

Jemena Electricity Networks (Vic) Ltd

Att 12-01 Tariff Structure Statement

For 1 July 2021 to 30 June 2026



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Jemena

01 Overview

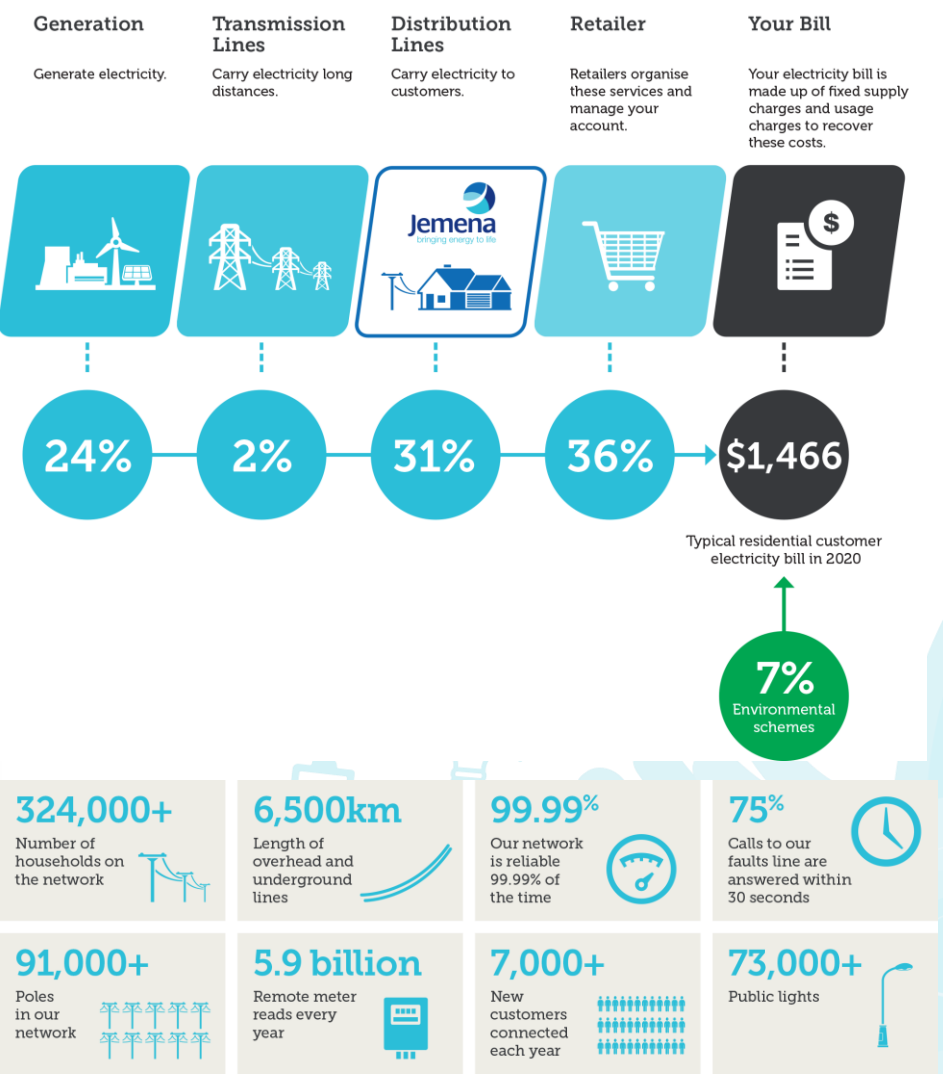
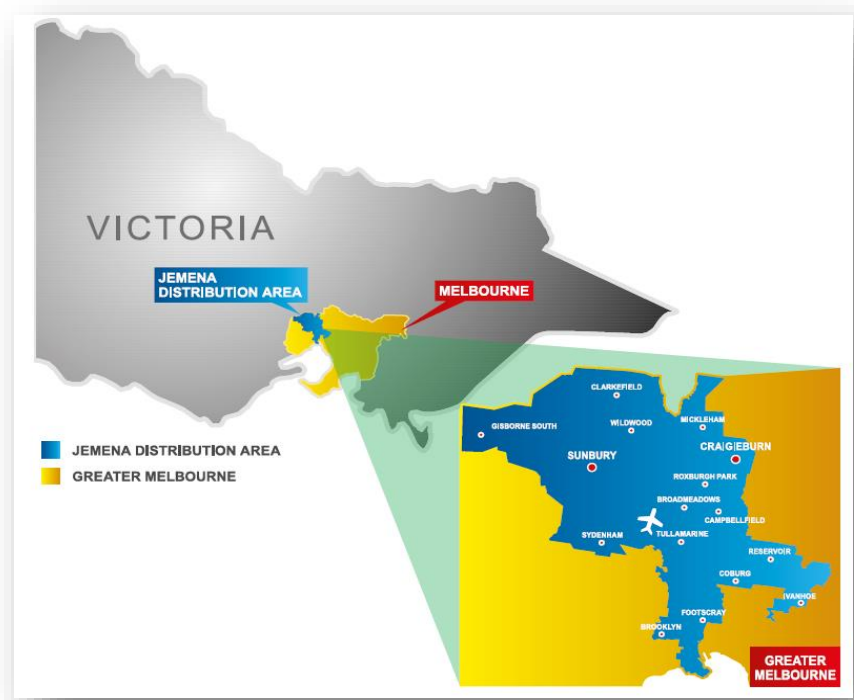


About Jemena Electricity Networks

Our electricity network is one of five electricity distribution networks in Victoria. We are the sole distributor of electricity in north-west greater Melbourne (shown below), and we service more than 350,000 households and businesses.

Our role is to deliver power when our customers need it. We build and manage the infrastructure that transports electricity through more than 950 square kilometres of Melbourne's north-west suburbs, with Melbourne Airport sitting almost at the middle of our patch.

The cost of distributing energy across our network is paid for through your electricity bill. Our network charges typically amount to around 31 per cent of your total bill.



About this tariff structure statement

Our Tariff structure statement (**TSS**) explains our proposed tariff structures to apply from 1 July 2021 and is part of JEN's revised proposal.

The National Electricity Rules (**the Rules**) set the formal TSS requirements.

Our TSS is structured as follows:

1	Overview
2	Tariff classes
3	Tariff structures
4	How we will set prices
5	Indicative prices
6	Compliance checklist

The TSS has the following attachments:

A	Assignment & reassignment policy
B	Indicative prices (Excel version)

Accompanying our TSS, we have also published a tariff structure statement explanatory document (**explanatory document**) at JEN – Att 12-02 Tariff structure statement explanatory document 20201203 - Public.

Our explanatory document provides all the detailed explanation and justification to support our TSS proposal, including how our engagement with customers and stakeholders has informed our proposal.



The Peoples' Panel presented their recommendations to Jemena's Chairman and Managing Director in August 2018





02 Tariff classes



Standard control services

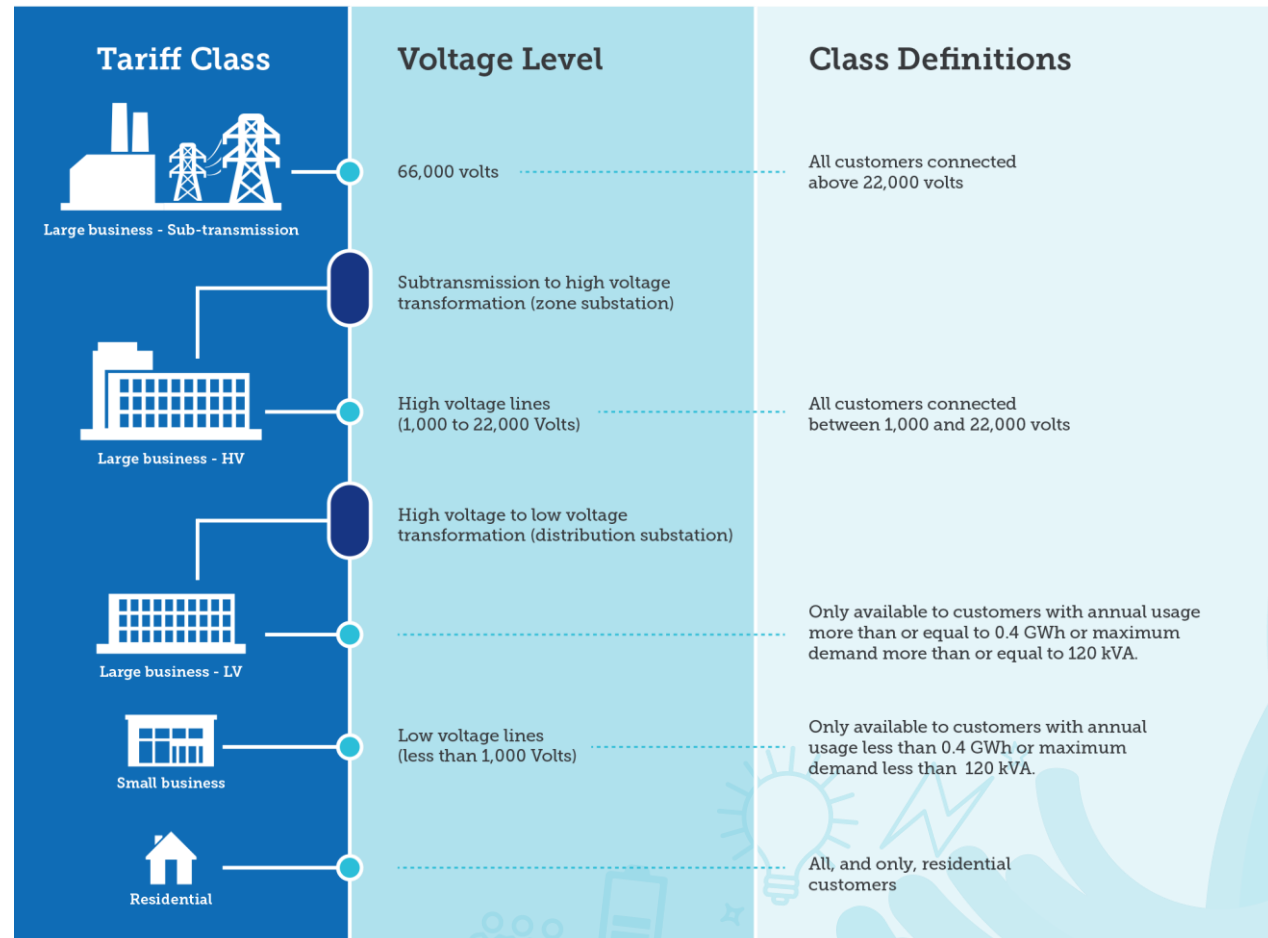
What are they?

The five standard control services (**SCS**) tariff classes we propose for the 2021-26 regulatory period are shown on the right. These are the same tariff classes that we had in place for the 2016-20 regulatory period.

Why these tariff classes?

Our five tariff classes correspond to our five major customer segments, which have materially different costs to connect and serve.

We describe how they reflect our pricing objectives and requirements under the Rules in our explanatory document.



Tariff classes are designed for our direct control services. Direct control services are those services regulated by the AER. They are categorised into standard control services, and alternative control services—which include advance metering infrastructure (**AMI**) services as well as specific services requested by a customer or their retailer. Here we describe how we divide our customers for each service into tariff classes.

Alternative control services

What are they?

In addition to our SCS, we provide user-requested services and metering services¹ (alternative control services (**ACS**)). The full cost of these are attributed to the customer who receives the service.

There is one tariff class for these services—the ‘alternative control services tariff class’.

Within this tariff class, there are multiple user-requested services, each with their own associated price or unit rates that are proposed by us, but approved by the AER. The method for determining prices for these services takes two different forms as described in the table below.

Service	Description
Fee based services	Includes: <ul style="list-style-type: none"> - Ancillary Network Services for which the AER has applied a cap on prices, for example, services such as basic connections, de-energisations, re-energisations - Metering services for ‘small customers’ (Type 5, 6 and AMI meters), Type 7 metering and other auxiliary metering services provided on a customer-requested basis.² - The operation, maintenance and replacement (OM&R) services for public lighting, which the AER has applied a cap on the price per lighting type.
Quoted services	Services for which the AER has placed a cap on the applicable labour rates (inclusive of labour on-costs and overheads). Prices for quoted services are based on quantities of labour plus materials and contractor services.

¹ Our smart metering services include the provision of smart meters for small customers and the associated data services. These have not changed for those that applied during the 2016-20 regulatory period.

² Definitions of the different types of meters can be found in our classification of services attachment to our initial 2021-26 regulatory proposal. See: JEN - Att 07-06 Classification of services – 20200131.

NETWORK PRICING STRUCTURES

This recommendation should be put forward by the Peoples Panel for Jemena's consideration:

Deliberation and revote

Recommendation

11. The Panel believes that the 'Monthly Maximum demand' pricing structure is the best for customers, so long as customers can opt out.

Disagree



Agree



12. The Panel recommends that

45%

55%

03 Tariff structures





What are tariff structures?

Tariff vs tariff structure

A 'tariff' is how we charge a retailer for the services we provide our customers. The tariff can be made up of different charges such as a fixed charge, usage charge or demand charge.

The 'tariff structure' (or price structure) includes the tariff, tariff 'components' and 'charging parameters', which together provide the additional information for retailers (and customers) to know how we will bill them for each customer. The total network bill for a customer will depend on their network tariff and how the customer uses our network.

Each year, we publish our tariff schedule and, before we set prices, we must determine how to structure our tariffs.

We show tariff structures by customer segment

How we structure our tariffs is set out in the remainder of this section. We provide our tariff structures by customer segment:

- residential
- small business
- large business (combined low voltage, high voltage and sub-transmission tariff classes).

For each customer segment we provide tariff structures and how we assign customers within that segment.

Our SCS tariff structures are made up of one or more of the following tariff components:

- A fixed (or 'standing') charge tariff component—a supply charge that applies to each premises that electricity is delivered to (in dollars per annum), and charged on a pro-rata basis, depending on how frequently each customer is billed (usually monthly or quarterly).
- A usage charge tariff component—a charge that applies to the volume of electricity consumed (in cents per kilowatt hour (kWh)). For some customers, this charge may also depend on the time of the day the electricity is consumed.
- A demand charge tariff component—a charge that applies to either a customer's electricity capacity requirement (in dollars per kilovolt-ampere (kVA)) or their maximum demand level (in dollars per kilowatt (kW)) depending on the type of customer.





Tariff structures for the residential tariff class

Tariff	Tariff code ³	Components	Unit	Charging parameter
Open tariffs				
Residential single rate (previously general purpose)	A100 or F100	Standing charge	\$ pa	
		Unit rate	c/kWh	
Residential demand (Previously general purpose – demand)	A10D or F10D	Standing charge	\$ pa	
		Unit rate	c/kWh	
		Demand charge	\$/kW pa	Maximum demand set 3pm-9pm (local time) work days and reset monthly. Prices may vary for summer and non-summer months ⁴
Residential Time of Use (NEW default tariff)	A120 or F120	Standing charge	\$ pa	
		Peak unit rate	c/kWh	3pm-9pm (local time) every day
		Off peak unit rate	c/kWh	All other times.
Closed tariffs⁵				
Dedicated circuit	A180	Standing charge	\$ pa	
		Off peak unit rate	c/kWh	11pm-7am daily (AEST)

3. Tariff codes starting 'F' indicate the premium feed-in tariff rebate. Note because the transitional feed in tariff rebate has ceased, there is no longer tariff codes starting with 'T'.

4. Unit rates can vary also vary by summer (daylight savings period) and non-summer (all other times).

5. A closed tariff means no customer can be assigned onto the tariff but current customers can remain on the tariff.



Residential assignment policy

Key assignment information

Our residential tariff assignment and reassignment policy has been informed by the views of our customers as set out in our explanatory document and is the result of more than three years of seeking and understanding various stakeholder preferences.

We assign customers to a tariff class when they connect to the network for the first time (e.g. build and connect a new home) or move house.

We then place our residential customers onto the most appropriate network tariff, while still allowing them to choose an alternative tariff.

From 1 July 2021:

- New customers who have a connection and an AMI meter, customers who upgrade to three-phase metering and customers who install distributed energy resources capable of injection into the JEN network (including solar photovoltaic generation and batteries) will be assigned to the residential time of use (A120) tariff.
- All residential customers on our legacy time of use tariffs (the A10X, T10X, F10X, A10I, T10I, F10I, A140, T140 and F140 tariffs) will be reassigned to the new residential time of use (A120) tariff.
- Customer choice will be consistent with a final version of the Victorian Government AMI Order in Council. Apart from any exceptions within that Order, all residential customers:
 - assigned to the A120 tariff, or who have opted into it have the option to opt-out to the single rate tariff (A100) or demand tariff (A10D).
 - currently on the single rate (A100) tariff will have the option to move to the residential time of use tariff (A120) or the demand tariff (A10D) if they have an AMI meter.
 - who have opted-in to a demand tariff will subsequently have the option to opt-out to the single rate tariff (A100) or the residential time of use tariff (A120).

We will assign customers who have an electric vehicle or electric vehicle fast charger to the A120 tariff when a register or other formal means of identification becomes available. These customers will no longer be able to access the single rate tariff (A100) once this occurs.

Our complete assignment and reassignment policy is provided at Attachment A





Tariff structures for the small business tariff class

Tariff	Tariff code ³	Components	Unit	Charging parameter
Open tariffs for business customers with annual consumption < 400MWh per annum and maximum demand < 120kVA per annum⁶				
Small business single rate – (previously general purpose) Available to all customers with consumption <40MWh per annum.	A200 or F200	Standing charge	\$ pa	
		Unit rate	c/kWh	
Small business demand - (previously general purpose demand) Available to all customers with consumption <40MWh per annum and meters capable of measuring demand.	A20D or F20D	Standing charge	\$ pa	
		Unit rate	c/kWh	
		Demand charge	\$/kW pa	Maximum demand set 10am-8pm work days using the maximum level of the last 12 months where data is available.
Time of use weekdays The default tariff for all customers with consumption < 40MWh per annum.	A210 or F210	Standing charge	\$ pa	
		Peak unit rate	c/kWh	9am-9pm weekdays (local time)
		Off peak unit rate	c/kWh	All other times.
Time of use weekdays – demand. JEN has two sets of tariffs available: 1. One with a positive demand charge (default for customers with consumption over 40MWh per annum) 2. An 'opt out' tariff option with the demand charge set to zero. Available to all customers with consumption <160MWh per annum but may trigger a capital contribution recalculation.	1. A230 or F230 2. A23N or F23N	Standing charge	\$ pa	
		Peak unit rate	c/kWh	7am-11pm weekdays (local time)
		Off peak unit rate	c/kWh	All other times
		Demand charge	\$/kW pa	Maximum demand set at any time using the maximum level of the last 12 months where data is available.
Unmetered supply	A290	Peak unit rate	c/kWh	7am-11pm weekdays (local time)
		Off peak unit rate	c/kWh	All other times
Closed tariffs⁷				
Time of use extended – demand (closed to new entrants) applicable to customers with energy consumption > 40MWh per annum	A270	Standing charge	\$ pa	
		Peak unit rate	c/kWh	7am-11pm Mon-Sun (local time)
		Off peak unit rate	c/kWh	All other times
		Demand charge	\$/kW pa	Maximum demand set at any time using the maximum level of the last 12 months where data is available. Subject to minimum chargeable demand of 60 kW.

6. JEN uses 120kVA to differentiate between our small business and large business customers are based on common connection standards adopted by the Victorian energy industry. 120kVA is the maximum demand capacity an overhead service cable can deliver to a customer.

7. A closed tariff means no customer can be assigned onto the tariff but current customers can remain on the tariff.



Small business assignment policy

Key assignment information

Our small business tariff assignment policy aims to place our new small business customers on the most appropriate tariff, while still allowing customers under 120kVA or 40MWh per annum to retain a choice. From 1 January 2021:

- New customers with demand less than 120 kVA and annual consumption less than 400 MWh are eligible for assignment to the small business tariff class.
- New customers having an AMI, manual read interval (MRI) or current transformer (CT) meter and an annual consumption less than 40 MWh, or existing customers who upgrade to three-phase metering or who install distributed energy resources capable of injection into the JEN network (including solar photovoltaic generation and batteries) are assigned to the time of use weekdays (A210).
- Customers with a basic meter are assigned to the single rate (A200) tariff. Customers would not have the option to move to any other tariffs unless they install an AMI, MRI or CT meter.
- New customers with an AMI, MRI or CT meter and an annual consumption greater than 40 MWh (and less than 400MWh), or existing customers who upgrade to three-phase metering or who install distributed energy resources capable of injection into the JEN network (including solar photovoltaic generation and batteries) are assigned to the Time of Use Weekdays – demand tariff (A230).
- All customers in the small business tariff class have the option to move to the following tariffs:
 - > For customers with annual consumption less than 40 MWh per annum:
 - Single rate (A200), excluding customers with electric vehicle fast chargers once a register or other formal means of identification becomes available
 - Demand (A20D)
 - Time of Use Weekdays (A210)
 - > For customers with annual consumption greater than 40 MWh per annum:
 - Time of Use Weekdays – Demand (A230)
 - Time of Use – Opt out (A23N).



Our complete assignment and reassignment policy is provided at Attachment A



Tariff structures for the large business tariff classes (page 1 of 2)

New tariff component

JEN has introduced a new tariff component for our large business customers—the summer demand incentive charge (SDIC). Prices for the SDIC will be transitioned to cost reflective levels over 5 years at 25 per cent per year from 1 July 2022. Customers can choose a tariff with the SDIC at full cost reflective levels and revert back to our transitional tariff in accordance with our assignment & reassignment policy at Attachment A

Notes:

- Maximum demand for the demand charge set 8am-8pm Monday to Friday (**local time**) using the maximum level of the last 12 months where data is available.
- Maximum demand for the SDIC set 4pm-7pm workdays (local time) each month in December to March and reset monthly
- LV_{MS} 2.2+ - 6.0 GWh, LV_{MS} 6.0+ GWh and HV_{RF} tariffs are closed to new entrants
- Peak is 8am-8pm Monday to Friday (**local time**). Off peak is all other times.
- EN is 'embedded network' representing the tariff is only available to embedded network customers. (Additional criteria may apply as outlined in our tariff schedule).
- MS is 'multiple supply' representing the tariff is only available to a non-embedded network customer taking supply from multiple National Meter Identifiers (NMI'S). (Additional criteria may apply as outlined in our tariff schedule). These tariffs are closed to new entrants.
- RF is for customers with a reserve feeder contract. The tariff is closed to new entrants.
- There is no minimum demand for the summer demand incentive charge.
- Tariff codes ending with C, T or X are the tariffs with a fully cost reflective SDIC.

Tariff	Tariff code ³	Components	Unit	Charging parameter
Low voltage				
LV ≤ 0.8 GWh	A300, F300, A30C, F30C	Each contains a:	Unit is:	Demand charge subject to minimum chargeable demand of 120kVA
		- Standing charge	- \$ pa	
LV _{EN} Annual Consumption - ≤0.8 GWh	A30E, A30C		- Peak unit rate	- c/kWh
LV 0.8+ - 2.2 GWh	A320, A32C		- Off peak unit rate	- c/kWh
LV _{EN} 0.8+ - 2.2 GWh	A32E, A32C		- Demand charge	- \$/kVA pa
LV 2.2+ - 6.0 GWh	A340, A34C		- Summer demand incentive charge (SDIC)	- c/kVA/day
LV _{EN} 2.2+ GWh	A34E, A34C			
LV _{MS} 2.2+ - 6.0 GWh	A34M, A34T			
LV 6.0+ GWh	A370, A37C			Demand charge subject to minimum chargeable demand of 450kVA
LV _{MS} 6.0+ GWh	A37M, A37T			
High voltage				
HV	A400, A40C	Each contains a:	Unit is:	Demand charge subject to minimum chargeable demand of 1,000kVA.
		- Standing charge	- \$ pa	
HV _{EN}	A40E, A40C		- Peak unit rate	- c/kWh
HV _{RF}	A40R, A40T		- Off peak unit rate	- c/kWh
HV - Annual Consumption ≥ 55 GWh	A480, A48C		- Demand charge	- \$/kVA pa
			- SDIC	- c/kVA/day
				Demand charge subject to minimum chargeable demand of 10,000kVA



Tariff structures for the large business tariff classes (page 2 of 2)

Tariff	Tariff code ³	Components	Unit	Charging parameter	Notes:
Sub-transmission					
Sub-transmission	A500, A50C	Each contains a:	Unit is:	Demand charge subject to minimum chargeable demand of 15,000kVA	1. Maximum demand set 8am-8pm Monday to Friday (local time) using the maximum level of the last 12 months where data is available.
Sub-transmission MA	A50A, A50T	- Standing charge	- \$ pa / connection		2. Maximum demand for the SDIC set 4pm-7pm workdays (local time) each month in December to March and reset monthly.
Sub-transmission EG	A50E, A50X	- Peak unit rate	- c/kWh		3. Peak is 8am-8pm Monday to Friday (local time). Off peak is all other times.
Sub-transmission – Multiple connection (NEW)	A50M	- Off peak unit rate - Demand charge - SDIC	- c/kWh - \$kVA pa - c/kVA/day		4. EG is embedded generator connected to a specified loop. 5. Tariff A50M applies only where the customer has connections from more than one sub-transmission loop. 6. There is no minimum demand for the summer demand incentive charge. 7. Tariff codes ending with C, T or X are the tariffs with a fully cost reflective SDIC. There is no transition for the A50M as it is a new tariff.





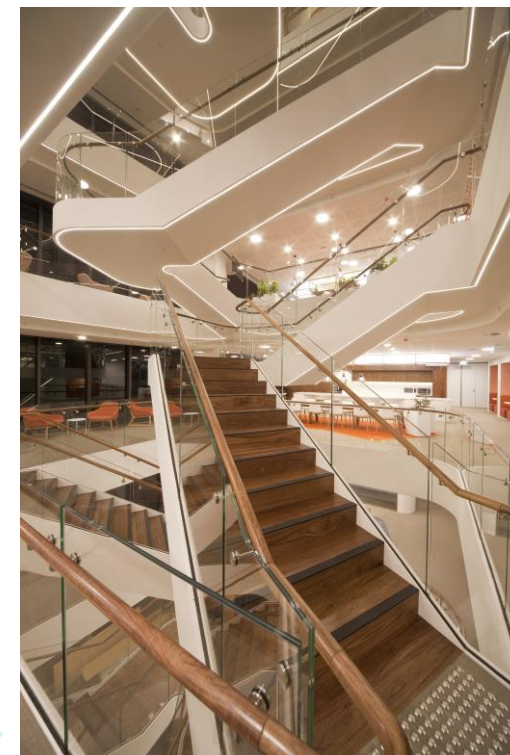
Large business assignment policy

Key assignment information

Large business customers are assigned to a tariff based on their connected voltage level, type of connection and annual consumption. The below table describes the criteria for each tariff.

These tariffs will be transitioned to fully cost reflective prices for the SDIC by 2025-26 at 25 per cent per year from 2022-23. Each customer can choose to be assigned to their respective fully cost reflective SDIC tariff (tariff code ending in C, T or X) at anytime prior to 2025-26.

Tariff	Tariff code ³	Connection		Annual consumption (GWh)	
		Voltage	Type	Minimum	Maximum
LV <= 0.8 GWh	A300, (A30C)	Low Voltage	Non-Embedded	-	0.8
LV _{EN} Annual Consumption <=0.8 GWh	A30E, (A30C)		Embedded	-	0.8
LV 0.8+ - 2.2 GWh	A320, (A32C)		Non-Embedded	0.8	2.2
LV _{EN} 0.8+ - 2.2 GWh	A32E, (A32C)		Embedded	0.8	2.2
LV 2.2+ - 6.0 GWh	A340, (A34C)		Non-Embedded	2.2	6.0
LV _{EN} 2.2+ GWh	A34E, (A34C)		Embedded	2.2	-
LV 6.0+ GWh	A370, (A37C)		Non-Embedded	6.0	-
HV	A400 (A40C)	High Voltage	Non-Embedded	-	55.0
HV _{EN}	A40E (A40C)		Embedded	-	-
HV - Annual Consumption >= 55 GWh	A480 (A48C)		Non-Embedded	55.0	-
Sub-transmission	A500 (A50C)	Sub Transmission	Non-Embedded	-	-
Sub-transmission MA	A50A (A50T)		Non-Embedded	-	-
Sub-transmission EG	A50E (A50X)		Embedded Generation	-	-
Sub-transmission – Multiple feeder (NEW)	A50M		Multiple Feeders	-	-



Our complete assignment and reassignment policy, including the conditions for opting in and opting out of the fully cost reflective tariff is provided at Attachment A and explained further in Section 5 of our explanatory document.



Exemptions from a network tariff

JEN may provide network tariff exemptions in certain circumstances

Customers with generation facilities or batteries will be partially or fully exempt from a network tariff if the customer has signed a contract with JEN which exempts them from a network tariff. JEN would only seek to only enter into such a contract if:

- There is no other load at the site other than load associated with the generation facility or battery
- The generator or battery will be called upon for providing network support services and will not actively engage in any competitive market activities whilst providing this service
- Only the generation facility or battery charging load associated with providing network support services will be eligible for the network tariff exemption, which will be applied as part of the rebate based on the network support services to be provided; and
- The load associated with non-regulated services will be subject to network tariffs consistent with other assets having a similar connection to, and use of, the network.

The exemption of a network tariff may also impact the calculation of the customers' connection cost and require the customer to waive their right to access avoided transmission use of system payments.

All other batteries must be assigned to tariffs according to the tariff class assignment criteria.

Any generation facilities or batteries owned by JEN and installed to manage the distribution network will be exempt from a network tariff. If a distributor-owned battery provides non-regulated services under ring-fencing arrangements the load associated with non-regulated services will be subject to network tariffs consistent with other assets having a similar connection to, and use of, the network



04 How we will set prices



Jemena



Our approach

We take the following approach to set our SCS prices—also referred to as Distribution use of Service (**DUoS**) prices:

1. **Allocate revenue to tariff classes**—Determine the revenue to recover each year for each tariff class, consistent with our 2021-26 regulatory proposal. We base this on the historical proportion of revenue from each tariff class, which we consider is cost-reflective. This also ensures that tariff classes sufficiently benefit from (contribute to) their impact on the unders and overs account driven by the revenue cap.
2. **For our default tariff within each tariff class, set price levels of the components that best signal the marginal cost of the network:**
 - Start with our calculated long-run marginal cost (**LRMC**) values by tariff class. We call these our ‘base’ LRMC estimates (see page 21).
 - Translate these base LRMC estimates into tariff component LRMC estimates.
 - Use the component LRMC estimates as the basis for the peak ToU or demand component for each demand tariff as applicable by:
 - Considering the variation between the tariff components’ current price level and the new LRMC estimate.
 - Seeking to move these components toward the new LRMC estimates in a manner that mitigates customer impacts, seeks to smooth the long term volatility of LRMC estimates and ensures a peak to off peak price ratio of at least 2.5.
3. **Set price levels for remaining components of the default tariff**—prices are set to:
 - Recover the residual costs of supplying customers on the tariff in a manner that:
 - Best replicates (and least distorts) the price signal the customer receives from step 2. All else equal, we intend to rebalance the recovery of costs towards fixed charges and away from relatively more distortionary usage charges.⁸
 - Ensures volatility with respect to previous years’ price levels, and therefore customer bill impact is mitigated.

8. Following consultation, we have calculated our indicative prices in section 5 based on a more restrained move toward non-distorted LRMC price signals than our initial proposal. We discuss this in section 3.5.5 of our explanatory document.

4. **Set price levels for tariffs without a cost reflective component** (ie without a demand component or a 3pm-9pm peak ToU component). For example, for our residential customers, we will set our annual prices so that a typical customer’s network bill is:

- Equivalent whether they are on a demand tariff or our default ToU tariff, which by the end of the 2021-26 period will be:
- Around 5 per cent lower than if the customer was on our single rate or closed 7am-11pm peak period ToU tariffs—the gap increasing by one per cent per year.

We estimate that this approach would result in 89 per cent of single rate residential customers being better off on the default ToU or demand tariff by the end of the 2021-26 period.

5. **Ensure that revenue from each tariff class lies between standalone and avoidable costs** (see page 23-24)

Allocation of TUoS to tariff classes

The table below shows how our DUoS revenue and Transmission Use of System (**TUoS**) pass through have historically been allocated to market segments. TUoS volatility can result in volatile network prices for large businesses under these allocations because a larger portion of their bill is made up of transmission costs. To mitigate this going forward, we consider that the TUoS allocation should be brought closer to the DUoS allocation over the 2021-26 period, which we consider is cost-reflective.

Our long-term goal is to better align TUoS and DUoS allocations. Our approach to make progress, but limit customer impacts, is to seek to floor residential and small business annual TUoS price decreases at zero when an average price decrease occurs, and cap large business annual TUoS price increases at inflation when price increases occur. Our indicative Network Use of System (**NUoS**) prices incorporate the movement required to result in the likely allocations by 2025-26 shown below.

Market segment	2020 DUoS allocation	2020 TUoS allocation	Likely 2025-26 TUoS allocation
Residential	44%	12%	22%
Small business	23%	15%	18%
Large business	33%	73%	60%

Long run marginal cost

Why estimate LRMCM?

Clause 6.18.5(f) of the Rules requires that our tariffs are based on the long-run marginal cost (**LRMC**) of providing network services to our customers.

The LRMCM is an estimate of our future costs of expanding (or contracting) our network to allow for one additional (or less) unit of use of the network. It is customer demand during peak network demand periods that drives the costs of our network, and so the LRMCM reflects the cost to supply one additional unit of capacity (in kW or kVA) at peak times.

By setting tariffs with reference to the LRMCM of the network, we promote efficient use of our network based on tariffs that are aligned with the underlying cost of network usage.

Two potential methods to estimate LRMCM

There are two principal methods for estimating the LRMCM:

- The perturbation (Turvey approach); and
- The average incremental cost (**AIC**) approach.

The perturbation approach to estimating the LRMCM requires a consideration of how our proposed capital program would need to be adjusted should there be a small, but permanent, change in forward looking demand. This might involve the bringing forward (or delay) in capital projects with associated additional incremental costs. In principle, a perturbation estimate of the LRMCM is most likely to align with the actual incremental costs incurred by customers changing their consumption.

The AIC approach uses our proposed capital expenditure and demand to estimate the LRMCM by dividing the total increase in expenditure by the total incremental increase in demand (hence it is an average incremental cost). This provides an average estimate of the likely incremental change in costs as a consequence of a change in consumption and so is not as precise an estimate of the LRMCM as compared to that result from the use of the perturbation methodology.

Clause 6.18.5(f)(1) of the Rules requires we have regard to the costs and benefits associated with calculating, implementing and applying the chosen method.

We consider the AIC approach remains appropriate

We have historically used an AIC approach to estimate LRMCM. We consider that, on balance, the administrative cost of undertaking the Turvey approach would exceed benefits. This is because the Turvey method is complex and requires multiple demand permutations and engineering assessments of capital expenditure to provide robust results.

We do not consider the cost of obtaining alternative results would provide any additional benefit that would outweigh what we can obtain from LRMCM estimates using the AIC approach. In addition, the AIC approach has been widely used and accepted by the AER as a reasonable estimate for tariff setting purposes. Attachment E of our explanatory document provides additional detail, including our approach to including replacement capex.

Our AIC approach to estimating LRMCM

We undertook the following steps to estimate LRMCM:

- Evaluate the present value of future flows of relevant expenditure, involving:
 - A detailed analysis of each of our proposed capital programs to determine those that are growth-related, ie, those augmentations or replacement works that create additional capacity on the network;
 - Evaluating the value of operating expenditure associated with these capital items;
 - Allocating the cost of these growth-related expenditure items to the tariff class which they serve or, where the expenditure was for the network more broadly, to each tariff class by the proportion of contribution to peak demand; and
 - Evaluating the present value of this forward-looking expenditure over a 10-year time horizon of 2020 to 2029;
- Evaluate the present value of additional demand met by Jemena's network:
 - Evaluate the cumulative increase of demand by each tariff class; and
 - Find the present value of additional demand over the 2020 to 2029; and
- Evaluate the LRMCM for each tariff class by dividing the present value of growth-related expenditure by the present value of additional demand.

Long run marginal cost estimates

Our base LRMC estimates

The table below provides our base LRMC estimates for each tariff class, expressed either as dollars per kW per annum or dollars per kVA per annum.

Tariff class	Unit	LRMC estimate
Residential	\$ / kW pa	\$110
Small business	\$ / kW pa	\$70
Large business – low voltage	\$ / kVA pa	\$58
Large business – high voltage	\$ / kVA pa	\$36
Large business – subtransmission	\$ / kVA pa	\$0.33

However, most customers are not, or cannot, be charged based on their contribution to the network's maximum demand, which might only happen once or twice a year. We therefore need to express these LRMC estimates in terms of their charging parameters that constitute each tariff.

Convert LRMC into single rate component

To convert our LRMC estimates into the single rate component we have divided the estimate by the number of hours in the year and divide by 100 to convert into c/kWh.

For example, for our residential single rate LRMC, we divide \$110 by:

- 365 multiplied by 24 and divide by 100

This provides a LRMC component estimate for the residential single rate tariff of 1.26 c/kWh.

Convert LRMC into peak rate component

To convert our LRMC estimates into the peak rate component we have divided the estimate by the number of hours in the peak period during the year and divide by 100 to convert into c/kWh.

For example, for our new residential TOU peak rate, which has a six hour peak period every day from 3pm-9pm, we estimate LRMC by dividing \$110 by:

- 365 multiplied by 6 and divide by 100.

This provides a LRMC component estimate for the residential single rate tariff of 5.04 c/kWh.

Convert LRMC into demand charge component

To convert our LRMC estimates into the demand charge component we need to recognise that the sum of each customers' maximum demand exceeds coincident demand. We therefore need to apply a diversity factor to the base estimates.

For example, we calculate that residential customers' collective coincident demand is 46.8 per cent of the sum of residential customer maximum demand.

We therefore estimate the residential demand component LRMC estimate by multiplying \$110/kW by 0.468, which is \$51.60/kW.



Stand alone & avoidable cost

Why calculate stand alone and avoidable cost?

We test that our expected revenue from each tariff class falls between the efficiency bounds of stand alone and avoidable cost. This test is designed to ensure our customers 'pay their way' without 'paying too much'.

The avoidable costs for a tariff class are the theoretical cost savings that would be made if the customers in that tariff class were to cease to exist whilst all other customers in other tariff classes remained the same. This is often a relatively low value as it would generally only include assets specifically dedicated to those customers and a portion of operating expenses reflecting the incremental costs of supplying each customer.

Requiring that revenue from a tariff class is above avoidable cost ensures our customers 'pay their way'. This makes sense because if the revenue from these customers was less, then revenues from customers in other tariff classes would be 'too high', meaning other customers may be inefficiently cross-subsidising that tariff class.

The stand alone cost for a tariff class is the theoretical cost of building and operating a network designed solely for that tariff class. This is often relatively high because, by definition, there are no economies of scale from using shared assets to supply multiple tariff classes.

By requiring revenue from a tariff class to be below stand alone cost we ensure customers don't 'pay too much'. This makes sense as we don't want to incentivise inefficient behaviour by encouraging customers to duplicate our assets and build their own network as this would mean these customers would not be able to share any of the efficiency benefits from using a shared network.

Our approach to calculate stand alone and avoidable cost

The method we implement to evaluate standalone and avoidable costs requires a process of reviewing the cost of providing our network services to determine whether they are incurred directly by certain tariff classes or shared across the network.

To estimate the avoidable costs for each of the tariff classes on our network, we undertake the following steps:

- Determine for each of the categories of operating and capital expenditure the proportion of costs that are incurred directly by customers using our network - ie, whether these costs would not be incurred if the tariff class were no long supplied;
- Determine the underlying driver of these avoidable costs, ie, whether these costs are driven by:
 - the energy served for each tariff class - eg, the amount of maintenance expenditure that we incur is directly affected by customer consumption on the network and the assets required to serve this consumption; or
 - the number of customers in each tariff class - eg, the cost required to operate our call centre is determined by the number of customers on the network, rather than the consumption on the network itself; then
- Allocate avoidable costs to each tariff class in the proportion of energy served or customer numbers, as relevant.

To estimate the standalone costs for each tariff class, we:

- Estimate those costs that we consider to be non-avoidable, ie, those not included in the avoidable cost calculations;
- Determine the extent of these costs that would be required to serve each tariff class as a standalone network, eg, subtransmission customers do not require the low voltage network; and
- Add these costs onto the avoidable costs for each tariff class to determine the total cost of serving each network on an individual basis.

Stand alone & avoidable cost test

This table below demonstrates that the expected revenue for our first year of the 2021-26 regulatory period falls between our avoidable cost and standalone cost estimate in that year for each of our tariff classes.

Tariff class	Avoidable costs (\$2021-22)	Revenue (\$2021-22)	Standalone costs (\$2021-22)
Residential	14,354,434	119,056,672	1,095,409,550
Small business	5,098,901	58,972,368	1,240,590,460
Large business – low voltage	8,809,889	65,079,639	1,398,737,895
Large business – high voltage	2,961,233	17,439,091	466,270,568
Large business – subtransmission	620,251	2,628,546	155,056,696



05 Indicative prices



Interpreting indicative prices

Introduction

Our annual network tariffs are referred to as network use-of-system charges or **'NUoS'**. NUoS includes the annual costs of both our distribution network (distribution use of system charges or **'DUoS'**) and several other costs⁸ and adjustments.⁹

Our indicative NUoS prices in this section are calculated as a combination of our estimate DUoS prices, plus the estimated prices to reflect these other costs.

Our estimated DUoS prices are calculated consistent with our proposed X-factors and CPI within our 2021-26 regulatory proposal.

This section also provides indicative prices for our alternative control services. These are set to recover the cost to us of undertaking the required activity. The forecast price changes over the 2021-26 regulatory period reflect forecast changes in CPI and in the real cost of the inputs (labour and materials) used to provide the services.

What is an X-factor?

When making its decision on our allowed revenues, the AER uses a 'CPI-X' formula, which describes how much our average prices can change from one year to the next. The 'X' in CPI-X is the 'X-factor' and 'CPI' is inflation. Both are expressed as percentage amounts. When we describe price changes, we sometimes use the term 'real' price change or a 'nominal' price change. The table below shows how different X-factors should be translated into real or nominal price movements.

X-factor level	Real price movement	Nominal price movement
X-factor > CPI	↓	↓
X-factor = CPI	↓	↔
0 < X-factor < CPI	↓	↑
X-factor = 0	↔	↑
X-factor < 0	↑	↑

Interpreting the indicative prices

DUoS makes up around 31 per cent of a typical residential customer bill. Transmission services, which are included in NUoS, make up around 2 per cent of a typical customer bill. It is more for large business customers.

This TSS provides tariff structures and the price setting process related only to DUoS (standard control services and alternative control services) as this is the part of a customer's energy bill that we manage.

However, the indicative prices we publish include NUoS prices. Therefore, there are external elements that we must forecast to provide the indicative NUoS prices.

It is likely that our indicative prices will prove to be different to the actual prices we charge retailers (and which they incorporate into the prices that customers pay) due to difficulties in forecasting:

- annual transmission costs, which can be volatile
- pass-through amounts
- incentive scheme outcomes
- adjustments to take into account the previous year's under—or over—recovery of revenue.

Customers relying on this information to make business or investment decisions should be aware that:

- these indicative prices are part of our 2021-26 revised regulatory proposal submitted to the AER in December 2020 and will change to incorporate the AER's final decision around April 2021.
- there is potential volatility between an indicative price and final price, with risks inherent with relying on them. For example, the revenue cap results in revenue under or over recovery each year, which is then used to adjust future years revenues, and therefore the associated prices.

Our full set of indicative prices is provided at Attachment B.

8. The Rules refers to these as: 'designated pricing proposal charges', which include Transmission Use of System (TUoS) charges, inter-distribution charges and avoided TUoS, and 'Jurisdictional scheme cost recovery', which include rebates paid for premium feed in tariffs.

9. This includes outcomes of incentives schemes we operate under and the need to balance any under- or over-recovery of revenue in any one year. As we are regulated under a revenue cap, the AER sets the maximum revenue we can receive in any year. Because revenue depends on actual demand levels and prices are set in advance, we will collect a different level of revenue to our allowance in any year. This is corrected by adjusting a following years' prices to pay back any over-recovery or collect any under-recovery. To allow data to become available for the annual price setting process, this has to be done with a two year lag.

06 Compliance checklist



Compliance checklist

This TSS is a requirement of the Rules. The table below provides where to find how we addressed these rule requirements within this TSS and our explanatory document.

Requirement	Rule	Location
A description of how the proposed TSS complies with the pricing principles	6.8.2(c)(7), 6.8.2(d2), 6.10.3(b1) & 6.18.1A(b)	See our explanatory document.
The TSS must be accompanied by an indicative pricing schedule	6.8.2(d1), 6.10.3(b1) & 6.18.1A(e)	Section 5 and Attachment B (which is JEN- Att 12-03 Indicative prices – 20201203 – Public)
The TSS must include tariff classes	6.18.1A(a)(1)	Section 2 of our TSS Chapter 2 of our explanatory document
The TSS must include the policies and procedures for assigning customers to tariffs and reassigning from one tariff to another	6.18.1A(a)(2)	Section 3 and Attachment A of our TSS Also discussed in chapters 3, 4 and 5 of our explanatory document
The TSS must include the structures for each tariff	6.18.1A(a)(3)	Section 3 of our TSS
The TSS must include the charging parameters for each tariff	6.18.1A(a)(4)	Section 3 of our TSS
The TSS must include a description of the approach we will take in setting each tariff in each pricing proposal during the regulatory period	6.18.1A(a)(5)	Section 4 of our TSS
We must describe our engagement with customers, retailers and stakeholders in developing the TSS	6.8.2(c1a)	Chapters 3, 4 and 5 of our explanatory document

Abbreviations

2021-26 Plan	Our revenue and pricing proposal to the AER for the 1 July 2021 to 30 June 2026 regulatory period
ACS	Alternative control services
AER	Australian Energy Regulator
AIC	Average incremental cost
AMI	Advanced metering infrastructure
Capex	Capital expenditure
Current period	1 January 2016 to 31 December 2020
DER	Distributed energy resources
DUoS	Distribution Use of System
Forecast period	1 July 2021 to 30 June 2026
Explanatory document	Tariff Structures Statement explanatory document
FY	Financial Year (year ending 30 June)
HV	High voltage
JEN	Jemena Electricity Networks (Vic) Ltd
kVA	Kilo-volt-ampere
kW	Kilowatt
kWh	Kilowatt hour
LRMC	Long run marginal cost
LV	Low voltage

MD	Maximum demand
NER	National Electricity Rules, or Rules
NMI	National Metering Identifier
NUoS	Network use of System
OM&R	Operation, maintenance and replacement
Opex	Operating expenditure
SCS	Standard control services
ToU	Time of Use
TSS	Tariff Structure Statement
TUoS	Transmission Use of System



Attachment A – Assignment and reassignment policy



Attachment B – Indicative Prices Excel format

Provided at JEN- Att 12-03 Indicative prices – 20201203 – Public



**to hear,
listen
and think**



Jemena