

Jemena Electricity Networks (Vic) Ltd

Submission on AER preliminary positions

Framework and Approach for 2016-2020 Electricity Distribution Price Review

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Submission on AER preliminary positions

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ABBREVIATIONS

EDPR	Electricity Distribution Price Review
F&A	Framework and Approach
GSL	Guaranteed Service Levels
JEN	Jemena Electricity Networks
NECF	National Energy Customer Framework
WAPC	Weighted Average Price Cap

1. INTRODUCTION

1. Jemena Electricity Networks (**JEN**) welcomes the opportunity to provide feedback on the AER's preliminary positions for the Framework and Approach (**F&A**) to apply to the Victorian 2016-2020 Electricity Distribution Price Review (**EDPR**).
2. JEN supports many of the preliminary positions put forward by the AER. JEN also generally supports the principle of regulatory stability, whereby any changes to existing arrangements should be made with good reasons, and those reasons clearly explained.

2. SERVICE CLASSIFICATION

3. JEN is generally comfortable with the service classification that currently applies in Victoria and with some of the changes proposed by the AER.
4. However, JEN disagrees with the AER's preliminary positions on the service classification of metering services and connection services

2.1 METERING SERVICES

5. JEN considers that the classification of metering services should be as follows:
 - a) Non-contestable metering services—ACS. These services currently include all metering services to customers with annual consumption below 160 MWh. Once the Victorian derogation expires¹, only exit and restoration services will remain non-contestable, as only the distributor can provide those services.
 - b) Contestable metering services—Unregulated. These services currently include only metering services for customers with annual consumption above 160 MWh (typically those with type 1-4 meters). Once the Victorian derogation expires, all metering services (except exit and restoration services) will become contestable.
 - c) Ancillary metering services (de-energisations, re-energisations, meter reads, etc)—ACS, which is consistent with the current treatment of these services.

2.1.1 CLAUSE 11.17.6(B) DOES NOT MANDATE ACS CLASSIFICATION FOR ALL METERING

6. The AER's preliminary position is that clause 11.17.6(b) (**Clause (b)**) of the National Electricity Rules (**NER**) mandates that all metering services should be classified as ACS. JEN considers that the AER has misinterpreted this clause.
7. JEN submits that the primary clause that governs how metering services should be treated after the AMI Order in Council (**OIC**) expires is clause 11.17.6(a) (**Clause (a)**), which states:

Metering services that are regulated under the AMI Order in Council are not, while so regulated, subject to regulation under a distribution determination but, on cessation of regulation under the AMI Order in Council, are liable to regulation under a distribution determination. [JEN emphasis added]

8. Clause (a) deals with metering services at large, simply stating that, when the AMI OIC expires, metering services will be subject to regulation under a distribution determination. It is important to note that this clause refers to "metering services that are regulated under the AMI Order in Council", which is a much wider definition than the one used in Clause (b), which states:

However, for a relevant regulatory control period, services to which exit fees under clause 7, or restoration fees under clause 8, of the AMI Order in Council applied are to be classified as alternative control services and are to be regulated by the AER on the same basis as applied under the AMI Order in Council. [JEN emphasis added]

¹ AEMC 2013, Victorian Jurisdictional Derogation – Advanced Metering Infrastructure, Rule Determination, 28 November 2013

9. Clause (b) refers specifically to “services to which exit fees under clause 7, or restoration fees under clause 8, of the AMI Order in Council applied”. If Clause (b), like Clause (a), intended to capture all “metering services that are regulated under the AMI Order in Council”, it would have used the same term, rather than dropping the word “metering” and adding detail on which clauses of the AMI OIC are relevant.
10. Therefore, JEN considers that Clause (a) is the general clause applying to all metering services, and that this clause leaves the AER with a wide discretion as to how metering services should be classified, except the specific targeted instructions in Clause (b). Clause (b) specifically instructs the AER to classify exit and restoration services (the services to which exit and restorations fees applied when the AMIOIC was in force) as ACS.

2.1.2 ACS SERVICE CLASSIFICATION IS APPROPRIATE FOR NON-CONTESTABLE METERING

11. JEN agrees that, for metering services that are not contestable, and ACS classification is appropriate because:
 - a) No competition for Type 5 and 6 metering currently exists (customers consuming less than 160 MW/h annually) and, therefore, a direct control classification is sensible, to control the prices charged to consumers.
 - b) There is strong potential for and a high likelihood of competition being introduced in the near future, which means it is sensible to separate the costs and revenues of metering from the non-contestable standard control services.
12. JEN also notes that the current approach to regulating metering services most closely matches an ACS classification with a revenue cap form of control. The current approach separates the costs and charges for metering services from SCS services into a separate cost and revenue base. The approach to setting the charges is a building block approach, akin to the current approach for public lighting. Therefore, an ACS classification would promote consistency in regulating metering services between regulatory periods.
13. Most importantly, an ACS classification would be consistent with the requirements of clause 6.2.2(d)(2) of the NER, which requires that, where there has been no previous classification, the classification must be consistent with the previously applicable regulatory approach, unless a different classification is clearly more appropriate.

2.1.3 CONTESTABLE METERING SERVICES SHOULD BE UNCLASSIFIED

14. In the current regulatory period, contestable metering services—those for customers with type 1-4 meters—are not classified, as per the decision made by the AER in the previous distribution determination. Those services are subject to workable competition and do not require regulatory oversight.
15. The AER states that its preliminary discussion of metering:

...is wholly based on the Victorian specific arrangements continuing to apply under the derogation and transitional rule 11.17.6 of the NER for the next regulatory control period. If the AEMC enacts new rules to introduce competition in metering we expect the enabling Rules will make provision for the transition in Victoria to the new framework
16. JEN notes that, under the current National Electricity Rules, including the current derogation from those rules for Victoria, all metering services for customers with annual consumption less than 160 MWh will also become contestable from 1 January 2017, or earlier, if national arrangements for metering contestability are implemented earlier.
17. To JEN's best knowledge, there are no legislative or regulatory processes currently in train to make any changes to these arrangements. The AEMC's current process to enable new rules to introduce competition in metering across the NEM does not include any consideration of transitional arrangements of the economic

regulation of metering in Victoria. In any case, the AER's decision on the F&A should be made on the basis of the laws and regulations currently in place, rather than relying on possible future rule changes to address key matters like service classification. Should new legislative or regulatory developments occur after the F&A is published, this would provide sufficient reason from the AER to depart from the F&A.

18. JEN therefore considers that the AER's F&A must address the advent of contestability in the 2016-2020 period. The AER's preliminary positions do not adequately deal with this matter. As noted above, metering that is currently contestable is not classified by the AER. JEN considers that this approach should also be applied to any additional parts of the metering market that become competitive. This can be achieved by separately defining contestable metering and non-contestable metering, with the former being unclassified, and the latter being ACS.
19. As a matter of principle, the AER should seek to minimise regulatory involvement in services that are subject to workable competition, since for those services the regulation adds costs, without producing a corresponding benefit. The AER has already applied this principle to metering for large customers, possum guard services, watchman lights and emergency recoverable works. JEN considers that the AER should consistently apply this principle to all contestable metering.

2.2 CONNECTION SERVICES

20. JEN considers that a change is warranted to the classification of routine connections, given the AER's intent to move to revenue cap regulation of SCS.
21. Currently (and as per the AER's preliminary position), routine connections are classified as ACS, with the charges based on a bottom-up build of the cost of establishing an "average" routine connection. The costs of then operating, maintaining, repairing and replacing the new assets are included in the SCS definition.
22. This approach implicitly assumes that those ongoing incremental costs, as well as any incremental cost impact on the shared network, will be less than the increased revenues generated by the SCS tariffs that the owner of the new routine connection will pay. If that assumption did not hold, then existing network customers would be subsidising each new customer. That is, the current regulatory approach assumes (correctly, in JEN's view) that it will generally always be efficient to connect a new routine customer to the shared network, thereby spreading the fixed costs of the network over a larger number of customers.
23. In addition to the assumption above, and given the intended move to revenue control of SCS services, there are two key risks to the distributor:
 - a) The AER underestimates the number of new routine connections in setting the SCS capex and opex allowances—with actual connections exceeding forecast connections. In that instance:
 - i) The distributor will recover the cost of establishing each connection through the ACS charge, but not the cost of operating, maintaining and repairing the connection—the distributor's SCS costs will increase relative to the forecast costs used to set revenues.
 - ii) The distributor's revenue will be unchanged, as it is set for the duration of the regulatory period and trued-up on an annual basis. Under a WAPC, the revenue would also increase beyond the AER's allowance, as the new connection would bring new revenue that was not part of the allowance.
 - iii) However, under a revenue cap, the distributor has no way to recover the additional SCS costs. Therefore, the distributor faces a perverse incentive to discourage or delay new connections.
 - b) The AER underestimates the cost of establishing a new routine connection, in which case:

- i) Establishing a new connection may result in a net loss for the distributor on the ACS part of the service, as ACS capex in excess of that allowed for in the connection price does not enter a RAB.
 - ii) As discussed under a), establishing an extra new connection does not bring any extra SCS revenue (under a revenue cap), but it does bring additional costs, that could be avoided if the connection was not made.
 - iii) As a result, once again, the distributor may face an incentive to discourage or delay new connections.
24. The issues described above would be largely addressed if routine connections were classified as SCS, and any fees paid by customers for routine connections were treated as customer contributions. Over the full regulatory period, any risk of under/over forecasting total new connection costs—due to variances in the number of routine connections or the average cost per connection—would be capped by the CESS, with the RAB adjusting for actual efficient costs (subject to ex-post review). Both the business and the AER would have comfort that efficient (and only efficient) costs will be recovered, subject to the penalties and rewards under the CESS.
25. It is important to note that, for non-routine connections, the Victorian Electricity Guideline 14 (**Guideline 14**) explicitly implements the concept of comparing a new connection's incremental costs and incremental revenues on a case-by-case basis. For routine connections, the concepts are applied implicitly and using an average cost and price. Given that the concepts are the same, the separation of service classification appears arbitrary. JEN therefore considers that all connections should be SCS.
26. JEN also notes that, should the AER's preliminary position on routine connections not change, it would be important to explicitly include repair and replacement of routine connections as an SCS service. Otherwise, if a distributor cannot include the costs of repair and replacement in its SCS capex, separate ACS repair and replacement charges would be required, which would need to be paid by customers any time their connection need to be repaired or replaced.

2.3 NEW CONNECTIONS REQUIRING AUGMENTATION AND REARRANGEMENT OF NETWORK ASSETS AT CUSTOMER REQUEST

27. As noted in section 2.1 above, JEN considers that all new connections should be classified as SCS. This is especially important for new connections that require augmentation to the shared distribution network.
28. Guideline 14 prevents a distributor from obtaining a customer contribution that fully recovers the cost of any augmentation of the shared network, as the Victorian guidelines assume that some of the costs will be recovered through distribution tariffs. This assumption only holds where the service classification is SCS.
29. Any other classification would mean that the augmentation capex relating to the service would not be added to a distributor's SCS RAB. Thus, in order to ensure full recovery of efficient costs, a distributor would need to charge the entire cost of the connection and augmentation up-front, which is neither in the interests of the customer, nor is it possible under Guideline 14.
30. The new national provisions under the National Energy Customer Framework (**NECF**) would maintain the principle of comparing incremental costs to incremental revenues when calculating a customer contribution. Therefore, the same issues would arise under the NECF as under Guideline 14.
31. JEN therefore does not support re-classifying new connections requiring augmentation as negotiated services.
32. The same conceptual issue arises with rearrangements of network assets at customer request. The AER's preliminary position is to classify this service as ACS, which would prevent any capital costs of providing this service from entering the SCS RAB. However, Guideline 14 also applies to these services, limiting the customer

contribution and requiring the distributor to also make a contribution. The logic outlined for new connections requiring augmentation also applies here. Therefore, JEN proposes that rearrangement of network assets at customer request be classified as SCS.

2.4 GREENFIELD EMERGING TECHNOLOGY AND GREENFIELD SITES

33. JEN agrees with the AER position that the current classification of negotiated services should be retained. JEN agrees that re-classifying the services as SCS or ACS would only add another layer of administration for economic regulation, without addressing any of the issues raised by stakeholders to date.

2.5 PUBLIC LIGHTING

34. JEN agrees with the AER's preliminary position of classifying existing public lighting as an alternative control service, with new public lighting being a negotiated service (under the grouping of greenfield emerging technology and greenfield sites).
35. JEN notes the submission made by Citelum. JEN notes that the service classification and form of control selected for a service do not, in and of themselves, affect the level of competition that a particular service is subject to. Rather, it is the current (and expected future) state of competition for a service that affects what service classification is appropriate.
36. JEN notes that provision of the operation, maintenance, repair and replacement of existing public lighting is generally not contestable.² The existing assets are owned and operated by distributors, and it is the distributors that carry the responsibility for safely operating and maintaining those assets. That responsibility cannot be cost-effectively transferred to any other party, unless that party is directly engaged by the distributor, or ownership of the assets is transferred to that party. However, decisions on acquisitions and divestments of assets are outside the scope of the regulatory regime, and bulk lighting replacement does not involve or constitute a transfer of ownership of public lighting assets.
37. Therefore, JEN agrees with the AER's proposed (and historical) classification of ACS for existing public lighting services being ACS.
38. Workable competition does exist for establishing new public assets, and the AER appropriately recognises this with a proposed (and historical) service classification of Negotiated. JEN agrees with this classification.

2.6 UNCLASSIFIED SERVICES

39. JEN agrees with the AER's preliminary position that emergency recoverable works (for which a recovery fee is paid), possum guards and watchman lights should not be classified. Possum guards and watchman lights are provided in a fully competitive market, while the issue of recoverable works is essentially one of a private dispute between two parties that is generally handled through negotiation or existing court processes.

² This is subject to Guideline 14 and clause 4.4 of the Public Lighting Code, which provides for limited specific circumstances where certain works are contestable, i.e. must be tendered or can be provided by someone other than JEN. This, however, is limited to augmentation works associated with an offer for public lighting services and the alteration, relocation or replacement of existing public lighting assets.

3. CONTROL MECHANISMS

40. JEN notes the AER's consideration of the following factors in selecting the control mechanism for each service:
1. need for efficient tariff structures
 2. possible effects of the control mechanism on administrative costs
 3. regulatory arrangements (if any) applicable to the relevant service immediately before the commencement of the distribution determination
 4. desirability of consistency between regulatory arrangements for similar services (both within and beyond the relevant jurisdiction)
 5. revenue recovery
 6. price flexibility and stability, and
 7. incentives for demand side management.
41. JEN agrees the above factors are relevant for the AER to consider. JEN notes that in considering factor 4—consistency between regulatory arrangements—the AER has largely discounted it, noting that it is not a primary consideration. While JEN agrees that consistency should not be the primary consideration, it is still an important one, which is why it was explicitly listed in clause 6.2.5(c) of the NER.
42. JEN considers that the AER should consider consistency in order to provide transparency and certainty for the regulatory regime. If material changes to the regime are not well explained and justified, regulatory risk to distributors is increased, and so is their cost of capital, with no corresponding benefit. JEN considers that analysis based entirely on pricing behaviours of networks in a different jurisdiction operating under different ownership structures (and associated pricing incentives) is not an appropriate basis to justify a change in the form of control for Victoria.
43. For example, the AER has clearly explained its position on why it considers a change is warranted for the SCS control mechanism from a Weighted Average Price Cap (**WAPC**) to a revenue cap. While JEN may not agree with the AER's views or arguments, those views and arguments are clearly explained. However, for metering services, the AER's preliminary position is to fundamentally change the existing form of control that has been in place since 2009, with no explanation as to why the change is preferable to the status quo.

3.1 METERING

44. JEN notes that the current control mechanism for regulated metering is a revenue cap, with an annual true-up for actual efficient costs, whereas the AER's proposed approach for 2016-2020 is a cap on individual prices. In JEN's view, it would be impractical to apply any form of control other than a revenue cap given that the AER is required to implement two years of revenue cap true-up in 2016 and 2017 (for AMI revenues and costs over the 2012-15 period above or below the allowance). There are also a number of other special arrangements within the current metering framework that will reach into the 2016-2020 regulatory period—these include exit and restoration fees, as well as refusals fees (for customers that refuse to have their accumulation meter changed to a smart meter).
45. Any tariffs set for regulated metering in 2016-2020 will need to be adjusted for revenues collected for exit and restoration fees, and refusal fees. It would be complex to attempt to make such adjustments for individual price caps, or even a weighted average price cap. It would be much simpler to implement the adjustments for a revenue cap or an average revenue cap.

46. More importantly, with metering due to become contestable by 1 January 2017—and the AER’s intent to classify metering services as ACS for the entire 2016-2020 period—distributors will need flexibility in the regulatory control mechanism, so that they can respond to unregulated competitors.
47. For example, while current metering charges are a fixed amount per annum, competition could bring about completely different pricing structures, such as charges per kWh. Under an individual price cap control, distributors could end up in a position where they are unable to change their pricing structures to respond to competition and innovation in the industry.
48. Placing such a constraint on distributors could prevent them from being able to recover the efficient costs of providing metering services. The simplest solution to this issue is to not classify contestable metering services. However, if those services are classified, then a revenue cap, or an average revenue cap control mechanism, are far better suited for regulating these services than an individual price cap.

3.2 STANDARD CONTROL SERVICES

49. JEN does not agree with the AER’s assessment comparing WAPC to revenue cap for SCS. In particular, JEN considers its tariffs to be cost reflective, with the prime driver of this being the WAPC control mechanism that has applied to JEN for nearly two decades.
50. JEN also notes that the AER’s analysis of the efficiency of NSW distributors’ prices does not account for an important consideration—a strong profitability motive is necessary to drive efficient pricing in response to the incentives that exist under the WAPC. It could be argued that the profitability motive is much stronger for privately owned Victorian distributors, compared to the publicly owned NSW distributors.
51. Finally, JEN notes that Victoria, as a state, has recently made a material investment in smart meters, which will allow access to highly detailed information and provide an opportunity to design and implement further innovative and economically efficient tariffs. Smart meters, when combined with a web portal—JEN makes one available to its customers free of charge—or an in-home-display, give customers the ability to take better charge of their energy use and to respond to time-of-use incentives. Under a revenue cap, no incentive will exist for the distributor to develop innovative or economically efficient tariffs.
52. While JEN disagrees with most of the AER’s arguments for revenue caps, JEN accepts that the AER has genuine concerns with the performance of the WAPC to date. JEN is not averse to a revenue cap being applied for the 2016-2020 period as a trial, with the AER then undertaking another thorough re-consideration of the appropriate form of control for SCS for the 2021-2025 regulatory control period.

3.3 OTHER ACS

53. The AER’s preliminary position is that the control mechanism for all ACS will be a cap on individual prices. JEN has outlined above why this approach would be problematic for metering services. Generally speaking, for all other ACS, an individual price cap is appropriate in JEN’s view. However, JEN considers that it is important for the F&A to make the distinction between fee-based and quoted services—this distinction was made in the F&A that is currently in place for the 2011-15 regulatory period.
54. The F&A should make it clear that, while in some cases (for fee-based services) the actual price of the service will be controlled, but in some other cases (quoted services) only the unit rates to be applied in calculating the prices. The two forms of control are different, and the F&A should explain this.

3.4 FORMULAS FOR CONTROL MECHANISMS

55. JEN considers that there are a number of errors in the formulas put forward by the AER in its preliminary positions. Appendix A sets out JEN's issues with the proposed formulas and provides JEN's suggested amendments.

4. INCENTIVE SCHEMES

56. JEN is generally comfortable with the AER's intent to apply the current versions of the EBSS and CESS to the Victorian distribution process.
57. However, JEN notes that the current version of the CESS does not explicitly deal with whether the allowance and the actual amounts used to calculate the rewards and penalties under the scheme should be on a net (of customer contributions) or gross basis. JEN submits that the CESS should be applied on a net basis, as applying it on a gross basis unnecessarily compounds the existing issue of forecasting accuracy for customer-initiated capex.
58. To a material extent, the amount of customer-initiated capex is outside a distributor's control, as the distributor has an obligation to make connection offers to all customers that request a connection. In a situation where the allowance underestimates the amount of customer initiated capex, a distributor will generally be forced to overspend the gross allowance for that type of capex. However, as in many cases customer-initiated capex attracts a customer contribution, the overspend relative to the net capex allowance will be partially offset by a higher-than-expected amount of customer contributions. JEN considers that using net capex for the CESS would reduce the uncertainty impact of forecasting customer demand for connection services, while maintaining strong incentives for distributors to reduce and defer capex where possible.
59. JEN also notes the AER's intent to apply its Service Target Performance Incentive Scheme (**STPIS**), but without the Guaranteed Service Levels (**GSL**) component, due to the Victorian GSL scheme still being in place. JEN notes that this same issue arose five years ago during the 2011-2015 price review.
60. JEN considers it would be unfortunate if it took over a decade for Victoria to become part of the AER's national GSL scheme—this would be the case if the AER again forwent its GSL scheme due to the Victorian GSL scheme note being repealed in time. JEN would encourage the AER to proactively engage with the Victorian state government and the Victorian Essential Services Commission to manage the transition to the AER's national GSL scheme. JEN will work with the AER to assist in any way possible in this matter.

5. OTHER MATTERS

5.1 EXPENDITURE FORECAST ASSESSMENT GUIDELINE

61. JEN notes the AER's preliminary position on the expenditure forecast assessment guideline that:

We intend to apply all the assessment tools set out in the guideline.

62. JEN does not consider that this statement meets the requirements of clause 6.8.1(b)(2)(viii) of the NER, which requires that the AER's F&A must set out the AER's proposed approach (together with its reasons for the proposed approach) to applying the expenditure forecast assessment guideline to JEN in the upcoming distribution determination.
63. JEN considers that clause 6.8.1(b)(2)(viii) requires much more than simply advising whether the AER will deviate from the guideline, which is how the AER appears to have interpreted this requirement. In particular, throughout the consultation process on the guideline, JEN (and other distributors) consistently provided feedback to the AER that the guideline is too generic, simply describing a wide range of many possible tools that the AER could use to assess expenditures. The guideline does not explain which tools will be applied to assess what types of expenditures and in what circumstances. As such, without further explanation in the F&A, the guideline fails to achieve one of its main objectives, to provide more certainty and predictability for the regulatory regime.
64. JEN therefore considers that the final F&A should provide a detailed explanation of how the expenditure forecast assessment guidelines will apply to JEN in the upcoming determination. In particular, JEN considers that the AER should explain:
1. how it will select which tool to apply or not to apply to JEN, and
 2. how it will select which tool to apply or not to apply for individual types of expenditure—e.g. opex vs. capex, replacement capex vs. augmentation capex, recurrent expenditure vs. non-recurrent expenditure, etc.

5.2 DEPRECIATION

65. JEN agrees with the AER's preliminary position that forecast depreciation should be used for the 2016-20 period, in combination with a CESS and an EBSS. JEN agrees that this approach provides a good balance of incentives.

5.3 JURISDICTIONAL AND LEGACY ISSUES

5.3.1 F-FACTOR

66. JEN agrees with the AER's preliminary position that that no change is needed to the current scheme. However, in accordance with the current scheme, the AER will need to update the benchmark number of fire starts using the latest historical information.

5.3.2 TRANSITIONING OF AMI SERVICES—EXIT AND RESTORATION FEES

67. JEN notes the AER's expectation, expressed in its preliminary position, that a metering exit fee would:

... be based on the unrecovered cost of existing regulated monopoly provided metering costs and IT systems that would be stranded if a customer elects to obtain a new, competitively supplied meter.

68. JEN notes that the exit fee will also likely need to include an operating expenditure component—to account for the exiting customer's share of metering operating expenditure that will no longer be paid by that customer and would have to be spread between all other metering customers.
69. JEN also notes that, year-to-year, the control mechanism for metering services would need to be adjusted for any revenue collected from exit fees. Similarly, the control mechanism for metering services would also need to be adjusted for any revenue collected from fees charged to customers that refuse a smart meter. JEN notes that the AER's preliminary positions do not deal with how such refusal charges will be classified and how they will be integrated with other metering charges.
70. JEN re-iterates that a revenue cap or average revenue form of control would be easily compatible with making the adjustments described above. However, a price cap on individual services would likely make such adjustments impossible to make accurately.

Appendix A

Formulas for control mechanisms

A1. PRICE CONTROL MECHANISM FOR STANDARD CONTROL SERVICE

A1.1 ORIGINAL FORMULA

$$(1) \quad MAR_t = \sum_{i=1}^n \sum_{j=1}^m p_{ij}^t q_{ij}^{t*} \quad i=1,\dots,n \text{ and } j=1,\dots,m \text{ and } t=1,\dots,5$$

$$(2) \quad MAR_t = AR_t + I_t + T_t + B_t$$

$$(3) \quad AR_t = AR_{t-1}(1 + CPI_t)(1 - X_t)$$

Where:

MAR_t is the maximum allowable revenue in year t.

p_{ij}^t is the price of component i of tariff j in year t.

q_{ij}^{*t} is the forecast quantity of component i of tariff j in year t.

AR_t is the annual smoothed revenue requirement in the Post Tax Revenue Model for year t.

I_t is the sum of incentive scheme adjustments in year t. To be decided upon in the final decision.

T_t is the sum of end-of-period adjustments in year t. Likely to incorporate but not limited to adjustments from the transitional regulatory control period.³ To be decided upon in the final decision.

B_t is the sum of annual adjustment factors in year t. Likely to incorporate but not limited to adjustments for the overs and unders account. To be decided upon in the final decision.

CPI_t is the percentage increase in the consumer price index. To be decided upon in the final decision.

X_t is the X-factor in year t. To be decided upon in the final decision.

³ In Victoria, the transitional period is the period between the initial determination and the substitute determination.

A1.2 CORRECTED FORMULA

$$(1) \text{MAR}_t \geq \sum_{i=1}^n \sum_{j=1}^m p_t^{ij} q_t^{ij} \quad i=1,\dots,n \text{ and } j=1,\dots,m \text{ and } t=1,\dots,5$$

$$(2) \text{MAR}_t = \text{AR}_t + \sum_{k=1}^o \text{IA}_t^k + \sum_{l=1}^r \text{T}_t^l + \sum_{u=1}^s \text{B}_t^u + F_t + \text{PassThrough}_t$$

k=1,...,o and l = 1,...,r and u =1,...,s

$$(3) \text{AR}_t = \frac{\text{AR}_{t-1}(1 + \text{CPI}_t)(1 - X_t)(1 + S_t) \prod_{v=1}^w (1 + \text{IF}_t^v)}{\prod_{v=1}^w (1 + \text{IF}_{t-1}^v)} \quad v=1,\dots,w$$

Where:

MAR_t is the maximum allowable revenue in year t.

p_t^{ij} is the price of component i of tariff j in year t.

q_t^{ij} is the forecast quantity of component i of tariff j in year t.

AR_t is the annual revenue requirement for year t.

AR_{t-1} in 2016 is the estimated revenue input in the Post Tax Revenue Model for the 2015 year in 2015 dollar value. After 2016 this is the AR_t from the previous regulatory year.

IA_t^k is the additive incentive scheme 'k' adjustments in year t. To be decided upon in the final decision. Applicable for incentive schemes expressed as a dollar amount

F_t is the amount of revenue adjustment in year t for the F-Factor scheme.

PassThrough_t is the amount of revenue adjustment in year t for the Pass through events in year t. Pass through amounts can be positive or negative.

IF_t is the multiplicative factor based incentive scheme 'v' adjustments in year t. To be decided upon in the final decision. [Note: the IF_{t-1} should be removed if the factor removes the effect of prior year adjustments before it presents in the price control formulae, this is the case for 'S' factor.]

IF_{t-1} is the multiplicative factor based incentive scheme 'v' adjustments in year t-1. To be decided upon in the final decision. The value of each IF_{t-1} when t=1 all equals zero.

S_t is the value calculated in accordance with the Service Target Performance incentive Scheme year t. Parameters to be decided upon in the final decision. In 2016 $S_t = (1+S^i)$ as determined in the Service Target Performance Incentive Scheme, November 2009.

T_t is the end-of-period adjustments 'l' in year t. Likely to incorporate but not limited to adjustments from the transitional regulatory determination.⁴ To be decided upon in the final decision.

B_t is the annual adjustment 'u' factors in year t. Likely to incorporate but not limited to adjustments for the overs and unders account and Licence fees⁵. To be decided upon in the final decision.

X_t is the X-factor in real terms in year t, incorporates annual adjustments to the PTRM for the trailing cost of debt. To be decided upon in the final decision.

A1.3 NOTES TO AMENDMENTS

- Prices need to be rounded for billing systems and therefore solving prices to be exactly equal is not possible., therefore in formula #1 the MAR has to be 'greater or equal' rather than an 'equal' only.
- Added a definition for the term AR_{t-1}
- Removed asterisks from q^t in formulae #1, it is inconsistent with the remainder of the defined statement that only mentions 't', not 't*'. Also 't*' is not a defined term.
- Time (t) should be applied consistently by placing it in the lower portion of the mathematical factors, ie. p^t and q^t should be p_t and q_t
- Where a scheme/factor etc. in specified within the F&A it is therefore proposed to be included in the determination and therefore should be included in the formulae of the F&A paper, not "decided upon in the final determination". Only those matters that cannot be decided upon at the F&A stage should be left to the final determination.
 - Revenue increments can be (i) factor based or (ii) additive. For these formulae the factor component increments should be included to formulae #3 and the additive components should be included in formulae #2. In the AER's original formulae it proposes to include incentive scheme's within the I_t term however this won't work for factor based incentives as items in formulae #2 need to be additive. This has been resolved by including an "Incentive additive" term and an "Incentive Factor" term.

⁴ In Victoria, the transitional determination is the adjustment between the initial determination and the substitute determination.

⁵ Previously known as L-Factor in Victoria

- The most notable is the STPIS Scheme which is factor based and therefore for calculation reasons needs to be included in formulae #3. This approach is also consistent with Appendix C of the STPIS guideline.
- Pass through is a known requirement of the NER, is additive in terms of revenue adjustment and therefore belongs in formulae #2
- Have made adjustments to the description for the transitional adjustments term T_t
- Have made adjustments to the description for the annual adjustments term B_t
- A factor that states “but not limited to” or “sum of” indicates that there could be multiple additive amounts and therefore should be expressed in the formula as summed amounts. This applies to I, B and T terms.
- Amended S_t for the 2016 year

A2. PRICE CONTROL MECHANISM FOR ALTERNATIVE CONTROL SERVICES

A2.1 ORIGINAL FORMULA

$$\bar{p}_i^t \geq p_i^t \quad i=1,\dots,n \text{ and } t=1,2,3,4$$

$$\bar{p}_i^t = \bar{p}_i^{t-1}(1 + CPI_t)(1 - X_i^t) + A_i^t$$

Where:

\bar{p}_i^t is the cap on the price of service i in year t

p_i^t is the price of service i in year t

CPI_t is the percentage increase in the consumer price index. To be decided upon in the final decision.

X_i^t is the X-factor for service i in year t. To be decided upon in the final decision.

A_i^t is an adjustment factor. Likely to include, but not limited to adjustments for residual charges when customers choose to replace assets before the end of their economic life.

A2.2 CORRECTED FORMULA

$$(1) p_i^t \leq \bar{p}_i^t \quad i=1,\dots,n \text{ and } t=1,\dots,5$$

$$(2) \bar{p}_t^i = \bar{p}_{t-1}^i(1 + CPI_t)(1 - X_t^i)$$

Where:

\bar{p}_t^i is the cap on the price of service i in year t

p_t^i is the price of service i in year t

\bar{p}_{t-1}^i is the cap on the price of service i in the previous year. [Note: For the first year of the regulatory determination (ie. 2016) the prices approved by the AER will be in 2015 values for this formula to work]

CPI_t is the percentage increase in the consumer price index. To be decided upon in the final decision.

X_i^t is the X-factor in real terms for service i in year t. To be decided upon in the final decision.

A2.3 NOTES TO AMENDMENTS

- A_i^t description is modified to demonstrate that the adjustment is additive (ie. '+') and not a 'multiplicative' factor ('x').
- \bar{p}_i^{t-1} is not a defined term in the original formula, this has been added.
- Time 't' is applied inconsistently in the original formula, ie. Sometimes it is high and sometimes it is low. The formula has been adjusted for consistency.
- $t=1,2,3,4$, should be $t = 1, \dots, 5$ as (i) there are 5 years in the reset period, (ii) prices approved start in year t-1 or 2015 values (per the above note) and (iii) the original formula does not have a starting price.
- Formula #1 should be switched, it is the price that is derived from a function, not the other way around.
- "adjustments for residual charges when customers choose to replace assets before the end of their economic life" is not a reason for the A terms, rather if a customer chooses a different service than that should be a separate service in the 'i' term, not an adjustment to an existing service.

A3. PRICE CONTROL MECHANISM FOR METERING

A3.1 REVENUE CAP

$$(1) \text{MAR}_t \geq \sum_{i=1}^n \sum_{j=1}^m p_t^{ij} q_t^{ij} \quad i=1,\dots,n \text{ and } j=1,\dots,m \text{ and } t=1,\dots,5$$

$$(2) \text{MAR}_t = \text{AR}_t + T_t + B_t$$

$$(3) \text{AR}_t = \text{AR}_{t-1}(1 + \text{CPI}_t)(1 - X_t)$$

Where:

MAR_t is the maximum allowable revenue in year t.

p_t^{ij} is the price of component i of tariff j in year t.

q_t^{ij} is the forecast quantity of component i of tariff j in year t.

AR_t is the annual revenue requirement for year t.

AR_{t-1} in 2016 is the annual smoothed revenue requirement in the Post Tax Revenue Model for the 2016 year in 2015 dollar value. After 2016 this is the AR_t from the previous year.

T_t is the adjustments in year t for true-ups relating to the AMI-OIC.

B_t is the sum of annual adjustment factors in year t for the overs and unders account.

CPI_t is the percentage increase in the consumer price index. To be decided upon in the final decision.

X_t is the X-factor in real terms in year t, incorporates annual adjustments to the PTRM for the trailing cost of debt. To be decided upon in the final decision.

A3.2 WEIGHTED AVERAGE PRICE CAP

$$(1) \text{MAR}_t \geq \sum_{i=1}^n \sum_{j=1}^m p_t^{ij} q^{*ij} + B_t + T_t \quad i=1,\dots,n \text{ and } j=1,\dots,m \text{ and } t=1,\dots,5$$

$$(2) \frac{\sum_{i=1}^n \sum_{j=1}^m p_t^{ij} q_{t-2}^{ij}}{\sum_{i=1}^n \sum_{j=1}^m p_{t-1}^{ij} q_{t-2}^{ij}} \leq (1 + \text{CPI}_t)(1 - X_t)$$

Where:

MAR_t is the maximum allowable revenue in year t.

p_t^{ij} is the price of component i of tariff j in year t.

p_{t-1}^{ij} is the price of component i of tariff j in year t-1.

q^{*ij} is the forecast quantity of component i of tariff j in year t.

q_{t-2}^{ij} is the forecast quantity of component i of tariff j in year t-2.

B_t is the sum of annual adjustment factors in year t for the overs and unders account.

T_t is the adjustments in year t for true-ups relating to the AMI-OIC.

CPI_t is the percentage increase in the consumer price index. To be decided upon in the final decision.

X_t is the X-factor in real terms in year t, incorporates annual adjustments to the PTRM for the trailing cost of debt. To be decided upon in the final decision.

A3.3 NOTES TO PROPOSED PRICE CONTROL MECHANISM

- The T term is necessary for truing up the AMI-OIC amounts in the 2016 and 2017 years
- The B term is necessary for truing up the lagged effect of the T term true-ups