

Session 3: Future network tariff structures, challenges and collaborative solutions

Today's presentation

- The Access & Pricing rule change
- Export tariff Guidelines – AER and ECA perspectives
- Consumer advocates – future of consumer advocate role / future tariffs
- Evolving tariff structures
- The role of tariff trials
- Consumer advocates - What to expect (challenges and opportunities) from tariff trials

Access, pricing and incentive arrangements for DER (A&P) rule change

- Initiated by consumer groups and SAPN, through ARENA's Distributed Energy Integration Program
- AEMC's final rule made August 2021:
 - Obligation for distributors to provide export services
 - Removed prohibition on export tariffs
 - Embargo on mandating export tariffs for existing customers until 2025
 - Requirement to provide 'Basic export level' at no additional cost for two regulatory periods

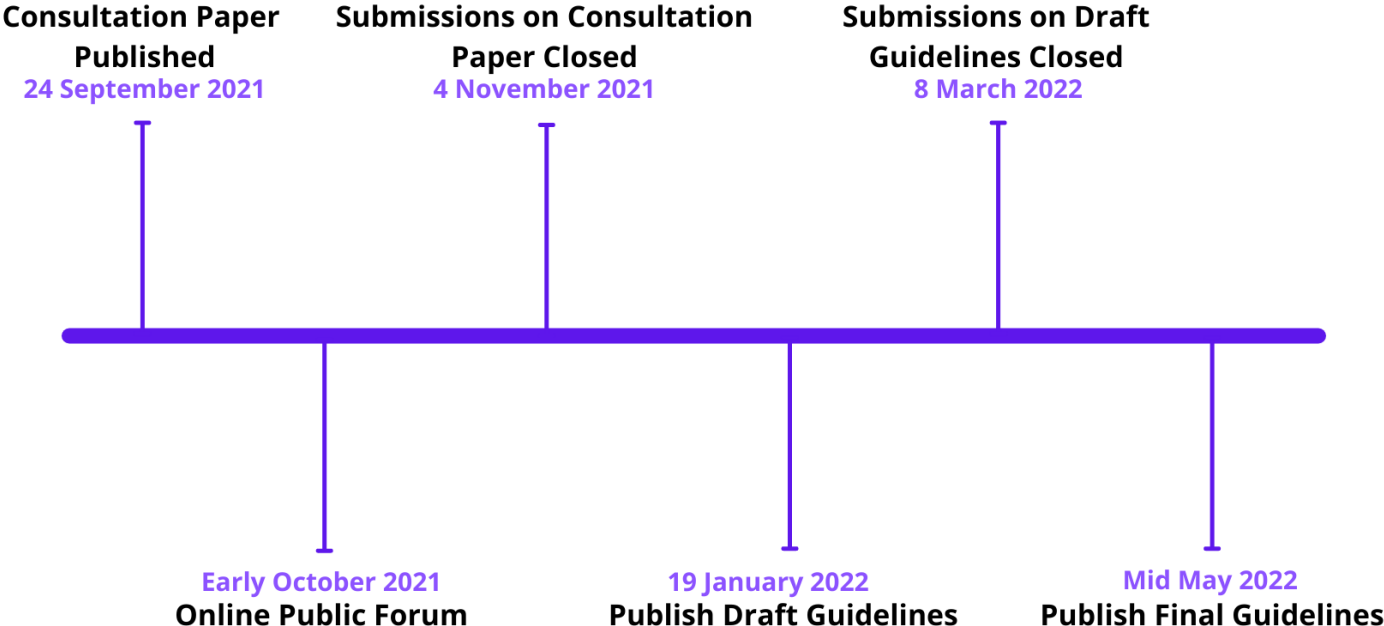
AER required to make Export Tariff Guidelines by 1 July 2022

Guidelines non-binding, however export tariffs (where justified) will have to be approved by the AER via the TSS process

What challenges can two-way pricing address?

- ~ 3 million Australian households have rooftop PV, another 3 million over 10 years
 - Two-way pricing can help to mitigate the effects of 'solar abundance' (minimum demand / minimum system load) and maximise rooftop PV network benefits
- Encourages use of batteries and/or EVs to support the grid
- Accommodates two-way energy flows
- Supports DER integration and customer participation in the sector
- Alleviates the subsidy provided to DER customers by non-DER customers
- Will reward DER customers for holding exports back until the evening peak, benefiting all customers through lower capex

AER Export Tariff Guidelines Process



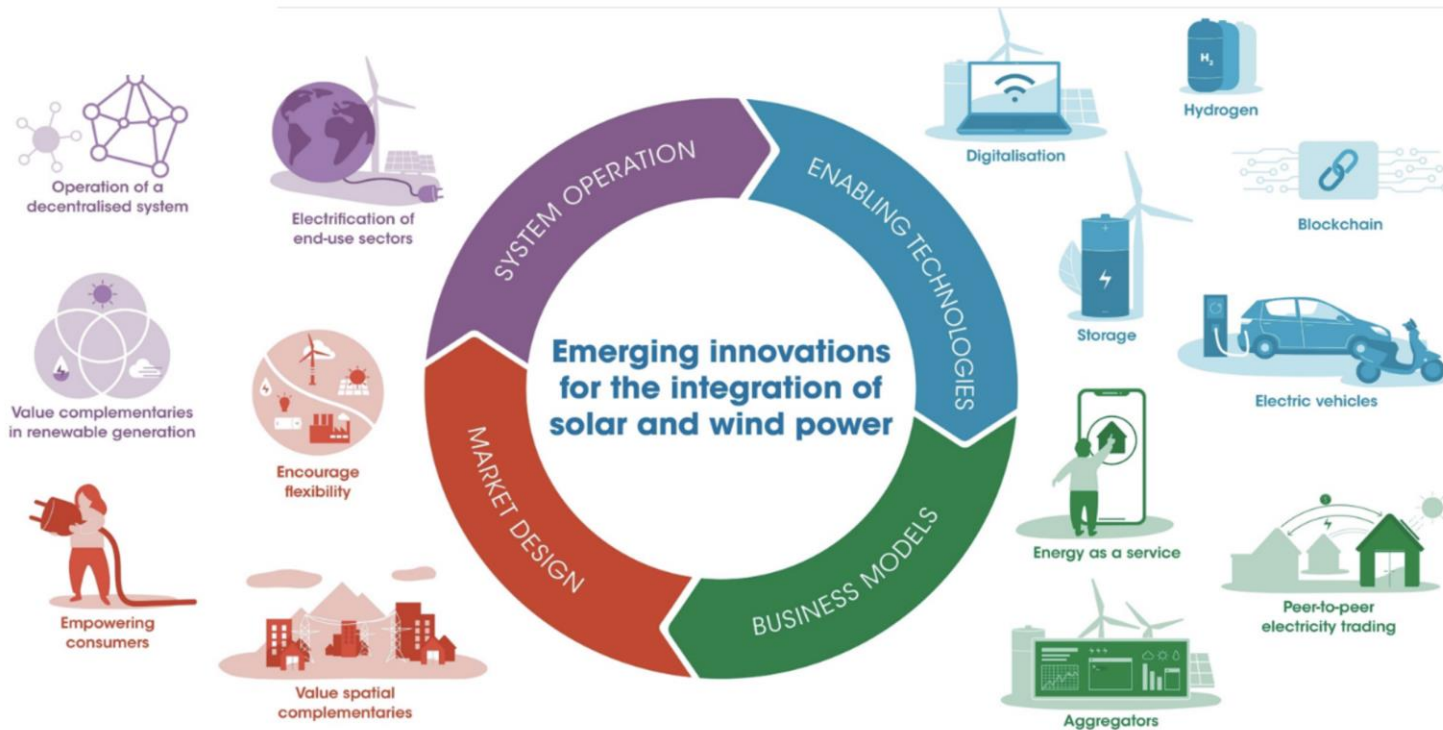
ECA perspective on Export Tariffs

Consumer advocate session

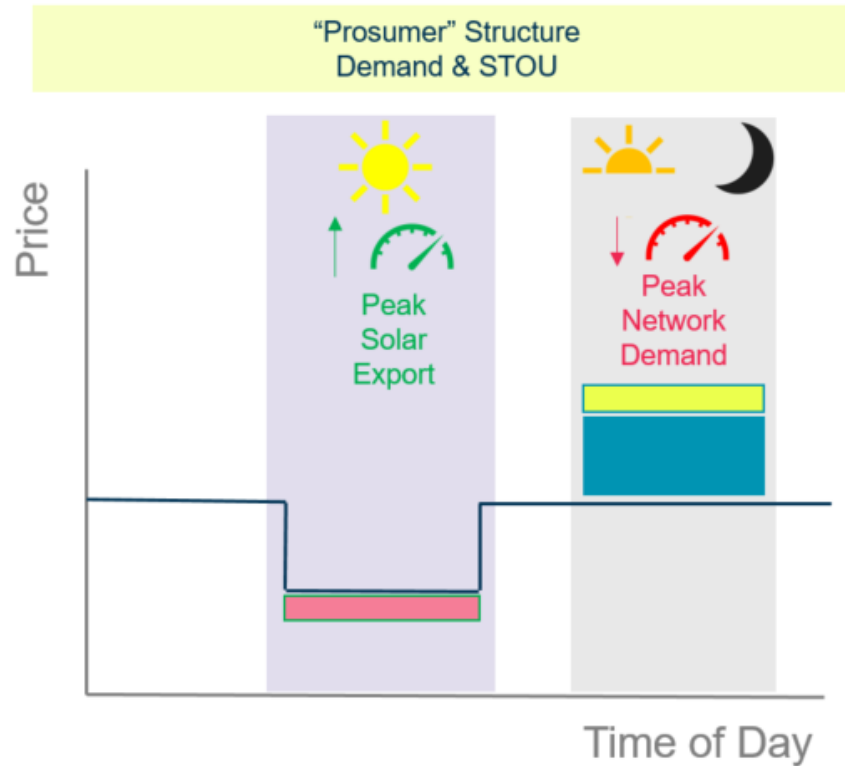
- Session on future tariffs

Future tariff structures

- Two-way tariffs – that reward customers for consuming or exporting energy at certain times
- Tariffs which accommodate a rapidly changing energy sector



An example of a future tariff



Legend:

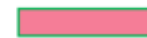
Energy



Seasonal Peak Energy or Demand



Export disincentive



Export incentive



Controlled load tariffs

- A controlled load is a tariff dedicated to large, high energy-usage appliances that is metered separately to the rest of a property.
 - Most used for hot water systems
 - Times are controlled by the distributor
 - Appliances on a controlled load tariff have dedicated controlled load circuits



Dynamic Operating Envelopes

- Operating envelopes – the limits that an electricity customer can import and export to the electricity grid
- Dynamic operating envelopes – where import and export limits can vary over time

Dynamic operating envelopes could enable higher levels of energy exports from customers' solar and battery systems by allowing higher export limits when there is more hosting capacity on the local network

Critical Peak Pricing + Locational Pricing

Critical Peak Pricing

- This is a time varying rate that charges you significantly more for electricity during select peak periods throughout the year
- A critical peak event is typically during summer where a distributor forecasts high demand / high prices
- There may be a number of critical peak events in a year

Locational Pricing

- A rate which may differ depending on the customer's location in the network (highly targeted rate)

Tariff trials

- Networks can trial tariffs not included in Tariff Structure Statements
 - Required to notify AER
 - Revenue limitations for trial tariffs
 - Not required to comply with pricing principles
- General purpose of tariff trials
 - Input to a network's tariff strategies
 - Explore more complex, innovative tariffs
- 8 networks are undertaking tariff trials in 2022-23
 - exploring a range of two-way pricing structures, solar sponges and critical peak pricing, community batteries, and grid scale storage tariffs

Tariff trials from 2022 notifications

State	Nature of trials – trials testing:
NSW, ACT, Vic	various tariff structures to encourage the efficient use of storage technologies
SA, NSW	consumer acceptance of various forms of external load control
NSW, SA, Vic	consumer acceptance and responsiveness to stronger price signals on the cost of importing and exporting energy at peak and non-peak times.

Some also conduct non-tariff trials: e.g Essential Energy - education only trial

Tariff trials – 2022 examples

Evoenergy – residential battery trial

- Highly cost reflective
- Opportunity for customers to manage timing of load and network bill
- Includes Time-of-Use with a solar sponge, peak demand and export charges, as well as an export critical peak rebate

Ausgrid – residential flexible load

- Unlimited consumption for a controlled device for a fixed fee
- supply interrupted up to 20-times a year during critical peak events

Tariff trials – 2022 examples

SAPN – flexible demand Large business tariff trial

- Reward to limit Anytime Maximum Demand when required by SAPN
- Aiming to reduce utilisation during peak demand and decrease the need for network augmentation

CitiPower – residential daytime saver tariff trials

- Time of Use, with zero network usage charge between 10am and 3pm (a solar soak)
- Targeting customers able to set or shift appliance usage

All tariff trials are published at: <https://www.aer.gov.au/networks-pipelines/network-tariff-reform/tariff-trials>

Resources

General resources

- AER - [Export Tariff Guidelines \(webpage\)](#)
- AER – [Tariff Trials](#)
- AER – [Better Resets Handbook](#)
- AER – [Better Bills Guidelines](#)
- AEMC – [Access, pricing and incentive arrangements for distributed energy resources \(rule change, 2021\)](#)

Further reading resources:

- AEMC – [Updating the regulatory frameworks for distributor-led stand-alone power systems \(Market Review, 2020\)](#)
- AEMO – [Quarterly Energy Dynamics Q1 2022 Report](#)
- ARENA – [Dynamic Operating Envelopes workstream](#)
- ARENA – [Storing Renewable Energy in the World's Biggest Batteries \(Podcast\)](#)
- ARENA – [Infographic – How Demand Response Works](#)
- ENA – [Vehicle-to-Grid Technology explained](#)
- NSW Department of Planning, Industry and Environment – [Promoting Innovation for NSW Energy Customers \(Consultation Paper\)](#)
- Australian Energy Council – [Solar Report January 2022](#)

Consumer advocate session