

**Australian Energy  
Regulator**

**Victorian Electricity  
Distribution  
Determination 2011**

-

**Review of Distributors  
Proposed Rates in ACS  
Charges**

**Revision 1.3**

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# **1 Executive Summary**

## **1.1 Background and scope**

The AER is required to make a distribution determination for the Victorian Distribution Network Service Providers (DNSPs) which commences on 1 January 2011. The AER is reviewing the Victorian DNSPs' proposed charges for Alternative Control Services (ACS), specifically the methodologies for calculating the prices for fixed fee and quoted services. The AER has identified ten alternative control services which are consistent across the businesses, most frequently requested and which generate the majority of alternative control services revenue to the businesses. The ten alternative control services identified are:

- new connections;
- field services officer visit;
- reconnection / disconnection (re-energisation / de-energisation);
- service vehicle visits;
- meter equipment tests for various meter types;
- temporary cover of low voltage mains (some fixed fee and quoted);
- conversion from coincident to independent disconnection;
- public lighting services;
- recoverable works, including service cable pulled down by high loads, supply abolishment, rearrangement of network assets at customer request, supply enhancement at customer request, location of underground cables (quoted service); and
- elective undergrounding services (quoted services).

The AER has engaged Impaq Consulting to provide advice as to the reasonableness of each of the Victorian DNSPs' proposed ACS charges with respect to:

- hourly labour rates for fixed fee services;
- materials costs for fixed fee services;
- time taken to perform fixed fee services;
- hourly labour rates for public lighting services;
- hourly labour rates for quoted services; and
- cost of materials for quoted services.

## **1.2 Approach**

The approach taken by Impaq Consulting to provide advice to the AER has been to:

- review the DNSPs' ACS submissions and meet with DNSPs' representatives to seek clarification on various matters identified in the review;
- develop normalized equivalent charge-out rates from those provided by the DNSPs (to get all labour rates on the same basis – i.e.: in 2010 dollars, inclusive of overheads and margin etc)
- analyse the submissions for fixed fee services detailing the labour rates used, time taken for services and to identify the materials and materials costs involved;
- analyse the submissions for quoted services in relation to labour charge-out rates and materials costs proposed;
- develop a reference set of labour charge-out rates against which to compare the DNSPs' proposed charge-out rates;
- compare the DNSPs' labour rates to the reference rates;
- review the times for services in light of our experience with the normal business processes for delivering these services; and
- review the cost of materials for reasonableness.

## **1.3 Analysis of DNSPs fixed fee service submissions**

Three of the five DNSPs submitted fixed fee ACS prices developed on a bottom up basis. In order to facilitate comparison, the three DNSPs labour rates have been normalized to 2010 dollars and to include overheads and profit margins.

In the submissions from the three DNSPs, two broad labour classifications have been identified as covering almost all of the labour cost components:

- Distribution Line Worker (covering all trade trained field workers); and
- Back Office Worker (covering customer service and administration activities).

## **1.4 Analysis of DNSPs quoted services submissions**

Four of the DNSPs submitted quoted services prices for labour. None provided details of materials. For three of the four DNSP's quoted services the appropriate labour classification is that of distribution line Worker. For SP AusNet the quoted services included:

- services which are delivered using distribution line workers
- design services provided by Drafting Officers, Technical Officers or Engineers.
- Other labour services for which there is already a market. Hence it is considered that customers are not constrained to obtain these services from a DNSP as

there are many alternative providers of these services. Therefore this report provides no comparative labour rate information for these services and provides no comment on the reasonableness of the rates submitted.

- public lighting services - which are not quoted as labour charge-out rates and materials and hence not reviewed.

## **1.5 Reference charge-out rates**

Reference charge-out rates were developed against which the charge-out rates from the DNSPs can be compared. The reference charge-out rates were determined based on:

1. A rates build approach - calculation of a charge-out rate based on wage rates plus on-costs, overheads and a profit margin.
2. Comparative rates from other states, including;
  - rates published by ETSA Utilities, Country Energy and Energy Australia,
  - rates included in DNSPs' submissions for other distribution price determinations,
  - AER's draft determination on Public Lighting for Energy Australia, and
3. Comparative benchmarked rates – from the National Electrical and Communications Association (NECA).

In order to allow for a range in charge-out rates, a low case and a high case rate has been assessed where possible.

## **1.6 Charge-out rate comparative results**

### **1.6.1 Line Worker rates- fixed fee and quoted services - business hours**

Figure 1 shows a comparison of line worker business hours charge-out rates. The NECA benchmark, Rates Build and JEN show ranges whereas all other reference rates are point values. This comparison shows:

- the Powercor and CitiPower rates are distinctly high outlying points; and
- the JEN rates, although not outlying, are at the high end of the comparative rates.



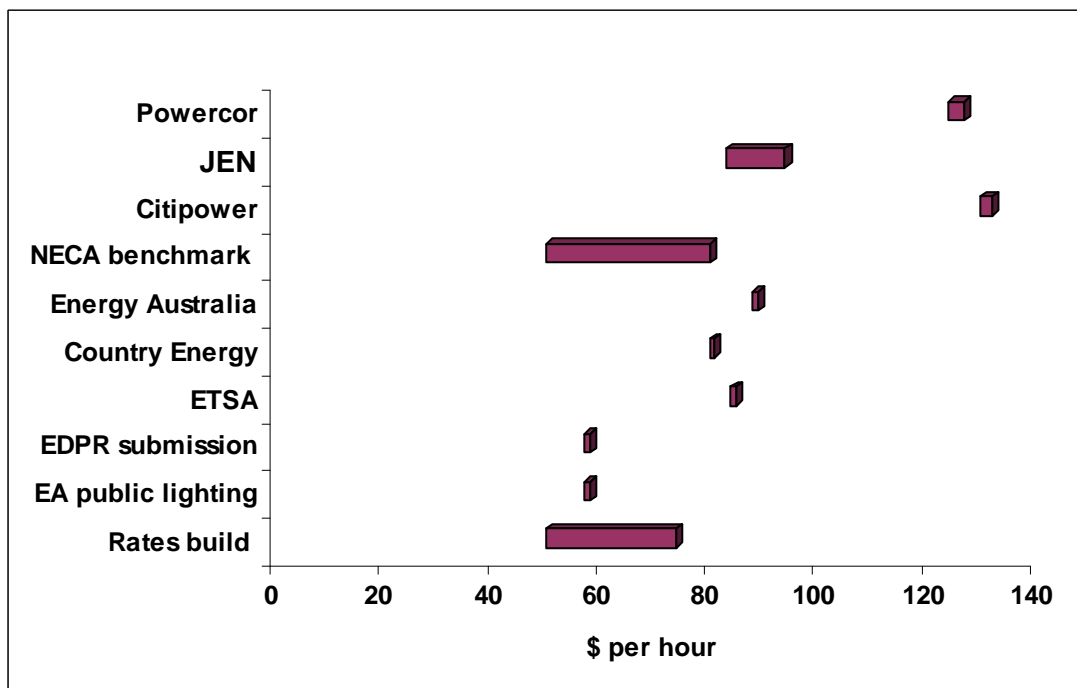


Figure 1 – Business hours Line Worker charge-out rate comparison

### 1.6.2 Line Worker rates - fixed fee and quoted services - after hours

Figure 2 shows a comparison of line worker after hours charge-out rates. The Rates build shows a range of values, whereas all other reference rates are point values. This comparison shows:

- JEN’s spread is surprisingly large and at the upper end is distinctly outlying; and
- CitiPower and Powercor are at the top end of the range of comparative rates.

There is a premium built into the rates for out of hours service that is not justified based on costs, rather it appears to have been introduced as a discouragement for customers to use services out of hours.

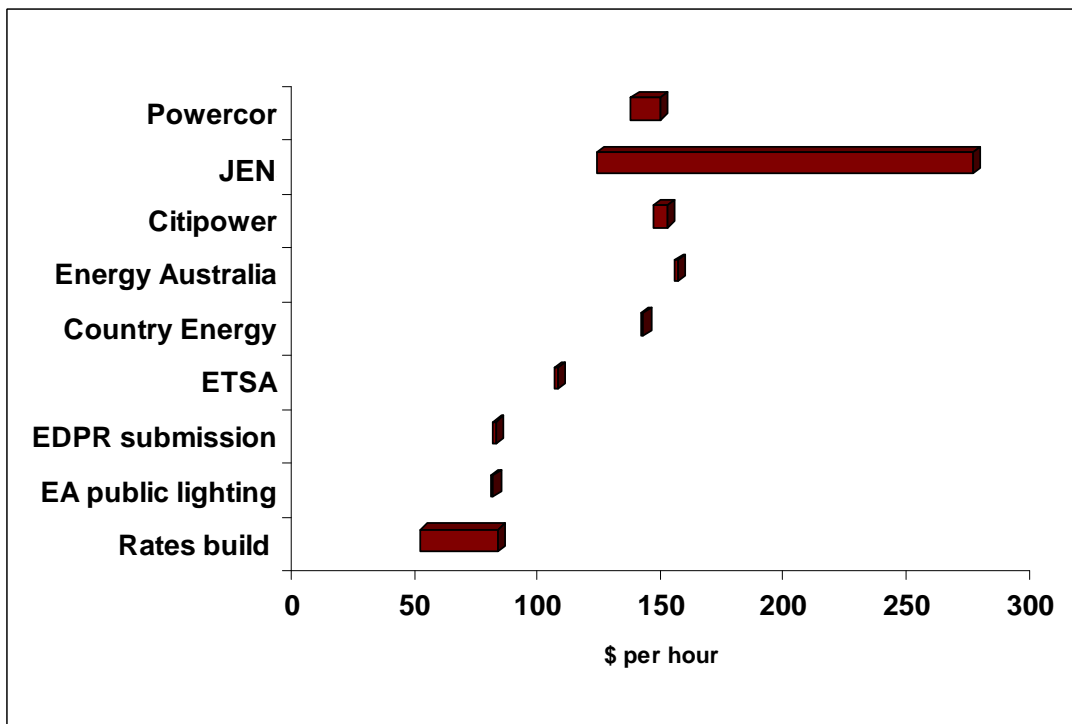


Figure 2 – After hours Line Worker charge-out rate comparison

### 1.6.3 Back Office rates – fixed fee services

Figure 3 shows a graphical comparison of the back office rates. CitiPower, JEN and the Rates Build show ranges; all others are only point values. This comparison shows:

- CitiPower’s and Powercor’s rates are in the comparative range; and
- The lower end of JEN’s rates are within the comparative range, but the upper end is considerably above the comparative range.

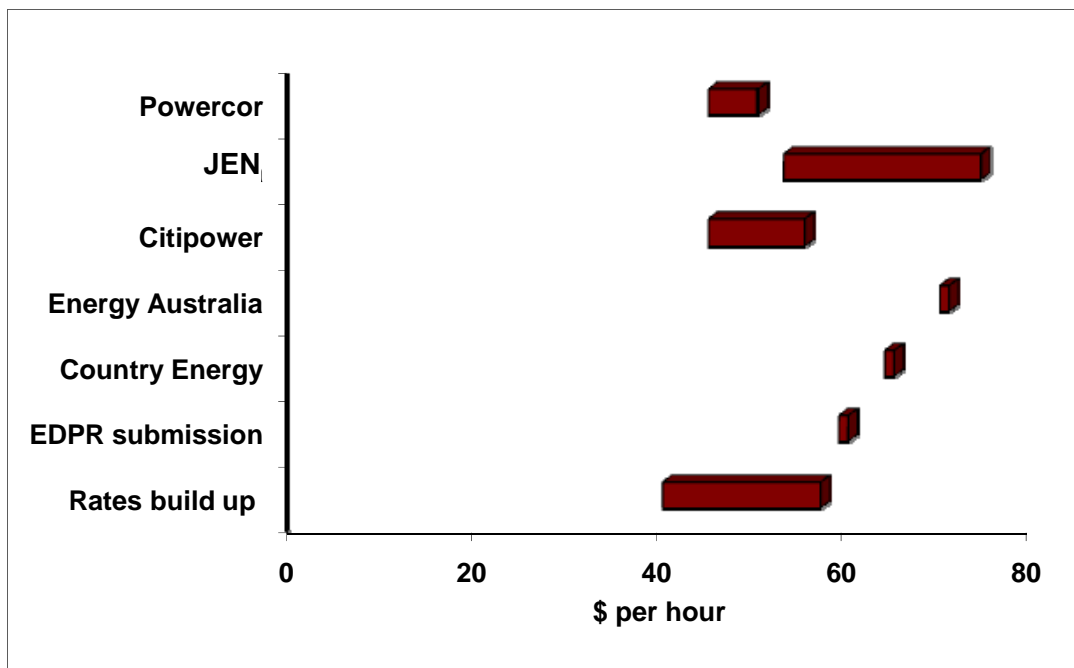


Figure 3 – Back Office rates comparison

### 1.6.4 Design – quoted services

SP AusNet’s quoted services have a number of rates pertaining to design activities. Comparative rates for three categories of labour have been developed:

- Drafting
- Technical Officer
- Engineer

All of the SP AusNet rates for these quoted services were within the comparative range.

### 1.6.5 Recommendations on charge-out rates

#### 1.6.5.1 Public Lighting

From our analysis the competencies required for the repair and maintenance of public lighting are somewhat less than that for other line work (eg: glove and barrier). Furthermore the reference rates for public lighting are in the lower comparative ranges. Based on this analysis our view is that the hourly rates for public lighting should be in the range of \$57 to \$74 per hour.

### **1.6.5.2 Line Workers – fixed fee and quoted services– Business Hours**

For the other categories of alternative control services involving line workers the average skill levels required are higher than for public lighting. Although our rate build up charge-out rate (based on a bottom up approach) yielded a high end rate of \$74 per hour, it is noted that rates at interstate DBs can be higher. Accordingly it is our view that hourly rates for these ACS services should be in the range of \$74 to \$84 per hour.

### **1.6.5.3 Line Workers – fixed fee and quoted services– After Hours**

The comparative rates for after hours work show large differences. As previously indicated it would appear that in some cases after hours rates are set at a considerable premium relative to costs to discourage customers having such electrical work done after hours. It is our view that such an approach should be reviewed thoroughly as it is not aligned with cost reflectivity principles.

Accordingly, our view is that out of hours labour rates for relevant services should be cost reflective and be between \$84 and \$105 per hour.

### **1.6.5.4 Back Office Rates**

Our view is that the hourly rates for Back Office activities should be in the range of \$40 to \$60 per hour. The Country Energy and Energy Australia rates are above this value however they are for a higher level of Admin activity. The CitiPower and Powercor rates fall within the comparative range, however the upper end of JEN's proposed rates are outside the upper end of this range.

### **1.6.5.5 Design – quoted services**

All of the SP AusNet rates for these quoted services were within the comparative range and hence it is our view that these are reasonable.

## **1.7 Time taken to perform ACS services**

The component times of 29 services were reviewed. These times fell into basically two categories:

- Back office activities; and
- Field based activities

Impaq Consulting's overall assessment is that the DNSPs' back office and the field times are generally higher than required. The time for any one component of these services may seem reasonable in isolation, but when aggregated it is larger than seems reasonable.

Some of the times associated with similar services appear to have been assumed to be the same, when in practice they may be different. For example, back office processing of B2B service orders can be manual but in some instances should be fully automatic – such as for a special meter read. Others, such as for manual de-energisation may need human intervention to check whether the customer is a life support customer and therefore should not be disconnected, or whether a re-energisation service order is also in place for the same premise (perhaps due to a move out closely followed by a move in).

## **1.8 Material costs**

There are only 8 services out of 29 in the DNSPs' submissions that included material costs. The components of these material costs have been analysed and it is our view that they are reasonable.

## **2 Background and Scope**

Under the National Electricity Rules (NER), the Australian Energy Regulator (AER) is responsible for regulating the Victorian Distribution Network Service Providers (DNSPs). The AER is required to make a distribution determination for the Victorian DNSPs which commences on 1 January 2011. Under the NER, the determination must set out a decision on the control mechanism for alternative control services (ACS) and how compliance with that control mechanism is to be demonstrated. As part of this decision, the AER will publish, for the period 2011 to 2015, a list of:

- prices for fixed fee ACS;
- prices for public lighting services; and
- hourly labour rates for quoted ACS.

Many ACS were formerly called “excluded services” and include services such as customer connection, field officer visits and service truck visits.

On 30 November 2009, the Victorian DNSPs submitted their regulatory proposals to the AER for review. The AER is required to assess the proposals and publish a draft decision on the distribution determination, which is anticipated in May 2010. To assess the fees charged for ACS the AER requested the DNSPs to calculate prices for their ACS on either a top down or bottom up approach. The top down approach typically involves the application of an escalation factor, whereas the bottom up approach builds up the costs of inputs to provide the service.

AER staff has commenced reviewing the Victorian DNSPs’ proposed charges for ACS, specifically the methodologies for calculating the prices for fixed fee and quoted services. The major inputs into deriving prices for ACS are labour and material costs and the time taken to perform the service. The AER has identified ten ACS which are consistent across the businesses, most frequently requested and which generate the majority of businesses’ ACS revenue.

The ten alternative control services identified are:

- new connections;
- field services officer visit;
- reconnection / disconnection (re-energisation / de-energisation);
- service vehicle visits;
- meter equipment tests for various meter types;
- temporary cover of low voltage mains (some fixed fee and quoted);
- conversion from coincident to independent disconnection;
- public lighting services;

- recoverable works, including service cable pulled down by high loads, supply abolishment, rearrangement of network assets at customer request, supply enhancement at customer request, location of underground cables (quoted service); and
- elective undergrounding services (quoted services).

The AER has engaged Impaq Consulting to provide advice as to the reasonableness of each of the Victorian DNSPs' proposed ACS charges in relation to:

- hourly labour rates for fixed fee services;
- materials costs for fixed fee services;
- time taken to perform fixed fee services;
- hourly labour rates for public lighting services;
- hourly labour rates for quoted services; and
- materials costs for quoted services.

## 2.1 Public Lighting

In relation to the hourly rates for public lighting, the AER published its final decision in relation to "Energy Efficient Public Lighting Charges – Victoria" on February 2009. The following table is an extract from this report which indicates two labour rates that are relevant to the current assessment:

**Table 8.1: Draft and final decision labour inputs**

	<b>Draft Decision</b>	<b>Final Decision</b>
Labour rate (per hour)	\$60.00	\$71.41
Labour rate for night patrols( per hour)	\$69.00	\$82.12
Elevated platform Vehicle (per hour) - urban	\$35.00	\$35.00
Elevated platform Vehicle (per hour) - rural	\$45.00	\$45.00
Patrol vehicle (per hour)	\$10.00	\$10.00
Number of hours in a day	8.33	8.33

Source: Essential Services ESCV, Energy Efficient Public Lighting Charges, Draft Decision, November 2008, and AER analysis.

### **3 Methodology**

The scope of this report is to provide an assessment of the reasonableness of the following rates, costs and times for each of the 10 alternative control services listed in the section 2 above:

- hourly labour rates for fixed fee services;
- materials costs for fixed fee services;
- time taken to perform fixed fee services;
- hourly labour rates for public lighting services;
- hourly labour rates for quoted services; and
- materials costs for quoted services.

The overall methodology used for this assessment has been to:

- review the DNSPs ACS submissions and meet with DNSPs representatives to seek clarification on various matters identified in the review;
- develop normalized equivalent charge-out rates from those provided by the DNSPs (so that all labour rates are on the same basis to allow comparison – i.e. in 2010 dollars, inclusive of overheads and margin etc)
- develop a summary of the submissions detailing the equivalent charge-out rates, time taken for services and to identify the materials and materials costs involved;
- develop a reference set of labour charge-out rates against which to compare the DNSPs proposed rates;
- compare the DNSPs' labour rates to the reference rates;
- review the street lighting labour rates;
- review the times for services in light of our experience with the normal business processes for delivering these services;
- review the material costs for reasonableness; and
- provide recommendations to the AER based on the above assessment.

#### **3.1 Reviewing the DNSPs ACS submissions and meet with DNSPs**

A detailed review of the DNSPs' submissions and financial models of services was undertaken. Arising from this review there were a range of matters on which clarification was sought from the DNSPs. Meetings were held with all DNSPs and most issues were resolved. Three DNSPs agreed to provide modified financial models and pricing.



### **3.2 Summary of fixed fee services submissions**

Section 4 of this report includes several tables which summarise the data from the DNSPs' submissions on fixed fee services labour rates, process times and materials costs. In addition the labour rates proposed by the DNSPs were adjusted to be on a consistent basis by:

- escalating as appropriate to reflect 2010 rates; and
- normalising to include all overheads and profit margin.

### **3.3 Summary of quoted services submissions**

Section 5 of this report reviews the DNSPs submissions on quoted services.

### **3.4 Development of comparative charge-out rates**

Section 6 of this report provides information on comparative charge-out rates which are drawn from a range of sources.

### **3.5 Comparison of DNSPs labour rates to reference rates**

Section 7 at a summary level compares the DNSP charge-out rates with the reference rates and details the results.

### **3.6 Review of times for services**

Section 8 reviews the process times for each service as proposed by the DNSPs.

### **3.7 Review of Materials Costs**

Section 9 details the results of our review of materials costs.

## **4 DNSPs fixed fee submissions**

### **4.1 Overview of submissions**

#### **4.1.1 CitiPower and Powercor**

In developing their proposed prices, CitiPower (CP) and Powercor (PC) have used a bottom-up approach. This has involved the identification and costing of the activities required to carry out each service. In the case of meter reading and connection/disconnection (re-energisation/de-energisation), the field components of these services are carried out by their contractor (name confidential). The contractors have provided CP and PC with a price per job. Consequently, there is no breakdown of labour rates or times to carry out these activities.

For all other activities CP and PC have used labour rates and estimated times to calculate the cost of each activity in each service. The labour rates are calculated based on actual salary levels and labour on-costs. Asset owner overheads are also applied except in some instances of back office labour. The labour and contractor rates are then escalated year on year in accordance with:

- BIS Shrapnel's report entitled Wages Outlook for the Electricity Distribution Sector in Victoria (referred to as the BIS Shrapnel Labour Escalators); and
- BIS Shrapnel forecast of 'Outsourced Services Wage Cost Escalator' (referred to as the BIS Shrapnel Contractor Escalators).

CP and PC have also included a margin of (confidential) on the cost of providing the service.

#### **4.1.2 JEN**

JEN has also developed their proposed prices using a bottom-up approach. The proposed prices are based on estimates of internal labour hours, contractor prices, materials and plant. JEN utilises Jeman Asset Management (JAM) as a service provider in the provision of many of the ACS services.

JEN's cost build up uses labour rates and other costs as at 2008. JEN then they escalates these for CPI and labour rate changes to arrive at 2010 prices<sup>1</sup>. The internal labour rates and the contractor rates are also escalated by the BIS Shrapnel Labour Escalators and the BIS Shrapnel Contractor Escalators to arrive at prices for the years 2011 to 2015 costs.

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<sup>1</sup> Impaq has used JEN's CPI and internal labour rate escalators from their appendix 13 inputs spreadsheet to arrive at labour rates in 2010. CPI cumulative from 2008 of 1.06 and internal labour rate escalator (real) of 3.84%.

Similarly, material costs are escalated by the rates determined in the Sinclair Knight Merz (SKM) report entitled 'Victorian Distribution Network Service Providers annual material cost escalators 2010-15' (referred to as the SKM Material Escalators). JEN also applies corporate overheads and a profit margin.

#### **4.1.3 SP AusNet**

SP AusNet (SPA) has used a top-down approach to determining its proposed prices. From its records, SPA has determined the cost incurred in providing each service and the number of times that service has been carried out in 2009 for each of its three regions. Using forecasts for growth provided by the National Institute of Economic and Industry Research (NIEIR), SPA has then determined the average cost for each service for each region for the years 2011 to 2015. From this an average cost per activity is calculated. This price is used as the proposed price for 2011. The BIS Shrapnel Labour escalators are then used to determine prices for 2012 to 2015.

#### **4.1.4 United Energy**

As described in its proposal, United Energy Distribution (UED) has conducted a tendering process for the provision of its network services, including ACS. UED has provided the prices obtained from this process as the basis of its proposed ACS prices. UED have also added its overheads to the contract price. In most cases, the UED proposed prices are the tender prices (including overheads). However, in some instances, in particular for some after hours services, UED have put a substantial margin on the tender prices to discourage the use of these services.

### **4.2 Derivation of equivalent charge-out rates**

In order to compare the labour rates amongst the DNSPs and also to compare with external reference rates, it is necessary to ensure that they include the same cost elements. Due to the mix of internal labour and contractor provided labour, it is necessary to compare 'equivalent charge-out rates for labour.

The equivalent charge-out rate, in the case of internal labour, is the sum of:

- Salary (including an adjustment to 2010 \$ in the case of JEN);
- labour on-costs, eg superannuation, pay roll tax, leave loading (referred to as 'Cost of internal labour');
- corporate overheads (referred to as 'Labour including O/H's); plus
- margin.

In the case of contractor provided labour, the equivalent charge-out rate is the sum of:

- salary;

- labour on-costs;
- contractor's corporate overheads;
- contractor's margin (referred to as 'Contractor Rate');
- the DNSP's corporate overheads; plus
- the DNSP's margin.

The equivalent charge-out rates for:

- back office;
- general line worker – business hours;
- general line worker – after hours; and
- scheduling team.

are calculated in tables 1, 2, 3, and 4 for CitiPower, Powercor and JEN<sup>2</sup>. It was not possible to do this analysis for Sp AusNet or United Energy, as neither provided labour rates.

JEN used a different overhead allocation for connection services as compared to the rest of its services. Consequently, it was necessary to determine the JEN connection's equivalent charge-out rate separately.

	CitiPower		JEN ACS		JEN - Connections	Powercor	
	Low	High	Low	High		Low	High
Cost of internal Labour (inc on-costs) in 2010 \$	confidential	confidential	confidential	confidential	confidential	confidential	confidential
Contractor Rate	confidential	confidential	confidential	confidential	confidential	confidential	confidential
Corporate Overheads	confidential	confidential	confidential	confidential	confidential	confidential	confidential
Labour inc O/H's	confidential	confidential	confidential	confidential	confidential	confidential	confidential
Margin	confidential	confidential	confidential	confidential	confidential	confidential	confidential
Equiv. Charge-out rate	\$45.40	\$55.26	\$53.02	\$74.36	\$73.66	\$45.40	\$50.23

Table 1 - Equivalent Labour Charge-out rate - Back Office

	CitiPower	JEN ACS	JEN - Connections	Powercor
Cost of internal Labour (inc	-	confidential	confidential	-

<sup>2</sup> The corporate overheads and margin given in these tables for JEN is actually the JAM corporate overheads and margin.

on-costs) in 2010 \$				
Contractor Rate	confidential	-	-	confidential
Corporate Overheads	confidential	confidential	confidential	confidential
Labour inc O/H's	confidential	confidential	confidential	confidential
Margin	confidential	confidential	confidential	confidential
Equiv. Charge-out rate	\$132.01	\$91.39	\$90.54	\$124.04

Table 2 - Equivalent Labour Charge-out rate - General Line Worker BH

	<b>CitiPower</b>	<b>JEN ACS</b>	<b>JEN - Connections</b>	<b>Powercor</b>
Cost of internal Labour (inc on-costs) in 2010 \$	-	confidential	confidential	-
Contractor Rate	confidential	-	-	confidential
Corporate Overheads	confidential	confidential	confidential	confidential
Labour inc O/H's	confidential	confidential	confidential	confidential
Margin	confidential	confidential	confidential	confidential
Equiv. Charge-out rate	\$145.17	\$274.17	\$271.61	\$136.39

Table 3 - Equivalent Labour Charge-out rate - General Line Worker AH

	<b>CitiPower</b>	<b>JEN ACS</b>	<b>JEN - Connections</b>	<b>Powercor</b>
Cost of internal Labour (inc on-costs) in 2010 \$	-	confidential	confidential	-
Contractor Rate	-	-	-	-
Corporate Overheads	-	confidential	confidential	-
Labour inc O/H's	-	confidential	confidential	-
Margin	-	confidential	confidential	-
Equiv. Charge-out rate	-	\$82.92	\$82.14	-

Table 4 - Equivalent Labour Charge-out rate - Scheduling Team

### 4.3 Analysis of fixed fee services submissions

Table 5 details the inputs used by each of the DNSPs to calculate their proposed prices where a bottom-up approach is adopted. These inputs include:

- hourly charge-out rates for various types of internal labour (adjusted to 2010 \$);

- hourly labour rates for contracted labour where that labour is charged on an hourly basis;
- the times taken by the various classes of labour to carry out the service;
- fixed contractor prices where an activity is carried out by a contractor at a fixed price;
- hourly vehicle costs and time required;
- material costs; and
- overhead and profit margin rates.

No.	Service	Input	CitiPower	JEN	Powercor	Sp AusNet	United Energy
1	Field Office Visits – Special reads – accumulation meter (BH)	Back Office hourly labour rate for 2010	\$45.40 (w/o O/H)	\$53.02	\$45.40 (w/o O/H)	Top down approach	Based on external contractor prices
		Back Office time	0.11hrs	0.042hrs	0.11hrs		Not provided
		Field Staff hourly labour rate for 2010	confidential	confidential	confidential		Based on external contractor prices
		Field Staff time	N/A	N/A	N/A		Not provided
2	Field Office Visits – Special reads – accumulation meter (AH)	Back Office hourly labour rate for 2010	No price submitted	No price submitted	No price submitted	Top down approach	No price submitted
		Back Office time					
		Field Staff hourly labour rate for 2010					
		Field Staff time					
3	Re-energisation – existing premises – manual BH	Back Office hourly labour rate for 2010	\$45.40 (w/o O/H)	\$53.02	\$45.40 (w/o O/H)	Top down approach	Based on external contractor prices
		Back Office time	0.11hrs	0.042	0.11hrs		Not provided
		Field Staff hourly labour rate for 2010	confidential	confidential	confidential		Based on external contractor prices
		Field Staff time	N/A	N/A	N/A		Not provided
4	Re-energisation – existing premises – manual AH	Back Office hourly labour rate for 2010	\$45.40 (w/o O/H)	\$53.02	\$45.40 (w/o O/H)	Top down approach	Based on external contractor prices
		Back Office time	0.11hrs	0.042	0.11hrs		Not provided
		Field Staff hourly labour rate for 2010	confidential	confidential	confidential		Based on external contractor prices
		Field Staff time	N/A	N/A	N/A		Not provided
5	De-energisation manual BH	Back Office hourly labour rate for 2010	\$45.40 (w/o O/H)	\$53.02	\$45.40 (w/o O/H)	Top down approach	Based on external contractor prices
		Back Office time	0.11hrs	0.19	0.11hrs		Not provided
		Field Staff hourly labour rate for 2010	confidential	confidential	confidential		Based on external contractor prices
		Field Staff time	N/A	N/A	N/A		Not provided
6	De-energisation manual AH	Back Office hourly labour rate for 2010	No price submitted	\$53.02	No price submitted	Top down approach	Based on external contractor prices
		Back Office time		0.19			Not provided
		Field Staff hourly labour rate for 2010		confidential			Based on external contractor prices
		Field Staff time		N/A			Not provided

No.	Service	Input	CitiPower	JEN	Powercor	Sp AusNet	United Energy
7	Service vehicle visit BH	Back Office hourly labour rate for 2010	\$55.26 (inc O/Hs)	\$74.36	\$50.23 (inc O/Hs)	Top down approach	Based on external contractor prices
		Back Office time	0.8hrs	0.75hrs	0.75hrs		Not provided
		Field Staff hourly labour rate for 2010	confidential	confidential	confidential		Based on external contractor prices
		Field Staff time	3.47hrs (2 persons)	2.00hrs (2 persons)	3.33hrs (2 persons)		Not provided
		Scheduling Team hourly labour rate for 2010	-	confidential	confidential		-
		Scheduling Team time	-	0.25	0.30hrs		-
		Vehicle Hourly Rate	-	confidential	-		Included in Contractor price
Vehicle Time	-	1.00hrs	-	Included in Contractor price			
8	Service vehicle visit AH	Back Office hourly labour rate for 2010	\$55.26 (inc O/Hs)	\$74.36	\$50.23 (inc O/Hs)	Top down approach	Based on external contractor prices
		Back Office time	0.8hrs	0.75hrs	0.75hrs		Not provided
		Field Staff hourly labour rate for 2010	confidential	confidential	confidential		Based on external contractor prices
		Field Staff time	3.47hrs (2 persons)	2.00hrs (2 persons)	3.33hrs		Not provided
		Scheduling Team hourly labour rate for 2010	-	confidential	confidential		-
		Scheduling Team time	-	0.25	0.30		-
		Vehicle Hourly Rate	-	confidential	-		Included in Contractor price
Vehicle Time	-	1.00hrs	-	Included in Contractor price			
9	Wasted service vehicle visit - BH	Back Office hourly labour rate for 2010	\$55.26 (inc O/Hs)	\$74.36	\$50.23 (inc O/Hs)	Top down approach	Based on external contractor prices
		Back Office time	0.24hrs	0.75hrs	0.30hrs		Not provided
		Field Staff hourly labour rate for 2010	confidential	confidential	confidential		Based on external contractor prices
		Field Staff time	2.47hrs (2 persons)	2.00hrs (2 persons)	2.33hrs		Not provided
		Scheduling Team hourly labour rate for 2010	-	confidential	-		-
		Scheduling Team time	-	0.25	-		-
		Vehicle Hourly Rate	-	confidential	-		Included in Contractor price
Vehicle Time	-	1.00hrs	-	Included in Contractor price			
10	Wasted service vehicle visit - AH	Back Office hourly labour rate for 2010	\$55.26 (inc O/Hs)	\$74.36	\$50.23 (inc O/Hs)	Top down approach	Based on external contractor prices



No.	Service	Input	CitiPower	JEN	Powercor	Sp AusNet	United Energy
		Back Office time	0.24hrs	0.75hrs	0.30hrs		Not provided
		Field Staff hourly labour rate for 2010	confidential	confidential	confidential		Based on external contractor prices
		Field Staff time	2.47hrs (2 persons)	2.00hrs (2 persons)	2.33hrs		Not provided
		Scheduling Team hourly labour rate for 2010		confidential			-
		Scheduling Team time	-	0.25	-		-
		Vehicle Hourly Rate	-	confidential	-		Included in Contractor price
		Vehicle Time	-	1.00hrs	-		Included in Contractor price
11	Meter equipment test – single phase BH	Back Office hourly labour rate for 2010	\$55.26 (inc O/Hs)	\$53.02	\$50.23 (inc O/Hs)	Top down approach	Based on external contractor prices
		Back Office time	1.13hrs	0.5hrs	1.13hrs		Not provided
		Field Staff hourly labour rate for 2010	confidential	confidential	confidential		Based on external contractor prices
		Field Staff time	2.74hrs	N/A	2.68hrs		Not provided
12	Meter equipment test – single phase AH	Back Office hourly labour rate for 2010	\$55.26 (inc O/Hs)	\$53.02	\$50.23 (inc O/Hs)	Top down approach	Based on external contractor prices
		Back Office time	1.13hrs	0.5hrs	1.13hrs		Not provided
		Field Staff hourly labour rate for 2010	confidential	confidential	confidential		Based on external contractor prices
		Field Staff time	2.74hrs	N/A	2.68hrs		Not provided
13	Meter equipment test – single phase – each additional meter	Back Office hourly labour rate for 2010	\$55.26 (inc O/Hs)	No price proposed	\$50.23 (inc O/Hs)	Top down approach	Based on external contractor prices
		Back Office time	1.13hrs		1.13hrs		Not provided
		Field Staff hourly labour rate for 2010	confidential		confidential		Based on external contractor prices
		Field Staff time	2.01hrs		2.01hrs		Not provided
14	Meter equipment test – multi phase BH	Back Office hourly labour rate for 2010	\$55.26 (inc O/Hs)	\$53.02	\$50.23 (inc O/Hs)	Top down approach	Based on external contractor prices
		Back Office time	1.13hrs	0.5hrs	1.13hrs		Not provided
		Field Staff hourly labour rate for 2010	confidential	confidential	confidential		Based on external contractor prices
		Field Staff time	3.49hrs	N/A	3.43hrs		Not provided
15	Meter equipment test – multi phase AH	Back Office hourly labour rate for 2010	\$55.26 (inc O/Hs)	\$53.02	\$50.23 (inc O/Hs)	Top down approach	Based on external contractor prices
		Back Office time	1.13hrs	0.5hrs	1.13hrs		Not provided
		Field Staff hourly labour rate for 2010	confidential	confidential	confidential		Based on external contractor prices

No.	Service	Input	CitiPower	JEN	Powercor	Sp AusNet	United Energy
		Field Staff time	3.49hrs	N/A	3.43hrs		Not provided
16	Meter equipment test – multi phase – each additional meter	Back Office hourly labour rate for 2010	\$55.26 (inc O/Hs)	No price proposed	\$50.23 (inc O/Hs)	Top down approach	Based on external contractor prices
		Back Office time	1.13hrs		1.13hrs		Not provided
		Field Staff hourly labour rate for 2010	confidential		confidential		Based on external contractor prices
		Field Staff time	2.76hrs		2.76hrs		Not provided
17	Meter equipment test – CT multi phase BH	Back Office hourly labour rate for 2010	\$55.26 (inc O/Hs)	No price proposed	\$50.23 (inc O/Hs)	Top down approach	No price proposed
		Back Office time	1.04hrs		1.04hrs		
		Field Staff hourly labour rate for 2010	confidential		confidential		
		Field Staff time	3.41hrs		3.35hrs		
18	Meter equipment test – CT multi phase AH	Back Office hourly labour rate for 2010	\$55.26 (inc O/Hs)	No price proposed	\$50.23 (inc O/Hs)	Top down approach	No price proposed
		Back Office time	1.04hrs		1.04hrs		
		Field Staff hourly labour rate for 2010	confidential		confidential		
		Field Staff time	3.41hrs		3.35hrs		
19	Temporary Cover of mains – service lines and LV mains BH	Back Office hourly labour rate for 2010	\$55.26 (inc O/Hs)	\$74.36	\$50.23 (inc O/Hs)	Quoted Service	Based on external contractor prices
		Back Office time	1.75hrs	0.5hrs	1.75hrs		Not provided
		Field Staff hourly labour rate for 2010	confidential	confidential	confidential		Based on external contractor prices
		Field Staff time	5.20hrs	N/A	5.00hrs		Not provided
		Materials	\$247.77	Included in contractor's price	\$232.79		Not provided
20	Temporary Cover of mains – service lines and LV mains AH	Back Office hourly labour rate for 2010	\$55.26 (inc O/Hs)	\$74.36	\$50.23 (inc O/Hs)	Quoted Service	Based on external contractor prices
		Back Office time	1.75hrs	0.5hrs	1.75hrs		Not provided
		Field Staff hourly labour rate for 2010	confidential	confidential	confidential		Based on external contractor prices
		Field Staff time	5.20hrs	N/A	5.00hrs		Not provided
		Materials	\$247.77	Included in contractor's price	\$232.79		
21	Temporary supply – coincident abolishment BH	Back Office hourly labour rate for 2010	No Information Provided	\$74.36	No Information Provided	Top down approach	Based on external contractor prices
		Back Office time		0.75hrs			Not provided
		Field Staff hourly labour rate for 2010		confidential			Based on external contractor prices

No.	Service	Input	CitiPower	JEN	Powercor	Sp AusNet	United Energy
		Field Staff time		3.00hrs (2 persons)			Not provided
		Scheduling Team hourly labour rate for 2010		confidential			-
		Scheduling Team time		0.25			-
		Vehicle Hourly Rate		confidential			Included in Contractor price
		Vehicle Time		1.50hrs			Included in Contractor price
		Materials		\$27.13			Included in Contractor price
22	Temporary supply – coincident abolishment AH	Back Office hourly labour rate for 2010	No Information Provided	\$74.36	No Information Provided	Top down approach	Based on external contractor prices
		Back Office time		0.75hrs			Not provided
		Field Staff hourly labour rate for 2010		confidential			Based on external contractor prices
		Field Staff time		3.00hrs (2 persons)			Not provided
		Scheduling Team hourly labour rate for 2010		confidential			-
		Scheduling Team time		0.25			-
		Vehicle Hourly Rate		confidential			Included in Contractor price
		Vehicle Time		1.50hrs			Included in Contractor price
Materials	\$27.13	Included in Contractor price					
23	New connections – single phase - overhead - BH	Back Office hourly labour rate for 2010	\$55.26 (inc O/Hs)	\$73.66	\$50.23 (inc O/Hs)	Top down approach	Based on external contractor prices
		Back Office time	0.69hrs	0.75hrs	0.79hrs		
		Inspection and Testing hourly labour rate for 2010	confidential	confidential	confidential		
		Inspection and Testing time	0.1hrs	0.25hrs	0.1hrs		
		Scheduling Team hourly labour rate for 2010	confidential	confidential	confidential		
		Scheduling Team time	0.1	0.25hrs	0.27hrs		
		Field Staff hourly labour rate for 2010	confidential	confidential	confidential		
		Field Staff time	2.77hrs	2.00hrs (2 persons)	2.74hrs		
Vehicle Hourly Rate		confidential					
Vehicle Time		1.00hrs					

No.	Service	Input	CitiPower	JEN	Powercor	Sp AusNet	United Energy
		Materials	\$115.66	\$82.23	\$108.29	\$1.15 per metre of cable	
24	New connections – single phase - overhead - AH	Back Office hourly labour rate for 2010	\$55.26 (inc O/Hs)	\$73.66	\$50.23 (inc O/Hs)	Top down approach	Based on external contractor prices
		Back Office time	0.69hrs	0.75hrs	0.79hrs		
		Inspection and Testing hourly labour rate for 2010	confidential	confidential	confidential		
		Inspection and Testing time	0.1hrs	1.0 hrs	0.1hrs		
		Scheduling Team hourly labour rate for 2010	confidential	confidential	confidential		
		Scheduling Team time	0.1	0.25hrs	0.27hrs		
		Field Staff hourly labour rate for 2010	confidential	confidential	confidential		
		Field Staff time	2.77hrs	2.00hrs (2 persons)	2.74hrs		
		Vehicle Hourly Rate		confidential			
		Vehicle Time		1.00hrs			
		Materials		\$82.23	\$108.29	\$1.15 per metre of cable	
25	New connections – single phase two element (off-peak) - overhead	Costs	No Information Provided	No price proposed	No Information Provided	Top down approach	Based on external contractor prices
26	New connections – three phase direct connected – overhead - BH	Back Office hourly labour rate for 2010	\$55.26 (inc O/Hs)	\$73.66	\$50.23 (inc O/Hs)	Top down approach	Based on external contractor prices
		Back Office time	0.69hrs	0.75hrs	0.79hrs		
		Inspection and Testing hourly labour rate for 2010	confidential	confidential	confidential		
		Inspection and Testing time	0.1hrs	0.25hrs	0.1hrs		
		Scheduling Team hourly labour rate for 2010	confidential	confidential	confidential		
		Scheduling Team time	0.1hrs	0.25hrs	0.1hrs		
		Field Staff hourly labour rate for 2010	confidential	confidential	confidential		
		Field Staff time	3.61hrs	2.00hrs (2 persons)	3.02		
		Vehicle Hourly Rate		confidential			
		Vehicle Time		1.00hrs			
		Materials	\$190.36	\$168.27	\$178.24	\$2.15 per metre of cable	
27	New connections – three phase direct connected – overhead - AH	Back Office hourly labour rate for 2010	\$55.26 (inc O/Hs)	\$73.66	\$50.23 (inc O/Hs)	Top down approach	Based on external contractor prices
		Back Office time	0.69hrs	0.75hrs	0.79hrs		

No.	Service	Input	CitiPower	JEN	Powercor	Sp AusNet	United Energy
		Inspection and Testing hourly labour rate for 2010	confidential	confidential	confidential		
		Inspection and Testing time	0.1hrs	1.0 hrs	0.1hrs		
		Scheduling Team hourly labour rate for 2010	confidential	confidential	confidential		
		Scheduling Team time	0.1hrs	0.25hrs	0.1hrs		
		Field Staff hourly labour rate for 2010	confidential	confidential	confidential		
		Field Staff time	3.61hrs	2.00hrs (2 persons)	3.02		
		Vehicle Hourly Rate		confidential			
		Vehicle Time		1.00hrs			
		Materials	\$190.36	\$168.27	\$178.24	\$2.15 per metre of cable	
28	New connections – three phase current transformer connected – overhead - BH	Back Office hourly labour rate for 2010	\$55.26 (inc O/Hs)	\$73.66	\$50.23 (inc O/Hs)	Top down approach	Based on external contractor prices
		Back Office time	0.72hrs	0.75hrs	0.99hrs		
		Inspection and Testing hourly labour rate for 2010	confidential	confidential	confidential		
		Inspection and Testing time	1.23hrs	1.25hrs	1.17hrs		
		Scheduling Team hourly labour rate for 2010	confidential	confidential	confidential		
		Scheduling Team time	0.2	0.25hrs	0.2hrs		
		Metering Services	confidential	confidential	confidential		
		Metering Services time	12.2 hrs	N/A	11.88hrs		
		Materials	\$551.16	\$756.89	\$516.05	\$3.41 per metre of cable	
29	New connections – three phase current transformer connected – overhead - AH	Back Office hourly labour rate for 2010	\$55.26 (inc O/Hs)	\$73.66	\$50.23 (inc O/Hs)	Top down approach	Based on external contractor prices
		Back Office time	0.72hrs	0.75hrs	0.99hrs		
		Inspection and Testing hourly labour rate for 2010	confidential	confidential	confidential		
		Inspection and Testing time	1.23hrs	5.0 hrs	1.17hrs		
		Scheduling Team hourly labour rate for 2010	confidential	confidential	confidential		
		Scheduling Team time	0.2	0.25hrs	0.2hrs		
		Metering Services	confidential	confidential	confidential		
		Metering Services time	12.2 hrs	N/A	11.88hrs		

No.	Service	Input	CitiPower	JEN	Powercor	Sp AusNet	United Energy
		Materials	\$551.16	\$756.89	\$516.05	\$3.41 per metre of cable	
30	New connections – single phase underground	Materials	\$128.19	No price proposed	\$79.46	Top down approach	No price proposed
31	New connections – single phase underground (off peak)		No Information Provided	No price proposed	No Information Provided	Top down approach	No price proposed
32	New connections – multi phase underground direct connected	Materials	\$239.42	No price proposed	\$178.95	Top down approach	No price proposed
33	New connections – multi phase underground CT connected	Materials	\$196.04	No price proposed	\$183.55	Top down approach	No price proposed
34	Overhead Rates	Back Office	confidential	N/A	confidential	N/A	
			confidential		confidential		
			confidential		confidential		
			confidential		confidential		
			confidential		confidential		
			confidential		confidential		
		General Line Worker	confidential	N/A	confidential	N/A	
			confidential		confidential		
			confidential		confidential		
			confidential		confidential		
			confidential		confidential		
		Applied to total costs	N/A	confidential		0%	confidential
			N/A	confidential			confidential
		35	Margin		confidential	confidential	confidential

Table 5 – Analysis of DNSPs submissions for fixed fee services

## 5 Review of DNSPs quoted services submissions

Quoted services are services provided at the request of a customer that involve a time commitment from the DNSP and the costs of which vary, depending on the man-hours spent and the materials used in providing the service.

### 5.1 Citipower

CitiPower quantifies its labour costs for each Quoted Service by:

- identifying the tasks involved in performing the Quoted Service;
- quantifying the time that each task will take;
- identifying the types of personnel that will be required to undertake each task, based on the skills required;
- quantifying the number of personnel that are required to undertake each task;
- applying a labour charge-out rate for each type of personnel required.
- identifying the type and number of materials that are required for each task; and
- applying a materials rate for each type of material required.

Table 6 provides a summary of the charge-out hourly rates by type of service. Appendix C provides further information on the components of these charges.

<b>Name of service</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Emergency recoverable works BH	130.04	132.66	135.44	140.25	143.87
Emergency recoverable works AH	150.98	154.02	157.25	162.83	167.03
Damage to overhead service cables caused by high load vehicles - Single Phase	117.36	119.724	122.24	126.58	129.84
Damage to overhead service cables caused by high load vehicles - Multi Phase -	129.05	131.65	134.41	139.18	142.77
High load escort BH	130.04	132.66	135.44	140.25	143.87
High load escort AH	150.98	154.02	157.25	162.83	167.03

Table 6 – Citipower Quoted Services Charge-out rates

It is noted that for each of the services listed the applicable category of labour required is that of a general lineworker.

Citipower has not provided any information on the cost of materials used in quoted services.

### 5.2 JEN

JEN's submission details the following recoverable works quoted services:

- damage to overhead service cables caused by high loads—restoration of overhead service cables pulled down by transport vehicles transporting high loads
- high load escorts—lifting of overhead lines
- supply abolishment—abolishment of existing supply
- rearrangement of network assets at customer request, excluding alteration and relocation of existing public lighting services
- supply enhancement at customer request—elective underground service where an existing overhead service exists
- location of underground cables—identification of underground electricity cables for persons planning to excavate in the vicinity of electricity underground cable.

JEN's proposed unit charge-out rates for recoverable works<sup>3</sup> are given in Table 7

	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Unit rate per man hr – business hours (\$ real 2010)	94.05	96.55	99.20	101.80	104.25
Unit rate per man hr – after hours (\$ real 2010)	122.30	125.50	128.95	132.30	135.50

Table 7 – JEN Recoverable Works Rates

It is noted that for each of the quoted services listed by JEN, the appropriate labour category required is that of general lineworker.

JEN has not provided any information on the specific cost of materials used in quoted services. Instead JEN have stated that they would on-charge materials at cost.

### 5.3 Powercor

Powercor quantifies its labour costs for each Quoted Service using the same approach as used for Citipower. Table 8 provides a summary of the charge-out hourly rates by type of service. Appendix D provides further information on the components of these charges

<sup>3</sup> Refer JEN Regulatory proposal table 19-29



<b>Name of service</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Emergency recoverable works BH	127.670	130.498	133.418	136.773	139.809
Emergency recoverable works AH	148.221	151.505	154.895	158.789	162.314
Damage to overhead service cables caused by high load vehicles - Single	126.596	129.401	132.296	35.622	138.633
Damage to overhead service cables caused by high load vehicles - Multi	139.002	142.081	145.260	148.913	152.219
Damage to overhead service cables caused by high load vehicles - Single	127.670	130.498	133.418	136.773	139.809
Damage to overhead service cables caused by high load vehicles - Multi	113.296	115.806	118.398	121.374	124.069
High load escort BH	128.571	131.419	134.360	137.738	140.796
High load escort AH	113.296	115.806	118.398	121.374	124.069

Table 8 – Powercor quoted services charge-out rates

It is noted that:

- for each of the services listed the applicable category of labour required is that of a general lineworker; and
- the labour rate for an after hours escort is lower than for a business hours escort, which is counter intuitive.

Powercor has not provided information on the cost of materials used in quoted services.

## 5.4 SP AusNet

The SP AusNet submission approaches quoted services in a similar manner to the other DNSPs – man-hours of labour plus materials. The categories of labour and the charge-out rates proposed by SPAN are given in Table 9.

<b>No</b>	<b>Resource</b>	<b>Service Description</b>	<b>Prices</b>
1	Labour - Wages	Construction Overhead Install	\$76.33/hr
2	Labour - Wages	Construction Underground Install	\$77.14/hr
3	Labour - Wages	Construction Substation Install	\$77.14/hr
4	Labour - Wages	Electrical Tester Including Vehicle & Equipment	\$113.04/hr
5	Labour - Wages	Construction	\$76.33/hr
6	Labour - Wages	Planner Including Vehicle	\$104.3/hr

No	Resource	Service Description	Prices
7	Labour - Wages	Supervisor Including Vehicle	\$104.3/hr
8	Labour - Design	Design	\$81.01/hr
9	Labour - Design	Drafting	\$63.79/hr
10	Labour - Design	Survey	\$75.95/hr
11	Labour - Design	Tech Officer	\$75.95/hr
12	Labour - Design	Line Inspector	\$63.79/hr
13	Labour - Design	Contract Supervision	\$75.95/hr
14	Labour - Design	Protection Engineer	\$81.01/hr
15	Labour - Design	Maintenance Planner	\$75.95/hr
16	Labour - Contractor	Project Manager & Vehicle	\$81.01/hr
17	Labour - Contractor	Project Financial Analyst	\$69.87/hr
18	Labour - Contractor	Labour Hire (Hour)	\$52.07/hr
19	Labour - Contractor	Traffic Management - 1 Man Weekday	\$65.2/hr
20	Labour - Contractor	Traffic Management - 1 Man Weeknight	\$81.35/hr
21	Labour - Contractor	Traffic Management - 1 Man Weekend	\$85.53/hr
22	Labour - Contractor	Traffic Management - 2 Man Weekday	\$120.99/hr
23	Labour - Contractor	Traffic Management - 2 Man Weeknight	\$143.93/hr
24	Labour - Contractor	Traffic Management - 2 Man Weekend	\$150.19/hr
25	Labour - Contractor	Traffic Control - Complex - Full Day	\$1012.61
26	Labour - Contractor	Traffic Control - Complex - 1/2 Day	\$644.02
27	Contract Boring	ROCK BORING 63mm - MEDIUM PER METER (SHALE)	\$73.92
28	Contract Boring	ROCK BORING 63mm - HEAVY PER METER (BASALT)	\$234.88
29	Contract Boring	ROCK BORING 125mm - MEDIUM PER METER (SHALE)	\$103.5
30	Contract Boring	ROCK BORING 125mm - HEAVY PER METER (BASALT)	\$374.44
31	Contract Boring	Boring & Installing Conduit Up To 63mm	\$52.73
32	Contract Boring	Boring & Installing Conduit 100mm To 125mm	\$72.22
33	Contract Boring	Boring Non-Rock Setup Fee	\$154.93
34	Contract Trenching	Trenching Per Meter	\$19.24
35	Contract Trenching	Trenching By Machine 0.5m Wide	\$21.26
36	Contract Trenching	Trenching By Machine 0.75m Wide	\$37.47

No	Resource	Service Description	Prices
37	Contract Trenching	Trenching Extra Cost For Rock 0.75m Wide /M/10%Rk	\$51.64
38	Contract Trenching	Trenching For Heavy (Basalt) Rock	\$65.94
39	Contract Excavation	Excavate And Install Conduit In Trench Up To 63mm Od (M)	\$19.24
40	Contract Excavation	Excavate And Install Conduit In Trench 100mm To 125mm Od (M)	\$24.3
41	Contract Pit Installation	.4. Install Pit Up To 50mm 2,3 & 4 Core Kit Pole To Pit	\$105.47
42	Survey	Contractor Peg & Draw Pole To Pit	\$158.48
43	Install Security Light	Install Security Light Sodium 150w	\$653.78
44	Install Security Light	Install Security Light Sodium 250w	\$653.78
45	Install Security Light	Install Security Light Sodium 400w	\$653.78
46	Install Security Light	Install Security Light Mv 125w	\$653.78
47	Install Security Light	Install Security Light Mv 250w	\$653.78
48	Materials	Materials (eg: Poles, Cables, Line Hardware)	At cost

Table 9 – SP AusNet quoted services labour charge out rates

It is noted that:

- Items 1, 2, 3 and 5 are services which are delivered using general line workers
- Items 4, 6 and 7 involve line worker level labour, but also include a vehicle and for item 6, equipment cost.
- Items 8 to 15 cover design services provided by Drafting Officers, Technical Officers or Engineers.
- Items 16 -47 are all labour services (competencies) for which there is already a market. Hence it is considered that customers are not constrained to obtain these services from a DNSP as there are many alternative providers of these services. Therefore this report provides no comparative labour rate information for these services and provides no comment on the reasonableness of the rates submitted.
- Item 48 indicates that materials will be at cost.

## 5.5 United Energy Distribution

UED has not submitted charges for quoted services.

## **6 Reference charge-out rates for labour**

This section provides an assessment of reference charge-out rates against which the charge-out rates from the DNSPs (hourly rates for fixed fee services, public lighting and quoted services) can be compared. The comparative charge-out rates for these activities are assessed based on the following:

1. Calculation of a charge-out rate based on wage rates plus on-costs, overheads and a profit margin;
2. Comparative rates from other states; and
3. Comparative benchmarked rates.

In order to allow for variation in charge-out rates, a range between a low case and a high case rate is used.

### **6.1 Labour Classifications used**

#### **6.1.1 Labour for fixed fee services**

In the submissions from the DNSPs where a bottom up approach has been used to establish prices for ACS services for fixed fee services, two broad labour classifications have been identified:

- Distribution Line Worker (covering all trade trained field workers); and
- Back Office Worker (covering customer service and admin activities)

The line worker classification is considered to span both Technical Grades 3 & 4 in the Electrical Power Industry Award (refer Appendix A).

The back office worker classification (which may be a Customer Service Officer or an Administration Officer) is considered to span both Administrative Grades 1 & 2 in the Electrical Power Industry Award (refer Appendix A).

#### **6.1.2 Labour for Public Lighting**

There are two main Public Lighting Services activities which are priced based on hourly rates:

1. Repair, replacement and maintenance of public lighting performed during normal business hours; and
2. Routine patrol of public lighting on major roads performed after hours.

The competencies required for item 1 is that of the lower bands of the Distribution Line Worker classification. For item 2 DNSPs also appear to use line workers, however it would seem to be an open question as to whether lesser skilled personnel could undertake patrols of public lighting. For the purposes of this report it is assumed that distribution line workers would undertake both activities.

### **6.1.3 Labour for quoted services**

The labour categories for quoted services, for which comparative rates are required as detailed in section 5 are:

- General Lineworker (same classification as used in fixed fee services)
- Design – Drafting
- Design – Technical Officer
- Design - Engineer

## **6.2 Calculated charge-out rate**

This assessment of reasonable charge-out rates is based on building up a charge-out rate from modelled component costs. These components are:

- wage rates;
- available hours – determination of the available working hours per year;
- on-costs – the costs of employment in addition to wages;
- overheads – an allocation of overhead costs (eg: supervision, premises costs, administration, HR, IT, communications etc); and
- profit margin.

Each of these components will be considered in turn.

### **6.2.1 Wage rates**

#### **6.2.1.1 Line Workers**

A brief review of available positions was undertaken from job advertisements. Across several states there are positions for distribution line workers available at rates from \$56,000 to \$70,300 per annum<sup>4</sup>. Applicable superannuation rates vary between 9% and 14%.

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<sup>4</sup> Based on a number of advertised positions across seek, mycareer, jobseeker, careerone, indeed, Ergon energy, Energex, Integral Energy, Country Energy and Energy Australia. Most advertised positions which gave a \$ wage range were in NSW and QLD. It is considered that these rates are likely to be similar to those for Victoria in that Hay's Salary surveys and NECA charge-out rates benchmarking show that VIC rates are very close to those in NSW & QLD. Verbal advice is that in VIC

The Hay's salary survey for 2009 also shows annual pay rates for Electricians from \$60,000 to \$70,000<sup>5</sup>.

Hence, based on the above, we assess the low rate case at \$56,000 pa and the high rate case at \$70,300 pa.

The after hours wage rate is assumed to be the normal hours rate plus 16% which is the allowance for afternoon shift under the Electricity Industry Award.

#### **6.2.1.2 Back Office**

A brief review was undertaken of available positions for back office staff from job advertisements. Across several states there are positions at rates from \$45,000 to \$54,000 per annum<sup>6</sup>

The Hay's salary survey for 2009 also shows annual pay rates for Senior Customer Service Officers range from \$40,000 to \$54,000<sup>7</sup>.

Hence based on the above, the low rate case is assessed as \$40,000 pa and the high rate case as \$54,000 pa.

#### **6.2.1.3 Design – Drafting**

A review of available positions for design drafting roles revealed there are positions across several states at rates from \$40,000 pa to \$70,000 pa<sup>8</sup>

The Hay's Salary survey for 2009 shows annual pay rates from \$45,000 pa to \$70,000 pa<sup>9</sup>.

Hence based on the above, the low rate case is assessed as \$40,000 pa and the high rate case as \$70,000 pa.

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for A grade linesmen the ETU EBA rates are between \$52,000pa and \$61,000pa. With Glove and Barrier skills the rate is up to \$69,000pa.

<sup>5</sup> <http://www.careerone.com.au/news-advice/salary-centre/salary-surveys-20080506/?247SEO=N&CMP=KNC-SEM&referrer=geditorial&type=P&WT.srch=1>

<sup>6</sup> Based on advertised positions at Ergon Energy, Energex, Integral Energy, Country Energy, Western Power and those advertised in Seek, my career, jobseeker, indeed. Positions considered included Administration Officer, Customer Service Officer, Network Officer,

<sup>7</sup> <http://www.hays.com.au/salary/contactcentres.aspx>

<sup>8</sup> Based on advertised positions at Energy Australia, Ergon Energy, Energex, Integral Energy, Country Energy, and those advertised in Seek, my career, and jobseeker.

<sup>9</sup> <http://www.hays.com.au/salary/default.aspx>

#### **6.2.1.4 Design – Engineering Technical Officer**

A review of available positions for engineering technical officer roles revealed there are positions across several states at rates from \$50,000 pa to \$70,000 pa<sup>10</sup>

The Hay's Salary survey for 2009 shows annual pay rates from \$50,000 pa to \$70,000 pa<sup>11</sup>.

Hence based on the above, the low rate case is assessed as \$50,000 pa and the high rate case as \$70,000 pa.

#### **6.2.1.5 Design – Electrical Engineer**

The range of salaries for Electrical engineers is quite large and depends on skills and experience. For the provision of quoted services it is considered that Graduate Engineers might not have the necessary experience and that on the other extreme senior engineers will be too senior for such work. Hence a category of electrical engineer (experienced) is selected as appropriate.

A review of available positions for electrical engineer roles revealed there are positions across several states at rates from \$60,000 pa to \$95,000 pa<sup>12</sup>

The Hay's Salary survey for 2009 for Victoria shows annual pay rates from \$70,000 pa to \$90,000 pa<sup>13</sup>.

Hence based on the above, the low rate case is assessed as \$60,000 pa and the high rate case as \$95,000 pa.

#### **6.2.2 Available hours**

The calculation of available hours per annum is based on 365 days per year, less weekend days, less the items in Table 10 to give a total of 1642.5 available hours per annum.

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<sup>10</sup> Based on advertised positions at Energy Australia, Ergon Energy, Energex, Integral Energy, Country Energy, and those advertised in Seek, my career, and jobseeker.

<sup>11</sup> <http://www.hays.com.au/salary/default.aspx>

<sup>12</sup> Based on advertised positions at Energy Australia, Ergon Energy, Energex, Integral Energy, Country Energy, and those advertised in Seek, my career, and jobseeker.

<sup>13</sup> <http://www.hays.com.au/salary/default.aspx>

Item	Days or Hours	Comment
Public Holidays	10	Victorian Government Gazette
Personal/Carers leave	12	Electrical Power Industry Award 2010
Annual Leave	20	Fair Work – National Employment Standards
Working days per annum	219	
Hours per day	7.5	Some DNSPs have 9 day fortnights with 8.33 hours per day, which gives the same net result
Available hours per annum	1642.5	

Table 10 - Available hours calculation

### 6.2.3 On Costs

The components of on-costs for normal time activities and after hours have been assessed as summarised in Table 11.

Item	On Costs - Low Case	On Costs - High Case	Comment
Superannuation	9%	12%	The low case is the Superannuation guarantee value of 9%. The high case at 12% makes allowance for the higher employer superannuation contributions associated with parts of the Power industry
Long Service Leave	1.7%	2.5%	The low case is based on Long service leave of 13 weeks after 15 years service. The high case is based on 13 weeks Long service leave after 10 years of service (which has been characteristic of the public sector rather than the private sector) <sup>14</sup>
Workcover (estimate)	1%	1.5%	The low case and high case represent the range of values that are common. The low case is drawn from one DB submission.
Payroll Tax	4.95	4.95%	Victorian Payroll Tax Rate
Annual leave loading (17.5%)	1.3%	1.3%	Based on 17.5% loading on 4 weeks annual leave
Total On costs	18%	22%	

Table 11 – On Costs

<sup>14</sup> Allowance has been made for the need to over accrue to take into account that when long service leave is taken salaries are higher than during the accumulation of the provision.



#### 6.2.4 Overheads

Overhead rates of businesses can vary considerably depending on a number of factors<sup>15</sup> including:

- the nature of the industry (eg: whether it is characterised by high administrative costs);
- the level of outsourcing (the higher the level of outsourcing, typically the lower the level of overhead costs – partly because the outsourced service provider may take on part of the overhead activities);
- the scale of the business (smaller DNSPs can have higher overheads in % terms as they have less customers to spread the costs over – eg: the cost of executive management may be similar to larger DNSPs but allocated over a smaller base); and
- the nature of the costs included in overheads (some costs may be allocated to the “on-cost” category or to overheads).

The DNSPs have presented a range of overhead (indirect) rates from 6% to 31%. The model used for this assessment assumes all activities are performed internally and hence the low overhead rates associated with an outsourced field force model are not applicable. Hence it is assumed that overhead rates would vary from about 20% to 31% based on similar businesses. It is noted that the AER have accepted an overhead rate of 25% for NSW in relation to public lighting<sup>16</sup>.

In relation to out of hours charge-out rates it is assumed that overheads are recovered based on hours and hence there is a proportionately lower rate of overheads applicable to out of hours activities.

#### 6.2.5 Profit Margins

ACS are not capital intensive and hence the application of the standard building blocks of Return of Capital and Return on Capital do not yield meaningful profit margins. However in similar service industries profit margins of from 3% to 8% are common<sup>17</sup>. Given the low risk nature of the revenue earned by the DNSPs for ACS services it is arguable that margins should be at the lower end of the range.

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<sup>15</sup> As outlined in the OECD International Standard Cost Model Manual, SCM Network, 2006

<sup>16</sup> AER draft decision, 23 Feb 2010, Energy Australia draft distribution determination 2009-10 to 2014-15 Alternative Control (public lighting) services, page 22

<sup>17</sup> Eg: Aust Financial Review – 10 March 2010 – Profits 2010, Page 12. Major service companies EBIT margins between 3% and 8%. Some instances are: United Group Limited, which provides services across several industries including electricity, have historically achieved net profit margins of about 5%. Refer UGL annual reports. Norfolk (which includes O'Donnell Griffin electrical contracting) has an EBIT margin of 3% in recent years. Downer EDI 5%, Leightons 7.5%

### 6.2.6 Total Margin above direct wages cost

Based on the above the total margin above direct labour cost is summarised in Table 12.

Item	Total Margin - Low Case	Total Margin - High Case
On costs	18%	22%
Overheads	20%	31%
Profit Margin	3%	8%
Total	41%	61%

Table 12 – Total margin above direct cost

### 6.2.7 Charge-out rate assessment

Table 10 below shows the resulting charge-out rate for normal time based on the foregoing calculation. The charge-out rates for after hours are determined by adding a 16% penalty rate for afternoon shift as required in the Award.<sup>18</sup>

Labour Category	Annual salary (\$)		Charge-out rate – Normal Time (\$/hour)		Charge-out rate – After Hours Time (\$/hour)	
	Low Case	High Case	Low Case	High Case	Low Case	High Case
Back Office	45,000	54,000	39.95	56.88	44.12	61.83
Line Worker	56,000	70,300	49.71	74.06	54.90	80.14
Design Drafting -	45,000	70,000	39.95	73.74	N/A	N/A
Design Technical Officer –	50,000	70,000	44.38	73.74	N/A	N/A
Design Engineer -	60,000	95,000	53.26	100.08	N/A	N/A

Table 13 – Charge-out rate assessment

<sup>18</sup> Electrical Power Industry Award – 2010, page 24.

## 6.3 Comparative rates from other states

Most of the ACS included in the Victorian DNSPs submissions are also performed by interstate DNSPs, although in some cases these are still classified as Excluded Services. In the published prices for these services there are some categories where an hourly charge-out rate is given. These are useful for comparison purposes as the nature and scope of work required is comparable, as are the competencies required.

### 6.3.1 ETSA Utilities

In the ETSA Utilities Standard Fees publication, there are charge-out rates given for some quoted services. The charge-out rates for Line worker related activities are:

- Cable location activity, site visit – normal hours, hourly rate is \$84 per hour and the out of normal hours rate is \$105 per hour.
- Third party works inspection (if over 3 hours) hourly rate is \$88 in normal hours and \$110 if out of normal hours.

Charge out rates for other activities are:

- Checking of high load route (administration) is \$75 per hour in normal hours
- Works re-inspection is \$88 per hour in normal hours
- Design estimation is \$78 per hour in normal hours

### 6.3.2 Country Energy

Country Energy's Price schedule for miscellaneous services effective 1 July 2009, also includes hourly charge-out rates for monopoly services. A summary is given in Table 14.

Labour Class	Hourly rate (Excl GST)	Overtime hourly rate (Excl GST)
Admin R1	\$64	\$112
Design R2a	\$80	\$140
Inspector R2b	\$80	\$140
Engineer R3	\$96	\$168

Table 14 – Country Energy Hourly Charge-out Rates

The Overtime hourly rate is for services outside the hours of 7:30am to 4pm on a working day.

In relation to the Admin rate it is considered that this is for higher levels of Admin than that involved in processing B2B service orders as is the case with the ACS services being reviewed. Rather this Admin rate is for externally related activities; for example reviewing a high load truck route to determine where an escort might need to lift cables to gain the necessary height clearance.

It is considered that the Design rate will be a little above the rate for a Linesman (with live line skills) based on the Technical Grades in the Electrical Power Industry Award (2010).

In relation to the overtime hourly rates it is noted that these may be established significantly above cost as a deterrent to the use of staff out of hours.

### 6.3.3 Energy Australia

Energy Australia’s schedule for miscellaneous services effective 1 July 2009, also includes hourly charge-out rates for monopoly services. A summary is given in Table 15.

Labour Class	Hourly rate	Overtime hourly rate
Admin R1	\$70.40	\$123.20
Design R2a	\$88	\$154
Inspector R2b	\$88	\$154
Engineer R3	\$105.60	\$184.80

Table 15 – Energy Australia Hourly Charge-out Rates

The comments on the Country Energy rates above also apply to these Energy Australia rates.

### 6.3.4 AER decision on Public Lighting for Energy Australia

The AER issued its draft decision “Energy Australia draft distribution determination 2009–10 to 2014–15 Alternative control (public lighting) services” on 23 February 2010. The AER, based on its analysis and the advice of Energy and Management Services, decided that the labour unit rates be adjusted to \$57 per hour for standard hours and \$79 per hour for out of hours activities (including patrols).

### 6.3.5 Price review submissions in other states

From submissions to the AER relating to another jurisdiction for the 08/09 year the charge-out rates quoted for:

- Distribution Lines Workers were \$57.37 for normal time and \$80.21 for overtime; and
- Admin Staff were \$59.40 for normal time and \$84.35 for overtime.

## 6.4 Comparative Benchmark Rates for Electrical Workers

The National Electrical and Communications Association (NECA) undertakes an annual charge-out rate survey<sup>19</sup>. For the 2009 study the average hourly charge-out rate for an electrical tradesperson in Australia was \$74, but there were wide variations above and below this figure. The most common rate (used by 31.6% of respondents) was between \$60 and \$70, but nearly as many (30.3%) charge between \$70 and \$80. This is illustrated in Figure 4. It is noted that these rates include the cost of a vehicle. These rates should therefore be reduced by about \$10/hour (vehicle cost) to be comparable labour only charge-out rates.



Figure 4 - Spread of charge-out rates from NECA survey

The average hour rates for each state are shown in Figure 5.

<sup>19</sup> <http://www.neca.asn.au/>



Figure 5 - Average hourly charge-out rates by state from NECA survey

The spread of charge-out rates by metro and non-metro areas is shown in Figure 6.

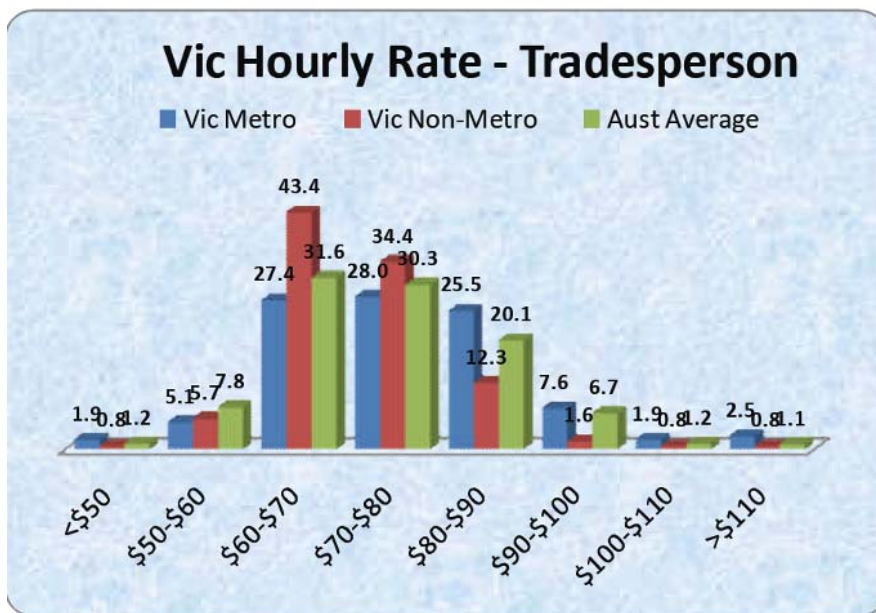


Figure 6 - Victorian – Metro and Non Metro rates from NECA survey

## **7 Comparison of DNSPs labour rates to reference rates**

### **7.1 DNSP charge-out rates for fixed fee services**

As noted above there are two main categories of charge-out rates used by DNSPs:

- Line Workers (as a broad category, including all trade trained field workers); and
- Back Office (as a broad category including customer service officers and administration officers).

JEN also uses a labour classification of Scheduler. However given the little difference in charge-out rate for this classification compared to back office staff and the difficulty in obtaining comparative data for such a narrow classification it was decided to not seek comparative charge-out rates.

### **7.2 DNSP charge-out rates for quoted services**

As detailed in section 6.1.3 there are four labour classifications for quoted services:

- General Line worker (same classification as used in fixed fee services above)
- Design – Drafting
- Design – Technical Officer
- Design - Engineer

The quoted services for Citipower, JEN and Powercor use general line workers. Some of the quoted services for SP AusNet use the three design categories.

### **7.3 Line Worker Rates – fixed fee and quoted services**

Table 16 gives a summary of the comparative charge-out rates for Distribution Line Workers (rounded to whole dollars) for both fixed fees services and quoted services.

Distribution Line Workers	Charge-out rate – Normal Time(\$/hour)		Charge-out rate – After Hours Time(\$/hour)	
	Low Case	High Case	Low Case	High Case
Rates build up from wage rates	50	74	55	82
AER draft determination for Energy Australia	57	57	79	79
Other state DNSP EDPR submission	57	57	80	80
ETSA	84	84	105	105
Country Energy	80	80	140	140
Energy Australia	88	88	154	154
NECA benchmark (less \$10/hr vehicle cost)	50	80		
CitiPower	130	132	145	151
JEN	83	94	122 <sup>20</sup>	274 <sup>21</sup>
Powercor	124	127	136	148

Table 16 – Summary of Comparative Distribution Line Worker Charge-out rates

### 7.3.1 Business Hours charge-out rate comparison

Figure 7 shows a comparison of the business hours charge-out rates. The NECA benchmark, Rates build and JEN have ranges whereas all other reference rates are point values. Observations in relation to this are:

- the Powercor and CitiPower rates are distinctly high outlying points; and
- the JEN rates range, although not outlying is at the higher end of all other comparative rates.

<sup>20</sup> Rate for quoted services.

<sup>21</sup> Rate for fixed fee services



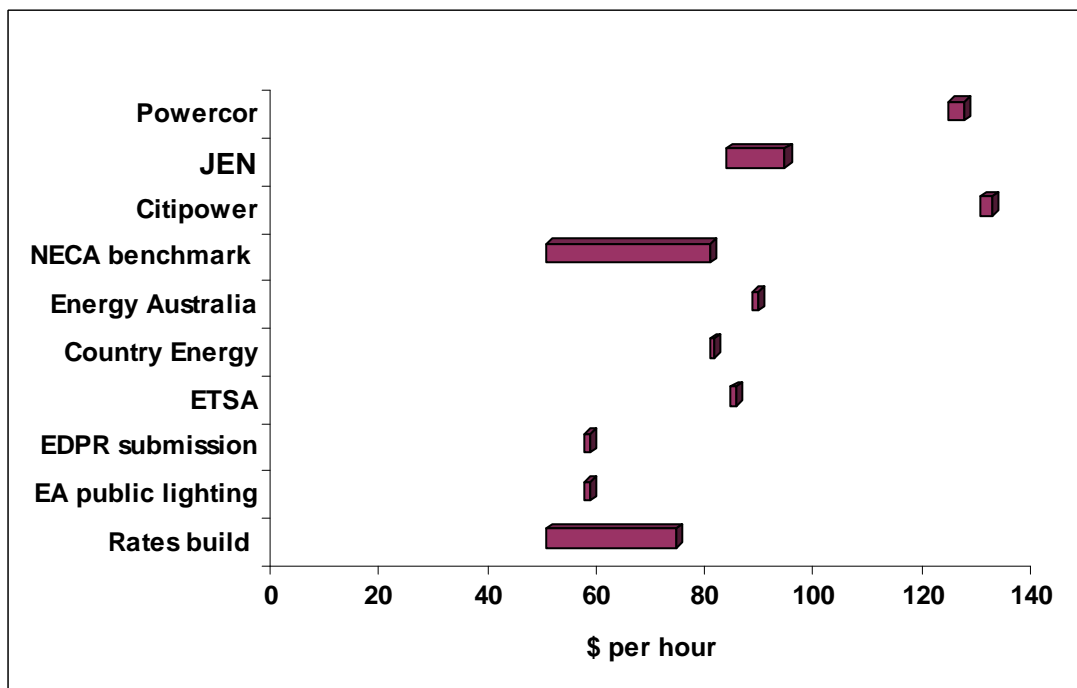


Figure 7 – Business hours Line Worker charge-out rate comparison

### 7.3.2 After hours charge-out rate comparison

Figure 8 shows a comparison of the after hours charge-out rates. The Rates build line shows a range of values, whereas all other lines only have a point value. This comparison shows:

- JEN’s spread is large and at the upper end is distinctly outlying. (The lower end is for quoted services and the higher rate is for fixed fee services); and
- CitiPower and Powercor are at the top end of the range of comparative rates.

In relation to the rates for the majority of DNSPs for out of hours activity there is a premium built into the price that is not justified based on costs, rather it would appear it is intended as a discouragement for customers to use services out of hours.

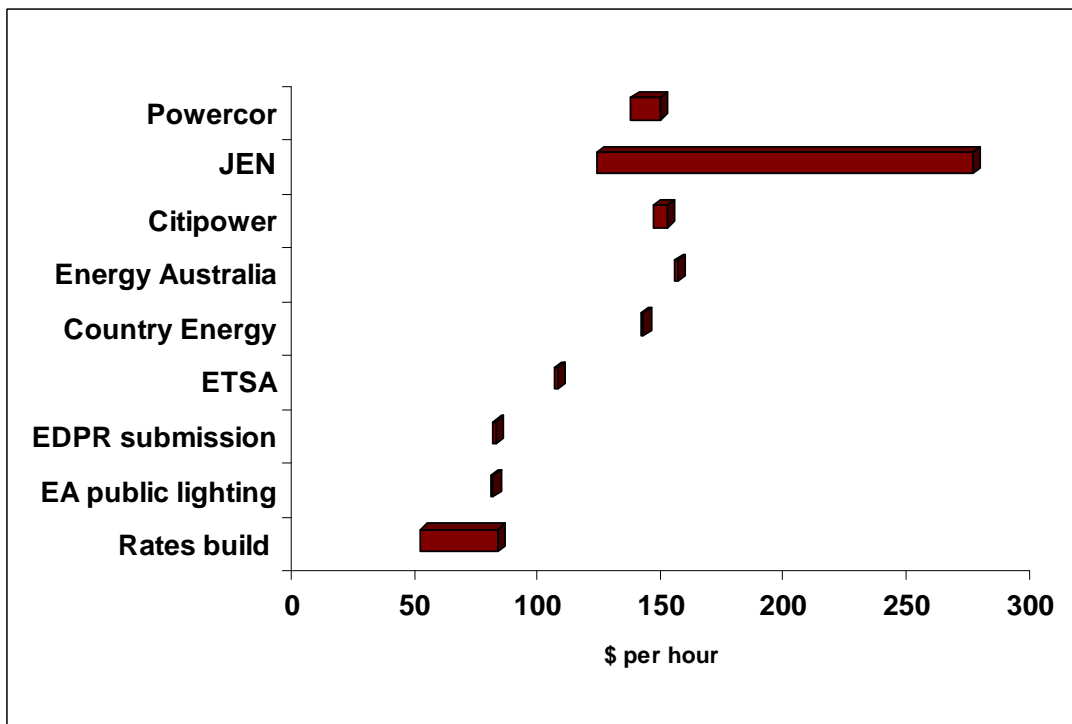


Figure 8 – After hours Line Worker charge-out rate comparison

## 7.4 Back Office

Table 17 gives a summary of the comparative charge-out rates for Back Office (Admin) staff (rounded to whole dollars).

Back Office – Admin Staff	Charge-out rate – Normal Time(\$/hour)	
	Low Case	High Case
Rates build up from wage rates	40	57
Other state DNSP EDPR submission	59	59
Country Energy	64	64
Energy Australia	70	70
CitiPower	45	55
JEN	53	74
Powercor	45	50

Table 17 – Back Office (Admin) comparative charge-out rates

Figure 9 shows a graphical comparison of the back office rates. This comparison shows:

- The rates from CitiPower and Powercor are broadly in the comparative range; and

- JEN's rate is higher than that of CitiPower and Powercor.

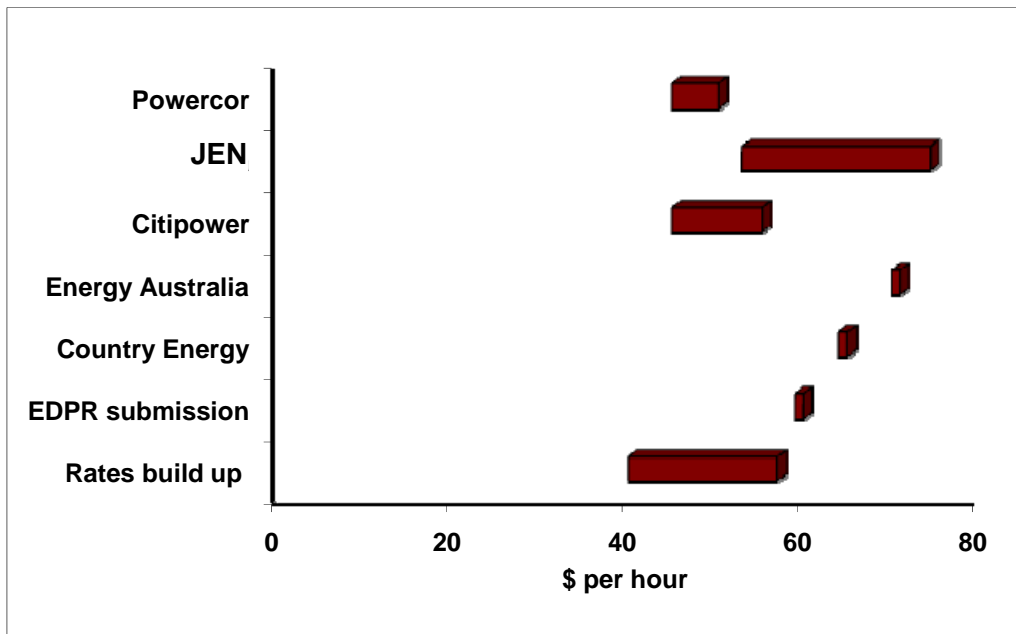


Figure 9 – Back Office rates comparison

## 7.5 Design

SP AusNet’s quoted services have a number of rates pertaining to design activities. Comparative rates for three categories of labour have been developed:

- Drafting
- Technical Officer
- Engineer

Table 18, Table 19 and Table 20 show the comparative rates for each labour category.

Design - Drafting	Charge-out rate – Normal Time(\$/hour)	
	Low Case	High Case
Rates build up from wage rates	39.95	73.74
Country Energy	80	80
Energy Australia	88	88
SP AusNet	63.79	63.79

Table 18 – Drafting – comparative rates

Design – Technical Officer	Charge-out rate – Normal Time(\$/hour)	
	Low Case	High Case
Rates build up from wage rates	44.38	73.74
ETSA	78	78
Country Energy	80	80
Energy Australia	88	88
SP AusNet	75.95	75.95

Table 19 – Technical Officer – comparative rates

Design – Engineer	Charge-out rate – Normal Time(\$/hour)	
	Low Case	High Case
Rates build up from wage rates	53.26	100.08
Country Energy	96	96
Energy Australia	105.60	105.60
SP AusNet	81.01	81.01

Table 20 – Engineer – comparative rates

## 7.6 Recommendations on charge-out rates

### 7.6.1 Public Lighting

Our judgment is that the competencies required for the repair and maintenance of public lighting is somewhat less than that of other line work (eg: glove and barrier). Furthermore the reference rates found for public lighting are in the lower comparative ranges. Based on this analysis it is our view that hourly rates for public lighting should be limited to the range of \$57 to \$74 per hour.

### 7.6.2 Fixed Fee and quoted services - Line Workers – Business Hours

In relation to the other categories of alternative control services involving line workers it would appear that on average the skill levels required are higher than for public lighting. Although our bottom up charge-out rate build up yielded a high end rate of \$74 per hour, it is noted that rates for interstate distribution businesses could be higher. Accordingly it is our view that hourly rates for ACS during business hours should be in the range of \$74 to \$84 per hour.

### 7.6.3 Fixed fee and quoted services - Line Workers – After Hours

The comparative rates for after hours work show large variations. As previously indicated it would appear that in some cases, after hours rates are set at a considerable premium to cost to discourage customers having electrical work done after hours. It is our view that such an approach should be reviewed thoroughly as it is not in alignment with cost reflectivity principles.

Accordingly, our view is that out of hours rates for ACS should be cost reflective and in the range between \$84 and \$105 per hour.

#### **7.6.4 Fixed Fee Services - Back Office Rates**

Our view is that the hourly rates for Back Office activities should be in the range between \$40 and \$60 per hour. The Country Energy and Energy Australia rates are above this but they are for a higher level of Admin activity. The CitiPower and Powercor rates fall within the range and we consider those to be reasonable. The lower end of the JEN rates is within the range and is therefore a reasonable rate; however the upper end is well above the range.

#### **7.6.5 Quoted services – design rates**

The SP AusNet quoted service rates for design activities are all within the comparative range and hence it is our view that these are reasonable.

## 8 Time taken to perform fixed fee services

Table 21 below lists all the ACS services, the times proposed by the DNSPs, our estimate of appropriate times and comments on each of the times. Each ACS service number is the same as in section 4.3. An outline of some meter testing times is given in Appendix B.

No	Service	Input	Citi-Power (hours)	JEN (hours)	Power-cor (hours)	Impaq time estimate (hours)	Comments
1	Field Officer Visits – Special Reads – Accumulation meter (BH)	Back Office time	0.11	0.042	0.11	0.01 to 0.03 (average)	This should be an automated B2B service not requiring manual intervention except in rare circumstances.
2	Field Officer Visits – Special Reads – Accumulation meter (BH)		Prices and times for service not provided	Prices and times for service not provided	Prices and times for service not provided	Prices and times for service not provided	
3 & 4	Re-energisation – existing premises – manual BH &AH	Back Office time	0.11	0.042	0.11	0.05 to 0.11	Times for CP/PC appear reasonable on the basis that often a Re-eng will be sent not long after a De-en for the same property for a move out/ move in. Time checking whether a de-eng has been also requested is important and if so converting this to just a special read with no de-eng or re-eng.
5	De-energisation manual BH	Back Office time	0.11	0.19	0.11	0.05 to 0.11	It is noted that there will be a need for some manual interventions here eg: to ensure life support customers are not disconnected. The CP/PC times look reasonable
6	De-energisation manual AH	Back Office time	-	0.19	-	0.05 to 0.11	Comments as per item 5
7 & 8	Service vehicle visit BH & AH	Back Office time	0.8	0.75	0.75	0.3 to 0.5	These back office times appear excessive as this is just about booking a truck to come to the customer's site, then doing wrap up on the job when completed. It would have been expected that 0.3 hours would be adequate
		Field Staff time	3.47 (2 persons)	2.00 (2 persons)	3.33 (2 persons)	2.7 ( crew of 2 & incl travel time)	Times are based on 1 hour on site for a crew of 2. CitiPower have assumed travel time of 45 min which seems excessive as a travel time between jobs. It would be expected that this would be more like 20 min. Total time here would be expected to be about 2.7 hours – 1 hour on site for crew of 2 plus 20 min travelling time for crew of 2.
		Scheduling Team time	-	0.25	0.30hrs	0.05 to 0.1	These times together with the back office times look too high. To allow 15 min to 20 min to schedule a truck visit seems high. 5 min would be more reasonable.
9 & 10	Wasted service vehicle visit	Back Office time	0.24hrs	0.75hrs	0.30hrs	0.24 to 0.4	It is assumed that the truck visit is only found to be wasted when the truck arrives at the customers premise. The back office time should be less as there is less wrap up work involved.

No	Service	Input	Citi-Power (hours)	JEN (hours)	Power-cor (hours)	Impaq time estimate (hours)	Comments
		Field Staff time	2.47hrs (2 persons)	2.00hrs (2 persons)	2.33hrs(2 persons)	1.0 to 1.2 (2 persons & travel time))	It would be expected that the field staff time would be less for a wasted service vehicle visit than for a service vehicle visit. It would be expected that an allowance of about 10 min on site plus 20 min travelling time would be appropriate – total time of 1 hour (30 min times crew of 2)
		Scheduling Team time	-	0.25	-		This time would be included in the back office time.
11 & 12	Meter equipment test – single phase BH & AH	Back Office time	1.13hrs	0.5hrs	1.13hrs	0.5 to 0.7	Back office times for CP/PC seem excessive. This is just to receive the request from B2B service order and schedule the testing then report results. It is expected that this should be less than 25 min.
		Field Staff time	2.74hrs	N/A	2.68hrs	1.2 to 1.5	It is noted that CP/PC appears to have omitted travel time. Testing times seem excessive. Eg: Isolating supply at 10 min is excessive for just having to pull the service fuse. Eg: Allowance of 45 min to test meter is excessive. Overall times could be reduced by about 50%. Refer Appendix B
13	Meter equipment test – single phase – each additional meter	Back Office time	1.13hrs	Not provided	1.13hrs	0.1 to 0.2	CP and PC back office times seem excessive given that this should only represent the incremental time required for the additional meter. Perhaps an allowance of 10 min extra to allow for additional activities – eg: recording results.
		Field Staff time	2.01hrs		2.01hrs	0.2 to 0.4	This time includes all the activities as if it were the only meter being tested. This should be reduced to no more than 25 min
14 & 15	Meter equipment test – multi phase BH & AH	Back Office time	1.13hrs	0.5hrs	1.13hrs	0.5 to 0.7	Comments as per item 9
		Field Staff time	3.49hrs	N/A	3.43hrs	1.4 to 1.7	There is more testing for three phase meters – see Appendix B.
16	Meter equipment test – multi phase – each additional meter	Back Office time	1.13hrs	Not Provided	1.13hrs	0.1 to 0.2	Comment as per item 11
		Field Staff time	2.76hrs		2.76hrs	0.4 to 0.6	There is more testing for three phase meters than single phase– see Appendix B Hence an additional 0.2 hours above single phase in item 11
17 & 18	Meter equipment test – CT multi phase BH & AH	Back Office time	1.04hrs	Not Provided	1.04hrs	0.5 to 0.7	It does appear an anomaly that the back office time for testing a CT meter would be less than for a single phase meter. It is considered that this should be the same as single phase or three phase
		Field Staff time	3.41hrs		3.35hrs	1.8 to 2.3	Testing a CT connected meter is more complicated however the times proposed by CP/PC seem excessive
19 & 20	Temporary Cover of mains – service lines and LV mains BH & AH	Back Office time	1.75hrs	0.5hrs	1.75hrs	0.5 – 0.8	Back office times for CP/PC appear excessive
		Field Staff time	3.87hrs	N/A	3.67hrs	2.5 to 3.5	It is assumed from the data supplied that this is to install tiger tails on LV mains (not just a service line) – a total of 35 tiger tails

No	Service	Input	Citi-Power (hours)	JEN (hours)	Power-cor (hours)	Impaq time estimate (hours)	Comments
21 & 22	Temporary supply – coincident abolishment BH & AH	Back Office time	Not Provided	0.75hrs	Not Provided	0.4 to 0.6	The back office time appears excessive
		Field Staff time		3.00hrs (2 persons)		2.0 to 3.0	Appears reasonable
		Scheduling Team time		0.25		0.0	Assumed that this would be included in back office times
		Vehicle Time		1.50hrs		1.0 to 1.5	Appears reasonable
23 & 24	New connections – single phase single element	Back Office time	0.69	0.75hrs	0.79	0.4 to 0.6	The back office time appears excessive
		Inspection and Testing time	0.1	0.25hrs	0.1	0.2 to 0.25	Appears reasonable
		Scheduling Team time	0.1	0.25hrs	0.27	0	Assumed that this would be included in back office times
		Field Staff time	2.77	2.00hrs (2 persons)	2.74	1.0 to 2.0	Time could be reduced
		Vehicle Time		1.00hrs		0.7 to 1.0	Appears reasonable
25	New connections – single phase two element		Prices and times for service not provided	Prices and times for service not provided	Prices and times for service not provided	Prices and times for service not provided	
26 & 27	New connections – three phase direct connected	Back Office time	0.69	0.75hrs	0.79	0.4 to 0.6	The back office time appears excessive
		Inspection and Testing time	0.1	0.25hrs	0.1	0.2 to 0.25	Appears reasonable
		Scheduling Team time	0.1	0.25hrs	0.1	0	Assumed that this would be included in back office times
		Field Staff time	3.61	2.00hrs (2 persons)	3.02	1.0 to 2.0	Time could be reduced
		Vehicle Time		1.00hrs		0.7 to 1.0	Appears reasonable
28 & 29	New connections – three phase current transformer connected	Back Office time	0.72	0.75hrs	0.99	0.4 to 0.6	The back office time appears excessive-
		Inspection and Testing time	1.23	1.25hrs	1.17	1.0 to 1.4	This could be quite a variable item depending on the size of the electrical installation
		Scheduling Team time	0.2	0.25hrs	0.2	0	Assumed that this would be included in back office times



No	Service	Input	Citi-Power (hours)	JEN (hours)	Power-cor (hours)	Impaq time estimate (hours)	Comments
		Field Staff time	12.2	N/A	11.88		Given the complexity and infrequency of CT connections, these times seem reasonable
		Vehicle time		N/A			

Table 21 – Times for services

## 9 Material Costs

Table 22 summarises the services in which the DNSPs have included a materials component in the ACS price and the price of those materials. The CitiPower and Powercor materials costs for new connections have been determined by disaggregating the average price covering both underground and overhead supply. The JEN costs have been determined by taking their 2008 materials costs, adding overhead recovery and margin, then escalating these by CPI plus the SKM materials escalator (real) to give costs in 2010.

No	Service	CitiPower	JEN	Powercor	Sp AusNet	Comment
17 & 18	Temporary Cover of mains – service lines and LV mains BH & AH	\$247.77	Included in contractor's price	\$232.79		Appears reasonable
19 & 20	Temporary supply – coincident abolishment BH & AH		\$27.13			Appears reasonable
21	New connections – single phase single element – <b>Overhead</b> supply	\$115.66	\$82.23	\$108.29	\$1.15 per metre of cable	Appears reasonable
23	New connections – three phase direct connected – <b>Overhead</b> supply	\$190.36	\$168.27	\$178.24	\$2.15 per metre of cable	Appears reasonable
24	New connections – three phase current transformer connected – <b>Overhead</b> supply	\$551.16	\$756.89	\$516.05	\$2.15 per metre of cable	Appears reasonable JEN.
25	New connections – single phase single element – <b>Underground</b> supply	\$128.19		\$79.46		Appears reasonable. PC is lower due to high incidence of URD
27	New connections – three phase direct connected – <b>Underground</b> supply	\$239.42		\$178.95		Appears reasonable. PC is lower due to high incidence of URD
28	New connections – three phase current transformer connected – <b>Underground</b> supply	\$196.04		\$183.55		Acceptable – however surprising that prices are less than for non CT connect.

Table 22 – Material Costs

### 9.1 Temporary cover of mains – tiger tails

For temporary cover of mains, CP and PC have included the material cost for tiger tails, tape and cable ties. Their model indicates that a box of 20 tiger tails costs \$1000. This pricing has been validated with Balmoral Engineering which is a major supplier of such materials. CP and PC have assumed a life of 10 uses for each tiger tail – hence a cost of \$5 per tiger tail per use. This appears reasonable.

CP/PC have also added overheads to this cost (For CP 41.3% and for PC 33.6%). For the service involving the covering of mains, 35 tiger tails are listed as required. The total price (including cost of tape, cable ties and confidential margin) is \$254.25 for PC and \$270.61 for CP. This appears reasonable.

## **9.2 Temporary Supply**

A temporary supply connection is provided where supply is requested for a known limited period, generally a few weeks, but may extend up to five years. Temporary supplies may be provided for such purposes as:

- construction of buildings and roads;
- mobile services, such as health service and X-Ray vans; and
- events, such as carnivals, fetes and festivals.

The material component for temporary supplies is listed by JEN as \$27.13. Most of the material for temporary supplies is recovered; however there is some cable, clamps, connectors etc whose cost is allocated across the temporary supply jobs. It is our view that this cost is reasonable.

## **9.3 New Connections**

There are two basic types of new connection – underground and overhead.

### **9.3.1 Underground**

For an underground service the customer is required by the Victorian Service Installation rules (SIRs)<sup>22</sup> to provide the service cable, the protection devices and cable connection terminals at the customer premise. The DNSP is to provide the hardware for connecting the service cable in the service pit. CitiPower and Powercor have provided detailed information on the materials used and their prices. It is our view that these prices are reasonable.

### **9.3.2 Overhead**

For an overhead service the DNSP provides the service cable and the connecting hardware to connect the cable to the mains in the street. All other materials are provided by the customer as required in the SIRs (Chapter 7). CitiPower, JEN and Powercor have provided detailed information on the materials used and their prices. It is our view that these prices are reasonable.

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<sup>22</sup> <http://www.victoriansir.org.au>

## A Appendix: Electrical Power Industry Award

The Electrical Power Industry Award 2010 (made on 4 September 2009) covers all electricity DNSPs nationally. The following table is taken from section 17 (Minimum Wages) of the award.

Pay Level	Technical Grade	Administrative Grade	Professional / Manager / Specialist Grade	Operations Grade	Minimum weekly wage \$
Level 1	Technical Grade 1	Administrative Grade 1			563
Level 2	Technical Grade 2	Administrative Grade 2		Operations Grade 2	601
Level 3	Technical Grade 3	Administrative Grade 3		Operations Grade 3	638
Level 4	Technical Grade 4	Administrative Grade 4			701
Level 5	Technical Grade 5	Administrative Grade 5	Professional / Manager / Specialist Grade 5	Operations Grade 5	765
Level 6	Technical Grade 6	Administrative Grade 6		Operations Grade 6	829
Level 7	Technical Grade 7		Professional / Manager / Specialist Grade 7	Operations Grade 7	893
Level 8			Professional / Manager / Specialist Grade 8	Operations Grade 8	957
Level 9					1021
Level 10			Professional / Manager / Specialist Grade 10	Operations Grade 10	1085
Level 11			Professional / Manager / Specialist Grade 11		1148

The classifications (as shown in section A.1) that are relevant are listed below.

- Meter readers are classified as Administrative Grade 1. Minimum wage is \$563 per week, or \$29,276 per annum.
- Back Office and Call Centre officers are classified as Administrative Grade 2. Minimum wage is \$601 per week or \$31,252 per annum.
- Linesmen are classified as Technical Grade 3 or Technical Grade 4 if they have with live line expertise (Glove and Barrier). Minimum wages are from \$638 to \$701 per week; which is \$33,176 to \$36,452 per annum. The following are relevant excerpts from the Electrical Power Industry Award.

## **A.1 Technical and Administrative Grades**

### **A.1.1 Technical Grade 3**

An employee who has Certificate III qualifications and/or other structured training to enable the employee to perform a broader range of duties which may include basic design work.

An employee at this level works under general supervision, either individually or in a team environment and performs duties in accordance with their training and skills.

Indicative positions include:

- Tradesperson (including Lines/Cable Person); and
- Advanced Plant Operator—an employee experienced in the operation in various plant or equipment applications (such as mobile plant) who possesses the appropriate certificate/ticket for that plant or equipment.

### **A.1.2 Technical Grade 4**

An employee who has additional relevant qualifications or equivalent (post trade or technical) and/or other structured training to enable the employee to perform a broader range of duties.

An employee at this level works under general supervision, either individually or in a team environment and performs duties in accordance with their training and skills.

Indicative positions include:

- Special class tradesperson such as substation, instrumentation and control;
- Live Line Glove & Barrier;
- Designer—an employee technically qualified to design distribution and/or transmission systems;
- Engineering Officer—an employee who is technically or trade qualified such as a technical officer or technician who maintains electronic control systems; and

- Supervisor (base trades).

### **A.1.3 Administrative Grade 1**

Positions at this grade provide a defined service. Roles are typically administrative/support roles in which employees undertake work in accordance with specifications, guidelines or instructions under direct supervision.

Indicative positions include:

- Meter Reader—an employee with basic numeracy and literacy skills to read devices used to monitor and record the usage of electricity; and
- Office Assistant/Receptionist.

### **A.1.4 Administrative Grade 2**

An employee who is continuing structured training so as to enable the employee to perform a broader range of duties associated with an administrative function. An employee at this level works under general supervision, either individually or in a team environment and performs a broader range of duties in accordance with their training and skills.

Indicative positions include:

- Administrative Officer—an employee with experience and/or relevant training to enable them to perform a range of basic administrative or financial tasks including use of appropriate technology; and
- Customer Service Officer—an employee with good interpersonal, computing and telephone skills to operate in a call centre environment.

## **A.2 Allowances and Leave**

### **A.2.1 Availability allowance**

Where the employer requires an employee to be available for duty after normal working hours in accordance with an availability roster under clause 24.5 the employee will be entitled to be paid an allowance as follows:

- (a) 1 in 5 or more—18% of the standard rate payable daily (on a pro rata basis) or weekly; or
- (b) 1 in 4 or less—26% of the standard rate payable daily (on a pro rata basis) or weekly.

## B Appendix: Meter Equipment Testing times

The requirements of AS1284.13 are normally the basis for DNSPs meter management plans. The tests involved are listed in Table 23.

Meter	Light Load test	Full load test 1	Full Load test 2	Full load test 3	Creep Test	Registration test
Single Phase	0.1Ib at 1.0 pf	Ib at 1.0 pf			✓	✓
Three phase	0.1Ib at 1.0 pf		test Ib at 0.5pf		✓	✓
Three phase CT	0.05In at 1.0 pf	In at 1.0 pf	In at 0.5 pf	2In or I <sub>max</sub> at 1.0 pf	✓	✓

Table 23 – Field Testing of Meters

Each of these tests is relatively quick to do. Typical times are:

- Light Load test – 5 min
- Full load test 1 – 2 min
- Full Load test 2 – 2 min
- Full load test 3 – 2 min
- Creep Test – 5 min
- Registration test – 2 min

## C Appendix: Citipower quoted services

The unit prices are given in Table 24.

<b>Emergency Recoverable works BH</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Contract Labour	confidential	confidential	confidential	confidential	confidential
Labour Escalation	confidential	confidential	confidential	confidential	confidential
Corporate Overheads	confidential	confidential	confidential	confidential	confidential
<b>Total Charge</b>	<b>130.04</b>	<b>132.66</b>	<b>135.44</b>	<b>140.25</b>	<b>143.87</b>
<b>Emergency Recoverable works AH</b>					
Contract Labour	confidential	confidential	confidential	confidential	confidential
Labour Escalation	confidential	confidential	confidential	confidential	confidential
Corporate Overheads	confidential	confidential	confidential	confidential	confidential
<b>Total Charge</b>	<b>150.98</b>	<b>154.02</b>	<b>157.25</b>	<b>162.83</b>	<b>167.03</b>
<b>Damage to overhead service cables by high load vehicles - Single Phase - BH</b>					
Contract Labour	confidential	confidential	confidential	confidential	confidential
Labour Escalation	confidential	confidential	confidential	confidential	confidential
Corporate Overheads	confidential	confidential	confidential	confidential	confidential
<b>Total Charge</b>	<b>117.36</b>	<b>119.72</b>	<b>122.23</b>	<b>126.58</b>	<b>129.84</b>
<b>Damage to overhead service cables by high load vehicles - Multi Phase - AH</b>					
Contract Labour	confidential	confidential	confidential	confidential	confidential
Labour Escalation	confidential	confidential	confidential	confidential	confidential
Corporate Overheads	confidential	confidential	confidential	confidential	confidential
<b>Total Charge</b>	<b>129.05</b>	<b>131.65</b>	<b>134.41</b>	<b>139.18</b>	<b>142.77</b>
<b>High Load Escort BH</b>					
Contract Labour	confidential	confidential	confidential	confidential	confidential
Labour Escalation	confidential	confidential	confidential	confidential	confidential
Corporate Overheads	confidential	confidential	confidential	confidential	confidential
<b>Total Charge</b>	<b>130.04</b>	<b>132.66</b>	<b>135.44</b>	<b>140.25</b>	<b>143.87</b>
<b>High Load Escort AH</b>					
Contract Labour	confidential	confidential	confidential	confidential	confidential
Labour Escalation	confidential	confidential	confidential	confidential	confidential
Corporate Overheads	confidential	confidential	confidential	confidential	confidential
<b>Total Charge</b>	<b>150.98</b>	<b>154.02</b>	<b>157.25</b>	<b>162.83</b>	<b>167.03</b>

Table 24 – Citipower Quoted Services



## D Appendix: Powercor quoted services

The unit price rates are given in Table 25

Item	2011	2012	2013	2014	2015
<b>Emergency Recoverable works BH</b>					
Contract Labour	confidential	confidential	confidential	confidential	confidential
Labour Escalation	confidential	confidential	confidential	confidential	confidential
Corporate Overheads	confidential	confidential	confidential	confidential	confidential
Total Charge	127.67	130.50	133.42	136.77	139.81
<b>Emergency Recoverable works AH</b>					
Contract Labour	confidential	confidential	confidential	confidential	confidential
Labour Escalation	confidential	confidential	confidential	confidential	confidential
Corporate Overheads	confidential	confidential	confidential	confidential	confidential
Total Charge	148.22	151.50	154.89	158.79	162.31
<b>Damage to overhead service cables by high load vehicles - Single Phase - BH</b>					
Contract Labour	confidential	confidential	confidential	confidential	confidential
Labour Escalation	confidential	confidential	confidential	confidential	confidential
Corporate Overheads	confidential	confidential	confidential	confidential	confidential
Total Charge	126.60	129.40	132.30	135.62	138.63
<b>Damage to overhead service cables by high load vehicles - Multi Phase - BH</b>					
Contract Labour	confidential	confidential	confidential	confidential	confidential
Labour Escalation	confidential	confidential	confidential	confidential	confidential
Corporate Overheads	confidential	confidential	confidential	confidential	confidential
Total Charge	139.00	142.08	145.26	148.91	152.22
<b>Damage to overhead service cables by high load vehicles - Single Phase - AH</b>					
Contract Labour	confidential	confidential	confidential	confidential	confidential
Labour Escalation	confidential	confidential	confidential	confidential	confidential
Corporate Overheads	confidential	confidential	confidential	confidential	confidential
Total Charge	127.67	130.50	133.42	136.77	139.81
<b>Damage to overhead service cables by high load vehicles - Multi Phase - AH</b>					

Item	2011	2012	2013	2014	2015
Contract Labour	confidential	confidential	confidential	confidential	confidential
Labour Escalation	confidential	confidential	confidential	confidential	confidential
Corporate Overheads	confidential	confidential	confidential	confidential	confidential
Total Charge	113.30	115.81	118.40	121.37	124.07
<b>High Load Escort BH</b>					
Contract Labour	confidential	confidential	confidential	confidential	confidential
Labour Escalation	confidential	confidential	confidential	confidential	confidential
Corporate Overheads	confidential	confidential	confidential	confidential	confidential
Total Charge	128.57	131.42	134.36	137.74	140.80
<b>High Load Escort AH</b>					
Contract Labour	confidential	confidential	confidential	confidential	confidential
Labour Escalation	confidential	confidential	confidential	confidential	confidential
Corporate Overheads	confidential	confidential	confidential	confidential	confidential
Total Charge	113.30	115.81	118.40	121.37	124.07

Table 25 – Powercor Quoted Services Prices