SP AusNet

Transmission determination

2014–15 to 2016–17

January 2014

AUSTRALIAN ENERGY REGULATOR

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Contents

Shortened forms

Shortened form	Extended form
AER	Australian Energy Regulator
capex	capital expenditure
CPI	consumer price index
DRP	debt risk premium
EBSS	efficiency benefit sharing scheme
MAR	maximum allowed revenue
MRP	market risk premium
NER	National Electricity Rules
NTSC	negotiated transmission service criteria
opex	operating expenditure
PTRM	post tax revenue model
RAB	regulatory asset base
STPIS	service target performance incentive scheme
TNSP	transmission network service provider
WACC	weighted average cost of capital

Summary

Clause 6A.13.4 of the National Electricity Rules (NER) requires the Australian Energy Regulator (AER) to make a transmission determination in relation to its final decision for SP AusNet. In accordance with clause 6A.2.2 of the NER, this transmission determination consists of:

- a revenue determination for SP AusNet in respect of the provision of prescribed transmission services
- a determination relating to SP AusNet's negotiating framework
- a determination that specifies the negotiated transmission service criteria that apply to SP AusNet
- a determination that specifies the pricing methodology that applies to SP AusNet.

Revenue determination

In accordance with clause 6A.4.2(a) of the NER, the AER has determined a revenue determination specifying the following matters applicable to SP AusNet for the 2014–17 regulatory control period:

- the method for calculating the total revenue cap and the amount of the estimated total revenue cap
- annual building block revenue requirement for each regulatory year of the regulatory control period
- the method of calculating the maximum allowed revenue (MAR) for each regulatory year of the regulatory control period
- the method for indexation of the regulatory asset base (RAB)
- performance incentive scheme parameter values
- efficiency benefit sharing scheme parameter values
- commencement and length of regulatory control period
- other amounts, values and inputs used by the AER.

Negotiating framework

The NER requires certain transmission services (negotiated transmission services) to be provided on terms and conditions of access that are negotiated between the transmission network service provider (TNSP) and the service applicant.[1] Each TNSP is required to prepare a negotiating framework, which sets out the procedure to be followed during negotiations. The negotiating framework must comply with and be consistent with:

- the applicable requirements of a transmission determination applying to the provider
- the minimum requirements for a negotiating framework, which are set out in clause 6A.9.5(c).

The document at part 2 of this transmission determination is the negotiating framework that the AER has determined will apply to SP AusNet for the 2014–17 regulatory control period.

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1 NER, clause 6A.9.5(a).

SP AusNet may seek to amend or replace its negotiating framework at the time it submits its revenue proposal for the regulatory control period commencing 1 April 2017, by submitting a new proposed negotiating framework in accordance with the NER as in force at that time.

Negotiated transmission service criteria

Clause 6A.9.4 requires the AER to set out the criteria that apply to a TNSP in negotiating the provision of negotiated transmission services, specifically:

- the terms and conditions of access for negotiated transmission services, including the prices that are to be charged
- access charges that are negotiated by the provider during that regulatory control period.

The criteria must also be applied by a commercial arbitrator to resolve disputes about negotiated transmission services, specifically:

- the terms and conditions of access for the negotiated transmission service, including the price that is to be charged for the provision of that service by the TNSP
- access charges that are to be paid to, or by, the TNSP.

The AER has determined that the negotiated transmission service criteria at part 3 of this transmission determination will apply to SP AusNet for the 2014–17 regulatory control period.

Pricing methodology

The NER requires each TNSP to prepare a proposed pricing methodology. The pricing methodology must give effect to and be consistent with the pricing principles for prescribed transmission services, which are set out in rule 6A.23. It must also comply with the requirements of the AER's pricing methodology guidelines.

The document at part 4 of this transmission determination is the pricing methodology that the AER has determined will apply to SP AusNet for the 2014–17 regulatory control period.

1 Revenue

Introduction

The AER is required to calculate the amount of revenue that SP AusNet requires each year of the regulatory control period in accordance with a building block approach.[2] This is referred to as the *annual building block revenue requirement*. The annual building block revenue is then used to calculate the expected *maximum allowed revenue* (MAR) for each year of the 2014–17 regulatory control period. The annual MAR that SP AusNet may earn from providing prescribed transmission services is subject to adjustments to account for factors such as inflation, approved pass through costs and annual performance rewards or penalties.

Method for calculating total revenue cap

The AER determines an estimated total MAR of $1600 million ($ nominal) for SP AusNet for the 2014–17 regulatory control period as shown in Table 1.1. The estimated total MAR is also known as the total revenue cap. It is the sum of the expected MAR for each regulatory year.[3]

Table 1.1 AER final determination on SP AusNet's annual expected maximum allowed revenue ($ million, nominal)

	2014–15	2015–16	2016–17	Total
Expected MAR (smoothed)	538.1	533.4	528.8	1600.3

Source: AER analysis.

The AER determines the annual expected MAR by smoothing the annual building block revenue requirement as set out below.

SP AusNet's annual building block revenue requirement

The AER determines the annual building block revenue requirements for SP AusNet as shown in table 1.2

[2] NER, clause 6A.5.4.
[3] NER, clause 6A.5.3.

Table 1.2 AER final determination on SP AusNet's annual building block revenue requirement ($ million, nominal)

	2014–15	2015–16	2016–17	Total
Return on capital	226.5	233.0	242.0	701.4
Regulatory depreciation	75.1	81.0	86.6	242.7
Operating expenditure	189.7	199.2	202.2	591.1
Efficiency benefit sharing scheme (carryover amounts)	18.4	16.1	4.9	39.4
Net tax allowance	9.5	9.3	9.8	28.6
Annual building block revenue requirement (unsmoothed)	519.0	538.7	545.4	1603.1

Source: AER analysis.

Method of calculating SP AusNet's maximum allowed revenue

The AER uses a forecast inflation rate in its post-tax revenue model (PTRM) to calculate the expected MAR (as shown in Table 1.1) in nominal dollar terms. Therefore, the calculation of the actual annual MAR will require an adjustment for actual inflation. The MAR is also subject to adjustments for revenue increment or decrement determined in accordance with the AER's service target performance incentive scheme (STPIS) and any approved pass through amounts. This section sets out the method of this annual adjustment process.

The AER has determined that the method of calculating SP AusNet's MAR for each year of the 2014–17 regulatory control period will be the sum of its allowed revenue (AR) for that year and adjustments arising from the AER's STPIS and any approved pass through amounts.

The AER determines SP AusNet's AR for 2014–15 is $538.1 million. The 2014–15 AR value may be adjusted for any service standards incentive rewards or penalties carried over from the 2008–14 regulatory control period, as determined in accordance with the AER's 2008 revenue cap decision for SP AusNet.

SP AusNet's AR for subsequent years of the 2014–17 regulatory control period requires an annual adjustment based on the previous year's AR and is calculated using the CPI–X methodology:

$AR_t = AR_{t-1} \times (1 + \Delta CPI) \times (1 - X_t)$

where:

AR	=	the allowed revenue
t	=	time period/financial year (for *t* = 2, 3)
ΔCPI	=	the annual percentage change in the ABS Consumer price index (CPI) all groups, weighted average of eight capital cities from September in year t – 2 to September in year t – 1[4]
X	=	the smoothing factor of 3.24 per cent.

The MAR is determined annually by adding to (or deducting from) the AR:

- the service target performance incentive scheme revenue increment (or revenue decrement)[5]
- any approved pass through amounts.[6]

Table 1.3 sets out the timing of the annual calculation of the AR and performance incentive:

MAR*t* = allowed revenue + performance incentive + pass through

$$= AR_t + \left(\left(AR_{t-2} \times \frac{3}{12}\right) + \left(AR_{t-1} \times \frac{9}{12}\right)\right) \times S_{ct} + P_t$$

where:

MAR	=	the maximum allowed revenue
AR	=	the allowed revenue
S	=	the revenue increment or decrement determined in accordance with the service target performance incentive scheme
P	=	the pass through amount that the AER has determined in accordance with clauses 6A.7.2 and 6A.7.3 of the NER
t	=	time period/financial year (for *t* = 2, 3)
ct	=	time period/calendar year (for *ct* = 2, 3).

Under the NER, a TNSP must also adjust the MAR for under or over recovery amounts.[7]

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4 In the 2008–14 transmission determination, the CPI required for the annual MAR adjustment process reflects the December quarter CPI, which is typically published by the ABS in late January of the following year. For this transmission determination we require SP AusNet to use the September quarter CPI for the annual MAR adjustment for the 2014–17 regulatory control period. The same set of CPI will be used for the RAB roll forward at the next reset for SP AusNet (31 January 2017). This change will ensure the release of the September quarter CPI is available (typically towards the end of October) for use well before the publication date of the AER's final decision at the next reset.

5 NER, clauses 6A.7.4 and 6A.7.3.

6 NER, clauses 6A.7.2 and 6A.7.3.

Table 1.3 Timing of annual calculation of annual revenue and performance incentive

t	Allowed revenue (financial year)	*ct*	Performance incentive (calendar year)
2	1 April 2015–31 March 2016	2	1 January 2014–31 December 2014
3	1 April 2016–31 March 2017	3	1 January 2015–31 December 2015

Method for indexation of the regulatory asset base

The AER has determined that the method for indexing SP AusNet's RAB for each year of the 2014–17 regulatory control period will be the same as that used to escalate its AR for that relevant year—that is, to apply the annual percentage change in the most recently published Australian Bureau of Statistics' (ABS) CPI all groups, weighted average of eight capital cities. For SP AusNet, this will be the September quarter CPI. This method will be used to roll forward SP AusNet's RAB for the purposes of the AER's transmission revenue determination for the regulatory control period commencing on 1 April 2017.

Performance incentive scheme parameters

The AER has determined the values for the performance targets, caps, collars and weightings for each of the parameters for the service component of the service target performance incentive scheme (STPIS) applicable to SP AusNet for the 2014–17 regulatory control period.[8] These are shown in table 1.4.

7 NER, clauses 6A.23.3(c)(2)(iii) and 6A.24.4(c).
8 AER, *Final – Service target performance incentive scheme*, December 2012.

Table 1.4 SP AusNet service component performance targets, caps, collars and weightings to apply for the 2014–17 regulatory control period

Service component parameters	Collar	Target	Cap	Weightings (per cent of MAR)
Average circuit outage rate (%)				
Line outage – fault	42.0	25.9	14.8	0.2
Transformer outage – fault	31.7	16.1	7.4	0.2
Reactive plant – fault	46.4	35.1	2.5	0.1
Line outage – forced	17.7	14.9	12.3	0.0
Transformer outage – forced	17.6	12.0	6.2	0.0
Reactive plant – forced	32.7	15.4	6.2	0.0
Loss of supply event frequency parameter				
>0.05 system minutes (number of events per annum)	6	2	0	0.15
>0.3 system minutes (number of events per annum)	2	1	0	0.15
Average outage duration parameter				
Average outage duration (minutes)	293.5	98.0	5	0.2
Proper operation of equipment				
Failure of protection system	n/a	n/a	n/a	0.0
Material failure of SCADA	2	1	0	0.0
Incorrect operational isolation of primary or secondary equipment	n/a	n/a	n/a	0.0
Total service component weighting				1.0

n/a: Not applicable.
Source: AER analysis.

The AER has determined that the market impact component parameter values will be calculated in accordance with section four and appendices C and F of the STPIS.[9] That is, the performance target will be set equal to the average performance over a rolling three calendar year period, while performance will be measured as the average performance over a two calendar year period.

[9] AER, *Final – Service target performance incentive scheme*, December 2012.

The AER has determined that the priority projects and improvement targets shown in Table 1.5 will apply to SP AusNet during the 2014–17 regulatory control period.

Table 1.5 SP AusNet priority projects and improvement targets under the network capability component of the STPIS to apply for the 2014–17 regulatory control period

Rank	Project circuit/injection point	Description	Improvement target
1	220kV switchyards at HTS, KTS, MLTS, ROTS, RTS, RWTS, SVTS, TTS and WMTS	Assess fault level at nominated terminal stations	Provision of report detailing the fault level capability of the equipment, structures and earth grid at the nine specified terminal stations.
2	Altona TS	Protection setting change	ATS B4 220/66 kV transformer capability 174MVA.
3	Templestowe TS	Replace 66kV interplant connections, review and uprate equipment ratings in RADAR	TSTS 220/66 kV B1 transformer rating 187 MVA and limited by 66 kV busbar rating of 181 MVA TSTS 220/66 kV B3 transformer rating 192 MVA and limited by 66 kV busbar rating of 181 MVA TSTS 220/66 kV B2 transformer capability of 175 MVA.
4	Both Dederang – Murray 330kV lines	Installation of an emergency control scheme	Fully functioning emergency control scheme provided for the loss of both Dederang–Murray 330kV lines.
5	Both Dederang–South Morang 330kV lines	Installation of an emergency control scheme	Fully functioning emergency control scheme provided for the loss of both DDTS–SMTS 330 kV lines, or both the DDTS–SMTS 330 kV lines together with 220 kV EPS–MBTS 1 & 2 lines, or both DDTS–SMTS 330 kV lines together with 220 kV EPS–TTS line.
6	Rowville–East Rowville No 1 & 2 and Rowville–Springvale No 2 220kV circuits	Replacement of two 220kV isolators, protection setting changes	ROTS–ERTS No 1 & 2 220 kV circuits capability limited by circuit rating of 800 MVA. Rating of isolators between ROTS No 1 220 kV bus and ROTS–SVTS No 2 line increased to 800 MVA or higher.
7	Eleven 220 kV and 330 kV circuits	Increase instrumentation range on 11 circuits	Increase instrumentation range of the 11 circuits as set out on p. 13 of NCIPAP.
8	Rowville–Malvern No 1 & 2 220kV circuits	Install a wind monitoring scheme	Implement dynamic rating for both ROTS–MTS 220 kV circuits. The scheme will be designed to achieve ratings of ROTS–MTS circuits under favourable ambient conditions as 234 MVA for system normal operation and 267 MVA under contingent conditions provided pre–contingency loading is less than 60% of 234 MVA.
9	Moorabool–Mortlake–Heywood–Portland Aluminium customer substation No 2 500 kV circuit	Implement inter–trip control schemes	Fully functional APD inter–trip control scheme provided for this circuit to prevent potential overvoltage at APD 500 kV bus during a prior outage of plant connected at APD.
10	Hazelwood–Loy Yang No 1, 2 and 3 500 kV circuits	Dynamic line model development and implementation	Hazelwood–Loy Yang No 1, 2 and 3 500 kV circuit capability implemented in the thermal line model based on ambient temperatures.
11	Moorabool–Mortlake No 2 and Moorabool–	Review and uprate protection settings in	Moorabool–Mortlake No 2 500 kV circuit capability at 2858 MVA

	Tarrone 500 kV circuits	TRESIS	Moorabool–Tarrone No 1 500 kV circuit capability at 2858 MVA.
12	Keilor–Sydenham No 1 and Keilor–South Morang No 1 500 kV circuits	Review and uprate equipment ratings in RADAR	Keilor–Sydenham No 1 500 kV circuit secondary plant limit 2078 MVA Keilor–South Morang No 1 500 kV circuit secondary plant limit 2078 MVA.
13	Geelong TS	Review and uprate equipment ratings in RADAR	GTS 220/66 kV B2 transformer rating 169 MVA GTS 220/66 kV B4 transformer rating 177 MVA.
14	Ringwood TS	Review and uprate equipment ratings in RADAR	RWTS 220/66 kV B2 transformer rating 185 MVA and limited by 66 kV busbar rating of 181 MVA RWTS 220/66 kV B3 transformer rating 190 MVA and limited by 66 kV busbar rating of 181 MVA

Source: AER analysis; SP AusNet, *Revised Appendix 6B: Network Capability Incentive Parameter Action Plan (NCIPAP) 2014–17*, 20 December 2013; AEMO, *AEMO endorsement of SP AusNet Network Capability Incentive Parameter Action Plan (NCIPAP) 2014–17 (with additional projects and quantified net benefits),* 20 December 2013.

Efficiency benefit sharing scheme parameters

The AER has determined the values for the efficiency benefit sharing scheme (EBSS) parameters that are to apply to SP AusNet in the 2014–17 regulatory control period, subject to adjustments required by the EBSS. These values are set out in table 1.6.

Table 1.6 AER forecast opex for the EBSS target ($ million, 2013–14)

	2014–15	2015–16	2016–17	Total
Forecast opex for the EBSS target	78.7	80.8	81.6	241.1

Source: AER analysis.
Note: Forecast opex for the EBSS target excludes the categories listed below. Dollars are in end of year terms consistent with our final decision post-tax revenue model.

The AER will not adjust the forecast opex used to calculate the EBSS carryover amounts for changes in demand over the 2014–17 regulatory control period.

The AER will exclude the following cost categories from the EBSS for calculating EBSS carryovers:

- easement land tax
- self-insurance
- rebates made under the Availability Incentive Scheme
- debt raising costs
- the cost of priority projects approved under the network capability component of the STPIS.

The AER will also adjust actual opex for the 2014–17 regulatory control period to reverse any movements in provisions, consistent with the approach used to forecast opex for the period.

The length of the carryover period for efficiency gains (or losses) realised in 2014–17 will be the same as the length of the regulatory control period commencing in 2017.

Commencement and length of regulatory control period

The regulatory control period will be three years, commencing on 1 April 2014 and ending on 31 March 2017.

Other amounts, values and inputs

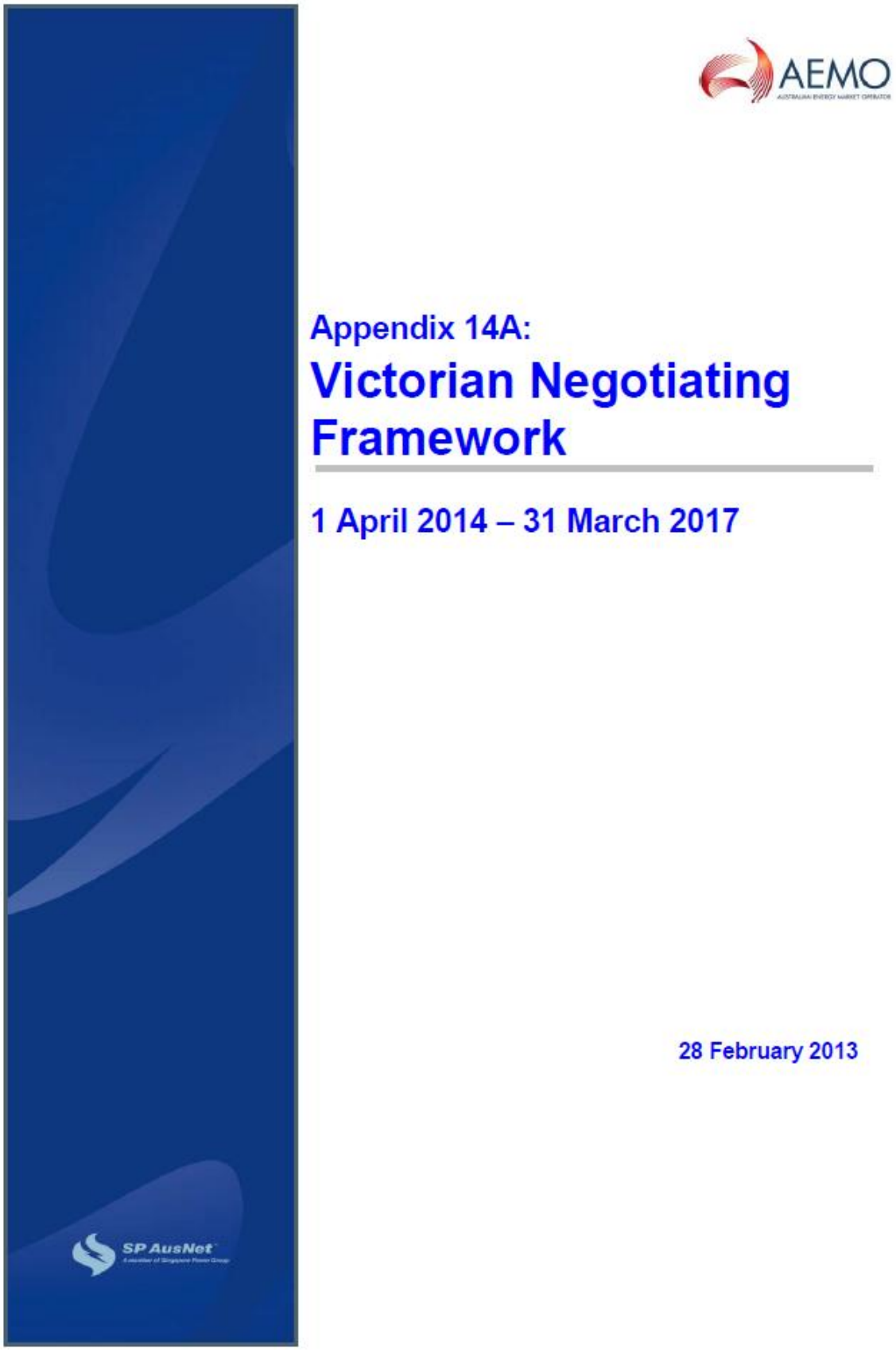
The AER has also determined the following values that could not be determined before the submission of the revenue proposal or were required to be estimated, approved or otherwise determined by the AER but are not so estimated, approved or otherwise determined before the submission of the revenue proposal. These are shown in table 1.7.

Table 1.7 Other amounts, values and inputs (per cent)

Parameter	Value
Nominal risk free rate	4.31%
Inflation forecast	2.45%
Debt risk premium	2.48%
Effective tax rate	22.75%
Cost of equity	9.51%
Cost of debt	6.79%
Nominal vanilla WACC	7.87%

Source: AER analysis.

2 Negotiating framework



Contents

1 Introduction

About this negotiating framework

Clause 6A.9.5 of the National Electricity Rules requires a *Transmission Network Service Provider* to prepare a *negotiating framework* setting out the procedure to be followed during negotiations with any person who wishes to receive a *negotiated transmission service* from the *Transmission Network Service Provider*, as to the *terms and conditions of access* for the provision of the service. The *negotiating framework* must comply with and be consistent with:

- the applicable requirements of a *transmission determination* applying to the *Transmission Network Service Provider*; and
- the minimum requirements for a *negotiating framework*, which are set out in clause 6A.9.5(c) of the *Rules*.

This is the *negotiating framework* applicable to the Victorian Transmission Network, subject to the approval of the *AER* under the *Rules*. It has been prepared jointly by AEMO and SP AusNet.

This *negotiating framework* applies to AEMO and SP AusNet for the period 1 April 2014 to 31 March 2017.

Definitions

Terms appearing in italics in this document are defined in the *Rules*. Additional defined terms and abbreviations used in this document are listed below:

Business Day means a day that is not:

(a) a Saturday or Sunday; or

(b) observed as a public holiday in Melbourne, Victoria.

Negotiating Party – see section 3 of this *negotiating framework*.

SP AusNet means SPI PowerNet Pty Ltd (ABN 78 079 798 173).

TNSP means *Transmission Network Service Provider*.

Victorian Transmission Network means the declared transmission network as defined in section 33 of the National Electricity (Victoria) Act 2005 (Vic).

What are negotiated transmission services?

A *negotiated transmission service* is defined in the *Rules* as any of the following services:

"(a) a shared transmission service that:

(1) exceeds the network performance requirements (whether as to quality or quantity) (if any) as that shared transmission service is required to meet under any jurisdictional electricity legislation; or

(2) except to the extent that the network performance requirements which that shared transmission service is required to meet are prescribed under any

jurisdictional electricity legislation, exceeds or does not meet the network performance requirements (whether as to quality or quantity) as are set out in schedule 5.1a or 5.1;

(b) *connection services that are provided to serve a Transmission Network User, or group of Transmission Network Users, at a single transmission network connection point, other than connection services that are provided by one Network Service Provider to another Network Service Provider to connect their networks where neither of the Network Service Providers is a Market Network Service Provider; or*

(c) *use of system services provided to a Transmission Network User and referred to in rule 5.4A(f)(3) in relation to augmentations or extensions required to be undertaken on a transmission network as described in rule 5.4A,*

but does not include an above-standard system shared transmission service or a market network service."

2 Victorian Transmission Network Arrangements

Under the electricity transmission arrangements in Victoria, AEMO provides *shared transmission services* to users of the Victorian Transmission Network. For those purposes, AEMO procures *network* capability and related services from SP AusNet and other TNSPs who own and operate any part of the Victorian Transmission Network (also known as *declared transmission system operators*).

SP AusNet is the TNSP who owns and operates the major part of the Victorian Transmission Network. SP AusNet provides and offers *connection services* to *Network Users* in respect of the major part of the Victorian Transmission Network.

Any application to *connect* to the Victorian Transmission Network will require the *Service Applicant* to enter into agreements with both *AEMO* for *shared transmission services* and SP AusNet or the relevant TNSP (as applicable) for *connection services*. Additional agreements are required if an *augmentation* of the *network* is required to facilitate the *connection*, consistent with section 50F of the *National Electricity Law* and rule 8.11 of the *Rules*. *AEMO* has primary responsibility for assessing the impact of a proposed *connection* on the Victorian Transmission Network, including its effect on other *Network Users*.

In respect of enquiries for *connection* to its *transmission network*, SP AusNet or the relevant TNSP (as applicable) has primary responsibility for assessing and advising a *Service Applicant* on the *connection assets* at the physical interface with its *transmission network* (*network exit services* and *network entry services*).

3 Application of Negotiating Framework

This *negotiating framework* applies to:

- AEMO and each *Service Applicant* who applies in writing to AEMO for the provision of *shared transmission services* which are *negotiated transmission services*; and

- SP AusNet and each *Service Applicant* who applies in writing to SP AusNet for the provision of *connection services* which are *negotiated transmission services*,

(each a **Negotiating Party** in respect of the relevant *negotiated transmission service*).

The Negotiating Parties must comply with the requirements of this *negotiating framework* in accordance with rule 6A.9.5(e).

The requirements set out in this *negotiating framework* are in addition to any requirements or obligations contained in Chapters 4, 5 and 6A and 8 of the *Rules*. In the event of any inconsistency between this *negotiating framework* and any other requirement of the *Rules*, the requirements of the *Rules* will prevail.

Nothing in this *negotiating framework* will be taken as imposing an obligation on AEMO or SP AusNet to provide any service to the *Service Applicant*.

This *negotiating framework* is intended to be capable of adoption by other *declared transmission system operators* in respect of the *connection services* they provide in Victoria, subject to *AER* approval.

4 Conduct of Negotiations

Good faith

Each Negotiating Party must negotiate in good faith the *terms and conditions of access* for the provision of the *negotiated transmission service* sought by the *Service Applicant*.

AEMO policies

AEMO may, from time to time and after public consultation, *publish* policies and associated documents relating to cost allocation and other matters relevant to the negotiation of terms and conditions for the provision of *shared transmission services*. Negotiations for the provision of those services by AEMO will be conducted in accordance with any applicable policies.

5 Timeframe for negotiations

Chapter 5 of the *Rules* provides the framework for *connection* to the Victorian Transmission Network. Applications for *negotiated transmission services* must be commenced, progressed and finalised in accordance with the timeframes and requirements set out in Chapter 5 of the *Rules*, unless otherwise agreed between the Negotiating Parties. In addition, SP AusNet will make an offer to connect within any time period specified in its transmission licence. As at the date of this *negotiating framework*, that period is 65 Business Days after receiving all information SP AusNet reasonably requires to make the *connection* offer.

Each of AEMO and SP AusNet will give the *Service Applicant* a *preliminary program* in response to the connection enquiry as required by clause 5.3.3(b)(6) of the *Rules*, which will include reasonable milestones for provision of an offer to *connect* and for execution of a *connection agreement*.

The Negotiating Parties must use reasonable endeavours to adhere to the time periods referred to in this section, subject to section 12.

Notwithstanding any other provision of this *negotiating framework*, the timeframes referred to in this section:

- do not commence until payment of the application fee pursuant to section 6; and
- recommence if there is a material change in the *negotiated transmission service* sought by the *Service Applicant*, unless AEMO or SP AusNet agrees otherwise.

6 Costs of Investigation and Negotiation

Prior to commencing negotiations, the *Service Applicant* must pay an application fee to AEMO and/or SP AusNet (as applicable), such amounts not being more than necessary to:

- cover the reasonable costs of AEMO and/or SP AusNet (as applicable) anticipated to arise from investigating the *application to connect* and preparing the associated offer to *connect*; and
- meet the reasonable costs anticipated to be incurred by other *Network Service Providers*, to the extent that their participation in the assessment of the *application to connect* will be required.

From time to time, AEMO or SP AusNet may give the *Service Applicant* a notice setting out the reasonable costs it, or any other *Network Service Provider*, incurs. If the aggregate of the costs incurred exceed the application fee and any additional amount already paid by the *Service Applicant* under this section, the *Service Applicant* must pay such excess within 20 Business Days of receipt of an invoice.

Each of AEMO and SP AusNet may require the *Service Applicant* to enter into a binding agreement with it that addresses conditions, guarantees and other matters in relation to the costs of investigation and negotiation.

7 Charges for Negotiated Transmission Services

The price (charges) for *negotiated transmission services* must be in accordance with the principles set out in clause 6A.9.1 of the *Rules*. Accordingly, an offer to *connect* will include charges which are "based on the costs incurred in providing that service, determined in accordance with the principles and policies set out in the *Cost Allocation Methodology*" (as per clause 6A.9.1(1)), and taking into account all other applicable *Negotiated Transmission Service Principles*. In relation to AEMO a reference to "*Cost Allocation Methodology*" is taken to be a reference to AEMO's published revenue methodology. As noted in section 4, AEMO may also publish cost allocation policies applicable to *shared transmission services*.

The Negotiating Parties may agree to an alternative scope of works and price through the negotiation process.

8 Provision of Information

General commercial information

Each Negotiating Party agrees to provide to the other Negotiating Parties all such commercial information it may reasonably require to enable that other Negotiating Party to engage in effective negotiation for the provision of the relevant *negotiated transmission service*. The commercial information provided by AEMO or SP AusNet will include a description of the nature of the *negotiated transmission service*, including details of what AEMO or SP AusNet would provide as part of that service and the terms and conditions on which that service will be provided.

A Negotiating Party may give notice to another Negotiating Party requesting any additional commercial information that is reasonably required by the first Negotiating Party to enable it to engage in effective negotiations in relation to the provision of a *negotiated transmission service* or to clarify commercial information already provided.

A Negotiating Party who is requested to provide information under this section must use reasonable endeavours to do so within 10 Business Days of the request or as otherwise agreed by the parties.

Information about costs and charges

AEMO will identify and inform the *Service Applicant* of the reasonable costs, and/or the increase or decrease in costs (as appropriate), of providing a *negotiated transmission service* that is a *shared transmission service*.

SP AusNet will identify and inform the *Service Applicant* of the reasonable costs, and/or the increase or decrease in costs (as appropriate), of providing a *negotiated transmission service* that is a *connection service*.

AEMO or SP AusNet (as applicable) will demonstrate to the *Service Applicant*, upon request, that the charges for providing the relevant *negotiated transmission service* reflect those costs, and/or cost increment or decrement (as appropriate).

9 Confidential Information

Commercial information required to be provided by a Negotiating Party pursuant to this *negotiating framework* does not include:

- confidential information provided to that Negotiating Party by another person; or
- information that the Negotiating Party is prohibited by law from disclosing.

Commercial information may be provided by a Negotiating Party subject to a condition that the other party must not provide any part of that commercial information to any other person without the consent of the party disclosing the commercial information. A Negotiating Party may require another Negotiating Party to enter into a confidentiality agreement on terms reasonably acceptable to both parties.

In processing a connection enquiry and *application to connect*:

- AEMO may be required to consult with affected *Network Service Providers* and *Transmission Network Users*; and
- SP AusNet may be required to consult with other affected *Network Service Providers*, *Transmission Network Users* and AEMO.

Having regard to these obligations the *Service Applicant* must, when providing information to AEMO or SP AusNet, specifically identify in writing any information that is not to be disclosed for the purposes of those consultations.

Unless advised to the contrary, *Service Applicant* is taken to consent to the disclosure of its commercial information for the purposes of consultation as outlined in this section.

10 Dispute Resolution

All disputes as to the *terms and conditions of access* for the provision of a *negotiated transmission service* are to be dealt with in accordance with Part K of Chapter 6A of the *Rules*.

11 Other Network Users

In accordance with clause 6A.9.5(c)(8) of the *Rules*, AEMO and SP AusNet will determine the potential impact on other *Transmission Network Users* of the provision of the relevant *negotiated transmission service*.

AEMO and SP AusNet will notify and consult with any affected *Transmission Network Users* and ensure that the provision of the relevant *negotiated transmission service* does not result in non-compliance with any service standards or other obligations in relation to other *Transmission Network Users* under the *Rules* or a *connection agreement*.

12 Suspension of Time Periods

Any applicable timeframe for negotiation of provision of a *negotiated transmission service* as referred to in this *negotiating framework* may be suspended if:

- within 15 Business Days of SP AusNet or AEMO (as applicable) providing the commercial information to the *Service Applicant* pursuant to section 8, the *Service Applicant* does not agree to a date for the undertaking and conclusion of commercial negotiations, until that date is agreed;
- a dispute in relation to the *negotiated transmission service* has been notified to the *AER* under clause 6A.30.1 of the *Rules*, from the date of notification of that dispute to the *AER* until the dispute is withdrawn, terminated or determined;
- within 10 Business Days of SP AusNet requesting additional commercial information from the *Service Applicant* pursuant to section 8, the *Service Applicant* has not supplied that commercial information, until the date the information is provided;

- without limiting the above, the *Service Applicant* does not promptly conform with any of its obligations as required by this *negotiating framework* or as otherwise agreed by the parties, until the date the obligations are complied with; or
- AEMO or SP AusNet has been required to consult with any affected *Network Service Providers, Transmission Network Users* (or, in the case of SP AusNet, AEMO), for the period reasonably allowed by AEMO or SP AusNet for such consultation or until the receipt of any information required from that party for the purpose of providing the *negotiated transmission service*, whichever is the later.

13 Termination of Negotiations

The *Service Applicant* may elect not to continue with an application for a *negotiated transmission service* and may terminate the negotiations by giving the other Negotiating Parties written notice of its decision to do so.

AEMO or SP AusNet may terminate a negotiation under this *negotiating framework* by giving the SP AusNet or AEMO (as applicable) and the *Service Applicant* written notice of its intention to do so where:

- it is of the reasonable opinion that the *Service Applicant* will not acquire the *negotiated transmission service*;
- it believes on reasonable grounds that the *Service Applicant* is not conducting the negotiations in good faith;
- the *Service Applicant* consistently fails to comply with the obligations in this *negotiating framework*;
- the *Service Applicant* fails to pay the amounts specified in section 6; or
- an event occurs in relation to the *Service Applicant* that would be a *default event* under any of clauses 3.15.21(7) to 3.15.21(15) of the *Rules* if the *Service Applicant* were a *Market Participant*.

3 Negotiated transmission service criteria

3.1 National Electricity Objective

1. The terms and conditions of access for a negotiated transmission service, including the price that is to be charged for the provision of that service and any access charges, should promote the achievement of the national electricity objective.

3.2 Criteria for terms and conditions of access

Terms and conditions of access

2. The terms and conditions of access for a negotiated transmission service must be fair, reasonable, and consistent with the safe and reliable operation of the power system in accordance with the NER.

3. The terms and conditions of access for negotiated transmission services, particularly any exclusions and limitations of liability and indemnities, must not be unreasonably onerous. Relevant considerations include the allocation of risk between the TNSP and the other party, the price for the negotiated transmission service and the cost to the TNSP of providing the negotiated service.

4. The terms and conditions of access for a negotiated transmission service must take into account the need for the service to be provided in a manner that does not adversely affect the safe and reliable operation of the power system in accordance with the NER.

Price of services

5. The price of a negotiated transmission service must reflect the cost that the TNSP has incurred or incurs in providing that service, and must be determined in accordance with the principles and policies set out in the Cost Allocation Methodology.

6. Subject to criteria 7 and 8, the price for a negotiated transmission service must be at least equal to the avoided cost of providing that service but no more than the cost of providing it on a stand alone basis.

7. If the negotiated transmission service is a shared transmission service that:

    i. exceeds any network performance requirements which it is required to meet under any relevant electricity legislation; or

    ii. exceeds the network performance requirements set out in schedule 5.1a and 5.1 of the NER

    then the difference between the price for that service and the price for the shared transmission service which meets network performance requirements must reflect the TNSP's incremental cost of providing that service (as appropriate).

8. For shared transmission services, the difference in price between a negotiated transmission service that does not meet or exceed network performance requirements and a service that meets those requirements should reflect the TNSP's avoided costs. Schedule 5.1a and 5.1 of the NER or any relevant electricity legislation must be considered in determining whether any network service performance requirements have not been met or exceeded.

9. The price for a negotiated transmission service must be the same for all Transmission Network Users. The exception is if there is a material difference in the costs of providing the negotiated transmission service to different Transmission Network Users or classes of Transmission Network Users.

10. The price for a negotiated transmission service must be subject to adjustment over time to the extent that the assets used to provide that service are subsequently used to provide services to another person. In such cases the adjustment must reflect the extent to which the costs of that asset are being recovered through charges to that other person.

11. The price for a negotiated transmission service must be such as to enable the TNSP to recover the efficient costs of complying with all regulatory obligations associated with the provision of the negotiated transmission service.

3.3 Criteria for access charges

Access charges

Any access charges must be based on the costs reasonably incurred by the TNSP in providing transmission network user access. This includes the compensation for foregone revenue referred to in clause 5.4A(h) to (j) of the NER and the costs that are likely to be incurred by a person referred to in clause 5.4A(h).

4 Pricing methodology

Appendix 13A:

Proposed Pricing Methodology

1 April 2014 – 31 March 2017

Submitted: 28 February 2013

Contact:

This document is the responsibility of the Regulation and Network Strategy Department, SP AusNet.

Please contact the office below with any inquiries.

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1 Introduction

Clause 6A.10.1(a) of the National Electricity Rules (*Rules*) requires a *Transmission Network Service Provider* to submit a proposed *pricing methodology* to the Australian Energy Regulator (*AER*) at the same time that the provider submits its *Revenue Proposal* relating to its *prescribed transmission services*.

SP AusNet is a *Transmission Network Service Provider* in Victoria for the purposes of the *Rules*. This document sets out SP AusNet's proposed *pricing methodology* for the period 1 April 2014 to 31 March 2017 and has been prepared in accordance with SP AusNet's obligations under the *Rules*.

It is important to note that the transmission arrangements in Victoria differ from those in other states, given the roles and responsibilities that are ascribed to SP AusNet and *AEMO*. In relation to pricing matters, SP AusNet allocates its *aggregate annual revenue requirement (AARR)* to each of the *categories of prescribed transmission services*, and is also responsible for pricing *connection services*. *AEMO* is responsible for pricing *prescribed TUOS services* and *prescribed common transmission services*. For the purposes of clause 6A.29.1, *AEMO* is the *Co-ordinating Network Service Provider* for Victoria and allocates all relevant *AARR* within Victoria. The diagram in Appendix A shows the delineation of responsibilities between SP AusNet and AEMO in relation to transmission pricing under Part J of Chapter 6A of the *Rules*.

In light of the arrangements in Victoria, this proposed *pricing methodology* only addresses the pricing matters for which SP AusNet has responsibility. SP AusNet understands that *AEMO* will submit its own *pricing methodology* to the *AER* in accordance with the requirements of the *Rules*.

The remaining sections of this document are structured as follows:

- Section 2 sets out the key requirements for pricing methodologies in the *Rules*.
- Section 3 defines the *AARR* in accordance with the *Rules*.
- Section 4 explains the allocation of the *AARR* to the *categories of prescribed transmission services* in accordance with clauses 6A.23.2 and 11.6.11, in order to establish the *annual service revenue requirements* (*ASRR*) for each category.
- Section 5 explains the allocation of the *ASRR* to *transmission network connection points* in accordance with clause 6A.23.3.
- Section 6 explains the application of the price structure principles to the charges for *connection services* in accordance with clause 6A.23.4.
- Section 7 describes the requirements relating to information provision, and the billing arrangements in accordance with clause 6A.27.
- Section 8 sets out SP AusNet's prudential requirements as required by rule 6A.28.

Throughout this document, terms which appear in *italics* have the meaning given to them in the the *Rules*.

2 Rules Requirements

Clause 6A.24.1(b) of the *Rules* states that the *pricing methodology* applied by a *Transmission Network Service Provider*:

(1) allocates the *aggregate annual revenue requirement (AARR)* for *prescribed transmission services* provided by that provider to:

  (i) the *categories of prescribed transmission services* for that provider; and

  (ii) *transmission network connection points* of *Transmission Network Users*; and

(2) determines the structure of the prices that a *Transmission Network Service Provider* may charge for each of the *categories of prescribed transmission services* for that provider.

The *pricing methodology* must comply with the principles and guidelines established by or made under the *Rules*. Clause 6A.10.1(e) of the *Rules* requires that the proposed *pricing methodology* must:

(1) give effect to and be consistent with the *Pricing Principles for Prescribed Transmission Services*, which are set out in rule 6A.23; and

(2) comply with the requirements of, and contain or be accompanied by such information as is required by, the *pricing methodology guidelines* made for that purpose under rule 6A.25.

Further, under clause 6A.24.1(d), a *Transmission Network Service Provider* must comply with the *pricing methodology* approved by the *AER* as part of a *transmission determination* that applies to that provider, and any other applicable requirements in the *Rules*, when the provider is setting the prices that may be charged for the provision of *prescribed transmission services*.

3 SP AusNet's Aggregate Annual Revenue Requirement

As required by the *Rules*, SP AusNet determines the *AARR* in accordance with rule 6A.3 and clause 6A.22.1. Clause 6A.22.1 states that for the purposes of pricing regulation, the *aggregate annual revenue requirement* for *prescribed transmission services* provided by a *Transmission Network Service Provider* is the *maximum allowed revenue* referred to in clause 6A.3.1 adjusted:

(1) in accordance with clause 6A.3.2, and

(2) by subtracting the operating and maintenance costs expected to be incurred in the provision of *prescribed common transmission services*.

Clause 6A.3.1 states that the revenue that a *Transmission Network Service Provider* may earn in any *regulatory year* of a *regulatory control period* from the provision of *prescribed transmission services* is the maximum allowed revenue subject to any adjustments referred to in clause 6A.3.2, and is to be determined in accordance with:

(a) the revenue determination forming part of the applicable transmission determination; and

(b) the provisions of Part C of Chapter 6A, which relates to the regulation of revenue for *prescribed transmission services*.

The operating and maintenance costs that are subtracted from the *maximum allowed revenue* are determined by reference to the revenue determination operating and maintenance costs forecasts. The costs allocated to common service are those that cannot or should not be allocated to specific assets or by asset share and consist of:

- System Operation Opex;
- Non-System Opex;
- Rebates associated with the Availability Incentive Scheme;
- Land Taxes/Rates;
- Insurance and self-insurance;
- Debt and Equity Raising Costs; and
- Easement Land Tax Costs.

The effect of clause 6A.3.1 is that the *AARR* is to be determined by reference to SP AusNet's *revenue determination*. SP AusNet undertakes to ensure that the *AARR* for price setting purposes is determined in accordance with its *revenue determination* relating to the 2014-2017 *regulatory control period*.

4 Allocation of AARR to Categories of Prescribed Transmission Services

4.1 Overview of Allocation Principles

Clauses 6A.22.3, 6A.23.2 and 11.6.11 of the *Rules* provide the framework for calculating SP AusNet's *annual service revenue requirement* (*ASRR*).

Clause 6A.23.2 of the *Rules* requires the *AARR* to be allocated in accordance with the following principles:

(a) The *AARR* for a *Transmission Network Service Provider* must be allocated to each *category of prescribed transmission services* in accordance with the *attributable cost share* for each such category of services.

(b) This allocation results in the *annual service revenue requirement* (*ASRR*) for that category of services.

(c) The allocation of the *AARR* must be such that:

(1) every portion of the *AARR* is allocated; and

(2) the same portion of the *AARR* is not allocated more than once.

(d) Where, as a result of the application of the *attributable cost share*, a portion of the *AARR* would be attributable to more than one *category of prescribed transmission services*, that *attributable cost share* is to be adjusted and applied such that any costs of a *transmission system* asset that would otherwise be attributed to the provision of more than one *category of prescribed transmission services*, is allocated as follows:

(1) to the provision of *prescribed TUOS services*, but only to the extent of the *stand-alone amount* for that category of *prescribed transmission services*;

(2) if any portion of the costs of a *transmission system* asset is not allocated to *prescribed TUOS services*, under subparagraph (1), that portion is to be allocated to *prescribed common transmission services*, but only to the extent of the *stand-alone amount* for that *category of prescribed transmission services*;

(3) if any portion of the costs of a *transmission system* asset is not attributed to *prescribed transmission services* under subparagraphs (1) and (2), that portion is to be attributed to *prescribed entry services* and *prescribed exit services*.

Clause 6A.22.3 defines *attributable cost share* as follows:

(a) For a *Transmission Network Service Provider* for a *category of prescribed transmission services*, the *attributable cost share* for that provider for that category of services must, subject to any adjustment required under the principles in clause 6A.23.2, substantially reflect the ratio of:

(1) the costs of the *transmission system* assets directly attributable to the provision of that *category of prescribed transmission services*; to

(2) the total costs of all the *Transmission Network Service Provider's transmission system* assets directly attributable to the provision of *prescribed transmission services*.

(b) The costs of the *transmission system* assets referred to in paragraph (a) refers to optimised replacement cost or to an accepted equivalent to optimised replacement cost that is referable to values contained in the accounts of the *Transmission Network Service Provider*.

4.2 Application of the Allocation Principles

In accordance with clause 6A.22.3(a), SP AusNet determines the *attributable cost share* for each category of *prescribed transmission services* by calculating the ratio of:

(1) the costs of the transmission system assets directly attributable to the provision of that category of prescribed transmission services; to

(2) the total costs of SP AusNet's transmission system assets directly attributable to the provision of prescribed transmission services.

In accordance with clause 6A.22.3(b), SP AusNet values its assets in accordance with an optimised replacement cost (ORC) methodology. Any optimisation will be conducted in accordance the asset valuation roll-forward methodology described in the *Rules*.

To give effect to the allocation process, the costs of *transmission system assets* must be allocated to a *category of prescribed transmission services* in accordance with clause 6A.23.2 of the *Rules*. The *categories of prescribed transmission services* to which the costs can be allocated are set out in clause 6A.23.2(d). This clause must be read together with clause 11.6.11. This is a transitional provision which deems certain *connection services* provided to *Generators* and customers directly connected to the *transmission network* for connections in place or committed to be in place as at 9 February 2006 to be a *prescribed connection service*. A full description of the priority ordering methodology is provided in Appendix B to this *pricing methodology*.

The following paragraphs identify the *category or categories of prescribed transmission service* to which each of SP AusNet's asset categories (and its ORC) is allocated.

4.2.1 Lines

All lines are allocated to *prescribed TUOS services*, with the following exceptions:

- 66 kV double circuit lines between East Rowville, Cranbourne and Frankston Terminal Stations; and
- 66 kV double circuit lines between Templestowe Terminal Station and Subs DC, HB, L and WD.

The line assets listed immediately above are allocated to *prescribed exit services*, as each of the above lines is radial and connects a particular user to the *transmission network*.

4.2.2 Transformers

The main system tie transformers are allocated to *prescribed TUOS services*. Connection Transformers are allocated to *prescribed entry services* and *prescribed exit services*.

4.2.3 Switchgear

A shallow connection policy is applied in determining the allocation of switchgear. In accordance with this policy, switchgear is assigned to *prescribed entry services* and *prescribed exit services* only when those assets provide *supply* to *Network Users* connected at the *connection point*. The remainder are assigned to *prescribed TUOS services*.

4.2.4 Busbars and Rack Structures

Busbars and rack structures are not separately identified for allocation. Instead, they are included in the relevant switchgear, transformer or reactive primary bays and the establishment costs at each terminal station.

4.2.5 Reactive Compensation Plant

All reactive plant is assigned to *prescribed common transmission services* as it provides equivalent benefit to all users with the following exceptions:

- Reactive plant will be assigned to *prescribed TUOS services* if the benefits of the reactive plant can be allocated on a locational basis, but cannot be allocated to a particular user or group of users.
- Reactive plant at the sub-transmission voltage level will be assigned to *prescribed exit services* if it is clearly evident that the plant has been provided to meet the local reactive requirements of one or more users connected at the relevant terminal station.

4.2.6 Land and Station Establishment

Land and establishment costs are apportioned between *prescribed exit services* and *prescribed TUOS services* on a case-by-case basis in accordance with the principles set out in clauses 6A.23.2 and 11.6.11.

4.2.7 Communications

All communication assets are assigned to *prescribed common transmission services*.

4.2.8 Secondary Systems

Secondary equipment is generally allocated in accordance with the allocation of the associated primary equipment.

4.2.9 Victorian Network Switching Centre

All operational costs are assigned to *prescribed common transmission services*.

4.2.10 System Spares

System spares are allocated to *prescribed common transmission services*.

4.2.11 Non-System Assets

Non-system assets are allocated to *prescribed common transmission services*.

4.2.12 Easements

Easements are allocated to *prescribed common transmission services*.

4.2.13 Easement Land Tax

As any land tax imposed on transmission easements in Victoria under the Land Tax Act 2005 is directly associated with value of the easement portfolio, SP AusNet intends to allocate this cost to the *prescribed common transmission services*.

4.3 Example of the Application of the Allocation Principles

SP AusNet values its assets in accordance with an optimised replacement cost (ORC) methodology. In accordance with clause 6A.22.3(a), SP AusNet determines the attributable cost share for each category of *prescribed transmission services* by calculating the ratio of:

(1) the ORC of the *transmission system* assets directly attributable to the provision of that category of *prescribed transmission services*; to

(2) the total ORC of SP AusNet's *transmission system* assets directly attributable to the provision of *prescribed transmission services*.

For example, if the ORC's of the prescribed transmission assets have been allocated to the applicable categories of *prescribed transmission services* as shown in the table below then the *attributable cost shares* for entry assets are calculated as shown in the formula below:

$$\text{Attributable cost share}_{Entry} = ORC_{Entry} / ORC_{Total}$$
$$= \$2,875,000 / \$104,460,000$$
$$= 0.0275$$

The *attributable cost shares* of the other categories of *prescribed transmission services* follow the same formula resulting in the *attributable cost shares* shown in the last column of the table.

Table 4-1: Step changes and zero-based costs

Category	ORC	Attributable cost share
Entry Service	2,875,000	0.0275
Exit Service	22,593,000	0.2163
TUOS Service	68,992,000	0.6605
Common Service	10,000,000	0.0957
Total	**104,460,000**	1.0000

5 Allocation of the ASRR to Transmission Network Connection Points

5.1 Overview of Allocation Principles

The next step in the pricing methodology is for SP AusNet to allocate the *ASRR* for each of *prescribed entry services* and *prescribed exit services* to *transmission network connection points*. This section of the proposed pricing methodology explains how that allocation is done.

It is noted that AEMO is responsible for allocating the *ASRR* for *prescribed TUOS services* and *prescribed common transmission services* in accordance with the *Rules*.

Clause 6A.23.3 sets out the following principles for allocating the *ASRR* to *transmission network connection points:*

(a) The whole of the *ASRR* for *prescribed entry services* is to be allocated to *transmission network connection points* in accordance with the *attributable connection point cost share* for *prescribed entry services* that are provided by the *Transmission Network Service Provider* at that *connection point*.

(b) The whole of the *ASRR* for *prescribed exit services* is to be allocated to *transmission network connection points* in accordance with the *attributable connection point cost share* for *prescribed exit services* that are provided by the *Transmission Network Service Provider* at that *connection point*.

Clause 6A.22.4 defines the *attributable connection point cost share* as follows:

(a) For a *Transmission Network Service Provider* for *prescribed entry services* and *prescribed exit services*, the *attributable connection point cost share* for that provider for each of those categories of services must substantially reflect the ratio of:

(1) the costs of the *transmission system* assets directly attributable to the provision of *prescribed entry services* or *prescribed exit services*, respectively, at a *transmission network connection point*; to

(2) the total costs of all the *Transmission Network Service Provider's transmission system* assets directly attributable to the provision of *prescribed entry services* or *prescribed exit services*, respectively.

(b) The costs of the *transmission system* assets referred to in paragraph (a) refers to optimised replacement cost or to an accepted equivalent to optimised replacement cost that is referable to values contained in the accounts of the *Transmission Network Service Provider*.

5.2 Application of the Allocation Principles

In accordance with clause 6A.23.3 SP AusNet allocates the *ASRR* for *prescribed entry services* and *prescribed exit services* to *transmission network connection points* using the *attributable connection point cost shares* for *prescribed entry services* and *prescribed exit services* at each *connection point*. The *attributable connection point cost shares* are determined by calculating the ratio of:

(1) the costs of the *transmission system* assets directly attributable to the provision of *prescribed entry services* or *prescribed exit services*, respectively, at a *transmission network connection point*; to

(2) the total costs of all SP AusNet's *transmission system* assets directly attributable to the provision of *prescribed entry services* or *prescribed exit services*, respectively.

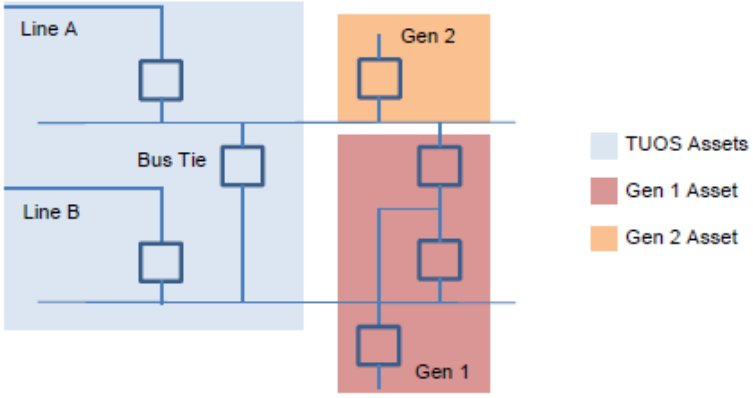
In calculating the costs used to calculate these ratios, SP AusNet values its assets in accordance with an ORC methodology. Any optimisation will be conducted in accordance with the asset valuation roll-forward methodology described in the *Rules*.

The *Rules* do not specify any principles to address the allocation of costs to multiple customers at a single terminal station. Nevertheless, SP AusNet proposes the following standard allocation methodology for multiple customers at a single terminal station with its existing customers. Customers remain free to negotiate a different methodology with SP AusNet at any time.

5.2.1 Shared Entry Services

Where more than one entry customer shares a terminal station, shared costs will be allocated by directly allocated asset optimised replacement cost (ORC) share. For example, if Generator A has been allocated dedicated assets with an ORC value of $3M and Generator B has been allocated dedicated assets with an ORC value of $1M then the remaining shared assets ORC value will be allocated with a 75%/25% split respectively. An example showing the breakdown of assets undertaken in accordance with clauses 6A.22.4 and 6A.23.3 at an entry terminal station is illustrated in the figure below.

Figure 5-1: Entry Terminal Station Example



5.2.2 Shared Exit Services

Where more than one exit customer is supplied from a terminal station, shared costs will be allocated using the following methodology:

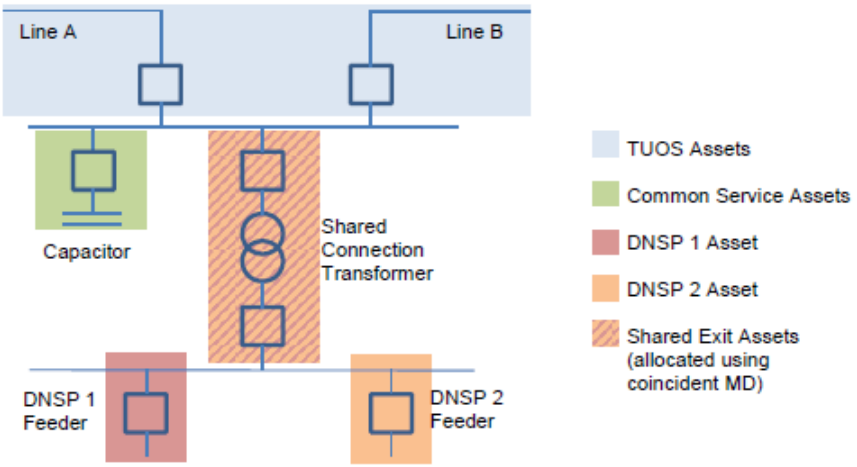
- Coincident maximum demand (average of 10 highest demand days) will be used to determine the allocation of costs between customers at shared exit terminal stations. Adjustments to the coincident maximum demand will be made where a feeder is shared between two of more customers. This information and any adjustments necessary will be agreed by all customers connected to the relevant *connection point*;
- Coincident maximum demand information provided for the allocation will be for the previous financial year. For example, in the calculation of the 2014/15 charges, data from 2013/14 would be used; and
- The proportion of shared costs allocated to a new exit customer must be calculated on the basis of a reasonable estimate of expected demand (over a period of not less than six months), consistent with the terms of the connection agreement between SP AusNet and the new exit customer.

SP AusNet will receive the required information from the relevant *Distribution Network Service Provider* as a percentage split for each shared terminal station. Non-distributor connection

customers will have identical consultation opportunities and be subject to identical allocation principles.

An example showing the breakdown of assets undertaken in accordance with clause 2.2(a)(1) of the interim arrangements at an exit terminal station is illustrated in the figure below.

Figure 5-2: Exit Terminal Station Example



5.2.3 Shared Exit and Entry Services

Where an exit customer shares a terminal station with a *Generator* or *Market Network Service Provider*, shared costs will be allocated by asset ORC share.

6 Price Structure

Clause 6A.23.4 requires each *Transmission Network Service Provider* to develop separate prices for the recovery of the *ASRR* in accordance with the principles set out in paragraphs (b)-(i). As noted earlier, SP AusNet is responsible for the pricing of *prescribed entry services* and *prescribed exit services* only, whilst AEMO has responsibility for pricing *prescribed TUOS services* and *prescribed common transmission services*.

In relation to *prescribed entry services* and *prescribed exit services*, rule 6A.23.4(c) requires that prices for *prescribed entry services* and *prescribed exit services* must be a fixed annual amount. In accordance with this *Rules* requirement, SP AusNet therefore proposes that prices for *prescribed entry services* and *prescribed exit services* are fixed annual amounts.

7 Information Requirements and Billing

7.1 Compliance with Rule 6A.27

Consistent with clause 6A.27.1:

- SP AusNet will calculate the *transmission service* charges payable by *Transmission Network Users* in accordance with the *transmission service* prices published under clause 6A.24.2.
- SP AusNet will issue a bill to *Transmission Network Users* for *prescribed transmission services*.
- Where the billing for a particular *financial year* is based on quantities which are undefined until after the commencement of the *financial year*, charges will be estimated from the previous year's billing quantities with a reconciliation to be made when the actual billing quantities are known and, where the previous year's billing quantities are unavailable or no longer suitable, nominated quantities may be used as agreed between the parties.
- Where charges are to be determined for *prescribed transmission services* from *metering data*, these charges will be based on kW or kWh obtained from the *metering data* managed by *AEMO*.

SP AusNet will issue invoices to *Transmission Network Users* for *prescribed transmission services* which satisfy or exceed the minimum information requirements specified in clause 6A.27.2 on a monthly basis or as otherwise agreed in the relevant transmission connection agreement.

Consistent with clause 6A.27.3, a *Transmission Network User* must pay charges for *prescribed transmission services* properly charged to it and billed in accordance with this proposed *pricing methodology* by the date specified in the invoice.

As *Co-ordinating Network Service Provider* for Victoria, *AEMO* will determine the amounts of any payments payable by *Transmission Network Service Providers* to each other in accordance with clause 6A.27.4. Any financial transfers payable under this clause will be paid in equal monthly instalments (unless otherwise mutually agreed).

8 Prudential Requirements

8.1 Prudential requirements for prescribed transmission services

As permitted by clause 6A.28.1, SP AusNet may require a *Transmission Network User* to establish *prudential requirements* for *connection services*. These *prudential requirements* may take the form of, but need not be limited to, capital contributions, prepayments or financial guarantees.

The requirements for such *prudential requirements* will be negotiated between the parties and specified in the applicable transmission *connection agreement*.

8.2 Capital contribution or prepayment for a specific asset

Consistent with clause 6A.28.2 of the *Rules*, where SP AusNet is required to construct or acquire specific assets to provide *prescribed connection services* to a *Transmission Network User*, SP AusNet may require the *Transmission Network User* to make a capital contribution or prepayment for all or part of the cost of the new assets installed.

In the event that a capital contribution is required, any contribution made will be taken into account in the determination of *prescribed transmission service* prices applicable to that *Transmission Network User* by way of a proportionate reduction in the ORC of the asset(s) used

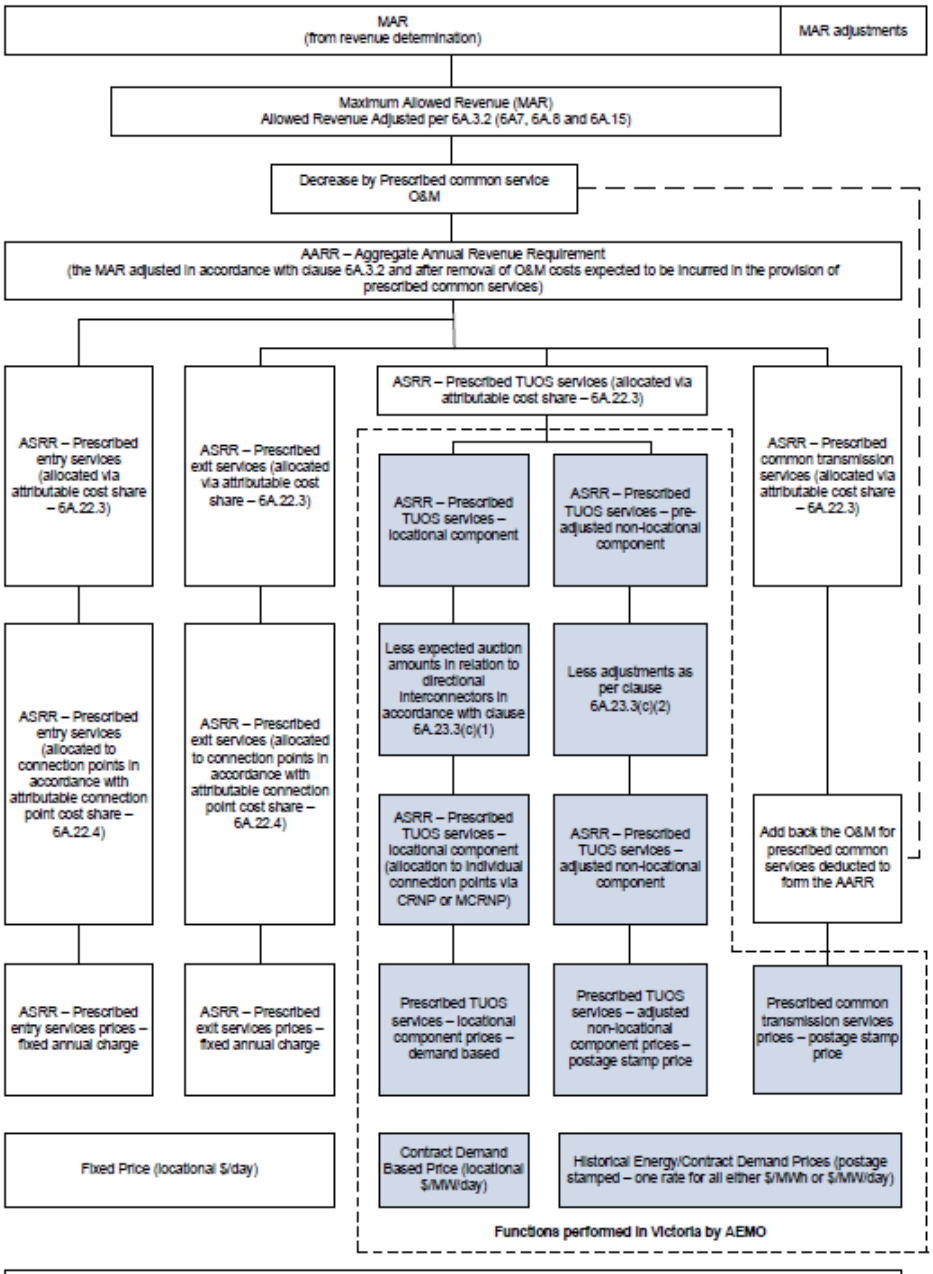
for the allocation of *prescribed transmission service* charges, or as otherwise negotiated between the parties.

In the event that a prepayment is required, any prepayment made will be taken into account in the determination of *prescribed transmission service* prices applicable to that *Transmission Network User* in a manner to be negotiated between the parties.

The treatment of such capital contributions or prepayments for the purposes of a *revenue determination* will, in all cases, be in accordance with the relevant provisions of the *Rules*.

Appendix A – Structure of Transmission Pricing in Victoria

Appendix 13A – Electricity Transmission Pricing Methodology



Appendix B – Priority Ordering Methodology

Rules Requirements

Clause 6A.23.2 (d) of the *Rules* requires that:

Where, as a result of the application of the *attributable cost share*, a portion of the *AARR* would be attributable to more than one *category of prescribed transmission services,* that *attributable cost share* is to be adjusted and applied such that any costs of a *transmission system* asset that would otherwise be attributed to the provision of more than one category of *prescribed transmission services*, is allocated as follows:

(1) to the provision of *prescribed TUOS services*, but only to the extent of the *stand-alone amount* for that *category of prescribed transmission services*;

(2) if any portion of the costs of a *transmission system* asset is not allocated to *prescribed TUOS services*, under subparagraph (1), that portion is to be allocated to *prescribed common transmission services*, but only to the extent of the *stand-alone amount* for that *category of prescribed transmission services*; and

(3) if any portion of the costs of a *transmission system* asset is not attributed to *prescribed transmission services* under subparagraphs (1) and (2), that portion is to be attributed to *prescribed entry services* and *prescribed exit services*.

Stand-alone amount is defined as:

For a category of *prescribed transmission services*, the costs of a *transmission system* asset that would have been incurred had that *transmission system* asset been developed, exclusively to provide that *category of prescribed transmission services*.

Transitional Rule 11.6.11(c) states the following:

"For the purposes of new Chapter 6A:

(1) the costs of the *transmission system* assets that from time to time may be treated as:

  (i) directly attributable to the provision of a prescribed connection service; or

  (ii) incurred in providing a prescribed connection service,

  to a *Transmission Network User* or a group of *Transmission Network Users* at a *transmission network connection point* is limited to the costs of the eligible assets which, from time to time, provide that prescribed connection service;

(2) any costs of an existing asset or a replacement asset (or of any portion of an existing asset or a replacement asset) that:

  (i) is not an eligible asset (other than as a result of clause 11.6.11(d)); and

  (ii) is used by a *Transmission Network Service Provider* to provide connection services to a *Transmission Network User* or a group of *Transmission Network Users* at a *transmission network connection point*,

  must be treated as costs that are directly attributable to the provision of, or are incurred in providing, *prescribed TUOS services* and, to avoid doubt, the services provided by those assets which would otherwise be *connection services* are taken to be *prescribed TUOS services*; and

(3) the *stand-alone amount* for *prescribed TUOS services* is taken to include any portion of the costs referred to in clause 11.6.11(c)(2) that has not been allocated under clause 6A.23.2(d)(1)."

This transitional provision effectively introduces a fourth step to the priority ordering requirement

Objective and General Approach

The allocation methodology relies on the assumption that terminal station infrastructure and establishment costs are proportionate to the number of circuit breakers in the terminal station.

Based on this assumption the appropriate allocator for terminal station infrastructure and establishment costs for a stand-alone arrangement is the ratio of the number of circuit breakers in the stand-alone arrangement to the number of circuit breakers in the whole terminal station.

Proposed Methodology

Step 1: Branch Identification

Identify the branches, being the lines, *transformers*, major reactive devices and exits/entries in the terminal station which provide *prescribed TUOS services*, *prescribed common transmission services* and *prescribed exit services* or *prescribed entry services*, in the terminal station.

Step 2: Allocation of Circuit Breakers to Branches

For each *high voltage* circuit breaker in the *terminal station* identify the branches directly *connected* to it. Any circuit breaker that does not directly *connect* to a branch is excluded from allocation and all costs associated with it are added to the *terminal station* infrastructure and establishment cost.

Count the total number of circuit breakers directly *connected* to branches.

Distribution Network Service Providers (DNSPs) are classified as a *prescribed exit service* while *Generators* are classified as a *prescribed entry service*. *Negotiated transmission services* are not part of the regulated asset base and fall outside the priority ordering process detailed in clause 6A.23.2(d) of the *Rules*.

Step 3.1: Stand-alone arrangements for prescribed TUOS services

With reference to the number of lines providing *prescribed TUOS services* determine the number of circuit breakers required to provide *prescribed TUOS services* of an equivalent standard on a stand-alone basis. The stand-alone configuration is the simplest *terminal station* configuration (in the absence of development) had it been developed to provide a *prescribed TUOS service*. This may be done by way of a look up of typical stand-alone configurations.

Step 3.2: Stand-alone arrangements for Prescribed common transmission services

With reference to the number of lines providing *prescribed TUOS services* and the devices providing *prescribed common transmission service* determine the number of circuit breakers required to provide *prescribed common transmission services* of an equivalent standard on a stand-alone basis. The stand-alone configuration is the simplest *terminal station* configuration (in the absence of development) had it been developed to provide a *prescribed common transmission service*. This may be done by way of a look up of typical stand-alone configurations.

Step 4: Allocation of terminal station infrastructure and establishment costs

Step 4.1 Allocation of prescribed TUOS services

Allocate a portion of *terminal station* infrastructure and establishment costs to *prescribed TUOS services* according to the ratio of the *high voltage* circuit breakers identified in step 3.1 to the total number of *high voltage* circuit breakers *connected* to branches in the *terminal station* identified in step 2.

Step 4.2 Calculation of the Unallocated Terminal station Infrastructure Costs (after prescribed TUOS service Allocation)

Calculate the unallocated terminal station infrastructure cost (after *prescribed TUOS services allocation*) by subtracting the amount calculated in step 4.1 from the total *terminal station* infrastructure amount.

Step 4.3 Allocation of Prescribed Common Transmission Service

Allocate a portion of the *terminal station* infrastructure and establishment costs to *prescribed common transmission services* based on to the ratio of the *high voltage* circuit breakers providing *prescribed common transmission services* identified in step 3.2 to the total number of *high voltage* circuit breakers *connected* to branches in the terminal station. If the *prescribed common transmission services* portion of *terminal station* infrastructure is greater than the unallocated costs, then the unallocated portion only is attributed to *prescribed common transmission services*. In this instance, nothing will be attributed to *prescribed entry services* and *prescribed exit services*.

Step 4.4 Calculation of the Unallocated Terminal Station Infrastructure Costs (after prescribed common transmission service Allocation)

Calculate the unallocated *terminal station* infrastructure cost (after *prescribed common transmission services* allocation) by subtracting the amount calculated in step 4.3 from the amount calculated in step 4.2.

Step 4.5 Allocation of Prescribed Entry and Exit Service costs to Prescribed TUOS services per 11.6.11

Allocate the remaining *terminal station* infrastructure and establishment costs (calculated in step 4.4) to each branch providing *prescribed TUOS services* based on the ratio of the *high voltage* circuit breakers providing the *prescribed TUOS services* to the branch to the total number of *high voltage* circuit breakers providing *prescribed TUOS services* or in accordance with the cost allocation process in section 4 of this Pricing Methodology as appropriate.

Notes

Costs are only allocated in step 4 until fully allocated.

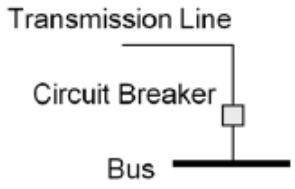
Consistent with clause 6A.23.2(d)(3) of the *Rules* it is possible that no costs will be attributed to *prescribed entry services* and *prescribed exit services*.

New and existing *negotiated transmission service* assets are excluded from the analysis as any incremental establishment costs associated with them are taken to be included in the *negotiated transmission services* charges on a causation basis.

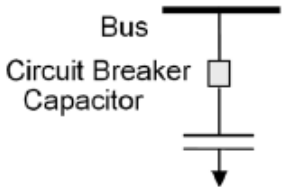
The assessment of standalone arrangements only needs to be conducted once per terminal station except where changes to the configuration of the terminal station occur.

Definition – Branches

As illustrated by the diagrams below a "Branch" is a collection of assets (e.g. lines, circuit breakers, capacitors, buses and *transformers*) that provide a *transmission service*.



Branch with Transmission Line, Bus and Circuit Breaker

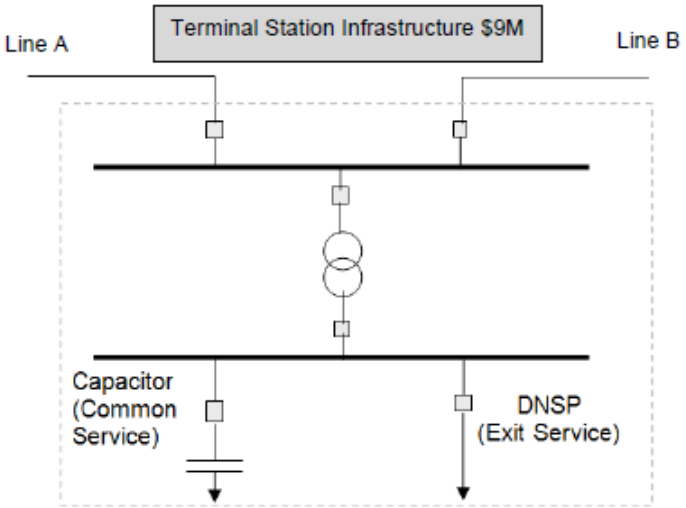


Branch with Capacitor, Circuit Breaker and Bus

Examples

A1.1 Example A

Terminal Station Configuration



Step 1: The branches are Line A, Line B, DNSP, Tie Transformer and *prescribed common transmission services*.

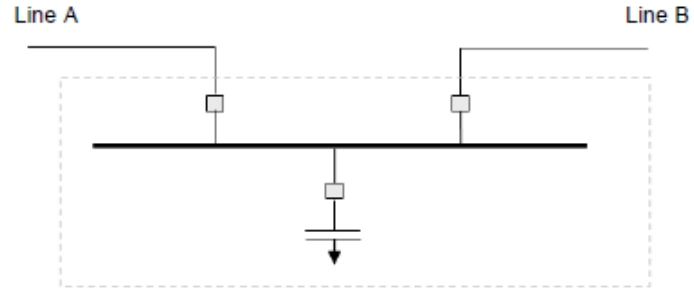
Step 2: The total number of circuit breakers directly *connected* to branches is 6.

Step 3.1: The stand-alone arrangement for the provision of *prescribed TUOS services* to an equivalent standard is shown below and consists of 2 circuit breakers.

Stand Alone Prescribed TUOS Service

Step 3.2: The stand-alone arrangement for the provision of *prescribed common transmission services* to an equivalent standard is shown below and consists of 3 circuit breakers.

Stand Alone Prescribed Common Transmission Service



Step 4:

Assume total Infrastructure cost is $9m.

Costs are allocated to *prescribed TUOS services* in the ratio of the circuit breakers in the stand-alone arrangement to the total circuit breakers.

Infrastructure Cost Allocated to *prescribed TUOS services* = (2/6) x $9m = $3m

Unallocated Terminal Station Infrastructure Costs (after *prescribed TUOS services* allocation) = $9m - $3m = $6m

Costs are allocated to *prescribed common transmission services* in the ratio of the circuit breakers in the stand-alone arrangement to the total circuit breakers.

Infrastructure Cost allocated to *prescribed common transmission services* = (3/6) x $9m = $4.5m

Unallocated *Terminal Station* Infrastructure Costs (after *prescribed common transmission service* allocation)

= $6m - $4.5m = $1.5m

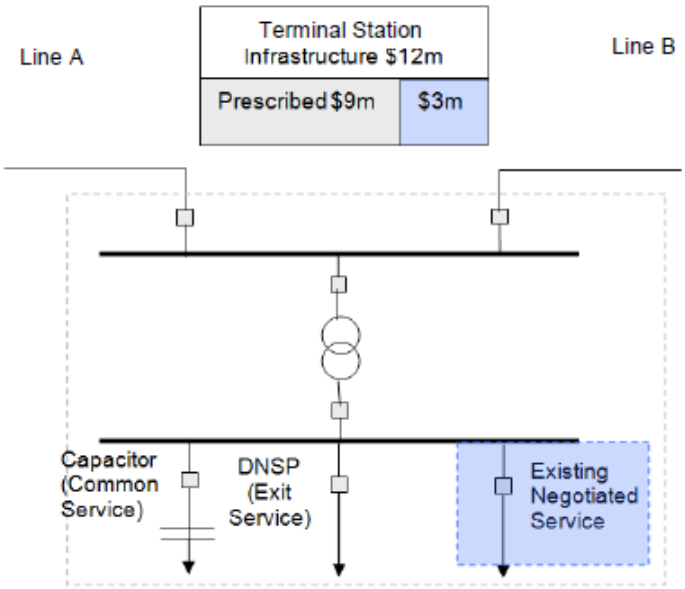
Remainder of unallocated (calculated above) to be allocated to *prescribed TUOS services* per clause 11.6.11 of the *Rules*

Infrastructure Cost allocated to *prescribed TUOS services* = $1.5m

Item	Number	Allocation	Unallocated
Terminal station infrastructure costs		9,000,000	9,000,000
Total Breakers	6		
TUOS Stand-alone breakers	2		
Share to TUOS (a)	0.333	3,000,000	6,000,000
Common Service stand-alone breakers	3		
Share to Common Service	0.500	4,500,000	1,500,000
Share to TUOS (b)		1,500,000	
Total Share to TUOS (a) + (b)		4,500,000	
Total Share to Common Service		4,500,000	

A1.2 Example B

Terminal Station Configuration



Step 1: The branches are Line A, Line B, DNSP, Tie Transformer, *prescribed common transmission services* and an existing negotiated service.

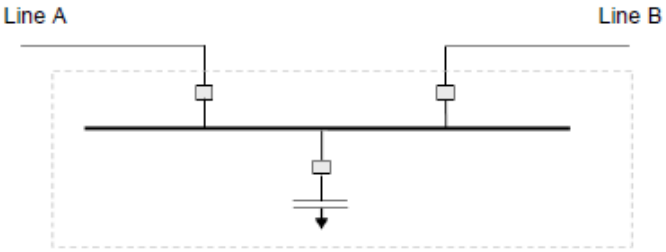
Step 2: The total number of circuit breakers directly *connected* to branches is 6 (no prescribed costs are allocated to the existing *negotiated transmission service*).

Step 3.1: The stand-alone arrangement for the provision of *prescribed TUOS services* to an equivalent standard is shown below and consists of 2 circuit breakers.

Stand Alone Prescribed TUOS Services

Step 3.2: The stand-alone arrangement for the provision of *prescribed common transmission services* to an equivalent standard is shown below and consists of 3 circuit breakers.

Stand Alone Prescribed Common Transmission Services



Step 4:

Assume total Infrastructure cost is $12m, however $3m is for the existing *negotiated transmission service*, which does not form part of the regulated asset base and is not governed by clause 6A.23.2(d) of the *Rules*.

Costs are allocated to *prescribed TUOS services* in the ratio of the circuit breakers in the stand-alone arrangement to the total circuit breakers.

Infrastructure Cost Allocated to *prescribed TUOS services* = (2/6) x $9m = $3m

Unallocated Terminal station Infrastructure Costs (after *prescribed TUOS services* allocation) = $9m - $3m = $6m

Costs are allocated to *prescribed common transmission services* in the ratio of the circuit breakers in the stand-alone arrangement to the total circuit breakers.

Infrastructure Cost allocated to *prescribed common transmission services* = (3/6) x $9m = $4.5m

Unallocated *Terminal Station* Infrastructure Costs (after *prescribed common transmission services* allocation)

= $6m - $4.5m = $1.5m

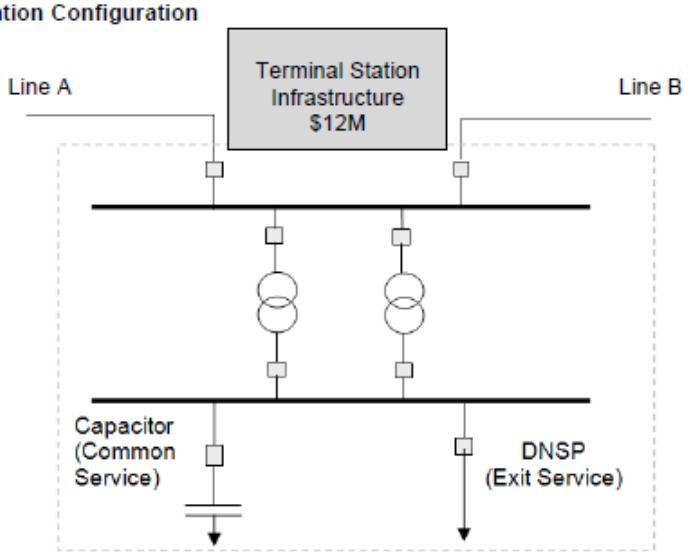
Remainder of unallocated (calculated above) to be allocated to *prescribed TUOS services*.

Infrastructure Cost allocated to *prescribed TUOS services* = $1.5m

Item	Number	Allocation	Unallocated
Terminal station infrastructure costs		9,000,000	9,000,000
Total Breakers	6		
TUOS Stand-alone breakers	2		
Share to TUOS (a)	0.333	3,000,000	6,000,000
Common Service stand-alone breakers	3		
Share to Common Service	0.500	4,500,000	1,500,000
Share to TUOS (b)		1,500,000	
Total Share to TUOS		4,500,000	
Total Share to Common Service		4,500,000	

A1.3 Example C

Terminal Station Configuration



Step 1: The branches are Line A, Line B, DNSP, Tie Transformer 1, Tie Transformer 2 and *prescribed common transmission service*.

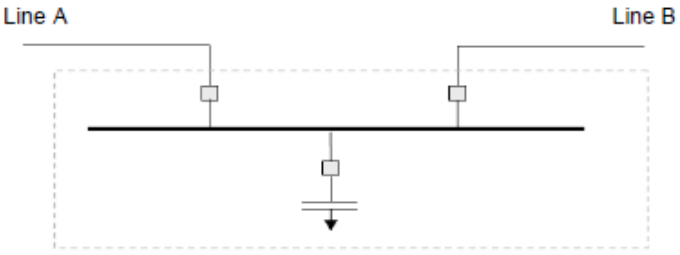
Step 2: The total number of circuit breakers directly *connected* to branches is 8.

Step 3.1: The stand-alone arrangement for the provision of *prescribed TUOS services* to an equivalent standard is shown below and consists of 2 circuit breakers.

Stand Alone Prescribed TUOS services

Step 3.2: The stand-alone arrangement for the provision of *prescribed common transmission services* to an equivalent standard is shown below and consists of 3 circuit breakers.

Stand Alone Prescribed Common Transmission Service



Step 4:

Assume total Infrastructure cost is $12m.

Costs are allocated to *prescribed TUOS services* in the ratio of the circuit breakers in the stand-alone arrangement to the total circuit breakers.

Infrastructure Cost Allocated to *prescribed TUOS services* (a) = (2/8) x $12m = $3m

Unallocated Terminal Station Infrastructure Costs (after *prescribed TUOS services* allocation) = $12m - $3m = $9m

Costs are allocated to *prescribed common transmission service* in the ratio of the circuit breakers in the stand-alone arrangement to the total circuit breakers.

Infrastructure Cost allocated to *prescribed common transmission services* = (3/8) x $12m = $4.5m

Unallocated Terminal Station Infrastructure Costs (after *prescribed common transmission services* allocation)

= $9m - $4.5m = $4.5m

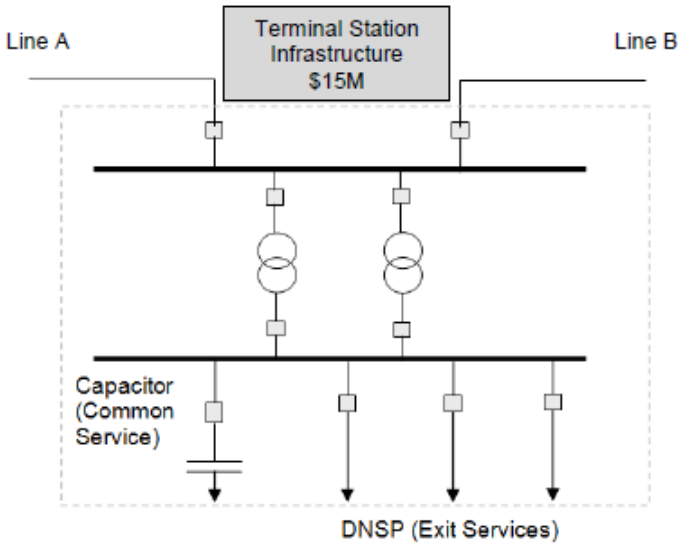
Remainder of unallocated (calculated above) to be allocated to *prescribed TUOS services*.

Infrastructure Cost allocated to *prescribed TUOS services (b)* = $4.5m

Item	Number	Allocation	Unallocated
Terminal station infrastructure costs		12,000,000	12,000,000
Total Breakers	8		
TUOS Stand-alone breakers	2		
Share to TUOS (a)	0.250	3,000,000	9,000,000
Common Service stand-alone breakers	3		
Share to Common Service	0.375	4,500,000	4,500,000
Share to TUOS (b)		4,500,000	
Total Share to TUOS		7,500,000	
Total Share to Common Service		4,500,000	

A1.4 Example D

Terminal Station Configuration



Step 1: The branches are Line A, Line B, *DNSP*1, *DNSP*2, *DNSP*3, Tie Transformer 1, Tie Transformer 2 and PCS.

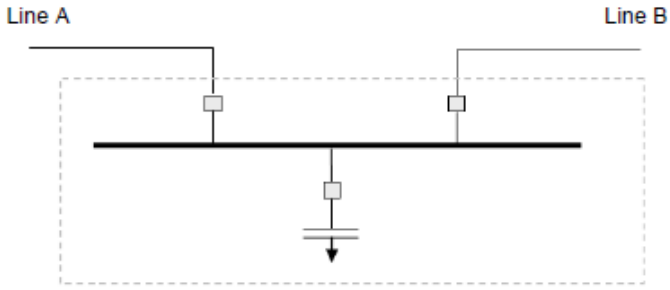
Step 2: The total number of circuit breakers directly *connected* to branches is 10.

Step 3.1: The stand-alone arrangement for the provision of *prescribed TUOS services* to an equivalent standard is shown below and consists of 2 circuit breakers.

Stand Alone Prescribed TUOS services

Step 3.2: The stand-alone arrangement for the provision of *prescribed common transmission services* to an equivalent standard is shown below and consists of 3 circuit breakers.

Stand Alone Prescribed Common Transmission Service



Step 4:

Assume total Infrastructure cost is $15m.

Costs are allocated to *prescribed TUOS services* in the ratio of the circuit breakers in the stand-alone arrangement to the total circuit breakers.

Infrastructure Cost Allocated to *prescribed TUOS services* (a) = (2/10) x $15m = $3m

Unallocated Terminal Station Infrastructure Costs (after *prescribed TUOS services* allocation) = $15m - $3m = $12m

Costs are allocated to *prescribed common transmission services* in the ratio of the circuit breakers in the stand-alone arrangement to the total circuit breakers.

Infrastructure Cost allocated to *prescribed common transmission service* = (3/10) x $15m = $4.5m

Unallocated Terminal Station Infrastructure Costs (after *prescribed TUOS services allocation*) = $12m - $4.5m = $7.5m

Remainder of unallocated (calculated above) to be allocated to *prescribed TUOS services*.

Infrastructure Cost allocated to *prescribed TUOS services* (b) = $7.5m

Item	Number	Allocation	Unallocated
Terminal station infrastructure costs		15,000,000	15,000,000
Total Breakers	10		
TUOS Stand-alone breakers	2		
Share to TUOS (a)	0.200	3,000,000	12,000,000
Common Service stand-alone breakers	3		
Share to Common Service	0.300	4,500,000	7,500,000
Share to TUOS (b)		7,500,000	
Total Share to TUOS		10,500,000	
Total Share to Common Service		4,500,000	