PRELIMINARY DECISION
Jemena distribution determination
2016 to 2020

Attachment 11 – Service target performance incentive scheme

October 2015

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Note

This attachment forms part of the AER's preliminary decision on Jemena's revenue proposal 2016–20. It should be read with all other parts of the preliminary decision.

The preliminary decision includes the following documents:

Overview

Attachment 1 - Annual revenue requirement

Attachment 2 - Regulatory asset base

Attachment 3 - Rate of return

Attachment 4 - Value of imputation credits

Attachment 5 - Regulatory depreciation

Attachment 6 - Capital expenditure

Attachment 7 - Operating expenditure

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Contents

Shortened forms

Shortened form	Extended form
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
AMI	Advanced metering infrastructure
augex	augmentation expenditure
capex	capital expenditure
CCP	Consumer Challenge Panel
CESS	capital expenditure sharing scheme
CPI	consumer price index
DRP	debt risk premium
DMIA	demand management innovation allowance
DMIS	demand management incentive scheme
distributor	distribution network service provider
DUoS	distribution use of system
EBSS	efficiency benefit sharing scheme
ERP	equity risk premium
Expenditure Assessment Guideline	Expenditure Forecast Assessment Guideline for electricity distribution
F&A	framework and approach
MRP	market risk premium
NEL	national electricity law
NEM	national electricity market
NEO	national electricity objective
NER	national electricity rules
NSP	network service provider
opex	operating expenditure
PPI	partial performance indicators
PTRM	post-tax revenue model
RAB	regulatory asset base
RBA	Reserve Bank of Australia
repex	replacement expenditure

Shortened form	Extended form
RFM	roll forward model
RIN	regulatory information notice
RPP	revenue and pricing principles
SAIDI	system average interruption duration index
SAIFI	system average interruption frequency index
SLCAPM	Sharpe-Lintner capital asset pricing model
STPIS	service target performance incentive scheme
WACC	weighted average cost of capital

11 Service target performance incentive scheme

We published the current version of our national Service Target Performance Incentive Scheme for electricity distributors (STPIS) in November 2009.[1] The STPIS is intended to balance incentives to reduce expenditure with the need to maintain or improve service quality. It achieves this by providing financial incentives to distributors to maintain and improve service performance where customers are willing to pay for these improvements.

The STPIS operates as part of the building block determination and is applied via the control mechanism. Through the service standards component (the s-factor) S-factor component of the STPIS, distributors are penalised or rewarded for diminished or improved service performance compared to predetermined targets.

Our final framework and approach (F&A) for Victorian electricity distributors proposed to continue to apply the national STPIS to the Victorian businesses. The final F&A also proposed to:

1. apply a ±5.0 per cent revenue at risk cap under the scheme
2. not to apply the guaranteed service level (GSL) component as the Victorian electricity distributors are subject to a jurisdictional GSL scheme
3. apply the latest VCR values when setting the incentives rates.[2]

11.1 Preliminary decision

Our preliminary decision is to apply the STPIS to Jemena Electricity Networks Victoria (Jemena) for the 2016–20 regulatory control period and it will be to:

- set revenue at risk for Jemena at the range ±5.0 per cent
- segment Jemena's network according to feeder categories urban and short rural
- set applicable reliability of supply system average interruption duration index (SAIDI), system average interruption frequency index (SAIFI), momentary average interruption frequency index (MAIFI) and customer service (telephone answering) parameters
- set performance targets based on the Jemena's average performance over the past five regulatory years
- apply the methodology indicated in the national STPIS for excluding specific events from the calculation of annual performance targets

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1 AER, *Electricity distribution network service providers—service target performance incentive scheme*, 1 November 2009. (AER, *STPIS*, November 2009).

2 AER, *Final Framework and approach for Victorian distributors commencing 1 July 2016*, October 2014, pp. 96–97.

- apply the methodology and value of customer reliability (VCR) values to the calculation of incentive rates using the latest VCR for Victoria.

11.1.1 Revenue at risk[3]

The maximum level of penalty or reward under the STPIS is calculated as a percentage adjustment to Jemena's total revenue. The S-factor adjustment is subject to the revenue at risk cap.

The revenue at risk for Jemena for each regulatory year of the 2016–20 regulatory control period will be capped at ±5.0 per cent of the annual allowable revenue.[4] There is also a cap on the revenue at risk of ± 0.5 per cent for the telephone answering parameter.

11.1.2 Incentive rates[5]

Incentive rates are the penalty or reward that Jemena receives for a single unit variation in performance. The incentive rates parameters are calculated with reference to the VCR.[6]

Our calculated incentives rates for the 2016–20 regulatory control period is outlined in Table 11-1. The incentive rate for the customer service component will be –0.040 per cent per unit of the telephone answering parameter.

Table 11-1 Preliminary decision—STPIS incentive rates for Jemena for the 2016–20 regulatory control period

	Urban	Short rural
SAIDI	0.36380	0.01863
SAIFI	21.79002	1.50397
MAIFI	1.74320	0.12032

Source: AER Analysis.

3 AER, *STPIS*, November 2009, cl. 2.1(d)(2).

4 Jemena Electricity Networks (Vic) Ltd, *2016-20 Electricity Distribution Price Review Regulatory Proposal Attachment 5-3 Application of Incentive Schemes*, 30 April 2015, p. 6 [39].

5 AER, *STPIS*, November 2009, cl. 2.1(d)(3).

6 The VCR represents, in dollar terms, the willingness of customers to pay for the reliable supply of electricity. The values produced are used as a proxy in this way, and can be applied for use in revenue regulation, planning and operational purposes in the NEM. In network planning, the VCR is used by AEMO to assess the economic merits of carrying out additional investment in the electricity network. It is therefore important the VCR figures accurately reflect the value of reliability across a range of customers.

11.1.3 Performance targets[7]

We will apply the SAIDI, SAIFI and MAIFI reliability of supply parameters as performance targets to Jemena. These targets will be set by reference to Jemena's reliability performance in the previous regulatory control period.[8]

We will also apply the telephone answering parameter to Jemena. We will not apply the STPIS Guaranteed Service Level (GSL) scheme as Jemena must comply with the existing jurisdictional GSL scheme.[9]

Our preliminary decision on the performance targets for Jemena's STPIS parameters based on our calculation results are presented on Table 11-2.

Table 11-2 Preliminary decision—STPIS reliability targets for Jemena for the 2016–20 regulatory control period

	value
Urban	
SAIDI	55.401
SAIFI	0.954
MAIFI	0.756
Rural short	
SAIDI	91.955
SAIFI	1.238
MAIFI	1.654
Telephone answering	
Percentage of calls will be answered within 30 seconds	64.235

Source: AER analysis.

7 AER, *STPIS*, November 2009, cl. 2.1(d)(4).

8 Jemena Electricity Networks (Vic) Ltd, *2016-20 Electricity Distribution Price Review Regulatory Proposal Attachment 5-3 Application of Incentive Schemes*, 30 April 2015, p. 7 [44].

9 Jemena Electricity Networks (Vic) Ltd, *2016-20 Electricity Distribution Price Review Regulatory Proposal Attachment 5-3 Application of Incentive Schemes*, 30 April 2015, p. 9 [54].

Telephone answering

We will apply the telephone answering parameter to Jemena. We accept Jemena's proposed performance target that 64.235 per cent of calls will be answered within 30 seconds.[10]

11.2 Jemena's proposal

Jemena's regulatory proposal generally accepted our F&A position on the application of STPIS in the forthcoming regulatory control period.[11]

Jemena also proposed to continue to apply the MAIFI performance measure over the 2016–20 regulatory control period in accordance with our STPIS.[12]

11.3 AER's assessment approach

We are required to make a decision on how the STPIS is to apply to Jemena.[13] When making a distribution determination, the STPIS requires us to determine all performance targets, incentive rates, revenue at risk and other parameters required to apply the scheme.[14]

We outlined our proposed approach to, and justification for, the application of the STPIS in our F&A for Victorian electricity distributors. Our preliminary decision has adopted the position in the F&A, unless new information has become available or new arguments have been put forward which warrants a reconsideration of this position. We have considered materials submitted to us by Jemena and by stakeholders.[15]

11.3.1 Interrelationships

In applying the STPIS we must consider any other incentives available to the distributor under the NER or relevant distribution determination.[16] One of the objectives of the STPIS is to ensure that the incentives are sufficient to offset any financial incentives the distributor may have to reduce costs at the expense of service levels.[17] For the 2016–20 regulatory control period, the STPIS will interact with the Capital Expenditure Sharing Scheme (CESS) and the opex Expenditure Benefit Sharing Scheme (EBSS).

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10 Jemena Electricity Networks (Vic) Ltd, *2016-20 Electricity Distribution Price Review Regulatory Proposal Attachment 5-3 Application of Incentive Schemes*, 30 April 2015, p. 8 [51].

11 Jemena Electricity Networks (Vic) Ltd, *2016-20 Electricity Distribution Price Review Regulatory Proposal Attachment 5-3 Application of Incentive Schemes*, 30 April 2015, p. 7 [46].

12 AER, *STPIS*, November 2099 cl. 3.2.1(a)(1B).

13 NER, cl. 6.12.1(a).

14 AER, *STPIS*, November 2009, cl. 2.1(d).

15 AER, *Final Framework and approach for Victorian distributors commencing 1 July 2016*, October 2014, pp. 96–97.

16 NER, cl. 6.6.2(b)(3)(iv).

17 AER, *STPIS*, November 2009, cl. 1.5(b)(5).

The reward and penalty amounts under STPIS are determined based on the average customer value for the improvement, or otherwise, to supply reliability (the VCR). This is aimed at ensuring that the distributor's operational and investment strategies are consistent with customers' value for the services that are offered to them.

Our capex and opex allowances are set to reasonably reflect the expenditures required by a prudent and efficient business to achieve the capex and opex objectives. These include complying with all applicable regulatory obligations and requirements and, in the absence of such obligations, maintaining quality, reliability, and security outcomes.

The STPIS, on the other hand, provides an incentive for distributors to invest in further reliability improvements (via additional STPIS rewards) where customers are willing to pay for it. Conversely, the STPIS penalises distributors where they let reliability deteriorate. Importantly, the distributor will only receive a financial reward after actual improvements are delivered to the customers.

In conjunction with CESS and EBSS, the STPIS will ensure that:

- any additional investments to improve reliability are based on prudent economic decisions
- reductions in capex and opex are achieved efficiently, rather than at the expense of service levels to customers.

11.4 Reasons for preliminary decision

The following section sets out our detailed consideration in applying the STPIS to Jemena for the 2016–20 regulatory control period.

11.5 Application of the STPIS for 2016–20

For the reasons outlined above we will apply the STPIS in accordance with our F&A.[18] With the exception of the MAIIFI targets, Jemena's regulatory proposal accepted our F&A position on STPIS.[19]

11.5.1 Revenue at risk

Jemena's revenue at risk for each regulatory year of the 2016–20 regulatory control period will be capped at ± 5.0 per cent. Within this, there will be a cap of ± 0.5 per cent for the customer service component.

Revenue at risk caps the potential rewards and penalties for Jemena under the STPIS. We consider an incentive of ± 5.0 per cent of the annual allowable revenue should

18 AER, *Final Framework and approach for Victorian distributors commencing 1 July 2016*, October 2014, pp. 96–97.

19 Jemena Electricity Networks (Vic) Ltd, *2016-20 Electricity Distribution Price Review Regulatory Proposal Attachment 5-3 Application of Incentive Schemes*, 30 April 2015, p. 7 [46].

balance the risk to both consumers and Jemena and thus better meet the objectives of the STPIS. This rate is consistent with our F&A position.[20]

11.5.2 Reliability of supply component

Applicable components and parameters

We will apply unplanned SAIDI, unplanned SAIFI and unplanned MAIFI parameters under the reliability of supply component to Jemena's urban and short rural feeders for the 2016–20 regulatory control period. Unplanned SAIDI measures the sum of the duration of each unplanned sustained customer interruption (in minutes) divided by the total number of distribution customers. Unplanned SAIFI measures the total number of unplanned sustained customer interruptions divided by the total number of distribution customers. Unplanned MAIFI measures the total number of momentary interruptions divided by the total number of distribution customers.

Exclusions

The STPIS allows certain events to be excluded from the calculation of the S-factor revenue adjustment. These exclusions include the events that are beyond the control of Jemena, such as the effects of transmission network outages and other upstream events. They also exclude the effects of extreme weather events that have the potential to significantly affect Jemena's STPIS performance.

Jemena accepted our framework and approach position to calculate the major event day (MED) thresholds using the 2.5 beta method strictly in accordance with appendix D of the STPIS.[21]

11.5.3 Performance targets

The STPIS specifies that the performance targets should be based on the average performance over the past five regulatory years. It also states that the performance targets must be modified for any reliability improvements completed or planned where the planned reliability improvements are:[22]

- included in the expenditure program proposed by the distributor in its regulatory proposal, or
- proposed by the distributor, and the cost of the improvements is allowed by the relevant regulator, in the distributor's previous regulatory proposal or regulatory submission, and
- expected to result in a material improvement in supply reliability.

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[20] AER, *Final Framework and approach for Victorian distributors commencing 1 July 2016*, October 2014, pp. 96–97.

[21] Jemena Electricity Networks (Vic) Ltd, *2016-20 Electricity Distribution Price Review Regulatory Proposal Attachment 5-3 Application of Incentive Schemes*, 30 April 2015, p. 7 [41].

[22] AER, *STPIS*, November 2009, cl. 3.2.1.

Jemena proposed to set the performance targets based on historical averages, without adjustments for reliability improvement expenditure, as per the scheme. We accept this approach and accept that the capex allowance under this decision does not result in any material increases in reliability performance—thus no adjustments to Jemena's targets are required.

Consequently, our calculated performance targets for Jemena for the 2016–20 regulatory control period are presented in Table 11-3.

Table 11-3 Preliminary decision—STPIS reliability targets for Jemena for the 2016–20 regulatory control period

	value
Urban	
SAIDI	55.401
SAIFI	0.954
MAIFI	0.756
Rural short	
SAIDI	91.955
SAIFI	1.238
MAIFI	1.654
Telephone answering	
Percentage of calls will be answered within 30 seconds	64.235

Source: AER Analysis.

11.5.4 Customer service component

The national STPIS customer service target applicable to Jemena is telephone response measured as the number of telephone calls answered within 30 seconds. This measure is referred to as the telephone Grade of Service (GOS).

We accept Jemena's customer service targets as it has applied a 5 year's historical average to derived them for the next regulatory control period. This is consistent with our national STPIS.[23]

23 AER, *STPIS*, November 2009, cl. 5.3.1(a).

11.5.5 Incentive rates

The incentive rates applicable to Jemena for the reliability of supply performance parameters of the STPIS have been calculated in accordance with clause 3.2.2 and using the formulae provided as appendix B of our National STPIS. Our preliminary decision of Jemena's incentive rates are at Table 11-4. The incentive rate for the customer service component will be –0.040 per cent per unit of the telephone answering parameter.[24]

Table 11-4 Preliminary decision—STPIS incentive rates for Jemena for the 2016–20 regulatory control period

	Urban	Short rural
SAIDI	0.36380	0.01863
SAIFI	21.79002	1.50397
MAIFI	1.74320	0.12032

Source: AER Analysis.

11.5.6 Value of customer reliability to calculate the incentive rates

Our F&A paper stated that we will apply a revised value for VCR through the distribution determination in calculating Jemena's incentive rates.[25] For this preliminary decision, we have calculated Jemena's incentive rates by deriving the VCR from Jemena's consumption data, the other Victorian electricity distributors' consumption data and AEMO's published state wide VCR. The steps are:

- First, calculate the VCR for CBD based on the assumption that all CBD consumptions are commercial loads. The expected error for the resultant VCR for CBD is small.
- Then calculate the VCR for urban and rural feeders by dividing the "difference between [all state wide consumption * state wide VCR] and [CBD consumption * VCR for CBD network]" by the "difference between all state wide consumption and CBD consumption".

The VCR for network segments is outlined in Table 11-5. We have applied this VCR to calculate its incentives rates for 2016–20 regulatory control period.

[24] AER, *STPIS*, November 2009, cl. 5.3.2(a).

[25] AER, *Electricity distribution network service providers—service target performance incentive scheme*, 1 November 2009. (AER, *STPIS*, November 2009).

We consider that this approach should deliver better relativity between the calculated VCR for CBD networks and the VCRs for all other networks. We consulted with Jemena prior to implementing this process.[26]

Table 11-5 Value of customer reliability ($/MWh)

	Urban	Short rural
VCR	39,026.67	39,026.67

Source: AER Analysis and AEMO, Value of customer reliability review, final report, September 2014, p. 30. VCR values have been escalated to the June 2015 quarter.

11.5.7 Adjusting STPIS targets for potential bushfire related expenditure

We received a submission from the Victorian Department of Economic Development, Jobs, Transport & Resources outlining that Jemena's reliability targets should reflect the reliability improvements made from the Victorian Government's Power line Bushfire Safety Program.[27]

It states that the Victorian Government is funding power line replacement in the most dangerous areas of the state and is currently considering regulating the installation of Rapid Earth Fault Current Limiters (REFCLs) in the highest consequence bushfire risk areas and automatic circuit reclosers on Single Wire Earth Return power lines in rural areas. Both the power line replacement and REFCLs are expected to improve the supply reliability in the areas targeted.

We agree that the installation of these safety measures will impact on the reliability of supply but cannot consider the proposal in our preliminary decision. The legislation of this program is yet to be completed and, as such, we do not have the relevant information in order to make such an adjustment.[28]

That said, the scheme has provisions to make adjustments to Jemena's targets in the 2021–2025 regulatory control period for capital expenditure spent that may improve reliability. This will ensure that consumers are not paying for the expenditure again through STPIS for improvement factored in this expenditure.[29]

11.6 Transitional arrangements for the STPIS

This section addresses the following transitional issues relating the STPIS:

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[26] Jemena, Electricity Distribution Price Review Jemena AER #005 Response to AER questions Public, 3 July.

[27] Victorian Department of Economic Development, Jobs, Transport & Resources*, Submission to Victorian electricity distribution pricing review – 2016 to 2020*, 12 July 2015, pp. 9–10.

[28] There is currently no certainty on the scope, implementation timeframe or the magnitude of the program.

[29] AER, *STPIS*, November 2009, cl. 3.2.1.

- how we intend to adjust the S-factor between regulatory control periods
- how we intend to account for revenue increments or decrements resulting from the STPIS outcomes between regulatory control periods
- how we will close out Essential Services Commission service performance scheme for 2006–10.

11.6.1 S-factor adjustment between regulatory control periods

The STPIS operates as part of the building block determination and is applied via the control mechanism. Through the S-factor component of the STPIS, distributors are penalised or rewarded for diminished or improved service performance compared to predetermined targets. Distributors are either rewarded or penalised via network charges two years after the end of each regulatory year because audited performance data would only be available after the regulatory year is completed—hence, the earliest time the S-factor can apply is the year following audited performance data availability.

Consequently, the S-factor outcomes of 2014 and 2015 will apply to prices in the 2016 and 2017 regulatory years respectively.

The revenue at risk caps the risk of the STPIS to Jemena at ± 5.0 per cent of the annual allowable revenue. However, distributors may exceed this cap where there are increases or decreases to the amount of the annual allowable revenue requirement that they can recover between regulatory control periods. The STPIS scheme accounts for the differences to the allowable revenue recoverable between regulatory control periods by making an adjustment to the "raw"[30] S-factor for the last and second last regulatory years of the current regulatory control period (which is applied in the first and second regulatory years of the next regulatory control period) by adjusting the raw S-factor value based on:

> the percentage change between the annual revenue requirement in the last regulatory year of the previous regulatory control period and the annual revenue requirement for first regulatory year of the next regulatory control period taken from the post-tax revenue model.[31]

Hence, the revenue at risk cap for the first two years of the next regulatory control period will be adjusted based on the approved revenue at risk cap of the previous regulatory control period.

[30] "Raw" refers to the S-factor prior to any adjustments.

[31] AER, *STPIS*, November 2009, Appendix C, pp. 33–34.

11.6.2 Accounting revenue increments decrements between regulatory control periods

A distributor's performance in the last regulatory year of its regulatory control period will affect its revenue in the second regulatory year in the next regulatory control period.

For example, if a distributor has a regulatory control period of 5 regulatory years between 1 July 2007 and 30 June 2012, its performance in the 2011–12 financial year will affect its revenues in the second regulatory year of the next regulatory control period (that is from 1 July 2014).[32]

The STPIS provides a mechanism to account for any step change in revenues (or prices), via X_0[33], from one regulatory control period to the next. For Jemena, the ‘raw’ S-factor calculated for the last and second last regulatory years of the regulatory control period (which is applied in the first and second regulatory years of the next regulatory control period) is adjusted in accordance with the following formula:[34]

$$S_t^{''''} = \frac{S_t'}{1-X_0}$$

Where:

- $X_0 = \frac{AARR_{2014} - AARR_{2015}}{AARR_{2014}}$
- $S_t^{''''}$ is the sum of the s-factors for all parameters, after application of the s-bank, as determined in equation (3) in the STPIS
- $AARR_{2014}$ is Jemena's approved revenue in the 2016 pricing proposal
- $AARR_{2015}$ is Jemena's allowable revenue in the final determination 2017.

11.6.3 Closing out of the ESCV’s service performance scheme

Prior to the operation of STPIS from 2011, Victorian distributors were subjected to the Essential Services Commission Victoria’s (ESCV) service performance scheme.

In order to close out the ESCV’s scheme, we required the final performance data of the distributors’ for 2010. As this information was not available in time for the final decision of the 2011–15 determination, a preliminary close out was factored into the current determination, requiring a final true-up when the final performance data are available. We will complete the close out calculation in the final decision for the 2016–20

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32 AER, *STPIS*, November 2009, appendix C.

33 Defined as the percentage change between the annual revenue requirement in the last regulatory year of the previous regulatory control period and the annual revenue requirement for first regulatory year of the next regulatory control period taken from the post-tax revenue model, AER, STPIS, November 2009, Appendix C, pp. 33–34.

34 AER, *STPIS*, November 2009, Appendix C, pp. 33–34.

regulatory control period. The calculation method on how to close out the ESCV's scheme was set out in our 2011–15 determination.

In 2012 the Victorian government amended the *National Electricity (Victoria) Act 2005*, to allow us the power to close out the ESCV's service performance scheme.[35]

The financial penalty accrued by Jemena in the 2006–10 regulatory control period in the allowable revenue for 2016–20 regulatory control period will be $3.81 million ($ 2015) in total. This amendment to the legislation does not alter or limit our approach to close out the scheme.

This number has been included in the forecast revenue for the forthcoming regulatory control period by including the adjustment in the 'revenue adjustments' row of the post-tax revenue model.

[35] *Energy Legislation Amendment Act 2012 (Victoria)*, s. 10.