SPI Electricity Pty Ltd

Advanced Metering Infrastructure

Remote Service Charges Application

30 August 2013

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 purpose is 'to provide our customers with superior network and energy solutions.' 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 Asset Management 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

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Executive Summary

This submission is an application for approval of the following services:

- Remote Special Meter Reading;

- Remote Re-energisation;

- Remote De-energisation; and

- Remote Meter Reconfiguration.

These services are available as part of the Advanced Metring Infrastructure (**AMI**) meter rollout. The provision of these services will provide consumer benefits to those consumers who have a logically converted AMI meter.

SP AusNet is anticipating having these remote AMI services available by September 2013.

SP AusNet has undertaken a comprehensive bottom-up costing exercise to determine the estimated costs of providing remote AMI services. SP AusNet proposes the following charges to apply from 1 January 2014 to 31 December 2015.

Name of service	Proposed regulated charges (Real 2013$)
Remote Re-energisation	$2.45
Remote De-energisation	$3.35
Remote Meter Reconfiguration	$20.15
Remote Special Meter Read	$0.55

1   Introduction

1.1   Background

The Australian Energy Regulator (**AER**) in its 2011-15 Victorian electricity distribution draft decision released on 4 June 2010, indicated that remotely enabled AMI services will be regulated as excluded services under the framework provided by the Essential Services Commission of Victoria (**ESC**) Electricity Industry Guideline 14 (**Guideline 14**) and the Victorian distribution licences.

In February 2011 the AER released the Final Decision for Victorian electricity Distribution Network Services Providers **(DNSPs)**, AMI Remote Services Charges (**Remote Charges Final Decision**). In this Remote Charges Final Decision the AER indicated that "DNSPs are required to submit to the AER statements for approval of AMI Remote Services Charges for 2013 onwards by 31 August 2012".

On 14 August 2012 a joint letter from CitiPower, Jemena, Powercor, SP AusNet and United Energy was sent to the AER requesting that the AER delay the commencement of its review of AMI Remote Service charges until 31 August 2013 and continue with current charges being held constant in real terms. The AER responded with a letter on 31 August 2012 noting that they are required to complete a review in accordance with Guideline 14 and the AMI Order in Council (**AMI Order**). The four distributors intending to provide these services from 1 January 2013 (CitiPower, Jemena, Powercor, and United Energy) submitted proposals to the AER on 14 September 2012. At this time SP AusNet was not providing these services and did not submit a remote services charges application.

SP AusNet is intending to provide for these services from September 2013.

1.2   Purpose

In accordance with Guideline 14 SP AusNet is required to submit a statement of its proposed charges and terms and conditions for the provision of excluded services for approval by the regulator. The period covered by this application is 1 January 2014 to 31 December 2015.

1.3   Format

- Section 2 sets out the regulatory requirements.

- Section 3 sets out the excluded services and the terms and conditions.

- Section 4 provides details relating to remote re-energisation and de-energisation.

- Section 5 provides details relating to remote meter reconfiguration.

- Section 6 provides details relating to remote special meter reads.

- Section 7 provides a summary of proposed charges for remote services.

2   Regulatory requirements

The AER must carry out a review of AMI remote service changes in accordance with the process set out in the AMI Order and Guideline 14.

AMI remote service charges are regulated under Guideline 14 as excluded service charges. SP AusNet is required to provide its statement of proposed charges and terms and conditions in accordance with Section 5.5 and 5.6.2 of Guideline 14. At a minimum the distributor must include the following information:

- A description of the AMI remote services including details of what is actually provided as part of that service;

- An explanation of any change in the proposed charge or terms and conditions for the AMI remote services including the reasons for any change in, or change in the magnitude of costs, incurred by the distributor in providing the services and the effect of any such change on the distributors proposed charge and terms and conditions; and

- Details of what is required of the distributor in providing AMI services such as material and labour, including labour type, hourly rates and estimated man hours to complete the work.

Section 5.6.2 of Guideline 14 highlights the principles the regulator must consider when deciding whether the proposed charges are fair and reasonable. These include:

- The *cost of the service provision* – a distributor's charge and terms and conditions for an excluded service must be based on the costs incurred by the distributor in providing the excluded service.

- The *cost allocation methodology* – in respect of the costs incurred by a distributor in providing an excluded service the costs must not include cost in respect of which the distributor is already remunerated and those costs must only include an appropriate allocation of any shared or common costs incurred in providing the excluded service.

- *Cost differentials* – a distributor's charge and terms and conditions for an excluded service must be the same for all customers unless there is material difference in the costs of providing the excluded service to different customers or classes of customers.

- The *simplicity of the pricing structure* – the charges and terms and conditions for excluded services should be simple and easily comprehensible.

SP AusNet is proposing remote services that are in line with these principles. In particular, the costs of providing these services are the same for all classes of customers, where the customer has a AMI meter operating remotely, and the fee structure is simple, transparent and easily comprehensible.

3   AMI Remote Services

3.1   Description

The AER's Remote Charges Final Decision sought to make the AMI remote services description consistent across distributors and consistent with proposed future national processes where possible.

The descriptions of AMI remote services in the AER's Remote Charges Final Decision are:

- **Remote Special Meter Read** – an actual meter read performed outside of the usual reading cycle for the meter.

- **Remote De-Energisation** – refers to the use of the AMI/smart metering infrastructure communications system to control a supply contactor inside the meter such that the customer is disconnected from the DNSP's network.

- **Remote Re-Energisation** – refers to the use of the AMI/smart metering infrastructure communications system to control a supply contactor inside the meter such that the customer is connected to the DNSP's network.

- A **meter reconfiguration** is a change to the software in the meter that enables changes to parameters for specific meter function. Examples of meter reconfigurations include:

  o Changing the switching times for controlled loads; and

  o Changes associated with the installation of embedded generation and/or the feed in tariff.

SP AusNet is reasonably supportive of these charge descriptions. However, in the case of SP AusNet, a remote special meter read is providing interval meter data for the previous day, it is not providing a within day or part day meter read.

Each remote service is discussed in further detail in the subsequent chapters.

3.2   Cost build up methodology

SP AusNet has adopted a bottom up approach to develop the proposed remote AMI service charges. In deriving the proposed charges for remote AMI services, SP AusNet has followed an overarching method of passing on SP AusNet's best estimates of its actual costs of providing the service to the customer.

SP AusNet has estimated the expected volumes of eligible Service Orders based on analysis on the current Service Orders and the number of retailers with an approved Memorandum of Understanding (**MOU**) by Energy Safe Victoria (**ESV**). As such the 'price cap' approach only allows SP AusNet to recover costs as incurred.

As these services are offered to an increasing number of customers over time, information regarding the actual costs associated with providing remote AMI services will be collated. As such these Remote Service Charges may be adjusted over time to reflect actual costs, subject to regulatory approval.

For supporting analysis relating to SP AusNet's cost build up methodology please refer to Appendix 1.

3.3 Commercial terms and conditions

SP AusNet proposes that the commercial terms and conditions for providing remote AMI services upon request by a customer or a retailer on behalf of a customer should be the same as the terms and conditions in sections 4.2, 6 and 7 of the Use of System Agreement between SP AusNet and the relevant retailer.

4   Remote re-energisation and de-energisation

4.1   Service description

Remote re-energisation and de-energisation will become possible due to the AMI roll-out. Safety approval for new operating modes is required by ESV making this functionality available to an increasing number of sites as the AMI program continues.

As at 30 August 2013, nine retailers have a MOU approved by ESV and are approved to commence remote re-energisation and de-energisation including:

- Red Energy;
- Origin Energy;
- Powerdirect;
- AGL;
- Momentum Energy;
- Australian Power & Gas;
- Lumo Energy;
- Neighbourhood Energy; and
- Alinta Energy.

Two major retailers in SP AusNet's network, EnergyAustralia and Simply Energy, are yet to have an approved MOU.

4.2   Eligibility criteria for remote re-energisation and de-energisation

There are eight eligibility criteria for a re-energisation or de-energisation Service Order request to be completed remotely. These eligibility criteria are based on various rules and constraints including: B2B rules; physical metering constraints; Victorian Distribution Code obligations; and/or critical business rules from the Victorian AMI Process Model.

1. Service Order is not rejected on receipt;
2. Meter has been logically converted to a Type 5 remotely read AMI meter;
3. Meter is not a current transformer (CT) AMI meter;
4. Site has not been without power for more than a year prior to re-energisation;
5. Site is not registered as sensitive load or as requiring life support (unless the Retailer has an inflight request to remove this status flag);
6. Site has not been de-energised at the fuse;
7. Retailer has a current MOU with ESV regarding the use of remote de-energisation and re-energisation; and
8. Retailer has used a B2B Service Order Subtype appropriate for remote services.

4.3   Process

SP AusNet is working towards a fully automated service for remote re-energisations and de-energisations. As the IT systems will take some time to mature, it is expected that there will be minor defects of a non-critical nature which will require manual back office intervention.

A percentage of Service Order requests will require a level of upfront manual validation. Conditions for upfront manual validation include:

- Defect on-site (including safety and access issues);

- Co-incident New Connection Service Order received;

- Co-incident re-energisation/de-energisation Service Orders pairs within 10 days (e.g. re-energisation Service Order before a de-energisation Service Order); or

- Any co-incident Adds and Alts Service Order with a re-energisation Service Order.

There are two further conditions for upfront manual validation for remote de-energisation:

- Site is registered with a life support or sensitive load flag; or

- Consumer Administration and Transfer Solution (**CATS**) Change Request currently in Pending/Open status.

Due to the interconnected nature of SP AusNet's system architecture and the likelihood of minor system defects continuing into the early life cycle support phase, SP AusNet conservatively expects 70% of eligible Service Orders being processed remotely without further manual processing. As the IT system matures, the number of exceptions, and subsequently the level of manual intervention, is expected to fall.

Appendix 2 provides an illustrative representation on SP AusNet's process for remote service requests.

4.3.1 Reasons for failure to complete remotely

In certain circumstances a re-energisation or de-energisation Service Order request may fail to be completed remotely due to communication or unforeseen IT exceptions.

Communication exceptions arise due to:

- A temporary lack of communication with the AMI meter;

- An inconsistency at a multi-metered site; or

- A data synchronisation issue.

Additionally, SP AusNet's initiating system, the Customer Information System (**CIS**), may time out waiting for a response, due to an unforeseen reason.

4.4 Proposed charges

SP AusNet proposes that, consistent with the current treatment of the manual provision of this service, the charges be controlled by way of price cap on the actual charge to the customer.

In developing these services SP AusNet has used back office labour charges related to these services, there is no field labour component in these charges.

The assumptions used to calculate the price caps are based on analysis of historical B2B transactions between November 2012 and May 2013.

4.4.1 Remote re-energisation charge

Assumptions	
Service Orders meeting the eligibility criteria for remote re-energisation	988 per month
Manual validation for remote re-energisation (5 minutes)	10% of eligible Service Orders
System timeout intervention for remote re-energisation (additional 20 minutes)	10% of eligible Service Orders
Hourly cost for manual intervention	$42 per hour
Service Orders successfully performed remotely (70% of eligible Service Orders)	702 per month
Price cap per remote re-energisation	**$2.45**

4.4.2 Remote de-energisation charge

Assumptions	
Service Orders meeting the eligibility criteria for remote de-energisation	806 per month
Manual validation for remote de-energisation (5 minutes)	28% of eligible Service Orders
System timeout intervention for remote de-energisation (additional 20 minutes)	10% of eligible Service Orders
Hourly cost for manual intervention	$42 per hour
Service Orders successfully performed remotely (70% of eligible Service Orders)	572 per month
Price cap per remote de-energisation	**$3.35**

5   Remote meter reconfiguration

5.1   Service description

The remote meter reconfiguration service has become possible due to the AMI roll-out. This functionality will become steadily available to an increasing number of sites as the AMI program continues. The service will be provided to a customer through a retailer acting on behalf of a customer, who has requested the re-configuration of an advanced interval meter. Examples of meter configuration include, but are not limited to:

- reconfiguration of the time of use periods or maximum demand settings in a meter, to align the meter with a tariff change;

- reconfiguration following the installation of a solar installation in order to measure import and export of energy flows; or

- reconfiguration of load control turn-on/turn-off times.

The remote meter reconfiguration charge will be applied where the service is provided remotely, with the manual meter reconfiguration charge applying where the reconfiguration is provided manually.

5.2   Eligibility criteria for remote meter reconfiguration

There are four eligibility criteria for a meter reconfiguration Service Order to be completed remotely. These eligibility criteria are based on various rules and constraints including: B2B rules; physical metering constraints; Victorian distribution code obligations; and/or critical business rules from SP AusNet's AMI process model:

1. Service Order is not rejected on receipt;

2. Meter has been logically converted to a Type 5 AMI meter;

3. Site is not de-energised at the fuse; and

4. Site is not registered as sensitive load or as requiring life support (unless the Retailer has an inflight request to remove this status flag).

5.3   Process

SP AusNet's process for remote meter reconfigurations is currently semi-automated and includes a combination of manual back office labour and automated processes to deliver this remote service.

When performing a remote meter reconfiguration there are a number of activities that are performed manually:

- Determine whether the correct paperwork has been provided;

- Acknowledge the B2B Service Order;

- Determine the correct meter configuration to be set up;

- Change the Network Tariff in CIS so that it correlates with that shown in the B2B Service Order request;

- Monitor for completion of the internal meter reconfiguration Service Order, and subsequently complete the B2B Service Order;

- Check whether the meter configuration is appropriate for the meter type;

- Verify that the meter configuration has been successful; and

- Complete details in the meter reconfiguration Service Order in CIS.

The cost build up approach allows 12 minutes to review and assess each Service Order upon receipt of a B2B request for remote meter reconfiguration.

During this B2B end-to-end process exceptions will occur. It is expected that for approximately 10 per cent of meter reconfigurations an additional 20 minutes of manual back office support will be required.

Due to the interconnected nature of SP AusNet's system architecture and the likelihood of minor system defects continuing into the early life cycle support phase SP AusNet conservatively expects 70% of eligible Service Orders being processed remotely without further manual processing. As the IT system matures, the number of exceptions, and subsequently the level of manual intervention, is expected to fall.

Appendix 2 provides an illustrative representation on SP AusNet's process for remote service requests.

5.3.1 Reasons for failure to complete remotely

In certain circumstances a meter reconfiguration request may fail to be completed remotely due to communication or unforeseen IT exceptions.

Communication exceptions arise due to:

- A temporary lack of communication with the AMI meter;

- Complexities with a multi-metered site; or

- Data synchronisation issues.

Possible scenarios leading to an unforeseen IT exception include:

- Confirmation of re-configuration not acknowledged;

- A lack of an automated response from the AMI meter advising that the service has been successfully completed; or

- An automated confirmation from the AMI meter not arriving in a timely manner.

Due to the complexity of meter reconfigurations a certain level of user discretion is also afforded during the manual validation process. User discretion is required to ascertain whether the metering alterations requested in the Service Order are compatible with the meter type, meter program or existing time switches in the metering installation. Such complexities can prevent the remote reconfiguration of a meter.

5.4   Proposed charges

SP AusNet proposes that the charges for this service be controlled by way of a price cap on the actual charge to the customer.

In developing these services SP AusNet has used back office labour charges related to these services, there is no field labour component in these charges.

The assumptions used to calculate the price caps are based on analysis of historical B2B transactions between November 2012 and May 2013.

5.4.1 Remote meter reconfiguration charge

Assumptions	
Service Orders for remote meter reconfiguration received	540 per month
Manual validation for remote meter reconfiguration (12 minutes)	100% of Service Orders received
Service Orders meeting the eligibility criteria for remote meter reconfiguration	350 per month
System timeout intervention for remote meter reconfiguration (additional 20 minutes)	10% of eligible Service Orders
Hourly cost for manual intervention	$42 per hour
Service Orders successfully performed remotely (70% of eligible Service Orders)	250 per month
Price cap per remote meter reconfiguration	**$20.15**

6 Remote special meter reads

6.1 Service description

Remote special meter reading has become possible due to the AMI roll-out mandated by the Victorian government. This functionality will become gradually available to an increasing number of sites as the AMI program continues. The service provided is identical to a manual special meter read. However, the underlying costs of the services are different, as the service will be largely automated rather than through a site visit from a meter reader.

The remote special meter charge will be applied where the service is provided remotely, with the manual special meter read charge applying where the special meter read is provided manually.

6.2 Eligibility criteria for remote special read

There are two eligibility criteria for a special meter read Service Order to be completed remotely. These eligibility criteria are based on various rules and constraints including: B2B rules and physical metering constraints:

1. Service Order is not rejected on receipt; and

2. Meter has been logically converted to a Type 5 AMI meter.

6.3 Process

SP AusNet is working towards a fully automated service for remote special meter reads. As the IT systems will take some time to mature, it is expected that there will be minor defects of a non-critical nature which will require a level of manual intervention.

Conditions for upfront manual validation include:

- Co-incident New Connection Service Order received; or

- The Service Order with the subtype of 'Check Read' is received from a participant that is not the current Financially Responsible Market Participant (**FRMP**).[1]

Due to the interconnected nature of SP AusNet's system architecture and the likelihood of minor system defects continuing into the early life cycle support phase SP AusNet expects 88% of eligible Service Orders being processed remotely without further manual processing. As the IT system matures, the number of exceptions, and subsequently the level of manual intervention, is expected to fall.

Appendix 2 provides an illustrative representation on SP AusNet's process for remote service requests.

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[1] In the instance where the previous FRMP asks for a special meter read.

6.3.1 Reasons for failure to complete remotely

In certain circumstances a special meter read Service Order may fail to be completed remotely due to communication or unforeseen IT exceptions.

Communication exceptions arise due to:

- A temporary lack of communication with the AMI meter;
- No actual read available; or
- A data synchronisation issue.

Additionally, SP AusNet's initiating system – CIS – may time out waiting for a response, due to an unforeseen reason.

6.4   Proposed charges

SP AusNet proposes that, consistent with the current treatment of the manual provision of this service, the charges be controlled by way of price cap on the actual charge to the customer.

In developing these services SP AusNet has used back office labour charges related to these services, there is no field labour component in these charges.

The assumptions used to calculate the price cap are based on analysis of Service Orders received between November 2012 and May 2013.

6.4.1 Remote special meter read charge

Assumptions	
Service Orders meeting the eligibility criteria for remote special meter read	2,490 per month
Manual validation for remote special meter read (5 minutes)	4% of eligible Service Orders
System timeout intervention for remote special meter read (additional 10 minutes)	5% of eligible Service Orders
Hourly cost for manual intervention	$42 per hour
Service Orders successfully performed remotely (88% of eligible Service Orders)	2,210 per month
Price cap per remote special meter read	**$0.55**

7   Summary of regulated charges

SP AusNet proposes that, consistent with the current treatment of the manual provision of this service, the charges be controlled by way of price cap on the actual charge to the customer.

Table 7.1: Summary of proposed regulated charges

Price cap per remote service (real 2013$)	1 January 2014 – 31 December 2015
Remote re-energisation	**$2.45**
Remote de-energisation	**$3.35**
Remote meter reconfiguration	**$20.15**
Remote special meter read	**$0.55**

Appendix 1: Cost methodology analysis

Detailed Charges Analysis

REMOTE	Re-Energisation	De-Energisation	Meter Reconfiguration	Special Read
ELIGIBLE PER MONTH	988	806	352	2,493
UPFRONT MANUAL VALIDATION				
NUMBER PER MONTH	99	228	542	100
TIME (hours)	0.08	0.08	0.20	0.08
TOTAL UPFRONT MANUAL VALIDATION TIME (hours)	**8.2**	**19.0**	**108.3**	**8.3**
SYSTEM TIMEOUT				
NUMBER PER MONTH	99	81	35	125
TIME (hours)	0.33	0.33	0.33	0.17
TOTAL BACK OFFICE TIME DUE TO SYSTEM TIMEOUT (hours)	**33**	**26.9**	**11.74**	**20.8**
HOURLY COST FOR BACK OFFICE SUPPORT ($)	**42**	**42**	**42**	**42**
TOTAL MONTHLY TIME (hours)	41.2	45.9	120.1	29.1
TOTAL MONTHLY COST ($)	**1,729**	**1,926**	**5,043**	**1,223**
NUMBER OF SERVICE ORDERS COMPLETED REMOTELY	**702**	**572**	**250**	**2,211**
CHARGE PER SERVICE	**$ 2.46**	**$ 3.37**	**$ 20.17**	**$ 0.55**

Information regarding estimated hourly labour rate

According to the Australian Bureau of Statistics labour costs survey (2010-11), an on-costs multiplier of 1.16 is appropriate for the 'Electricity, Gas, Water and Waste Services' industry, which includes: employee earnings, superannuation, payroll tax, worker's compensation and fringe benefits tax.[2]

The Victorian Guide to Regulation suggests that an overheads multiplier of 1.5 is appropriate.[3] Overhead costs include building costs (floor space, fixtures and fittings maintenance and services), equipment, consumables, IT and other support services, administrative support and corporate overheads (senior management, corporate finance, human resources and legal services).

Based on this information, an on-cost and overheads multiplier of 1.75 is applied to the hourly cash earnings (that is, 1.16*1.5 = 1.75).

Based on an hourly cash rate of $25, the total labour cost is **$42 per hour** for cost recovery purposes.

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[2] Australian Bureau of Statistics 2011, Labour Costs, Australia (Cat. 6348.0).

[3] Victorian Competition and Efficiency Commission 2007, Suggested default methodology and values for staff time in BIA/RIS analysis, Melbourne.

Appendix 2: Process for Remote Service Requests

SP AusNet's Process for Remote Service Requests