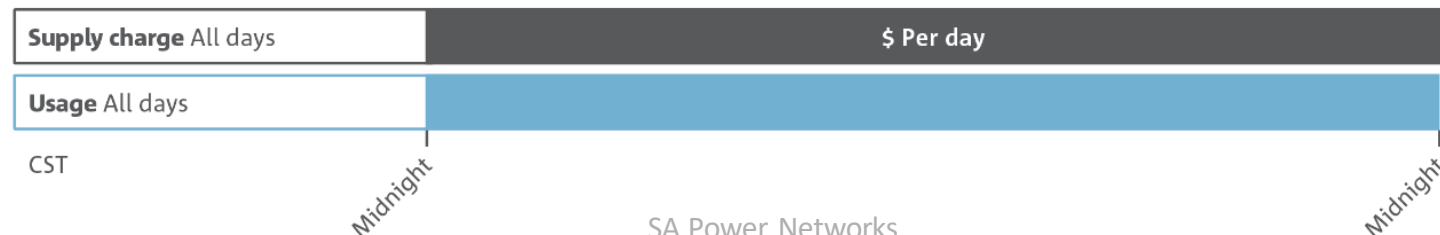


- The export charge window would align with the Solar Sponge window in Residential consumption tariffs.
- Any time outside 10am – 4pm would not incur a charge.
- The free basic export level would be calculated and billed at no charge on a monthly basis.
- If the free basic export limit kWh are not utilised for a day then the kWh will be rolled over and can be used at another time within the month.
- The basic export limit applies on a kWh monthly basis – 9kWh @ 30 days = 270kWh

# Tariff Structures – Accumulation Meter

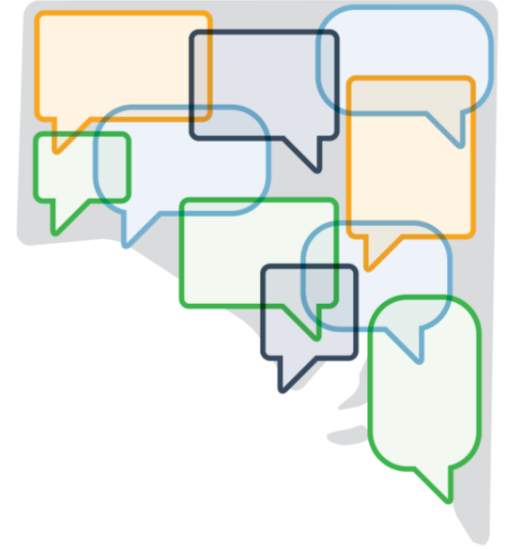
- The meter type can not distinguish what time of day export is occurring.
- The free basic export level would be calculated and billed at no charge on a quarterly basis.
- 270 kWh Solar Sponge per month equals approximately 1,100 kWh anytime per quarter maximum.
- If the free basic export limit kWh are not utilised for a day then the kWh will be rolled over and can be used at another time within the quarter.
- The basic export limit applies on a kWh quarterly basis.
- The basic export limit kWh will be calculated based on sample customer data.
- The export charge would be priced in such a way that customers are not penalised or incentivised because they have an Accumulation meter
- On average a customer who has the same export profile whether they have an Accumulation meter or an Interval meter will have the same pricing outcome.
- This is consistent with our approach for consumption tariffs – RSR/RTOU.

## RSR | Residential Single Rate



# Discussion | Questions | Comments | Observations

- No questions/comments or actions raised.



# Tariff Structures – Negative Charges/Credits

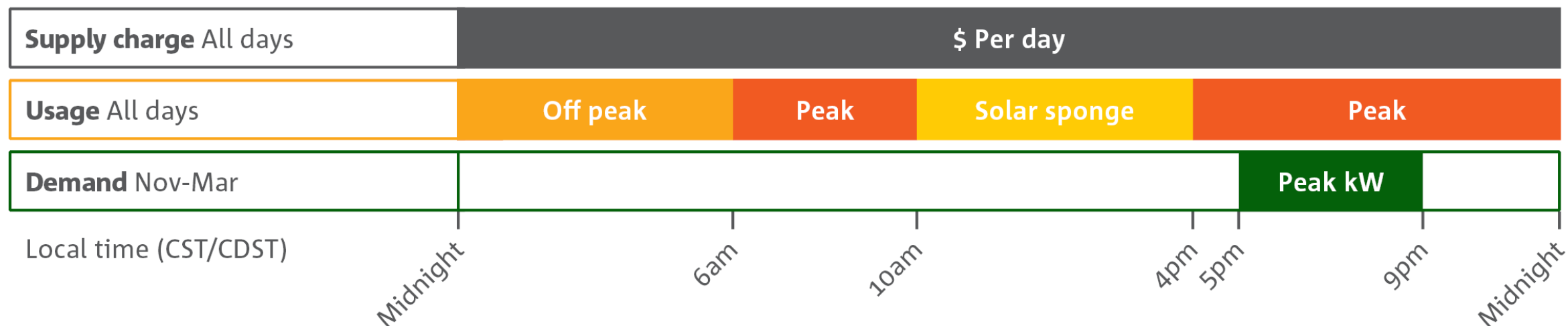
- In South Australia the network is under its greatest constraint in Summer (November to March) between 5:00pm – 9:00pm, typically when the forecast is greater than 38°C and there are consecutive hot days.
- It is at these times when energy being exported back into the network would be beneficial. However it is also highly likely at these times that households would self consume their energy and not export back into the grid.
- Our network does not have wide spread load constraints which would benefit from export.
- Outside of these times there is largely no benefit to SA Power Networks to have energy exported into the network, for example between 5:00pm – 9:00pm during the summer months when the temperature is mild or on a mild spring day.

# Tariff Structures – Negative Charges/Credits | Residential Prosumer

## *What we heard from Workshop 6*

- Recognising export in the demand calculation for Residential Prosumer was not considered an adequate reward for exporting energy they do not use or store themselves.
- There are currently very small numbers of customers on this tariff.

## **RPRO** | Residential Prosumer



# Tariff Structures – Negative Charges/Credits | Residential Prosumer

## *What will be our approach for 2025-30?*

- Despite the small customer numbers, we will continue to propose an amended demand calculation methodology which recognises negative demand.
- Demand is calculated as the highest daily average demand interval – i.e. 4 hours.
- If negative demand reduces the demand value for the 4 hour window of 5pm-9pm November to March to a negative kW value then a credit of **74.76** c/kW per day for the month will be received.

# Tariff Structures – Negative Charges/Credits | Residential Prosumer

| Time Interval | kW  | Demand Calculation<br>2020-25                                                                                                                                                         | Proposed Demand Calculation<br>2025-30                                                                                                                                                                                                                                                                                                                |
|---------------|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5:01pm-5:30pm | -10 | <p>Sum of all positive values. Negative values treated as 0.</p> <p><math>0 + 0 + 0 + 0 + 0 + 0 + 20 + 10 = 30</math></p> <p>Highest daily average:<br/> <math>30/8 = 3.75</math></p> | <p>Sum of all positive and negative values.</p> <p><math>(10) + (15) + (5) + (10) + (5) + (15) + 20 + 10 = (30)</math></p> <p>Highest daily average:<br/> <math>(30)/8 = (3.75)</math></p> <p><math>3.75 \times 74.76 \text{ c/kW} = \\$2.80 \text{ per day}</math><br/> <math>\\$2.80 \times 30 \text{ days} = \\$80.00 \text{ per month}</math></p> |
| 5:31pm-6:00pm | -15 |                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                       |
| 6:01pm-6:30pm | -5  |                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                       |
| 6:31pm-7:00pm | -10 |                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                       |
| 7:01pm-7:30pm | -5  |                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                       |
| 7:31pm-8:00pm | -15 |                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                       |
| 8:01pm-8:30pm | 20  |                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                       |
| 8:31pm-9:00pm | 10  |                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                       |

# Tariff Structures – Negative Charges/Credits | Electrify

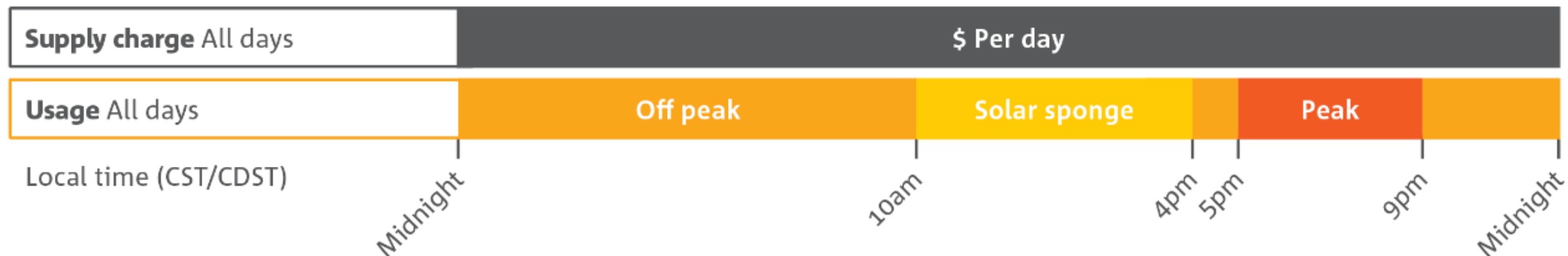
## *What we heard from Workshop 6*

- Recognising export in the demand calculation for Residential Prosumer was not considered an adequate reward for exporting energy they do not use or store themselves.

## *What will be our approach for 2025-30?*

- Electrify is currently a trial tariff that we will incorporate into the TSS which does not include a demand component.
- We are proposing to develop a trial tariff based on the Electrify structure which has both an export charge and export credit component, to inform our thinking for 2025-30.

## RELE | Electrify



# Tariff Structures – Negative Charges/Credits | Electrify

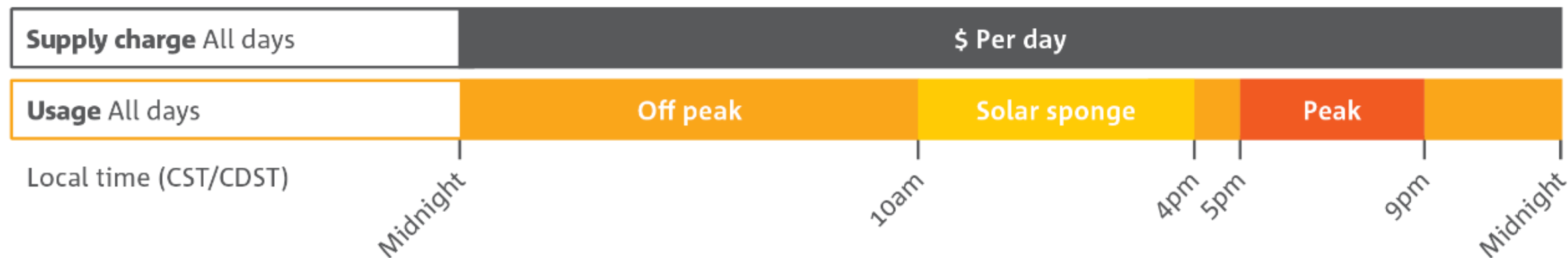
## NUoS 2022-23 Consumption Pricing

- Peak: 4 hours | 28.62 c/kWh
  - All year round
- Shoulder: 14 hours | 9.0 c/kWh
- Solar Sponge: 6 hours | 2.02 c/kWh

## Proposed Export Tariff – Charge/Credit

- Peak: 4 hours | **14.5** c/kWh credit
  - November – March
  - No temperature threshold
- Solar Sponge: 6 hours | 1 c/kWh charge

## RELE | Electrify



# Discussion | Questions | Comments | Observations

## DISCUSSION

- Focus groups could be run with customers to understand what behavioural change may occur with Electrify (trial tariff).
- Opt-in process for customers to Electrify and how retailers package offers to customers.
- Issues/opportunities with retailers offering Electrify to customers^.

## ACTIONS

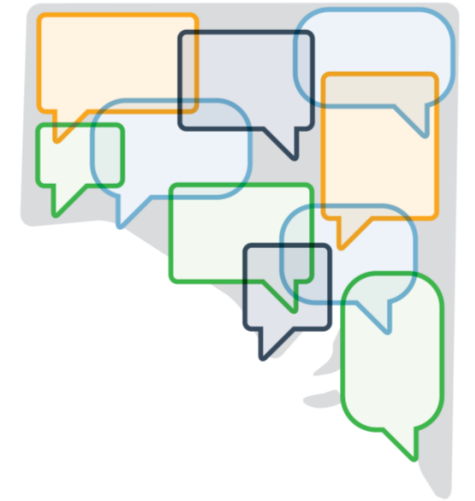
- As part of BAU pricing activities SA Power Networks will continue to engage with Retailers to develop an Electrify retail offer.

## RESET ACTIONS – SA Power Networks

- None.

\*Reset matter for consideration/discussion in future workshop

^BAU matter for response by SA Power Networks



# Pricing Signal Considerations

- Small generation customers can be Residential or Small Business.
- Residential customers have a largely homogenous pattern of consumption and export compared to Small Business.
- When trying to define what is Small Business there is so much diversity in operations that it is challenging to determine the appropriate pricing signals.
- A weekday business operation will largely self consume their generation during the week but then have large amounts of generation on the weekend when they do not operate.
- As such Small Business may need to be treated differently to Residential e.g. separate Workday and Non Workday allowances which can not be combined.

# Tariff Structure – Interval Meter

|                    | Export Charge Time Window | No. Days | Basic Export Level | Basic Export kWh per Week |
|--------------------|---------------------------|----------|--------------------|---------------------------|
| Work Day   WD      | 10am-4pm   6 Hours        | 5        | 1.5kW              | 45                        |
| Non Work Day   NWD |                           | 2        |                    | 18                        |
| Total              |                           |          |                    | 63                        |

- To maintain integrity of pricing signal, we consider that WD and NWD should be considered separately.
- The free basic export level would be calculated and billed at no charge on a monthly basis.
- Unused basic export kWh WD will be rolled over and can be used at another time within the month.
- Unused basic export kWh NWD will be rolled over and can be used at another time within the month.

# Tariff Structure – Accumulation Meter

- The meter type can not distinguish what time of day export is occurring.
- The free basic export level would be calculated and billed at no charge on a quarterly basis.
- 270 kWh Solar Sponge per month equals approximately 1,100 kWh anytime per quarter maximum.
- If the free basic export limit kWh are not utilised for a day then the kWh will be rolled over and can be used at another time within the quarter.
- The basic export limit applies on a kWh quarterly basis.
- The basic export limit kWh will be calculated based on sample customer data.
- The export charge would be priced in such a way that customers are not penalised or incentivised because they have an Accumulation meter.
- On average a customer who has the same export profile whether they have an Accumulation or an Interval meter will have the same pricing outcome.

# Discussion | Questions | Comments | Observations

## DISCUSSION

- Postage stamp pricing means customers will pay (for export) whether there is congestion in their area or not.
- Does the 1.5kW minimum export level still make sense for small business? (eg. is the network sufficiently the same to a residential customer).
- Will customers receiving the legacy 44c feed-in tariff be 'double dipping' (as they will also receive the export feed-in tariff)?
- How many of the 200 generation customers are generators only and not consumers?^
- What capital expenditure justifies the proposed 1.5c export charge?

## ACTIONS

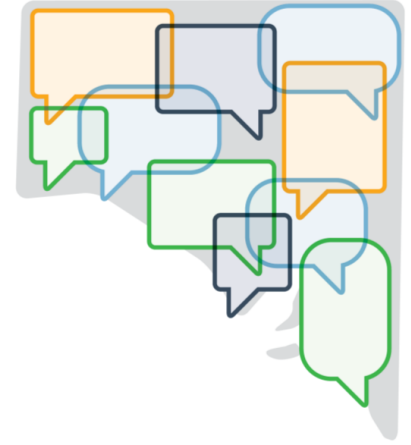
- Provide further analysis on large generation customers – are they generators or self consumers^.

## RESET ACTIONS – SA Power Networks

- None.

\*Reset matter for consideration/discussion in future workshop

^BAU matter for response by SA Power Networks



# Export Tariffs – Large Generation Customers



# Pricing Signal Considerations

- Large generation customers are a small component of export:
  - Approximately 200 of 330,000 sites
- Large generation customers do not use all voltage steps in the network.
- Analysis is still to be completed by our Network Management and Strategy & Transformation teams to determine what congestion, if any, is faced in the higher voltage areas of the network.
- If there is no congestion then there is no need, nor are we allowed via the AER Guideline, to develop an export charge.

# Discussion | Questions | Comments | Observations

*What pricing principles should SA Power Networks consider if Large generation export tariffs were developed?*

## DISCUSSION

- Will customers receiving the legacy 44c feed-in tariff be 'double dipping' (as they will also receive the export feed-in tariff)?
- Tariff structures should be simple to understand by both customers and retailers.

## ACTIONS

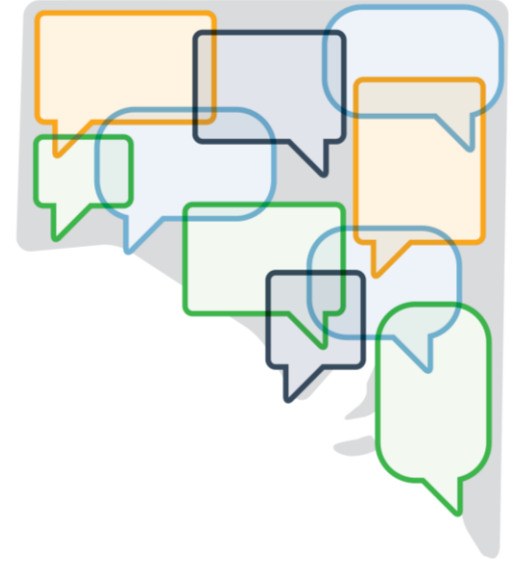
- Provide further information on the expenditure modelling around the proposed 1.5c feed-in tariff (including LRMC capital inclusion/impacts on modelling)\*.

## RESET ACTIONS – SA Power Networks

- Comments to be considered in tariff development.

\*Reset matter for consideration/discussion in future workshop

^BAU matter for response by SA Power Networks



# Next Steps – Engagement

| Date                                                      | Description                                                                                                                                                                                       |
|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Workshop 5</b><br>12 October 2022<br>9:30am – 11:30am  | Export Tariffs – Setting the Scene <ul style="list-style-type: none"> <li>• Building customer and stakeholder knowledge regarding the AEMC rule change and AER Export Tariff Guideline</li> </ul> |
| <b>Workshop 6</b><br>24 October 2022<br>1pm – 4pm         | Export Tariffs – Small & Large Generation <ul style="list-style-type: none"> <li>• Development of tariff structures</li> </ul>                                                                    |
| <b>Workshop 7</b><br>16 November 2022<br>9:30am – 12:30pm | Export Tariffs – Small & Large Generation <ul style="list-style-type: none"> <li>• Refinement of tariff structures</li> </ul>                                                                     |
| *8:45am – 9:30am                                          | * Optional Attendance   Small Business Time of Use Solar Sponge Analysis                                                                                                                          |
| <b>Workshop 8</b><br>1 December 2022<br>2pm – 5pm         | Export Tariffs – Transition <ul style="list-style-type: none"> <li>• What does implementation look like?</li> </ul>                                                                               |
| <b>Workshop 9</b><br>14 December 2022<br>12:30-4:30pm     | Export Tariffs – Small & Large Generation <ul style="list-style-type: none"> <li>• Refinement of tariff structures</li> </ul>                                                                     |
| <b>People’s Panel Deliberation</b>                        | <ul style="list-style-type: none"> <li>• February – March 2023</li> </ul>                                                                                                                         |



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# Detailed Customer Analysis – 8MWh Customer

|                                               | 2.5 kW        | 5.0 kW          | 10 kW           | 15 kW           |
|-----------------------------------------------|---------------|-----------------|-----------------|-----------------|
| Network In-House Benefit \$pa                 | \$ 270        | \$ 400          | \$ 484          | \$ 515          |
| Retail Energy In-House Benefit \$pa           | \$ 667        | \$ 921          | \$ 1,053        | \$ 1,096        |
| Free Export Energy \$pa                       | \$ 31         | \$ 142          | \$ 276          | \$ 376          |
| Export above Solar Sponge Allowance \$ pa net | \$ -          | \$ 9            | \$ 149          | \$ 323          |
|                                               | <b>\$ 968</b> | <b>\$ 1,472</b> | <b>\$ 1,962</b> | <b>\$ 2,309</b> |
| Investment                                    | \$ 2,500      | \$ 5,000        | \$ 10,000       | \$ 15,000       |
| Payback                                       | 2.6           | 3.4             | 5.1             | 6.5             |
| Benefit Increment                             | \$ 968        | \$ 504          | \$ 490          | \$ 347          |
| Investment Increment                          | \$ 2,500      | \$ 2,500        | \$ 5,000        | \$ 5,000        |
| Payback Increment                             | <b>2.6</b>    | <b>5.0</b>      | <b>10.2</b>     | <b>14.4</b>     |
| In-House Use                                  | 3,066         | 4,234           | 4,840           | 5,037           |
| Free Export                                   | 621           | 2,847           | 5,515           | 7,519           |
| Export subject to Pricing                     | -             | 256             | 4,446           | 9,636           |
| PV Produced                                   | <b>3,687</b>  | <b>7,337</b>    | <b>14,801</b>   | <b>22,192</b>   |
| In-House Use Increment                        | 3,066         | 1,168           | 606             | 197             |
| Free Export Increment                         | 621           | 2,227           | 2,668           | 2,004           |
| Export Subject to pricing Increment           | -             | 256             | 4,190           | 5,190           |
| PV Produced Increment                         | <b>3,687</b>  | <b>3,650</b>    | <b>7,464</b>    | <b>7,391</b>    |

# Detailed Customer Analysis – 4MWh Customer

|                                               | 2.5 kW        | 5.0 kW        | 7.5 kW        | 10 kW           |
|-----------------------------------------------|---------------|---------------|---------------|-----------------|
| Network In-House Benefit \$pa                 | \$ 143        | \$ 178        | \$ 195        | \$ 207          |
| Retail Energy In-House Benefit \$pa           | \$ 318        | \$ 378        | \$ 403        | \$ 419          |
| Free Export Energy \$pa                       | \$ 107        | \$ 212        | \$ 275        | \$ 328          |
| Export above Solar Sponge Allowance \$ pa net | \$ -          | \$ 48         | \$ 125        | \$ 212          |
|                                               | <b>\$ 568</b> | <b>\$ 816</b> | <b>\$ 999</b> | <b>\$ 1,165</b> |
| Investment                                    | \$ 2,500      | \$ 5,000      | \$ 7,500      | \$ 10,000       |
| Payback                                       | <b>4.4</b>    | <b>6.1</b>    | <b>7.5</b>    | <b>8.6</b>      |
| Benefit Increment                             | \$ 568        | \$ 248        | \$ 184        | \$ 165          |
| Investment Increment                          | \$ 2,500      | \$ 2,500      | \$ 2,500      | \$ 2,500        |
| Payback Increment                             | <b>4.4</b>    | <b>10.1</b>   | <b>13.6</b>   | <b>15.1</b>     |
| In-House Use                                  | 1,464         | 1,737         | 1,854         | 1,924           |
| Free Export                                   | 2,136         | 4,238         | 5,504         | 6,555           |
| Export subject to Pricing                     | -             | 1,424         | 3,741         | 6,315           |
| PV Produced                                   | <b>3,599</b>  | <b>7,399</b>  | <b>11,100</b> | <b>14,793</b>   |
| In-House Use Increment                        | 1,464         | 274           | 117           | 69              |
| Free Export Increment                         | 2,136         | 2,102         | 1,267         | 1,051           |
| Export Subject to pricing Increment           | -             | 1,424         | 2,318         | 2,573           |
| PV Produced Increment                         | <b>3,599</b>  | <b>3,799</b>  | <b>3,701</b>  | <b>3,694</b>    |