

3 July 2017

Ms Rebecca Holland
ACCC Inquiry Team
By email: retailelectricityinquiry@acc.gov.au

Inquiry into retail electricity supply and pricing – response to issues paper

Dear Ms. Holland

Energy Networks Australia welcomes the opportunity to make a submission to the Australian Competition and Consumer Commission's (ACCC's) Issues Paper for the above Inquiry.

Energy Networks Australia is the national industry body representing businesses operating Australia's electricity transmission and distribution and gas distribution networks. Member businesses provide energy to virtually every household and business in Australia.

The inquiry occurs at a time of significant technological and market change in the energy sector and following a period of significant increases in retail and wholesale market costs. We support an empirical assessment of drivers of electricity cost increases, with a view to identifying issues which remain to be addressed. A number of the key factors which have previously impacted on customer bill increases remain yet to be addressed to avoid future impacts. The two key areas for focus by the ACCC in its current inquiry are:

- » transformation of network services to unlock new energy services markets and enabling more efficient network service delivery
- » ensuring 'fit-for-purpose' regulatory responses to retail electricity markets which recognise observed market outcomes and behaviour of consumers.

Under these two broad headings, energy networks make the following recommendations for the ACCC to consider:

1. Recognise that the current regulatory and competitive market context will not achieve the transition to cost-reflective tariffs with the urgency required.
2. Note that providing cost-reflective network tariffs to electricity retailers represents a portfolio input cost which they are in a position to manage and respond to.
3. Note there is market evidence that there would be benefits if retailers faced stronger incentives to actively market new retail offers, reflecting cost reflective network tariffs.
4. Provide explicit recommendations to governments of the need to remove barriers to cost reflective network tariffs being provided to electricity retailers, specifically:
 - » that Governments remove barriers to cost reflective network tariffs being provided to electricity retailers, noting Tariff Structure Statements are independently approved by the AER; and

» should Governments wish to retain an 'opt in' model in which end use customers must actively choose to enter into retail market offers reflecting cost-reflective network tariffs, this policy need not impact the ability of the network to provide a cost reflective network charge to the retailer.

5. In addition to any measures to inform and promote increased customer participation in retail markets, the ACCC should recognise and respond to the observed market outcomes for inactive customers or vulnerable customers, who are currently significantly financially disadvantaged.

6. Consider regulatory options to address standing offers which are significantly higher than the same retailer's market offer, given the significant financial disbenefits for inactive customers.

7. Consider regulatory options to require more proactive offers to customers whose discount periods in market offers have lapsed.

Our response which expands upon these recommendations and which responds to many of the questions raised in the Issues Paper, is attached for consideration.

We would be more than willing to provide further assistance with this inquiry. Should you have any additional queries, please feel free to contact Brendon Crown on (02) 6272 1515 or bcrown@energynetworks.com.au.

Yours sincerely,



John Bradley
Chief Executive Officer

Inquiry into Retail Electricity Supply and Pricing

Response to ACCC Issues Paper

30 June 2017

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Overview

Energy Networks Australia welcomes this opportunity to contribute to the Australian Competition and Consumer Commission's (**ACCC's**) inquiry into the Retail supply of electricity and the competitiveness of retail electricity markets in the National Electricity Market (the Inquiry).

Energy Networks Australia is the national industry association representing the businesses operating Australia's electricity transmission and distribution, and gas distribution networks. Member businesses provide energy to virtually every household and business in Australia.

This consultation is occurring at a time of significant technological and market change in the energy sector and following a period of significant increases in retail and wholesale market costs. While transparent information on cost factors impacting wholesale market increases and retail market outcomes for customers is difficult to obtain, we have sought to respond to the inquiry's areas of focus.

Previous Cost Increases

Energy Networks Australia supports an empirical assessment of the drivers of electricity cost increases, with a view to identifying issues which remain to be addressed. Key factors which should be recognised include:

- » The cost of inefficient policy mechanisms to achieve carbon abatement objectives;
- » Limitations on competitive market outcomes in significant segments of wholesale and retail electricity markets;
- » Wholesale electricity markets directly impacted by limitations in gas markets; and
- » Increases in Network costs impacted by government intervention constraining flexible network service delivery (ie. prescriptive reliability standards in some States) and insufficient use of cost-reflective tariffs, incentives and demand side measures to efficiently meet peak demand.

As noted in the submission a range of market and government policy factors which drove network cost increases from 2007 to 2012 have since moderated or been addressed with significant changes in market conditions, government reliability standards and regulatory frameworks. The AER's revenue and pricing determinations made in 2012-15 provided for maximum revenue that networks can recover from customers which is on average 9 per cent lower than recoverable revenue in the previous regulatory period.

Future Cost Increases

A number of the key factors which have previously impacted on customer bill increases remain yet to be addressed to avoid future impacts, including: an efficient and stable carbon policy framework and the removal of unnecessary policy bans on gas exploration and development.

However two key areas are recommended for focus by the ACCC in its current inquiry:

- » **Transformation of network services to unlock new energy services markets and enabling more efficient network service delivery.** Approximately \$16 billion in network costs can be avoided by 2050 reducing network charges by 30%, but it will require pricing reform, incentives and a modernised electricity system to realise the full value of the fleets of distributed energy resources being connected to the system.
- » **Ensuring 'fit-for-purpose' regulatory responses to retail electricity markets which recognise observed market outcomes and behaviour of consumers,** including the limited engagement in retail offers and new services by a significant cohort of retail customers, and significant risks to vulnerable customers.

The whole of system savings which can be achieved are material to customers. The *Electricity Network Transformation Roadmap* developed by Energy Networks Australia and CSIRO provided empirical evidence of the potential to achieve significant customer savings of approximately \$414 per annum by 2050 with proactive measures by the energy networks industry and other market participants, enabled by efficient market and regulatory frameworks.

Overall, the Roadmap scenario achieves a real \$101 billion reduction in cumulative total expenditure, primarily due to efficiencies in the distribution, off grid and connected on site generation sectors.¹

Urgent need to transition to Cost Reflective Network Tariffs

Despite the acceptance by COAG Energy Council, the AEMC, AER and diverse stakeholders of the benefits and desirability of cost-reflective network tariffs, they will not be delivered by relying on market actors in the current regulatory context. Many electricity distribution businesses provide some form of cost-reflective tariff, however take-up has been virtually non-existent in most jurisdictions.

In most jurisdictions, the retailer effectively has more control than the network provider in whether the retailer receives a cost reflective network charge for small customers. As highlighted in a Victorian Government Order In Council mandating Opt In frameworks, the network must comply with the retailer assignment of the customer, whether to a cost reflective or legacy tariff. Customer recruitment to cost reflective

¹ Energy Networks Australia and CSIRO (2017), *ibid*, p. 9

tariffs is beyond the direct control of networks.

Based on observed market experience:

- » There is strong evidence that the majority of small customers, with recognised preferences to avoid complexity² will not seek out, or opt in to, the cost reflective network tariff, as the network tariff is just a portion of their bill;
- » There is significant risk in relying on business drivers for retailers to pass-through the network cost structure signal, let alone actively market cost reflective tariffs for customers to 'opt in' to. There is little evidence that retailers are actively marketing more cost-reflective network charges and some evidence that some retailers are moving to simpler, 'insurance' products to meet customer preferences.

Retail Market Outcomes

There is significant market evidence that the segmented marketing strategies of retailers increase profitability by relying on the reality that many customers do not, or can not, engage with retail offers, new services or opportunities to take up distributed energy resources. There is evidence of:

- » a significant cohort of customers which is not active in retail markets;
- » a significant widening of the range of retail offers;
- » flat or declining switching rates among small customers; and
- » increased concentration of generation market share by the largest retailers at a time of significant wholesale price volatility.

As a recently released Energy Consumers Australia (December 2016) survey indicated, nearly half of all households in NSW and Queensland have never switched supplier (47 per cent and 52 per cent respectively) while even in Victoria, which is regarded as among the most competitive markets globally, 36 per cent of households have never changed their supplier.³

It appears that retailers adopt a highly segmented marketing strategy which effectively relies on inaction by customers or those who are unable to actively engage with retail offers. Retailers do not proactively offer discounts to passive customers including those on:

- » *standing offers* which are significantly higher than the market offer of the same retailer and the best market offer; or
- » *market offers* in which the discount period has lapsed as typically occurs after a limited period (eg. 12 months).

² See Energy Networks Australia (2016) *Electricity Network Tariff Reform Handbook* for an overview of behavioural economic insights to customer preferences in electricity pricing.

³ Canberra Times "Open energy markets failing households" 5 February 2017

The financial benefit to the retailer and disbenefit to the customers involved is substantial. The Australian Energy Regulator has identified that a typical customer switching from an electricity standing offer to the best market offer with the same retailer could save up to \$676 in Victoria, \$381 in NSW, \$332 in South Australia, \$256 in Queensland and \$204 in the ACT.

Recommendations

1. Recognise that the current regulatory and competitive market context will not achieve the transition to cost-reflective tariffs with the urgency required;
2. Note that providing cost-reflective network tariffs to electricity retailers represents a portfolio input cost which they are in a position to manage and respond to.
3. Note there is market evidence that there would be benefits if retailers faced stronger incentives to actively market new retail offers, reflecting cost reflective network tariffs.
4. Provide explicit recommendations to governments of the need to remove barriers to cost reflective network tariffs being provided to electricity retailers, specifically:
 - » That Governments remove barriers to cost reflective network tariffs being provided to electricity retailers, noting Tariff Structure Statements are independently approved by the AER; and
 - » Should Governments wish to retain an 'opt in' model in which end use customers must actively choose to enter into retail market offers reflecting cost-reflective network tariffs, this policy need not impact the ability of the network to provide a cost reflective network charge to the retailer.
5. In addition to any measures to inform and promote increased customer participation in retail markets, the ACCC should recognise and respond to the observed market outcomes for inactive customers or vulnerable customers, who are currently significantly financially disadvantaged;
6. Consider regulatory options to address standing offers which are significantly higher than the same retailer's market offer, given the significant financial disbenefits for inactive customers; and
7. Consider regulatory options to require more proactive offers to customers whose discount periods in market offers have lapsed.

A. Prices, Costs and Profits

This section responds to the following questions raised in the Issues Paper:

1. The factors that have been driving the rising costs that electricity retailers have incurred in supplying electricity to customers over time.
2. Any factors that may impact on the future price of retail electricity services.

Q.1: Factors driving rising costs that electricity retailers have incurred in supplying electricity to customers over time

Energy Networks Australia recognises that retail electricity bills have increased significantly in the last decade due to a variety of factors impacting the four broad cost categories identified in the Consultation Paper. It is recommended the ACCC adopt an empirical approach to assessing the impacts of cost drivers on previous bill increases and that it recognises where corrective measures or reforms have been introduced.

Four key factors have not only had a significant impact on past customer bill outcomes but must also be addressed to put downward pressure on *future* customer bill outcomes (as discussed later in this submission):

- » **The cost of inefficient policy mechanisms to achieve carbon abatement objectives.** It is evident that the cost of emissions abatement has been unnecessarily increased by policy fragmentation between jurisdictions, ‘technology pull’ rather than outcome-based measures, and policy uncertainty, inconsistency or reversals over time⁴. The Australian Energy Market Commission and Climate Change Authority have also noted the impacts of policy uncertainty, as a significant driver of wholesale electricity prices which are above long -run costs by around \$27 per megawatt hour (MWh) to \$40/MWh⁵.
- » **Limitations on competitive market outcomes in significant segments of wholesale and retail electricity markets.** As discussed in Section B, there is evidence of a significant cohort of customers which is not active in retail markets; a significant widening of the range of retail offers; flat or declining switching rates among small customers; and increased concentration of generation market share by the largest retailers at a time of significant wholesale price volatility.
- » **Wholesale electricity markets have also been directly impacted by limitations in gas markets,** including constraints on the timely and efficient development of new gas supply sources due to State Government policy bans in some

⁴ See for instance, Wood and Blowers (2015), ‘Sunset, Sunrise’, Grattan Institute.

⁵ AEMC and Climate Change Authority (2017) *Towards the Next Generation: Delivering Affordable, Secure and Lower Emissions Power*, page 6.

jurisdictions. The ACCC has separately noted estimates that gas fired generation fell by 37 per cent in the 12 months to December 2016 and that “...*regulatory uncertainty and exploration moratoria have significantly limited or delayed the potential for new gas supply.*”⁶

- » **Increases in Network costs were impacted by government intervention constraining flexible network service delivery (ie. prescriptive reliability standards in some States) and insufficient use of cost-reflective tariffs, incentives and demand side measures to efficiently meet peak demand.** Improved peak demand management through pricing incentives and demand management measures had the potential to mitigate network augmentation expenditure required to meet peak demand while maintaining reliability and security, particularly following a rapid technology uptake (ie.air-conditioning).

Differences in the network contribution between jurisdictions.

The level of network contribution to rising retail prices has varied between jurisdictions and specific drivers in those jurisdictions. In NSW and QLD for instance network prices in the 2007-2013 period were being driven primarily by specific factors in those jurisdictions immediately preceding and during that period.⁷ In Victoria however, electricity distribution costs have been relatively steady over the same period. Based on an independent analysis by Oakley Greenwood, Victorian distribution networks note that their costs are lower in 2017 than they were in 2001. In fact, because other cost categories have increased relative to network charges over this period, the contribution of distribution charges to the average residential bill in Victoria have fallen dramatically from 42.7 per cent of the bill in 1995 to 25.4 per cent of the bill in 2017.⁸

Network Cost Drivers

As summarised below, between 2007 and 2012, a number of drivers led to the significant increases in network charges. Increases in network costs were overwhelmingly driven by the demands of the market and government policies, including:

- » forecasts of rising demand for electricity at peak times, largely driven by the use of energy intensive appliances such as air-conditioners, requiring more transmission and distribution capacity that is only used for a small fraction of time;

⁶ Sims, R. ‘*Recognising Australia’s east coast gas crisis*’

⁷ For explanation, see for example Ergon Energy, Our Journey to the best possible price, 2015 https://www.ergon.com.au/_data/assets/pdf_file/0004/228469/Supporting-Document-Our-Journey-to-the-Best-Possible-Price.pdf and Ausgrid: submission to AEMC draft determination on Economic Regulation of Network Service Providers <http://www.aemc.gov.au/getattachment/ad95a9a5-fd0e-4f36-9e4f-59be739a0e07/Ausgrid.aspx>

⁸ Victorian Distribution Networks Service Providers: Submission to Thwaites Inquiry March 2017

- » the need to replace aging infrastructure, given that much of Australia's electricity infrastructure was built in the 1960s and 1970s with a working life of 30 - 40 years.
- » the need to meet State government mandated reliability standards, which was a significant driver of costs for network businesses that lay largely outside their direct control.
- » the higher cost of sourcing the required investment as a result of the Global Financial Crisis, which saw debt margins double in capital markets.

It is widely recognised that the outlook for network costs has moderated in the last few years due to changes in these same factors, with:

- » an outlook of flat or declining peak electricity demand in many locations;
- » opportunities to avoid like-for-like replacement of existing infrastructure where more economically efficient;
- » the reform of State Government reliability standards in key jurisdictions to correct the prescriptive features introduced in the 2000s;
- » improved financial market conditions and reform of cost of debt methodologies in the AER regulatory determinations to reduce the exposure to temporal volatility.

The AER's revenue and pricing determinations made in 2012-15 provided for maximum revenue that networks can recover from customers, which is on average 9 per cent lower than recoverable revenue in the previous regulatory periods.

The return on capital is the largest revenue component for electricity networks. The AER's regulatory determinations made since 2012 reflect lower costs of financing due to reductions in the risk-free rate and the debt risk premium. The overall cost of capital in electricity determinations declined from a peak of over 10 per cent in 2011, to just above 6 per cent in 2016.

This section discusses the key cost drivers and notes that changes in the regulatory framework or financial market conditions have now mitigated most drivers. The key exception is the need for action on pricing and incentives reform and the opportunity to avoid future network expenditure by achieving the 'co-optimised' use of network and distributed energy resources.

Driver of Network Costs	Current Status
<p>Debt margins: Corporate debt margins increased by up to 100% during the GFC, under regulatory frameworks which set debt based on the time of the AER Decision.</p>	<p>Debt margins have fallen substantially since the GFC. Long-term debt costs have recently been at historic lows.</p> <p>The regulatory framework has been amended to include a 'trailing average' approach the cost of debt allowance, smoothing volatility over 10 years.</p>
<p>State Government Reliability Standards: In NSW and Qld, network licence conditions were changed to prescribe higher 'input based' reliability standards which required additional redundancy in networks.</p>	<p>Relevant Governments corrected deterministic standards, in favour of more outcome based, probabilistic standards.</p>
<p>Replacement expenditure: As recognised by regulators, capital replacement cycles required networks to address a significant number of 1960s and 1970s assets reaching the end of their economic life.</p>	<p>Recognising an increased proportion of replacement expenditure, new regulatory reforms extend regulatory investment tests to replacement expenditure. The AER has also modified modelling which allows it to assess network proposals against benchmark expenditure requirements</p>
<p>Perceived incentives to prefer capital expenditure over operating expenditure</p>	<p>In 2012, regulatory changes were made to incentivise capital efficiency; increase use of demand management; allow excessive capital expenditure to be excluded by the Regulator.</p>
<p>Demand and Load Profile: A decoupling of consumption from economic growth, combined with rapid changes in technology uptake (eg. air-conditioners, dishwashers, solar PV) made demand forecasting more challenging and the load more 'peaky'.</p>	<p>Peak demand growth has softened in many areas of the network and forecasting and planning are more advanced. Pricing reform, incentives for distributed resources will remain critical to enable efficient network services in the future.</p>

Contribution of government schemes to increased retail pricing

In a report for Victorian Distribution Businesses, Oakley Greenwood found that the cost of government policy initiatives contributed about half of the increase observed in that State between 1995 and 2017.⁹ Policy related costs can also be observed in other states. In particular, government decisions to offer feed-in tariffs for solar PV

⁹ Oakley Greenwood "Causes of residential electricity bill changes in Victoria, 1995 to 2017" February 2017

generation in most states has had a substantial effect on retail prices.

According to the ICRC's final report released on June 7 this year, the Feed-in-Tariff (FiT) comprises 9% of an average ACT customer's retail bill.¹⁰ The large scale FiT costs in the ACT rose from an estimated \$14.6m in 16/17 to a forecast \$39m in 17/18.

Last year the Queensland Productivity Commission estimated the cost to customers of the Queensland Government Solar Bonus Scheme at around \$4.1 billion over the life of the scheme. Administered through network charges, it had added around \$89 to the average QLD residential bill in 2015.¹¹ In May 2017, the Queensland Government amended the framework to remove the costs associated with the Solar Bonus from the network charges of Energy Queensland.

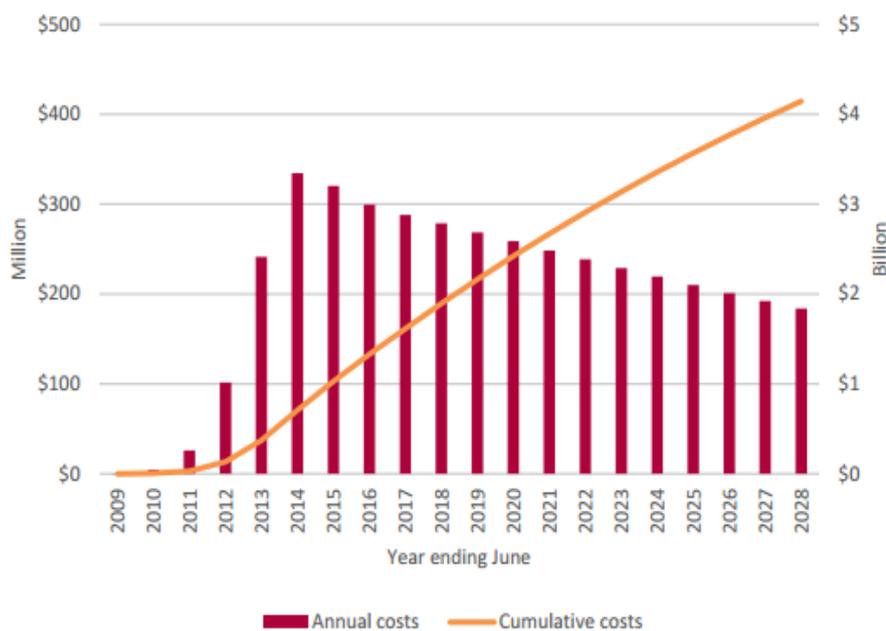


Figure 1: Cost of Solar Bonus Scheme in Queensland

Contribution of wholesale and retail costs to increased retail pricing

Recent analysis by the AEMC and the Preliminary Report of the Finkel Panel (Review of NEM Security) has previously recognised the difficulty in establishing clear information on retail costs and risk-based margins.

In the Victorian analysis referred to above by Oakley Greenwood, it was noted that substantial variability in wholesale energy prices was the second highest contributor to retail price increases in Victoria (behind policy related costs) between 2001 and

¹⁰ Refer ICRC Standing offer prices for the supply of electricity to small customers from 1 July 2017 (page ix) <http://www.icrc.act.gov.au/wp-content/uploads/2017/03/Report-6-of-2017-June-2017-1.pdf>.

¹¹ Queensland Productivity Commission "Solar Feed-in Pricing in Queensland" June 2016.

2017.¹² That analysis indicated that in the seven years from 2001 to 2008, a period in which the Victorian government set regulated tariffs– the average annual residential retail bill decreased by 6.4 per cent. By contrast, from 2008 to 2017, a period in which residential electricity prices were deregulated from 2009 – the average annual residential retail bill increased by 47.2 per cent.

Q.2: Factors that may impact on the future price of retail electricity services

As noted in the previous section, a number of the key factors which have previously impacted on customer bill increases remain to be addressed to avoid future impacts including:

- » **Policy frameworks to achieve carbon abatement as efficiently as possible.** While not the focus of this submission, the Climate Change Authority, AEMC, Independent (‘Finkel’) Review of NEM security and other agencies have identified significant opportunities to lower future customer bills through technology neutral, outcome based carbon policy which is stable and enduring. Analysis for Energy Networks Australia indicated the potential to save customers over \$200 per annum between 2020 and 2030, while meeting carbon abatement targets.¹³
- » **The removal of unnecessary policy bans on gas exploration and development, in favour of the ‘case by case’ approach to regulation previously recommended by the ACCC.**
- » **Transformation of network services to unlock new energy services markets and enabling more efficient network service delivery.** As discussed below, approximately \$16 billion in network costs can be avoided by 2050 reducing network charges by 30%, but it will require pricing reform, incentives and a modernised electricity system to realise the full value of the fleets of distributed energy resources being connected to the system.
- » **Ensuring ‘fit-for-purpose’ regulatory responses to retail electricity markets which recognise observed market outcomes and behaviour of consumers,** including the limited engagement in retail offers and new services by a significant cohort of retail customers, and significant risks to vulnerable customers.

The whole of system savings which can be achieved are material to customers. The *Electricity Network Transformation Roadmap* developed by Energy Networks Australia and CSIRO provided empirical evidence of the potential to achieve significant customer savings of approximately \$414 per annum by 2050 with proactive measures by the energy networks industry and other market participants, enabled by efficient market and regulatory frameworks. As reflected in the figure

¹² Oakley Greenwood “Causes of residential electricity bill changes in Victoria, 1995 to 2017” February 2017, p14

¹³ See Chapter 5, Energy Networks Australia and CSIRO (2017) *Electricity Network Transformation Roadmap: Final Report*, page 26

below:

Overall, the Roadmap scenario achieves a real \$101 billion reduction in cumulative total expenditure, primarily due to efficiencies in the distribution, off grid and connected on site generation sectors.¹⁴

The Roadmap identifies two primary sources of savings:

The first is that reformed prices, incentives and distributed energy resources network optimisation deliver a reduced need for expenditure on network capacity replacement or expansion. The second source of lower bills is a more efficient utilisation of capacity, because the cost of each unit of capacity is recovered from a larger customer base.¹⁵

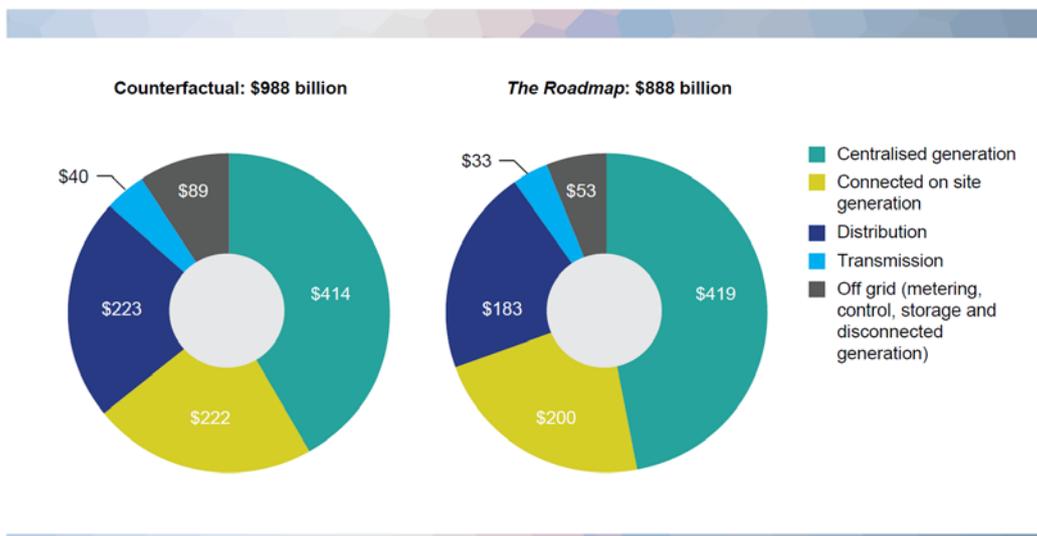


Figure 2: Cumulative electricity system total expenditure to 2050 (in real terms) under the Roadmap and counterfactual scenarios

Transformation of network services to unlock new energy services markets and enabling more efficient network service delivery.

The ACCC's current inquiry should recognise the significant dependency of future customer bill outcomes on the ability of network service providers to progress pricing and incentives reforms. Analysis by Energy Networks Australia and CSIRO suggests a 'co-optimised' energy system could reduce average network costs by 30% below 2016 levels by 2050 and contribute to avoided network expenditure of \$16 billion by 2050.

However, this is reliant on:

» **First wave tariff reform:** networks providing cost-reflective network tariffs to the

¹⁴ Energy Networks Australia and CSIRO (2017), *ibid*, p. 9

¹⁵ Energy Networks Australia and CSIRO (2017), *ibid*, p. 8

universal customer base to increase efficiency and fairness; and

- » **Second wave incentives:** networks providing incentives for grid support services ‘in the right place, at the right time’. Customers would be paid to avoid the need for network investment in return for orchestrating distributed energy resources (whether distributed generation, storage, demand response, etc).

Analysis by CSIRO indicates that without more urgent attention to current pricing incentives in network tariff arrangements, Australia will not achieve the benefits from integration of network and behind the meter infrastructure. This will increase power system risk and affordability in the future.

i. First Wave Tariff Reform

Customers have increasingly diverse load profiles, depending on their use of air-conditioning, energy efficiency, solar panels and other technology. However, despite these varying uses of the network, most Australian residential (and small business) network tariffs rely on volumetric charges (cents per kilowatt hour) which do not vary by time. Historically, the relative homogeneous energy use in the residential sector meant that weak pricing signals had little impact on customer outcomes. Over time however, with the introduction of new technologies, network cost recovery through a flat, anytime volume rate provided no signals to reward the reduce use of energy at peak times that drove the need for network augmentation expenditure. At the same time, the flat ‘anytime’ volume signals unintentionally resulted in cross-subsidies to customers installing solar PV from other users.

Recent analysis by NERA Economic Consulting (NERA) for the AEMC identified significant cross-subsidies between customers under current network tariffs including a cross subsidy of approximately \$683 per year for customers using air-conditioning at peak times¹⁶.

Further analysis by Energeia for the Network Transformation Roadmap found that without action on pricing reform, customer cross-subsidies would increase significantly disadvantaging those unable to take up new technologies. The electricity bill of a medium sized family who cannot take up distributed energy resources would be over \$350 per annum worse off in 2027 and up to \$600 per annum worse off in 2050 due to increasing cross subsidies, compared to the Roadmap scenario.

Given the rate of technology adoption and the ‘embedding’ of cross subsidies, the Network Transformation Roadmap found that by 2021, residential and small business customers must be assigned to a new range of cost-reflective network tariffs, enabled by a high penetration of smart meters.

A critical finding of that analysis relevant to the ACCC’s current inquiry was that the fairer system of prices could only be achieved in the requisite timeframe with changes to tariff assignment policy. Existing Australian tariff assignment policy predisposes

¹⁶ NERA, *Economic Concepts for Pricing Electricity Network Services*, A Report for the Australian Energy Market Commission, 21 July 2014

retailers to continue to assign customers to legacy tariffs unless the customer makes a conscious decision to adopt a different retail product which includes a cost reflective network tariff. However, waiting for customers to opt-in to new network tariffs fails to achieve timely take up of fair and efficient network tariffs, with 70% of customers forecast to remain on legacy tariffs in 2026. By contrast, retailers assigning all customers to more cost-reflective network tariffs, with a choice to opt-out, results in less than 10% choosing to return to legacy tariffs and results in positive comparative economic benefit of \$1.8 billion by 2026.¹⁷

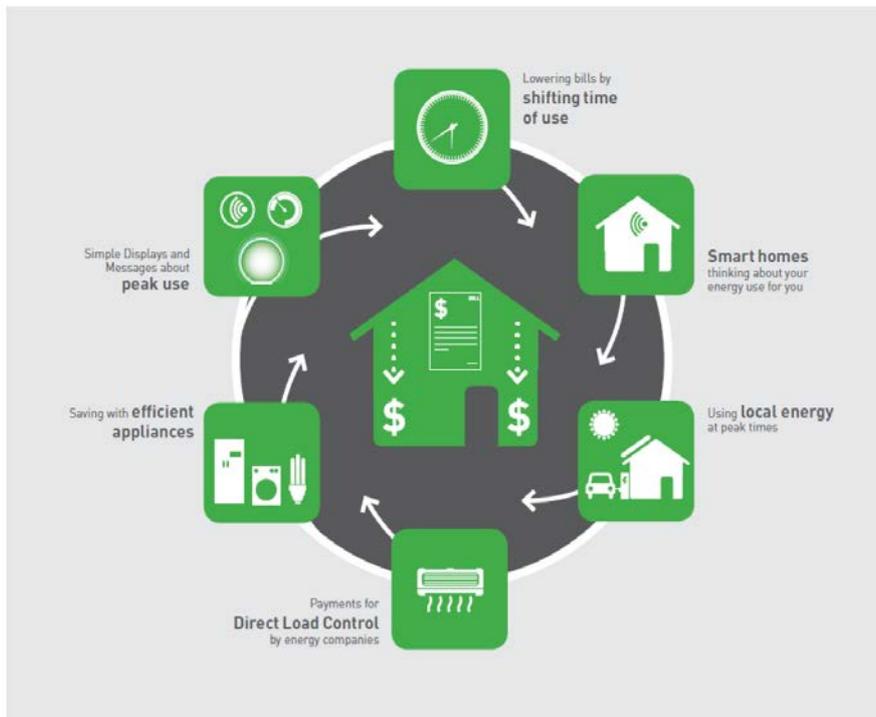


Figure 3: Rewarding customers for smart energy use

ii. Second Wave Incentives

If ‘first wave’ tariff reform is in place to provide fairer and more efficient tariffs, it creates a market environment in which highly targeted Second Wave incentives are viable.

In this context, customers (or their agents) could choose to ‘opt in’ to rewards for grid support in the right place at the right time, such as:

- » *Incentive Payments for ‘orchestration’ of DER* (eg. battery discharge; smart inverters; load control; Home Energy Management platforms);
- » *Advanced Network Tariffs for Behavioural Response* (eg. Critical Peak Price; Peak Time Rebates; or Nodal Pricing);

¹⁷ CSIRO and Energy Networks Australia Network Transformation Roadmap, April 2017, p. 42

- » Transactive Energy models of future electricity reform (eg. real time pricing in future in distributed energy markets).

However, there is a critical path dependency, where those incentives can only be delivered if the 'noise' of unintended cross-subsidies in current volumetric tariffs is addressed. There is a current and increasing cross-subsidy incentivising investment in DER, regardless of location or use, which has the unintended effect of shifting system costs onto other users without DER (as noted above). Unless this is addressed with some urgency:

- » Targeted (second wave) incentives for the use of DER in the 'right place at the right time' to avoid network expenditure will be unviable or less economic; and
- » Without appropriate incentives and system operations, the rapid deployment of DER fleets is likely to cause significant potential for overload and/or breach of technical constraints on the distribution network.

While the focus of this section of our submission is on securing timely tariff reform, it is noted that in order to provide these incentives, the modernisation of the grid is also required including the technical capacity to actively manage the distribution network, identify constraints on hosting capacity and locationally value distributed energy resources. Those issues are further discussed in the Network Transformation Roadmap.

Why does the ACCC Inquiry need to address barriers to Tariff Reform?

To address this critical factor impacting on future customer electricity bills, the ACCC inquiry should consider the following recommendations:

1. Recognise that the current regulatory and competitive market context will not achieve the transition to cost-reflective tariffs with the urgency required;

Despite the acceptance by COAG Energy Council, the AEMC, AER and diverse stakeholders of the benefits and desirability of cost-reflective network tariffs, cost reflective network tariffs will not be delivered by relying on market actors in the current regulatory context. Many electricity distribution businesses have had some form of cost-reflective tariff available for small customers - some over a long period of time. However, take-up has been virtually non-existent in most jurisdictions, as evidenced in the table below¹⁸:

¹⁸ Source: network business information. Note that alternative cost reflective tariffs also includes non-legacy tariffs offered prior to current round of Tariff Structure Statements

NEM Region	Average years alternative cost reflective tariffs available	Customers still assigned to legacy volume tariffs (%)
NSW/ACT	14	88%
QLD	5	100%
VIC	14	89%
SA	2	100%
TAS	8	100%
NEM	11	92%

Networks have actively sought to progress tariff reform under the Rules framework implemented by the AEMC and administered by the AER but this is not due to a profit-making opportunity. Under revenue cap regulation, tariff reform is 'revenue neutral' to the network service provider. Conversely, as the Roadmap highlights, to the extent that poorly designed market frameworks or government interventions limit timely progress on tariff reform, the risks will impact most directly on customers.

Customer take-up of cost reflective network tariffs has been limited due to a number of factors¹⁹:

- » **The penetration of advanced meters is a critical prerequisite.** The Roadmap recommended active monitoring of market outcomes following the introduction of contestable metering. It also recognised that without an active tariff assignment policy, even high levels of advanced meter penetration will remain unutilised for cost reflective tariffs.
- » **State government interventions to prevent assignment** even where the customer retained the opportunity to 'opt out' to current tariff structures; and
- » **Policy assumptions that retailer will actively market retail tariffs based on cost reflective network tariffs and that customers will actively engage with new offers and 'Opt In'.**

Currently in most jurisdictions, the retailer effectively has more control than the network provider in whether the retailer receives a cost reflective network charge for small customers. As highlighted in a Victorian Government Order In Council mandating Opt In frameworks, the network must comply with the retailer assignment of the customer to a cost reflective or legacy tariff. Customer recruitment to cost reflective tariffs is beyond direct control of networks.

Based on observed market experience:

- » There is strong evidence that the majority of small customers, with recognised preferences to avoid complexity²⁰ will not seek out, or opt in to, the cost reflective network tariff which is a portion of their bill;
- » There is significant risk in relying on business drivers for retailers to pass-

¹⁹ See Energy Networks Australia (2016) *Electricity Network Tariff Reform Handbook*,

²⁰ See Energy Networks Australia (2016) *Electricity Network Tariff Reform Handbook* for an overview of behavioural economic insights to customer preferences in electricity pricing.

through the network cost structure signal, let alone actively market cost reflective tariffs for customers to 'opt in' to. There is little evidence that retailers are actively marketing more cost-reflective network charges and some evidence that some retailers are moving to simpler, insurance products.

2. Note the distortionary impact on allocative and dynamic efficiency in energy markets if the issue is not addressed.

As noted in the Roadmap analysis cited above, there is a material distortionary impact on energy efficiency if the structure of the network charge provided to retailers and, indirectly, end use customers, is prevented from reflecting the cost of providing the network service. The Roadmap analysis indicates the failure to implement pricing reform would result in significantly greater requirements for network infrastructure due to higher non-coincident peak demand, and inefficient incentives for investment and use of distributed energy resources, with such incentives effectively paid for by cross-subsidies borne by other users.

3. Note that providing cost-reflective network tariffs to electricity retailers represents a portfolio input cost which they are in a position to manage and respond to.

Retailers are well positioned to manage a portfolio of input costs, add value through economies of scope and scale, and repackage energy services in tailored products to end use customers. This is their *raison d'être*. In many cases, the transactions are increasingly two-way with rapidly greater numbers of prosumers.

Retailers manage the cost-reflective signals of wholesale energy markets and other Cost of Goods Sold. There is no continuing reason why Governments should impose require regulatory requirements with the aim of allowing the Retailer to choose to avoid cost reflective network charges. Even if the Government objective is to provide end-use customers the choice to opt in to a retail tariff product, this does not require that the network charge provided to the retailer should not be cost-reflective. To do so, stifles the incentive for retailers to respond to the actual cost structure of one of their most significant inputs.

In fact the suite of options available to retailers to optimise their input costs is growing rapidly. It is widely recognised in Australia and internationally that retailers and new entrant aggregators will seek to optimise their sourcing of energy services through new platforms harnessing distributed generation and storage (eg. Virtual Power Plant models), demand response and other services.

4. Note there is market evidence that there would be benefits if retailers faced stronger incentives to actively market new retail offers, reflecting cost reflective network tariffs.

As discussed in Section B below, there is significant market evidence that the segmented market strategies of retailers actively exploit the reality that many customers do not, or can not, engage with retail offers, new services or opportunities to take up distributed energy resources. There is evidence of a significant cohort of customers which is not active in retail markets; a significant

widening of the range of retail offers; flat or declining switching rates among small customers; and increased concentration of generation market share by the largest retailers at a time of significant wholesale price volatility.

In this context, there appears to be a relatively passive base of customers which retailers do not proactively engage with and do not proactively offer innovative products to. These customers may, for instance, be

- » on *standing offers* which are significantly higher than the market offer of the same retailer and the best market offer; or
- » on *market offers* in which the discount period has lapsed as typically occurs after a limited period (eg. 12 months).

The Australian Energy Regulator has identified that a typical customer switching from an electricity standing offer to the best market offer with the same retailer could save up to \$676 in Victoria, \$381 in NSW, \$332 in South Australia, \$256 in Queensland and \$204 in the ACT.

*“Across retailers, the most expensive offer was typically around double the cost of the lowest market offer in Victoria and South Australia, as well as for customers in the NSW AusGrid and Endeavour Energy network areas. For other customers, the lowest offer was 35–40 per cent cheaper than the highest offer. **The gap between lowest and most expensive offers in December 2016 widened significantly in each network area observed since 2015.** (Emphasis Added).²¹*

If retailers faced a cost reflective network tariff, this is likely to provide strong impetus to retailers to more actively engage with that passive customer base. The cost reflective network tariff provides a retailer with a reason to encourage the customer to take up a new retail market offer which is based on the cost-reflective (eg. a demand-based structure) network tariff. It is more likely to discount to the customer to a level approaching the retailer’s efficient cost, which also better reflects the efficient structure.

5. Provide explicit recommendations to governments of the need to remove barriers to cost reflective network tariffs being provided to electricity retailers.

For the reasons outlined above, the ACCC inquiry should make explicit recommendations to reduce the risk to electricity customers of distorted incentives in a rapidly transforming market. Specifically, the Commission should consider recommending:

- » That Governments remove barriers to cost reflective network tariffs being provided to electricity retailers, noting Tariff Structure Statements are independently approved by the AER; and
- » Should Governments wish to retain an ‘opt in’ model in which end use

²¹ AER (2016) *State of the Energy Market*, p.147

customers must actively choose to enter into retail market offers reflecting cost-reflective network tariffs, this policy need not impact the ability of the network to provide a cost reflective network charge to the retailer.

A more active approach to network tariff assignment would reflect:

- » The reality of observed customer and retailer behaviour in markets;
- » the capability of retailers to manage their input cost portfolio, sculpting retail offerings that meet the needs of customers particularly given innovations in distributed energy resource platforms; and
- » market evidence that retailers may require stronger incentives to actively market new retail offers, reflecting cost reflective network tariffs.

The AEMC, in particular developed rules frameworks, which assumed cost reflective network pricing would be provided to retailers with innovation and competition driving optionality for customers:

The role of the networks is to provide cost-reflective [network] pricing. The retailers' role is to take wholesale costs, network charges and other potential energy services such as distributed generation or energy management systems, and package these up for consumers. In many ways, their job is to be the consumers' agent for dealing with the rest of the system... Consumers choose between fixed and variable mortgages with different terms in the financial sector; and they choose from a range of mobile phone packages in the telecommunications sector.²²

In its submission to the Finkel Review, Energy Consumers Australia noted:

"Consumers are increasingly becoming interactive participants in the energy market and are investing in technology to generate, store and ultimately trade electricity to manage their consumption and bills... While this disruption is very real, the defining experience for most residential and small business consumers in the energy market over the last decade has not been about technology or advances in service. The retail products in the market are mainly differentiated by discounts and payment options... Consumers continue to be charged for their electricity on a shared-use basis, masking cross-subsidies and in the long-term adding unnecessarily to the size of the electricity network.... What has changed is the price consumers are paying."²³

²² AEMC, Ensuring the regulatory framework facilitates competitive and efficient energy markets in a time of technological change: Address at Australian Energy Week 2016, 21 June 2016, p. 4

²³ Energy Consumers Australia: Submission to Independent Review into the Future Security of the National Electricity Market, March 2017
<http://www.environment.gov.au/submissions/nem-review/energy-consumers-australia.pdf>

Recommendations:

1. Recognise that the current regulatory and competitive market context will not achieve the transition to cost-reflective tariffs with the urgency required;
2. Note that providing cost-reflective network tariffs to electricity retailers represents a portfolio input cost which they are in a position to manage and respond to.
3. Note there is market evidence that there would be benefits if retailers faced stronger incentives to actively market new retail offers, reflecting cost reflective network tariffs.
4. Provide explicit recommendations to governments of the need to remove barriers to cost reflective network tariffs being provided to electricity retailers, specifically
 - » That Governments remove barriers to cost reflective network tariffs being provided to electricity retailers, noting Tariff Structures Statements are independently approved by the AER; and
 - » Should Governments wish to retain an 'opt in' model in which end use customers must actively choose to enter into retail market offers reflecting cost-reflective network tariffs, this policy need not impact the ability of the network to provide a cost reflective network charge to the retailer.

B. Market Structure and the Nature of Competition

This section responds to the following questions raised in the Issues Paper:

6. The level of competition between electricity retailers in each NEM area and distribution area within each NEM area
7. Any impediments to competition between electricity retailers.

Q.6: The level of competition between electricity retailers in each NEM area and distribution area within each NEM area

As noted above, it is difficult to establish clear information about the extent of actual competition between electricity retailers in each market. A number of commentators have recognised that while the ostensible indicators of competition (eg. customer churn) appear positive - the actual price outcomes for customers are opaque. We note a number of customer advocates and regulators continue to recognise that segments of Australian retail markets are not subject to strong price discipline or competitive pressure.²⁴

It appears that retailers adopt a highly segmented marketing strategy which effectively exploits any inaction by customers or those who are unable to actively engage with retail offers. There is evidence of a significant cohort of customers who are not active in retail markets. As a recently released Energy Consumers Australia (December 2016) survey indicated, nearly half of all households in NSW and Queensland have never switched supplier (47 per cent and 52 per cent respectively) while even in Victoria, which is regarded as among the most competitive markets globally, 36 per cent of households have never changed their supplier.²⁵

AER data indicates that:

- » The majority of customers are not active in investigating their retail offer choices and it is not due to lack of awareness. Around 70 per cent of customers in NSW, Victoria, south east Queensland and South Australia had not actively investigated their energy options in the 12 months to June 2016.
- » Vulnerable customers are most impacted. *“High levels of customer vulnerability create a barrier to participation and impede the development of effective competition. Vulnerable consumers are less likely to shop around because they lack confidence in finding the best deal for them, and they fear they may end up worse off. They are often embarrassed by their financial situation and concerned that switching retailers will mean a loss of benefits, increased debt, and exit or*

²⁴ St Vincents de Paul Society, [The NEM: A hazy retail maze](#), December 2016

²⁵ Canberra Times “Open energy markets failing households” 5 February 2017

reconnection fees.”²⁶

- » While customer ‘switching’ rates are not of themselves an indicator of efficient outcomes (for the reasons noted by the Chair of the Energy Services Commission) they are flat or declining according to AER data below²⁷.

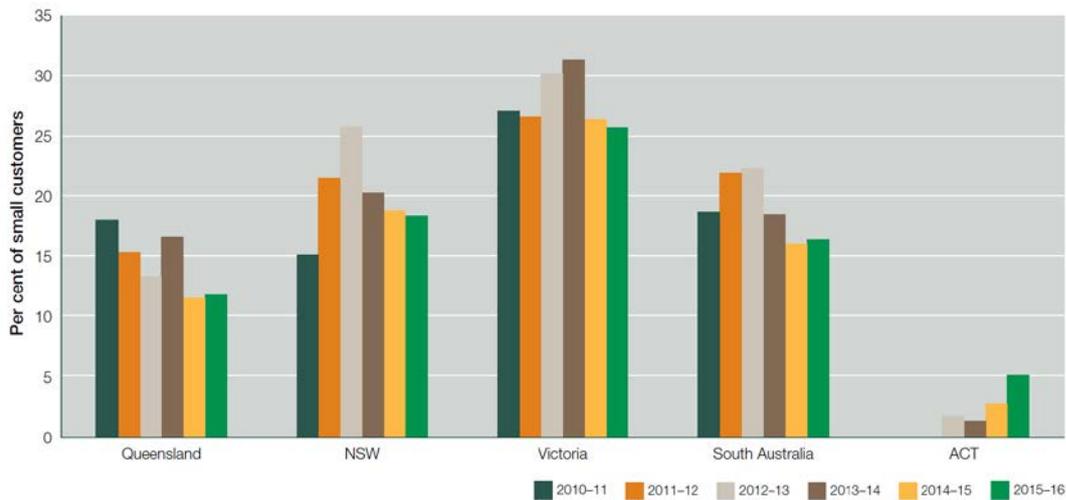


Figure 4: Small energy Customer switching - electricity. Source: AER

- » There has been a significant increase in price diversity in the past 12 months, rather than a narrowing of retail offers that might be expected in a highly competitive market, around an efficient price point being revealed through competitive market pressure.

²⁶ AER (2017) *State of the Energy Market Report*, p.144..

²⁷ AER (2017) *State of the Energy Market Report*, p.145.



Figure 5: Price diversity in energy retail offers. Source: AER

There appears substantial evidence that retailers do not proactively offer discounts to passive customers including those on

- » *standing offers* which are significantly higher than the market offer of the same retailer and the best market offer; or
- » *market offers* in which the discount period has lapsed as typically occurs after a limited period (eg. 12 months).

The financial benefit to the retailer and disbenefit to the customers involved is substantial. The Australian Energy Regulator has identified that a typical customer switching from an electricity standing offer to the best market offer with the same retailer could save up to \$676 in Victoria, \$381 in NSW, \$332 in South Australia, \$256 in Queensland and \$204 in the ACT.

While Victoria’s retail market is often recognised for high levels of customer switching which approach 30 per cent, a recent Grattan Institute report recently demonstrated that despite high levels of churn:

“In Victoria, the profit margin for electricity retailers appears to be about 13% – more than double the margin regulators traditionally considered fair when they had responsibility for setting prices. Victorians would save about \$250 million a year – about \$100 per household – if the profit margin of their electricity

retailers was the same as for other retail businesses.²⁸

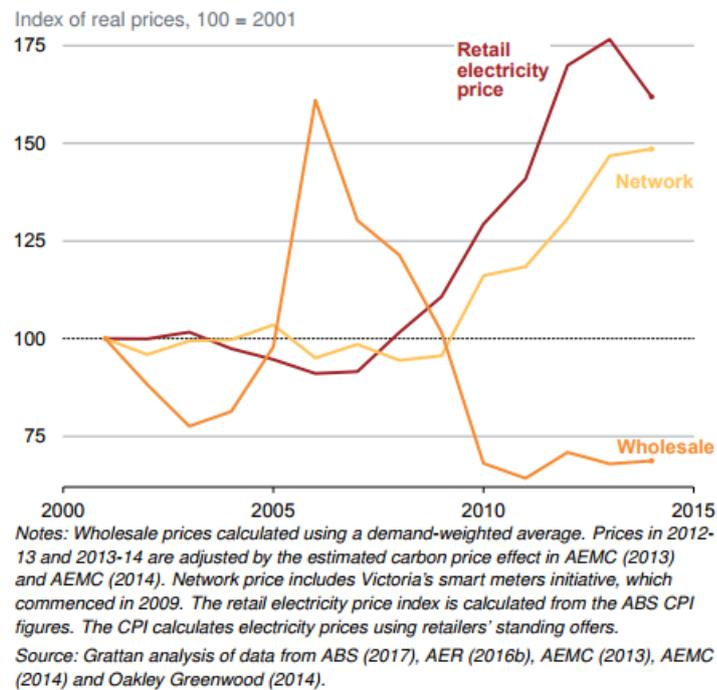


Figure 6: Retail prices have outpaced wholesale and network prices in Victoria. Source: Grattan Institute

The Chairman of the Essential Services Commission of Victoria recently observed:

*"Around us, we see markets with characteristics that force us to question the effective state of competition. Price structures are at odds with what we might expect in a highly competitive market....Retailers have developed contract arrangements that effectively 'hide' their actual prices. Customers have a very low awareness of the market, how they are engaging with it or what it really means for them."*²⁹

²⁸ Grattan Institute, [Is the Retail Electricity Market Failing Consumers?](#), 13 March 2017

²⁹ (Refer page 33 of the August 2016 paper by Dr Ron Ben-David entitled ["Shock Therapy. Reviving retail competition in the energy market"](#))

Recommendations:

1. In addition to any measures to inform and promote increased customer participation in retail markets, the ACCC should recognise and respond to the observed market outcomes for inactive customers or vulnerable customers who are significantly financially disadvantaged;
2. The ACCC should consider regulatory options to address standing offers which are significantly higher than the same retailer's market offer, given the significant financial disbenefits for inactive customers; and
3. The ACCC should consider regulatory options to require more proactive offers to customers whose discount periods in market offers have lapsed.

Q.7: Any impediments to competition between electricity retailers.

The extent to which vertical integration between generators and retailers impacts on the ability of retailers with little or no generation interests to compete.

We note analysis by the Finkel Review and ESCOSA and other stakeholders on the level of vertical integration in some jurisdiction and would recommend the ACCC review its impact on competition.

On 21 April, ESCOSA provided advice to the South Australia Treasurer on the justification of double-digit retail price increases announced by AGL, Energy Australia and Origin. While ESCOSA noted the primary reason for retail price increases could be justified by higher prices in the wholesale market, ESCOSA did make the following findings in relation to the level of vertical integration in that region:

The closure of the Northern Power Station, which followed the withdrawal of capacity at the Pelican Point Power Station in 2015, has created a tighter supply-demand balance in South Australia.

There is a high degree of vertical integration between retailers and generators in South Australia. The Specified Retailers own a total of 67 percent of the total firm generation capacity, with AGL owning 46 percent. AGL, as owner of the gas-fired Torrens Island power station, has increased ability to set the spot price given the closure of Northern power station³⁰.

The Finkel Panel's Independent Review into the Future Security of the National Electricity Market also observed changes in market share of the top three gentailers:

³⁰ ESCOSA: Advice on justification for July 2016 South Australian retail electricity price increases, 21 April 2017

In the period from 2009 to 2017, the major retailers have increased their share of NEM generation capacity from 15 per cent to 48 per cent. In South Australia in particular, recent events such as the closure of the Playford and Northern power plants have resulted in an increase in market concentration of the major vertically integrated gentailers (Energy Australia, Origin and AGL), which now account for 64 per cent of generation capacity (see Figure 3.4). By other measures, South Australia also has the least amount of competition and highest reliance on its largest generator of all NEM regions³¹.

The extent of Generation Ownership by NEM Region was usefully summarised in the Finkel Panel’s report, as reproduced below

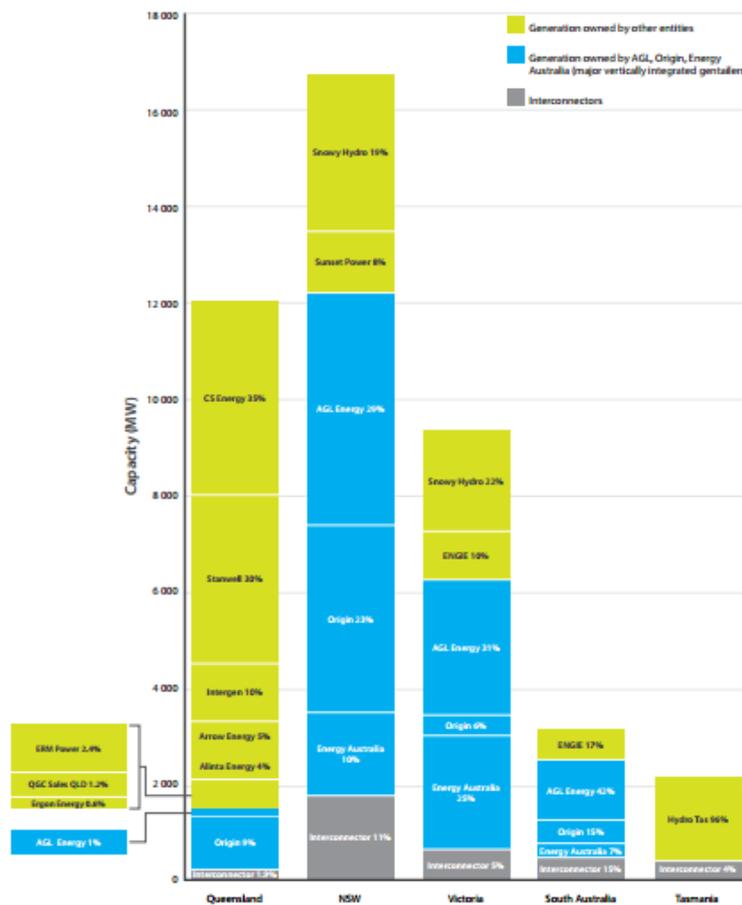


Figure 7: Generation ownership by NEM region 2017

³¹ Independent review into the future of the National Electricity Market, p87

Metering Contestability as a potential barrier to retail competition

The ACCC notes the recent AEMC rule change commencing on 1 December 2017, which shifts the role of providing metering services from the distributor to the retailer. The changes were intended to promote a market led rollout of smart meters, facilitating more customer choice.

These changes will not take place in Victoria, which has decided to defer changes in that state until 2021. The Victorian Government's decision to defer metering competition is primarily driven by its starting position compared to the rest of the NEM. Victorian households did not need to wait for metering competition to access new product offerings and services that smart meters will provide.

Importantly however, consultations in a related review did highlight concerns that are worthy of ACCC consideration. In a 21 page submission urging the Government to defer the introduction of contestability, consumer advocates including the Victorian Council of Social Services and Consumer Utilities Advocacy Centre, cited concerns in other jurisdictions around meter contestability³²:

We see significant potential for consumers renting their accommodation to find themselves unable to effectively switch retailer where they cannot secure permission from their landlord to make physical alterations to the rental property....

Some of these issues have already played out in other jurisdictions. We are already aware of one case in which a customer who had received a new meter from a first tier retailer was unable to switch to the retailer of their choice (a second tier retailer) because the new retailer did not have systems to read their meter....

This evidence would suggest further investigation by the ACCC on the extent to which the metering contestability framework may create potential barriers to competition in the future.

³² ATA, CALC, CUAC, Brotherhood of St Laurence, Community Information and Support Victoria, VCOSS, St Vincent de Paul, [Submission to Transition to Metering Competition in Victoria Options Paper, November 2016](#).

C. Customers and interaction with the market

The ACCC seeks feedback on:

8. Any impediments that customers face in choosing a retail electricity service and any differences between customer types and NEM areas.
9. How customers' ability to make informed choices about electricity can be improved.

Q.8: Any impediments that customers face in choosing a retail electricity service and any differences between customer types and NEM areas.

For the reasons noted above, Energy Networks Australia believes the current environment and competition in retail markets will fail to deliver efficient pricing outcomes and better choices for customers. In our response to Question 2 we outlined that better outcomes can be delivered through:

- » Changes to assignment policy so that from 2020 the retailer faces a cost reflective network tariff signal for most, if not all, residential and small business customers
- » Moving optionality away from the retailer and to the customer which will incentivise retailers to offer more competitive and innovative products to customers that are underpinned by more efficient pricing signals
- » Development of trials for second wave incentives so that in conjunction with broad-based cost reflective tariffs, network businesses can purchase distributed energy resource output as an alternative to network augmentation or replacement

Q.9: How customers' ability to make informed choices about electricity can be improved.

The Network Transformation Roadmap analysis cited earlier highlights the importance of customers making informed choices, not only in relation to electricity retail market offers but in relation to diverse new products and investments.

By 2050, it is estimated that customers or their agents - not utilities - will determine how over \$200 billion in system expenditure is spent and millions of customer owned generators will supply 30-45% of Australia's electricity needs.³³

³³ ENA & CSIRO, op cit, p.i

To improve these choices, it is critical that they be provided with:

- » Clear economic signals that reward efficient choices that the customer values, through the pricing and incentive reforms discussed in Section B above;
- » A stable and enduring policy environment which minimises investment uncertainty including outcome-based carbon abatement policy.

The Electricity Network Transformation Roadmap also recognises the need for information, education and support tools are necessary to deliver better outcomes to customers through pricing.

To this end a number of networks have been driving innovative approaches to assist with this transition:

- » CitiPower and Powercor have developed a dashboard which allows household or business customers to view their electricity use over time and to identify ways to reduce their bills and become more energy efficient. The *myEnergy* dashboard allows customers to access usage data and quickly compare retailers through the Victorian Energy Compare website. Almost 15,000 users have registered for myEnergy since September 2016.
- » Jemena's Electricity Outlook portal is an online tool to help customers monitor electricity use through their smart meters. Data on when and how much electricity is used is gathered daily from the customer's smart meter and accessible by logging in. There are instructional videos in four languages on using the portal available on Jemena's website.
- » Queensland Energy, Tas Networks, Western Power, Essential Energy, Endeavour Energy and Ausgrid have been working with Energy Consumers Australia and City Smart on a Tariff Reform Research Project which is about understanding the changing needs of residential energy consumers in the information age, and the implications for time-of-use electricity pricing. The project gives householders an opportunity to have their say so we can better understand energy consumer motivators and barriers.