

Review of ancillary network services: CitiPower, Powercor, United Energy, Jemena and AusNet

Advice to the Australian Energy Regulator

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A Marsden Jacob Report

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Acronyms and abbreviations

AER	Australian Energy Regulator
DNSP	Distribution Network Service Provider
ANS	Ancillary Network Services
ACS	Alternative Control Services. These comprise ANS plus metering and public lighting. The latter two components are not included in this analysis.

1. Review of Ancillary Network Services

This report presents the findings of an independent study by Marsden Jacob Associates of input costs for Ancillary Network Services for CitiPower, Powercor, United Energy, Jemena and AusNet

Marsden Jacob Associates (Marsden Jacob) has been engaged by the Australian Energy Regulator (AER) to undertake labour rates and service charges for Ancillary Network Services (ANS) in relation to regulatory determinations for:

- CitiPower;
- Powercor;
- United Energy;
- Jemena and
- AusNet.

The assessments are to consider the reasonableness of forecast labour cost inputs that generate prices for ANS and quoted services for these Distribution Network Service Providers (DNSPs) in relation to their respective regulatory proposals for the 2021–26 regulatory control period. The scope of engagement is provided in 1.4.1 Appendix 1.

1.1 Approach

There are two elements to this analysis:

- firstly, benchmarking labour costs; and
- secondly, comparing ACS charges against similar charges for other providers. Where possible, this includes comparing the build-up of bottom-up costing.

This approach for ACS charges contrasts with the methodology used for our previous recommendations for other DNSPs. Previously, we have focussed on the build-up of charges but only Jemena provided bottom-up estimates of input labour costs, time allocated and other costs.

As noted in our other assessments, the AER may wish to consider a more assertive approach for future reviews, in which prices are moved toward the efficiency frontier. Rather than establishing prices based on reasonable costs or comparisons with other DNSPs, this approach would establish efficient costs by examining underlying drivers and considering the benchmarks set by the most efficient providers, including those outside the AER's jurisdiction.

By establishing maximum 'reasonable' prices only, the current approach may inadvertently discourage providers that are already operating below the 'reasonable' threshold from seeking

further cost efficiencies. A more assertive approach would provide an incentive for inefficient businesses to continually reduce their costs toward the efficient benchmark.

A more assertive approach would require more detailed information to ensure that material differences between the organisations and their services is considered when establishing efficient costs. Ideally, this information would be received in a standardised format to facilitate comparison. The AER would also need to consider whether (and how) it would be appropriate to reward efficient providers to ensure the system is not entirely punitive.

1.2 Base year

In reviewing ANS, Marsden Jacob has examined the labour rates and ANS charges or equivalent charges for 2020/21, the year prior to the regulatory period. For the purposes of escalation by the general inflation rate, we have used Treasury's estimate of the through the year inflation for 2019/20 and 2020/21.

In most cases, regulated businesses either provided estimates for this base year and extrapolated into the new regulatory period or provided estimates that could be converted to 2020/21 dollars:

- CitiPower, Powercor and United Energy adopted a similar approach. For labour costs, each increased their rates by the allowed nominal increases each year comprising actual price inflation for the preceding year and a (negative) labour X-factor;
- Jemena also increased its labour rates by the allowed nominal increases in price inflation and a (negative) labour X-factor. Jemena provided bottom up estimates for its services based on proposed labour rates; and
- Ausnet also increased its labour rates by the actual price inflation and a (negative) labour X-factor.

For the purposes of estimating the 'major' revenue sources from ANS, we have used revenues for 2021/22. This is because a number of services only commence in that year and have no estimate for preceding years.

1.3 Labour rates

All DNSPs provided underlying labour rates. However, these were not explicitly used to generate service fees for DNSPs except for Jemena. The labour rates do, however, underlie services provided under Quoted services.

The overall labour rate reflects the base cost of salaries plus on-costs and attribution of overheads. The extent of detail varied across each DNSP.

The labour rates for Victorian DNSPs were reviewed by the AER for the currently ending Determination period (2016-21). Through the Determination period, each DNSP has increased the rate in line with the agreed formula that provided both a price inflation adjustment and an additional labour cost adjustment. For the current Determination proposals, the DNSPs have estimated new labour rates using their own inflation and labour adjustments.

For this analysis, Marsden Jacob has used the same methodology as used for previous DNSP analyses. In earlier Marsden Jacob analyses, five classifications were used to incorporate the wide range of labour used by DNSPs:

- Administration;
- Field worker;
- Technical specialist;
- Engineer; and
- Senior engineer.

For the proposals, the DNSPs' rates were generally marked up from the previous AER decision:

- **CitiPower, Powercor and United Energy** provided all-in rates for each of five classifications for both business hours and after hours;
- **Jemena** provided base rates, on-costs and overheads for the five classifications. However, for its 'quoted services', it took its existing revenue divided by volume and escalated by price inflation and a labour escalator; and
- **Ausnet** provided all-in rates. These "include labour on-costs, fleet on-costs and overheads". It is worth noting however, that in its calculation for Quoted services Price also includes "Margin + Tax".¹

Marsden Jacob has reviewed each of the labour rates provided by the distribution businesses. A full translation of the DNSP rates to the five categories is provided in 1.4.1Appendix 2.

Using these categories, Marsden Jacob developed benchmark labour rates based on Hays 2019/20 Energy sector and Office Support salary data, against which the reasonableness of proposed labour rates could be assessed. These annual salary figures are provided in Table 1.

In assessing the reasonableness of labour rates, Marsden Jacob has built up the rates to compare with the all-in rates provided by each business.

The 'normalised' rates are shown in 2020/21 dollars and are separated into 'raw' labour rates (presented in section 1.3.1), on-costs (section 1.3.2) and overheads (section 1.3.3). As noted above, not all DNSPs provide sufficient information to compare all of these elements. Together the elements add to the total or 'all-in' labour rate (section 1.3.4), which may be applied to calculate cost reflective prices for ANS when a 'bottom-up' approach to pricing is utilised.

Marsden Jacob have defined the scope of each cost element as:

- *'Raw' labour costs* are the most basic hourly labour rates. The value excludes all on-costs and overheads. This rate excludes basic leave allowances such as sick leave, annual leave, and public holidays and is calculated based on a 40-hour week.
- *On-costs* include:
 - Basic leave allowances (sick leave, annual leave, public holidays);
 - Superannuation;

¹ AusNet Electricity Services Pty Ltd (2020) *Electricity Distribution Price Review 2022-26 – Part IV*, submitted 31 January, p. 59

- Workers Compensation;
 - Payroll tax;
 - Annual leave loading; and
 - Long service leave loading.
- *Overheads* are all additional costs included in the total labour rates proposed by distribution business.

1.3.1 Raw labour rates

Marsden Jacob has proposed a maximum rate for each labour category based on consideration of the rates applied across the businesses and a comparison against the Hays benchmark salary rates (Table 1).

The Hays annual salaries have been converted to a raw hourly rate using the Melbourne rates. Rates for regional Victoria are only available for administrative support.

Table 1: Hays hourly salary rates, \$2019/20

	Low	High	From AER Preliminary Decision & Final Decision for Victoria 2016–20
Administration	26.35	38.33	38.46
Technical specialist	50.31	62.29	67.31
Engineer	47.91	62.29	72.12
Field worker	43.12	62.29	67.31
Senior Engineer	62.29	81.45	96.15

Source: Hays 2020 and Marsden Jacob

1.3.2 On-costs

Two types of on-costs have been added to the ‘raw’ labour rates to benchmark the total on-cost rates proposed by the distribution businesses:

- *Basic leave entitlements* including annual leave, sick leave and public holidays - the leave entitlements, once added to the raw labour rate, establish the wage rate per hour actually worked by an employee; and
- *Standard on-costs* such as superannuation, workers compensation, payroll tax, annual leave loading and long service leave.

Table 2 provides Marsden Jacob’s recommendations in relation to total on-costs. Basic leave entitlements have been estimated on the basis of 44 weeks of actual work per year (52 weeks minus 4 weeks of annual leave, 2 weeks of sick leave and 2 weeks of public holidays²).

The estimates for standard on-costs have been developed with reference to:

- the superannuation level identified by each DNSP;

² The number of public holidays for Victoria is slightly higher than elsewhere (12 days versus 10 days standard).

- an estimate of workers compensation premiums based on industry (electricity distribution) standard;
- standard payroll tax rates for Victoria;
- annual leave loading of 17.5% loading on 4 weeks annual leave (industry standard), which equates to 1.35% of total salary; and
- a conservative long service leave allowance based on three months leave for every 10 years of service, equating to 2.5% per year.

Table 2: Labour on-costs

Description	All Victorian businesses	From AER Preliminary Decision & Final Decision for Victoria 2016–20
<i>Basic leave entitlements</i>		
Standard leave (annual leave, sick leave, public holidays) ¹	Rate of 19.28% assumed for all businesses	18.18%
<i>Standard on-costs</i>		
Superannuation ²	9.5%	10.00%
Workers Compensation ³	0.29%	2.25%
Payroll tax ⁴	4.85%	4.85%
Annual leave loading ¹	1.35%	1.35%
Long Service leave allowance ¹	2.50%	2.5%
<i>Total leave and on-costs (note percentages are compounded)</i>		
Marsden Jacob proposed leave and on-cost allowances	42.68%	44.78%

Sources

1 Based on Marsden Jacob analysis

2 DNSPs expect this rate to increase over the life of the Determination. This increase was built into the estimates of the X-factor for wages by the DNSPs.

3 Worksafe 2017/18 averages for Electricity distribution industry

4 Standard rate – State Revenue Office

1.3.3 Overheads

As noted, overheads applied by each of the distribution businesses are not necessarily published. In addition, Jemena included overheads separately with its labour estimate but then also separately included Margin and Tax.

In previous reviews, Marsden Jacob calculated an ‘implied overhead rate’ for each of the businesses by taking the ratio between the total labour rate proposed by distribution businesses (including all on-costs and overheads) and the standard labour rate (including on-costs but not overheads). This approach provided a simple method of calculating directly comparable total overhead rates.

For this review we have concentrated only on the total (‘all-in’) rate, inclusive of a maximum benchmark overhead rate, to avoid the need for assumptions regarding the breakdown of on-costs and overheads.

As recommended in our 2018 review:

Overheads include a wide range of costs, including anything other than the direct labour cost of providing a service, including (but not limited to) supervisory and management costs, customer service and billing, communications and information technology, fleet costs, and corporate costs such as finance and planning.

We have also accepted the inclusion of an explicit profit margin.** Where these are explicitly identified, however, this allocation is to be recovered – and therefore benchmarked – **within the overall overhead allowance.

...

Very little information is publicly available to benchmark the DNSPs proposed overhead rates with other industries, because this level of breakdown does not need to be provided in statutory financial reports. Self-published information and industry information published for specific purposes is often not suitable as a benchmark because of inconsistent and/or unclear definitions.

*In our experience reviewing commercially confidential information in other capital intensive industries such as water and gas, overhead rates for non-retail businesses in the order of 45-65% are not unreasonable. In retail businesses, the rates can be as high as 100% of (purely) direct costs due to the higher level of customer engagement. **[bolding added]**³*

Consistent with previous reviews, Marsden Jacob has applied an overhead mark-up of 61%.

1.3.4 Maximum hourly rates

It is possible to compare the 'all-in' hourly rate provided by the DNSPs against Marsden Jacob's built-up benchmark rate, i.e. the Hays base rate plus standard on-costs plus the benchmark overhead rate.

As noted above, AusNet has used different labour classifications. We have used our benchmark classifications to determine if the service rates are appropriate.

Table 3 provides a translation of the classifications used by AusNet to a notionally equivalent Marsden Jacob classification.

³ Marsden Jacob (2018) *Review of Alternative Control Services; Advice to Australian Energy Regulator*, p. 7.

Table 3: Classification of AusNet labour rates

Service description	Marsden Jacob labour type
Construction Overhead Install	Field worker
Construction Underground Install	Field worker
Construction Substation Install	Field worker
Electrical Tester Including Vehicle & Equipment	Technical specialist
Planner Including Vehicle	Technical specialist
Supervisor Including Vehicle	Technical specialist
Design	Engineer
Drafting	Technical specialist
Survey	Technical specialist
Tech Officer	Technical specialist
Line Inspector	Technical specialist
Contract Supervision	Technical specialist
Protection Engineer	Engineer
Maintenance Planner Including Vehicle	Technical specialist

Based on the aggregate of these elements, the maximum total (all-in) rates recommended by Marsden Jacob are shown in Table 4.

It is important to reiterate that the maximum hourly rates in Table 4 include the *highest* of the Hays salary rates for each labour category. While we consider these to be reasonable maximum rates, they are not necessarily efficient rates.

Table 4: Maximum total hourly rates (base plus on-costs plus overheads), \$ 2020/21

All businesses	
Administrative Officer	\$92.51
Field Worker	\$171.34
Technical Specialist	\$171.34
Engineer	\$150.33
Senior Engineer	\$196.58

Note that the Field Worker rate includes an allowance for a vehicle as an additional overhead.

Table 5 summarises the all-in labour rates (including all overheads) proposed by each of the distribution businesses by category. Labour rates that are higher than our proposed maximum have been identified in red, with our recommended rate shown in black beneath.

Table 5: CitiPower proposed total hourly rate (base plus on-costs plus overheads), \$2020/21*

	All-in rate
Administrative Officer	\$112.82 \$92.51
Field worker	\$185.55 \$171.34
Technical Specialist	\$200.86 \$171.34
Engineer	\$179.11 \$150.33
Senior Engineer	\$271.84 \$196.58

* Recommended rates shown in black.

Table 6: Powercor proposed total hourly rate (base plus on-costs plus overheads), \$2020/21*

	All-in rate
Administrative Officer	\$112.82 \$92.51
Field worker	\$184.61 \$171.34
Technical Specialist	\$199.84 \$171.34
Engineer	\$178.20 \$150.33
Senior Engineer	\$270.46 \$196.58

* Recommended rates shown in black.

Table 7: United Energy proposed total hourly rate (base plus on-costs plus overheads), \$ 2020/21*

	All-in rate
Administrative Officer	\$112.82 \$92.51
Field worker	\$164.40
Technical Specialist	\$177.37 \$171.34
Engineer	\$156.55 \$150.33
Senior Engineer	\$271.84 \$196.58

* Recommended rates shown in black.

Table 8: Jemena proposed total hourly rate (base plus on-costs plus overheads), \$2020/21*

	All-in rate
Administrative Officer	\$90.16
Field worker	\$153.54
Technical Specialist	\$140.99
Engineer	\$170.66 \$150.33
Senior Engineer	\$215.34 \$196.58

* Recommended rates shown in black.

Table 9: AusNet proposed total hourly rate (base plus on-costs plus overheads), \$ 2020/21*

Service description	Marsden Jacob labour type	Ausnet proposed rate type
Construction Overhead Install	Field worker	\$113.54
Construction Underground Install	Field worker	\$110.90
Construction Substation Install	Field worker	\$110.90
Electrical Tester Including Vehicle & Equipment	Technical specialist	\$198.26 \$171.34
Planner Including Vehicle	Technical specialist	\$152.42
Supervisor Including Vehicle	Technical specialist	\$152.42
Design	Engineer	\$130.14
Drafting	Technical specialist	\$100.01
Survey	Technical specialist	\$117.80
Tech Officer	Technical specialist	\$117.80
Line Inspector	Technical specialist	\$113.54
Contract Supervision	Technical specialist	\$117.80
Protection Engineer	Engineer	\$130.14
Maintenance Planner Including Vehicle	Technical specialist	\$117.80

* Recommended rates shown in black.

As is outlined in the recommendations, many of the proposed rates exceed that estimated by Marsden Jacob. In the case of Senior Engineers, the difference is significant. As a result, we reviewed these outcomes against other jurisdictions and previous recommendations for other DNSPs.

We note that for a number of classifications, the base Victorian rate tends to be in the middle of the pack for eastern mainland State rates (Table 10). The rate for Senior Engineer is only higher in Brisbane.

In addition, we note that in the most recent Hays survey, the maximum rate for a number of engineering jobs in Melbourne (both Engineer and Senior engineer) declined significantly (down

some \$30,000 pa compared with the survey used last year). As noted above, we use the maximum rather than a midpoint or average rate.

Table 10: Comparable base rates in four cities

	Sydney	Melbourne	Brisbane	Adelaide
Base salary (hourly)				
Admin	\$40.73	\$38.33	\$31.14	\$35.93
Technical Specialist	\$62.29	\$62.29	\$79.06	\$71.87
Engineer	\$76.66	\$62.29	\$71.87	\$67.08
Field worker	\$52.70	\$62.29	\$64.68	\$52.70
Senior Engineer	\$81.45	\$81.45	\$91.03	\$76.66

Source: Hays (2020) and Marsden Jacob analysis

Marsden Jacob recommendations:

For each of CitiPower, Powercor and United Energy, Marsden Jacob recommends the following maximum all-in labour rates in 2020/21 dollars:

- Administration \$92.51
- Technical specialist \$171.34
- Engineer \$150.33
- Senior engineer \$196.58

For both CitiPower and PowerCor, Marsden Jacob recommends a maximum all-in labour rate for Field worker of \$171.34

For Jemena, Marsden Jacob recommends the following maximum all-in labour rates:

- Engineer \$150.33
- Senior engineer \$196.58

For AusNet, Marsden Jacob recommends the maximum all-in rate for Electrical Tester Including Vehicle & Equipment be set at \$171.34.

For any services not benchmarked in this report, the AER may choose to multiply the rates in the above tables by the time taken to provide that service to arrive at a maximum price.

It is worth noting that the Marsden Jacob rates for both Field worker and Technical specialist include a \$20/hour for a vehicle. These should not be separately included in a Quoted rate calculation.

1.3.5 Overtime rates

This analysis has focussed on normal time rates. The DNSPs also provide after hours services which are based on an overtime rate. All above on-costs and overheads would still apply to these rates. We consider that without specific evidence on the split of after hours work, that the average overtime rate would lie between the main categories of time and a half and double time.

In the Electricity supply sector, *Average weekly total hours paid for* (38.8 hours) exceeded *Average ordinary time hours paid for* (37.0 hours) by less than 2 hours in 2018.⁴ As this is less than the minimum daily time typically required before double time applies, it is likely that most overtime incurs time and half.

For the purposes of this analysis, a simple average suggests the average overtime rate would not exceed 1.75 times the standard rate. This mark-up is applied for overtime hours in the service analysis.

1.4 Benchmarked services

Marsden Jacob reviewed the proposed charges for a number of ANS services. In previous reports, some 10 services were broadly common across the distribution businesses and were reviewed. In some cases, we looked at a broader range of services to ensure that the analysis covered the majority of expected revenues for the businesses.

Through this approach for this current review, we have included services that together accounted for at least 91% of overall ANS revenue for each of the DNSPs. This means that where a common calculation base was used the reviewed services represented a larger number of services and proportion of revenue. In addition, for the group of DNSPs using a common framework (CitiPower, Powercor and United Energy), the services comprising each one's 'top 10' were also included with the other two if not already included. For these providers, some 16 services were examined.

In contrast to our previous analyses, information on bottom up generation of charges is only provided by Jemena. The other DNSPs rely on increasing charges from the levels previously endorsed by the AER. Therefore for this review, we have examined both the implied increases for the proposed charges and, where practicable, compared the charges with like services in other jurisdictions.

The services examined were:

- CitiPower, Powercor and United Energy:
 - New connections
 - BH - Single phase
 - BH - Multi-phase CT
 - BH - Multi-phase DC
 - AH - Single phase
 - AH - Multi-phase CT
 - AH - Multi-phase DC
 - Metering services
 - BH - Standard alteration, <60 minutes
 - BH - Meter/NMI/site investigation
 - BH - Failed field visit (unable to perform customer requested task)
 - BH - Complex alteration, > 60 minutes
 - BH - Manual re-energisation (incl customer transfer)

⁴ *Employee earnings and hours, Australia, May 2018* (ABS Cat No 6306.0)

- BH - Remote meter reconfiguration
 - BH - Isolation of supply or reconnection, excluding HV (single)
 - BH - Service truck visit (Metering)
 - BH - Access to meter data
 - BH - Remote energisation
- Jemena
 - Basic connection, single-phase BH
 - Wasted site attendance BH
 - Remote meter reconfiguration
 - Supply upgrade/enhancement (1ph to 3ph) BH
 - Basic connection, three-phase BH
 - Reserve feeder operation and maintenance
 - Temporary connection, single-phase BH
 - Supply upgrade/enhancement (1ph to 3ph) AH
 - Field-based de-energisation BH
 - Field-based energisation BH
- AusNet
 - Wasted Truck Visit – customer not ready for their requested works
 - Service truck - Disconnect / Reconnect at pole or pit – Business Hours
 - Single Phase underground with a directly connected meter on group metering panel - Business Hours
 - Single Phase underground – Business Hours
 - Re-energisation
 - Multi-phase underground with a directly connected meter on group metering panel – Business Hours
 - Multi-phase underground with a directly connected meter – Business Hours
 - Multi-phase underground with a CT connected meter – Business Hours
 - 95mm² overhead service from LVABC – Business Hours
 - Manual assessment of PV & small generator installation enquiry, 4.6kW to 15kW

As noted above, the fee classes for CitiPower, Powercor and United Energy are common and facilitate comparison. In addition, the connection fees are comparable to other DNSPs. Where practical we have identified similar services for Jemena and AusNet.

An important consideration in this analysis is that the three DNSPs with common services, CitiPower, Powercor and United Energy, amalgamated a number of services for this proposal. These are shown below.

Discontinued services:

- Service truck visit (Metering)
- Wasted truck visit (Metering)
- Service truck visit (Servicing)
- Wasted truck visit (Servicing)
- Remote energisation

- Remote de-energisation
- Access to meter data

New services:

- Isolation of supply or reconnection, excluding HV (single)
- Isolation of supply and reconnection after isolation, excluding HV (same day)
- Standard alteration, <60 minutes
- Complex alteration, > 60 minutes
- Failed field visit (unable to perform customer requested task)

The two failed visits services have been combined into one. Remote energisation and re-energisation have been removed from the DNSPs' ANS. The two Service truck visits (Metering and Servicing) have been disaggregated into the remaining new services.

Table 11 provides a summary of charges for each Victorian DNSP for these services and comparable services across other jurisdictions. These have been grouped into services with similar characteristics where possible.

Table 11: Summary of charges

	Victorian DNSPs					Other networks - proposed						
	2021/22					2018 (2018-19 real)						
	CitiPower	Powercor	United Energy	Jemena	Ausnet	2019 Ergon	Energex	SA PN	Ausgrid	Endeavour	Essential	Evoenergy
New connections												
BH - Single phase	\$549.08	\$550.40	\$513.67									
Basic connection, single-phase BH				\$664.34								\$690.46 - \$1,281.85 ¹
Single Phase underground with a directly connected meter on group metering panel - BH					\$460.94							
Single Phase underground – BH					\$209.63							
BH - Multi-phase CT	\$2,744.50	\$2,668.97	\$1,783.00									\$690.46 - \$1,281.85 ¹
Multi-phase underground with a CT connected meter – BH					\$841.42							
BH - Multi-phase DC	\$656.26	\$681.65	\$513.67									
Basic connection, three-phase BH				\$796.27								
Multi-phase underground with a directly connected meter on group metering panel – BH					\$590.12							
Multi-phase underground with a directly connected meter – BH					\$338.81							
AH - Multi-phase DC	\$715.27	\$748.11	\$784.47									
AH - Multi-phase CT	\$3,378.51	\$3,310.17	\$2,723.01									

	Victorian DNSPs					Other networks - proposed						
	CitiPower	Powercor	2021/22 United Energy	Jemena	Ausnet	2019 Ergon	Energex	2018 (2018-19 real)				
								SA PN	Ausgrid	Endeavour	Essential	Evoenergy
AH - Single phase	\$608.08	\$616.87	\$784.47									
Other services												
BH - Standard alteration, <60 minutes	\$597.09	\$691.19	N/A									
BH - Meter/NMI/site investigation	\$388.84	\$436.05	\$284.34									
BH - Failed field visit (unable to perform customer requested task)	\$372.03	\$377.93	\$600.37									
Wasted site attendance BH				\$478.46					\$110.82		\$158.39	\$176.56
Wasted Truck Visit – customer not ready for their requested works					\$205.93							
BH - Complex alteration, > 60 minutes	\$742.13	\$859.08	\$326.33			\$451.04	\$362.11	\$631.74				
BH - Manual re-energisation (incl customer transfer)	\$38.99	\$57.53	N/A									
Field-based de-energisation BH				\$71.96								
Field-based energisation BH				\$50.19		\$140.74	\$144.84					
BH - Remote meter reconfiguration	\$59.59	\$59.88	N/A									
Remote meter reconfiguration				\$50.56								
BH - Isolation of supply or reconnection, excluding HV (single)	\$345.53	\$399.98	N/A								\$47.25	\$88.28
BH - Service truck visit (Metering)	N/A	N/A	\$67.81			\$122.89	\$415.06	\$379.58	\$465.30	\$448.79	\$723.21	\$353.11

	Victorian DNSPs					Other networks - proposed						
	CitiPower	Powercor	2021/22 United Energy	Jemena	Ausnet	2019 Ergon	Energex	2018 (2018-19 real)				
								SA PN	Ausgrid	Endeavour	Essential	Evoenergy
BH - Access to meter data	N/A	N/A	\$50.86									
BH - Remote energisation	N/A	N/A	\$50.86									
Re-energisation						\$1.46						
Reserve feeder operation and maintenance				\$13.19								
Supply upgrade/enhancement (1ph to 3ph) BH				\$796.27								
Temporary connection, single-phase BH				\$664.34								\$535.17 – \$1,032.95 ²
Supply upgrade/enhancement (1ph to 3ph) AH				\$796.27								
Service truck - Disconnect / Reconnect at pole or pit – Business Hours						\$553.84	\$112.48	\$120.70				
95mm ² overhead service from LVABC – Business Hours						\$832.10						
Manual assessment of PV & small generator installation enquiry, 4.6kW to 15kW						\$318.00						

Notes

- .1. For both single and three phase connections. Lower figure is greenfields connection. Higher is for brownfields.
- .2. Lower figure is greenfields connection. Higher is for brownfields.

Across the DNSPs, charges reflect those approved by the AER in the previous Determination. The actual charges in the earlier determination are approved annually. For this Determination, where a charge existed in the previous Determination, it was increased by the amounts shown in Table 12.

Table 12: Increases in charges compared with 2020 approved annual rates

DNSP	Increase over 2020 prices
CitiPower	2.6%
Powercor	2.6%
United Energy	2.6%
Jemena	Varies see below
AusNet	1.1%

Where a new charge is an amalgamation, the charge reflects the weighted average of its predecessors.

Across the range of connection services identified in Table 11, few charges appear excessive. These have been identified with a red outline in the table above. In general, comparable services are rare across earlier reviews. One of the few was Evoenergy which provided a common connection charge but varied between greenfields and brownfields sites (and underground vs overhead wiring).

1.4.1 Proposed action

In contrast to previous Marsden Jacob reviews, we do not propose to recommend specific price levels for individual services for DNSPs. As much of the costing is opaque for all DNSPs except Jemena, we have instead proposed that the AER seek further information on charges for specific services.

The AER should seek clarification on the cost inputs for the following services:

- For multi-phase connections through a CT meter, the charges by CitiPower and Powercor (and both business hours and after hours) lie above those comparable services for United Energy and AusNet.

Within other services, a number of Victorian services appear higher than elsewhere possibly reflecting greater use or implied use of trucks.

- The charges for failed visits or wasted site attendance are significantly higher for CitiPower, Powercor, United Energy and Jemena. The rate for AusNet, while still higher than rates proposed in NSW is not excessively so.
- The charges for Complex alterations for CitiPower and Powercor are significantly higher than that proposed for United Energy. The latter is in line with fees proposed by Ergon/Energex.
- The charges for Isolation of supply or reconnection, excluding HV (single) for CitiPower and Powercor appear high but may refer to more complex operations than provided by Essential

Energy and Evoenergy. Similarly, AusNet's Disconnection at pole top lies well above that for Ergon/Energex. As noted in its description, the Victorian operator uses a truck for this operation.

Jemena appears to have revised the level of its service charges from the Jemena Annual Pricing 2020 report. Table 13 shows the current and previous charges for the present range of services.

Table 13: Jemena proposed FY22 prices and approved 2020 fees

Connection services	FY22 prices in June \$2021		2020 approved fees		Change over 2020	
	Business	After Hours	Business	After Hours	Business	After Hours
Connection services						
Basic single-phase connection	648.99	648.99	631.01	631.01	2.8%	2.8%
Basic three-phase connection	777.87	777.87	817.64	817.64	-4.9%	-4.9%
Ancillary network services						
Temporary single-phase connection	648.99	648.99	614.59	614.59	5.6%	5.6%
Temporary three-phase connection	777.87	777.87	786.48	786.48	-1.1%	-1.1%
Field-based energisation	49.03	85.58	38.54	61.24	27.2%	39.7%
Field-based de-energisation	70.30	70.30	59.46	78.08	18.2%	-10.0%
Disconnection (temporary)	363.44	514.36	72.93	81.43	398.3%	531.7%
Reconnection	421.10	599.46				
Basic connection upgrade (single-phase to three-phase)	777.87	777.87				
Replacement of overhead basic connection (single-phase)	760.54	760.54				
Replacement of overhead basic connection (three-phase)	834.29	834.29				
Reserve feeder maintenance	12.89	12.89				
Other ancillary network services						
Customer access to electricity consumption data	50.93	50.93				
Security lighting	134.99	134.99				
Auxiliary metering services						
Remote special meter read	-	-				
Remote energisation	-	-	10.42			
Remote de-energisation	-	-	10.42			
Remote meter re-configuration	49.39	49.39	54.49		-9.4%	
Meter alteration (or relocation)	467.41	645.76				
Field-based special meter reads	47.24	47.24	34.42	37.86	37.2%	24.8%
Meter test of types 5, 6 and AMI smart metering installations	509.28	691.40	405.68	667.67	25.5%	3.6%
Type 7 metering (meter data service)	1.43	1.43	0.66		116.2%	
Non-contestable unmetered metering (\$/device)	16.41	16.41				

It is not clear why Disconnections (Temporary) increased so significantly. For each of the NSW DNSPs, the time allowed to undertake a Disconnection through a site visit did not exceed two FTE

hours (and in that case it was significantly⁵ discounted). The charges allowed in that review were consistent with those provided by Jemena in 2020. While this service is not, however, one of the major revenue contributors, it would be appropriate to question both the significant increase in time and charges.

In the charges identified above, Jemena's connection charge for single phase during business hours and after hours lies well above other Victorian providers. It is still, however, below that claimed by Evoenergy for greenfields connections.⁶

Jemena has moved to a single charge for both business hours and after hours connections. However, of concern is that in its build up of this charge, Jemena uses the simple average of the field worker business hours and after hours rates. It is not clear why the simple average would provide an appropriate measure. According to its model, in 2018, there were some 6,824 business hours connections and 139 after hours connections. A similar relativity occurs for most other services previously provided as separate business hours/after hours services.

If Jemena wishes to use one charge for each of these services and wishes to use a single (field worker) labour cost input, the weighting should reflect the labour input weighting across all these services and not the simple average.

We note that the overheads rate applied by Jemena is in line with that previously recommended by Marsden Jacob. However, as noted in previous reviews, this overhead rate includes an allowance for margin (and its implicit taxation).

For this review, in addition to adjustments for lowering labour input costs, all service charges should not include these two separate mark-ups.

⁵ In one case two hours of engineer time was discounted 98% to calculate the labour input cost.

⁶ Evoenergy's submitted charge covers the range of single to three phase power

Appendix 1 Scope of engagement

Detailed Description of the Requirement

Provide input cost assessment in relation to the Australian Energy Regulator's (**AER**) 2021-26 regulatory determinations for the Victorian distribution network service providers – AusNet Services, Jemena, Powercor, CitiPower and United Energy (**Victorian DNSPs**).

This assessment should be completed using a similar method to Marsden Jacob's previous alternative control services work for the AER.

Specifically, the AER will require the consultant to evaluate the reasonableness of forecast cost inputs that generate revenues/prices for alternative control services – specifically, ancillary network services. This includes:

- Proposed labour rates
- Other inputs to ancillary network services, such as the times taken to perform common fixed fee services.

This should include the recommendation of maximum reasonable labour rates for different labour categories for Victoria, and benchmarking of the most common fixed fee services, including consideration against Marsden Jacob's previous reports for the AER.

Appendix 2 Labour rate calculations

Example translation of Hays annual salary rates to maximum hourly rates

Marsden Jacob labour category: Field Worker

Location: Melbourne

Highest equivalent Hays labour category: G&B linesworker

Highest annual salary rate for G&B linesworker, Melbourne, 2020: \$130,000 per annum

On-cost rate: 42.68%

General overhead rate: 61%

Vehicle allowance for Fleet Worker: \$20/hour

Raw rates

$$\begin{aligned}\text{Base ('raw') hourly rate 2020} &= \$130,000 / 52 \text{ weeks} / 40 \text{ hours per week} \\ &= \$62.29/\text{hour}\end{aligned}$$

Including on-costs rate

$$\begin{aligned}\text{Base rate inflated by on-costs} &= \$62.29 \times (1 + 42.68\%) \\ &= \$88.87/\text{hour}\end{aligned}$$

Including overheads rate

$$\begin{aligned}\text{On-cost rate inflated by overheads} &= \$88.87 \times (1 + 61\%) + \text{Vehicle } (\$20) \\ &= \$163.08/\text{hour}\end{aligned}$$

$$\begin{aligned}\text{Total ('all-in') rate 2017} &= \text{Including overheads rate} * \text{inflation} * \text{wage measure stickiness} \\ &= \$163.08 \times (1 + 2.25\%) \times (1 + 2.5\%) \\ &= \$171.34/\text{hour}\end{aligned}$$

Appendix 3 Summary of Hays labour rates

Table 14 shows the job descriptions included against each labour category from the Hays 2018 report. The table also shows the rates used. For a number of Office support categories, Hays provides both metropolitan and rest of State figures. For the purposes of this analysis, we have only used the metropolitan figures.

Table 14: Hays categories included in analysis – Melbourne (\$'000 pa)

Benchmark inclusion	Category	Title	Low	High
ENERGY SECTOR				
Engineer	T&DG	Design engineer	75	110
Senior engineer	T&DG	Senior design engineer	100	140
Senior engineer	T&DG	Principal design engineer	125	150
Engineer	T&DG	Project engineer (EPCM)	90	130
Senior engineer	T&DG	Senior project engineer (EPCM)	130	170
Engineer	T&DG	Power systems engineer	90	130
Engineer	T&DG	Protection engineer	75	125
Engineer	T&DG	Transmission line design engineer	100	130
Technical specialist	REN	Technician	85	115
Technical specialist	O&M	Control room operator	95	115
Engineer	O&M	Asset engineer (3-7 years)	85	130
Field worker	O&M	Leading hand	90	110
Field worker	O&M	Electrician	90	120
Field worker	O&M	Mechanical fitter	60	80
Technical specialist	O&M	E&I technician	80	110
Field worker	O&M	Line worker	65	80
Field worker	O&M	G&B linesworker	85	130
Technical specialist	O&M	Protection technician	95	120
Technical specialist	O&M	Generator technician	80	100
Field worker	O&M	Cable jointer	85	105
Field worker	O&M	Cable layer	75	95
Engineer	PRO DEL	Project engineer (EPCM)	95	130

Benchmark inclusion	Category	Title	Low	High
Technical specialist	PRO DEL	Site engineer	80	130
Senior engineer	PRO DEL	Commissioning engineer	130	150
Technical specialist	PRO SERV	Planner / scheduler	105	130
Technical specialist	PRO SERV	OHS supervisor	85	120
OFFICE SUPPORT				
Admin	ADMIN	Administration assistant (12+ years)	44	50
Admin	ADMIN	Project admin assistant (3+ years)	50	60
Admin	ADMIN	Project coordinator	55	80
Admin	ADMIN SP	Data entry operator	40	48
Admin	ADMIN SP	Records officer	40	50
Admin	P&C Support	Project secretary / administrator	55	70
Admin	P&C Support	Client liaison (residential)	45	65