Draft Decision

Evoenergy Electricity Distribution Determination 2024 to 2029

(1 July 2024 to 30 June 2029)

Attachment 19
Tariff structure statement

September 2023

AUSTRALIAN ENERGY REGULATOR

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Version	Date	Pages
1	28 September 2023	41

Contents

19 Tariff structure statement

This attachment sets out our draft decision on Evoenergy Electricity's (Evoenergy) tariff structure statement to apply for the 2024–29 regulatory control period.

A tariff structure statement applies to a distributor's tariffs for the duration of the regulatory control period providing consumers and retailers with certainty and transparency in relation to their distribution charges. This allows consumers to make more informed decisions about their energy use. A tariff structure statement informs customer choices by:

- providing better price signals—network tariffs which reflect what it costs to use electricity at different times can allow customers to make informed decisions to better manage their bills
- transitioning tariffs to greater cost reflectivity—with the requirement that distributors explicitly consider the impacts of network tariff changes on retail customers, by engaging with customers, customer representatives and retailers in developing network tariff proposals
- managing future expectations—providing guidance for retailers, customers and suppliers of services such as local generation, batteries and demand management by setting out the distributor's tariff approaches for a set period of time.

In this round of tariff structure statements, all 6 participating distributors have continued to move towards more cost reflective tariff structures.[1] In particular, the tariff structure statements respond to the trend of increased consumer energy resources (CER) and the role network tariffs can play in assisting their integration into the grid by signalling how and when the use of those resources drives costs and benefits to the network. For example:

- the number of solar photo voltaic (PV) installations continues to increase, requiring distributors to manage minimum demand on their networks when solar generation is high
- the uptake of electric vehicles is ramping up in all jurisdictions, requiring distributors to consider how to encourage charging of electric vehicles (EVs) in ways that minimise their contribution to existing demand peaks, avoid the creation of new peaks, and maximise their contribution to efficient use of the network
- there is increasing interest in residential, community and grid scale batteries and several national and state level government programs encouraging their uptake.

Further supporting their path towards more cost reflective tariffs, distributors have been able to propose export reward tariffs for the first time in this round of tariff structure statements. This follows the Australian Energy Market Commission (AEMC) 2021 rule change, *Final determination - Access, pricing and incentive arrangements for distributed energy resources* to allow the introduction of two-way pricing (i.e. rewards and charges for exporting energy as well as consuming energy).

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[1] Ausgrid, Endeavour Energy, Essential Energy (NSW), Evoenergy (ACT), TasNetworks (Tasmania) and Power and Water Corporation (NT).

In addition to proposed tariff changes, some distributors proposed 'contingent tariff adjustments' for the first time. These make specific changes to a tariff parameter in the event of an identified trigger event. They are a response to uncertainty over aggregate load curves in the 2024–29 period caused by the rapid pace of change in the energy sector, particularly from uncertain demand from electric vehicle charging.

Smart meters are essential for the application of most cost-reflective network tariffs. The percentage of residential customers with smart meters on Evoenergy's network has increased from 3% in 2018 to 32%.[2] It will accelerate further over the 2024–29 period given AEMC's report for its *Review of the regulatory framework for metering services* which recommends a target of 100% smart meter roll out by 2030. This level of smart meter penetration will see increased numbers of customers whose retailer is facing a cost reflective network tariff. We anticipate this will encourage retail competition and innovation in retail tariffs and service products for consumers.

In its report, the AEMC observed that the sooner smart meters are installed across the NEM the greater the benefits to consumers. The AEMC recommended safeguards to support customers through the transition to an energy system that features smart meters. These are focussed on retailer decisions, including a decision around providing sufficient notification and information of changes to a customer's retail pricing structure. While the recommended safeguards focused on managing customer risks associated with retailer decisions, we also considered the distributor's arrangements for transitioning retailers to cost reflective network tariffs on customer receipt of a smart meter.

Retail pricing interactions with network tariffs

The network tariff price signals we approve may not be directly passed on to end-use customers (i.e. the retail customer). This is because distributors charge the relevant retailers for the transport of electricity to serve end-use customers connected to their networks. Network costs and price signals are charged directly to retailers who then pass these costs on to end-use customers in their retail offers. A retailer may choose to pass on the network price signals exactly or repackage them into their retail offers (including in insurance style flat rate retail offers).

Cost reflective network tariffs provide signals to retailers of the costs of using the network at different times and encourage retailers to design retail tariff offers that reflect network costs and signal to end-use customers when it is more or less costly to use the network. Ultimately cost reflective network tariffs encourage retailer competition and innovation in how they reflect these network costs in diverse retail offers. Importantly, can then choose the retail tariff structure that best suits their needs and preferences.

Our discussion in this report may talk about (retail) customers being assigned to a network tariff and these customers having choice in tariffs or the ability (or inability) to opt into or out of particularly tariffs. We also talk about customer impacts under the distributor's assignment policies. These customer impacts assume the network price signals are directly passed on to the end-use customer by the retailer. We acknowledge that it is the retailer who may seek reassignment where choice is provided through network tariff opt-in or opt-out provisions,

[2] Evoenergy 2022 RIN data.

rather than the customer. Actual customer outcomes as a result of our approval of the proposed tariff structure statements, and the incentive for any customer behavioural change associated with our approval of these tariffs, will also depend on the retailer, the retail tariff the customer chooses, and how the retailer chose to package or pass on the network tariff costs.

For ease of communicating particular issues, our language may not always accurately reflect the indirectness of the relationship between a customer and their network tariff. We occasionally refer explicitly to retail tariffs but any reference to tariffs generally refers to network tariffs.

The distributors' customer consultation processes have improved over successive resets and the AER's Better Resets Handbook published in 2021 supports this improvement. The handbook encourages network businesses to better engage with stakeholders and to have customer preferences drive the development of their regulatory proposals.

The distributors have generally engaged well with stakeholders in developing their 2024–29 tariff structure statements. Customer input is important in developing tariffs since their ultimate objective is to influence consumer behaviour. We acknowledge it is challenging for distributors to engage customers on network tariffs they will not see directly and that may be complex and not structured for consumer understanding.[3] When it comes to customers' real experience, it is the retailer's role to develop and communicate retail tariffs that are appealing to customers, appropriate to their customers' circumstances and incentivise customer behaviour to support efficient use of the network (i.e. to reduce the network bill that the retailer is charged for their customers' use of the network).

Retail offers cover the costs of providing energy services, which include wholesale costs, the costs of transporting energy through the networks, their retail costs and margin, and any costs associated with jurisdictional environmental schemes. The network component of a customer's retail bill makes up approximately 45% of the final bill.

The Independent Competition and Regulatory Commission (ICRC) regulates ActewAGL Retail's standing offer electricity prices for small customers (consuming less than 100 MWh pa) in the ACT.[4] ActewAGL Retail is the retailer for 90% of the ACT's customers.

ActewAGL Retail's other tariffs, and tariffs from other retailers, are not regulated.

19.1 Draft decision

Our draft decision is to not approve Evoenergy's proposed 2024–29 tariff structure statement. We are not satisfied that all elements of the tariff structure statement comply with the pricing principles for direct control services in the National Electricity Rules (NER) and other applicable requirements of the NER. We consider also that Evoenergy's tariff structure

[3] The NER allows for tariffs that may not be understood by retail customers, if the tariffs instead are capable of being understood and incorporated by retailers in retail tariffs, NER, cl. 6.18.5(i).

[4] MWh pa: megawatt hours per annum.

statement needs to be better integrated with its broader regulatory proposal to contribute to the National Electricity Objective of promoting efficient use of electricity services.[5]

We are satisfied that most elements of the proposed tariff structure statement comply with the pricing principles and contribute to the achievement of the network pricing objective. For example, we consider that Evoenergy's proposal includes tariffs with strong cost reflective price signals and assignment policies that balance advancing reform against appropriate transitional mechanisms to manage adverse customer impacts. However, we consider that some elements are not consistent with the pricing principles and require amendment.

Our draft decision is to approve the following elements of Evoenergy's 2024–29 tariff structure statement as we consider that these comply with the distribution pricing principles and contribute to the achievement of the network pricing objective:

- tariff assignment and tariff structures for residential customers, including the proposed time-of-use and demand tariffs
- tariff assignment and tariff structures for low voltage (LV) and high voltage (HV) commercial customers, including the new mechanism to review capacity charges
- most elements of new export reward tariffs for residential customers and grid-scale batteries connected to the LV or HV distribution network (except the absence of a basic export level for grid scale batteries).

We require the following changes to its tariff structure statement for Evoenergy to demonstrate it complies with the pricing principles and other applicable requirements of the NER:

- develop an opt-in controlled load tariff for introduction in the 2024–29 period to incentivise owners of electric vehicles (and other flexible load) to charge in ways that do not drive network investment
- provide more clearly defined trigger events for proposed contingent tariff adjustments
- remove its contingent tariff adjustment to mandatorily assign EV owners with fast chargers to residential demand tariffs
- include a basic export level for its grid-scale battery tariff to ensure Evoenergy’s revised proposal is consistent with the AER’s *Export Tariff Guidelines*.

We encourage Evoenergy to consider the following elements of its tariff structure statement with a view to making further improvements:

- including within the tariff structure statement a table that summarises the complete list of proposed and (continuing) existing tariffs and charging parameters for the 2024–29 period
- improving communication of Evoenergy’s tariff class policies and procedures governing assignment and reassignment by presenting a more detailed description of the policies and procedures

[5] National Electricity Law s7.

- including fact sheets and worked examples of how its proposed export rewards and charges will apply in practice
- including within the revised tariff structure statement information explaining how relevant customers will be informed of the capacity review mechanism proposed for HV and LV commercial tariffs with capacity charges.

19.2 Evoenergy's proposal

Evoenergy's 2024–29 tariff structure statement seeks to continue the pricing reform it commenced in 2017 by:

- continuing to provide two primary tariff options for residential customers (a default demand tariff and an opt-in time-of-use tariff) but restructuring the tariffs to increase their cost reflectivity by including:
  - a solar soak component (low charge solar soak period from 11am – 3pm) in its proposed demand and time-of-use tariffs
  - an overnight off-peak charge (8pm – 9am) in its demand tariff (where there was previously no demand charge)
  - an inclining block (two tiered) off-peak charge (8pm – 9am), with higher prices applying once consumption exceeds 6 kWh in its time-of-use tariff (with the consumption resetting every hour)
  - sharper price signals, i.e. increased price differential in its new time-of-use tariff between the peak period and the off-peak and solar soak periods.[6]
- introducing a secondary export reward tariff for residential customers that:
  - comprises an export reward and an export charge
  - is opt-in from 1 July 2024 for existing customers
  - is mandatory from 1 July 2025 for new exporting customers or customers with new export capacity
- largely continuing its existing residential tariff assignment policies. Under Evoenergy's approach:
  - residential customers with accumulation meters are assigned Evoenergy's flat (basic) tariff
  - residential customers with smart meters are default assigned to a tariff with a peak period demand charge but may opt out to a time-of-use tariff. There is a 12-month lag on the reassignment taking effect following customer receipt of a smart meter. Evoenergy will allow retailers of existing customers already on its current demand and time-of-use tariffs to remain on those tariffs but they are able to opt-in to the proposed demand and time-of-use tariffs
  - residential customers (via their retailer) may opt into one of two secondary controlled load (off-peak) network tariffs in addition to the primary tariff
  - residential customers (via their retailer) may also opt into the secondary export reward tariffs in addition to the primary tariff

[6] kWh: kilowatt hours.

- introducing three contingent tariff adjustments to its residential tariffs to encourage network efficient EV charging in the event that specified triggers are met

  The proposed contingent tariff adjustments are:

  i) residential peak period in demand and time-of-use tariffs extended from 5pm – 8pm to 5pm – 9pm

  ii) the threshold consumption level will be reduced for the application of higher off-peak charges in the time-of-use tariff (i.e. the threshold for tier two charges will be reduced below 6 kWh)

  iii) EV customers to default to the proposed new residential demand tariff on a mandatory basis (i.e. the opt-out tariff option will not be available).

  The proposed trigger events are:

  iv) higher than forecast demand

  v) faster than forecast EV take-up

  vi) gas to electricity transition faster than anticipated.[7]

- maintaining its current tariffs and assignment policies for LV and HV commercial customers
- introducing a mechanism to review capacity charges for unusual demand events of LV and HV customers with capacity charges, where the customer applies for the review in advance of the event
- removing a transitionary provision in its 2019–24 tariff structure statement that allows retailers of LV commercial customers with a Current Transformer meter to opt-in to its General time-of-use (less cost reflective) tariff
- introducing 4 grid-scale battery tariffs for large-scale, stand-alone batteries connected to the LV or HV distribution network (with a residential area tariff and a commercial area tariff for each of the LV and HV networks):
  - the grid-scale battery tariffs include the following charges: seasonal peak demand, capacity, consumption (netting off exports) and critical peak
  - Evoenergy will also charge or reward batteries with avoided or incurred transmission use of system costs
  - batteries are provided a rebate when they export during critical peaks
  - the residential area grid-scale battery tariffs include an additional export charge during critical peak export events.

19.3 Assessment approach

This section outlines our approach to assessing tariff structure statements.

[7] *Evoenergy Attachment 7 Tariff Structure Statement January 2023*, p18.

The NER set out elements that an approved tariff structure statement must contain.[8] A tariff structure statement must also comply with the distribution pricing principles.[9]

19.3.1 What must a tariff structure statement contain?

The NER require a tariff structure statement to include:

- the tariff classes into which retail customers for direct control services will be divided
- the policies and procedures the distributor will apply for assigning retail customers to tariffs or reassigning retail customers from one tariff to another
- a description of the strategy or strategies the distributor has adopted, taking into account the pricing principle in clause 6.18.5(h), for the introduction of export tariffs including where relevant the period of transition (export tariff transition strategy)
- structures for each proposed tariff
- charging parameters for each proposed tariff
- a description of the approach that the distributor will take in setting each tariff in each pricing proposal.[10]

A distributor's tariff structure statement must be accompanied by an indicative pricing schedule.[11]

19.3.2 What must a tariff structure statement comply with?

The NER require distributors to demonstrate how their proposed tariff structure statement complies with the distribution pricing principles.[12]

Broadly the pricing principles require:

- for each tariff class, the revenue expected to be recovered must lie between the avoidable cost of not serving those customers and the standalone cost of serving those customers
- tariffs to be based on the long-run marginal cost (LRMC) of providing the service
- revenue collected from each tariff to reflect the total efficient costs of customers assigned to the tariff
- distortions to price signals to be minimised
- consideration of the impact of proposed changes to tariffs on customers
- each tariff to be reasonably capable of being understood by retail customers or incorporated into retail tariffs.

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8 NER, cl. 6.18.1A(a).

9 NER, cl. 6.8.2 (d2) and cl. 6.18.1A(b).

10 NER, cl. 6.18.1A(a).

11 NER, cl. 6.8.2(d1) and cl. 6.18.1A(e).

12 NER, cl. 6.8.2(c)(7) and cl. 6.18.5.

19.3.3 How we will assess tariff structure statement proposals

In reviewing tariff structure statement proposals we will assess compliance with the distribution pricing principles and other applicable requirements of the NER.

In line with our Better Resets Handbook (Handbook), our expectation is that distributors have demonstrated the following elements in their proposed tariff structure statements:

- progression of tariff reform
- incorporation of their tariff strategy in their overall business plans
- significant stakeholder engagement and broad stakeholder support for their proposed tariff structures
- insight into and management of any adverse customer impacts.

For the 2024–29 period our engagement with Evoenergy to develop its tariff structure statement commenced 18 months prior to its formal submission. This included observing stakeholder engagement sessions and working closely with Evoenergy to support their development of a compliant tariff structure statement.

Due to our significant pre-lodgement engagement with Evoenergy we will more closely examine those issues not addressed during our engagement and issues we have concerns about than issues on which we already significantly engaged.

The AEMC's *Access, pricing and incentive arrangements for distributed energy resources* rule change in August 2021 allows for the introduction of two-way pricing for the first time.[13], [14] We will assess two-way pricing proposals with regard to the AEMC's new rule and the guidance we provided in our *Export Tariff Guidelines*.[15]

19.3.4 How tariff structure statements relate to broader pricing process

The tariff structure statement is the first stage of a two-stage network pricing process. The second stage is for distributors to develop and submit an annual pricing proposal to the AER. The annual pricing proposals apply pricing levels to each of the tariff structures outlined in the approved tariff structure statement. Distributor's proposed pricing levels must be consistent with the corresponding indicative pricing levels for the relevant regulatory year as

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13 Distributed energy resources (DER) / consumer energy resources (CER) are renewable energy units or systems that are commonly located at houses or businesses to provide them with power. This also includes energy storage and energy management assets. This can also be referred to as 'behind the meter' because the electricity is generated or managed 'behind' the electricity meter in the home or business. Common examples include rooftop solar units, battery storage, thermal energy storage, electric vehicles and chargers, smart meters and home energy management technologies.

14 Previously under the NER, distribution services involved one-way flows of electricity imported from the grid for consumption. The AEMC's rule change updated the NER to clarify that distribution services can be two-way. That is, they include both the 'import' of energy from the grid for consumption and 'export' of energy, such as rooftop solar, to the grid.

15 AER, *Export Tariff Guidelines*, May 2022.

set out in the relevant indicative pricing schedule, or the distributor must explain any material differences between them.[16]

19.4 Reasons for draft decision

Our draft decision is to accept most elements of Evoenergy's proposed tariff structure statement.

In line with our Handbook, we consider Evoenergy demonstrated:

- progress on tariff reform consistent with the network pricing objective and pricing principles through increased cost reflectivity in its residential tariffs and by proposing two-way and grid scale battery tariffs to address energy sector developments
- significant stakeholder engagement and broad stakeholder support through an extensive stakeholder engagement program and use of stakeholder feedback to inform development of its proposed tariff reforms
- insight into customer impacts through modelling of customer impacts across a range of customer archetypes and managing adverse impacts by continuing its tariff transition mechanism and choice in residential tariffs

We are not satisfied that Evoenergy demonstrated incorporation of its tariff strategy in its overall business plan. This is because Evoenergy's revenue proposal included a substantial contribution to its demand forecast from increased EV charging but did not consider all tariff options to manage EV charging and reduce the associated augmentation expenditure it sought.

Below we outline the reasoning for our decision for each customer group as well as discussing our assessment of some specific tariff issues. It is structured as follows:

- Residential customer tariffs
- Commercial customer tariffs
- Grid-scale battery tariffs
- LRMC methodologies.

19.4.1 Residential customer tariffs

We are satisfied with most aspects of Evoenergy's proposal for residential customers because:

- the tariffs have been structured to reflect the efficient costs of providing services and include alignment of charges to network demand peaks and minimum demand periods
- the tariff structures are reasonably capable of being incorporated by retailers or aggregators into retail offers
- the tariffs signal to retailers the network benefits of customers using excess solar generation

[16] NER, cl. 6.18.2(b)(7A).

- the tariffs send price signals to retailers to discourage the development of new demand peaks from EV charging
- reassignment policies increase exposure of retailers to cost reflective network tariffs while managing adverse impacts to customers
- tariff design balances simplicity against maturing and targeted price signals.

19.4.1.1 Consumption Tariffs

Stakeholders were engaged in developing the tariff strategies

We consider that Evoenergy engaged well with stakeholders on its small customer tariff plans. Its plans reflect stakeholder input and have broad stakeholder support.

Customer engagement in tariff structure statement development is an important consideration for our assessment. This is particularly the case with the potential rule change to accelerate the smart meter rollout and a rapidly changing energy sector.[17] Engagement is key to successful tariff reforms. We take customer and other stakeholder views into account when assessing whether each proposed tariff is reasonably capable of being understood by customers or incorporated into retail offerings.[18] Distributors should demonstrate significant customer engagement, clear links between customer feedback and the tariff structure statement proposal and, where possible, broad stakeholder support for their tariff plans.

Over the past two years we have observed much of Evoenergy's tariff related engagement with its customers and other stakeholders, including through workshops, roundtables, and other forums. This has given us a deeper insight into how Evoenergy engages with its stakeholders, how it considered and responded to feedback and how it built stakeholder understanding and acceptance. We have also conducted a workshop ourselves with Evoenergy's Community Pricing Panel to gauge their understanding and acceptance of its tariff plans.

Evoenergy's initial engagement with its Community Pricing Panel delivered contextual information to the panel to support it providing informed feedback through multiple stages during Evoenergy's tariff development. We observed Evoenergy reflect on a range of customer views which were not always aligned. Evoenergy used that feedback and other stakeholder feedback, in combination with analysis of its network constraints, to design its tariff strategy. This included, for example:

- panellists' majority preference for simpler tariffs (65%) which informed Evoenergy's restructuring of its residential tariffs and decision to not propose a complex tariff option it had been developing for residential customers with battery/home energy management systems
- panellists' majority support for the proposed demand tariff over the time-of-use tariff (67%) which informed Evoenergy's retention of a demand tariff as its default.

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17 AEMC *Review of the regulatory framework for metering services*, November 2022.

18 NER, cl 6.18.5(i).

We commend Evoenergy for its efforts to build stakeholder understanding and capacity to engage meaningfully in the tariff design process and for responding to stakeholder expectations and preferences expressed though its engagement.

Charging windows align with network peak demand and minimum demand periods

We consider that Evoenergy's tariff structures are aligned with its load profile and the tariffs are cost reflective. We anticipate that the network tariffs will facilitate retail tariffs that encourage customers to reduce individual peak demand, reducing network augmentation needs and long-term costs to all consumers.

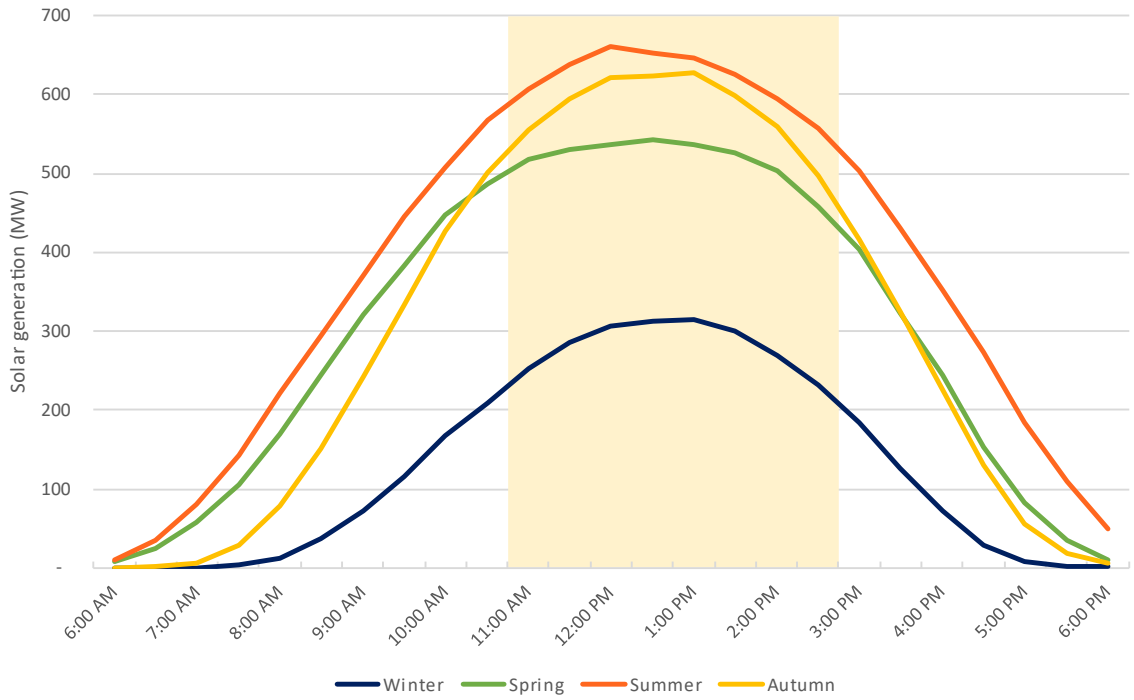
Evoenergy proposed to offer new time-of-use and demand tariffs for residential customers. The new tariffs restructure its existing tariffs to better reflect minimum demand constraints in its network. The proposed tariffs include new components Evoenergy has designed to encourage network use between 9am – 5pm and retain existing components to encourage flexible load to shift out of the evening peak period of 5pm – 8pm.

For example, both the proposed demand and time-of-use tariffs will include new low-priced (i.e. solar soak) periods in the middle of the day (11am – 3pm). Figure 19.1 shows alignment between the average solar PV generation in Evoenergy's network in each season and Evoenergy's proposed solar soak period (yellow highlighted block). This low-priced period facilitates retail tariffs that encourage customers with flexible load to shift that load to the periods of high solar generation. Such a load shift would benefit solar PV owners by increasing the capacity of the network to take additional exports (reducing export curtailment), as well as enabling customers without solar PV generation to benefit from it through lower network prices during the day.

Evoenergy's approach has some stakeholder support. The ACT government submitted that tariff structures should directly address the need to manage solar PV generation to support deployment and manage associated network voltage issues.[19] We consider Evoenergy's proposed structures aim to achieve this.

[19] *ACT Government Shane Rattenbury MLA - Submission - 2024–29 Electricity Determination - Evoenergy - May 2023.*

Figure 19.1: Solar soak period (highlighted block) overlaid by average solar PV generation by season, 2020–21



Source: *Evoenergy-Attachment 7 Tariff Structure Statement-January 2023*, p73, figure 22

Evoenergy presented charts illustrating peak demand in its network that demonstrate alignment with its peak charging window (5pm – 8pm). Figure 19.2 sets out a sample of Evoenergy's load curves from various sub-stations overlaid on its peak consumption charging window (yellow highlighted block).

Origin Energy considered consistency should be promoted across the distributors on elements such as peak and off-peak periods.[20] We understand the potential benefits of consistency to retailers for developing and communicating products to their customers. While charging windows are developed by distributors to reflect the constraints on their individual networks, we encourage distributors to look for opportunities for consistency across networks where this is consistent with network needs. The ACT Government demonstrated support for Evoenergy's approach by submitting that the network tariff incentives that aim to reduce individual peak demand will help to minimise network augmentation needs and cost to electricity users.[21]

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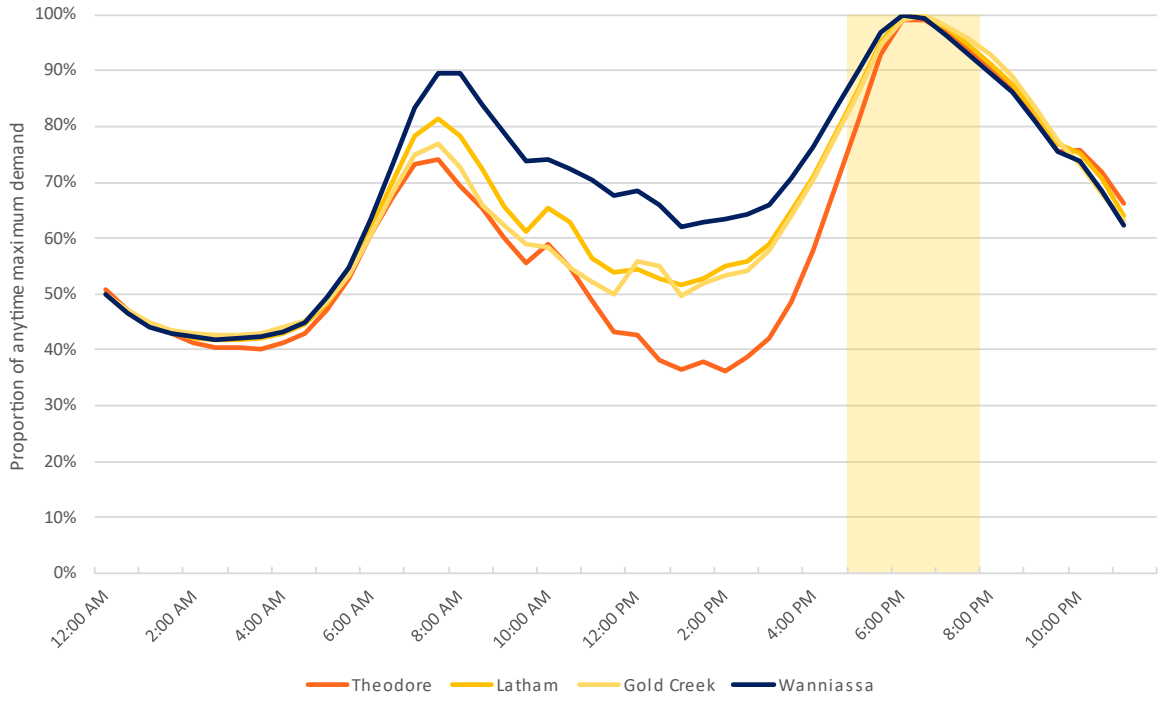
20 *Origin Energy - Submission - 2024–29 Electricity Determination - NSW and ACT - May 2023*.

21 *ACT Government Shane Rattenbury MLA - Submission - 2024–29 Electricity Determination - Evoenergy - May 2023*.

Figure 19.2: Average demand profile on five highest demand days, residential 2020/21



Source: *Evoenergy-Attachment 7 Tariff Structure Statement-January 2023*, p70, figure 18

Tariff structures respond to energy sector developments

The accelerating uptake of electric vehicles (EVs) and consequential need to manage EV charging on the grid is becoming integral to the design of network tariff structures and to the AER's decision-making. The ACT has the highest per capita rate of EV sales in Australia, with one in 4 new vehicles sold being EVs. This trend is expected to accelerate in response to the net zero emission target set by the ACT Government – the ACT's EV sales target is 80-90% by 2030, and the ACT Government intends to cease registration of non-EVs by 2035.[22]

We support Evoenergy's proposed tariffs which include elements to encourage network efficient EV charging and which we consider to be compliant with the pricing principles (with the exception of one contingent tariff adjustment discussed below). However:

- we require Evoenergy to investigate the feasibility of targeted pricing and implementation of a controlled load system as an additional option to avoid the need for substantial augmentation expenditure
  - we consider this would better integrate the tariff structure statement with its broader regulatory proposal and contribute to the National Electricity Objective of promoting efficient use of electricity services
- we require additional information on the triggers for Evoenergy's contingent tariff adjustments

[22] ACT's *Zero Emissions Vehicle Strategy 2022-30*, p 3.

  - we consider the triggers are not sufficiently well defined
- we do not accept Evoenergy's contingent tariff adjustment to mandate demand tariffs for EV owners
  - we consider this contingent adjustment is inconsistent with the NER requirement that customers with similar connections and energy usage be treated equally.[23]

Evoenergy's revenue proposal included $182 million in augmentation expenditure. It identified demand from EV charging during periods of peak network demand as one of the drivers of this augmentation expenditure. We acknowledge that the level of expenditure that is approved may vary from that proposed by Evoenergy.[24] Independently of that we consider the impact of EV charging on ACT's distribution network will lead that of other jurisdictions and may emerge within the upcoming regulatory period.

Evoenergy is well positioned to utilise network tariffs and associated control mechanisms to encourage retailers to incentivise network efficient EV charging. Appropriate network tariffs can encourage retail tariffs that incentivise consumers to shift flexible load like EV charging to outside peak periods and into middle of the day periods to soak up excess solar generation or to overnight. This can reduce the contribution of EV charging to network demand peaks, provides network benefits, and thus can reduce/defer the need for network investment, reducing future costs for all consumers.

Recent studies of EV charging behaviour support the importance and effectiveness of price signals. Modelling by Energy Networks Australia showed future network price outcomes for consumers were sensitive to the proportion of EV charging that occurs in peak periods, and that outcomes are better for consumers if charging is managed.[25] Further, findings from Origin Energy's 'Smart Charging Trial – Lesson Learnt Report' show that EV owners are willing to change their charging behaviour in response to price signals, and that financial incentives reduced charging consumption at peak times by 20%. It also found that controlled charging decreased charging in peak periods by an additional 4%.[26]

Tariff structures respond to energy sector developments: Tariffs and residential EV owners

Evoenergy proposed a number of changes to its residential tariffs to encourage charging behaviours that improve network utilisation (i.e. network efficient charging):

- Evoenergy's new solar soak component (low charge solar soak period from 11am – 3pm) in both its demand and time-of-use tariffs can encourage retail tariffs that reward EV owners to charge their vehicles during the day, shifting some of the charging load from the evening peak and supporting efficient use of the network.
- Evoenergy's demand tariff will now incorporate an off-peak charge overnight (8pm – 9am), when it currently has no demand charge, to encourage controlled

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23 NER, cl. 6.18.4 (a)(2).

24 Refer to *AER - Draft Decision Attachment 05 - Capital expenditure - Evoenergy - 2024–29 Distribution revenue proposal*, for our draft decision on Evoenergy's proposed augmentation expenditure.

25 Energy Networks Australia, *Mind the Gap: Navigating a customer focused transition, 6 July 2023* accessed 8 August 2023.

26 Origin EV Smart Charging Trial, Lessons Learnt Report May 2022.

overnight EV charging, i.e. mitigating the potential development of a second demand peak.

- Evoenergy's time-of-use tariff inclining block (two tiered) off-peak charge (8pm – 9am), with the second tier threshold set at 6 kW, also aims to encourage controlled overnight EV charging while mitigating the potential development of a second demand peak.[27]

At the same time, the anticipated acceleration of smart meter roll out will see more EV owners assigned to cost reflective network tariffs in the 2024–29 period. The combination of cost reflective tariffs and higher prevalence of smart meters will allow and encourage more retail offers that reward customers to shift their EV charging outside of the evening peak demand period. In the future, the two-way secondary tariff could encourage retail offers that support vehicle to grid (V2G) export of electricity whereby customers use their EVs as batteries; charging from solar or from the grid during low price periods, and exporting from their EV into the grid at times of high network demand.

Energy Australia submitted that the two-tiered off-peak pricing structure in Evoenergy's proposed time-of-use tariff would have adverse impacts on non-EV customers whose appliances operate in that period.[28] We understand (and share) this concern but consider Evoenergy has considered this issue by modelling the impact of the inclining block structure on residential customers (using a sample of customers not exposed to price signals). Evoenergy found 42% of customers would incur a charge but that 90% of those customers' consumption was less than 139 kWh per annum. That is, there would be minimal price impacts to most customers. Evoenergy has also proposed that the charges of the second tier will be set close to the 1st tier and the price differential would increase only to reflect the emergence of potential new demand peaks. We consider this to be a reasonable response to the uncertainty over the timing and impact of EV load on Evoenergy's network - providing a tariff structure that can be adjusted flexibly to address a network constraint if it emerges without imposing material costs on customers before it is needed.

The ACT Government submitted that tariff structures were important for encouraging EV owners to charge in off-peak periods. However, it wanted to see further evidence from Evoenergy that its demand charge needed to extend for the full overnight off-peak period, preferring an 8pm to midnight off-peak demand charge.[29] In its tariff structure statement, Evoenergy rationalised the persistence of the relatively weak off-peak demand charge price signal until 9am as a measure to manage the risks presented by the electrification of gas heating increasing demand in the mornings, as well as by uncontrolled EV charging overnight. We consider the off-peak demand charge signal to be a reasonable response to the risk of new peaks developing overnight, noting also that retailers have the alterative time-of-use tariff available to opt out of these demand charges.

While we consider Evoenergy's proposed tariffs to be compliant with the pricing principles (with the exception of one proposed contingent tariff adjustment and trigger events discussed below), its proposed augmentation expenditure and potential EV uptake rates in the ACT

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27 kW: kilowatts.

28 *EnergyAustralia - Submission - 2024–29 Electricity Determination - NSW and ACT* - May 2023.

29 *ACT Government Shane Rattenbury MLA - Submission - 2024–29 Electricity Determination - Evoenergy - May 2023*.

mean that Evoenergy should do more to address the increasing EV charging demand as it emerges in the 2024–29 period. We recognise the continued development of dynamic operating envelop capabilities will increase the range of options available to distributors for flexible load. Nonetheless, to supplement its proposed suite of tariffs, we require Evoenergy to investigate an opt-in-controlled load tariff for flexible load such as EV charging. We anticipate the tariff would have strong price incentives for retailers to encourage charging outside peak periods, while retaining customer override capability for when charging during the peak period might be necessary.

Evoenergy has carefully constructed its proposed primary residential tariffs to avoid creation of a new overnight demand peak. We recognise it would have a similar objective for a new controlled load tariff for flexible load.

We note that Evoenergy has an existing controlled load tariff (Tariff 070) that may achieve or provide the base for the requested controlled load tariff.[30] However, Evoenergy's tariff structure statement contains insufficient details on the tariff, explaining only that the tariffs are offered as secondary opt-in tariffs, with an off-peak consumption charge and that it encourages electricity use at off-peak times. Evoenergy will need to provide sufficient information in a revised tariff structure statement to establish whether this existing controlled load tariff, or refined versions of it, provides the required characteristics.

This approach would enable Evoenergy to have the structures in place to target the flexible load of EV charging as it ramps up, while maintaining compliance with the NER requirements to treat retail customers with like connections and load equally, and without adversely impacting customers assigned through their retailer to general residential network tariffs. Evoenergy has advised us it is undertaking the analysis to support development of such a tariff.

Tariff structures respond to energy sector developments: Contingent tariff adjustments

A new feature of this round of tariff structure statements is contingent tariff adjustments. The rapid pace of change makes it difficult for distributors to accurately forecast the rate of uptake of CER over the regulatory period, particularly electric vehicles. To be flexible in response to the potential step changes in load that may result from rapid but unpredictable uptake, some distributors, including Evoenergy, proposed tariff adjustments they would only introduce if load profiles shift in ways that could induce network investment. We consider the incorporation of a contingent adjustment to tariff parameters is, when well defined and its trigger is made clear, a reasonable way of balancing certainty and flexibility.

Evoenergy's tariff structure statement sets out three trigger events: higher than forecast demand, faster than anticipated EV take-up, or faster than anticipated transition from gas to electricity.[31] If any of the triggers are met during the 2024–29 period, Evoenergy proposed to make the following contingent tariff adjustments to its tariff structure statement:

1. residential peak period in demand and time-of-use tariffs extended from 5pm – 8pm to 5pm – 9pm AEST

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30 *Evoenergy Attachment 7 Tariff Structure Statement January 2023, p 28.*

31 *Evoenergy Attachment 7 Tariff Structure Statement January 2023*, p18.

2. the threshold consumption level will be reduced for the application of higher off-peak charges in the time-of-use tariff (i.e. the threshold for tier two charges will be reduced below 6kWh)
3. EV customers to default to the proposed new residential demand tariff on a mandatory basis (i.e. the opt-out tariff option will not be available).

Origin Energy submitted that contingent tariffs introduce unnecessary complexity.[32] While we understand these concerns, we consider the rate of change in the energy sector is sufficient to warrant a degree of flexibility in approved tariff structure statements. The alternative of rigid tariff structures through 5-year regulatory periods, risks customers incurring greater network costs over the long term. We consider retailer concerns can largely be addressed through transparency around the triggers for changing tariff charging parameters and that Evoenergy's proposal provides this transparency.

We do not accept Evoenergy's third contingency adjustment, mandating demand tariffs with no opt out to time-of-use, as it is inconsistent with NER requirements that customers with similar connections and energy usage be treated equally.[33] We informed Evoenergy of our view that its proposed mandatory assignment would not meet NER requirements, unless it can demonstrate a unique usage profile by EV owners. Our draft decision is that Evoenergy should continue to allow EV users with smart meters access to both demand and time-of-use tariffs throughout the 2024–29 period.

While we support the first two contingency adjustments in principle, we do not accept Evoenergy's proposed trigger events as they are not sufficiently clear or defined. We seek greater specificity on these events. Our view is supported by the ACT Council of Social Services (ACTCOSS), which considered that Evoenergy could have provided greater clarity on trigger events.[34]

Cost reflective tariffs and customer preference for simplicity

While the tariffs are complex, we note that Evoenergy recognised customer preferences for simplicity and took actions to simplify the tariffs. These include that Evoenergy is aligning the solar soak period and the peak period across its proposed demand and time-of-use tariffs and will also remove the morning peak and shoulder periods from its proposed time-of-use tariff. As noted in connection with consumer engagement, Evoenergy also responded to feedback on customer preferences for simpler network tariffs by choosing to not propose a complex tariff it had been developing for customers with home energy management systems.

We consider that Evoenergy's proposed tariffs are cost reflective. Some complexity is inherent in providing cost reflective tariffs. We consider that Evoenergy has reasonably considered stakeholder feedback, has balanced complexity against customer preference for simplicity and that the tariffs meet the NER requirements in that they are capable of being incorporated in retail offers.

Evoenergy continues to increase the sharpness of its price signals (noting that price levels reported in the tariff structure statement are indicative only). Evoenergy has a sharp price

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32 *Origin Energy - Submission - 2024–29 Electricity Determination - NSW and ACT - May 2023*.

33 NER, cl. 6.18.4 (a)(2).

34 *ACTCOSS - Submission - 2024–29 Electricity Determination - Evoenergy - May 2023*, p 17.

differential in its new time-of-use tariff between peak (19 c/kWh) and off-peak periods (3-4 c/kWh, depending on the tier of consumption), making off-peak charges only 16-22% of the peak charges.[35] The solar soak period between 11am – 3pm is lower again at 1 c/kWh creating a very strong incentive for retailer tariffs to encourage electricity use during this period. This maturing of price signals reflects progress on tariff reform. They send a strong signal to retailers on when the retailer's customers use of the network imposes additional cost or benefit to the network.

ActewAGL submitted that the complexity of Evoenergy's tariffs may be difficult for customers to respond to.[36] We agree that Evoenergy's tariffs have some complex elements. However, Evoenergy's network tariffs are in most ways no more complex than those of other distributors. Although they are complex they are capable of being incorporated in retail offers and therefore meet the pricing principles.[37] The signals are strongly cost reflective and support retailer competition by providing opportunity for innovation in retailer offerings and retailers can manage network tariff complexity on behalf of their customers.

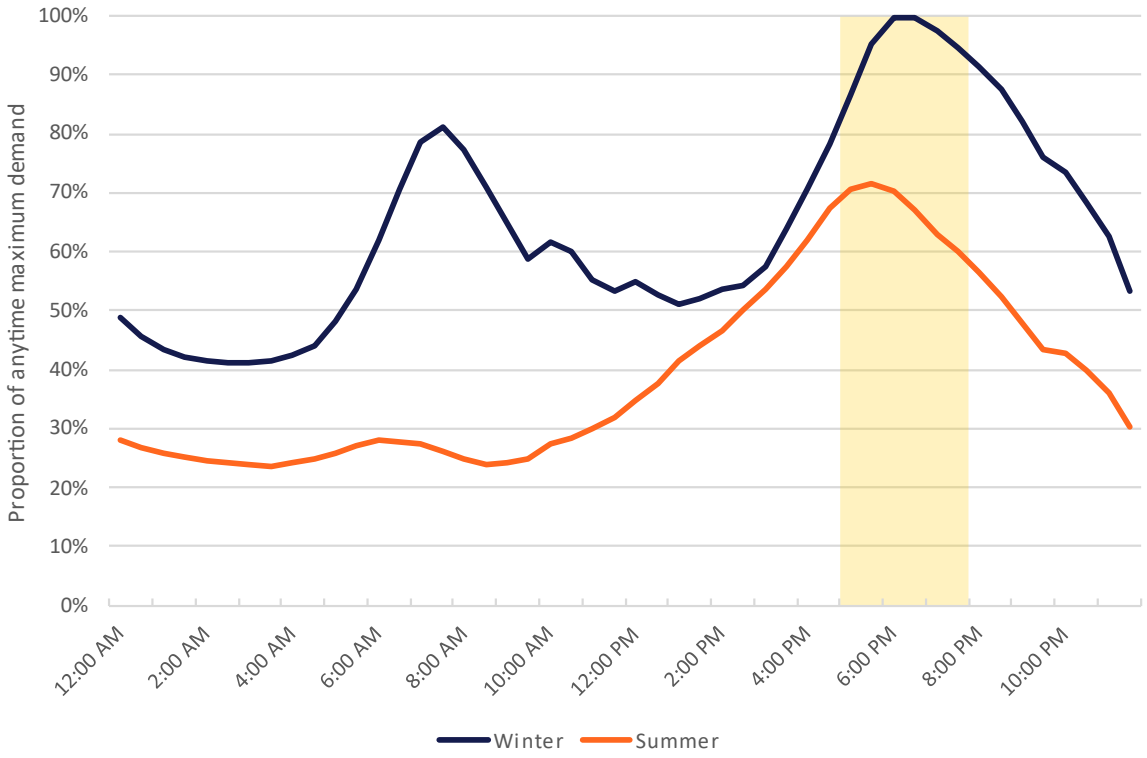
Evoenergy proposed a higher seasonal demand charge in winter for its demand tariff. While this incorporates added complexity, this change reflects the winter peaking nature of its network and we consider it consistent with the principle of cost reflectivity. Figure 19.3 illustrates Evoenergy's network is winter peaking for residential substations. The flat all year demand charge applied in its current tariff was part of Evoenergy's transitional process to allow retailers (and retail customers) to adjust to the concept of demand charges.

35 c/kWh: cents per kilowatt hour.

36 *ActewAGL - Submission - 2024–29 Electricity Determination - Evoenergy - May 2023*.

37 NER, cl. 6.18.5(i).

Figure 19.3: Top five peak demand days at primarily residential substations 2020/21



Source: *Evoenergy-Attachment 7 Tariff Structure Statement-January 2023*, p67, figure 15

For its proposed time-of-use tariff, Evoenergy included a number of new parameters already discussed above: a solar soak period and the inclining block (two tiered) off-peak charge. These parameters respond to current and emerging energy sector developments and we consider them consistent with the principle of cost reflectivity. In contrast to its demand tariff, Evoenergy is not proposing a seasonal component to its proposed time-of-use tariff for the 2024–29 period. This is a concession to simplicity on the part of Evoenergy and in recognition of the role the time-of-use tariff plays as an opt-out 'protection' mechanism for retailers and/or their customers who prefer simpler network tariffs. Evoenergy noted it expects to introduce the seasonal component to its residential time-of-use tariff in the subsequent 2029–34 period.[38]

The proposed assignment policies are reasonable for this point in the reform process and in the context of an accelerating smart meter rollout

In reviewing this proposal we considered Evoenergy's tariff assignment policies, the network pricing objective, and the impact of change to its customers.[39] We also considered the outcome of the AEMC Review of the regulatory framework for metering services. We anticipate the response to that review will include a rule change to accelerate the smart

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38 *Evoenergy Attachment 7.1 Tariff Structure Statement January 2023*, p 14.

39 NER, cl 6.18.5(a) sets out the network pricing objective, that tariffs should reflect the efficient costs of providing those services to the retail customer. That is, tariffs should be cost reflective. NER, cl 6.18.5(h) sets out that a distributor must consider the impact on retail customers of any changes in tariffs from the previous year.

meter rollout. As a consequence, we also expect an acceleration of the pace of network tariff reform. Distributor tariff assignment policies must be appropriate for this new context of more rapid sector-wide change.

We consider that Evoenergy's assignment policies comply with the pricing principles and balance progress on tariff reform against managing adverse customer impacts. Evoenergy proposed to largely continue its tariff assignment policies in the 2024–29 period. That is, it proposed to reassign to a cost reflective tariff, the retailer of customers who receive a smart meter, with a 12-month lag on the reassignment taking effect.[40]

Evoenergy modelled three different customer groups to develop insights on potential impacts to different customers archetypes (typical with no solar, typical with solar and working family). Its modelling indicated the average users within each of the three customer groups would be better off with their retailer on Evoenergy's cost reflective tariffs compared to its flat (basic) tariff.[41]

Evoenergy also modelled a range of consumption levels for customers with different peak demand levels. This modelling showed that in most circumstances the average residential customer would be better off with their retailer on Evoenergy's more cost reflective tariffs compared to its flat anytime tariff, at all levels of consumption.[42]

For those customers adversely impacted by a move to its default cost reflective tariff, Evoenergy has two mechanisms that manage impacts:

1. For existing customers, Evoenergy provides a 12-month lag on the reassignment (where the customer did not initiate the meter installation). The lag provides time for the retailer/customer to gather their energy use data from the smart meter before facing a fully cost reflective tariff, enabling them to select the best tariff for them.
2. For all customers, Evoenergy provides customer choice though an alternative opt-in cost reflective tariff. Evoenergy's provides a demand tariff as its default and a time-of-use tariff as an alternative which retailers (on behalf of their customer) may opt into if they do not like demand tariffs or the customer has a high peak demand that would likely mean an adverse bill impact under a demand tariff.

While Evoenergy could progress reform faster with the removal of its 12-month lag on reassignment, we consider retaining the lag is a sensible transitional approach to support the management of adverse impacts to residential customers.

Origin Energy considered consistency should be promoted across the distributors on their mandatory assignment policies.[43] We understand the potential benefits of consistency to retailers. However, the assignment policies are integrated with the customer impacts associated with the distributor's tariff proposal. We consider that Evoenergy's assignment policies support progress on tariff reform while managing the impact to customers from assignment to its cost reflective tariffs.

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40 *Evoenergy-Attachment 7 Tariff Structure Statement-January 2023*, p29.

41 *Evoenergy-Appendix 7.1 Tariff Structure Explanatory Statement-January 2023*, p114.

42 *Evoenergy-Appendix 7.1 Tariff Structure Explanatory Statement-January 2023*, p114-115.

43 *Origin Energy - Submission - 2024–29 Electricity Determination - NSW and ACT - May 2023*.

In a discussion with AER staff, the AEMC requested that tariff structure statements' assignment policies for transitioning customers' retailers to cost reflective tariffs where the customer's meter is upgraded due to age, are also applicable where meters are upgraded due to an acceleration rule change. The request was intended to ensure customers receiving smart meters under AEMC's recommended accelerated smart meter rollout, can access the same transitional mechanisms applying to any other customer receiving a smart meter not initiated by the customer (i.e. mechanisms intended to manage impacts to customers from assignment to cost reflective network tariffs). The AER advised distributors of this request. Evoenergy's tariff structure statement provides for this already since its 12-month lag is available for all meter replacements not initiated by the customer.

19.4.2 Two-way tariffs

Our draft decision is to approve Evoenergy's proposed export reward tariff.[44] Evoenergy's proposed export reward tariff incorporates the customer protections required by the NER, including:

- a basic export level– i.e. the amount of electricity that a customer can export to the grid at no cost and must apply for a 10-year period (two regulatory periods) (see section on the basic export level below)
- an export tariff transition strategy
- provision that existing solar PV customers will not face export tariffs until 1 July 2025 unless they elect to participate earlier. [45,46,47]

Evoenergy demonstrated strong stakeholder engagement consistent with our Better Resets Handbook and demonstrated that it incorporated feedback provided by stakeholders through its engagement processes in designing its proposed export reward tariff. This includes by:

- proposing export rewards higher than export charges
- introducing two-way pricing on a uniform basis.

We consider Evoenergy has justified its need for two-way pricing and that its proposed export reward tariff is consistent with the guidance set out in our non-binding *Export Tariff Guidelines* and complies with the distribution pricing principles as required by the NER.[48,49]

Evoenergy's proposed export reward tariff will allow retailers and their customers to access payments from Evoenergy in return for their actions that enable greater solar generation. We

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44 An export is the surplus electricity sent from a consumer's rooftop solar PV or on-site battery to supply other customers on the grid.

45 NER, cl. 11.141.12; NER, cl. 11.141.13; NER, cl. 6.18.1A(a)(2A); NER, cl. 11.141.11.

46 The export transition strategy should provide transparency about the distributors long-term intentions to introduce or not introduce export tariffs, to assist customers who are considering investing in CER, including rooftop solar.

47 Existing customers are customers who either are already connected to the grid and able to export, or had an open or accepted connection offer at the time of the AEMC's final determination.

48 AER, *Export Tariff Guidelines*, May 2022 set out that in proposing two-way pricing distributors should clearly justify the need for two-way pricing, demonstrate analysis of customer impact and management of customer impact and undertake appropriate customer engagement.

49 See NER, cl. 6.18.5.

consider Evoenergy proposed export reward tariff promotes equitable integration of CER into the electricity grid and will benefit all electricity users by:

- protecting those customers who cannot invest in export-capable appliances (such as rooftop PV, EVs with vehicle-to-grid functionality or on-site- batteries) from paying for a grid service they do not use
- rewarding / reducing the bills of those customers who can respond to these price signals by changing how they use their own solar power and/or when they export it
- incentivising better use of existing network assets, which will help mitigate network augmentation investment needs for both import and export capacity and keep future costs (future bills) lower (to the extent augmentation expenditure is avoided) for all electricity users.

We discuss the reasons for our draft decision on Evoenergy's proposed export reward tariff below, under *Reasons for decision on Evoenergy's export reward tariff*.

Evoenergy's proposed export reward tariff

Evoenergy proposed its export reward tariff as a secondary tariff that applies alongside eligible residential customers' existing (primary) tariffs. It comprises two components: an export reward and an export charge. Evoenergy proposed that its export reward tariff applies on an opt-in basis from 1 July 2024 for existing residential customers with a smart meter and mandatory assignment from 2029 for existing customers, with no opt-out provision. From 1 July 2025, new exporting residential customers with a smart meter and residential customers who install new export capacity will be mandatorily assigned to the export reward tariff, with no opt-out provision. Evoenergy proposed export reward tariff is summarised in the table below.

Evoenergy, unlike the three NSW distributors (Ausgrid, Endeavour Energy and Essential Energy), did not propose two-way pricing for its small business customers. This is because Evoenergy found the timing of small business peak demand aligns with its peak PV solar generation and that small business customers exporting solar generation were therefore not putting pressure on the network.

Evoenergy, like Ausgrid and Endeavour Energy did not propose export pricing for large commercial and industrial load customers. We note only Essential Energy proposed two-way pricing for large business customers. However, Evoenergy did propose two-way pricing for grid-scale battery customers (as did Ausgrid, Endeavour Energy and Essential Energy). Evoenergy's proposed two-way pricing for grid- scale battery customers is discussed under *Grid-scale battery tariffs*.

Table 19.1 – Summary of Evoenergy's proposed export reward tariff for residential customers

Proposed tariff(s)	Assignment	Basic export level[50]	Export rewards	Export charge
Residential export tariff	For existing exporting residential customers with a smart meter – opt-in from 2024, mandatory from 2029, No opt-out from 2029. For new exporting residential customers with a smart meter – mandatory for new customers from 1 July 2025 for residential customers who install new export capacity. No opt-out provision applies.	5kW. Evoenergy expresses its basic export level in kW but applies it in kWh. That is, all exports above 5 kW in a single hour during the export charge period (11am – 3pm), will be subject to an export charge.[51] For all other times exports to the grid will be free. Every kWh exported during the export reward period attracting a reward.	Export reward of 4.926 c/kWh. Export reward applies to all exports between 5pm – 8pm. No basic export level applies before the application of export rewards.	Export charge of 1.642 c/kWh. Export charge applies only to exports above 5kWh in each hour between 11am – 3pm.

We note that this draft decision, and our final decision to follow, are the result of a long reform process to enable, develop and assess two-way pricing proposals that support more effective utilisation of both the grid and CER, towards a 100% renewable energy system. As this is a significant reform and this round of tariff structure statements is the first time distributors may introduce two-way pricing, we also provide background information as to why this reform was made.

Background to the AEMC's rule change to allow two-way pricing

A long running and broad collaborative policy development process was led by the Australian Renewable Energy Agency (ARENA), as part of the Distributed Energy Integration Program with market bodies, Energy Consumers Australia and consumer advocates. This preceded consideration of a rule change by the Australian Energy Market Commission (AEMC).[52] On 12 August 2021, the AEMC published its *Access, pricing and incentive arrangements for distributed energy resources* final determination. Amongst other things, the rule change

50 The basic export level is the free threshold level up to which customers can export to the grid for free during the export charging period (11am – 3pm).

51 Worked example, over the month if a customer consistently exports 6kWh every hour between 11am – 3pm for a monthly billing period the customer will be charged 1kWh (i.e. 6kWh – 5kWh basic export level) multiplied by 4 hours (i.e. during the charging window 11am – 3pm) multiplied by 1.642c/kWh export charge multiplied by 31 days in billing period results in an export charge of $2.03 for the month.

52 https://arena.gov.au/knowledge-innovation/distributed-energy-integration-program/access-and-pricing-workstream/.

removed the historical prohibition on export tariffs and allowed distributors to propose two-way pricing to match two-way energy flows on electricity networks.

The AEMC's rule change followed requests from SA Power Networks (SAPN), St Vincent de Paul Society Victoria, and the Total Environmental Centre jointly with the Australian Council of Social Services to make changes to the NER to integrate CER into the electricity grid in a way that benefits all electricity users. These groups sought for the costs associated with supporting the energy transition and the growth of CER to be distributed equitably.

We note this rule change was contentious. Energy Consumers Australia, representing both solar and non-solar households supported reforms that were designed to benefit both groups of consumers. Many people, particularly supporters of Solar Citizens, expressed to the AEMC their opposition to the introduction of two-way pricing. In response to these concerns, a range of innovations were embedded within the rule change to protect customers with CER from adverse outcomes. These innovations included mandating 'basic export levels' - export capacity thresholds below which no export charges could be levied. The rule change also prevented distributors mandatorily assigning customers to export tariffs before 2025, enabling customers with CER with rooftop PV at the time of the rule change to realise much of the value of their investment before these new tariff arrangements came into effect.

The rule change also required the AER to consult on and develop *Export Tariff Guidelines* to provide information and guidance to distributors and stakeholders about the process for development and approval of export tariffs. In developing our *Export Tariff Guidelines*, we worked collaboratively with stakeholders, including Energy Consumers Australia and Solar Citizens, to introduce additional protections for customers with CER. Published in May 2022, along with an explanatory statement, our *Export Tariff Guidelines* prevent distributors recovering through export charges any historical export related network costs incurred. We provided 2 potential dates as to when distributors may start to recover export service costs from export tariffs.[53] Our *Export Tariff Guidelines* also require distributors to justify the introduction of export tariffs, should they propose to do so.

Through the joint operation of the rule change and our *Export Tariff Guidelines*, subject to the customer protections touched on above and described in detail below, distributors may now introduce price signals which, if passed through to customers by retailers, encourage exporting customers to self-consume or store their own solar energy during the middle of the day when the costs to host excess solar on the grid are high and to export to the grid, or self-consume, during the evening consumption peak. As with any network tariff, retailers may or may not reflect network price signals, including export rewards, in their retail offers to customers.

Introducing two-way pricing in the 2024–29 regulatory control period

Responding to the rule change and our *Export Tariff Guidelines*, Ausgrid, Endeavour Energy, Essential Energy and Evoenergy proposed to introduce two-way pricing during the 2024–29 period.

Over the 18 months prior to submitting their tariff structure statement proposals to the AER, each of the four distributors noted above engaged heavily with their stakeholders to develop

53 AER, *Export Tariff Guidelines*, May 2022, p.12.

their proposed two-way pricing proposals. These distributors also trialled two-way tariffs under real world conditions with retailers and customers and used learnings from these trials to further inform their two-way tariff development.

We consider feedback elicited by distributors from their individual stakeholder engagement processes, including feedback from AER staff, in addition to learnings from the tariff trials, are evident in the proposals submitted to us for assessment.

With respect to those proposals, all four distributors have incorporated export rewards, or rebates for exported electricity, which are higher than their proposed export charges. This focus on rewards instead of penalties is appropriate and represents a turning point in network pricing which historically has exclusively levied charges on retailers for their customers' network use, rarely rewards. For the first time, retailers and their customers may systematically and repeatedly access payments from their local network provider in return for their actions to support the grid.

Export rewards will be available to all exporting customers and will apply to every kWh exported during the reward period, in Evoenergy's network between 5pm – 8pm. The proposed export rewards are in addition to the current feed-in tariffs on offer, meaning exporting customers will be offered more rewards for their exports than currently, during the export reward window. Because the export reward period begins relatively early in the day, customers with CER will have an incentive to install their rooftop PV arrays on west-facing roof panels. In this way even new customers installing solar PV without storage may access export rewards, particularly in summer months when many of the electricity networks typically experience their peak demand events.

To finance the export rewards, and to more equitably signal the cost of network investment to enhance export capacity, export charges are also proposed. The proposed export charges are modest and only apply to excess exports, those exports above the no cost basic export level, between 11am – 3pm.

The proposed export reward and export charge apply in addition to and separate from the feed-in tariffs which are currently on offer and provide reward. This means customers will still be rewarded with feed-in tariff for all exports to the grid. In the ACT the current feed-in tariffs on offer range from 5 c/kWh to 17 c/kWh and in NSW the current feed-in tariffs range from 6 c/kWh to 16 c/kWh depending on the retailer.[54],[55] Under Evoenergy's proposed export reward tariff, if customers export during the export reward period, they will receive an even greater reward for their exports.

The basic export level is an additional protection introduced by the AEMC's rule change. It is the threshold up to which customers can export for free during the export charging period. This means, even during the export charging window, customers can still export some of their solar power for free.

Customer impact analysis provided by the distributors demonstrated most customers will benefit from the proposed export reward tariffs, especially during summer months when more

54 https://www.solarquotes.com.au/systems/feed-in-tariffs/act/.

55 https://www.solarchoice.net.au/research-solar/solar-feed-in-rewards/.

solar is exported into the late afternoon.[56] Our own comparative modelling of the four export reward tariff proposals submitted to us verified the distributors' customer impact analysis. Customers with CER able to use more of their own exports in the middle of the day, and export to the grid later in the afternoon/early evening will maximise their benefits.

We observe similarities between each distributors proposed export reward tariffs. These include export rewards greater than export charges and consistency in the timing of the export reward and charging windows. However, we also observe some differences in particular with regard to the threshold levels of the basic export levels, how the basic export levels are expressed (kW and kWh) and how export charges are applied (dollars per kW and dollars per kWh).[57]

Given these differences, the complexity of the export reward tariffs, and that this is the first time two-way pricing has been proposed, we encourage the distributors to include fact sheets and worked examples of how export reward tariffs work with their revised tariff structure statements.

We also recommend the distributors consider the possibility of expressing their basic export levels in kWh and applying the export charge on a dollar per kWh basis as this is simpler for customers to understand and retailers to incorporate into their retail offers. While our draft decision does not consider it necessary to stipulate, we are interested in stakeholder feedback on this issue.

Reasons for our draft decision on Evoenergy's export reward tariff

We consider Evoenergy has demonstrated its need for two-way pricing. Evoenergy provided analysis of its network which demonstrated Evoenergy now experiences peaks in exports in residential areas in the middle of the day (when rooftop PV generation is typically high due to the high level of solar irradiance) at the same time that demand from residential customers is typically low. This is causing voltage imbalances on its network.[58]

Evoenergy forecast that the installed rooftop solar PV capacity of ACT customers is expected to increase by approximately 33% over the 2024–29 period and that this is contributing to imbalances on its network.[59] Evoenergy considered that shifting of load in response to its solar soak period low network charge may be insufficient to entirely offset the rising imbalance. It proposed a CER expenditure integration program for the 2024–29 period to facilitate exports to address the imbalances on its network, and these costs will be recovered through its export charge.[60]

Evoenergy also proposed that its export reward tariff will help promote efficient investments in solar PV systems and other CER by end-use customers to help address these problems

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56 This is based on the assumption that retailers will pass these structures directly onto their retail customers.

57 Ausgrid's and Evoenergy's proposed basic export levels are expressed in kWhs and Endeavour Energy's and Essential Energy's basic export levels are expressed in kWs. We also note differences in how the export charges are applied and expressed (Ausgrid and Evoenergy export charge is expressed in dollars per kWh, whereas Endeavour Energy and Essential Energy express their export charges in dollars per kW.

58 *Evoenergy Attachment 7.1 Tariff Structure Explanatory Statement January 2023*, pp72-74.

59 *Evoenergy Attachment 7.1 Tariff Structure Explanatory Statement January 2023*, p.72.

60 *Evoenergy Attachment 7.1 Tariff Structure Explanatory Statement January 2023*, p.104.

and that it is important to provide investment certainty to customers.[61] The longer Evoenergy waits to implement export tariff reforms, the more challenging it will be to introduce meaningful two-way prices while managing the effects on its customers (who may have already made irreversible decisions based on different expectations).[62]

We received submissions from stakeholders, including from Solar Citizens and 455 submissions from Solar Citizens' supporters, arguing that two-way pricing is not required, and distributors have not justified the need for two-way pricing in their proposals.[63] Further, PIAC submitted support for the proposed export reward tariffs, but noted that justification of two-way pricing could be further developed.[64] The Conservation Council (ACT region) submitted that Evoenergy's tariffs need to be balanced to not disincentivise households from installing rooftop solar PV and battery systems.[65]

In response to these submissions, we consider Evoenergy has justified its need for two-way pricing. However, we also consider that distributors should include more information supporting two-way pricing in revised tariff structure statements. This could include case studies and worked examples that demonstrate how export rewards and charges may apply in practice and further justify introducing two-way pricing. We consider that it is important for the distributors to continue to engage with stakeholders on two-way pricing and incorporate feedback in revised tariff structure statements.

Evoenergy's proposal signals the costs caused by additional exports during the middle of the day, and also signals to exporting customers the network benefits that arise from:

- managing their exports in the middle of the day, i.e. by shifting load to the middle of the day to increase self-consumption, storing generation in a battery, or installing west facing panels
- exporting during the evening peak demand period when customers should be rewarded for their exports because it frees up network capacity.

Retailers responding to these signals through retail offers that reflect Evoenergy's proposed export reward tariff, will help address the widening misalignment between peak network demand in the evening and peak solar generation during the middle of the day.

Evoenergy's customers are more likely to respond to price signals if those signals are consistent and apply for a reasonable period. In the absence of price signals, if price signals are not set early enough, can lead over the longer term to price volatility, price shock and reduced customer ability to respond as they lock in investments under invalid assumptions about future costs. Earlier response by customers with CER to price signals will help mitigate

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61 *Evoenergy Attachment 7.1 Tariff Structure Explanatory Statement January 2023*, p.105.

62 *Evoenergy Attachment 7.1 Tariff Structure Explanatory Statement January 2023*, p.106.

63 Solar Citizens submitted that the need for export pricing is not demonstrated, flexible export limits has not been adequately explored, there is a lack of evidence of price responsiveness, and solar lowers costs for all consumers. The Solar Citizen members submissions generally made the same points, including export charges should not be introduced when costs of living are rising and that proposed two-way prices will diminish the uptake of solar.

64 *PIAC - Submission - 2024–29 Electricity Determination - NSW - June 2023*, p 9.

65 *Conservation Council ACT Region - Submission - 2024–29 Electricity Determination - Evoenergy - May 2023*.

the need for future augmentation costs and associated higher charges, thereby keeping bills lower for all electricity consumers.

We also consider Evoenergy's proposed two-way prices balance charges with rewards, including a higher export reward than export charge and a generous basic export level of 5 kWh for each single hour during its export charging period. Evoenergy's proposed basic export level is set such that the majority of exporting customers (92%) can export to the grid for free.[66] This is discussed in more detail below under Evoenergy's export reward tariff considers the impact on customers of changes in tariffs. Evoenergy, through offering an export reward higher than its export charge, has balanced its two-way prices to incentivise customers to increase self-consumption, install west facing solar PV and to consider behind the meter batteries. This approach will promote efficient use of the network and investment, consistent with the pricing principles.

We consider Evoenergy's proposed export reward tariff complies with the pricing principles that tariffs must reflect efficient costs, minimise distortions to price signals and consider customer impact.[67]

Evoenergy's export reward tariff reflects efficient costs

Evoenergy's proposed export charge recovers only its LRMC of providing additional (incremental) export capacity.[68] Evoenergy did not propose to recover any residual costs through its export charge and only attributed costs to export charges commencing from the first day of the 2024–29 period.

This reflects the guidance set out in our *Export Tariff Guidelines*, which set out that the costs incurred by distributors to provide their network's intrinsic hosting capacity (historical costs) should not be recovered through export charges.[69] This additional intervention in our *Export Tariff Guidelines* protects exporting consumers from paying for network costs incurred prior to the AEMC's rule change that facilitated two-way pricing, given customers have already invested in their own rooftop PV without expecting to be charged for their exports.

Evoenergy's export reward is based on its consumption LRMC. Evoenergy proposed that additional exports from residential customers during the peak demand window frees up additional capacity on higher levels of the network and therefore mitigates the need to invest in additional capacity or potentially defers investment to future years. The costs that can be avoided or deferred are reflected in Evoenergy's estimate of import LRMC.[70] We consider the approach taken by Evoenergy to set its export reward based on its import LRMC demonstrates compliance with the NER and our *Export Tariff Guidelines*.

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66 *Evoenergy Attachment 7.1 Tariff Structure Explanatory Statement January 2023*, p.109.

67 NER, cl. 6.18.5(f),(g), (h) and NER, cl. 6.12.3(k).

68 That is: any augmentation capital expenditure (augex) linked to the export service potentially, some portion of replacement capital expenditure (repex), operating expenditure (opex) dedicated to providing additional export service capacity, or a proportion of this opex if it is incurred to provide both the export and consumption service.

69 AER, *Export Tariff Guidelines*, May 2022, p.12.

70 *Evoenergy Attachment 7.1 Tariff Structure Explanatory Statement January 2023*, p.109.

Evoenergy's proposed export reward and charge windows reflect peak demand and peak export times when the costs to support demand and exports are highest. The export reward window between 5pm – 8pm aligns with peak system load periods in the later afternoon and early evening.[71] The export charge window between 11am – 3pm aligns with periods of high solar exports to the grid contributing to voltage problems, and with low network consumption charges (i.e. the 'solar soak' periods) which, if passed through to customers by retailers, encourage customers to consume during the day.[72]

Evoenergy's basic export level reflects its hosting capacity

Our *Export Tariff Guidelines* did not specify a particular methodology to set the basic export level. However, consistent with our *Export Tariff Guidelines*, Evoenergy considered the following key inputs:

- its network's intrinsic hosting capacity, which is the capacity of the network, as it stands today, to facilitate exports with no further investment
- expected demand for export services.[73]

Evoenergy considered the following options to set its basic export level:

- To calculate the basic export level assuming all customers have rooftop solar PV, i.e. to divide total intrinsic hosting capacity by the total number of customers (including customers that do not currently have export capacity). However, Evoenergy found this approach would produce a basic export level equal to approximately 2.4 kW. Evoenergy considered a 2.4 kW basic export level, at this very early stage in the export tariff transition strategy, may mean that customers are charged for exports when there is still a significant level of export capacity available on the network because not all customers have the capability to export.
- To set the basic export level based on current customers with solar PV. However, Evoenergy considered this would mean that the basic export level must increase each year, as total hosting capacity is shared across an increasing base of exporting customers. Evoenergy considered that regular decreases in the basic export level would be detrimental to investment certainty for customers contemplating material investments in long-lived export capacity.[74]

Considering the above and the finding that there is significant diversity in the 'intrinsic hosting capacity per customer' across its network, Evoenergy proposed to set its basic export level by reference to the expected number of exporting customers when the basic export level is no longer required in 2034. It also considered setting it equal to the 10th percentile in the range of values across its network would mean that 90% of residential customers can export up to the basic export level without any risk of constraint. This being a basic export level of 5 kW per hour, per residential customer.[75] A basic export level of 5 kW is also consistent with Evoenergy's current export limit for single phase connections (5 kW). We consider

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71 *Evoenergy Attachment 7.1 Tariff Structure Explanatory Statement January 2023*, p. 72.

72 *Evoenergy Attachment 7.1 Tariff Structure Explanatory Statement January 2023*, p.74.

73 *Evoenergy Attachment 7.1 Tariff Structure Explanatory Statement January 2023*, p.108.

74 *Evoenergy Attachment 7.1 Tariff Structure Explanatory Statement January 2023*, p.108.

75 *Evoenergy Attachment 7.1 Tariff Structure Explanatory Statement January 2023*, p.108.

Evoenergy's proposed approach to set its basic export level considers both its network circumstances and customer impact and is consistent with the guidance set out in our *Export Tariff Guidelines*.

Evoenergy proposed, however, that this basic export level is contingent on a review of the basic export level in the second and fourth year of the 2024–29 period for potential adjustment in its annual pricing proposal for the third and fifth years (i.e. 2026–27 and 2028–29).

We note that although Evoenergy proposed to express its basic export level in kW, it proposed to apply it in kWh. That is, all exports above 5 kW in a single hour during the export charge period (11am – 3pm), will be subject to an export charge. We consider the application of the basic export level in kWh is easier for retailers and end customers to understand. Submissions from retailers, in response to our publication of the distributors' tariff structure statements, also supported this. Origin Energy and Energy Australia, submitted that a standardised basic export level and basic export energy charge expressed in kWh rather than in KW is less complex, easier to implement and easier for customers to understand.[76]

Evoenergy's export reward tariff considers the impact on customers of changes in tariffs

Evoenergy's customer impact analysis, based on 822 exporting customers, demonstrated the price impacts of its proposed two-way pricing on customers whose exports are moderate. Most customers who export will benefit from Evoenergy's proposed export reward tariff or will experience minimal bill impacts. Assuming retailers pass on Evoenergy's export reward tariff as proposed to us, Evoenergy's customer impact analysis indicated that:

- customers with a solar PV system of 5 kW or less will be no worse off as the export charge applies only to exports above 5 kW every hour
  - the medium residential customer has maximum exports of 4.6 kW and would be better off by $3.26 per annum
- out of exporting customers with maximum exports below 7.5 kW (the majority of exporting customers):
  - 92% will be better off on an export tariff
  - none will experience a bill impact above $20
- out of the much smaller cohort of exporting customers with maximum exports above 7.5 kW (only 8% of all exporting customers):
  - 11% will be better off
  - 79% will experience a bill impact of less than $20
- only 2% of all exporting customers will experience a bill impact of more than $20 per annum, but these customers have very high export capacity (typically above 10 kW).[77]

We consider the slightly higher, but still very low, bill impacts for customers with maximum exports above 7.5 kW reflect that these customers export above Evoenergy's proposed basic

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[76] *Origin Energy - Submission - 2024–29 Electricity Determination - NSW and ACT - May 2023*, p 6; *EnergyAustralia - Submission - 2024–29 Electricity Determination - NSW and ACT - May 2023*, p 3.

[77] *Evoenergy Attachment 7.1 Tariff Structure Explanatory Statement January 2023, pp 116 - 118.*

export level (5 kW), such that their exports impose costs on its network. We consider this outcome is consistent with the pricing principles consideration of customer impact and efficiency.

Evoenergy's export reward tariff can be understood or easily incorporated into retail offers

We note retailers' preference for simple two-way tariffs. This is consistent with their preference for time-of-use consumption tariffs over demand tariffs.

Our view is that Evoenergy's proposed export reward tariff is capable of being understood or incorporated into retail offers. While the export reward tariff, when combined with consumption network tariffs as intended, is complex, it can be understood and incorporated by retailers, and incentivise retailers to incorporate these network tariffs in a retail tariff that is appealing to customers. The additional supporting material we have asked the distributors to provide in their revised proposals, fact sheets and case studies, will further assist both customers and retailers in understanding and incorporating these tariffs in retail offers.

Evoenergy's proposal to apply dollar per kWh unit rates for both its export reward and export charge and to apply it basic export level in kWh is our preferred approach and consistent with feedback from retailers.

19.4.3 Commercial customer tariffs

We are satisfied with most aspects of Evoenergy's proposal for commercial customers because:

- the tariffs are structured to reflect the efficient costs of providing services
- the proposed tariffs targeting batteries are structured to reflect the efficient costs of providing services
- the tariff structures are reasonably capable of being directly or indirectly incorporated by retailers or aggregators into retail offers
- reassignment policies increase the exposure of retailers to cost reflective network tariffs while managing adverse impacts to customers
- the proposed capacity adjustment mechanism for HV customers balances cost reflectivity with customer impacts.

19.4.3.1 Consumption tariffs

Evoenergy substantially progressed the cost reflectivity of commercial tariffs through reforms introduced in the 2019–24 period. Evoenergy's commercial tariffs are already strongly cost-reflective, incorporating a mix of fixed charges, volume (energy) charges, time-of-use consumption charges, demand charges, peak demand charges, and capacity charges.

Evoenergy has made additional refinements to progress the cost reflectivity of its commercial consumption tariffs for the 2024–29 period, and to manage customer impacts. The first is to introduce a review mechanism for capacity charges associated with one-off events and the second is to remove a current transitionary provision that allows some LV commercial customers (via their retailer) to opt-in to its General time-of-use tariff (i.e. less cost reflective). Structural adjustments to the Streetlighting and Small unmetered tariffs are covered in the *Draft Decision Attachment 16 - Alternative control services - Evoenergy - 2024–29*

*Distribution revenue proposal - September 202*3. Evoenergy also proposed to introduce commercial tariffs targeted at batteries which are discussed below under the Grid-scale battery tariffs section.

Alignment of charging windows with network load

We consider the information presented by Evoenergy supports its proposal to retain its existing structures with no seasonal component and with off-peak at all times on weekends.

Evoenergy provided analysis to confirm the structures of its commercial tariffs remain aligned with the contribution commercial customers make to network load. Evoenergy's load profile analysis demonstrates the commercial tariffs' peak charging window of 7am – 5pm continues to align with peak commercial load on Evoenergy's network.[78] Evoenergy also presented graphs showing only small seasonal variation in commercial load but significant deviation between weekday and weekend contributions to annual peak demand.[79]

Managing customer impacts

We consider Evoenergy's proposed approach manages adverse customer impacts while still providing for Evoenergy to send cost reflect price signals and to manage the impact to its network of unusually high demand events from individual customers. However, we encourage Evoenergy to include additional information in its tariff structure statement to explain how relevant customers will be informed of the mechanism.

Evoenergy proposed a mechanism to manage potential impacts to commercial customers who face a capacity charge. Under Evoenergy's 13-month rolling capacity charge period, a one-off demand spike from a customer would result in a higher capacity charge for the following 13 months even where it is higher than their historical use. Evoenergy's proposed mechanism provides for it to waive the effect of one-off events on the customer's bill. Evoenergy maintains the ability to manage potential impacts to its network from any relevant events because of the advance notice requirement and because it retains discretion over acceptance of the application.

To access the waiver, the customer must meet certain eligibility criteria:

- the event must be no longer than two weeks
- Evoenergy will judge whether the motivation for the application is reasonable given claimed extenuating circumstances
- the nominated maximum demand during the review period must be less than the customers maximum allowable capacity
- not have had a capacity review event in the previous 24 months
- submitted a completed application at least 6 weeks before event.

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78 *Evoenergy Attachment 7.1 Tariff Structure Explanatory Statement January 2023*figures 35-37.

79 *Evoenergy Attachment 7.1 Tariff Structure Explanatory Statement January 2023*, figure 34 and figures 31 – 32.

Evoenergy further notes it will endeavour to confirm whether a customer has met the criteria for a waiver in advance of an event in order to provide certainty to the customer and will, if necessary, work with the customer to arrange a different capacity review window.[80]

The proposed assignment approaches are reasonable

While noting that most large customers would already have smart meters, we consider that Evoenergy's commercial customer assignment policy continues to support tariff reform by assigning commercial customers to cost reflective tariffs if a smart meter is installed.

Evoenergy proposed to largely continue its existing tariff assignment policies for LV and HV commercial customers in the 2024–29 period. Under this approach:

- LV customers without smart meters are assigned to Evoenergy's block tariff and may remain on this until the meter is replaced with a smart meter
- LV commercial customers with Current Transformer meters are assigned by default to a demand (kVA) tariff with time-of-use charges and may opt-out to a capacity (kVA) tariff with time-of-use charges
- LV commercial customers without a Current Transformer meter (i.e. a whole current meter) are assigned by default to a demand (KW) tariff and may opt-out to a general capacity (kVA) tariff with time-of-use charges, or either of the two tariffs available for Current Transformer meters
- HV customers are assigned by default to a demand tariff with time-of-use charges with no alternative tariff option
- tariffs for batteries are discussed in following section labelled *Grid-scale battery tariffs*.[81]

Evoenergy proposed to remove a provision in its 2019–24 tariff structure statement that allows LV commercial customers with a Current Transformer meter to opt-in to its General time-of-use tariff (via their retailer), moving away from its more cost reflective tariffs for this tariff class. Evoenergy explained the provision was not designed for large LV commercial customers but was provided as a transitionary measure because all LV commercial customers had previously been assigned by default to the General time-of-use tariff. We consider that removing this option and closing the General time-of-use tariff to new LV commercial customers with a CT meter in the 2024–29 period further advances Evoenergy's progress on tariff reform.

Evoenergy's approach was informed by customer bill impact modelling. Evoenergy reports that it designed its LV commercial tariffs so the customers would typically be better off on its most cost reflective tariffs. For those LV customers adversely impacted by a move to its default cost reflective tariff, Evoenergy included two mechanisms to manage impacts:

1. As for residential customers, for existing commercial customers, Evoenergy provides a 12-month lag on the reassignment (where the customer did not initiate the meter installation).

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80 *Evoenergy-Appendix 7.1 Tariff Structure Explanatory Statement-January 2023*, p95-96.

81 kVA = kilo-volt-amperes.

2. Evoenergy provides the customer (via their retailer) choice by offering an alternative opt-in cost reflective tariff (i.e. those tariff options listed above).

Implications for EV charge point operators

Evoenergy's treatment of EV charge point operators is unchanged from the previous regulatory control period. EV charge point operators can continue to access demand, time-of-use, time-of-use–capacity or time-of-use demand tariffs. There is no consumption threshold associated with accessing these tariffs. We consider these tariffs provide options for charge point operators without Evoenergy favouring one customer group over another and provide options for EV charge point operators to select tariff structures that best suit their needs.

We support Evoenergy's longer term plans to trial tariffs aimed at peaky load customers, including charge point operators.

19.4.4 Grid-scale battery tariffs

Our draft decision is to accept most elements of Evoenergy's proposed grid-scale battery tariffs as we consider that the tariffs send appropriate price signals which improve network utilisation and support CER. We also consider Evoenergy's proposed grid-scale tariffs are reasonably capable of being understood by retail customers or being directly incorporated by retailers into retail offers.[82] However, we are not satisfied with the basic export level being set to zero during critical charge periods which we consider to be inconsistent with our *Export Tariff Guidelines* that sets the expectation that proposed basic export levels should be greater than zero.[83] Evoenergy has committed to providing a basic export level for these tariffs in its revised proposal.[84]

Evoenergy proposed four grid-scale battery tariffs which are offered based on whether the battery is on the high-voltage or low-voltage network and in a residential or commercial area. The tariff structures feature a seasonal peak demand charge, a capacity charge, a consumption charge (netting off exports) and critical peak charges. Evoenergy will also charge or reward these batteries with avoided or incurred transmission use of system costs.[85]

All batteries are provided a rebate when they export during critical peaks. The residential area grid-scale battery tariffs include an additional export charge during critical peak export events.

Evoenergy will notify customers 48 hours in advance of up to six critical peak (import) events and six critical peak export events in a financial year.[86] The maximum duration of each critical event is three hours.

Grid-scale batteries have come into focus for the 2024–29 period in response to the Australian Government program to fund the deployment of 400 community batteries across the country and the ACT Government noted support of measures being taken to facilitate

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82 NER, cl. 6.18.5(i).

83 AER, *Export Tariff Guidelines*, p. 17.

84 AER, *Export Tariff Guidelines*, p. 17.

85 Evoenergy, *Attachment 7 Tariff Structure Statement - January 2023*, p. 24.

86 Evoenergy – information request EVO IR#031 – Grid-scale battery tariffs – 20230607 – PUBLIC.

uptake of batteries.[87] With the right network price signals to indicate when battery operation drives costs or benefits to the network, grid-scale batteries have the potential to reduce long-run network costs for all customers by improving network utilisation. Conversely, without such price signals, battery owners may not factor network costs into their decisions on battery operation and may operate batteries in ways that trigger network investment, increasing future network costs to all consumers. Therefore, there is benefit for distributors (and ultimately all consumers) in developing network tariffs to facilitate retail tariffs that encourage battery operators to import energy during periods of low network demand and export energy during periods of peak demand.

Evoenergy's proposal to introduce grid-scale battery tariffs is a response to the anticipated increase in grid-scale batteries. The three NSW distributors also responded to this anticipated increase in batteries and have also proposed grid-scale battery tariffs for the 2024–29 period. These proposed tariffs are the first to be offered by National Electricity Market distributors that are tailored to large-scale storage. We observe the three NSW distributors and Evoenergy have been preparing for these grid-scale battery tariff proposals with tariff trials conducted between 2021–22 and 2023–24.

The grid-scale battery tariffs proposed by Evoenergy align network price signals with network peak constraints. We consider the proposed tariff structures to be efficient and cost reflective because charges are based on the actual capacity utilised by the battery as well as during critical export peak periods when network capacity constraints are most likely to emerge.

We consider Evoenergy has demonstrated that its proposed charges reflect the efficient costs of the network with all critical price signals based on the applicable LRMC as well as full pass through of avoided or incurred transmission costs.[88]

We consider grid-scale battery tariffs will benefit all energy users because they encourage storage to charge during periods of low demand and high voltage, thereby providing voltage support to the network, helping reduce costs of voltage management. They also encourage export during periods of peak demand, thereby helping to avoid network augmentations. To the extent these costs are avoided we consider the proposed tariffs will benefit all users through lower future bills.

We also note that Evoenergy's proposed tariffs are based on learnings from its tariff trials (1 July 2021 to 30 June 2024). Based on these learnings, Evoenergy amended how it allocated costs across the demand and capacity charges to sharpen its price signals. This change was in response to a review of large-scale battery behaviour in the first year of the tariff trial.[89]

ActewAGL suggested removing the capacity charge for daytime hours in Evoenergy's proposed battery tariff structure. It stated that it was unclear why a capacity charge would apply during daytime hours when a battery should be charging.[90] Evoenergy has stated that

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87 *ACT Government Shane Rattenbury MLA - Submission - 2024–29 Electricity Determination - Evoenergy - May 2023.*

88 Evoenergy, *Appendix 7.1 Tariff Structure Explanatory Statement - January 2023*, p. 103.

89 Evoenergy, *Tariff trial notification – 2022–23*, p. 5.

90 *ActewAGL*, *Submission - 2024–29 Electricity Determination - Evoenergy - May 2023*, p. 3.

these charges are intended to incentivise customers to manage their loads and that it had engaged directly with battery proponents on the tariff design, especially capacity charges.[91, 92] In its revised proposal, we expect Evoenergy to address this submission on the need to have the capacity charge applying during daylight hours.

Origin Energy submitted that distributors should review their proposed grid-scale battery tariffs to ensure that commercial incentives are appropriate and that the value proposition for large-scale batteries is comparable to behind-the-meter alternatives such as virtual power plants.[93] As noted above, we consider the grid-scale battery tariffs to be cost reflective and consistent with NER requirements and appropriate for their connection.

19.4.5 LRMC methodology

The NER require network tariffs to be based on LRMC.[94] For consumption services this means a tariff for the import of electricity must be based on the LRMC of providing additional capacity to support the import of electricity from grid to customers assigned to the tariff. For export capacity, this means export charges must be based on the LRMC of providing additional capacity to support / host exports to the grid by the customers assigned to the tariff.

However, not all distributor's costs are forward-looking and responsive to changes in demand for its service. If tariffs only reflected LRMC, a distributor would not recover all of its total efficient costs. Costs not covered by a distributor's LRMC are called 'residual costs'. The NER requires network tariffs to recover a distributor's total efficient costs (i.e. both LRMC and residual costs) in a way that minimises distortions to price signals for efficient usage that would result from tariffs reflecting LRMC.[95]

Importantly, our *Export Tariff Guidelines* set out that the costs incurred by distributors to provide their network's intrinsic hosting capacity (historical costs) should not be recovered through export charges.[96] This additional intervention protects exporting customers from paying network costs incurred prior to the rule change that facilitated two-way pricing, given customers invested in their own rooftop PV without expecting to be charged for their exports.

19.4.5.1 Assessment approach

Our assessment approach is focused on considering Evoenergy's overall approach and estimation of LRMC, including the justification of their estimation method and how its method changed compared to its current tariff structure statement.

An important input into LRMC calculation is the distributor's forecast of long-run expenditure associated with incremental demand in the case of consumption services. For these services forecasts comprise estimates of:

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91 Evoenergy, *Appendix 7.1 Tariff Structure Explanatory Statement - January 2023*, p. 24.

92 Evoenergy, *Appendix 7.1 Tariff Structure Explanatory Statement - January 2023*, p. 34.

93 Origin Energy, *Submission – 2024–29 Electricity Determination – NSW and ACT – May 2023*, pp. 1–2.

94 NER, cl. 6.18.5(f).

95 NER, cl. 6.18.5(g)(3).

96 AER, *Export Tariff Guidelines*, p.12.

- augmentation expenditure (augex) on new network assets to increase the capacity for import and/or export distribution services.
- operating expenditure (opex) dedicated to providing additional capacity for distribution services.
- replacement expenditure (repex) to replace existing network assets. Distributors may estimate a proportion of repex which occurs to incremental demand or estimate avoided repex in areas of the network with declining demand (in these areas, distributors may opt to use assets with lower capacity which reduces repex).

For export services long-run expenditure forecasts are likely to comprise expenditure related to:

- voltage constraints
- thermal constraints
- low voltage visibility needs.

Distributors might also account for forecast growth in customers with CER, including those with rooftop solar, home batteries and/or electric vehicles.

With the introduction of export tariffs, we are also focusing on how distributors have estimated export LRMC in accordance with the expectations we set in the *Export Tariff Guidelines*. This includes demonstrating:

- how any double counting has been avoided in estimating and allocating LRMC between export and consumption services
- that historic costs associated with providing the network's intrinsic hosting capacity have not been included in export LRMC estimates
- how the export charging parameters reflect the efficient export LRMC.

19.4.5.2 Import LRMC

Evoenergy continued to implement the average incremental cost approach over a ten-year period to estimate forward looking costs. It did not incorporate avoided repex estimates for areas of the network where demand is stable or falling.

We consider the average incremental cost approach to be appropriate at this stage of tariff reform given its low cost of implementation and the continuation of postage stamp pricing across its network. However, Evoenergy previously included indicative LRMC estimates for areas of the network where demand is stable or falling. In future we encourage Evoenergy to enhance the accuracy of its LRMC estimates for areas of the network with stable or falling demand using avoided repex estimates.

Evie Networks (with its consultant Marsden Jacob) submitted that the distributors were overestimating LRMC by incorrectly including augex incurred after the five-year regulatory period.[97] We consider that Evoenergy has appropriately estimated augex with a horizon of at

[97] *Evie Networks - submission and attachment, 2024-29 Electricity Determination - NSW - May 2023*, p 4.

least ten years to meet our definition of long-run.[98] As we note in our Victorian draft decision, the distributors' use of the average incremental cost approach and the Turvey perturbation approach to estimate LRMC has been endorsed for use by the AEMC in its review of the network pricing principles.[99]

19.4.5.3 Export LRMC

Setting the export charge

We consider Evoenergy's proposed approach to estimate export LRMC reflects the requirements of the NER and the guidance as set out in our *Export Tariff Guidelines*.

Evoenergy set its export charge based on its LRMC for export services using the average incremental cost approach. The key inputs into determining the LRMC of the export charge include the length of estimation period, commencement date of expenditure to support export services and forecast expenditure. Evoenergy estimated the annual change in its export capacity over a ten-year period, based on its medium solar PV export capacity forecast.

Evoenergy attributed costs to export charges commencing only from the first day of the 2024–29 period. Evoenergy did not propose to recover any residual or historical costs from the export charge, consistent with our *Export Tariff Guidelines*.

Setting the export reward

The NER provide less guidance on setting the export reward. Evoenergy based its export rewards on its import LRMC (i.e. LRMC to import electricity from the grid). Evoenergy proposed that additional exports from residential customers during the peak demand window frees up additional capacity on higher levels of the network and therefore mitigates the need to invest in additional capacity or potentially defers investment to future years. The costs that can be avoided or deferred are reflected in Evoenergy's estimate of its import LRMC.[100] We consider Evoenergy complied with the NER and reflected the guidance set out in our *Export Tariff Guidelines* in setting its proposed export rewards.

We note any changes made to export charges, such as may arise from updated LRMC estimates, may require rebalancing of the reward paid to customers to avoid cross subsidisation from non-solar PV customers.

19.5 Assignment to tariff classes

Our draft decision is to accept the policies and procedures governing assignment or reassignment of Evoenergy's retail customers for direct control services. Evoenergy's proposal does not alter its current approach, it will continue to have the three tariff classes contained in its current tariff structure statement:

- LV residential customers

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98 See for example, *AER - Ausgrid 2019-24 - Draft decision - Attachment 18 - Tariff structure statement - November 2018*, p 83.

99 *AER - Draft decision - CitiPower distribution determination 2021-26 - Attachment 19 - Tariff structure statement - September 2020*, pp. 42-44.

100 *Evoenergy Attachment 7.1 Tariff Structure Explanatory Statement January 2023*, p.109.

- LV commercial customers
- HV commercial customers.

In determining the tariff class to which the retailer of a customer or potential customer will be assigned, or reassigned, Evoenergy will take into account:

- the nature of the customer's connection activities –residential or commercial.
- the level of the network to which they connect – LV connect at less than 11kV and HV connect at or above 11 kV.

Evoenergy's proposal could be improved by presenting a more detailed description of the policies and procedures governing assignment or reassignment to tariff classes.

19.6 Statement structure and completeness

Evoenergy must include the following elements within its tariff structure statements:

- the tariff classes into which retail customers for direct control services will be divided
- the policies and procedures the distributor will apply for assigning retail customers to tariffs or reassigning retail customers from one tariff to another
- a description of the strategy or strategies the distributor has adopted, taking into account the pricing principle in clause 6.18.5(h), for the introduction of export tariffs including where relevant the period of transition (export tariff transition strategy)
- structures for each proposed tariff
- charging parameters for each proposed tariff
- a description of the approach that the distributor will take in setting each tariff in each pricing proposal.[101]

A distributor's tariff structure statement must be accompanied by an indicative pricing schedule.[102]

Evoenergy's proposed tariff structure statement incorporates each of the elements required under the NER. The key focus of our assessment for this draft decision is on whether these elements satisfy the pricing principles for direct control services in the NER. That assessment is covered in the sections above.

Evoenergy has adopted our preferred two document approach, intended to improve the clarity for the retailers, customers, and the AER:

- the first document should include only include the aspects of the tariff structure statement that will bind it over the 2024–29 period
- the second document should explain the reasons for what it has proposed.[103]

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101 NER, cl. 6.18.1A(a).

102 NER, cl. 6.8.2(d1).

103 NER, cl. 6.18.5(i).

Evoenergy's proposal could be improved by including in the tariff structure statement a table that summarises the complete list of proposed and (continuing) existing tariffs and charging parameters for the 2024–29 period. We acknowledge this information is available for the proposed tariffs in section 7.4 of the tariff structure statement and for existing tariffs in table 3 of the tariff structure explanatory statement but consider it would aid the reader for both sets of information to be combined in summary within the tariff structure statement.

Shortened forms

Term	Definition
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
augex	augmentation expenditure
capex	capital expenditure
CER	consumer energy resources
CPI	consumer price index
HV	high voltage
LRMC	long-run marginal cost
LV	low voltage
NEL	national electricity law
NEM	national electricity market
NEO	national electricity objective
NER	national electricity rules
NSP	network service provider
opex	operating expenditure
PV	photovoltaic
RAB	regulatory asset base
RBA	Reserve Bank of Australia
repex	replacement expenditure
RIN	regulatory information notice