2016 -2020 Price Reset Project

Framework and Approach Paper

Response to AER Preliminary Positions

21 July 2014

CitiPower and Powercor Australia
2016-2020 Price Reset Project
Framework and Approach Paper – AER Preliminary Positions Response

Table of Contents

CitiPower and Powercor Australia
2016-2020 Price Reset Project
Framework and Approach Paper – AER Preliminary Positions Response

1 Introduction

The purpose of this document is to set out CitiPower Pty's and Powercor Australia Ltd's (**Businesses**) response to the Australian Energy Regulator's (**AER's**) *Preliminary positions on replacement framework and approach (for consultation) for CitiPower, Jemena, Powercor, SP AusNet, United Energy for the Regulatory control period commencing 1 January 2016* (**Framework and Approach paper**).

The Businesses consider the key Framework and Approach issues to be:

- the form of price control for standard control services; and
- the service classification and form of price control decision for legacy type 5 and 6 metering services.

1.1 Form of price control for standard control services

The Businesses support the AER's position for a revenue cap for standard control services. A revenue cap means the AER and Distribution Network Service Providers (**DNSPs**) are less reliant on energy forecasts which, with the changing environment, have proven difficult to forecast accurately.

Further, a revenue cap provides a strong incentive to conduct demand side management activities and promotes consistency across the jurisdictions where the AER has applied revenue caps to standard control services for DNSPs in New South Wales (**NSW**), Queensland, South Australia and the Australian Capital Territory.

1.2 Service classification and form of price control in respect to legacy type 5 and 6 metering services

The Businesses urge the AER to determine a classification and form of price control that is most likely to allow the Businesses to recover the significant investment they have made in advanced metering infrastructure (**AMI**).

The Businesses consider a standard control service classification together with a revenue cap will achieve this objective. The AER's proposed price cap on individual services will mean the Businesses will not be assured cost recovery for the Victorian Government mandated AMI rollout. A key feature of the Order In Council (**OIC**) is the ability of the Businesses to recover their investment in AMI. It is essential this feature of the OIC regulatory arrangements be retained, recognising the Businesses were directed through the relevant statues to make such investments.

The remainder of the document sets out the Businesses' detailed response to the AER's Framework and Approach paper.

2 Classification of services

2.1 Network services

The Businesses support the AER's position for a standard control service classification for network services.

2.2 Emergency recoverable works

The Businesses support the AER's position for an unclassified classification for emergency recoverable works.

2.3 Routine connections

The Businesses support the AER's position for an alternative control service classification for routine connections.

2.4 New connections requiring augmentation

The Businesses support the AER's position for a standard control service classification for new connections, other than routine connections. The Businesses agree with the AER that, because there are instances where a DNSP has to contribute to the cost of new connections, a standard control service classification provides a mechanism for a DNSP to recover its contribution.

The Businesses are reluctant to allow other parties to work on their networks given potential safety and service performance risks which are borne by them and by the new and existing customers. Therefore, the Businesses do not consider it appropriate to allow for full competition in the new connections market beyond the existing *'green fields'* competition.

Section 2.11 sets out the relevant safety obligations applicable to the Businesses (and their officers), which are central to the Businesses' access policy. Given these safety obligations the Businesses cannot simply *'contract out'* services such as new requiring augmentations.

2.5 Rearrangement of network assets at customer request and elective undergrounding

The Businesses seek a standard control service classification for rearrangement of network assets at customer request and elective undergrounding.

The Businesses cannot identify any reason why these customer initiated services (where Guideline 14 applies) should be treated differently to new connections requiring augmentation. As noted by the AER in respect to new connections requiring augmentation:

> *'Guideline 14 also limits the amount of the customer's capital contribution that a Victorian distributor can charge for a connection requiring augmentation. In some instances the cost incurred by a Victorian distributor of undertaking a connection requiring augmentation may be greater than the revenue recovered from the customer's capital contribution. In such instances, classifying these services as alternative control, negotiated, or unclassified may result in the Victorian distributors being unable to recover the full cost of providing the services. This was the rationale behind the current service classification'.*[1]

The Businesses agree with the AER's position. If customer initiated services, including rearrangement of network assets and elective undergrounding are classified as an alternative control service, the Businesses will not recover the full cost of providing the service.

2.6 Temporary connections and disconnections

The Businesses support the AER's position for an alternative control service classification for temporary connections and disconnections.

[1] AER, *Preliminary positions on replacement framework and approach (for consultation) for CitiPower, Jemena, Powercor, SP AusNet, United Energy for the Regulatory control period commencing 1 January 2016,* page 38.

2.7 Operating and maintaining connection assets

The Businesses support the AER's position for a standard control service classification for operating and maintaining connection assets.

2.8 Inspection of PV installation site

For the purposes of the 2016-2020 regulatory control period, the Businesses intend to discontinue charging customers the Photovoltaic (**PV**) inspection fee and instead conduct an audit based approach.

In 2014, the Service Installation Rules (**SIRs**) were amended so that anti-island testing can be performed by the client. Consequently, the Businesses are no longer required to undertake their own inspection to test for anti-island compliance. Instead, the Businesses will implement an audit based approach which will allow customers to arrange for their testing, whilst still ensuring the Businesses maintain a safe and reliable network. For the purposes of the 2016-2020 regulatory control period, the Businesses will be proposing an opex step change for the audit costs.

2.9 Energisation and de-energisation

The Businesses support the AER's position for an alternative control service classification for energisation and de-energisation.

2.10 Supply enhancement at customer request

The Businesses support the AER's position for an unclassified classification for supply enhancement at customer request. The Businesses do not provide this service to customers.

2.11 Public Lighting

The Businesses consider the current alternative control service classification for the operation, maintenance, repair and replacement (**OMR**) services for existing public lighting is the most suitable classification.

The Businesses do not believe there are legislative or regulatory provisions that prevent or constrain third parties from providing public lighting services, provided the services are performed with the Businesses' written permission and carried out in accordance with any conditions imposed by the Businesses in giving the permission (see regulation 304 of the *Electricity (Installations) Regulations 2009*, which enables conduct meeting these criteria that would otherwise be prohibited).

The Businesses would, however, like to draw the AER's attention to some of the relevant safety obligations applicable to the Businesses (and their officers), which are central to the Businesses' access policy, and to note that the Businesses cannot simply *'contract out'* of these safety obligations to municipal councils.

The *Occupational Health and Safety Act 2004,* requires the Businesses to, amongst other general workplace health and safety obligations, ensure so far as is reasonably practicable the safety of any workplace that the Businesses manage or control. This obligation extends to any person at the workplace, including, for example, employees of any contractor engaged by a municipal council to perform public lighting maintenance services.

Further, section 98 of *the Electricity Safety Act 1998* requires the Businesses to design, construct, operate, maintain and decommission its supply network to minimise as far as reasonably practicable, hazards to persons, risk of damage and bushfire.

Further, the *Electricity Safety (Management) Regulations 2009* include a range of obligations on the Businesses relating to design, construct, operate, maintain and decommissioning supply (which includes public lighting assets).

As a practical example of the level of care expected by workplace health and safety regulators, and why the Businesses seek to directly manage the safety risks associated with working on live assets, please note the case of *Essential Energy v WorkCover Authority of New South Wales [2012] NSWIRComm 83*. This was a preliminary hearing during the course of which the NSW Industrial Relations Commission effectively held that the Essential Energy owed a duty of care to an employee of a subcontractor with whom it had no contractual relationship or any relationship other than providing it with access to its power lines. The Businesses understand that the national harmonised safety regime applied in this case is very similar to the Victorian safety regime.

In conclusion, the Businesses consider an alternative control service classification is the most appropriate classification. The Businesses cannot simply *'contract out'* OMR services given the significant safety obligations it is responsible for.

The Businesses support the AER's position for a negotiated service classification for public lighting greenfield sites.

Appendix A summarises the Businesses' proposed Alternative Control Services classification.

3 Determining classification of legacy AMI services under the NER

The classification of Victorian metering services is a complicated issue as a consequence of these services having been provided under the mandated AMI OIC. In this situation, there are effectively two services requiring classification:

- mandated *'legacy'* type 5 to 6 metering services; and
- competitive type 5 to 6 metering services.

3.1 Mandated *'legacy'* type 5 to 6 metering services

In respect to mandated *'legacy'* type 5 to 6 metering services, the AER has proposed the following classification:

- unclassified - type 5 to 6 metering services (before AMI OIC expiry); and
- alternative service control classification - type 5 to 6 and smart metering services (after AMI OIC expiry).

The Businesses seek an unclassified service classification for type 5 and 6 metering services currently regulated under the AMI OIC.

The Businesses seek a standard control service classification for type 5 and 6 metering services after the expiry of the derogation (31 December 2016).

The Businesses consider a standard control service classification is the most appropriate service classification having regard to the following:

- recovery of sunk investments; and
- the relevant provisions under the National Electricity Rules (**NER**) and AMI OIC.

Recovery of sunk investment

A standard control service classification will create the best opportunity for the Businesses to recover the efficient costs of the mandated AMI rollout.

The Victorian Government provided a commitment to the Victorian DNSPs to recover the full efficient costs associated with the rollout over the life of the assets and earn a return commensurate with the associated risks through the AMI OIC.

By preserving the original intent of the regulatory commitment to the DNSPs, efficient investment is promoted and consistency with the National Electricity Objective (**NEO**) is maintained. In contrast, to classify the legacy type 5 and 6 metering services and/or applying a form of control for the services which materially changes the nature of the regulatory commitment would harm Victorian investment in the future.

A key to promoting investment in regulated energy networks is to provide potential investors with the certainty that the returns they can expect to earn under the statutory commitment will adequately compensate them for the risks associated with the investment at the time it is made.

An alternative control service classification would undermine the ability for the Businesses to recover the legacy type 5 and 6 metering services investment and create commercial and regulatory risks.

Interpretation of NER clause 11.17.6(b)

The AER states that an alternative control service classification is mandated under clause 11.17.6(b) of the National Electricity Rules (**NER**).[2]

The Businesses disagree with the AER's interpretation of clause 11.17.6(b) of the NER. The transitional provisions of the NER states services to which exit fees or restoration fees apply 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 OIC. In other words, if the AER classifies the service as a standard control service then an exit fee or restoration fee will not apply. The transitional provisions do not mandate an alternative control service classification for the value of the metering asset base as at 31 December 2015.[3]

Importance of NER clause 6.2.1(d)(1)

The critical issue for the AER in classifying the Businesses' legacy type 5 and 6 metering services for the first time under the NER, for the 2016-2020 regulatory control period, is how to meet the requirement in clause 6.2.1(d)(2) regarding previously unclassified services such that, *'the [service] classification should be consistent with the previously applicable regulatory approach'*.

The *'previously applicable regulatory approach'* to legacy type 5 and 6 metering services can be characterised as:

- a mandated distributor-led rollout of AMI services which, by definition, ensured exclusive provision of these services and precluded a DNSP from refusing to install a meter to a customer;

[2] AER, *Preliminary positions on replacement framework and approach (for consultation) for CitiPower, Jemena, Powercor, SP AusNet, United Energy for the Regulatory control period commencing 1 January 2016,* page 31.

[3] Clause 5K(a) of the OIC requires the AER, in making its distribution determination for the Businesses, to add to the value of an opening asset base for standard control services or alternative control services the value of the metering asset base of the Regulated Services as at 31 December 2015 as that metering asset base has been determined in accordance with the Order.

- provision for full recovery of actual costs incurred consistent with the obligation to supply (subject to meeting the cost requirements of AMI OIC); and
- use of a cost building block approach to derive a separate AMI metering charge (as opposed to bundling the AMI metering costs into the Distribution Use of System (**DUOS**) charge).

Given these characteristics of the Victorian Government's decision to mandate the AMI rollout and ensure full cost recovery (ie: *'the previous regulatory approach'* under clause 6.2.1(d)(2)), the Businesses consider that the classification of legacy AMI services should be treated in the same way as other core monopoly network infrastructure that the AER classifies as *'network services'* in its distribution determinations. In the Businesses' view, a legislated obligation imposed on a DNSP to supply an AMI service and an associated commitment to full cost recovery in doing so, is most closely associated with the service standard classification.

This classification is consistent with that recommended by the Australian Energy Market Commission (**AEMC**) in its final report to the Ministerial Council on Energy (replaced by the Standing Council of Energy and Resources (**SCER**) which has subsequently been replaced by the Council of Australian Governments (**COAG**) Energy Council) in relation to the recovery of costs associated with mandated smart meter rollouts. In its report, the AEMC recommended that mandated smart metering services be classified as a standard control service, in order to provide greater regulatory certainty for DNSPs on how these services would be regulated and how costs would be recovered.[4]

3.2 Competitive type 5 to 6 metering services

The Businesses seek an unclassified classification for type 5 to 6 competitive metering services after the end of the derogation (31 December 2016).

The Businesses consider competitive type 5 to 6 metering services are those small customer metering services that are installed post the introduction of competition. This includes providing, installing and maintaining the metering installation, metrology services and other related services that are enabled by AMI meters.

The future service classification of contestable small customer metering services is heavily dependent on the obligations and requirements set out in the future national metering competition framework. The AEMC has released a rule change consultation paper on expanding competition in metering and related services, targeting April 2015 for the Final Determination. Depending on the details of the framework, there is potential for contestable small customer metering services to be classified as:

- Alternative Control Services;
- Negotiated Services; or
- Unclassified.

Until such time as the details of the new national metering competition framework are clearer, particularly with respect to the roles and responsibilities of the DNSPs and alternative service providers, and the extent of likely competition, it is difficult for either the AER or the Businesses to determine the extent of competition. However, even though the extent of competition is unknown, the AER should make a determination which best facilitates competition. In the Businesses' view an unclassified classification will best facilitate competition.

[4] AEMC (2010), Request for Advice on Cost Recovery for Mandated Smart Metering Infrastructure– Final Report, November.

Table 1 summarises the Businesses proposed metering services classification.

Service	Classification
Type 1 to 4 metering services	Unclassified
Type 5 to 6 legacy metering services – before AMI derogation expiry	Unclassified
Type 5 to 6 legacy metering services – after AMI derogation expiry	Standard Control
New contestable small customer metering services – after AMI derogation expiry	Unclassified
Type 7 metering services	Standard Control
Auxiliary metering services	Alternative Control[5]

4 Control mechanism

4.1 Revenue cap for standard control services

The Businesses support the AER's position for a revenue cap for standard control services. A revenue cap means the AER and DNSPs are less reliant on energy forecasts which, with the changing environment, has proven difficult to forecast accurately.

Further, a revenue cap provides a strong incentive to conduct demand side management activities and promotes consistency across the jurisdictions, where the AER has applied revenue caps to standard control services for DNSPS in NSW, Queensland, South Australia and the Australian Capital Territory.

The Businesses have identified a number of mechanistic issues with the revenue cap formula. Please refer to Appendix B which sets out the revenue cap formula for network services.

4.2 Revenue cap for legacy type 5 and 6 metering services

If the services are classified as standard control, the Businesses seek a revenue cap for legacy type 5 and 6 metering services. The Businesses note if the AER determines an alternative control service classification for legacy metering services a revenue cap with an exit fee should apply.

Refer to Appendix D which sets out the revenue cap formula for legacy type 5 and 6 metering services.

The AER's proposed price cap on individual services will mean the Businesses will not be ensured cost recovery for the Government mandated AMI program. Consistent with the arrangements for other standard control services, the Businesses seek a revenue cap for legacy type 5 and 6 metering services. A key feature of the OIC for legacy AMI services is the ability of a DNSP to recover its investment incurred in providing the mandated AMI services. It is essential this feature of the OIC regulatory arrangements be retained, recognising the Businesses were directed through the relevant

[5] Refer to Appendix A which sets out the list of proposed auxiliary metering services.

statutes to make such investments. It is the Businesses' view that consistency with this approach is best facilitated through a revenue cap.

The Businesses consider there is a significant risk applying an individual price cap with an exit fee. In contrast, a revenue cap has a stronger guarantee of ensuring the actual costs incurred by the Businesses associated with the mandated AMI rollout. An individual price cap with an exit fee will not guarantee cost recovery given the significant estimated list of costs the exit fee must capture in order to ensure cost recovery for the Businesses. Further, there is a significant risk the estimated costs will not accurately capture the actual costs incurred by the Businesses.

The revenue cap control mechanism is not typically applied to the recovery of actual costs. Rather, in developing the required revenue over the regulatory period, there is an element of forecasting risk – that is, once the forecast revenue requirement is established, there is typically no process for adjusting that revenue requirement for actual costs incurred within the regulatory control period (overs and unders are assessment based on the approved forecast revenue requirement). Accordingly, in order to provide for the full cost recovery of legacy type 5 and 6 metering services within the revenue cap control mechanism, the AER may need to consider the establishment of some type of adjustment mechanism (potentially as part of the control mechanism formulae).[6]

To the extent that an adjustment mechanism can be incorporated in the control mechanism, the Businesses envisage that a similar process to that set out in the AMI OIC, and currently applied by the AER, in relation to budgeted and actual AMI costs could be established. This process would establish the requirements for budgeted costs, the AER's budget review process and allow for an annual *'true-up'* of budgeted costs against actual costs.

The Businesses note the building block framework for determining costs associated with the provision of legacy type 5 and 6 metering services is already in place, including a separate metering services Regulated Asset Base (**RAB**). In addition, the costs associated with legacy type 5 and 6 metering services are already recovered through a separate metering charge. As a result a separate revenue cap for legacy type 5 and 6 metering services can be determined and within-period adjustments made without impacting DUOS charges.

4.3 Role of exit fees

If the AER determines to apply an exit fee, the Businesses encourage the AER to consider the following objectives when determining the exit fee:

- recovery of the significant sunk investments that Victorian distribution businesses have already made in AMI meters when individual customers choose another meter service provider;
- recovery of the administrative and operational costs associated with the transition; and
- ensuring non-churning customers are no worse off as a result of another customer's decision to churn.

Given the mandated nature of the rollout program, the Businesses should not be exposed to any investment uncertainty. Allocating such risks to Victorian distribution businesses may stifle future investment in electricity related services, as it provides an adverse signal to financial markets on the security of investments in the Victorian industry. The determined exit fee should ensure this outcome is avoided and full cost recovery is achieved.

Further, it is critical that any customer choosing an alternate meter service, following the introduction of metering contestability, be required to meet its fair share of the investment made in AMI services.

[6] As noted in the amended formulae in the *'B'* term.

This is best facilitated through an exit fee. Moreover, customers that choose to not churn should be no worse off as a result of another customer's decision to churn.

This exit fee must be determined by the AER in accordance with the requirements of clause 7.2 of the OIC. The exit fee must enable the distributor to recover in a lump sum on the change in responsible person, the unavoidable costs a prudent distributor would incur as a consequence of the removal of the metering installation prior to the expiration of its asset life as set out in clause 4.1(g) of the OIC, including, but not limited to, the written down value of the meter and a reasonable return on that written down value calculated using the applicable Weighted Average Cost of Capital (**WACC**).

Based on the principles of clause 7.2 of the OIC, the Businesses consider the below costs should be captured by the exit fee:

- depreciated value of the meter, IT and communication assets at the time of the exit;
- present value of the removal meter cost; and
- present value of the communications network infill costs.

In addition to the above costs, the Businesses consider the costs associated with accessing network data (for example used for outage detection and measuring quality of supply) and energy services (for example load management) should either be reflected in the exit fee or recovered via DUOS charge.[7] If the metering co-coordinator sets a price higher than the realised AMI network benefits, the Businesses will not purchase the network data and hence AMI network benefits such as outage detection will not be realised.

For the purposes of the 2016-2020 regulatory control period, the Businesses intend to propose a step change for the ongoing access costs for network data and energy services.

Refer to Appendix D part C which sets out a detailed list of the exit fee costs.

4.3.1 Exit fee Adjustments

In order to facilitate the proposed exit fee arrangement if implemented with a revenue cap, the AER may consider establishing a revenue adjustment mechanism that allows for:

- within-period reporting of exit fee revenue;
- the Businesses retain the exit fee revenue (rather than be subject to any type of *'overs and unders'* arrangement); and
- adjustments of the regulated legacy AMI services asset base to reflect the removal of AMI assets *and ensure that the metering charge to remaining customers are adjusted accordingly.*

4.3.2 Weighted Average Price Cap

In the event the AER rejects the proposed revenue cap with an exit fee proposal, the Businesses seek a Weighted Average Price Cap (**WAPC**) for legacy type 5 and 6 metering services. A WAPC is a superior option to an individual price cap. A WAPC will facilitate competition by providing competitors with the ability to price differently for each metering service.

Refer to Appendix D which sets out the proposed WAPC formula for legacy type 5 and 6 metering services.

[7] Victorian Distribution Network Service Providers, *National Electricity Amendment (Expanding Competition in Metering and Related Services) Rule 2014*, 5 June 2014.

4.4 Individual price caps for alternative control services

For services classified as alternative control services, the Businesses seek the continuation of caps on prices.

The Businesses seek assurance from the AER that they accept, in principle, cost recovery for any tax liability on services regardless of whether or not the service is classified as a standard control or an alternative control service.

The Businesses have identified a number of issues with the individual price cap for alternative control services. Please refer to Appendix C which sets out the individual price cap for alternative control services formula.

5 Efficiency Benefit Sharing Scheme

The Businesses support the continued application of the Efficiency Benefit Sharing Scheme (**EBSS**).

6 Capital Efficiency Sharing Scheme

The Businesses support the introduction and application of a symmetrical Capital Expenditure Sharing Scheme (**CESS**).

At this stage the Businesses are unlikely to propose any CESS exclusions.

7 Demand Management Incentive Scheme

The Businesses seek the ability for further funding above the current cap (Powercor $3 million and CitiPower $1 million) on the proviso of AER pre-approval. A capped scheme stifles innovation and constrains the Businesses' thinking for new ideas which will promote the NEO.

8 Depreciation

The Businesses support the use of forecast depreciation in determining the opening value of the Regulatory Asset Base, at the commencement of the following regulatory control period, if the CESS is in place.

Appendix A – Alternative Control Services Classification

Service Group	Price Basis	Added	Removed
Connection Services			
New connections responsible for metering			
- Single phase	Fee Based		
- Multi phase DC	Fee Based		
- Multi phase CT	Fee Based		
New connections not responsible for metering			
- Single phase	Fee Based		
- Multi phase DC	Fee Based		
- Multi phase CT	Fee Based		
Supply abolishment	Quoted		
Disconnection (field based)	Fee Based		
Disconnection for non payment (field based)	Fee Based		
Reconnections incl customer transfer (field based)	Fee Based		
PV installation	Fee Based		Standard Control[8]
Metering services			
Metering investigation	Fee Based		
Meter Accuracy Test			
- Single phase	Fee Based		
- Single phase additional meter	Fee Based		
- Multi phase	Fee Based		
- Multi phase additional meter	Fee Based		
- CT	Fee Based		
Cyclical reading (field based)	Fee Based		
Special reading (field based)	Fee Based		
Re-test of type 5 & 6 metering installations for first tier customers with annual consumption greater than 160MWh\	Fee Based		✗[2]
Remote and Meter Reconfiguration			
Remote disconnection	Fee Based		
Remote reconnection	Fee Based		
HAN and binding services	Quoted	✓	
Ancillary Network Services			
Service truck visit	Fee Based		
Wasted truck visit	Fee Based		

[8] Change in process resulting in inclusion of activity in operating expenditure step changes.

Service Group	Price Basis	Added	Removed
Reserve Feeder			
- Subtransmission	Fee Based		
- High Voltage	Fee Based		
- Low Voltage	Fee Based		
Fault response – not DNSP fault	Fee Based		
Temporary supply services	Fee Based		
Rearrangement of network assets at customer request, excluding alteration and relocation of public lighting asset	Quoted		Standard Control[10]
Supply enhancement at customer request	Quoted		✗[9]
Auditing design and construction	Quoted		
Specification and design enquiry fees	Quoted		
Elective undergrounding where above ground services currently exists	Quoted		Standard Control[10]
Emergency Recoverable Works	Quoted		Unregulated[11]
Damage to overhead service cables caused by high load vehicles	Quoted		Unregulated[11]
High load escorts – lifting overhead lines	Quoted		
Covering of low voltage lines for safety reasons	Quoted		
Routine connections – customers above 100 amps	Quoted		
After hours truck by appointment	Quoted		

[9] Delete as not used
[10] Supplied under Guideline 14
[11] Emergency recoverable works is classed as unregulated in the AER F&A to assist DNSPs with recovering all network costs from the relevant party. This can be done under common law if necessary. While damage to overhead service cables caused by high load vehicles was not classed as unregulated in the AER F&A it should also be classed as unregulated as it is the same type of activity.

Appendix B – Price Control Mechanism for Standard Control Service

Original Formula

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

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

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

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.[12] 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.

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

Corrected Formula

(1) $MAR_t \geq \sum_{i=1}^{n} \sum_{j=1}^{m} p_t^{ij} q_t^{ij}$ i=1,...,n and j=1,...,m and t=1,...,5

(2) $MAR_t = AR_t + \sum_{k=1}^{o} IA_t^k + \sum_{l=1}^{r} T_t^l + \sum_{u=1}^{s} B_t^u + F_t + PassThrough_t$

k=1,...,o and l = 1,…,r and u =1,…,s

(3) $AR_t = \frac{AR_{t-1}(1+CPI_t)(1-X_t)(1+S_t)\prod_{v=1}^{w}(1+IF_t^v)}{\prod_{v=1}^{w}(1+IF_{t-1}^v)}$ v=1,...,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 $S_t = (1+S'_t)$ 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.[13] To be decided upon in the final decision.

[13] In Victoria, the transitional determination is the adjustment between the initial determination and the substitute determination.

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 fees[14]. 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.

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 addititive'* term and an *'Incentive Factor'* term.
        - 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 ti I, B and T terms.
- Amended S_t for the 2016 year

[14] Previously known as L-Factor in Victoria

Appendix C – Price Control Mechanism for Alternative Control Services

Original Formula

$$\overline{p}_i^t \geq p_i^t \qquad \text{i=1,...,n and t=1,2,3,4}$$

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

Where:

$\overline{p}_i^t$ 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.

Corrected Formula

(1) $p_t^i \leq \overline{p}_t^i$ i=1,...,n and t=1,….,5

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

Where:

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

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

$\overline{p}_{t-1}^i$ 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.

Notes to Amendments

- A_i^t description is modified to demonstrate that the adjustment is additive (ie. '+') and not a 'multiplicative' factor ('x').
- $\overline{p}_i^{t-1}$ 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,…,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 form 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.

Appendix D – Price Control Mechanism for Metering

a) Revenue Cap

(1) $MAR_t \geq \sum_{i=1}^{n} \sum_{j=1}^{m} p_t^{ij} q_t^{ij}$ i=1,...,n and j=1,...,m and t=1,...,5

(2) $MAR_t = AR_t + T_t + B_t$

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

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.

b) Weighted Average Price Cap

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

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

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}_t 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.

Notes to Amendments

- 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

c) Exit fee

Based on the principles of clause 7.2 of the OIC, the Businesses consider the below costs should be captured by the exit fee:

i) Depreciated value of the meter, IT and communication assets at the time of the exit

Costs associated with the depreciated value of the meter, IT and communication assets attributable to the departing customer at the time of the exit.

ii) Present value of the removal meter cost

Costs associated with recovering the removed meter(s) from the new Meter Provider (MP): including the processing cost of receipting meters back into store; an allowance for lost or damaged meters and a provision for back-office/site investigations.

Meter refurbishment/re-verification and meter disposal cost: including cost associated with returning the meter to the vendor for re-verification and an allowance for investigation and repair.

iii) Present value of the communications network infill costs

Costs associated with communications network infill: the effectiveness of the mesh network is achieved through locating meters within close proximity of each other and enabling data to be relayed from one meter to another in order to extend reach. Churning customers create gaps in the mesh network, requiring additional devices and antennas to be installed. As a consequence each churning customer should pay a contribution toward the additional communication network infill cost.