

ABN: 53594103592

Level 8, 350 Collins St Melbourne VIC 3000 Phone: 03 8601 1103

Fax: 03 8601 1180

Email: mail@impaqconsulting.com.au

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Mr. Chris Pattas
General Manager - Networks
Australian Energy Regulator
Level 35, The Tower
360 Elizabeth Street
Melbourne Central
Melbourne VIC 3000

DearChris,

As discussed yesterday, the SpAusNet (SPAN) revised budget submission has significantly increased meter pricing as compared with their original submission of 2009.

The revised submission details the pricing of the components of the customers metering equipment required to meet the Victorian AMI Functionality Specification (AMI FS) as per the original submission and as per the revised submission. From Table 8.3 "Budget unit cost per [confidential – variant 1] meter per the approved budget¹" the pricing for the various metering installations used by SPAN is as shown in the following table. It is noted that the "Single Phase Single Element" meter and the "Single Phase Two Element with contactor" meter comprise 82% of all meters required for SPAN and hence represent the vast majority of the metering cost.

Item	Single Phase Single Element (US\$)	Single Phase two element with contactor (US\$)	Three phase	Three phase with contactor	Three Phase CT connect
Meter	confidenti al	confidentia	confidentia I	confidentia I	confidentia I
Communication s module (Wimax)	confidenti al	confidentia I	confidentia I	confidentia I	confidentia I
Total	confidenti al	confidentia I	confidentia I	confidentia I	confidentia I

From Table 8.4 of the revised budget submission the revised pricing for metering installations using [confidential – Variant 2] meters is as shown in the following table.

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¹All of the AMI meters installed by SPAN to date have been [confidnential] meters.



Item	Single Phase Single Element (US\$)	Single Phase two element with contactor (US\$)	Three phase	Three phase with contactor	Three Phase CT connect
Meter	confidential	confidential	confidential	confidential	confidential
Communications module (Wimax)	confidential	confidential	confidential	confidential	confidential
ZigBee	confidential	confidential	confidential	confidential	confidential
Antenna (A\$10.98)	confidential	confidential	confidential	confidential	confidential
Total	confidential	confidential	confidential	confidential	confidential

Taking into account all the meter types that SPAN will use, the volume weighted average meter unit cost (including communications modules) in the original submission was US\$[confidential] which compares with the revised submission of US\$[confidential]. The price increase is 71% which in our view is quite a substantial increase.

By the end of the AMI rollout SPAN will have installed 709,188 meters². This equates to an approximate cost increase of US\$[confidential]m over the period 2009 to 2015.

In particular it does seem anomalous that SPAN's meter pricing should have increased so substantially because all these meter types are still provided to the other four DNSPs. For example Single Phase single element meters at pricing around US\$82 (comparable to SPANs original price of US\$[confidential]), which is substantially less than the US\$[confidential] for which SPAN is seeking approval.

[confidential] together with [confidential] meters [confidential] provide the meters for these other DNSPs. The comparable pricing is:

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²SPAN AMI subsequent budget and charges application, table 3.1



Citipower and Powercor³

Item	Single Phase Single Element (US\$)	Single Phase two element with contactor (US\$)	Three phase	Three phase with contactor	Three Phase CT connect
Meter	confidenti	confidentia	confidentia	confidentia	confidentia
	al	I	I	I	I
Communication s module (SSN)	confidenti	confidentia	confidentia	confidentia	confidentia
	al	I	I	I	I
Total	confidenti	confidentia	confidentia	confidentia	confidentia
	al	I	I	I	I

Jemena & UED4

Item	Single Phase Single Element (US\$)	Single Phase single element with contactor (US\$)	Three phase	Three phase with contactor	Three Phase CT connect
Meter	confidenti al	confidentia	confidentia	confidentia I	confidentia I
Communication s module (SSN)	confidenti	confidentia	confidentia	confidentia	confidentia
	al	I	I	I	I
Total	confidenti	confidentia	confidentia	confidentia	confidentia
	al	I	I	I	I

It is noted that Jemena/UED do not use "single phase two element meters with contactor" as SPAN and Citipower/Powercor do, however they do use single phase single element meters with contactor" which is included in the Jemena/UED table for reference.

Impag Consulting has been deeply involved in the Victorian AMI project and the National Smart Metering Program from the very beginning. The benchmark cost⁵or commercial standard unit cost for meters is broadly in line with the prices provided by

³[confidential] contract with Powercor, page 100, as provided by Powercor with their budget and charges application for 2012-2015. The contract commencement date is [confidential]. See also table 15 of the Power budget and charges application 2012-2015

⁴[confidential] contract with Jemena Asset Management, page 3, dated [confidential] ⁵ For example MCE National Smart Meter CBA, Stream 6, Phase 2 report Fig 3-1 (meter cost

including comms)



Citipower, Powercor, Jemena and UED. For example, for a single phase single element meter to support AMI, the commercial standard unit cost has been known to be about US\$60 to US\$85 across the range of meter vendors, [confidential text removed]. The SpAusNet price of US\$[confidential] is a substantial departure from this commercial standard.

It is noted that it is also common practice in Utilities that are implementing AMI in other parts of the world to have a provider of meters and a separate provider for communications modules. Normally the metering vendor will integrate the communications module provided by the communications vendor into their meter at the time of manufacture. Hence most metering vendors have metering products that are designed to accept different communications vendors' modules within their meter. In the instance of the other four DNSPs, both [confidential], and [confidential] meters have integrated the [confidential] communications module within their meter and provided the combined device to the DNSPs.

The price for the [confidential] communications module which is integrated into single phase meters is in the range of US\$[confidential] to US\$[confidential]. Other mesh radio technologies have similar prices for their communications modules. The SpAusNet price of US\$[confidential] (increased from US\$[confidential] in the original budget submission) for a WiMax communications module for a single phase meter is a substantial departure from the commercial standard unit cost for such communications modules.

Regards,

Phil Perry Director