Jemena Electricity Networks (Vic) Ltd

2016-20 Electricity Distribution Price Review Regulatory Proposal

Revocation and substitution submission

Attachment 1-2 Interrelationships, errors and countervailing benefits

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ABBREVIATIONS

ACS	Alternative Control Services
AER	Australian Energy Regulator
AMI	Advanced Metering Infrastructure
augex	Augmentation Expenditure
BAU	Business As Usual
capex	Capital Expenditure
CESS	Capital Expenditure Sharing Scheme
ESV	Essential Services Victoria
JEN	Jemena Electricity Networks (Vic) Ltd
NEO	National Electricity Objective
Opex	Operating Expenditure
Optimal NEO Position	The position which contributes to the achievement of the NEO to the greatest degree and best promotes the long term interests of consumers of electricity.
RAB	Regulatory Asset Base
SCS	Standard Control Services
STPIS	Service Target Performance Incentive Scheme
WACC	Weighted Average Cost of Capital

OVERVIEW

1. In its April 2015 proposal Jemena Electricity Networks (Vic) Ltd (**JEN**) identified the amounts it considered were necessary for each building block item to ensure that JEN would be able to recover at least our efficient costs of providing our electricity services in the 2016 regulatory period. The preliminary decision has accepted some, but not all, of those amounts.

2. JEN has considered the preliminary decision and, where possible and reasonable to do so, we have adjusted our submission to accommodate the Australian Energy Regulator (**AER**) views. However, for the reasons set out in this submission, JEN considers that the AER's position is flawed in a number of aspects and, as a result, does not permit JEN an opportunity to recover the minimum revenue necessary to recover at least its efficient costs of providing its electricity services.

3. In undertaking this analysis JEN has identified a number of key interrelationships between the various items which form the building blocks upon which JEN's proposals are based. In order for the **Optimal NEO Position**[1] to be achieved these interrelationships need to be addressed so that the overall revenue amount JEN receives is balanced, appropriate and efficient.

4. Section 1 below sets out JEN's assessment of these key interrelationships.

5. In addition, the preliminary decision sought to justify a refusal to allow JEN to recover costs that were otherwise accepted as efficient on the basis that the cost is likely to be addressed in other areas or because of countervailing benefits said to exist in other parts of the proposal that adequately compensate JEN.

6. JEN does not consider this is the case due to the key interrelationships and because, for the reasons set out in the Table 2–1 below and throughout this submission:

   - Errors in the preliminary determination that would otherwise increase our revenue requirement, have been rectified in this submission (against our interest) (see correspondence in Supporting Information) (see section 2)

   - The countervailing savings or other benefits identified in the preliminary determination either do not exist, or are overstated (see section 3).

7. Accordingly, JEN considers that the revenue sought to be recovered in this submission is the minimum necessary to efficiently maintain the safety, reliability, quality, security and responsiveness of our services over the 2016 regulatory period, to provide JEN with at least our efficient costs and to promote the Optimal NEO Position.

[1] The position which contributes to the achievement of the National Electricity Objective (**NEO**) to the greatest degree and best promotes the long term interests of consumers of electricity.

1. STATEMENT OF INTERRELATIONSHIPS

Table 1–1 sets out key interrelationships between the various items which form the building blocks upon which JEN's proposals are based.

Table 1–1: Statement of interrelationships

Proposal element	Reference	Interrelationships
Forecast capital expenditure (capex) and depreciation		
All capex categories	Chapters 5, 7, 8, 9 10 and associated attachments.	• **Forecast inflation** – will impact conversion of real/nominal capital expenditure (**capex**) amounts for all categories. • **Forecast real price escalation** – will impact capex reported in each year of the regulatory period, for all categories. • **Forecast unit rates** – will impact any capex forecasts which are estimated using unit rates. This can include capital such as connections and metering. • **Classification of expenditure** – capitalisation policy, including for overheads, will determine whether expenditure is classified as capex or operating expenditure (**opex**). • **Base year capitalised overheads / rate of change** – used to forecast capitalised overheads for all capex categories. • **Opex / capex trade-offs** – approach to trade-off will influence the balance between opex and capex. For example, reducing maintenance opex may lead to higher capex requirements. • **Depreciation** – forecast (and historical) capex will influence the forecast depreciation building block. • **Rate of return** – capacity to fund proposed capex projects depends on there being an acceptable/adequate rate of return (**WACC**). The WACC also affects the depreciation allowance, as it is used to gross up capex before it is added to the Regulatory Asset Base (**RAB**). • **Service classification –** service classification will impact on forecast capex for standard control services.
New connection capex	Chapters 7, 8, and 9 and associated attachments	• **Forecast new connections** – will drive the requirement to expand the network and therefore new connection capex. • **Choice of connections guideline** – this proposal has been developed on the basis that the Essential Services Commission of Victoria guideline number 14 and 15 is in place for 2016 and that NER chapter 5A will be in place from 2017 to 2020 in accordance with the policy statement from the

Proposal element	Reference	Interrelationships
		minister of energy resources.[2] This will impact customer contributions and therefore tax allowances.
Augmentation capex	Chapter 7 and associated attachments	• **Peak demand forecasts** – localised non co-incident peak demand forecasts influence decisions on augmentation projects. • **Reliability obligations and customer preferences** – safety, reliability and quality of supply objectives and obligations, as well as customer preferences for service reliability, can influence capex plans. • **Circuit length** – rejection of augmentation capex (eg. Preston conversion) affects the circuit length. As this is an input into the opex trend calculation then this too must be adjusted.
Replacement capex	Chapters 7 and 8 and associated attachments	• **Opex / maintenance expenditure** – forecast maintenance expenditure may influence the requirement to undertake asset replacement expenditure.
Depreciation	Chapter 5 and associated attachment	• **Asset lives** – adopted economic lives will impact actual and forecast depreciation. • **Forecast inflation** – will impact conversion of real/nominal capex amounts.

[2] See letter from the Minister of Energy and Resources to Paul Adams, Distribution network pricing arrangements, 2 December 2015 (in the supporting information files)

Proposal element	Reference	Interrelationships
Forecast opex		
Required step changes from base year	Chapters 7 and 8 and associated attachment	• **Base year choice** – step change proposals will be influenced by the sustainability of base year opex. • **Opex-capex trade-off** – approach to trade-off will influence the balance between opex and capex.
Total allowance	Chapters 5, 7, 8, 9, and 10 associated attachments	• **Forecast inflation** – will impact conversion of real/nominal capex amounts for all opex categories. • **Forecast real price escalation** – will impact forecast opex in each year of the regulatory period, for all categories. • **Rate of change assumptions** – the forecast rate of change in opex requirements is based on forecasts of customer numbers and other network characteristics. • **Opex / capex trade-offs** – approach to trade-off will influence the balance between opex and capex. • **Replacement capex** – replacement/refurbishment capex strategy may influence the level of forecast maintenance requirements. If the allowance for replacement/refurbishment capex is lower, then maintenance requirements for existing assets that are not refurbished or replaced are likely to be higher. • **Classification of expenditure** – capitalisation policy will determine whether expenditure is classified as capex or opex. • **Rate of return** – capacity to fund the opex program depends on there being an appropriate rate of return. • **Service classification –** service classification will impact on forecast opex for standard control services.
Demand forecast		
Demand	Chapters 7 and 8 and associated attachments	• **Price path** – the price path for electricity services will influence forecast demand. • **Price relativities between tariff classes** – forecast price relativities between tariff classes may influence forecast tariff uptake. • **Peak demand forecast** - the peak demand forecast (i) affects ratcheted demand which is an input into the opex growth rate and (ii) affects augmentation expenditure.
Allowed rate of return[3]		

[3] Further details on the interrelationships pertaining to the allowed rate of return can be found in section 7 of Attachment 6-1 to this submission.

Proposal element	Reference	Interrelationships
Equity risk parameters (beta etc)	Chapter 6 and associated attachments	• **Gearing** – used to re-lever the asset beta. A higher level of gearing implies a higher equity beta, for a given asset beta.
Return on equity	Chapter 6 and associated attachments	• **Return on debt** – return on equity should be greater than return on debt for the same firm. • **Time horizon** – the time horizon used to estimate parameters within a cost of equity model should be internally consistent. For example, if the risk-free rate assumes a ten-year investment horizon, then estimates of the market return should be based on the same assumption. • **Value of imputation credits (gamma)** – the value of imputation credits estimate is related to the allowed return on equity. Under the imputation tax system, the value of imputation credits forms part of the overall return to equity-holders (along with dividends and capital gains). Therefore the required return on equity therefore needs to be estimated inclusive of the assumed value of imputation credits. A higher assumed value for imputation credits implies a higher value for the return on equity. This applies to: – standard control services; *and* – alternative control services to the extent that gamma is used in the model calculations. This includes, public lighting OM&R services, new and temporary connection services, metering exit fees and true-up calculations for alternative control services.
Benchmark credit rating	Chapter 6 and associated attachments	• **Gearing** – relevant to establishing the benchmark credit rating. A higher level of gearing may give rise to perceptions of greater financial risk, and therefore a lower credit rating.
Capital raising costs	Chapter 6 and associated attachments	• Adjustment to any building block may impact equity and debt raising costs through the re-calculation of allowed revenues in the forecast revenue model.
Building Block Revenue Requirement		
Corporate income tax	Chapters 5 and 6 and associated attachments	• **Revenue requirement** – changes to the elements in a building block proposal will impact the calculation of corporate income tax within the building block proposal and ultimately impact the revenue requirement.
Forecast Price Path		
Capital Contributions	Chapter 5 and 7 and associated	• **X-Factors** – the price path determined by the AER will impact the amount of customer contributions for new connections.

Proposal element	Reference	Interrelationships
	attachments	
Incentive Schemes		
Capital Expenditure Sharing Scheme (**CESS**)	Chapters 3 and 7 and associated attachments	• **Reliability improvements capex** – should be excluded from the CESS scheme. • **Efficient level of capex** - needs to be approved to ensure the incentive scheme operates as intended.
Service Target Performance Incentive Scheme (**STPIS**)	Chapters 3 and 7 and associated attachments	• **Reliability improvements capex** – should be excluded from determining the incentive rates. • **Efficient level of capex and opex** - needs to be approved to ensure the incentive scheme operates as intended.
Efficiency Benefit Sharing Scheme (EBSS)	Chapters 3 and 7 and associated attachments	• **Efficient level of opex** - needs to be approved to ensure the incentive scheme operates as intended.

2. ERRORS OR OVERSTATED BENEFITS IN THE PRELIMINARY DECISION

8. Table 2–1 identifies the errors in the preliminary decision that JEN has identified in its review of the preliminary decision and that we have corrected in our submission. All of these errors, if not corrected, would have otherwise *increased* the revenue requirement permitted to be recovered by JEN.

Table 2–1: Identified errors in the preliminary decision that reduce JEN's revenue requirement

High level description	Building block/item	Observation	Feedback provided to AER by JEN[1]	AER feedback[2]	Model/Document
Forecast inflation not updated	Alternative Control Services (**ACS**)	The AER has not updated the inflation rate from 2.52% (JEN's forecast inflation) to 2.50% (the forecast inflation rate adopted in the preliminary decision) in the ACS fee based model.	We raised this issue with the AER, noting that we assumed that this is an error and that the AER did intend to update the inflation rate from 2.52% to 2.50%	The AER has confirmed that this is an error and that it will update the inflation rate for [its] final decision. The AER noted this does not have an effect on the AER's draft decision for Jemena's ACS 2016 prices, but will affect the price path over the regulatory control period.	AER - Preliminary decision Jemena - Ancillary network services model - October 2015 - CONFIDENTIAL
Real cost escalation not excluded	ACS	The AER has not removed escalation factors for external labour and materials in the ancillary network services model.	We raised this issue with the AER, noting that we assumed that the AER did intend to remove escalation factors for external labour and materials.	The AER has indicated that our assumption was incorrect, and that its preliminary decision for ACS did not make any adjustments to the external labour and material escalators.	AER - Preliminary decision Jemena - Ancillary network services model - October 2015 - CONFIDENTIAL
Timing of cash flows	Standard Control Services (**SCS**) Gross	The preliminary for augex disallows $48.1m ($2015) worth of capex over 2016-20, which equates to 35.2% reduction compared to JEN's	We assume that the AER made an error when applying the capex reduction. To correct this error, it would be necessary to allocate the	In its response to our observation, the AER stated: *We do not consider that this request is relevant to our assessment of proposed*	AER - Preliminary decision Jemena - Capex model - October 2015 - CONFIDENTIAL

High level description	Building block/item	Observation	Feedback provided to AER by JEN[1]	AER feedback[2]	Model/Document
	capex	proposal. This $48.1m reduction is related to specific projects. The AER applied this 35.2% reduction equally over the five years, rather than taking into account the specific expenditure timing of each project. It is important to use the correct the capex expenditure timing because there is a cash flow impact in terms of recovery or depreciation profiles. Removing the specific projects to align cash flows would lead to higher capex reductions in the first three years of the regulatory period.	capex reductions to the relevant year based on the specific project timing.	*total capex. As stated in our Preliminary Decsion* [sic] *while we may consider certain projects or programs of capex in forming a view of the total capex, we do not determine which projects or programs the distributor should or should not undertake. (refer to p.6-15 of our Preliminary Decision).*	
$2.9m uplift in capex	SCS Gross capex	The preliminary decision for customer connections is hard coded. We can only account for an $8.56m reduction (being one of the Melbourne airport projects) compared to the $11.1m variance shown by the AER.	We requested that the AER identify the drivers of the $2.54m variance JEN is unable to account for.	See table 3.-22 of attachment 7-3 of Jemena's initial proposal (New KTS to MAT 66kV line)	AER - Preliminary decision Jemena - Capex model - October 2015 - CONFIDENTIAL
SCS metering costs ($1.3m) not transferred from SCS capex	SCS Gross capex	The preliminary decision for "Non Network Other" does not include an adjustment for Metering Tech/Comms as per the treatment of Metering IT.	We highlighted this inconsistency to the AER, noting that we assumed that it was unintended. It appears that the inconsistency between	The AER's materials and labour escalation adjustments were applied to Jemena's standard control service net capex consistent	AER - Preliminary decision Jemena - Capex model - October 2015 - CONFIDENTIAL

High level description	Building block/item	Observation	Feedback provided to AER by JEN[1]	AER feedback[2]	Model/Document
		This is inconsistent with the capex amounts that have been reclassified back to ACS metering.	amounts transferred arises due to no application of real cost escalation to the amounts transferred to ACS capex. We noted that we assumed the AER intends to align the service reclassification treatment between SCS and ACS (for instance, the same amount should be transferred from SCS into ACS, resulting in no net cash flow impact).	with Jemena's response JEN AER IR#025 dated 28 September 2015.	
Land capital contributions should be subtransmission rather than land	SCS Gross capex	AER has applied a capcon adjustment for three land projects (266, 267 and 268) however the JEN model had not allocated capcons for these projects.	We raised this issue with the AER, noting that we assumed that this is an error and that the AER did not intend to apply a capcon adjustment.	The AER responded that it '*expects Jemena to justify the non-application of capcons to land in its revised proposal.'*	AER - Preliminary decision Jemena - Capex model - October 2015 - CONFIDENTIAL
Metering base year opex in the preliminary decision is overstated	Metering opex	The base year metering opex used in the preliminary decision is overstated. The preliminary decision base year value opex is $24.2m. This includes SCS related opex cash flows. The correct base year metering opex is $21.8m.	We raised this issue with the AER, noting that we assumed that the AER intended to use a starting point of $21.8m for the ACS metering opex forecast	The AER responded that: The AER's starting point was taken from *"Attachment 08.03 - JEN Opex Forecast Model - PUBLIC" where Jemena's total AMI opex in 2014CY is reported to be $24.24 million ("Input non-SCS opex" tab, cell M:93). After reviewing Jemena's 2014 RIN the AER agrees that the AMI opex for*	AER - Preliminary decision Jemena - Metering opex - October 2015

High level description	Building block/item	Observation	Feedback provided to AER by JEN[1]	AER feedback[2]	Model/Document
				2014CY as set out in Attachment 8.03 is overstated and that the actual amount is $21.8 million.	

(1) Letter to Anthony Bell, AER from Robert McMillan, JEN, *Jemena Electricity Networks (Vic) Ltd (JEN) – 2016-20 Electricity Distribution Price Review (EDPR) preliminary decision – request for clarification*, dated 13 November 2015.

(2) Email response from Moston Neck, AER to JEN, *RE: Letter to AER - Preliminary decision (request for information and AER analysis) [SEC=UNCLASSIFIED]*, dated 3 December 2015.

3. BENEFITS OR COUNTERVAILING VALUE CLAIMED BY THE PRELIMINARY DECISION

9. Table 3–1 responds to a number of the "benefits" or other matters claimed by the AER in the preliminary determination to justify its refusal to accept efficient costs sought by JEN, or other findings (such as rate of return methodology). The list set out in this table is not exhaustive, and others are dealt with directly in relevant parts of this submission.

Table 3–1: Benefits or countervailing value claimed by AER to justify a reduction in JEN's recovery of efficient costs

High level description	Building block/item	Description and JEN response (including submission reference)	Model/Document
Network expansion should not require increased capex	Capex	While AER accepts some localised network growth (i.e. it accepts JEN demand figures), it appears to point to general factors such as increased rooftop solar and increased energy efficiency to argue that less capex should still be needed to expand the network. JEN does not agree with the views expressed in the preliminary decision: (1) JEN notes that the preliminary decisions accepts JEN's forecast as being a reasonable expectation of demand over the 2016 regulatory period (Preliminary decision, p 6-101), however, has not allowed for all of the augmentation expenditure (**augex**) necessary to meet this growth. (2) Whilst the preliminary decision claims the disallowance for Sunbury and Flemington is inefficient and substitutes in its own assessed amount, we are able to demonstrates that the projects are necessary (See Attachments 7-12 and 7-14) and the design and allowances are efficient (See Attachments 7-11 and 7-13). For the Preston conversion project the full amount has been disallowed; even if the proposed design is wrong the preliminary decision has not accounted for alternative solutions to meet growing demands (See Attachment 7-1, section 4.43, Attachment 7-15 and Attachment 7-20).	AER - Preliminary decision Jemena – Overview (at page 19) and AER - Preliminary decision Jemena – Attachment 6 (at C.1)
Step changes accepted but not recovered	Opex	Step changes are not required because adequately compensated through base and 'business as usual' opex.	AER - Preliminary decision Jemena – Overview (at 3.6.2)

High level description	Building block/item	Description and JEN response (including submission reference)	Model/Document
		The preliminary decision claims that step changes are only warranted for opex/capex trade-offs and certain changes in regulatory obligations, this approach assumes that all other expenditure is covered in the base year. JEN is able to demonstrate that the approach in the preliminary decision is overly limited and does not allow JEN recover its efficient expenditure. See Attachment 8-2 of this submission. JEN also notes that if step changes are not allowed then it is dis-incentivised to pursue efficiencies for fear of not being able to recover its efficient costs in future regulatory decision thereby impeding investment in dynamic efficiency savings.	and AER - Preliminary decision Jemena – Attachment 7 (at 7.4.4)
Credit rating	Cost of capital	The AER considers that it has used favourable rate of return assumptions, including using reference data for a BBB- rated bond for the cost of debt calculation, rather than the benchmark BBB+. Continuing to use a broad BBB band data series to estimate the return on debt is not materially 'favourable' to JEN, as suggested by the AER. Rather, given that the evidence supports a credit rating of BBB to BBB+, use of a broad BBB band data series is merely appropriate. See section 2.4.1 of Attachment 6-1 of this submission.	AER - Preliminary decision Jemena – Overview (at page 50)
Beta	Cost of capital	The AER claims that it has adopted a "top of the range" equity beta value of 0.7. Far from this being the case, for a number of reasons, JEN submits that the value of 0.7 is not favourable, and is materially lower than the equity beta that should be adopted. [See section 4.4(c) of the common WACC chapter draft. See section 3.4.3 of Attachment 6-1 of this submission.	AER - Preliminary decision Jemena – Overview (at page 50)
PTRM timing assumptions	Cost of capital	Given the exclusion of the costs denied by the AER associated with liquidity maintenance / early refinancing, it cannot be said that the PTRM timing assumptions are favourable to JEN, as has been suggested by the AER. Rather, these timing assumptions are required to at least partly compensate for cash-flow timing mismatches arising out of the normal operating cycle,	AER - Preliminary decision Jemena – Overview (at page 50)

High level description	Building block/item	Description and JEN response (including submission reference)	Model/Document
		and for the efficient costs of debt portfolio management. See JEN submission on debt raising costs in section 6.1 of Attachment 6-1 of this submission.	
'Business as usual' (**BAU**) advanced metering infrastructure (**AMI**) operations	Opex	The AER has sought to justify zero forecast real price and productivity growth over the 2016 regulatory period, on the basis that it will be entering a business–as–usual phase of its AMI operations. There is no evidence to suggest BAU operations have flat growth, in-fact the preliminary decision has identified real-price growth for standard control service opex (See preliminary decision Jemena – Attachment 7, sections B.4.2 and B.4.4) under the current market conditions. Further, there is no logical reason for this assumption to justify having a zero rate trend. Additionally, the AER also states that JEN should be able to manage any real price changes through productivity improvements. This is contradictory with other elements of the preliminary decision where an assumption of zero productivity has been assumed for standard control services opex (See Preliminary decision Jemena – Attachment 7, page 16-44). See Attachment 9-1, section 5.5.3 for JEN's response to the preliminary decision on these issues.	AER - Preliminary decision Jemena – Attachment 16, page 16-44.
Vegetation Management	Opex – Step Changes	The AER has relied on advice from Essential Services Victoria (**ESV**) that the reintroduction of certain regulatory exceptions will benefit distributors, including JEN, by reducing compliance costs. JEN does not accept that the reintroduction of any exceptions related to the pruning of structural branches will be likely to produce material cost savings for JEN during the 2016 regulatory period, as these branches have already been pruned by JEN and would not be expected to be required during the 2016 regulatory period. However, while the claimed cost savings do not exist (or are immaterial during the 2016 regulatory period) the additional notification and other compliance costs associated with the Electrical Safety (Electric Line	AER – Preliminary decision Jemena – Attachment 7, page 72.

High level description	Building block/item	Description and JEN response (including submission reference)	Model/Document
		Clearance) Regulations 2015 (ELC) are both clearly identifiable and significant for JEN. See section 5 of Attachment 8-2 of this submission.	