1 Executive Summary

This document sets out SP AusNet's response to the Australian Energy Regulator's (AER's) *Preliminary positions on replacement framework and approach (for consultation)* document.

SP AusNet supports the AER's decision to make a replacement Framework and Approach for the forthcoming Victorian Electricity Distribution Regulatory Review. Given the need to classify metering services, the changes in the National Electricity Rules (NER) and other aspects of the Better Regulation Framework that have since been introduced and the other reasons set out in the AER's Preliminary Positions paper, it is necessary to replace the existing Framework and Approach paper.

The preliminary positions laid out by the AER in large part reflect a practical and sensible framework for the upcoming Regulatory Review. This submission focuses on areas where SP AusNet believes it is necessary or would be beneficial to set out further details, and also on positions that we believe should be altered.

A summary of the issues and positions set out in this submission is provided in the table below.

Table 1: Summary of SP AusNet response to Preliminary Positions

Service classification	Network Services	- support standard control services (SCS) classification
	Connection Services	- supports classification of New Connections (requiring augmentation) as SCS; - support removal of 'supply enhancement at customer request' from alternative control services (ACS). Proposes similar treatment for all complex customer initiated connection work; - proposes inspection of PV installation sites be ACS, with a fee for panels below 5kW and a quoted service for panels above 5kW. - proposes routine abolishments (<100amps) be SCS. - supports classification of other ancillary connection services as ACS.
	Metering	- supports classification of meters subject to the mandated rollout as ACS; - proposes separate classifications for metering services provide pre- or post-contestability; - supports an exit fee; - proposes ancillary metering services to be classified as ACS.
	Other Ancillary network services	- proposes removal of 'elective undergrounding of an overhead service' from ACS; - proposes classification of two separate reserve feeder services: construction to be negotiated; and, maintenance to be quoted

		ACS; - proposes emergency recoverable works should not be classified as ACS. Should remain SCS.
	Public lighting	- supports unchanged treatment of public lighting services.
Control mechanisms	Standard Control Services	- supports revenue cap for standard control (SCS); - supports that, relative to other forms of control, for the 2016-20 regulatory period a revenue cap has a higher likelihood of revenue recovery at efficient cost, is less dependent on energy forecasts, and is likely to result in greater price stability; - disputes that revenue cap is better aligned with the introduction of efficient prices than a price cap.
	Alternative Control Services	- supports maintaining existing forms of control for ancillary services; - proposes a revenue cap as the most appropriate control mechanism for metering; - supports caps on prices for individual public lighting services.
	Control Formulae	- amendments to control formulae are proposed to address a variety of issues.
Application of Incentive schemes	Expenditure Incentives	- supports application of Capital Expenditure Sharing Scheme (CESS) and the Efficiency Benefits Sharing Scheme (EBSS);
	Depreciation	- supports the use forecast depreciation to establish 2020 opening RAB;
	STPIS	- proposes that a review of the STPIS is necessary and can occur in time to be implemented for the 2016-20 Victorian regulatory period.
	F factor	- supports application of F-factor with existing incentive rates.
	Demand Management Incentive Scheme	- supports application of existing DMIS, with potential to transition to a new scheme once developed by the AER.
	Small-scale incentive scheme	- proposes the AER develop an incentive to promote energy and demand forecasting accuracy.

2 Service Classification

2.1 Network Services

SP AusNet supports the AER's classification of Network Services as Standard Control Services.

2.2 Connection Services

SP AusNet supports the AER's preliminary position for the service groups outlined in its paper.

New connections requiring augmentation

SP AusNet supports the classification of New Connections (requiring augmentation) as Standard Control. SP AusNet considers this service category captures all customer initiated work including the modification or rearrangement of an existing supply.

This classification is appropriate regardless of whether the current jurisdictional arrangements are continued unchanged, modified or a complete transition to the national framework under chapter 5A is made.

This view is taken because:

- The current uncertainty around ongoing arrangements and likelihood that any final decision on the implementation of NECF in Victoria will leave a very short timeframe to transition to any new arrangements; and
- there is likely to be a material change to the balance of connection costs borne by the connecting party in any transition, as highlighted by the AER, increasing the importance of regulatory oversight in the near term.

Nonetheless, longer term, SP AusNet endorses the AER's comment that further development of the contestability framework in Victoria may enable these services to be classified as negotiated or even unclassified.

As the AER is aware, the construction of these assets is fully contestable in Victoria, although the distributor acts as a constructor of last resort. The AER expresses some concern that accreditation by the distributor, which is required to maintain safety and quality standards, might act as a constraint on competition. This is unfounded in our distribution area. For example, SP AusNet has accredited 12 suppliers for design services, 15 suppliers of project management services and 18 suppliers of construction services.

Ancillary connection services

SP AusNet supports the AER's intention to update the classification of any complex connection work to reflect current practice or more closely align with the national framework under chapter 5A.

The AER has already highlighted that 'supply enhancement at customer request' has not been provided in the current regulatory control period as these services are

captured under the standard control connections[1]. More broadly, SP AusNet considers that any major or complex works initiated by customers are best included under the standard control service. This should include 'rearrangement of network assets' and any complex 'supply abolishments (>100 amps)' as they are handled under identical arrangements internal to the distributor and are subject to identical economics and construction contestability. This would also be consistent with the definition of connection and connection alteration contained in Chapter 5A, simplifying a future transition.

Therefore, SP AusNet would propose to not classify 'rearrangement of network assets' and complex 'supply abolishments (>100 amps)' and remove them from the schedule of services.

Inspection of PV installation site

The AER is seeking comment on whether the inspection of a PV installation site should continue to be classified as an alternative control service, and if so whether the service should be a quoted service or a fee based service[2]. SP AusNet considers this should be a fee based alternative control service for panels below 5kW. If that inspection highlighted that further connection work needed to be undertaken then that would be undertaken as normal standard control customer connection work.

For panels above 5kW SP AusNet considers a quoted fee may be more appropriate but is still assessing the work involved for larger solar installations.

SP AusNet proposes that this service definition be expanded to include all types of small scale distributed generation (not solely PV installations).

Routine supply abolishment (<100amps)

Consistent with the previous price review, SP AusNet does not charge customers for routine abolishments in order to remove the incentive for customers to not notify a distributor that an abolishment is required and creating a potential community safety hazard. The AER endorsed this approach at the last review. However, this requires the service to be classified as standard control as costs are recovered in DUOS charges. While this approach results in the cost being born by the broader community, it is the broader community that benefits from the removal of the safety hazard.

Other ancillary connection services

SP AusNet supports the AER's classification of other Ancillary Connection Services as Alternative control services. The other ancillary connection services are:

- temporary connections and disconnections; and
- energisation and de-energisation.

[1] AER (2013), *Preliminary positions on replacement framework and approach (for consultation)*, p.42

[2] Ibid, p.41

2.3 Metering

As outlined by the AER, not all customers in the NEM have the same type of metering installation. This issue is most pertinent in Victoria with the mandated rollout of Advanced Metering Infrastructure (AMI) for all residential and small business customers. The following metering installation types are defined in schedule 7.2 of the NER:

- **Type 1 – 4 metering:** interval meter with annual consumption level greater than 160KWh;
- **Type 5 metering:** interval meter with annual consumption level less than 160KWh;
- **Type 6 metering:** accumulation meter with annual consumption level less than 160KWh; and
- **Type 7 metering:** unmetered supply (including public lighting).

SP AusNet supports the AER's preliminary position for types 1-4 metering as outlined in its paper. SP AusNet agrees that as these services are provided in a competitive environment, they should remain unclassified in the next regulatory period. SP AusNet also supports the AER's preliminary position for the classification of type 7 metering as a standard control service.

AMI metering, being unique to Victoria, is classified as type 5 in the NEM. Metering services for types 5 and 6 metering are currently excluded from classification by derogation from the NER in Victoria. Victorian distribution businesses are currently the monopoly service providers for type 5 and 6 metering. This however, may change in the next regulatory period, with the AEMC proposing the introduction of contestability for type 5 and 6 metering services.

In the face of uncertainty regarding the regulatory framework for metering during the 2016-20 regulatory control period, SP AusNet has proposed 2 service classifications for AMI metering including:

- Mandated metering services (pre-competition); and
- Contestable small customer metering services (post-competition).

SP AusNet agrees with the AER's preliminary position on auxiliary metering services, and has proposed that additional services be classified.

Definition of services

As discussed in the Preliminary Position paper, metering services in Victoria are currently not classified in the NER. This section of SP AusNet's response discusses what the services are that need to be classified for the forthcoming regulatory control period.

In 2009, the Victorian Government mandated the rollout of Advanced Metering Infrastructure (AMI) to residential and small business customers. Chapter 9 of the NER provides a jurisdictional derogation away from Chapter 7 for all metering services for customers with annual consumption less than 160 MWh.

This derogation, in place since 2009, makes distribution businesses exclusively responsible for metering to Victoria's residential and small business customers, and enabled the rollout of AMI by the five Distribution Network Service Providers

(DNSPs) to over 2.5 million customers. The derogation provides this DNSP–exclusivity for small customer metering services until 31 December 2016, one year into the relevant regulatory period.

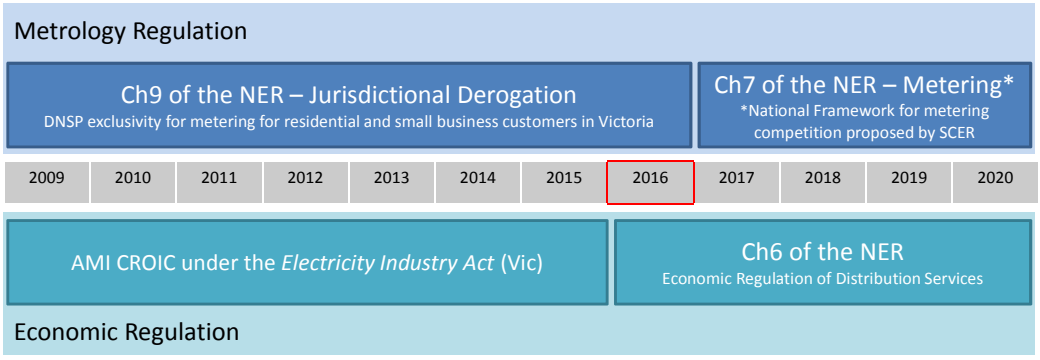
To give effect to the mandated rollout, Orders in Council were made under the *Electricity Industry Act 2000* (Vic) to:

- Impose obligations on the Victorian DNSPs to replace existing small customer metering with AMI metering;
- Specify minimum functionality and associated service requirements for AMI meters installed; and
- Provide for the regulation of cost recovery by the DNSPs in respect of the costs associated with the AMI rollout.

The AMI Cost Recovery Order in Council (CROIC) mandates a cost pass through model for the cost of AMI incurred by DNSPs until 31 December 2015. On the cessation of the AMI CROIC, metering services are liable to regulation under a distribution determination (clause 11.17.6(a) of the NER).

The metrology (regulations governing metering in the NEM) and economic regulations relevant to metering services for residential and small business customers in Victoria over the 2009-2020 period are illustrated in Figure 1.

Figure 1: Metering regulation for services to residential and small business customers in Victoria



* Expected amendment to Ch7 of the NER to introduce competition in metering by April 2015. Processes, procedures and transitional arrangements for Victoria not expected until April 2016 (AEMC Implementation Program).

Figure 1 highlights that on 1 January 2016 economic regulation for metering services will be transitioned from the AMI CROIC to Chapter 6 of the NER; while on 1 January 2017 metrology regulation will be transitioned from the jurisdictional derogation to Chapter 7 of the NER.

The AEMC Power of Choice Review has proposed amendments to metrology regulations to enable competition in metering. These amendments are not expected to be finalised until April 2015.

There is a lack of clarity in what the arrangements for metering services will be in Victoria post derogation. There are material issues, with significant implications, that will need to be resolved before the expiry of the current derogation (31 December 2016).

The Preliminary Positions paper does not adequately address the issues likely to arise due to changes in metering regulation next regulatory period, particularly the potential introduction of contestability.

The lack of clarity regarding the regulatory framework for metering in Victoria and the possibility of the introduction of contestability in metering during the next regulatory period (2016-20) – requires the classification of two types of metering services:

- **Mandated metering services** (pre-competition) including the recovery of sunk costs; and
- **New contestable small customer metering services** (post-competition).

Due to the level of uncertainty regarding the regulatory framework for metering, and because of the inability to change service classification mid-period, there is a requirement for two separate services. As such, any meter installed under the Victoria derogation should be classified as a 'mandated metering service'; and any meter installed after should be classified as a 'contestable small customer metering service'.

The AER's classification decision must distinguish between the legacy AMI services (including similar services delivered between the start of 2016 and the point in time when contestability is introduced in Victoria) and the future contestable services because of the fundamentally different circumstances in which investment in, and provision of, the services occurred.

Mandated metering services

Due to the DNSP exclusivity under the derogation, legacy metering services are monopoly services and therefore should be classified as direct control.

There are residual costs associated with legacy AMI services that extend beyond the initial rollout period and are required in accordance with the AMI CROIC to be recovered over the remaining life of the assets. In the case of Victoria and the AMI rollout, the current average age of the installed AMI meters is less than 5 years, and the regulated asset life is 15 years.

Contestable small customer metering services

New contestable metering services, post 1 January 2017 (or, the date when contestability is introduced in Victoria, if this occurs later), are by nature competitively available and do not require regulation – they should be unclassified.

SP AusNet believes that the distinction between pre-competition and post-competition services in Victoria is consistent with the form of regulation factors in section 2F of the NEL.

Service classification for mandated metering services

The AER's preliminary position is to unbundle metering services from standard network charges, separate them into different categories of metering services and classify each component as alternative control. This includes:

- An alternative control service for meter installation (one-off charge at the point of installation); and
- An alternative control service for meter provision, maintenance, reading and data services (annual meter charge).

The annual ACS Metering charge will include all maintenance, opex and replacement capex on the metering installation and commissioned telecommunications and IT systems.

SP AusNet agrees that this service classification of mandated metering services is consistent with clause 6.2.2 of the NER.

Exit fee

Upon the introduction of contestability for metering services in Victoria there is potential for meters installed as part of the AMI rollout to be removed many years prior to the end of their regulated lives. The DNSP should not bear a financial loss on the efficient cost of prematurely removed AMI meters. A properly specified exit fee to protect the DNSPs AMI investment is required. In its Power of Choice Review the AEMC recommended that an appropriate, clearly defined and transparent exit fee exists to cover a DNSP's sunk costs where a consumer upgrades a network regulated metering installation[3].

The objective of the exit fee is to recover the stranded costs of the meters being replaced and to encourage a more efficient investment in AMI by reflecting the 'true' cost in replacing a fully functioning meter. That is, an exit fee should not leave the DNSP with uncompensated stranded asset. It would ideally also minimise the distortions in the contestable metering services market, by ensuring customers see cost reflective price signals when they switch metering providers. The exit fee should replicate the type of risk allocation one could reasonably except to see in a competitive market involving the provision of long-life dedicated assets with sunk costs.

Clause 7 of the CROIC allows for the determination of an exit fee in the circumstance where there is a change in the responsible person in respect of a metering installation. The CROIC requires the exit fee to enable the DNSP to recover in a lump sum:

- The reasonable and efficient costs of removing the metering installation;
- The unavoidable costs (fixed and variable) that a prudent distributor has incurred or would incur as a result of the metering installation being removed prior to the expiry of the life of that metering installation including:
    - The written down value of the meter; and

[3] AEMC (2012), *Power of choice - giving consumers options in the way they use electricity, Draft Report,* p.5.

- A proportion of the written down value of commissioned telecommunications and IT systems.

The principles that should be used in determining the exit fee in the forthcoming regulatory period should be in line with the principles outlined in clause 7.2 of the AMI CROIC. This includes the recovery of variable and fixed unavoidable costs (including operating and maintenance expenditure) related to the relevant metering installation.

For simplicity, the exit fee should be an annual average of the written down value of metering and commissioned telecommunications and IT assets. As noted by the AER, identifying the individual cost to be applied to an individual situation would be problematic. As such, the AER proposes that an average charge should apply.

Given the nature of the AMI rollout, the exit fee should be specific to each DNSP's circumstances, including an annual average written down value determined for each DNSP.

Auxiliary metering services

SP AusNet agrees with the AER's proposal that auxiliary metering services should be classified as direct control services. As the cost of providing these services is directly attributable to the user of the service, an alternative control classification is appropriate. This is also consistent with the previously applicable regulatory approach and reduces any administrative costs.

The following auxiliary metering services should be classified as alternative control services by the AER:

- Remote re-energisation and de-energisation;
- Remote meter reconfiguration;
- Remote special meter read (customer/retailer requested);
- Manual meter read for customers who refuse AMI (subject to legislative amendment proposed by the Vic Government – expected by end-July 2014);
- Binding of Home Area Network (HAN) and In-home display (IHD) devices;
- Meter equipment test (customer requested); and
- Meter conversion (e.g. single phase meter to multi-phase meter).

As the following are auxillary metering service are currently provided in competitive environment they should be unclassified:

- Meter investigation (analysis of interval data); and
- Provision of additional switching services, or switching services not associated with approved off peak leads (circuits).

2.4 Other Ancillary network services

SP AusNet supports the AER's intention to update the classification of ancillary network services to reflect current practice.

Elective undergrounding of an overhead service

Elective undergrounding is not an alternative control service offered by SP AusNet in the current regulatory control period. Rather this is captured under SP AusNet's standard control new customer connections and is subject to construction contestability.

Therefore, SP AusNet would propose to not classify this service and remove it from the schedule of services.

Reserve feeder

SP AusNet considers that this service should be split into two services. The construction of a reserve feeder should be a negotiated service as the construction is contestable. The ongoing maintenance of the reserve feeder should be an alternative control service, quoted service.

The provision of a Reserve Feeder or reserve capacity within a feeder is a contestable function as it is an alternative to other solutions that the customer may have available to them. In addition, the construction of any new assets required is contestable. Therefore, the construction of a reserve feeder should be a negotiated service as the construction is contestable.

However, the costs associated with maintaining the feeder cannot be captured separate to the Standard Control service of network activities. SP AusNet believes that a fixed fee based service does not provide customers with the right incentives for choosing a reserve feeder over other options. Any fixed fee set to recover the costs of maintaining reserve feeders will be an average for the network. As such it provides a strong incentive for customers with costs that are higher than average to accept a reserve feeder instead of an alternative, such as a backup generator, and impose unrecoverable costs on the DNSP or other customers. At the same time customers with lower than average costs are given a disincentive to use the Reserve feeder option and, therefore, may take an option that is not economically sound. These services are only provided to large industrial and commercial customers that are using energy consulting services to advise on their options. Therefore, SP AusNet believes the most appropriate way to deal with these requests is to develop a customer specific quotation.

Emergency recoverable works

The AER's preliminary position appears to be an attempt to solve a non-existent problem. The distributor already attempts to recover costs from the causer, generally successfully, however, in many instances the causer has no capacity to pay or no causer can be identified as they have fled the scene before they can be identified. In these situations the distributor is not at fault and should not be left out of pocket.

If the AER was to cease directly funding these costs, SP AusNet would have to substitute a self-insurance allowance as an alternative funding allowance in its standard control opex.

Other

SP AusNet supports the AER's decision that the 'provision of possum guards' and 'provision of watchmen lights' be unclassified.

SP AusNet supports the AER's classification of other ancillary network services as alternative control services.

2.5 Public lighting

SP AusNet supports the AER's preliminary position to retain the existing treatment of public lighting. SP AusNet believes the broad regulatory framework and technical standards that govern public lighting assets create an effective monopoly for distributors over the ownership of these assets. As such, services associated with the ownership of public assets—operation, maintenance, repair, and replacement of public lighting assets—should be classified as Alternative Control. Alteration and relocation of assets as well as construction of new public lighting assets are contestable services and can be classified as negotiated services.

Is the ownership and ongoing operation and repair of new public lights contestable?

This section sets out some background on the legislative and technical regulatory framework under which public lighting services are delivered that is relevant to the classification of these services by the AER.

In the Preliminary Positions paper the AER makes the following statements in respect to Public lighting services:

> *"A distinction must also be made for greenfield sites such as new estate developments. These are contestable under the Victorian Public Lighting Code."*[4]
>
> *While the Victorian distributors do not have a legislative monopoly over these services, a monopoly position exists to some extent.*[5]
>
> *"… local councils are not required to ask the distributors to provide, operate and maintain their street lighting assets. As public lighting customers, they have the option of providing (and owning), operating and maintaining their own lights, thereby avoiding the distributor's physical public lighting services (by using an 'energy only' service). In essence, they may ask the developer of a greenfield site to vest the public lighting assets to the councils, rather than the distributor. Or they may only employ the distributor to replace failed light bulbs."*[6]

These statements, whilst correct, convey a view that contestability of the services concerned is relatively simple.

Although there is no legislated distribution monopoly on the ownership of new public lighting assets there are practical barriers arising from the more onerous standards that apply to non-distributor owners that create an effective monopoly position.

Specifically, distributors own and operate public lighting constructed to the Victorian Electricity Supply Industry (VESI) standard. However, if non-distributors, including

[4] AER (2013), *Preliminary positions on replacement framework and approach (for consultation)*, p 54

[5] Ibid p 55

[6] Ibid, p 57

councils, wish to own and operate these assets they have to be built to the more onerous Australian/New Zealand standard for an electrical installation.[7] In addition, third parties are not able to own and operate public lighting assets unless they hold an exemption under Section 46 (a) (ii) of the Electricity Safety Act 1998.

Given the resultant cost differential this creates, the technical standards create an effective monopoly.

This has the following effect with respect to public lighting assets.

- Existing assets can only be owned and operated by the licenced distributor for the area that they are located in;
- The alteration of existing assets can only be undertaken by or on behalf of the licenced distributor that owns them;
- New public lighting types connected to the existing VESI standard infrastructure must be owned and operated by the licenced distributor and must therefore meet the distributors approval;
- Greenfield development of new assets built to the lower VESI standard can only be vested in the licenced distributor for the area they are located in;
- If a Greenfield development is to be vested in the council it must be identified at design stage and then constructed to the more onerous Australian/New Zealand standard for an electrical installation.

This then has implications for the ongoing operation, repair, replacement and maintenance (ORRM) of the distributors' public lighting infrastructure and the introduction of new lighting technology.

These are set out below.

Operation, Repair, Replacement and Maintenance

Operation includes the provision of a Call Centre for reporting faults and emergencies, maintenance of a Geographic Information System (GIS), Customer Billing system, a Complaints handling.

Repair is the attendance of appropriately qualified lines personnel to light failures and carrying out any necessary rectification work to ensure the continued performance of the lighting infrastructure.

Replacement is the removal of existing lighting components such as poles, cabling, luminaires etc usually at the end of its physical life and installing in its place a new item of equivalent specification.

Maintenance is conducting regular inspections and testing of poles and brackets, bulk replacement of lamps on non-major roads every four years where required by the public lighting standards, clean and inspect luminaires, replace photo-electric cells every 8 years and conduct routine patrols of lights on major roads 3 times a year.

Victorian Distributors are responsible for the Operation Repair Replacement and Maintenance of public lighting assets that they own. As all new public lighting assets

[7] Electricity Safety Act 1998, Part 3, Division 4, Section 46 (a)(vi).

are almost always gifted to the Distributor for the reasons set out above, this responsibility includes any new light technologies that are requested by councils because they will also be built as or affixed to existing VESI standard public lighting assets. That is these services remain monopoly services for distributors.

SP AusNet supports the AER's classification of the Operation, Repair, Replacement and Maintenance of public lighting assets as alternative control services.

Alteration and relocation of DNSP public lighting assets

The alteration and relocation of DNSP public lighting assets is the removal of existing assets and their replacement with either upgraded assets in the same location or installation of similar or upgraded assets in another location. Instances of this type of work may be the realignment of poles and lights to allow for changes to a roadway alignment, the relocation of a lighting installation to allow access to a property, or other similar changes to the lighting assets. Again, for the reasons outlined above (design and construction to the lower VESI standard) these assets are almost always required to be gifted to the distributor and will impact on the distributors ORRM costs in future.

However, as with other customer initiated works the construction is contestable. Public lighting customers are free to engage any approved third party contractor to undertake these works.

Therefore the contestable nature of these works means that SP AusNet supports the AER's classification of these services as negotiated.

Construction of new public lighting assets

The construction of new public lighting assets can be further subdivided into three types of works:

- Lighting associated with the development of new estates;
- Major works of additional lighting assets in existing developed areas; and
- Minor works of additional lighting assets in existing developed areas.

Lighting infrastructure in new estates, residential and commercial, is installed by the developer that is responsible for the construction of public use assets within the estate. These works are usually done to the local council's specification provided this is to the minimum standard required by the distributor. Where the specification is to the VESI standard, the assets will be gifted to the distributor on completion. If the Council were to nominate the higher installation standard, the assets could be vested to the council. However, they cannot remain the property of the developer or another third party unless that party were to obtain a licence exemption. The distributor has no role in the decision on either the specification of the works or the choice of constructor; the construction works are, therefore, clearly unclassified.

Where a council is seeking to extend or requires new assets in and existing developed area or where from time to time a council may require the addition of a single light in a specified location or a small number of additional lights the construction works are contestable under Guideline 14.

Again, for the reasons outlined above (design and construction to the lower VESI standard) these assets are almost always required to be gifted to the distributor and will impact on the distributors ORRM costs in future.

However, as with other distributor customer initiated works the construction is contestable. Public lighting customers are free to engage any approved third party contractor to undertake these works.

Therefore the contestable nature of these works means that SP AusNet supports the AER's classification of these services as negotiated.

3 Control Mechanisms

The AER's Framework and Approach must establish the form of control for both standard control services and alternative control services. It must also set the formula for implementing the form of control.

- SP AusNet supports the AER's preliminary position that a Revenue Cap is the appropriate form of control for Standard Control Services in the 2016-20 regulatory period.
    - While supportive of a revenue cap this period, SP AusNet's experience does not support some of the rationale laid out in the Preliminary Positions paper. These areas are addressed below to highlight where we believe that a revenue cap alone cannot be expected to fix policy concerns.
- SP AusNet believes Alternative Control Services should be addressed in three groups: ancillary services; metering services; and, public lighting and supports separate forms of control for each service grouping:
    - Ancillary Services – caps on the prices of individual services;
    - Metering – revenue cap;
    - Public Lighting – defined price path (continuation of status quo).
- SP AusNet is proposes a number of changes to the control formulae proposed by the AER to facilitate smoother implementation, and the use of different control mechanisms for the three groups of Alternative Control Services.

3.1 Form of Control

3.1.1 Standard Control Services

Rule 6.2.5 sets out the possible control mechanisms that can be applied to Standard Control Services and the factors that the AER must have regard to in making its decision.

In addition to the factors identified in the Rules[8], the AER has identified three additional relevant factors to selecting a control mechanism:

1. Revenue recovery;
2. Price flexibility and stability; and
3. Incentives for demand side management.

The AER's preliminary position is that a Revenue Cap will be applied to SCS for the following reasons. A Revenue Cap:

- has a higher likelihood of revenue recovery at efficient cost (than other control mechanisms);

[8] The need for efficient tariff structures; possible effects on administrative costs of AER, DB, users and potential users; existing regulatory arrangements; consistency with regulatory arrangements for similar services (both within and beyond the relevant jurisdiction).

- provides better incentives for Demand Side Management (DSM);
- has less reliance on energy forecasts; and
- has better alignment with the introduction of efficient prices.

Also, according to the Preliminary Positions paper, the disadvantages of revenue cap (within period price instability, and weak pricing incentives) can be mitigated.

SP AusNet agrees that a revenue cap has the greatest likelihood to support revenue recovery at an efficient cost at this time, due in large part to the decreased reliance on energy forecasts under a revenue cap, and this currently makes a revenue cap the most appropriate form of control for the upcoming regulatory period.

Notwithstanding that there is good rationale for applying a revenue cap in the 2016-20 regulatory period, some of the presumed benefits of replacing the current control mechanism with a revenue cap are not guaranteed. The case put in the Preliminary Positions paper that a revenue cap is better aligned with the introduction of efficient prices is flawed. This submission addresses some of the issues where other impediments may exist to the achievement of AER's stated objectives. In some cases, additional actions are proposed that could be adopted in the final Framework and Approach or the regulatory determination.

The sections below address the issues considered in the Preliminary Positions paper regarding the choice of the form of control.

Revenue recovery and energy forecasts

Revenue recovery is an important consideration in setting the form of control. If actual revenues deviate substantially from forecast revenue, then customers may face higher than efficient prices leading, or distributors may not receive sufficient revenue to recover their efficient costs. These are the issues of allocative inefficiency that can occur under a price cap as identified in the Preliminary Positions paper.

However, the over-recovery or under-recovery of revenues need not always be inefficient. Indeed, if both prices and the revenue allowance are set efficiently, then the deviation in revenues from the allowance driven by increases or decreases in energy consumption and network use will reflect an efficient use of services. Costs as well as revenues will vary in proportion if an efficient price is set.

Recent instability in customer energy consumption— in the last five years, the long-term pattern of growth in energy use has been broken—has meant that energy volumes and therefore revenues derived under the existing weighted average price cap has diverged significantly from those approved in the regulatory determination.

The uncertainty around customer behaviour and government policy has made it more difficult to set tariffs at the right level to recover the approved revenue. Because a revenue cap allows for tariff levels to be adjusted annually, tariff levels will stay closer to those required for revenue recovery than under a price cap where compounding forecasting errors can occur.

Hence, it is appropriate on balance to adopt a revenue cap, at least until greater confidence in energy and demand forecasting can be established.

While it makes sense to decrease reliance on energy forecasts in the short term, an important implication of the shift to a revenue cap, is that it reduces distributors' financial exposure to changes in energy consumption and lowers the importance of energy forecasts to distributors.

SP AusNet believes it is important to maintain an incentive to improve forecasting accuracy, both to minimise price instability and to improve the understanding of consumer energy use. As such, we are proposing a small-scale incentive scheme is developed to promote development of forecasting capability. Further details of this proposal are provided in Section 4.5.

Price stability

Due to the current difficult forecasting conditions, while a revenue cap is more volatile from year to year, it is likely to result in greater long term price stability than a weighted average price cap. This is because energy use has deviated substantially from levels forecast at the last regulatory review. Under a revenue cap, this change in energy use relative to forecast could be revised annually, resulting in incremental changes to tariffs. However, with a price cap the revision will only occur once the regulatory period is complete.

For example, in SP AusNet's network, energy consumption has been materially lower than forecast this period. This will result in a one off upwards shock to tariffs at the beginning of the next period before any other cost effects are taken into account.

The preliminary position paper also argues that price stability will be improved under a revenue cap because energy forecasts will be more reasonably based due to the removal of the incentive for distributors to under-state their energy forecasts, which exists under a price cap. However, it should also be highlighted that, given current forecasting difficulties created by changing consumer behaviour, year on year price changes under revenue cap could be more volatile than a price cap.

As discussed above, the incentive to invest in energy forecasting is also removed because any mistakes will be trued up, so the quality of energy forecasts may decline. This is why an energy forecasting accuracy incentive is warranted.

Setting of efficient tariffs

While SP AusNet endorses the Preliminary Positions paper conclusions on the criteria discussed above, it disputes the conclusion that a revenue cap provides better alignment with the introduction of efficient prices than a weighted average price cap.

SP AusNet believes that price caps provide stronger incentives for efficient tariffs than revenue caps. Nevertheless, our experience suggests that there are numerous hurdles to efficient pricing that are largely independent of the form of control.

The preliminary paper points to a comparison of NSW and Queensland distributors tariffs (under a price cap and revenue cap respectively) as evidence that tariff outcomes are not substantively affected by form of control. Given the businesses being compared are government owned corporations, their pricing structures may

reflect broader policy objectives rather than profit maximisation or cost reflectivity. Therefore, it is not appropriate to impute findings from this comparison to the privately owned Victorian businesses.

SP AusNet has a track record of proposing efficient tariffs. It has successfully introduced a critical-peak tariff for its industrial customers. SP AusNet also sought to introduce tariffs that provided efficient signals to small customers (including households) at the last distribution regulatory review. This demonstrates that it has not been an absence of will on the part of SP AusNet that has resulted in slow progress in introducing efficient price signals.

The preliminary paper points to the relatively low fixed charges in Victorian tariff structures as evidence that the current price cap is not driving efficient tariff outcomes. However, as is noted elsewhere in the Preliminary Positions paper, the Victorian Government intervened to prevent the implementation of the efficient time of use tariffs that SP AusNet proposed and had approved at the last regulatory review. There are still significant restrictions in place on time-of-use tariffs in Victoria.

The experience of SP AusNet with the attempted introduction of time-of-use tariffs is illustrative of the broad ranging hurdles to tariff reform, including:

- the practical difficulties of implementing a process that results in winners and losers;
- the importance of effective engagement with customers;
- the diluting of price signals to customers from retail bills that combine network, wholesale and retail charges.

3.1.2 Alternative Control Services

SP AusNet broadly supports the Preliminary Position of maintaining the existing forms of control for Ancillary Services and Public Lighting. SP AusNet supports a revenue cap for Metering.

Metering

The AER has proposed a cap on prices for alternative control services including metering services. The AER's main consideration for the proposed form of control for metering services is the benefit to customers of cost reflective pricing. As such, the AER is proposing a form of control that is inconsistent with the previously applicable regulatory approach.

SP AusNet is of the view that a revenue cap is more appropriate for mandated AMI metering services as this is consistent with the existing regulatory arrangements (a revenue cap under the AMI CROIC).

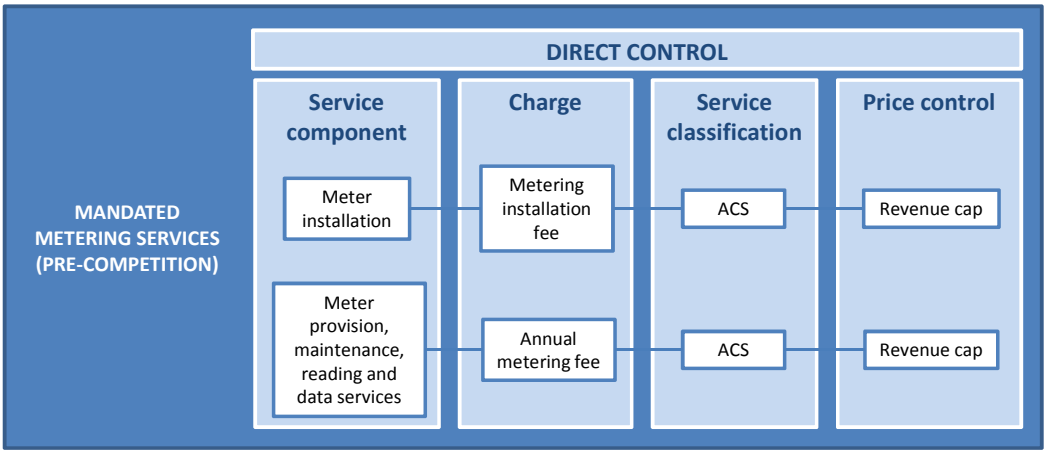
The AMI CROIC provides for the DNSP to recover its actual cost incurred in providing the mandated services. Retaining full cost recovery is important as it preserves regulatory certainty. It is, therefore, essential that the control mechanism applied to mandated metering services is able to accommodate cost recovery. SP AusNet believes that a revenue cap for metering services is the appropriate form of control.

This is particularly the case due to the lack of clarity regarding the regulatory framework for metering in Victoria post 31 December 2016. There is significant merit in maintaining the existing regulatory form of control for the 2016-20 regulatory control period due to the high degree of regulatory uncertainty.

It is also noted that a revenue cap will be administratively simpler and will not influence the potential to develop competition for this service.

Figure 2 illustrates the proposed regulatory framework for mandated metering services.

Figure 2: Proposed regulatory framework for mandated metering services



Public Lighting

SP AusNet supports the proposal to establish caps on each of the individual public lighting services that are classified as alternative control services. SP AusNet agrees that this approach ensures cost reflective prices are retained throughout the regulatory period and ensures that DNSPs providing the service are not exposed to risks associated with differences between projected and actual growth rates in the individual services.

3.2 Formula for control mechanism

3.2.1 Standard Control Services

SP AusNet supports the general form of the proposed price control formula for Standard Control Services that are under a Revenue Cap. However, some minor adjustments to the formulae will provide a more consistent approach and provide more certainty on the recovery of revenues each year and minimal volatility in the price outcomes.

SP AusNet's proposed formulae are included in Attachment A. The reasons for the changes are noted below:

- Billing systems round prices and therefore solving prices to be exactly equal is not possible.
- Definitions included for terms that were omitted.
- Consistent application of terms and symbols within formulae.
- Inclusion of schemes and factors identified in the Preliminary Positions paper. Only those matters that cannot be identified in the Framework and Approach stage should be left to the final determination.
- Inclusion of terms to deal with revenue adjustments can be either (i) factor based or (ii) additive. Including allowing for appropriate treatment of STPIS and pass through adjustments.
- Adjustments made to the descriptions for the transitional adjustments term and annual adjustments term to improve clarity.

3.2.2 Alternative Control Services

The formula for Alternative Control Services proposed in the Preliminary Positions paper does not suit all three types of ACS identified in the Service Classification. SP AusNet's proposed formulae are included in Attachment A.

In relation to metering, the AER's paper identifies that problems will occur when a meter is removed if the unrecovered costs are added to the remaining stock of meters. Customers electing to remain with a DNSP meter will have their prices increased for reasons outside their control. Therefore, the AER indicate that an exit fee will be an appropriate approach and an A factor has been included in the price control.

For Public Lighting there is a fee that covers the unexpired value of any lights that are removed, the Public Lighting charges are based on a Building Block approach with their own RAB. Therefore a price path or revenue cap approach should apply. If there is an exit fee the A value is redundant.

The formula does not address what approach will be taken to alternative control services for variation between the preliminary and substitute determination. As costs for these services are recovered from the individual customers that use the services, it will not be possible to true up. Any true up should be implemented in Standard Control charges.

Public lighting

SP AusNet proposes that, consistent with the approach to varying prices in the 2011-15 regulatory period, the AER approves price caps for Public Lighting Services for each year of the regulatory period. Annual submissions adjust the approved prices by substituting the estimated CPI for the actual CPI result. This provides Public Lighting customers with certainty on prices throughout the period and ensures that DNSPs are not exposed to risks associated with volume variances as would be the case with a revenue cap.

4 Incentive Schemes

4.1 Expenditure Incentives

SP AusNet supports the application of the Capital Expenditure Sharing Scheme (CESS) and the Efficiency Benefits Sharing Scheme (EBSS) in the 2016-20 regulatory period.

4.1.1 Depreciation

SP AusNet supports the AER's preliminary position to use forecast depreciation to establish 2020 opening RAB.

The use of forecast depreciation is important to maintaining the continuous and asset-class-neutral incentive rate from the Capital Expenditure Sharing Scheme. The use of actual depreciation would introduce distortions into the CESS.

4.2 Service Target Performance Incentive Scheme

4.2.1 Case for a STPIS Review

The current STPIS was developed in 2008. Since then, regulatory changes have impacted its operation and several key policy reviews have concluded that there is a need to review the scheme.

SP AusNet considers that it is both essential and possible to review the STPIS that will apply in the 2016-20 regulatory period. In Victoria, expenditure for reliability improvement is funded by the STPIS rather than through capex allowances. Therefore, the incentives provided by the scheme are currently fundamental to reliability outcomes in Victoria.

Given the changes mentioned above, it can no longer be assumed that the marginal incentive provided by the STPIS to invest in reliability improvements is commensurate with consumers' willingness to pay for these improvements. Where these do not align, DNSPs have an incentive to either under- or over-invest in network reliability. Neither of these outcomes contributes toward the NEO, which promotes efficient network investment for the long-term interest of electricity consumers with respect to both price and reliability.

For the reasons outlined above, failing to review the STPIS to apply to the 2016-20 regulatory period could potentially lock in sub-optimal outcomes for consumers until 2021.

More detailed reasons as to why a STPIS review is required are provided below.

Introduction of the Capital Expenditure Sharing Scheme (CESS)

The CESS will apply to the Victorian DNSPs from 2016. As reliability capex is not included in the regulatory allowance for these businesses, a 30% penalty will automatically be incurred on all capex to improve reliability. This weakens the incentive DNSPs have to invest in reliability where it is economic to do so.

When developing and implementing the STPIS the AER is required to take into account 'the need to ensure that the incentives are sufficient to offset any financial incentives the DNSP may have to reduce costs at the expense of service levels'[9]. The CESS changes the balance of incentives in the regulatory framework. It, therefore, cannot be assumed that the incentive provided by the existing STPIS remain appropriate in a numerical sense. The AER recognised this itself when developing the CESS:

> *'… we anticipate we will review the STPIS for DNSPs following the Better Regulation program.[10] We consider that the interactions between the CESS and STPIS for DNSPs are best dealt with through this process rather than through changes to the CESS. We will determine at this time whether any changes to the STPIS would be required to address any such imbalances between the CESS and the STPIS for DNSPs.'[11]*

It is necessary to review the STPIS, given the introduction of the CESS.

Opportunity to Include Planned Outages

There has been customer focus on planned outages over an extended period of time. In the 2006-10 price reset the Essential Services Commission of Victoria (the economic regulator at the time) considered inclusion of planned outages in the reliability incentive scheme. This was strongly supported by customer groups and retailers.

The customer impact of planned outages has again been raised during SP AusNet's consumer engagement program.

The current STPIS only covers unplanned outages. There is no financial incentive for DNSPs to minimise planned outages taken on its network.

Planned outages also impact customers, despite timely notifications being provided. In recent years SP AusNet's planned outages have significantly increased due to the volume of works being undertaken on the network. If the impact of planned outages was recognised in the regulatory arrangements, such as if the STPIS were extended to cover planned outages, SP AusNet considers that economic solutions could be adopted to reduce the duration of planned outages over time.

We would be pleased to provide further details and customer feedback during the STPIS review process.

Exclusion for Demand Management Pilots and Trials

As a complement to the allowance provided to trial Demand Management initiatives provided by the Demand Management Incentive Scheme, it is appropriate to exclude any reliability impacts of pilots and trials funded by the DMIS from STPIS performance.

[9] NER 6.6.2(b)(3)(v)

[10] AER, *Submission on AEMC consultation paper—review of national frameworks for transmission and distribution reliability*, 13 August 2013, p. 5.

[11] AER, *CESS Explanatory Statement*, p.57

A temporary exemption for demand management pilots and trials from the STPIS was a recommendation made by the AEMC in the Power of Choice review. This was supported by the AER:

> *'.. the AER supports the AEMC recommendation that the AER consider providing temporary exemptions for DSP [Demand Side Participation] pilots and trials, whereby the reliability impacts will be removed. …[this] can be achieved by amending the AER's Service Target Performance Incentive Scheme (STPIS).'*[12]

SP AusNet considers that the STPIS should be amended to include this exemption, which supports the policy intent of the DMIS to facilitate investigation into efficient and viable non-network strategies.

AEMC's Review of the Distribution Reliability Measures

The AEMC's review of distribution reliability measures is due to be finalised in September. This has involved an extensive consultation process (in which the AER has been involved) to propose common definitions of existing reliability measures, including USAIDI, USAIFI and MAIFI. The proposed changes to these definitions are not substantial (except for the proposed change to the MAIFI threshold) and the advice will be finalised in time to be considered by the AER during a STPIS review.

AEMO's VCR Review

While the outcome of AEMO's VCR review could be fundamental in determining the power of the incentive under the scheme, SP AusNet does not consider that this review needs to be concluded before a meaningful STPIS review can commence. The final VCR for each segment can potentially link into the STPIS once finalised. The structure and scope of the STPIS parameters can be considered independently from the outcome of the VCR review, given that AEMO has announced the level of disaggregation of the VCR that it intends to publish. However consistency between a VCR applied to 'growth' and for the STPIS is highly desirable.

4.2.2 Timing of a STPIS Review

A STPIS review can be completed in time to apply to the 2016-20 regulatory period. Noting that the consultation procedures the AER must follow take at least 16 weeks, a review initiated before the end of this year and a final scheme published by mid-2015 which will allow time for SP AusNet to propose performance targets in its revised regulatory proposal. As capex to improve reliability does not form part of the Victorian DNSP's revenue proposal, a relatively short period between publication of the final scheme and submission of the revised revenue proposal is suitable.

4.3 F Factor

SP AusNet agrees that given the f factor has only applied for two years it is appropriate to apply the same incentive rate in the 2016-20 regulatory period. It is also sensible to incorporate the f factor adjustment into the MAR calculation formula.

[12] AER, *AER submission to the AEMC draft report – Power of Choice Review of demand-side participation in the NEM,* 12 October 2012

4.4 Demand Management Incentive Scheme

SP AusNet considers the DMIS has enabled valuable initiatives to be undertaken in the current period which are expected to bring customer benefits over time through lower prices than would be the case in the absence of innovation.

SP AusNet supports the continued application of the DMIS in its current form. However, we note that there is a need to change the name of the scheme to the 'Demand Management and Embedded Generation Connection Scheme' to give effect to the scheme under the current NER.

Once a new scheme has been developed by the AER there may be a case to include transitional arrangements to allow participation in the new scheme before 2021. We support the policy focus on strengthening the incentives to undertake demand management initiatives and look forward to further engagement with the AEMC and the AER on this topic.

4.5 Small-Scale Incentive Scheme

As flagged in Section 3.1.1, SP AusNet proposes that the AER should develop a small-scale incentive scheme to encourage the increased accuracy of demand and energy forecasting.

As the AER states, accurately forecasting customer demand has been a 'significant issue in recent times[13]', due to factors including increasing energy efficiency and solar penetration. While recent changes in demand and energy trends could be seen as a secular shift that was unforeseen at the time of SP AusNet's last determination, these changes have highlighted the potential for the accuracy of forecasting to be improved. Forecasts of peak demand and energy impact DNSPs' revenue requirements and, under a revenue cap, the price path that is experienced by consumers over a regulatory period.

More accurate demand and energy forecasts will benefit consumers in the following ways:

- Peak Demand – demand forecasts underpin planned augmentations, which are funded by a DNSP's capex allowance. Accurate demand forecasts ensure that the capex allowance is set at an appropriate level, ensuring customers neither pay more than the efficient cost of network investment nor face declining service levels due to underinvestment in the network.
- Energy – Under a revenue cap, prices are adjusted during a regulatory period to account for difference between forecast and actual energy volumes. Where this difference is significant, this can lead to increased price volatility and diminished price predictability for consumers, as recognised by the AER[14].

Despite these benefits, under the current regulatory framework DNSPs have little incentive to invest in the accuracy of forecasting, particularly under a revenue cap. The proposed incentive scheme addresses this shortfall. Additional investment could boost forecasting capability through enabling new and enhanced techniques to be developed including:

[13] AER (2013), *Preliminary positions on replacement framework and approach (for consultation)*, p.67

[14] Ibid, p.71

- Detailed PV modelling using advanced solar irradiance and weather models;
- Increased usage of interval data;
- Battery storage modelling;
- Customer surveys; and
- Real time demand and energy forecasting using advanced analytics.

The proposed small-scale incentive scheme satisfies the NER requirements for such a scheme in the following ways:

- Assists DNSPs to satisfy the capex and opex objectives through improving the accuracy of expected demand. This will improve the DNSP's ability to propose an appropriate capex allowance to meet or manage demand over the period.
- It is consistent with the NEO as it is in the long-term interests of customers that the approved revenue allowance is not higher or lower than the efficient amount required by the DNSP to meet actual demand.

SP AusNet's proposed approach to how this incentive scheme could operate is set out in Attachment B. This is considered to be a relatively straightforward incentive to design and administer. While the AER is required to follow the distribution consultation procedures to implement this incentive scheme, it is possible for the scheme to be finalised on time for the submission of the Victorian DNSP's revenue proposals. Failing this, it would also be possible for the scheme to apply if it were finalised a reasonable period of time before submission of the revised revenue proposals.

4.6 Benchmarks to apply in 2016

The AER's Preliminary Positions paper did not set out the STPIS targets that will apply in 2016. However, we consider that the form of the STPIS that will apply for the remainder of the 2016-20 period should also apply in the transitional year. This includes the benchmarks, revenue at risk, exclusion threshold, and any other relevant parameters. While these will not be known with certainty for the first 4 months of 2016, it is expected that the preliminary determination will contain enough information for DNSPs to make an accurate assessment of the marginal incentives that they are likely to face.

This is consistent with the AER's preliminary position on the EBSS and CESS benchmarks, which will reflect the ultimate determination for the 2016-20 regulatory period.

5 Other matters

5.1 Regulatory timelines

SP AusNet supports a review of the timing of the Preliminary Determination. As identified in our initial submission on the need for a new Framework and Approach paper for Victoria, and acknowledged in the Preliminary Positions paper[15], the date currently specified (31 October 2015) is potentially problematic as it is the same date that Victorian DNSPs are required to lodge their annual tariff submissions. Under current practice, the proposed timing of the Preliminary Determination would not allow DNSPs to prepare tariff submissions by the required date. The timing of the Preliminary Determination, or the tariff submission arrangements should be reviewed.

[15] AER (2013), *Preliminary positions on replacement framework and approach (for consultation)*, p.13

Attachment A – Proposed Price Control Formulae

Standard Control Services

(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.[16] 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 fees[17]. 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. is specified within the Preliminary Positions paper it is proposed to be included in the determination and should be included in the price control formulae. Only those matters that cannot be decided upon at the Framework and Approach 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 schemes within the I_t term however this this is not correct 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.

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

[17] Previously known as L-Factor in Victoria

  - The most notable is the STPIS which is factor based and for calculation reasons needs to be included in formulae #3. This approach is also consistent with Appendix C of the STPIS guideline.
- Pass through, which is a known requirement of the NER, is additive in terms of revenue adjustment and therefore belongs in formulae #2

- Adjustments made to the description for the transitional adjustments term T_t
- Adjustments made to the description for the annual adjustments term B_t
- Where a statement indicates that a factor is "…not limited to" or is the "sum of" indicates that there may be multiple additive amounts, therefore it should be expressed in the formula as summed amounts. This applies to the I, B and T terms.
- Amended S_t for the 2016 year.

Alternative Control Services

Ancillary Services

(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 and the subscript/superscript corrected.

- Time 't' should be applied consistently in the original formula as a subscript, In the AER proposed formula it is sometimes applied as a superscript and other times applied as a subscript. The formula has been adjusted for consistency.
- t=1,2,3,4, should be expressed as t = 1,…,5 as:
  - there are 5 years in the reset period;
  - prices approved commence in year t-1 or 2015 values (see above note); and
  - there is no starting price in the original formula.
- The terms in Formula #1 should be transposed as it is the price that is derived from a function.
- "Adjustments for residual charges when customers choose to replace assets before the end of their economic life" is not a reason for the A term, if a customer chooses a different service then that should be a separate service with an explicit charge, such as an exit fee, and not an adjustment to an existing service.

Metering

(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 CROIC.
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.

Attachment B – Proposed Small-Scale Incentive Scheme: Accuracy of Demand and Energy Forecasting

This Attachment sets out how the proposed 'Accuracy of Demand and Energy Forecasting' small-scale incentive scheme could operate.

Demand Forecasting

1. Revenue at Risk

A total of 1% of the Annual Revenue Requirement (ARR) is proposed to be placed at risk under the two components of this incentive scheme, with 0.5% related to the demand forecasting component and 0.5% related to the energy forecasting component.

As this incentive is new and given likely differences in the existing forecasting capability of DNSPs, this is proposed as an asymmetric incentive for the 2016-20 regulatory period.

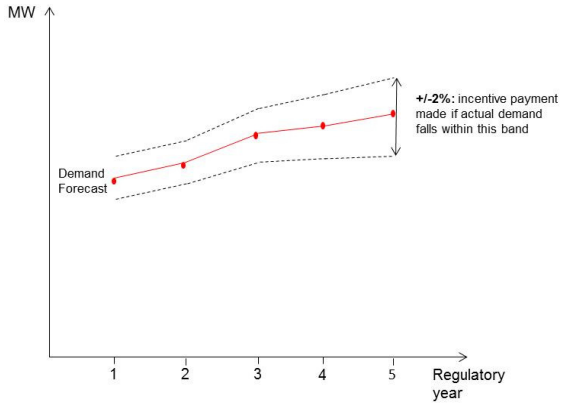
2. Baseline

The proposed baseline is the P50 demand forecast for each of the 2016-20 regulatory years at a whole-of-network level. This will be submitted with the revenue proposal. The DNSP should be able to amend this forecast in its revised revenue proposal if a revised forecast is used to underpin the capex program. This is the starting point for setting the capex allowance and is therefore the most appropriate baseline to achieve the incentive's objective of encouraging an efficient capex allowance is set.

3. Incentive Rate

An incentive payment would be made if actual demand is within 2% of forecast demand for each year of the regulatory period. This range is illustrated in the figure below.

Figure 1 – Incentive Range for Demand Forecasting Incentive



The incentive payment could be calculated proportionate to the difference between forecast and actual demand and specified by the following formula:

$$max\left(0, \left[0.02 - \left|\frac{Actual\ demand - Forecast\ demand}{Forecast\ demand}\right|\right]\right) \times 0.05\% \times ARR$$

4. Measuring Actual Demand

Actual demand will be reported annually in response to the AER's category analysis and economic benchmarking RINs. It is proposed that this information (which, in SP AusNet's case, is sourced from its SCADA systems) is accepted as the relevant year's actual demand. Any adjustments to actual demand (see section 5) should be accompanied by a statement prepared by the DNSP on the methodology used to adjust the data and evidence provided that the adjustments have followed the stated methodology.

5. Adjustments and Exclusions

Actual demand data used to determine the performance of the forecast should be adjusted in the following ways:

- **Dedicated feeders –** feeders with fewer than 5 customers should be excluded from both forecast and actual demand. This will remove the impact of changes in the demand of major customers, including closures, which are outside a DNSP's control.
- **Demand management –** the impact of demand management initiatives that arise during the period and are not forecast at the time of submission of the revenue proposal should be added back to actual demand. This is to ensure that DNSPs continue to have an incentive to invest in demand management where appropriate.
- **Weather** – while not essential, it would also be desirable to adjust actual demand for the impact of weather as weather has a significant impact on demand. The methodology used for weather normalisation could either be submitted with the revenue proposal and consistently applied throughout the period, or submitted and approved annually which would allow refinements to be taken into account.

Energy Forecasting

1. Revenue at Risk

A total of 1% of the Annual Revenue Requirement (ARR) is proposed to be placed at risk under the two components of this incentive scheme, with 0.5% related to the demand forecasting component and 0.5% related to the energy forecasting component.

As this incentive is new and given likely differences in the existing forecasting capability of DNSPs, this is proposed as an asymmetric incentive for the 2016-20 regulatory period.

2. Baseline

Under a revenue cap a year-ahead energy forecast could be presented as part of the annual pricing proposal. This could be at a whole-of-network level for simplicity

As the purpose of this incentive is to address price volatility due to inaccurate forecasts, this is the most appropriate baseline to use.

3. Incentive Rate

An incentive payment would be made if actual energy is within 2% of forecast energy for each year of the regulatory period. The incentive payment could be calculated proportionate to the difference between forecast and actual energy and specified by the following formula:

$$max\left(0,\left[0.02-\left|\frac{Actual\ energy-Forecast\ energy}{Forecast\ energy}\right|\right]\right)\times 0.05\%\times ARR$$

4. Measuring Actual Energy

Actual energy will be reported annually in response to the AER's economic benchmarking RIN. It is proposed that this information (which in SP AusNet's case, is sourced from its SCADA systems) is accepted as the relevant year's actual energy.

5. Adjustments and Exclusions

Actual energy data used to determine the performance of the forecast should be adjusted to normalise for weather effects, using a methodology that is consulted and agreed upon during the regulatory proposal process. As with demand, the weather normalisation approach could be locked in for the five years, or submitted and approved annually.

Changes in the energy consumption of major customers should be taken into account through the general economic trend assumptions underpinning the energy forecast, so there is no need to adjust for major users. Finally, the impact of unforecast demand management initiatives on actual energy are expected to be immaterial and therefore no adjustment is proposed for these activities.