

SPI Electricity Pty Ltd
Advanced Metering Infrastructure
2011 Charges Revision Application

31 August 2010

AMI 2011 Charges Revision Application

About SP AusNet

SP AusNet is a major energy network business that owns and operates key regulated electricity transmission and electricity and gas distribution assets located in Victoria, Australia. These assets include:

- A 6,574 kilometre electricity transmission network indirectly servicing all electricity consumers across Victoria;
- An electricity distribution network delivering electricity to approximately 620,000 customer connection points in an area of more than 80,000 square kilometres of eastern Victoria; and
- A gas distribution network delivering gas to approximately 572,000 customer supply points in an area of more than 60,000 square kilometres in central and western Victoria.

SP AusNet's vision and mission is to make important things in life happen today and tomorrow for our employees and the communities in which we operate. The SP AusNet company values are:

- *Safety: to work together safely. Protect and respect our community and our people.*
- *Passion: to bring energy and excitement to what we do. Be innovative by continually applying creative solutions to problems.*
- *Teamwork: to support, respect and trust each other. Continually learn and share ideas and knowledge.*
- *Integrity: to act with honesty and to practise the highest ethical standards.*
- *Excellence: to take pride and ownership in what we do. Deliver results and continually strive for the highest quality.*

For more information visit: www.sp-ausnet.com.au

Contact

This document is the responsibility of the Networks Strategy and Development Division, SP AusNet. Please contact the officer below with any inquiries.

Julie Buckland
Director, Strategic Regulatory Programs
SP AusNet
Level 31, 2 Southbank Boulevard
Melbourne Victoria 3006
Ph: (03) 9695 6606

Table of Contents

Executive Summary	5
1	Introduction	7
1.1	<i>Background</i>	7
1.2	<i>This application</i>	7
1.2.1	<i>Purpose</i>	7
1.2.2	<i>Period covered by this application</i>	8
1.2.3	<i>Format</i>	8
1.2.4	<i>Other documentation relied upon</i>	8
2	Regulatory requirements and timetable	9
2.1	<i>Regulatory framework</i>	9
2.2	<i>AER Framework and Approach</i>	9
2.3	<i>2006 EDPR Final Determination Vol 1 & 2</i>	9
2.4	<i>AMI program timetable</i>	10
2.5	<i>The Cost Pass Through approach</i>	10
2.6	<i>Charges Revision Application</i>	11
3	Recoverable expenditure	13
3.1	<i>Introduction</i>	13
3.2	<i>Audit report for 2009 actual expenditure</i>	14
3.3	<i>Operating and maintenance expenditure</i>	14
3.3.1	<i>Introduction</i>	14
3.3.2	<i>Components of operating and maintenance expenditure</i>	14
3.3.3	<i>2009 – 2011 operating and maintenance expenditure</i>	17
3.3.4	<i>2009 actual operating and maintenance expenditure</i>	18
3.3.5	<i>2010 forecast operating and maintenance expenditure</i>	19
3.3.6	<i>2011 forecast operating and maintenance expenditure</i>	19
3.4	<i>Capital expenditure</i>	19
3.4.1	<i>Introduction</i>	19
3.4.2	<i>Components of capital expenditure</i>	19
3.4.3	<i>2009-2011 capital expenditure</i>	21
3.4.4	<i>2009 actual capital expenditure</i>	22
3.4.5	<i>2010 forecast capital expenditure</i>	23
3.4.6	<i>2011 forecast capital expenditure</i>	23
3.5	<i>Cost of capital financing</i>	23
3.5.1	<i>Regulatory depreciation (Return of capital)</i>	24
3.5.2	<i>Forecast metering asset base (2009-2011)</i>	24

AMI 2011 Charges Revision Application

3.5.3	<i>Metering Asset Base 2009-2001 adjusted for Actual expenditure in 2009</i>	25
3.5.4	<i>Cost of capital</i>	25
3.5.5	<i>Return on Capital 2009-2011</i>	26
3.5.6	<i>Taxation</i>	27
3.6	<i>Reconciliation to Approved Budget</i>	27
4	Revenue requirement	29
4.1	<i>Introduction</i>	29
4.2	<i>2009 actual revenue requirement</i>	29
4.3	<i>2010-11 forecast revenue requirement</i>	29
4.4	<i>Total Revenue requirement</i>	29
5	Regulated Services Charges	31
5.1	<i>Regulated Services charges</i>	31
5.1.1	<i>2010 Charges</i>	31
5.1.2	<i>Explanation of change in charges</i>	31
5.1.3	<i>2011 Regulated Services Charges</i>	32
5.2	<i>Reduced Charges</i>	32
	Attachment 1 – Audit Opinion on 2009 Actual Expenditure	33

AMI 2011 Charges Revision Application - Executive Summary

Executive Summary

The Cost Recovery Order-in-Council (the Amending Order) published in November 2008 provides for the setting and recovery of prices, fees and charges in regard to the provision, installation, maintenance and operation of advanced metering infrastructure and associated services and systems. Under the Amending Order a 'cost pass through' methodology is to be applied.

Clause 5 of the Amending Order sets out the requirements for distributors in making an application to the Commission in respect of budgets, charges and fees. This submission is made under Clause 5G and represents SP AusNet's '**Advanced Metering Infrastructure 2011 Charges Revision Application**' (the Charges Revision Application).

Under the Amending Order SP AusNet is required to update the 2010 and 2011 building blocks components with a combination of current forecasts, incurred costs and the return on capital using the Weighted Average Cost of Capital (WACC) as determined in the Final Determination¹.

Total Revenue Requirement

SP AusNet's total revenue requirement as determined using the methodology as set out in the Amending Order is summarised below. In order to smooth the transition in charges, SP AusNet has proposed to under-recover the net present value of total costs to 2011. This is discussed more in Section 5.2.

Table E.1: Total Revenue Requirement
(\$m, nominal)

	2009 Actual	2010 Forecast	2011 Forecast	Total
Return on Capital	5.93	7.92	16.0	29.85
Return of Capital (Depreciation)	7.84	17.54	24.41	49.79
Operating & Maintenance	27.13	42.94	44.93	115.0
Net 2006-08 Offset	(6.14)	-	-	(6.14)
Building Blocks Revenue Requirement	34.76	68.40	85.34	188.50
Forecast Tariff Revenue	37.93	63.40	70.58	171.91

¹ AER, '*Final Determination Victorian AMI Review 2009-11 AMI budget and charges application*', October 2009.

AMI 2011 Charges Revision Application - Executive Summary

Regulated Services Charges

SP AusNet considers that the proposed charges for Regulated Services for the period 2011 as set out in Table 5.2 of this Revised Charges Application are determined in accordance with the methodology required in the Amending Order.

AMI 2011 Charges Revision Application - Introduction

1 Introduction

1.1 Background

The Victorian State Government policy decision in 2006 to mandate the rollout of advanced metering infrastructure (AMI) to all Victorian electricity customers required the Regulator (then the Essential Services Commission of Victoria) to re-determine a distributors' metering services revenue requirement and establish a new price control to take effect from 1 January 2009. The framework for this determination, based on a 'forecasts and incentive regime', was set out in the Order in Council² gazetted in August 2007 (the original Order).

An amending Order in Council³ (the Amending Order), based on a 'cost pass through' arrangement was published in November 2008, again requiring revision to the approach to setting prices for regulated metering services.

In January 2009, the Australian Energy Regulator (AER) published its '**Final Decision - Framework and Approach paper – Advanced metering infrastructure review 2009-11**'⁴, setting out the approach to be followed in making a determination on the prices distributors can charge for the prescribed metering services specified in the Amending Order.

In accordance with the requirements of clause 5A.1 of the Amending Order, and the AER framework, SP AusNet lodged its '**Initial AMI budget period SP AusNet Budget Application**'⁵ (the SP AusNet Budget Application) on 27 February, 2009 and its '**Advanced Metering Infrastructure Initial Charges Application**'⁶ (the Charges Application) on 1 June 2009.

1.2 This application

1.2.1 Purpose

Clause 5G.1 of the Amending Order requires:

*'A revised charges application (**'charges revision application'**) must be made to set revised charges in respect of Regulated Services for each of the years commencing 1 January 2011, 2013, 2014 and 2015.'*

Clause 5G.2 requires:

'The application shall be made not later than 31 August in the year ('year t') immediately preceding the year that the revised charges are to take effect ('year t+1').'

For the purposes of this application 'year t' is the calendar year 2010 and 'year t+1' is the calendar year 2011.

² Victorian Government Gazette, '**Order in Council No S 200**', 28 August 2007.

³ Victorian Government Gazette, '**Order in Council No S 314**', 25 November 2008.

⁴ AER, '**Final decision - Framework and approach paper – Advanced metering infrastructure review 2009-11**', January 2009.

⁵ SP AusNet, '**Initial AMI budget period budget application**', 27 February 2009.

⁶ SP AusNet, '**Advanced Metering Infrastructure Initial Charges Application**', 1 June 2009.

AMI 2011 Charges Revision Application - Introduction

This submission represents SP AusNet's '**Advanced Metering Infrastructure 2011 Charges Revision Application**' (the Charges Revision Application).

1.2.2 Period covered by this application

Clause 5H1. (a) requires that the application state the period to which the application relates. This Charges Revision Application covers the period 1 January 2011 to 31 December 2011 inclusive.

1.2.3 Format

Section 2 sets out the regulatory framework and timetable for the AMI program and identifies the requirements of the Amending Order in respect of this Charges Revision Application.

Section 3 sets out SP AusNet's recoverable expenditure requirements in terms of operating and maintenance expenditure and capital expenditure requirements.

Section 4 sets out SP AusNet's forecast revenue requirement.

Section 5 sets out SP AusNet's proposed charges for prescribed metering services.

1.2.4 Other documentation relied upon

The following documents have previously been submitted to the Commission, as provided for under clause 5.3 of the Amending Order and where appropriate they may be relied upon in support of this Charges Application:

- AMI Pricing Proposal – SP AusNet, December 2007;
- AMI Revised Pricing Proposal – SP AusNet, September 2008;
- AMI Reference Documentation – SP AusNet, September 2008;
- AMI Consultation Paper: Revised Framework & Approach (December 2008) Response – SP AusNet, December 2008;
- AMI Initial SP AusNet Budget Application – SP AusNet, February 2009;
- AMI Initial Charges Application – SP AusNet, June 2009;
- AMI Revised SP AusNet Budget Application – SP AusNet, August 2009; and
- Various SP AusNet responses to AER and ESC questions both pre and post the Draft determination ⁷, July 2009.

⁷ AER. '**Draft determination Victorian AMI Review 2009-11 AMI budget and charges applications**', July 2009.

AMI 2011 Charges Revision Application - Regulatory requirements and timetable

2 Regulatory requirements and timetable

2.1 Regulatory framework

Sections 15A and 46D of the Electricity Industry Act 2000 (the Act) enable the making of Orders for the development and roll out of AMI infrastructure within Victoria. The relevant Orders under the Act are the AMI Specifications Order made on 12 November 2007 and the AMI Cost Recovery Order initially made on 28 August 2007 and subsequently amended on 25 November 2008, 22 January 2009 and 2 April 2009.

Under the Specifications Order, two specifications setting out the minimum functionality, performance and service level requirements for AMI infrastructure deployed in Victoria have been developed, namely the:

- Minimum AMI State-wide Functionality Specification (Victoria) Release 1.1 and
- Minimum AMI Service Levels Specification (Victoria) Release 1.1.

The purpose of the AMI Cost Recovery Order (as amended) states ⁸ :

'The purpose of this Order is to:

- (a) provide for the setting and regulation of the prices, fees and charges that a relevant licensee who is a distribution company may charge for or in connection with the costs of, or in relation to, the provision, installation, maintenance and operation of advanced metering infrastructure and associated services and systems;*
- (b) empower the recovery of those prices, fees and charges from a retailer who is a relevant licensee or a class or classes of retailers who are relevant licensees supplied electricity by the distribution company; and*
- (c) confer powers and functions on, and leave matters to be decided by, the Commission.'*

2.2 AER Framework and Approach

The AER published its Final Decision - Framework and Approach paper – Advanced metering infrastructure review 2009-11 in January 2009. SP AusNet has complied with the requirements of that paper in preparing this Charges Revision Application.

2.3 2006 EDPR Final Determination Vol 1 & 2

Part B4, of the 2006 EDPR Final Determination⁹ as amended, published in October 2006, provided for a separate price control for prescribed metering services. That decision continues to

⁸ Government Gazette No S314, *'AMI Order in Council, 2008'*, Part A, Clause 1A.

⁹ Essential Services Commission, *'EDPR 2006-10, October 2005 Price Determination as amended, Vol 1 and 2'*, October 2006.

AMI 2011 Charges Revision Application - Regulatory requirements and timetable

be relevant to prescribed metering services carried out since 1 January 2006 and aspects of the decision are to be used in formulating the building blocks necessary to determine revenue requirements and therefore charges applicable to prescribed metering services in 2010 and beyond.

2.4 AMI program timetable

The requirements for the rollout of AMI in Victoria are set out in Clause 14 and Schedule 1 of the Amending Order.

2.5 The Cost Pass Through approach

The Amending Order provides for a 'cost pass through' approach to price control rather than the 'forecasts and incentive mechanism' approach previously prescribed. Under this revised approach budgets are established at the beginning of a period, with annual charges adjusted based on actual expenditure. The methodology used to determine regulatory charges is based on a building block approach where the building blocks for a year are:

- (i) a return on capital;
 - (ii) depreciation;
 - (iii) maintenance and operating expenditure;
 - (iv) a benchmark allowance for corporate income tax; and
 - (v) any other building block required by clauses 5D, 5E and 5I,
- in each case determined subject to this clause 4 and clauses 5D, 5E and 5I.¹⁰

Building block costs may be based on actual costs, forecast expenditure or a mix of actual and forecast, while clause 4.1(i) sets out how the input parameters used in the calculation of the Weighted Average Cost of Capital (WACC) for the initial WACC period, part of which is covered by this Charges Application, are to be determined.

Charges for 2009 were set by reference to the metering charges already set in the 2006-10 EDPR for that year.

For 2010-2011 charges:

- 2. In 2009 there will be the setting of initial charges to apply for 2010 and 2011, based on an Approved Budget for 2009–2011 and actual expenditure and revenues for 2006–2008.
- 3. In 2010 the initial charges for 2011 will be revised to take account of actual expenditure and revenues known for 2009 and revised forecasts for 2010–2011.¹¹

¹⁰ Government Gazette No S314, 'AMI Order in Council, 2008', Part A, Clause 4.1(b).

¹¹ Ibid., Part A, Clause 4.1(p) Note.

AMI 2011 Charges Revision Application - Regulatory requirements and timetable

Clause 4.1(o) requires that:

'The charges of a distributor for every year in the period from 1 January 2010 to the End Date, shall be designed so that, for the period from the Start Date up to and including the year for which charges are being determined, the net present value of the total costs incurred by the distributor for Regulated Services is equal to the net present value of the total revenue earned by the distributor from Regulated Services in that same period where:

- (i) costs in any year are the building block costs determined in accordance with clauses 4.1(b) to (j); and*
- (ii) revenue in any year is determined in accordance with clauses 4.1(k) to (m).'*

while sub-clause (p) provides for a distributor to propose a 'reduced charge' in any year, subject to approval by the Commission.

The AER's Final Determination¹² of October 2009 sets out SP AusNet's Approved Budget and Charges for the initial budget period from 1 January 2009 to 31 December 2011.

2.6 Charges Revision Application

Clause 5G.1 of the Amending Order requires that SP AusNet make a Charges Revision Application in respect of the charges that are to apply in the year commencing 1 January 2011. The application is to be submitted by 31 August 2010.

Clause 5H of the Amending Order sets out the information to be included in this application. For the year commencing 1 January 2011, the information includes:

- actual Total Opex and Capex and revenue for the year 2009;
- updated forecasts of Total Opex and Capex and revenue for the year 2010 (year t) and 2011, the remaining year of the initial budget period; and
- an audit report on actual expenditure for the year 2009 which complies with the requirements of clause 5H.2.

In making a determination on the revised charges to apply in 2011, the AER must determine charges in accordance with clause 4 and clause 5.

Under clause 5I.2 in determining the building blocks the AER is required to:

- include actual capital and operating expenditure for 2009 where Total Opex and Capex is;
 - certified in an audit report under 5H.2;
 - is for activities in scope at the time of commitment or incurring;
 - is up to 120% of the Approved Budget for that year
- include expenditure under clause 5D.4 (expenditure relating to the period from 1 January 2006 to the Start Date (1 January 2009)).

¹² AER, 'Final Determination Victorian AMI Review 2009-11 AMI budget and charges application', October 2009.

AMI 2011 Charges Revision Application - Regulatory requirements and timetable

Clause 5I.3 sets out specific requirements in relation to the audit report in regard to actual expenditure for the year 2009. Further the Note to clause 5I.3 states:

'An audit report provided for the purposes of this clause is conclusive as to whether expenditure is for activities that are within scope.'

Clause 5I.4 requires the AER to reject expenditure that is out of scope at the time of commitment to or incurring that expenditure while clause 5I.5 allows the AER to approve expenditure in 2009 which is in excess of the Approved Budget for that year, where such expenditure is deemed to be prudent and conforms with the requirements of clause 5I.6.

AMI 2011 Charges Revision Application - Recoverable expenditure

3 Recoverable expenditure

3.1 Introduction

Clause 5I.1 of the Amending Order requires that the AER make a 'Revised Charges Determination' for the year 2011 in accordance with clause 4 and clause 5I. Clause 4 is the building block methodology used for both the SP AusNet Budget Application and the Charges Application Determinations, where the building blocks comprise:

- a return on capital;
- depreciation;
- maintenance and operating expenditure;
- a benchmark allowance for corporate income tax; and
- any other building block required by clauses 5D, 5E and 5I.

Clause 5I.2 of the Amending Order requires:

'In determining the building blocks the Commission must:

(a) *include actual capital expenditure and actual maintenance and operating expenditure for year t-1 where actual Total Opex and Capex for that year:*

(i) *is certified in an audit report under clause 5H.2;*

Note: An audit report provided for the purposes of this clause is not conclusive as to whether expenditure is for activities that are within scope.

(ii) *is for activities within scope at the time of commitment to or incurring of that expenditure; and*

(iii) *in the case of the initial AMI budget period, is up to 120% of the Approved Budget for that year or ...; and*

(b) *where year t-1 is the year commencing 1 January 2009 also include the expenditure determined pursuant to clause 5D.4.*

Note: Clause 5D.4 provides for the making of a determination with respect to certain items of expenditure that have been incurred between 1 January 2006 and the Start Date.'

For the purposes of this Charges Revision Application:

Period	Year
Year 't-1'	2009
Year 't'	2010
Year 't+1'	2011

AMI 2011 Charges Revision Application - Recoverable expenditure

3.2 Audit report for 2009 actual expenditure

Clause 5I.3 of the Amending Order states:

'Where year t-1 is the year commencing 1 January 2009 and notwithstanding clause 5I.2(a)(ii) and 5I.4, actual expenditure for that year included in the Charges Revision Application is for activities within scope if it is supported by an external auditors report, prepared and signed by that auditor, certifying that:

- (a) the expenditure incurred is for activities within scope at the time of commitment to or incurring of that expenditure; and*
- (b) the expenditure incurred has been incurred in the amount claimed.*

For the purposes of this clause, the external auditor must be an auditor approved by the Commission or in default of approval, nominated or engaged by the Commission. The Commission must approve a person as an auditor if:

- (a) that person is a member of CPA Australia, The Institute of Chartered Accountants in Australia or the National Institute of Accountants;*
- (b) that person holds a current Public Practice Certificate; and*
- (c) there is in place an agreement in writing (consent to which must not be unreasonably withheld by either the Commission or a distributor) between that person, the distributor and the Commission in which it is agreed that the auditor owes a duty to both the Commission and the distributor to provide an independent report as to the matters that person is certifying as to.*

Note: An audit report provided for the purposes of this clause is conclusive as to whether expenditure is for activities that are within scope.'

In accordance with clauses 5H.2, 5I.2 and 5I.3, SP AusNet engaged KPMG to undertake the audit of the 2009 expenditure. KPMG are members of the Institute of Chartered Accountants in Australia, hold a current Public Practice certificate and have an approved Agreement with the AER to conduct the Audit.

KPMG's audit report in Attachment 1 certifies that the expenditure incurred is for activities within scope and the expenditure incurred has been incurred in the amount claimed.

3.3 Operating and maintenance expenditure

3.3.1 Introduction

Operating and maintenance expenditure is considered to comprise the costs of activities reasonably required for the provision of regulated metering services under the Amending Order and to comply with a metering regulatory obligation or requirement. Schedule S2.6 of the Amending Order sets out the activities considered within scope for SP AusNet.

3.3.2 Components of operating and maintenance expenditure

Section 4 of the SP AusNet Budget Application detailed the operating and maintenance activities considered within scope for the delivery of regulated metering services and compliance with metering regulatory obligations or requirements. The table below, reflects Table 4.3 of the SP AusNet Budget Application and maps the relationship between the AER Budget Application template categories, the scope activities under Schedule 2 of the Amending Order and the scope of activities detailed in section 4 of the SP AusNet Budget Application.

AMI 2011 Charges Revision Application - Recoverable expenditure

Table 3.1: Operating & Maintenance Expenditure – Scope Relationship Map

Information Technology

Template Category	Schedule 2 Reference	SP AusNet Reference
1. Functional Technology Response per Functional Element (excludes hardware & 'platform' software)		
(a) Asset Management	s.2.6(b)(1)(iii), s.2.6(b)(2)(vii)(A)(1)	4.5
(b) Workforce Scheduling & Mobility	s.2.6(b)(1)(iii), s.2.6(b)(2)(vii)(A)(2)	4.5
(c) Connection Point Management	s.2.6(b)(1)(ii), s.2.6(b)(2)(vii)(C)(1)	4.5
(d) Outage Management	s.2.6(b)(1)(ii), s.2.6(b)(2)(vii)(B)(2)	4.5
(e) Network Management	s.2.6(b)(1)(ii), s.2.6(b)(2)(iv)(B)(1)	4.5
(f) Meter Data Management	s.2.6(b)(1)(ii), s.2.6(b)(2)(vii)(C)	4.5
(g) Performance & Regulatory Reporting	s.2.6(b)(1)(ii)(iii), s.2.6(b)(2)(vii)(C)(2)	4.5
(h) Revenue Management	s.2.6(b)(1)(ii), s.2.6(b)(2)(vii)(C)(1)	4.5
(i) Geospatial Information	s.2.6(b)(1)(ii)(iii), s.2.6(b)(2)(vii)(E)	4.5
(j) Program Support		
1(j)(i) Program Management & Architecture	s.2.6(b)(1)(ii)(iii), s.2.6(b)(2)(xi)	4.5
1(j)(ii) Testing	s.2.6(b)(1)(ii)(iii), s.2.6(b)(2)(xi)	4.5
1(j)(iii) Change Management	s.2.6(b)(1)(ii)(iii), s.2.6(b)(2)(xi)	4.5
1(j)(iv) Release Management	s.2.6(b)(1)(ii)(iii), s.2.6(b)(2)(xi)	4.5

AMI 2011 Charges Revision Application - Recoverable expenditure

Template Category	Schedule 2 Reference	SP AusNet Reference
2. IT Infrastructure (incl middleware, B2B & B2M)		
<i>Platform' software is not specific to a single functional element - it supports multiple elements</i>		
2.1 Hardware	s.2.6(b)(1)(ii), s.2.6(b)(2)(vii)	4.5
2.2 'Platform' software licences & maintenance	s.2.6(b)(1)(ii), s.2.6(b)(2)(vii)	4.5
2.3 Hardware support & 'platform' software support	s.2.6(b)(1)(ii), s.2.6(b)(2)(vii)	4.5
2.4 System integration / software customisation	s.2.6(b)(1)(ii)(iii), s.2.6(b)(2)(vii)	4.5
2.5 Other (please specify)	s.2.6(b)(1)(ii)(iii), s.2.6(b)(2)(vii)	4.5

Non-Information Technology

Template Category	Schedule 2 Reference	SP AusNet Reference
1. Other Metering & Communication Costs		
a) Meter reading	S2.6(a)(ii), S2.6(b)(1)(i),(ii), (viii),(ix),(x)	4.3
b) Meter data management	S2.6(a)(ii), S2.6(b)(1)(i),(b), (2)(i)(B)	4.3
c) Meter maintenance	S2.6(a)(ii), S2.6(b)(1)(i)	4.2
d) Customer service	S2.6(b)(2)(iii)	4.6
e) Communication Infrastructure Maintenance	S2.6(b)(1)(i)	4.4
f) Backhaul communication	S2.6(b)(2)(iv)(B)(1)	4.4
2. Project & Administrative Costs		
a) Technology trials	S2.6(b)(2)(iv)	4.7
b) Customer response trials	S2.6(b)(2)(vi)	4.7
c) Project management	S2.6(b)(2)(xi), S2.6(b)(2)(x)	4.7

AMI 2011 Charges Revision Application - Recoverable expenditure

<i>Template Category</i>	<i>Schedule 2 Reference</i>	<i>SP AusNet Reference</i>
d) <i>Training</i>	S2.6(b)(2)(x)	4.7
f) <i>AMIPO & AMI ISC costs</i>	S2.6(b)(2)(xi)(A)	4.7
g) <i>Audit & quality assurance</i>	S2.6(b)(2)(xi)(D)	4.7
h) <i>AMI budget & charges applications</i>	S2.6(b)(2)(xi)(G)	4.7
i) <i>Legal costs</i>	S2.6(b)(2)(xi)(G)	4.7
j) <i>Equity raising costs</i>	S2.6(b)(2)(xii)	4.7
k) <i>Finance & administration incl. treasury</i>	S2.6(b)(2)(xii)	4.7
l) <i>Management fees or overhead</i>	S2.6(b)(2)(xiii)	4.7

3.3.3 2009 – 2011 operating and maintenance expenditure

Clause 5H.1 of the Amending Order requires that an application:

- (b) *set out the actual:*
- (i) *Total Opex and Capex (broken down into actual capital expenditure and actual maintenance and operating expenditure); and*
 - (ii) *revenue (calculated in accordance with clause 4.1(k)) of the distributor from the provision of Regulated Services*
- in the year ('year t-1')[2009] immediately preceding year t [2010]; and*
- (c) *contain an updated forecast of the:*
- (i) *Total Opex and Capex (broken down into forecast capital expenditure and forecast maintenance and operating expenditure); and*
 - (ii) *revenue (calculated in accordance with clause 4.1(k)) of the distributor from the provision of Regulated Services*
- for:*
- (iii) *year t [2010]; and*
 - (iv) *the remaining year or years of the initial AMI budget period or the subsequent AMI budget period (as the case may be) [2011 in this instance].'*

Table 3.2 sets out SP AusNet's total actual and forecast operating and maintenance expenditure attributable to Regulated Services for the period 2009-2011 against the Approved Budget set out in Table 3.5 of the AMI Budget Final Determination¹³.

¹³ AER, 'Final Determination Victorian AMI Review 2009-11 AMI budget and charges application', October 2009 Table 3.5, p54.

AMI 2011 Charges Revision Application - Recoverable expenditure

Table 3.2: Total operating and maintenance expenditure (2009-2011)

(\$m, real 2008)

Operating and Maintenance expenditure	2009 (actual)	2010 (forecast)	2011 (forecast)	Total
Approved Budget	29.30	28.29	26.86	84.45
Proposed	25.85	40.39	41.21	107.45

3.3.4 2009 actual operating and maintenance expenditure

AMI 2011 Charges Revision Application - Recoverable expenditure

3.3.5 2010 forecast operating and maintenance expenditure

2009 was the first complete year of SP AusNet's AMI project operating under a known framework for Functionality and Service Levels, delivery timeframes and cost recovery. This has assisted in formulating the forecasts for 2010. The 2010 forecasts are based on actual costs incurred for four months of the year and the forecast for the remaining eight months has been informed by contracts, timing differentials, regulatory requirements and 2009 actual costs.

3.3.6 2011 forecast operating and maintenance expenditure

The 2011 forecasts are informed by contracts, timing differentials and regulatory requirements costs which are forecast to be incurred.

3.4 Capital expenditure

3.4.1 Introduction

Capital expenditure is considered to comprise the costs of activities reasonably required for the provision of regulated metering services under the Amending Order and to comply with a metering regulatory obligation or requirement. Schedule S2.6 of the Amending Order sets out the activities considered in scope.

3.4.2 Components of capital expenditure

Section 4 of the SP AusNet Budget Application detailed the capital activities considered within scope for the delivery of regulated metering services and compliance with metering regulatory obligations or requirements. The table below, reflects Table 4.3 of the SP AusNet Budget Application and maps the relationship between the AER's Budget Application template

AMI 2011 Charges Revision Application - Recoverable expenditure

categories, the scope activities under Schedule 2 of the Amending Order and the scope of activities detailed in section 4 of the SP AusNet Budget Application.

Table 3.3: Capital Expenditure – Scope Relationship Map

Information Technology

Template Category	Schedule 2 Reference	SP AusNet Reference
1. Functional Technology Response per Functional Element (excludes hardware & 'platform' software)		
(a) Asset Management	s.2.6(b)(1)(iii), s.2.6(b)(2)(vii)(A)(1)	4.5
(b) Workforce Scheduling & Mobility	s.2.6(b)(1)(iii), s.2.6(b)(2)(vii)(A)(2)	4.5
(c) Connection Point Management	s.2.6(b)(1)(ii), s.2.6(b)(2)(vii)(C)(1)	4.5
(d) Outage Management	s.2.6(b)(1)(ii), s.2.6(b)(2)(vii)(B)(2)	4.5
(e) Network Management	s.2.6(b)(1)(ii), s.2.6(b)(2)(iv)(B)(1)	4.5
(f) Meter Data Management	s.2.6(b)(1)(ii), s.2.6(b)(2)(vii)(C)	4.5
(g) Performance & Regulatory Reporting	s.2.6(b)(1)(ii)(iii), s.2.6(b)(2)(vii)(C)(2)	4.5
(h) Revenue Management	s.2.6(b)(1)(ii), s.2.6(b)(2)(vii)(C)(1)	4.5
(i) Geospatial Information	s.2.6(b)(1)(ii)(iii), s.2.6(b)(2)(vii)(E)	4.5
(j) Program Support		
1(j)(i) Program Management & Architecture	s.2.6(b)(1)(ii)(iii), s.2.6(b)(2)(xi)	4.5
1(j)(ii) Testing	s.2.6(b)(1)(ii)(iii), s.2.6(b)(2)(xi)	4.5
1(j)(iii) Change Management	s.2.6(b)(1)(ii)(iii), s.2.6(b)(2)(xi)	4.5
1(j)(iv) Release Management	s.2.6(b)(1)(ii)(iii), s.2.6(b)(2)(xi)	4.5

AMI 2011 Charges Revision Application - Recoverable expenditure

<i>Template Category</i>	<i>Schedule 2 Reference</i>	<i>SP AusNet Reference</i>
2. IT Infrastructure (incl middleware, B2B & B2M)		
<i>Platform' software is not specific to a single functional element - it supports multiple elements</i>		
2.1 Hardware	s.2.6(b)(1)(ii), s.2.6(b)(2)(vii)	4.5
2.2 'Platform' software licences & maintenance	s.2.6(b)(1)(ii), s.2.6(b)(2)(vii)	4.5
2.3 Hardware support & 'platform' software support	s.2.6(b)(1)(ii), s.2.6(b)(2)(vii)	4.5
2.4 System integration / software customisation	s.2.6(b)(1)(ii)(iii), s.2.6(b)(2)(vii)	4.5
2.5 Other (please specify)	s.2.6(b)(1)(ii)(iii), s.2.6(b)(2)(vii)	4.5

Non-Information Technology

<i>Template Category</i>	<i>Schedule 2 Reference</i>	<i>SP AusNet Reference</i>
1. Metering & Communications Equipment Purchase		
a) Meters	S2.6(a)(i), S2.6(b)(1)(i)	4.2
c) WAN	S2.6(b)(2)(iv)(B)(1)	4.5.1
e) Communication Infrastructure	S2.6(b)(1)(i), S2.6(b)(2)(i)(A)	4.4
2. AMI Installation Services		
a) Meters	S2.6(b)(1)(i), S2.6(b)(2)(i)(A)	4.2
c) WAN	S2.6(b)(1)(i)	4.5.1
e) Communication Infrastructure	S2.6(b)(1)(i), S2.6(b)(2)(i)	4.4

3.4.3 2009-2011 capital expenditure

As noted in section 2.6 above, Clause 5H.1 of the Amending Order requires actual and forecast capital expenditure for the period 2009-2011.

AMI 2011 Charges Revision Application - Recoverable expenditure

Table 3.4 sets out SP AusNet's total capital expenditure attributable to Regulated Services for the period 2009-2011 against the Approved Budget set out in Table 3.5 of the AMI Budget Final Determination¹⁴.

Table 3.4: Total capital expenditure (2009-2011)

(\$m, real 2008)

AMI Capital expenditure	2009 (actual)	2010 (forecast)	2011 (forecast)	Total
Approved Budget	67.90	50.90	102.44	221.24
Proposed	36.76	78.39	96.43	211.58

3.4.4 2009 actual capital expenditure

¹⁴ AER, 'Final Determination Victorian AMI Review 2009-11 AMI budget and charges application', October 2009, Table 3.5, p54.

AMI 2011 Charges Revision Application - Recoverable expenditure

3.4.5 2010 forecast capital expenditure

The 2010 forecasts are based on actual costs incurred for four months of the year and the forecast for the remaining eight months has been informed by contracts, timing differentials, regulatory requirements and 2009 actual costs.

3.4.6 2011 forecast capital expenditure

The 2011 forecasts are informed by contracts, timing differentials and regulatory requirements costs which are forecast to be incurred.

3.5 Cost of capital financing

The cost of capital financing comprises a return on capital (weighted average cost of capital or WACC) to be applied to the Regulatory Asset Base and a return of capital allowance (depreciation). Depreciation for 2009 is required to be recalculated in line with actual capital expenditure and both these categories effect the metering asset base which in turn will effect the actual calculation of return on capital.

AMI 2011 Charges Revision Application - Recoverable expenditure

3.5.1 Regulatory depreciation (Return of capital)

Regulatory depreciation enables the recovery of the capital invested and is a function of the assets forming the asset base and the period over which the investment in those assets is to be recovered.

For the period 1 January 2006 to the Start Date actual depreciation costs have been used as required by clause 5 D.2 of the Amending Order.

Post the Start Date, Clause 4.1(g) stipulates that asset lives of 15 years for metering assets and 7 years for telecommunications and IT systems are to be used in the calculation of regulatory depreciation, while Clause 4.1(g)(v) requires that in respect of accumulation meters and manually read interval meters, the asset lives must end no later than 31 December 2013.

In the AMI Budget Final Determination¹⁵ the AER accepted SP AusNet's proposed depreciation methodology and standard lives.

2009 Actual depreciation

Changes to the type and the timing of capital expenditure incurred affect the depreciation calculation. The 2009 actual depreciation of \$9.80 million (real 2008) is \$2.23 million (real 2008) lower than the 2009 Approved Budget.

Table 3.6 sets out SP AusNet's total depreciation attributable to Regulated Services for the period 2009-2011 against the Approved Budget set out in Table 3.5 of the AMI Budget Final Determination¹⁶.

Table 3.6: Depreciation (2009-2011)

(\$m, real)

Depreciation	2009 (actual)	2010 (forecast)	2011 (forecast)	Total
Approved Budget	12.03	19.77	26.18	57.98
Proposed	9.80	17.65	26.34	53.79

3.5.2 Forecast metering asset base (2009-2011)

SP AusNet's metering asset base for each year of the period 2006 – 2011 as determined as part of the AER's AMI Budget Final Determination¹⁷ is set out in Table 3.7 below.

¹⁵ Ibid., section 4.4.5, p70.

¹⁶ Ibid, Table 3.5, p54.

¹⁷ Ibid., Table 4.15, p69.

AMI 2011 Charges Revision Application - Recoverable expenditure

Table 3.7: Forecast metering asset base

(\$'000, real 2008)

Metering Asset Base						
Year	2006	2007	2008	2009	2010	2011
Opening (1 Jan)	-	7,584	13,698	21,039	91,431	122,553
Pre Start Date CapEx	n/a	n/a	n/a	14,520	n/a	n/a
CapEx	7,967	7,109	8,847	67,901	50,896	102,441
Depreciation	383	995	1,506	12,029	19,774	26,177
Disposals	-	-	-	-	-	-
Closing (31 Dec)	7,584	13,698	21,039	91,431	122,553	198,817

Note: Capital expenditure is net of customer contributions

Pre-start AMI capital costs include a WACC adjustment for the time value of money

3.5.3 Metering Asset Base 2009-2001 adjusted for Actual expenditure in 2009

SP AusNet's metering asset base adjusted for the differences in capital expenditure and depreciation in 2009 is presented in Table 3.8 below.

Table 3.8: Revised metering asset base

(\$'000, real 2008)

Metering Asset Base			
Year	2009	2010	2011
Opening (1 Jan)	21,039	62,526	123,265
Pre Start Date capex	14,520	n/a	n/a
Capital Expenditure	36,763	78,392	96,428
Depreciation	9,796	17,653	26,343
Disposals	-	-	-
Closing (31 Dec)	62,526	123,265	193,350

3.5.4 Cost of capital

The cost of capital represents the financial return that an investor seeks when making an investment decision and is determined by the market, based on the availability of finance and the risk of the investment proposed. Clause 4.1(d) of the Amending Order requires that the return on

AMI 2011 Charges Revision Application - Recoverable expenditure

capital is to be calculated using the WACC as defined by clause 6.5.2 (b) of the National Electricity Rules.

As part of the AMI Budget Final Determination,¹⁸ the AER made a determination on the WACC parameters to apply for the period 1 January 2009 to 31 December 2013 (the 'initial AMI WACC period'). The parameters are set out in Table 3.9 below.

Table 3.9: WACC – Capital Asset Pricing Model parameters

<i>Parameter</i>	
Gearing	60
10 year risk-free rate (nominal)	4.63
Market risk premium	6.00
Equity beta	1.00
Cost of equity	10.63
Cost of Debt (BBB+)*	8.76
Debt risk premium	4.00
Debt raising cost	0.125
Nominal Vanilla WACC	9.51

*Note: * includes debt raising costs of 0.125 per cent.*

3.5.5 Return on Capital 2009-2011

As described in section 3.5 the building block calculation for the return on capital will be effected by the changes to capital expenditure and depreciation.

Table 3.10 sets out SP AusNet's total return on capital attributable to Regulated Services for the period 2009-2011 against the Approved Budget set out in Table 3.5 of the AMI Budget Final Determination¹⁹.

¹⁸ Ibid., Table 4.6, p61.

¹⁹ Ibid., Table 3.5, p54.

AMI 2011 Charges Revision Application - Recoverable expenditure

Table 3.10: Return on Capital (2009-2011)

(\$m, real)

AMI Return on Capital	2009 (actual)	2010 (forecast)	2011 (forecast)	Total
Approved Budget	4.30	7.24	10.89	22.43
Proposed	3.32	6.29	10.72	20.33

3.5.6 Taxation

Clause 4.1(b)(iv) of the Amending Order provides for a benchmark allowance for corporate income tax as one of the required building blocks. The AER carried forward the Distribution Network Service Providers' tax losses associated with metering during 2006–08 (under clause 4.1(e)(ii)) and benchmarked declining balance depreciation as the tax depreciation method (under clause 4(f)) as described in section 4.4.6 of the AMI Budget Final Determination²⁰.

3.6 Reconciliation to Approved Budget

The following tables summarise SP AusNet's Approved Budget and forecast budget for the 2009-2011 period. SP AusNet's forecast budget for the 2009-2011 period is 4.4% above the Approved Budget and the variances in each year are merely due to timing issues. SP AusNet is proposing to under-recover this increase in expenditure in this Charges Revision Application (refer to section 5.2).

Table 3.11: Approved Budget (2009-2011)

(\$m, real 2008)

Approved Budget	2009	2010	2011	Total
Approved Operating and Maintenance Expenditure	29.30	28.29	26.86	84.45
Approved Capital Expenditure	67.90	50.90	102.44	221.24
TOTAL Approved Budget	97.20	79.19	129.30	305.69

²⁰ Ibid., p70.

AMI 2011 Charges Revision Application - Recoverable expenditure

Table 3.12: Forecast Budget Expenditure (2009-2011)

(\$m, real 2008)

	2009 (actual)	2010 (forecast)	2011 (forecast)	Total
Operating and Maintenance Expenditure	25.85	40.39	41.21	107.45
Capital Expenditure	36.76	78.39	96.43	211.58
TOTAL	62.61	118.78	137.64	319.03

AMI 2011 Charges Revision Application - Revenue requirement

4 Revenue requirement

4.1 Introduction

In regard to revenue requirement, this Charges Revision Application is required to include:

- for the year 2009, revenue (calculated in accordance with clause 4.1(k)); and
- for the years 2010 and 2011, an updated forecast of revenue (calculated in accordance with clause 4.1(k)).

4.2 2009 actual revenue requirement

Clause 4.1(k) of the Amending Order requires that:

“For the purposes of clauses 4.1(o) and 5H.1, revenue must be determined as follows:

- (i) *Where actual revenue is available, by using the revenue figures in the distributor’s Regulatory Accounting Statements.”*

SP AusNet’s actual 2009 revenue as shown in the Regulatory Accounting Statements is \$37.93 million.

4.3 2010-11 forecast revenue requirement

As there has been no determination of revised charges under clause 5I for the years 2010 and 2011, clause 4.1k(ii)(B)(2) of the Amending Order requires that the revenue be determined by multiplying the initial charges for that year determined in accordance with clauses 5D and 5E by the forecast quantities of the service category to which the charges related for that year.

SP AusNet’s forecast tariff revenue requirement for 2010 and 2011 is shown in Table 4.1.

Table 4.1: Forecast AMI Revenue 2010-2011

(\$m, nominal)

	2010	2011
Forecast Tariff Revenue	63.40	70.58

4.4 Total Revenue requirement

Table 4.2 summarises the Total Revenue Requirement for the period 2009 – 2011.

AMI 2011 Charges Revision Application - Revenue requirement

Table 4.2: Total Revenue Requirement

(\$m, nominal)

	<i>2009 Actual</i>	<i>2010 Forecast</i>	<i>2011 Forecast</i>	<i>Total</i>
Return on Capital	5.93	7.92	16.0	29.85
Return of Capital (Depreciation)	7.84	17.54	24.41	49.79
Operating & Maintenance	27.13	42.94	44.93	115.0
Net 2006-08 Offset	(6.14)	-	-	(6.14)
Building Blocks Revenue Requirement	34.76	68.40	85.34	188.50
Forecast Tariff Revenue	37.93	63.40	70.58	171.91

For ease of reconciliation, Table 4.3 below summarises the Total Revenue Requirement for the period 2009-2011 in real 2008.

Table 4.3 Total Revenue Requirement

(\$m, real 2008)

	<i>2009 Actual</i>	<i>2010 Forecast</i>	<i>2011 Forecast</i>	<i>Total</i>
Return on Capital	3.32	6.29	10.72	20.33
Return of Capital (Depreciation)	9.80	17.65	26.34	53.79
Operating & Maintenance	25.85	40.39	41.21	107.45
Net 2006-08 Offset	(5.85)	-	-	(5.85)
Building Blocks Revenue Requirement	33.12	64.33	78.27	175.72
Forecast Tariff Revenue	36.13	58.88	64.73	159.74

AMI 2011 Charges Revision Application - Regulated Services Charges

5 Regulated Services Charges

Clause 5I.1 of the Amending Order requires that a determination on the revised charges to apply for Regulated Services for 2011 must be determined in accordance with clause 4 and clause 5I.

5.1 Regulated Services charges

5.1.1 2010 Charges

In its 2009 AMI Initial Charges Application, consistent with the requirements of clause 4.1(n) of the Amending Order, SP AusNet proposed and the AER accepted a change in approach to metering tariffs from one of separate tariffs for metering data services and meter provision services to one where a single tariff per meter-type applied.

5.1.2 Explanation of change in charges

In its 2009 AMI Initial Charges Application, SP AusNet had proposed metering tariffs in the following categories:

- Single phase, single element with contactor;
- Single phase, two element with contactors;
- Multi phase, one contactor (1 load control);
- Multi phase, two contactors (2 load controls); and
- Multi phase Current Transformer connected.

The AER's Draft Determination disallowed costs for load control which was removed by SP AusNet prior to the AMI Budget Final Determination. However, SP AusNet inadvertently kept the metering tariff categories names in the templates unchanged. The metering tariff categories have now been corrected in this Charges Revision Application and are reflected in Table 5.1 below.

Table 5.1: Metering tariff category amendments

<i>Previous metering tariff category</i>	<i>Revised metering tariff category</i>
Single phase, single element with contactor	Single phase single element
Single phase, two element with contactors	Single phase, two element with contactor
Multi phase, one contactor (1 load control)	Multiphase
Multi phase, two contactors (2 load controls)	Multi phase, direct connected with contactor
Multi phase Current Transformer connected	Multi phase Current Transformer connected

AMI 2011 Charges Revision Application - Regulated Services Charges

5.1.3 2011 Regulated Services Charges

Table 5.2 below sets out the AER's determination on Regulated Services Charges for 2010 and SP AusNet's proposed charges for 2011.

Table 5.2: Regulated Services Charges

(\$nominal, GST exclusive)

Annual metering charge	2010 actual	2011 proposed
Single phase single element	86.10	93.83
Single phase, two element with contactor	98.93	107.81
Multiphase	119.51	130.25
Multi phase, direct connected with contactor	132.58	144.49
Multi phase Current Transformer connected	170.71	186.05

5.2 Reduced Charges

Clause 4.1(p) of the Amending Order allows:

*if a distributor proposes charges ("**reduced charges**") that have the effect that the distributor does not recover, in any year in the period from 1 January 2010 to the End Date, the net present value of the total costs incurred by the distributor for Regulated Services in that year, the Commission may approve those reduced charges. For the purposes of this paragraph, costs and revenues shall be determined in the manner provided by clause 4.1(o). If the Commission does not approve the reduced charges, then the charges of the distributor must be determined in accordance with clause 4.1(o).*

SP AusNet is aware of customers' concern regarding the cost of the AMI program and as such is proposing to not recover the net present value of the total costs forecast to be incurred in 2011. This decision results in SP AusNet proposing 2011 prices similar to those approved in the AMI Budget Final Determination²¹.

²¹ AER, 'Final Determination Victorian AMI Review 2009-11 AMI budget and charges application', October 2009.

AMI 2011 Charges Revision Application -

Attachment 1 – Audit Opinion on 2009 Actual Expenditure

Attachment 1 – Audit Opinion on 2009 Actual Expenditure