Industry perspectives on electricity tariffs and retail pricing

Prepared for Energy Consumer Australia (ECA)
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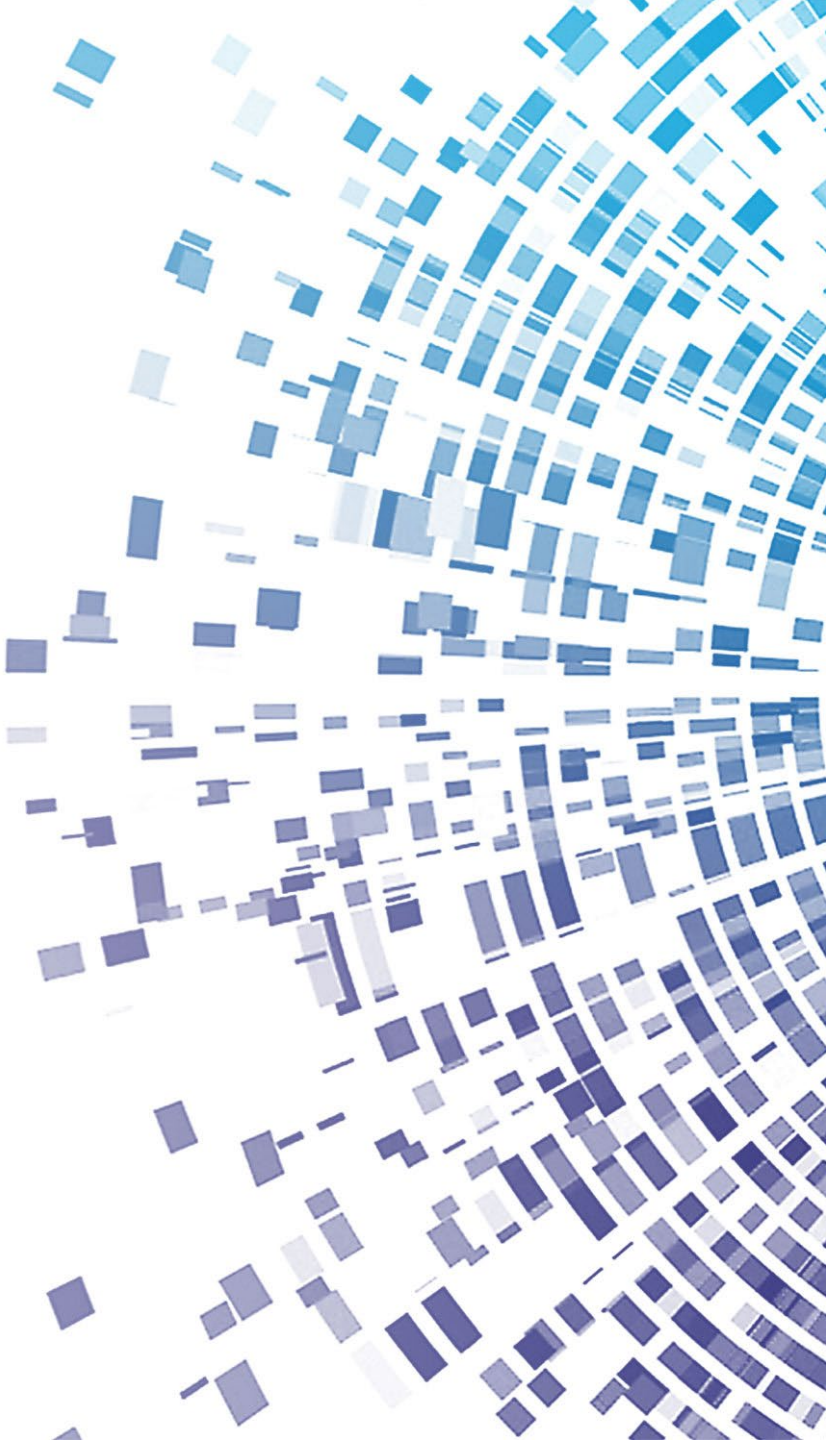

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Motivation

There has been significant progress to network tariff reform in recent years. Network tariff structures have become more 'cost-reflective' in order to better signal the times and behaviours that cause network costs. The importance of cost reflective tariff signals is likely to increase as electrification introduces new loads to the grid, while both consumer-sited and intermittent renewable generation change the nature of electricity supply. The increasing benefit and decreasing cost of more granular tariff signals will likely result in further network tariff reform.

Networks do not decide on the final prices that consumers see – retailers do. Despite the progress for network tariff setting, about 90% of residential customers remain on flat retail prices. This may be due to structural regulatory reasons, consumer attitudes, or the interplay between network tariff structures and retail price structures.

Many see more flexible demand as essential to an orderly, low-cost transition to a low carbon economy. Changing consumer behaviour to better match their consumption of electricity with its generation will ensure that new and existing network and generation assets are used as fully as possible, thereby lowering price levels for everyone.

Such reform will inevitably cause some costs to consumers, notably increased complexity for a market that is already difficult for many consumers to navigate. Changing the structure of retail prices will also have distributional impacts in the shorter-term – some customers will benefit and some will be worse off. This outcome is not pre-determined. Some customers will be willing and able to shift some of their electricity usage to lower cost periods and transform from a price reform loser into a winner. Others may be able to handle more complex cost signals may increase with the profusion of "set and forget" smart appliances that automate price response. Many however will either not be able to materially change their behaviour or have access to such appliances.

A consumer-focussed solution to pricing reform will be required to ensure all consumers are willing participants in the transition and to ensure that no consumers are left behind, Such a solution will recognize that load flexibility is not all of the people, all of the time, for all of their load, but rather some of the people, some of the time, for some of their load.

This project begins ECA's investigation into understanding the mechanics underlying retail pricing reform and the policy changes needed to enable a transition, while being in the best interests of consumers.

Project objective: to get a better understanding of the 'state of play' of current, new and forthcoming retail prices and network tariffs

The aim of this project was to undertake an environmental scan to get a better understanding of the range of:

- Residential retail electricity pricing structures that are currently in place and the network tariffs underlying them
- Issues that new and forthcoming prices/tariffs are seeking to address and any potential innovations in pricing or tariff design.

In particular:

1. The retail pricing structures that are currently available to the consumer and the network tariffs underlying these.
2. The key issues that retailers and networks are looking to solve using these price and tariff signals. In particular, the tariff or pricing innovation related to consumer experience / charging consumer behaviour.
3. The success of these current prices and tariffs in addressing key issues and their impacts on consumer outcomes (uptake, satisfaction, switching, etc.).
4. Perceptions on the role for and application of pricing and tariffs to future issues (EVs, home batteries and local storage, export tariffs, etc.)
5. Any barriers to success or barriers to implementing desired price or tariff structures/ bundles.

The project was funded by ECA and undertaken as a joint effort between ECA and Econalytics

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Background: network tariffs are controlled by regulators, but unseen by consumers while retail prices are seen by consumers but not regulated

- Network tariffs are proposed by the distribution networks and need to be approved by the Australian Energy Regulator (AER)
  - State governments may have additional requirements around tariff design too.
- The AER requires that network tariffs become increasingly cost reflective - structurally reflecting the underlying cost drivers for the networks.
  - Historically tariffs have tended to be largely volumetric, especially for smaller customers, while network costs are largely either fixed or capacity based.
- Although network tariffs are billed on a customer-specific basis, the bill goes to the retailer.
- Consumers do not see network tariffs on their retail electricity bill

- Retail prices are set by the retailer.
- Retailers are free to set the structure and the price level as they wish (within some broad limitations).
- Network tariffs are one of several input costs to retailers, such as wholesale electricity market costs, environmental fees and retail costs (billing, marketing, customer acquisition, etc.)
- Network tariffs typically make up ~45% of residential retail electricity bills.[1]
- Consumers see retail prices and total monthly charges on their electricity bill.
- Consumers do not see any of the input costs to their electricity bill.

The term ‘rates’ can refer to either network tariffs or retail prices and is best avoided

[1] Network tariffs were 46% of total retail costs in 2020/21. See AEMC 2021, “Residential Electricity Price Trends 2021”, p.4

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Methodology: predominantly based on interviews with retailer and network pricing and regulatory teams

- Interview scripts were developed for in-person and video interviews with retailers and networks and focused on:
  - The rationale behind current tariffs/prices
  - Consumer response to current tariffs/prices
  - The connection between current tariffs and prices
  - Interactions between retailers, networks and regulators as pertaining to pricing/tariffs
  - Emerging issues and the role of tariffs/pricing
  - Views as to the future of network tariffs and retail pricing
  - Current and future barriers to better pricing/tariff solutions
  - Open questions that remain for the industry to solve
- Separate interview scripts were developed for retailers and networks.
  - Full interview scripts can be seen in Appendix A.
  - Scripts were used as an anchor for interviews and not all questions were answered due to interesting segues and time constraints.
- Interviews were supplemented by additional research using publicly available information such as tariff filings and regulatory reports.
- All interviews were undertaken under condition of anonymity, and we only report attributable information where it is publicly available.

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Scope: we conducted detailed interviews on current and future tariffs and prices with 7 networks, 8 retailers and 4 other related entities

Network	State	Control period	Next tariff reset
Ausgrid	NSW	2019-2024	2025
Citipower, Powercor, United Energy (CPU)	Victoria	2021-2026	2027
Endeavour Energy	NSW	2019-2024	2025
Essential Energy	NSW	2019-2024	2025
Evoenergy	ACT	2019-2024	2025
Jemena	Victoria	2021-2026	2027
SAPN	SA	2020-2025	2026

Retailer	Classification	Residential Market Share*
ActewAGL	Tier 1	2%
AGL	Tier 1	22%
Alinta	Tier 2	5%
EnergyAustralia	Tier 1	15%
IO Energy	Startup	-
Origin	Tier 1	27%
Red Energy	Tier 2	5%
Reposit	Startup	-

** Q3 2021-22*

Note: the current set of interviews and corresponding analysis was predominantly NEM-centric and limited to only three states and one territory. Future research efforts intend to expand the scope of the review to include all NEM states and territories as well as Western Australia.

Other parties	Description
ANU Battery Storage and Grid Integration Program	Community battery control and benefit optimization
Energy Policy Western Australia	Insights into regulated retail pricing
Intellihub	Smart metering, device control, enhanced feedback
Project Edith (Ausgrid)	Dynamic network pricing pilot

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Key findings: several key themes emerged over the future role of the retailer and the risks presented to customers in these alternative futures

Present

- Network tariff reform is happening
- Some retailers and their customers risk being left behind with higher cost inflexible products
- Network and regulator behaviours impose indirect costs on retailers and can act an impediment to retail price reform
- There are diverging views on the future role of the retailer
- Emerging technology driven solutions may create an even larger energy divide

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For the non-Victorian networks, the transition to default cost-reflective tariffs is driven by the pace of the smart meter rollout

Network	State	Current default	
		Tariff	Applied to
Ausgrid	NSW	Peak demand	New connections and meter upgrades
CPU	Victoria	TOU and flat	TOU is default for new conections, EVs and new or upgraded battery or solar
Jemena			
Endeavour Energy	NSW	Peak demand	New connections and meter upgrades
Essential Energy	NSW	TOU	New connections and meter upgrades
Evoenergy	ACT	Peak demand	New connections and meter upgrades
SAPN	SA	TOU	New connections and meter upgrades

In NSW, ACT and SA

- New connections are placed on the default cost-reflective tariff
- Customers with meter upgrades are placed on default cost-reflective tariffs
  - Generally when customers get solar, request a smart meter, or meters reach end of useful life
  - Sometimes when customers get EVs or malfunctioning meters are replaced
- Generally customers moved to cost-reflective tariff at time of meter replacement
  - Ausgrid and Endeavour place customers on a transitional cost-reflective tariff for a year

In Victoria

- Near universal smart meter deployment
- Most customers will remain on the default flat rate
- Only a subset of customers are placed on the cost-reflective tariff
  - New connections
  - Customers who get EVs, solar or batteries (or update existing systems)

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In each network retailers can choose between TOU and demand charges for those customers defaulted to cost-reflective tariffs. In some networks reverting back to flat tariffs is also an option.

Network	Current default	Tariff Options			Share of customers on a cost-reflective tariff
		Flat	Cost reflective	Static controlled load	
Ausgrid	Peak demand	Previous default, closed to new customers	TOU and TOU demand*	Flat tariff	40% (200k demand, 300-400k TOU)
CPU	TOU and flat	Previous default. Opt-in for customers on default TOU, closed to EVs	Peak demand	Flat tariff	10-15% (Almost all on TOU)
Jemena					8% (Almost all on TOU)
Endeavour Energy	Peak demand	Previous default	TOU	Rider over base tariff	7%
Essential Energy	TOU	Previous default	TOU demand*	flat tariff	17% (TOU)
Evoenergy	Peak demand	Previous default, closed to new customers	TOU	Rider over base tariff	40% (including C&I)
SAPN	TOU	Previous default, closed to new customers	TOU demand*	TOU (flat tariff closed)	30%

* TOU demand has both a demand charge and a TOU energy charge

- Depending on the network, there are between 7 and 40 percent of customers on cost-reflective network tariffs.
- This does not mean that they are on cost reflective retail prices.
- Outside of Victoria, 10 percent of NEM customers are on a TOU or flexible retail price.
- There is no reason for customers to know what their underlying network tariff is.

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Current TOU/demand periods are more commonly focused around an evening peak

Network	Season	Day of week	Hour beginning 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Ausgrid†	Summer	Weekdays	
	Winter	Weekdays	
	Spring/Autumn	Weekdays	
	All year	Weekend/holidays	
CPU‡	All year	Weekdays	
Jemena‡	All year	Weekends	
Endeavour Energy†	All year	Weekdays	
	All year	Weekend/holidays	
Essential Energy‡	All year	Weekdays	
	All year	Weekend/holidays	
Evoenergy†	All year	All days	
SAPN‡	Summer	All days	
	Rest of year	All days	

† *Default peak demand*

‡ *Default TOU*

Note: Each of the networks has both TOU and demand options available to customers either as a default or opt-in tariff

Key:

Peak	Solar Sponge
Shoulder	Demand
Off-peak	

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Each of the networks has a default or opt-in TOU tariff. These are shown below for comparative purposes.

Network	Season	Day of week	Hour beginning 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Ausgrid†	Summer	Weekdays	3.3 c/kWh							4.8 c/kWh								27.8 c/kWh								
	Winter	Weekdays																								
	Spring/Autumn	Weekdays																								
	All year	Weekend/holidays																								
CitiPower‡	All year	All days	3.7 c/kWh															14.7 c/kWh								
Powercor‡	All year	All days	4.1 c/kWh															16.2 c/kWh								
United Energy‡	All year	All days	4.1 c/kWh															16.2 c/kWh								
Jemena‡	All year	All days	4.0 c/kWh															13.8 c/kWh								
Endeavour Energy†	Summer	Weekdays	6.6 c/kWh																19.4 c/kWh							
	Winter	Weekdays																	10.5 c/kWh							
	All year	Weekend/holidays																								
Essential Energy‡	All year	Weekdays	4.9 c/kWh							12.5 c/kWh										15.6 c/kWh						
	All year	Weekend/holidays																								
Evoenergy†	All year	All days	4.6 c/kWh									9.3 c/kWh								17.5 c/kWh						
SAPN‡	All year	All days		6.7 c/kWh					16.8 c/kWh				3.4c/kWh													

Key:
- Peak
- Shoulder
- Off-peak
- Solar Sponge

† *Opt-in TOU*

‡ *Default TOU*

Note: All prices exclusive of GST, rounded to one decimal place and valid as of July 2022.

- Only Ausgrid has seasonally varying TOU periods, Endeavour has fixed periods with seasonally varying prices
- All of the networks have relatively high peak to off-peak price-ratio
- Most of the peak price periods are relatively short, apart from SAPN and Essential Energy
  - SAPN has a morning and extensive night time peak period
  - Essential's day time and evening mid-peak period is relatively long and higher priced

Current and proposed tariff trials are focusing on prosumers, EVs, community batteries and storage/flexible load

Network	Trial Name	Target Customers				Tariff Features					
		Prosumer	Electric Vehicle	Community Battery	Household Storage*	Solar sponge	Separate meter	Export Cost	Export Reward	Dynamic pricing	Controlled load
Ausgrid	Residential two-way	X				X		X	X		
	Flexible load		X				X				Subscr. Price
	Community battery			X				X	X	X	
CPU	Residential daytime saver		X		X	X					
	Non-distributor owned community battery			X		X			X	X	
	EV Charger Critical Peak		X				X			X	
Endeavour Energy	Residential Prosumer	X			X	X		X	X		
	Off Peak +		X		X	X	X				
Essential Energy	Bi-directional distribution support tariff structure*				X	X		X	X		
Evoenergy	Residential battery (Incl. EV)		X		X	X		X	X		
SAPN	Electrify		X		X						
	Diversify		X								Rebate

* Battery, hot water heater or pool pump

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Tariff trials are adding ‘valley filling’ strategies to complement ‘peak clipping’ – many of them using a super-off-peak solar sponge

“Moving to a solar sponge is inevitable”

“Need to put signals in place now that you shouldn’t whack a 10kW system on your roof, unless you put in a battery”

Network	Trial name	Import or export	Season	Day of week	Hour beginning 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Ausgrid	Residential two-way	Import	All year	All days	
		Export	All year	All days	
	Flexible load	Import	All year	All days	
	Community battery	Import	All year	All days	
		Export	All year	All days	
CPU	Residential daytime saver	Import	All year	All days	
	Non-distributor owned community battery	Import	All year	All days	Import reward
		Export	All year	All days	
SAPN	Electrify	Import	All year	All days	
Evoenergy	Residential battery (Incl. EV)	Import	All year	All days	
		Export	All year	All days	
Endeavour Energy	Residential Prosumer	Import	All year	Weekdays	
		Export	All year	Weekdays	
		Both	All year	Weekends/holidays	
Essential Energy	Bi-directional distribution support tariff structure*	Import	All year	All days	
		Export	All year	All days	

* Peak, shoulder and off-peak demand charges.

Key: Peak Import | Peak Export | Export Reward | Off-peak | Solar Sponge | Shoulder | Demand

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Observed network strategies for adoption of cost-reflective tariffs

NSW Networks – retailer focused strategy:

- Default demand tariff is cheaper than TOU and flat tariff
    - Gap increases over time.
- Intention is that retailers can gain by cherry picking which customers to switch onto the demand tariff
    - Retailers will save money by switching the majority of their customers to the demand tariff, even if they continue to offer them a flat retail price.
- Retailer will then be left with the most expensive customers to serve on a flat tariff
    - Can save money innovating for these customers

"All tariffs consider the end-customer, but our way of getting to the end customer is through the retailer"

SAPN – consumer focused strategy:

- The default TOU tariff is cost neutral relative to the flat rate for the average load profile.
- The design is focused on carrots, not sticks
    - Limits price increases for customers who don't change behaviour

- The peak period is long (14 hours) to allow for a small increase in the peak price relative to the flat rate (1.25x)
- While still giving a substantial discount in the solar soaker period (1/4th of the flat rate).

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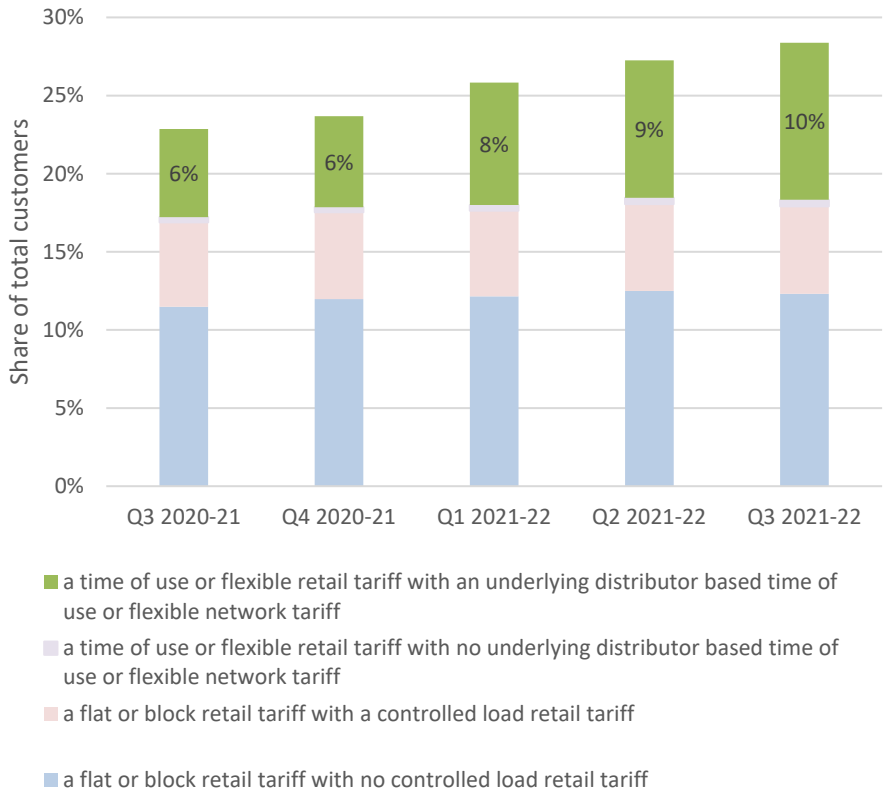
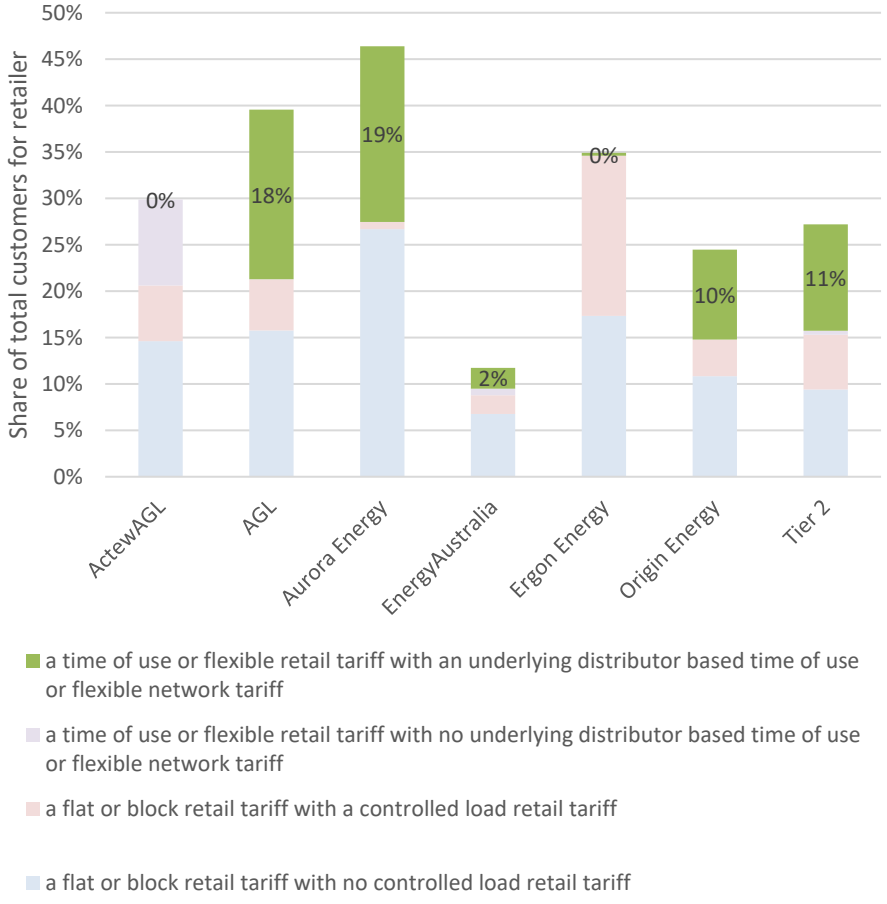
Outside of Victoria, just over 1 in 4 NEM customers have smart meters and 1 in 10 are on a TOU or flexible retail price

Tariff structure type for customers with smart meter (excl. Victoria)*



Retailer tariff structure share for customers with smart meters (Q3 2022-22, excl. Victoria)*



The share of customers with smart meters and on TOU or flexible pricing varies considerable by retailer

* Source: AER 2022, "Retail energy market performance update for Quarter 3, 2021–22 –Schedule 2"

Retailers are adopting different strategies to deal with changing network tariffs, which we have mapped into five stylized retailer archetypes*

No innovation

Innovation

Billing machines	• Pass through network tariff structure • No tools to help customers manage bills or consideration of impacts
Status quo	• Preserve flat retail price • Pass on any additional costs to customers
Network tariff cherry pickers	• Actively switching customers to lowest cost network tariff • Not changing retail prices
Lifeboats	• Embrace smart retail pricing as the future • But most customers still on flat tariffs/pass throughs
Service optimizers	• Using cost-reflective tariffs to create new products • Save customers money, reduce long-run network costs

Reality is complex:

- Some retailers are doing a bit of all strategies
  - Competing internal stakeholders
- Some retailers are progressing their thinking
- Some retailers are becoming less innovative after receiving negative feedback

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* These archetypes are based on the authors' subjective opinions. Other categorisations are possible, for example see AER 2020, "Understanding the impact of network tariff reform on retail offers" We discuss this in Appendix B.

Each retailer archetype has different implications for consumer outcomes

Retailer Type	Potential benefits	Risks
Billing machines	• Pass through of cost reflective tariffs	• Customer bears all the tariff risk • No tools for customers to understand/manage costs • 'Simple' network tariffs are not simple for customers • Lowest cost tariff not selected
Status quo	• Customer simplicity	• Higher prices passed through to customers • Lowest cost tariff not selected • No incentive for customer cost savings
Network tariff cherry pickers	• Customer simplicity • Lowest cost tariff selected	• Not clear if savings are passed on to customers or retained by retailers • No incentive for customer cost savings
Lifeboats	• Innovating at margin • Long-run customer gains	• Majority of customers are being left behind in the short to medium-term
Service optimizers	• Lower cost • Ability for customers to save • Lower network costs	• Increasing focus on technology • Customers may not understand new set of risks

Switching retail price structures to match cost-reflective network prices has caused some issues for consumers

Customers being switched to demand charge retail rates with insufficient explanation

- Some retailers following network structure 'blindly' without examining the implications for their customers, or preparing their customers for potential changes
- Passing on responsibility for explaining demand charges to network

"If you don't understand it, you tend not to trust it"

Networks are defaulting customers to cost-reflective tariffs as they get smart meters

- No bill history, so retailers cannot assess impact of default and alternative tariffs
  - One T1 retailer had switched a large number of customers to retail price structures that matched the underlying cost-reflective default network tariff
  - They were concerned about the upcoming impact on customers of newly implemented demand prices in Queensland (default demand network tariffs) as winter bills were about to hit.*
    - They could not forecast impact, since no historical demand data was available.
- BUT retailers do not have to pass through cost reflective tariff immediately, so somewhat of a retailer problem too
- Can use initial year of smart meter data to evaluate efficacy of tariff change (before-after)
  - For the most part, cost-reflective tariffs are not being evaluated for efficacy in shifting load

"Too much of a risk not to pass through"

* Interestingly when asked about NSW customers (also on default demand tariffs), they said that their customer care group hadn't raised any concerns. This could potentially be due to the demand tariff discount being offered in NSW relative to the flat tariff.

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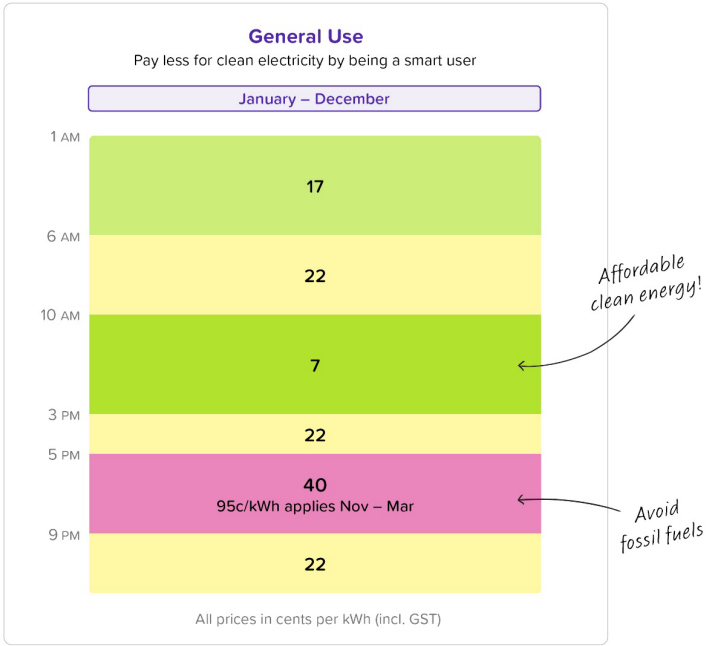
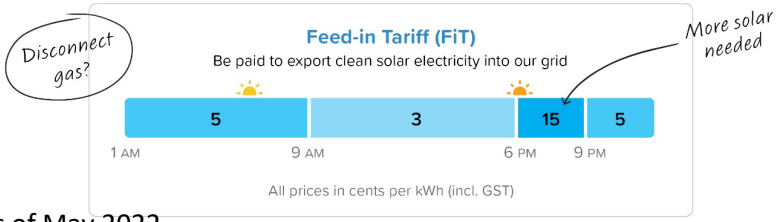
Case studies show that *"The future is here, it is just not evenly distributed"*. However, these emerging innovative products are largely designed for wealthier customers

IO Energy – pass through of cheap daytime prices

"Customers prepare for prices, they don't react to them"





* Prices as of May 2022

Reposit – discounted subscription price with retailer control

"Customers don't care about electricity"

Reposit No Bill™ Solar and Battery Package

for $268/month for 84 months

(Green loan at 5.75%/pa[4])

- Guaranteed $0 electricity bills for 5 years
- Your system will actively support more renewables in the Australian grid and help improve the quality of your neighbourhood's electricity via our Virtual Power Plant (VPP)
- You own the full system from Day 1
- No upfront payment
- Monthly repayment includes principal, interest and account keeping fees (there are no other fees)
- No lock-in to Reposit
- Alternatively you can own a Reposit No Bill system with a single, upfront payment of $18,990

Note: Reposit offer free power and customers pay for equipment. EnergyAustralia also has a bundled offer with free equipment and customers pay for power.

* Prices as of May 2022

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Network and regulator behaviours impose indirect costs on retailers and can act an impediment to retail price reform

Lack of consistency in network tariffs

- Inconsistency in tariff structures and peak periods across networks
- Inconsistency over time - Sharp changes across regulatory periods
- Uncertainty over duration of tariff trials and continuity
- Regulators require fast turnaround on pricing updates

"Complexity isn't too bad if its stable over a 20-year period"

"[Retailers are] putting their reputation on the line when creating new products"

Lack of clear tariff strategy within and across networks

- Makes it difficult for retailers to undertake long term investments in pricing strategies
    - For example, A T2 retailer built a tool in Victoria to advise customers which network tariff was most beneficial for them
    - Many customers switched, but then the networks made the flexible tariff more expensive than the flat tariff
    - Retailer bore brunt of customer dissatisfaction, reluctant to innovate again

"Retailers can get behind tariff reform if there is a broader strategy in place. But at the moment, there is a lack of overall strategy in what is happening"

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Interviewees reported a number of other barriers to tariff and price reform

Issue	Networks	Retailers
Insufficient data	• No EV register • Slow smart meter rollout	• Lack of metering data when customers are switched to cost-reflective tariffs
Government	• Restrictions on tariff structures • Excessive focus on losers	
Regulation	• Ring-fencing on storage	• Lack of certainty • Volume of materials to cover in submissions • Frequency of changes • Lack of stable and consistent transition strategy
Reference prices, comparison sites, billing rules		• Barriers to innovative pricing
Technology	• Interoperability and system lock-in	• Interoperability and system lock-in • Technology costs
Trials	• Regulations and contracting	• Regulations and contracting • Lack of upside for retailers

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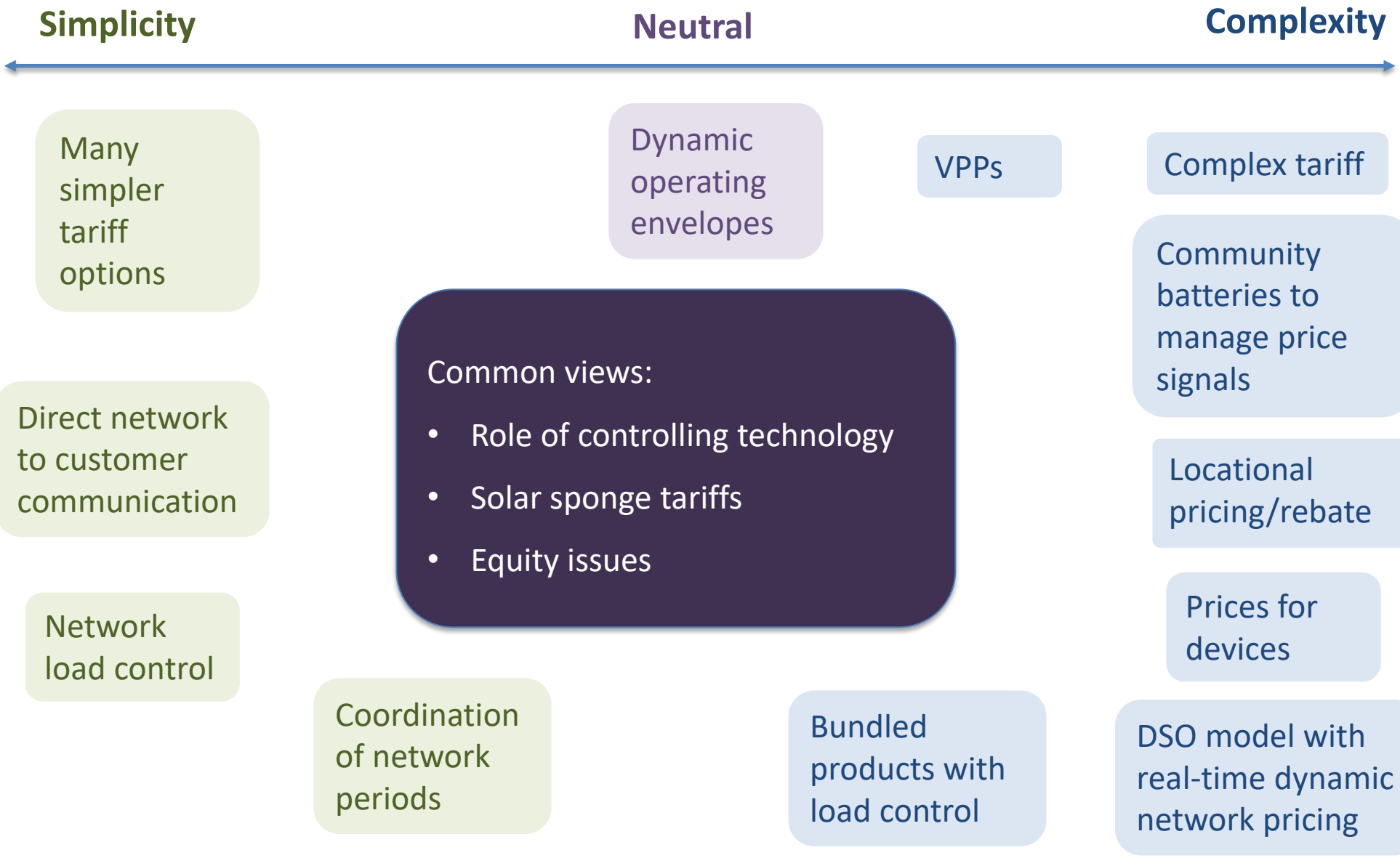
Visions of the future of network tariffs and retail prices were diverse and varied though there were some overlapping elements



Interwoven into these future visualisations were diverging views on the role of the retailer, which in turn impacts the role of the network.

- Drawing on the retailer archetypes discussed earlier, there were two common underlying conceptions of the future of the retailer – billing machine and service optimiser
- There were both retailers and networks on either side of this diverge

Billing machine

Retail is a low cost, low margin business that passes through network costs

"We want the least risky way to win customers"

"Keep it simple, don't naval gaze on what is the best network tariff."

"The role of pricing is to smooth out the changes from the energy transition."

"Don't want to chase the tail of always creating a new peak" – need many capped options

Networks design tariffs for end-customers

- Simple tariff options
- Separate network bill/on bill charges
- Network controls load

Service optimiser

Retail is a sophisticated business that creates simple, low cost products

"You don't need AEMO having centralized control, you need APIs sending prices to each other and you will get an organic response"

"The digital nature of the industry is now evident"

"Want knowable and transparent prices at least cost from the network"

"The more complex it gets, the simpler it becomes for the customer"

"Cost reflective pricing at network side is the fast track to the future"

Networks design tariffs for retailers

- Complex tariff options
- Retailers control load

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A second uniting theme mentioned was that technology driven solutions may create an energy cost divide based on income and home ownership

	High income/home owners	Lower income/renters	Implications
Risk tolerant	IO Energy type tariff Smart appliances	'Simple' TOU	<- Less ability to respond, more expensive supply
Risk averse/lost faith in grid	Reposit type models Going "off-grid"	Flat rates	<- Costs passed on to customers, most expensive supply option

- The energy divide was mentioned in a number of interviews as a looming problem.
- None of the interviewees had any suggestions on how to deal with it.
- Although not discussed explicitly as an equity issue – community batteries could substitute for private technology.

"Retailers struggle with is there a large enough benefit to push some expensive kit into their home"

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Several key themes emerged over the future role of the retailer and the risks presented to customers in these alternative futures

Present

- Network tariff reform is happening
- Some retailers and their customers risk being left behind with higher cost inflexible products
- Network and regulator behaviours impose indirect costs on retailers and can act an impediment to retail price reform
- There are diverging views on the future role of the retailer
- Emerging technology driven solutions may create an even larger energy divide

Future

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Several key questions arise as a consequence of this project that necessitate further exploration

1. What are the desired outcomes from consumer retail pricing?
    - Such as consumers having choice, simplicity, rewarding consumers for flexibility as opposed to hurting those who aren't flexible, or are risk averse.

2. What are the roles of the retailer, the network and regulators/policymakers in delivering these outcomes?

3. How to bridge the energy divide caused by the increasing role of controllable load?

4. What retail prices are consumers actually facing?

5. What are the empirical impacts on usage behaviour of moving towards more cost-reflective pricing.

The project also presents a number of key opportunities for ECA to influence the industry

	Advocacy groups	Retailers	Networks	Regulators	Government	Progress to date
Develop and socialize viewpoint on the desired outcomes from consumer retail pricing and the roles of both retailers and networks in achieving this.		X		X		None.
Policies to bridge the energy divide caused by the increasing role of controllable load.					X	None.
Better rules/standards for retailers on people-centric disclosure for tariffs e.g. TOU traffic light fridge magnets. Should be given to customer at time of switching retail price structure.				X		Some bill rules, not focused on structure of prices.
Standards/rules to avoid technology-retailer lock in.				X		Interoperability review underway.
Advocate that consumers generally do not understand demand prices and as such retail products with demand pricing should be opt-in only (i.e. no opt-out reassignment by retailers).				X		None.
Ensuring that when meters are upgraded, customers remain on their current tariff plan for a year before any opt-out tariff reassignment. Cost-reflective tariffs can be offered in the interim on an opt-in basis.		X		X		AEMC consulting on this issue currently.
Scope for ECA to provide independent advice to consumers on the benefits and risks of various pricing structures and emerging retail products. Maybe linked to Energy Made Easy and Victorian Energy Compare?	X				X	ECA Plug In website live, no pricing advice yet. AER currently reviewing Energy Made Easy.
Advocate for AER or ACCC to provide more data and transparency as to the retail rates actually faced by consumers.				X		Uncertain of other workstreams.
Advocate for measurement and verification requirements to assess impacts of cost-reflective tariffs.				X		Uncertain of other workstreams.


ECONALYTICS

Appendix A: Interview Scripts

Network Interview Script

Current tariffs

i) What tariff structures do you currently have in place (including any trials)?

ii) What are the key issues you are looking to solve using these tariff price signals?

iii) How do these issues relate to meeting the end customer's needs and/or changing their behaviour?

iv) To what degree have these tariffs been successful in addressing these key issues? What has been their impacts on consumer outcomes such uptake, satisfaction, switching, bill savings, cost savings, etc.?

Retail prices

i) To what extent are retailers using your tariff signals to guide their pricing/service offerings?

ii) What has been retailer reception to your current and trial tariffs? What is the customer response?

iii) How do you think networks could improve coordination with retailers to better achieve your desired tariff outcomes?

Network Interview Script – continued…

Future pricing and challenges

i) What are your perceptions on the role for and application of pricing and tariffs to future challenges such as the growth of EVs and electrification, home batteries and local storage? Will these goals be achieved be achieved through the primary tariffs or do you need secondary tariffs?

ii) What do you think the structure of export tariffs will be? Will this differ from the principles/ structure of import tariffs? E.g. will location specific pricing be necessary or acceptable?

iii) What would the consumer implications for these future price/tariff structures be?

iv) What do you see as the trade-offs in terms of complexity/simplicity in the network tariff in terms of the types of rates/services retailers can offer customers? Would a 'bulk' tariff for retailers based on their entire customer footprint be viable? Does having multiple simplified network tariffs for each tariff class benefit consumers as opposed to one unified more complex tariff?

v) What do you think the future of retail pricing looks like? Will there be more complexity (e.g. dynamic pricing), more simplicity (e.g. subscription prices), or both?

vi) What do you think the future of network pricing will look like?

vii) What do you see as open questions that need further exploration, research and experimentation in terms of price/tariff structures and customer behaviour?

viii) What do you see as barriers to success or barriers to implementing desired price or tariff structures/ bundles?

Retailer Interview Script

Current retail prices

i) What pricing structures do you currently have in place (including any trials)?

ii) What are the key issues you are looking to solve using these price signals?

iii) How do these issues relate to meeting the end customer's needs and/or changing their behaviour?

iv) To what degree have these prices been successful in addressing these key issues? What has been their impacts on consumer outcomes such uptake, satisfaction, switching, bill savings, etc.?

Network tariffs

i) To what extent do network tariffs influence your current rates structures and service options (positively or negatively)?

ii) Which current tariffs do you find to be the most impactful to the rates/services you can offer? What rates or services are you able to offer based on these tariffs? What features of the network tariff enabled the rates/service and what is the value proposition for end customers? How did customers respond to these rates/services?

iii) Have you developed/are developing any rates/services based on network tariff trials? What were the features you liked/disliked in the tariff? What is the value add for customers and how have they responded to the offering?

iv) What can networks do with their tariff designs to help you unlock value for customers?

v) To what extent do regulatory instruments like the default market offer or price caps, or the fixed structure of government run price comparison websites impact the types of rate structures you can offer?

Retailer Interview Script – continued…

Future pricing and challenges

i) What are your perceptions on the role for and application of pricing and tariffs to future challenges such as the growth of EVs and electrification, home batteries and local storage? Will these goals be achieved be achieved through the primary tariffs or do you need secondary tariffs?

ii) What do you think the structure of export tariffs will be? Will this differ from the principles/ structure of import tariffs? E.g. will location specific pricing be necessary or acceptable?

iii) What would the consumer implications for these future price/tariff structures be?

iv) What do you see as the trade-offs in terms of complexity/simplicity in the network tariff in terms of the types of rates/services retailers can offer customers? Would a 'bulk' tariff for retailers based on their entire customer footprint be viable? Does having multiple simplified network tariffs for each tariff class benefit consumers as opposed to one unified more complex tariff?

v) What do you think the future of retail pricing looks like? Will there be more complexity (e.g. dynamic pricing), more simplicity (e.g. subscription prices), or both?

vi) What do you see as open questions that need further exploration, research and experimentation in terms of price/tariff structures and customer behaviour?

vii) What do you see as barriers to success or barriers to implementing desired price or tariff structures/ bundles?

Appendix B: Alternative Retailer Categorisation

Although derived independently, our categorisation of retailer types is very similar to that conducted by the AER (2020)

- AER 2020, "Understanding the impact of network tariff reform on retail offers" categorises retail offers as:
  - **Insurance style** – where the retailer faces cost reflective network price signals but shields the end customer from this price volatility, for example, by offering the end customer a retail offer with a fixed daily charge and a flat kWh energy charge.
  - **Pass through offers** - where the network tariff structure is reflected in the retail tariff structure.
  - **Prices for devices** – where a retailer manages an end use customer's smart device(s) to respond to cost reflective network prices signals, while keeping simple retail structures.

- Our categorization differs in that we focus on the intention of the retailers:
  - Status quo retailers have insurance style offers, however may be making these without regard for customer preferences or desire for insurance. Service optimizers may use insurance style (flat) offers but will only do so when customers desire them and may use technology to reduce costs.
  - Pass through offers would be offered by both billing machines and service optimizers. Billing machines would pass through the network tariff structure with no tools to help customers manage bills or consideration of impacts. Lifeboats and service optimizers would take a more customer-centric approach to using cost-reflective pricing structures.
  - Service optimizers and lifeboats would both do prices for devices. Service optimizers would have these offers at the center of their business, while lifeboats would be considering them, but would still be doing less innovative approaches for the majority of their customers.