Export Tariff Guidelines

October 2024

AUSTRALIAN ENERGY REGULATOR

Inquiries about this publication should be addressed to:

Australian Energy Regulator
GPO Box 520
Melbourne VIC 3001
Tel: 1300 585 165

AER reference: 13659318

Amendment record

Version	Date	Pages
V0.1	19 May 2022	20
V0.2	October 2024	20

Contents

1 Introduction

The National Electricity Rules (NER, the rules) require us to develop and publish the Export Tariff Guidelines (the Guidelines)[1] by 1 July 2022, and to include basic export level guidelines within the Guidelines.[2] The Guidelines are non-binding and are intended to be principles-based rather than prescriptive to allow for differences between distributors.

The objective of the Guidelines is to provide information and guidance to distributors, customers, retailers, intermediaries and other stakeholders about the process for development and approval of export tariffs.[3]

The accompanying explanatory statement discusses our rationale for the Guidelines, including how we have considered submissions on our consultation paper and the draft Export Tariff Guidelines.

1.1 Benefits of two-way pricing

Prices that signal how networks incur costs help promote efficient network use and allow more equitable cost recovery.

Where appropriate and effective, export charges and rewards for exports at certain times will also facilitate new technologies, services and business models to deliver a range of benefits to customers, networks and the environment.

Through appropriate and effective price signals, the benefits from rooftop solar and other forms of distributed energy resources (DER) can be maximised while associated costs can be minimised.

1.2 Customer protections in the rules

The rules have built-in protections for customers potentially eligible for an export tariff (customers who export to the grid), including:

- **Any export tariffs must be approved by the AER.** This will be done through the 5-year tariff structure statement process.[4]
- From the commencement of their next regulatory period, distributors must apply a basic export level to any export tariff introduced. The basic export level is the amount of electricity that a customer will be able to **export to the grid at no cost.** The basic export level must apply for a 10-year period (that is, for two regulatory periods). This may be adjusted within the 10-year period.[5]

1 NER, cl. 6.8.1B and 11.141.5 (note cl.6.8.1B will be inserted into the NER by operation of the *National Electricity Amendment (Access, pricing and incentive arrangements for distributed energy resources) Rule 2021 No. 9* on 1 July 2022).

2 NER, cl.11.141.14.

3 NER, cl. 6.8.1B(b).

4 NER, cl. 6.18.1A.

5 NER, cl. 11.141.12.

- Distributors must submit an **export tariff transition strategy** as part of their tariff structure statement to provide transparency about their long-term intentions to introduce or not introduce export tariffs, and to assist customers who are considering investing in DER, including rooftop solar.[6]
- **Existing customers will not face export tariffs until 1 July 2025** unless they elect to participate earlier.[7]

1.3 Justifying two-way pricing

The AER will not approve two-way pricing proposals unless a distributor can, through the regulatory proposal (including the tariff structure statement) process, demonstrate its need. Details of the regulatory proposal and tariff structure statement process are set out in the accompanying explanatory statement, including when upcoming tariff structure statements will take effect.

In proposing two-way pricing, distributors should have regard to:

- individual network circumstances to warrant the introduction of two-way pricing, including their network's intrinsic hosting capacity
- how their customers may be impacted if two-way pricing is not introduced
- evidence of current or estimates of future DER penetration on the network (including rooftop solar and electric vehicles) and how this impacts network costs
- feedback from stakeholders, including customers.

Distributors should incorporate materials in response to the above in their tariff structure statement proposals (the range of tariff reform related materials as described in section 3 of these Guidelines, not only the tariff structure statement) if they propose to introduce two-way pricing in an upcoming regulatory control period.

A critical element of demonstrating the need for two-way pricing is through stakeholder engagement (discussed in section 4 of these Guidelines).

6 NER, cl. 6.18.1A (a) (2A).

7 AEMC, Final determination – *Access, pricing and incentive and incentive arrangements for distributed energy resources*, 12 August 2021, p vi, defines 'existing customers' as: "customers who either are already connected to the grid and able to export, or have an open or accepted connection offer at the time of this decision."

2 Structure of an export tariff

Existing network tariffs typically consist of several charging components, including:

- fixed (supply) dollar per day charge
- variable charges (peak, shoulder and off-peak) in cents per kilowatt-hour (kWh)
- demand[8]/capacity[9] charge in dollar per kilowatt (KW) or kilovolt-ampere (kVA).

These charging components recover the network costs for the consumption of energy from the grid (one-way flow of energy).

Retailers pay network tariffs and choose how to pass through the network tariff to their customers. If retailers reflect the network tariff structure in bills paid by customers, then customers will see the same mix of charges as the retailer sees from the network. Or retailers may re-package network tariffs to give customers a bill that looks different to the network tariff.

A network export tariff is one that includes a charging component for exporting energy into the grid (two-way flow of energy).[10] For example, an export tariff might consist of either or both:

- a positive charging component, or a cost for exporting customers, to signal when exported energy would drive future network investment and it is better for customers to use their own rooftop generated (or stored) solar electricity
- a negative charging component, or rebate for exporting customers, when the network would benefit from exports and customers can be rewarded for exporting any energy they do not use (or store) themselves.

When setting network tariffs, distributors may incorporate two-way pricing in existing tariffs or introduce a new tariff that only applies for the export of energy. In the latter case an exporting customer would be assigned to two tariffs – one for their consumption service and one for their export service.

However, it is more likely that distributors will choose to add a new charging component (or two components, a cost and a rebate, as described above) to an existing consumption-based network tariff. In that case, a single tariff could incorporate a fixed charge, some combination

8 A demand charge is based on a customer's maximum demand for electricity services over a month or 3 months, usually measured in 30-minute intervals at certain times of the day and/or season.

9 A capacity charge is very similar to a demand charge, based on maximum demand for electricity services, but is generally assessed over a longer time period such as 12 months, or may relate to the physical capacity of the customer's network connection.

10 NER Chapter 10. The NER defines 'export tariffs' as: a tariff for distribution services that includes a charging parameter relating to supply from embedded generating units into the distribution network.

of variable or demand charges to reflect the consumption service, and some combination of positive and negative export components to reflect the export service.

As above, retailers paying two-way pricing network tariffs may choose to pass the price signals through to customers in the same form, or they may alter the price signals when setting retail tariffs.

Table 1 describes an indicative network export tariff incorporating both positive export charges (a cost for exporting) and rebates. In this indicative tariff, the consumption and export charges/rebates are aligned to provide customers with a consistent signal about when it is better to use power from the grid, use their own power or export to the grid.

Table 1 Worked example of two-way pricing[11]

Residential two-way tariff	Time period	Charge per unit	Price per unit (cents)
Fixed charge	Daily	c/day	50.0
Peak consumption charge	4 pm – 9 pm	c/kWh	20.0
Shoulder consumption charge	9 pm – 10 am	c/kWh	5.0
Off-peak consumption charge (solar sponge)	10 am – 4 pm	c/kWh	1.5
Export peak rebate	4 pm – 9 pm	c/kWh	20.0
Export charge* applies to exports > 2 kWh/day (that is, the basic export level is 2 kWh/day).	10 am – 4 pm	c/kWh	1.5

*Note: This worked example is only one example of possible ways to implement an export tariff. The relative prices between consumption and export charges are purely for illustrative purposes.

The indicative tariff described in Table 1 incorporates a basic export level of 2 kW (as an example). Distributors must include a basic export level for any export tariff they introduce.[12] See section 6 of these Guidelines for further detail on basic export levels.

While we acknowledge that different areas of the grid have different network challenges, and distributors in the same jurisdiction are not required to align charging windows, we note that similar charging windows within a jurisdiction may be of benefit in aiding customer comprehension and comparability across networks.

Basic export levels apply for the tariff transition period (the upcoming regulatory control period and the following period, which is 10 years in total).[13] We expect that the export tariff will show the basic export level applicable to the tariff. This could be a note to the tariff or could be incorporated within the charging parameters.

11 This indicative tariff is described here for illustrative purposes only.

12 NER, cl 11.141.1. The NER defines a 'basic export level' as: a threshold (calculated by reference to capacity, energy or other measure permitted in a distribution determination) specified in the applicable tariff structure statement.

13 NER, cl 11.141.1.

3 Structure of proposals for two-way pricing

When submitting pricing proposals to the AER for assessment, distributors are required to provide several documents. These are listed in Table 2.

To better enable stakeholder understanding and engagement, distributors should use plain language when discussing their two-way pricing proposals. If such proposals are not clearly described, we will not approve them.

Table 2 List of documents that distributors are required to submit to the AER that will/may include two-way pricing information

Document	Document information
Tariff structure statement proposal	The tariff structure statement proposal sets out a distributor's proposed tariffs and tariff assignment policies, and related materials, for an upcoming regulatory control period (5 years). A distributor's tariff structure statement proposal will include: • the tariff structure statement, which sets out tariff structures and assignment policies[14] • an export tariff transition strategy, which must be incorporated within the tariff structure statement[15] • an explanatory statement, which provides complementary/supplementary information to the tariff structure statement (the explanatory statement is not a requirement under the rules but is accepted practice).
Overview paper	Distributors are required to submit an overview paper with their regulatory proposals.16 The overview paper should include information on tariff structure statement proposals and two-way pricing.
Other documents	Distributors may be required to include two-way pricing information in other documents, such as their DER expenditure strategies.

3.1 Two-way pricing in tariff structure statement proposals

Under an approach previously agreed between the AER and distributors, a distributor's tariff structure statement should set out only information related to compliance with the network pricing principles and the eligibility conditions and assignment policies applicable to each tariff.

Supporting information, such as how a distributor developed its proposed tariffs and details of its stakeholder engagement, should be provided in the tariff structure explanatory statement. This improves stakeholder access to, and understanding of, the materials and streamlines regulatory assessments.

Table 3 outlines the information distributors are required by the rules to provide on export tariffs/charges, within their tariff structure statements. This mirrors the current obligations for consumption tariffs/charges.

14 NER, cl 6.8.2(a) and 6.18.1A(a).

15 NER, cl 6.18.1A(a)(2A).

16 NER, cl 6.8.2(c1).

Table 3 List of statutory requirements and NER references of two-way pricing proposals

Information	NER reference
The tariff classes into which retail customers will be divided	6.18.1A(a)(1)
The policies and procedures that the distributor will apply when assigning or reassigning customers to an export tariff	6.18.1A(a)(2)
The export tariff transition strategy	6.18.1A(a)(2A)
Structures for each proposed export tariff	6.18.1A(a)(3)
Charging parameters for each proposed export tariff	6.18.1A(a)(4)
A description of the approach that the distributor will take in setting each export tariff in each annual pricing proposal during the relevant regulatory control period	6.18.1A(a)(5)
Export tariffs must comply with the pricing principles	6.18.5(b)
Export tariffs must comply with the pricing principles in a manner that will contribute to the achievement of the network pricing objective	6.18.5(d)
The basic export level or the manner in which the basic export level will be determined for each proposed export tariff (only required for the tariff transition period)	11.141.13(a)(1)
The eligibility conditions applicable to each proposed export tariff	11.141.13(a)(2)

Information that should be included in the export tariff transition strategy

Clause 6.18.1A(a)(2A) of the rules requires distributors to submit an export tariff transition strategy as part of their tariff structure statement proposals. The export tariff transition strategy should be included in the tariff structure statement.

The transition strategy should:

- outline the pace and form of transitional measures for two-way pricing, such as timeframes for moving customers onto two-way tariffs, assignment policies (for example, opt in/opt out) and/or the gradual increase in cost reflectivity of export charges
- explain how consideration of customer bill impact modelling has informed the transition strategy
- explain how export tariff trials, if applicable, have influenced a distributor's tariff transition strategy
- describe how the export tariff transition strategy was developed in consultation with or, where appropriate, co-designed with stakeholders. It should also explain how the distributor conducted its stakeholder engagement, identified stakeholder concerns and how these were addressed in its proposal.

Distributors not proposing two-way pricing for an upcoming regulatory control period are still required by the rules to provide an export tariff transition strategy to signal their future intentions. This should:

- explain their medium to longer-term strategy for introducing two-way pricing, should it prove necessary, including any planned export tariff trials
- describe their present or intended future stakeholder engagement related to two-way pricing.

Information that should be provided in the tariff structure explanatory statement

The tariff structure explanatory statement provides the AER, customers and stakeholders additional context on a distributor's tariff structure statement proposal, including two-way pricing.

A distributor should demonstrate why two-way pricing is justified and elaborate on how it developed its two-way pricing proposals. This includes a distributor describing its stakeholder engagement strategy and how two-way pricing will be implemented.

The tariff structure explanatory statement should include:

- justification of the need for two-way pricing
- information on the distributor's stakeholder engagement strategy
- explanation of how customers' understanding of two-way pricing influenced the proposed tariff structures, including how customers responded to trial tariffs or other cost-reflective tariffs
- a description of how the different proposed two-way tariff options cater for
  - different load profiles
  - retailers and aggregators
  - incentivising customers to shift their energy consumption
- a summary of how the distributor has considered the interaction between export tariffs and consumption tariffs, and complementary measures such as demand management
- a description of engagement with retailers
- a description of how the distributor determined the basic export level for the proposed export tariffs.

3.2 Two-way pricing in the overview paper

Distributors are required by the rules to submit an overview paper with their distribution determination revenue proposal. Table 4 outlines the information distributors are required to provide in an overview paper.

Table 4 Two-way pricing statutory requirements for the overview paper

Information	NER reference
A summary of how the tariff structure statement and export transition strategy relate to relevant aspects of the regulatory proposal, such as connection policy, capital expenditure or operating expenditure.	6.8.2(c1)(1)(ii) and (v)
A description of how the distributor engaged with relevant stakeholders, including customers and retailers, in developing the proposed tariff structure statement and export tariff transition strategy, the relevant concerns identified through that engagement and how the distributor has sought to address those concerns.	6.8.2(c1)(2)
A description of the key risks and benefits for customers of the regulatory proposal, the proposed tariff structure statement and export tariff transition strategy.	6.8.2(c1)(5)

3.3 Two-way pricing in the DER integration strategy

Distributors may submit two-way pricing information in other documents in addition to being set out in their tariff-related materials, including within their DER integration strategy. The

DER integration strategy arises from the AER's DER integration expenditure guidance note, currently in draft form.[17] It recommends that distributors create a DER integration strategy, which is likely to include:

- DER penetration forecasts and network implications
- discussion of how tariff price signals will be used to defer or reduce the need for network investment.

We expect that tariffs, including any two-way pricing proposals, will be an element of the distributor's broader DER integration strategy, which sits within the distributor's overarching business strategy. Any two-way pricing proposals should be properly integrated into the distributor's long-term vision of its operations and how it can best serve customers. There should be a consistent strategic narrative across the distributor's investment, operational and tariff approaches.

17 AER, *Draft DER Integration Expenditure Guidance Note,* July 2021.

4 Stakeholder engagement for proposed export tariffs

Two-way pricing proposals that are well justified and developed through genuine engagement with consumers will lead to regulatory outcomes that better reflect the long-term interests of consumers. Such engagement should reflect the desired outcomes set out in the *Better Resets Handbook – towards consumer-centric network proposals* (the Handbook).[18]

In applying the stakeholder engagement components of this guidance, distributors should provide particular attention to stakeholder groups less able to engage with distributors on export tariff structures.

4.1 Nature of engagement

Distributors should sincerely partner with their customers and empower them to meaningfully contribute to considerations around whether, when and how to introduce two-way pricing options.

If distributors consider two-way pricing to be warranted, they should work with their customers to develop two-way pricing options that provide rewards for behaving in ways that avoid costly network investment. To the greatest extent possible, two-way pricing options should incorporate customer preferences.

Distributors should also engage with customers and retailers so that they are reasonably capable of understanding and responding to the different components of two-way pricing. The way each distributor chooses to do this will depend on its chosen customer engagement process.

4.2 Breadth and depth of engagement

We expect distributors to consult with a broad range of stakeholders when considering whether to implement two-way pricing and when designing two-way pricing proposals, including:

- residential customers with and without rooftop solar
- customers with other DER such as electric vehicles
- vulnerable customers
- commercial and industrial and small business customers
- retailers
- the relevant jurisdictional government.

Distributors should use tailored channels of engagement to reach these groups so that a wide variety of views are captured.

18 AER, *Better Resets Handbook, Towards Consumer Centric Network Proposals,* December 2021.

Distributors should work proactively with retailers, third party aggregator service providers, community groups and other intermediaries to enable new service offerings and innovative tariffs so that customers can maximise the value of DER such as rooftop solar, batteries and electric vehicles. Distributors should assist these groups to communicate to their customers about how to take advantage of the new tariffs.

Distributors should ensure that their engagement is transparent and that customers have the time to engage with the various components of a two-way pricing proposal, including what will be 'on the table' for negotiation. This includes consultation on what the medium to long-term goals of two-way pricing are and how the various components of the proposed tariff structure statement can be used to achieve those goals.

Examples of issues that distributors should consult on include:

- export tariff transition strategies, including use of tariff trials where applicable, transitional measures and transition periods
- tariff design, including how best to combine consumption price signals, export charges and export rebates
- basic export levels, potentially including 'basic' and 'premium' export services.

4.3 Clearly evidenced impact

Two-way pricing proposals should demonstrate a clear link between the proposed tariff and stakeholder engagement.

We expect distributors to explain how, because of their engagement, they identified relevant feedback on two-way pricing and addressed those comments. As an example, a distributor may have engaged with stakeholders on two-way pricing through running tariff trials. Where customers' preferences diverge, distributors should set out how they balanced these considerations or found mutually acceptable solutions. If distributors propose to not incorporate customers' preferences, they should explain why their feedback could not be incorporated into the proposal.

5 Approach to applying the network pricing objective and pricing principles for export tariffs

Two-way pricing proposals must comply with the network pricing objective and the pricing principles.[19]

The pricing principles are designed to transition customers to more cost-reflective network tariffs over time.

In this section we summarise each relevant pricing principle and discuss how it should be applied when or if distributors propose two-way pricing in their tariff structure statement proposals.

This section is intended to provide principles-based guidance on application of the pricing principles. The Guidelines will not pre-determine tariff structures nor the balance of network cost recovery between tariff components.

5.1 Two-way pricing to reflect long run marginal cost and the efficient cost

In developing two-way pricing proposals, distributors should consider the long run marginal cost and efficient cost pricing principles together.

Box 1: Long run marginal cost and efficient cost pricing principles

Tariffs must be based on long run marginal cost – that is, the costs associated with providing additional capacity – of the service to which the tariff relates.[20]

Revenue expected to be recovered from each tariff must reflect the distributor's efficient costs of serving customers assigned to that tariff.[21]

5.1.1 Setting tariffs to reflect long run marginal cost

The long run marginal cost pricing principle means export charges, where applicable, must be based on the long run marginal cost of providing the export service.[22] That is, this principle applies to export charges in the same way that it applies to consumption charges.

In practice, this means export charges should reflect the distributor's long run marginal cost of providing additional (incremental) export service capacity, if any. That is:

- any augmentation capital expenditure (augex) linked to the export service

19 NER, cl. 6.18.5.

20 NER, cl. 6.18.5(f).

21 NER, cl. 6.18.5(g).

22 The NER defines 'long run marginal cost' as: for the purposes of cl. 6.18.5 of the NER, the cost of an incremental change in demand for direct control services provided by a distributor over a period of time in which all factors of production required to provide those direct control services can be varied.

- potentially, some portion of replacement capital expenditure (repex), because some repex decisions may vary depending on demand for the export service
- 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.

In developing two-way pricing proposals in consultation with customers and other stakeholders, distributors should explain how their proposed export charges are based on their expected export service augex, any relevant repex and their opex.

In proposing two-way pricing to us, distributors should demonstrate that export charging tariff parameters are based on the incremental cost of providing network capacity for exports, as described above. Any export charges that are set should reflect the efficient long run marginal cost of supplying the export service.

Network intrinsic hosting capacity

Closely related to the incremental cost of providing export capacity is the network's intrinsic hosting capacity – that is, the baseline from which an incremental expansion of export capacity is developed.

The network's intrinsic hosting capacity reflects that the network can support some reverse power flow without any additional investment. Customers, including those with rooftop solar, are already paying for this intrinsic export hosting capacity through their consumption charges.

We consider that export charges should be based only on providing export capacity in addition to the network's intrinsic hosting capacity. This is because investment undertaken to provide the network's intrinsic hosting capacity was driven not by demand for the export service but by demand for the consumption service. That some portion of network capacity has come to be used to provide the export service is not a rationale for retrospective cost recovery through export charges.

To be clear, costs incurred by distributors to provide their network's intrinsic hosting capacity (historical costs) should not be recovered through export charges.

Unlike the date from which two-way tariffs can be introduced (discussed in section 1.2 of these Guidelines), the rules do not specify a date before which costs are taken to have been incurred in providing a network's intrinsic hosting capacity. We consider 2 potential dates are:

- the date of the access and pricing rule change taking effect
- the first day of a network's upcoming regulatory control period.

While dates earlier than the rule change should not be canvassed, networks should consult with stakeholders on the best date for their own circumstances if there is a justified need for expenditure to accommodate exports beyond the network's intrinsic hosting capacity.

Estimating long run marginal cost

Under the rules, distributors may estimate the long run marginal cost of providing network services using the method most appropriate to their circumstances.[23] When a distributor presents its methodology for estimating long run marginal cost for export services, it should explain:

- the costs and benefits associated with its method compared with using other methods
- how the method reflects costs likely to be incurred providing additional export capacity at the times of greatest demand for export capacity – for example, during the early afternoon when the demand for export services is highest.

Long run marginal cost drivers for export services

Distributors may face different costs in expanding export services compared with consumption services. Relevant drivers of costs for export services might include:

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

Distributors should also account for:

- forecast growth in DER customers, including those with rooftop solar, home batteries and/or electric vehicles
- the extent to which costs vary between different locations in the distribution network
- the implementation of and interactions with dynamic operating envelopes
- regulatory requirements, including any jurisdictional requirements, specific to the National Electricity Market region (and the Northern Territory) within which a distributor provides network services.

We note that distributors may not need to continually invest in their networks to host growing volumes of exported energy. This is because of the relationship between energy exported and consumed. For example, where customers respond to consumption tariff price signals by increasing their use of energy from the grid during the day when rooftop solar is being exported, more power may be exported to the grid without driving network investment. Similar outcomes may be derived from demand management initiatives.

The effect of consumption tariffs and demand management on customer behaviour and network hosting capacity should be considered by distributors when developing DER integration investment plans and when estimating the long run marginal cost of the export service.

23 For a discussion on the relative merits of these methods, see *NERA Economic Consulting, Economic Concepts for Pricing Electricity Network Services, A Report for the Australian Energy Market Commission*, 21 July 2014, pp. 14–16.

Allocation of costs between export services and consumption services

When setting charges for consumption and export services, the long run marginal costs allocated to consumption and export services should not overlap. Where there is overlap, for instance augex that benefits both export and consumption services, distributors should demonstrate how any double counting has been avoided in estimating and allocating the long run marginal cost between the export and consumption services. Residual costs, costs not included in long run marginal cost estimates, should also be allocated to consumption and export charges in proportions appropriate to the volume of bidirectional services provided.

5.1.2 Setting tariffs to reflect efficient costs

As noted in Box 1, the pricing principles require network tariffs to recover the total efficient cost of providing the service to which the tariff relates. The efficient cost pricing principle also requires revenue to be recovered in ways that minimise distortions to long run marginal cost price signals.[24] [25]

In the context of establishing export charges, residual costs of providing the export service should be recovered in ways that minimise distortions to charges signalling when it is better to export, or not to export, to the network.

Efficient price signalling of export capacity may include both positive and negative charges (rebates). A positive charge would apply at times when exported power is likely to drive future network investment, such as at midday. A rebate would apply when the network would benefit from increased exported power, such as during evening peak periods.

When developing export charges and/or rebates, distributors should consider how export tariff components interact with consumption charging components so price signals are consistent on when it is best to use or export energy.

Table 5 provides a worked example of allocating costs to export services.

Table 5 Worked example of allocating costs to export services

Step	Activity
1	Identify intrinsic hosting capacity across the network.
2	Forecast expected solar exports for the period.
3	Forecast required capacity to host exports, taking into consideration factors such as uptake of electric vehicles and battery storage and customer growth.
4	Identify cost drivers to increase hosting capacity of exports.
5	Estimate long run marginal cost (LRMC), if any, to expand export hosting capacity above the network's intrinsic hosting capacity.
6	Convert long run marginal costs into charge per unit. For example, cents/kilowatt hour is LRMC ($)/forecast export kWh.

[24] NER, cl. 6.18.5(g)(3).

[25] In the context of tariffs for consumption services, this means residual costs (costs that are not long run marginal costs) are recovered, where possible, through a mix of fixed charges and charges on the least price elastic components of consumption or demand.

Step	Activity
7	Identify 'other' (residual) costs associated with export or future expenditure required to provide export services, such as administration and ICT costs.
8	Demonstrate no overlap of 'other' (residual) costs between export and consumption services.
9	Convert other costs to a non-distortionary charge; for example, $/day.

5.2 Consider the impact on customers of changes in tariffs

Box 2: Customer impact pricing principle

A Distribution Network Service Provider must consider the impact on retail customers of changes in tariffs from the previous regulatory year.[26]

In developing two-way pricing proposals, distributors should undertake bill impact analysis and share that analysis with stakeholders to elicit feedback on tariff options.

In presenting two-way pricing proposals to us, distributors should demonstrate how bill impact analysis was used to inform their stakeholder engagement.

Such analysis should show how customers who do not change their network use would be affected by two-way pricing options. Examples of relevant customer types include customers:

- with and without rooftop solar
- with electric vehicles
- who are considered vulnerable
- in metropolitan, regional and remote areas.

In addition, analysis should show how different customer types would benefit by shifting their network use in response to price signals. This would include changing consumption (i.e. moving consumption to the middle of the day) or by purchasing a device (such as a battery or smart appliance).

We expect tariff structures to be designed so customers can mitigate price impacts by changing how they choose to use export services. For example, customers should be able to decide whether to stay on the 'basic' export service or to adjust their behaviour and upgrade to a 'premium' export service (perhaps with the help of a retailer or an aggregator) to take advantage of greater export capacity.

[26] NER, cl. 6.18.5(h).

5.3 Two-way pricing must be understood or incorporated

Box 3: Tariff structures must be reasonably capable of being understood or being incorporated pricing principle

The structure of each tariff must be reasonably capable of either:

- being understood by retail customers that are, or may be assigned, to that tariff (including in relation to how decisions about usage of services or controls may affect the amounts paid by those customers) or
- being incorporated by retailers or aggregators in retail service/tariff offers to customers.[27]

Distributors should demonstrate how, in developing their prices, they considered customers' capability to reasonably understand or retailers and third parties' ability to incorporate two-way pricing options.

For example, distributors may design simpler export tariffs when introducing them for the first time and may introduce more complex tariffs for 'prosumers'[28] or retailers/intermediaries for incorporation into their retail offerings. This would provide customers choice in allowing them to self-select into different export tariffs with different basic export levels based on what DER they have and their level of understanding.

Where a distributor is proposing a simple export tariff, it is expected the tariff will be reasonably capable of being understood by the retail customers assigned to it.

Where a distributor is proposing a more complex tariff, it is expected that the retailer or third party is able to understand and incorporate it into its retail offer – noting that this complexity faces the retailer, not the retail customer.

Distributors should demonstrate that they have consulted with retail customers, retailers and third-party intermediaries on possible two-way pricing structures when forming their tariff structure statement proposals. Distributors should continue to consult with these stakeholders on how two-way pricing structures can be incorporated into retail tariffs. More complex network tariffs that are passed on as simpler retail tariffs can create service models to benefit networks, customers and intermediaries.

27 NER, cl. 6.18.5(i).

28 A customer who both produces and consumes energy.

6 Basic export levels

This section sets out the background to, and the content of, the basic export level guidelines.

6.1 Background to the basic export level guidelines

The rules require the AER to develop guidelines about methodologies for determining basic export levels and related matters − the basic export level guidelines − and include them in the Export Tariff Guidelines.[29]

The basic export level is the threshold (calculated by reference to capacity, energy or other measure permitted in a distribution determination) up to which a customer may export without charge.[30] Basic export levels must be available to customers assigned to any export tariff for the upcoming regulatory control period and the following period (a 10-year tariff transition period)[31]. While the rules describe the basic export level in straightforward terms, as a threshold below which export charges (costs) are not applicable and above which they are, in practice we expect this may be more sophisticated.

Our expectation is that a distributor offering an export service and tariff options must identify a basic export level that is available at all times. Although the threshold may be set to different levels at different times, it is the AER's expectation that a basic export level must always be greater than zero (where a static zero export limit is not applicable).[32]

Distributors that propose to establish two-way pricing may offer customers a range of export service and tariff options, incorporating basic export levels as one element of a broader package.

For example, a distributor must offer the basic export level of access to the export service up to a defined export threshold, at no charge. Additionally, the same distributor may also offer a 'premium' level of access to the export service with a higher export threshold or no threshold, for a defined price (noting that each export tariff must have a basic export level available at all times and that is greater than zero).

A further offer could be available to customers who take up a dynamic connection agreement that enables the distributor to remotely switch off exports if required for network operations.

During the transition period distributors are required to include in their tariff structure statements the basic export level or the manner in which the basic export level will be determined for each proposed export tariff. Distributors must also include the eligibility conditions applicable to each proposed export tariff.[33] Where distributors choose to propose a suite, or menu, of service/tariff options as described above, the same obligations are relevant but will need to be reflected across the range of product offerings available to

29 NER, cl. 11.141.14(a).

30 NER, cl. 11.141.1, definition of 'basic export level'.

31 NER, cl. 11.141.12(a)(2); NER, cl. 11.141.1, definition of 'transition period'.

32 For more information on static zero export limits see NER, cl. 5A.E.3.

33 NER, cl. 11.141.13(a).

customers. In each case the network service, tariff and basic export level must be clear to the customer's retailer and to the customer.

As part of their export service/tariff offers, distributors may link the provision of rebates to customers for exporting at certain times to the customer's payment of export charges.

The rules require us, in developing the basic export level guidelines, to have regard to:

- historical and geographical differences between networks
- different levels of demand between networks for distribution services relating to supply from embedded generating units
- interjurisdictional differences related to regulatory control mechanisms, classification of services and other related matters
- the network pricing objective and the pricing principles in NER cl. 6.18.5
- any other matters the AER considers relevant.[34]

6.2 Basic export level guidelines

6.2.1 Determining basic export levels

Distributors should determine the basic export levels with regard to:[35]

- the export capacity of the distribution network (or part thereof) to the extent it requires minimal or no further investment − the network's intrinsic hosting capacity
- expected demand for export services in the distribution network (or part thereof).

Distributors should also have regard to:

- constraints and hosting capacity across different geographical locations of the network
- how hosting capacity of the network could evolve, without additional investment, as customers respond to more cost-reflective tariffs and demand management initiatives
- feedback from stakeholders on basic export limits
- customer impact analysis
- customer investments in DER, including rooftop solar and associated payback periods
- expected DER uptake, including rooftop solar, electric vehicles, storage or demand management initiatives, across different parts of the network
- dynamic and static connection arrangements and expectations for changes in the number of these over time
- jurisdictional policies

34 NER, cl. 11.141.14(b).

35 NER, cl. 11.141.13 (b)(1). This reflects the base level of DER hosting capacity that all networks currently provide, because network assets constructed to supply load have an inherent capacity to support some reverse power flow without any additional investment.

- regulatory control mechanisms and service classifications
- the rules' pricing principles. [36]

6.2.2 Basic export levels may vary

In light of the factors listed in section 6.2.1, distributors should consider whether different basic export levels should apply:

- across different geographic locations within a distribution network
- for different times of the day
- for different years within a regulatory control period
- for different customer and/or connection types.

6.2.3 Determining basic export levels

In developing the methodology for determining basic export levels, distributors should balance efficiency, complexity, understandability, fairness and equity. While each distributor can decide how they calculate the basic export level, they should ensure their proposal is well justified in consideration of the basic export level guidelines.

Distributors can consider whether the basic export level may be better expressed as a range where the selection of a value within the range depends on one or more variables.

Distributors may also consider whether it is appropriate to set out in their tariff structure statement a method for determining basic export levels applicable to specific export tariffs for each year, rather than setting discrete basic export levels.

However, distributors should reflect on the understandability of such options for expressing basic export levels. We place significant weight on network tariff and service proposals being expressed in ways that both retailers and customers can readily understand and respond to.

[36] NER, cl. 6.18.5.

Glossary

Term	Definition
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
augex	augmentation capital expenditure
DER	distributed energy resources
distributor	Distribution Network Service Provider
Guidelines	Export Tariff Guidelines
Handbook	Better Resets Handbook
kVA	kilovolt-amps
kW	kilowatt
kWh	kilowatt-hour
LRMC	Long run marginal cost
opex	operational expenditure
repex	replacement capital expenditure
rules, NER	National Electricity Rules
rooftop solar	rooftop solar photovoltaic energy systems