19 January 2024

REFERENCE NUMBER
Our Ref: 60:D24:239

By Email: AERresets2024-29@aer.gov.au

Dear AER

Jacana Energy Response – AER Draft Decision and PWC Revised Proposal

Thank you for the opportunity to make a submission in response to the Australian Energy Regulator's (AER) draft decision on Power and Water Corporation's (PWC) Electricity Distribution Determination 1 July 2024 to 30 June 2029 (Draft Decision) and PWC's Revised Regulatory Proposal Response to the AER's Draft Decision (Revised Proposal).

Below Jacana Energy has detailed feedback across both documents.

Tariff Structure Statement

With regards to PWC's tariff structure statement detailed in the Revised Proposal, Jacana Energy notes the following:

- Jacana Energy acknowledges that capital investment is required to accommodate increasing renewables and that this investment may require increases to network tariffs. Whilst we accept additional investment is required, we believe PWC should have greater consideration of non-network solutions (e.g., enabling Virtual Power Plants (VPPs), demand side management, etc., to operate; and working with retailers and government agencies to create energy efficiency and/or behaviour-driven load shifting opportunities) and we encourage the AER to consider how it best incentivises distributed network services providers to focus more on these types of cost-effective and customer-oriented programs.
- Jacana Energy's analysis, detailed in Appendix A, found that the time-of-use (TOU) tariffs will leave customers that are unable to shift their demand worse off had they otherwise remained on standard variable tariffs. This was primarily noted across hardship customers (who may not have the financial means to purchase technology to support shifting their demand) and small commercial customers (who operate during peak periods).

  To incentivise customers to use a more cost reflective TOU tariff, Jacana Energy believes the TOU tariffs should adopt a 'no worse off' approach, whereby customers that are unable to shift their consumption are not penalised under the tariff structure and customers that can shift their consumption are incentivised to do so to obtain a cost saving.

  Further, our analysis shows the demand behaviour differs between customers with solar photovoltaics (PV) and those without, and a single TOU tariff for both customer cohorts may not be appropriate. The proposed TOU tariffs may not be sufficient to shift demand behaviour of customers with solar PV, and alternative TOU tariffs specifically designed for solar customers and solar customers with batteries could enable PWC to better incentivise demand behaviour change from these customers. For example, a tariff specifically for solar customers with batteries could be designed to incentivise solar customers to invest in batteries which would support the lowering of peak period demand and potentially also address minimum demand challenges.

- Jacana Energy believes the proposed TOU tariff structure could be simplified by removing seasonality. This simplification may make the tariffs more palatable to customers and improve uptake. Jacana Energy notes that other retailers operating in similar climates within the NEM, such as Ergon Energy's Tariff 12C[1], do not apply seasonality to their TOU tariffs.

- Retail pricing within the Northern Territory is set by the Northern Territory Government through the Electricity Pricing Order (EPO). Under the EPO, the default tariff is standard variable, with customers able to opt into a TOU tariff. The majority of Jacana Energy's customers (approx. 99.5%) are on the standard variable tariff (including accumulation and smart meter customers).

  Should the EPO be amended by the Northern Territory Government to introduce a more cost reflective TOU tariff aligned to PWC's Revised Proposal, our analysis found most customers would not choose to move to the TOU tariff as there would be no benefit to them for doing so. Customers will therefore not receive the intended price signals to shift their demand and the TOU tariffs will not achieve their intended outcome.

- Over the five-year determination period, Jacana Energy's modelling indicates that the proposed network tariffs will result in an additional $142.81 million of network charges (when compared to the existing tariff structure) for mass market customers. This represents a 25.1% increase. Further, our modelling indicates an additional $19.87 million of network charges (when comparted to the existing tariff structure) for our commercial customers. This represents a 17.4% increase. Refer to Appendix A for further details.

- The overall increase to network tariffs is extremely significant. Whilst mass market customers are protected from these cost increases under the EPO, Jacana Energy questions whether proposed pricing for these customers is cost reflective and whether the additional costs included in PWC's forecasts are appropriately shared between customer segments.

- Jacana Energy notes the intended purpose of PWC's proposed TOU tariffs is to change the demand profile. For the reasons detailed above, Jacana Energy does not believe the TOU tariffs alone will achieve this intended purpose, and that further demand side initiatives will be required. For example, currently PWC impose limitations on the size of solar PV systems that can be installed for both residential and commercial customers. This often limits the amount that can be exported back to the grid and / or retained within battery systems, and therefore the economics of oversizing a solar array (with or without a battery) are significantly diminished. Jacana Energy believes that rather than penalising these customers, PWC should be encouraging and rewarding customers who use their private investment to achieve lower cost, more sustainable energy solutions.

- Jacana Energy's analysis at Attachment A notes a significant increase in metering alternative control services rates within PWC's revised proposal. For example, our analysis found that across our commercial customers, these costs are estimated to increase by an average of 334%. Jacana Energy questions whether these rates are reflective of reduced operating costs associated with smart meters (for example, a reduction in manual meter reads). Jacana Energy's analysis of the proposed tariffs shows disparity across the tariff categories, with customers on smart meters being charged more. The cost of the network services supplied to a customer are independent of their metering

[1] https://www.ergon.com.au/retail/business/tariffs-and-prices/small-business-tariffs/tariff-facts

arrangement, and therefore an upgrade to a smart meter in isolation should not result in a material change in costs on average.

Jacana Energy is supportive of any changes that improve alignment and believes that rebalancing both charges to better reflect the combined cost to service these customers based on segmented load profiles, rather than significantly increasing the average basic meter network charges to align with the average smart meter charges, to be the most appropriate approach.

Refer to Attachment A: Tariff Structure Statement for further responses to PWC's Tariff Structure Statement.

Capital Expenditure

- Single Site Consolidation: PWC's Revised Proposal '*Ben Hammond Complex – Single Site Consolidation Project*' details direct and indirect benefits that that provided a positive benefit to cost ratio. In considering the benefits associated with single site consolidation detailed by PWC, Jacana Energy notes:
    - *Avoided travel costs:* This benefit details an efficiency saving from avoided travel time. PWC's assumption is that 150 employees perform daily return trips between the city offices and the Ben Hammond Complex, which Jacana Energy notes appears high. Jacana Energy believes PWC could explore virtual ways of working to derive the same economic benefit, at minimal cost to the customer. Jacana Energy does not agree that this benefit should be considered during the AER's assessment.
    - *Staff parking*: Jacana Energy believes including the benefit of staff saving on parking fees (i.e. fees borne by the staff member and not PWC) does not appear appropriate. Jacana Energy does not agree that this economic benefit should be considered during the AER's assessment.
    - *Employee Engagement*: PWC has stated that moving to a single site premises would shift it to a top quartile company for employee engagement. Jacana Energy notes that across Australia and the world, there are corporations with agile workforces spread across diverse geographical regions that have leading employee engagement, and likewise there are corporations located at single sites that have poor employee engagement.

      Jacana Energy does not believe single site consolidation to be the driving factor of employee engagement and does not believe that single site consolidation alone will achieve the benefits PWC have detailed. Therefore, Jacana Energy does not agree that this economic benefit should be considered during the AER's assessment.
    - PWC's assessment of the options is heavily based on a benefit to cost ratio that includes economic benefits, detailed in Ben Hammond Complex – Single Site Consolidation Project at Appendix B.3, for the Northern Territory as a whole and that are not directly related to PWC's operations (such as construction benefit to the community and avoided staff parking costs). It is noted that based on this approach, it would be consistent for PWC to include the economic costs associated with PWC moving out of the city, such as how the removal of over 300 staff from the city would impact the local businesses based in the city or the impact to local government services from a reduction in parking revenue.

      Whilst Jacana Energy is supportive of the economic development of the Northern Territory, Jacana Energy does not believe that economic benefits should be considered as a primary factor when assessing the validity of this project. Jacana

Energy believes that the AER's assessment should be focused on the quantified costs detailed in Ben Hammond Complex – Single Site Consolidation Project at Appendix B.2, and whether the cost forgone in moving from a lease to ownership model results in a commercial benefit for PWC that can be passed onto customers in the form of reduced tariff costs.

Jacana Energy has some concerns as to whether PWC's Single Site Consolidation capex is truly efficient and prudent and that it meets the requirements in the NT NER and the AER's Better Resets Handbook. Noting that much of the data within the proposal has been redacted, Jacana Energy relies on the AER to review the forecast capex for this project to ensure that it meets these requirements.

Further, Jacana Energy places reliance on the AER to assess the ring-fencing of the costs and benefits relating to this project, noting that these extend beyond PWC's operations as a distributed network service provider.

- Future Networks – Distributed Energy Resources (DER) integration: Jacana Energy is supportive of the distributed energy resources project outlined in PWC's Revised Proposal at Attachment 3.1. Initiatives such as this further enable renewable energy uptake and increase the penetration of low-cost electricity back into the grid where it has historically been heavily limited.

Contingent Projects

As a procurer of wholesale generation from renewable generators connected to the Darwin-Katherine transmission line (DKTL), Jacana Energy is acutely aware of the constraints impacting the dispatch of generation from these systems. These constraints ultimately result in higher levels of wholesale gas generation being procured, at a higher cost to both customers and the environment.

Jacana Energy is very supportive of the contingent project "*Unlocking large scale renewables on the DKTL*" outlined in PWC's Revised Proposal at Attachment 4.1. This project will enable the dispatch of the facilities currently connected to the DKTL and that will assist in more efficient and streamlined investment in infrastructure that connects renewables.

In general, Jacana Energy is supportive of "*Managing network voltage and system strength with an increasing proportion of inverter-based generation*" outlined in PWC's Revised Proposal at Attachment 4.1, and notes PWC's callout that the options require further analysis and do not necessarily make up a full suite of potential credible options. Jacana Energy notes that some of the initial options provided may be better placed with a generator. When performing further analysis, Jacana Energy encourages PWC to work with retailers to quantify and value demand side initiatives (such as Virtual Power Plants and TOU feed in tariffs) that may also assist in managing network and system issues associated with high small-scale renewables penetration, at lower cost.

Should you have any queries in relation to Jacana Energy's response, please contact Jacana Energy via email at [redacted]

Yours sincerely

[redacted]

Tom Korecki
Acting Chief Executive Officer
Jacana Energy

Attachment A: Tariff Structure Statement – Time-of-Use Tariffs

Summary of Analysis

Jacana Energy has performed an analysis of the impact the proposed tariff changes will have on our customers. In particular, Jacana Energy has focused on the proposed time-of-use (TOU) network tariffs and has assessed these changes against a scenario where customers were billed the standard variable network tariff. This analysis, detailed below, found that:

- Over the determination period:
    - mass market customers would be charged 24.1% more and be $142.81 million worse off.
    - commercial customers would be charged 17.4% more and be $19.87 million worse off.
- When compared to the standard variable network tariff, our analysis found the following customers to be worse off under the proposed TOU tariffs, as follows:
    - Tariff 3a Customers: in 2024/25 over 14,000 customers (51%) would be worse off and in 2028/29 over 13,600 customers (49%) would be worse off.
    - Tariff 3b & 3c Customers: Our analysis found that in 2024/25 over 4,200 customers (80%) would be worse off and in 2028/29 over 3,700 customers (73%) would be worse off.
- Customers most impacted by the proposed TOU tariffs are:
    - hardship customers (who may not have the financial means to purchase technology to support shifting their demand); and
    - small commercial customers (who primarily operate during peak periods, such as hospitality outlets).
- The proposed TOU tariffs may not be sufficient to shift demand behaviour of customers with solar photovoltaics (PV), and that alternative TOU tariffs specifically designed for solar customers and solar customers with batteries could enable PWC to better incentivise demand behaviour change from these customers. For example, a tariff specifically for solar customers with batteries could be designed to incentivise solar customers to invest in batteries which would support the lowering of peak period demand or address minimum demand issues.

Across all scenarios below, Jacana Energy has applied the following key assumptions;

- 1:1 pass through of tariffs to customers;
- customer consumption is based off 2022/23 actual demand and does not vary year-on-year;
- consumption is in kilowatt-hours (kWh); and
- tariff rates used are from PWC's Revised Proposal's Tariff Structure Statement.

Overall Impact

Jacana Energy modelled the financial impact, in nominal terms, of PWC's proposed tariffs to Jacana Energy's total mass market customer base. The modelling considers PWC's forecast rollout of smart meters, resulting in reduced Tariff 1 and 2 customers over time (reducing to nil in 2028/29).

This analysis, summarised in Table 1 below, shows that across the determination period Jacana Energy's mass market customer base would be charged 24.1% more and be $142.82 million worse off.

Attachment A: Tariff Structure Statement – Time-of-Use Tariffs

Table 1: Estimated Financial Impact of TOU Network Tariffs – Mass Market

Year	Tariff Variance to Current Rates							
	1		2		3		Total	
	$M	%	$M	%	$M	%	$M	%
24/25	8.28	17.38	0.58	3.96	0.59	0.90	**9.44**	**7.42**
25/26	5.16	17.34	0.36	3.94	9.80	11.87	**15.33**	**12.62**
26/27	4.53	23.30	0.46	7.76	21.27	22.94	**26.26**	**22.23**
27/28	2.98	32.62	0.36	12.91	35.45	34.46	**38.79**	**33.78**
28/29	-	-	-	-	52.90	47.68	**52.9**	**47.68**
Total	**20.96**	**19.77**	**1.75**	**5.43**	**120.01**	**26.42**	**142.72**	**24.08**

Assumptions:

- Calculations have been performed in nominal terms.
- Dollars are in millions.
- Figures are rounded and therefore totals may not agree to the sum of years / categories.

Jacana Energy modelled the financial impact, in nominal terms, of PWC's proposed tariffs to Jacana Energy's commercial customer base (primarily those customers that fall within Tariff 5 and Tariff 6).

This analysis, summarised in Table 2 below, shows that across the determination period Jacana Energy's commercial customer base would be charged 17.4% more and be $19.87million worse off.

Table 2: Estimated Financial Impact of Proposed Network Tariffs and Metering Charges – Commercial

Year	Tariff Variance to Current Rates									
	SAC		Anytime		Demand		Metering		Total	
	$M	%	$M	%	$M	%	$M	%	$M	%
24/25	0.63	13.79	7.19	134.21	-7.38	-57.08	0.10	334.37	**0.54**	**2.35**
25/26	0.73	16.02	8.21	153.12	-6.71	-51.88	0.10	334.37	**2.33**	**10.17**
26/27	1.02	22.51	8.83	164.73	-6.15	-47.55	0.10	334.37	**3.80**	**16.63**
27/28	1.11	24.45	9.57	178.54	-4.82	-37.27	0.10	334.37	**5.96**	**26.06**
28/29	1.21	26.53	10.18	189.90	-4.24	-32.77	0.10	334.37	**7.25**	**31.68**
Total	**4.70**	**20.66**	**43.97**	**164.10**	**-29.30**	**-45.31**	**0.50**	**334.37**	**19.87**	**17.38**

Assumptions:

- Calculations have been performed in nominal terms.
- Dollars are in millions.
- Figures are rounded and therefore totals may not agree to the sum of years / categories.

Jacana Energy analysed the proposed increases to Alternative Control Services (ACS) metering rates. This analysis, summarised in Table 3 below, shows material increases in charges across all categories, with meters associated with commercial operations seeing the most significant increase.

Table 3: Proposed ACS Metering Charges Compared to Current Charges

Service	2023/2024	2024/25 to 2028/29	Variance	
			$	%
Single phase meters (including prepayment)	**$80.17**	**$127.51**	**$47.34**	**59.05%**
Three phase direct connected meters (including 3 single phase meters on a single NMI)	**$88.25**	**$168.94**	**$80.69**	**91.43%**
Low voltage current transformer metering	**$149.48**	**$674.19**	**$524.71**	**351.02%**
High voltage metering		**$2,326.07**	**$2,176.59**	**1,456.11%**

General Statistics – Residential Network Tariff 3(a)

Jacana Energy assessed the TOU tariff (T3a) impact to all residential customers compared to if the customers were instead charged the standard variable tariff (T1).

Our analysis found that in 2024/25 over 14,000 customers (51%) would be worse off (Figure 1) and in 2028/29 over 13,600 customers (49%) would be worse off (Figure 2).

Jacana Energy further assessed what the results would be if all customers reduced peak demand by 20%. Our analysis found that with a reduction of 20% in peak demand, in 2024/25 over 9,600 customers (35%) would be worse off (Figure 1) and in 2028/29 over 10,200 customers (37%) would be worse off (Figure 2). This modelling demonstrates that even if customers were given an option to choose a more cost-reflective TOU retail tariff under the NT Pricing Order, customers are unlikely to voluntarily take it up, given that even if they could change consumption patterns over time a more than 1/3 of customers would still be worse off.

Note point ($0) on the histograms represents impact to customers in the range of -$200 to$0.

Figure1: Annual Benefit of Moving to Residential Network TOU – 2024/25

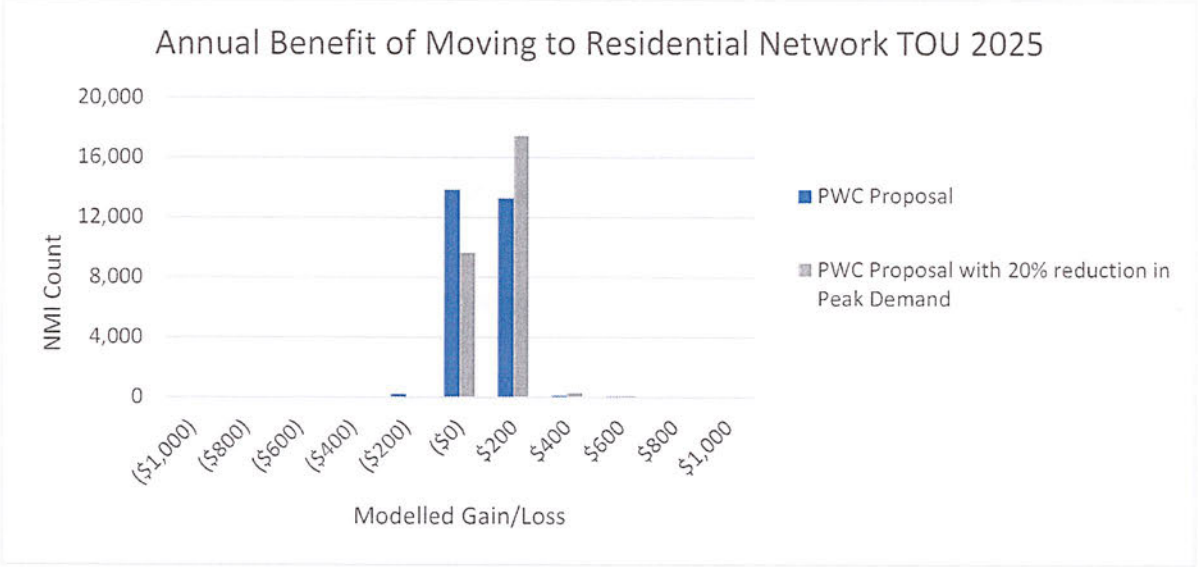
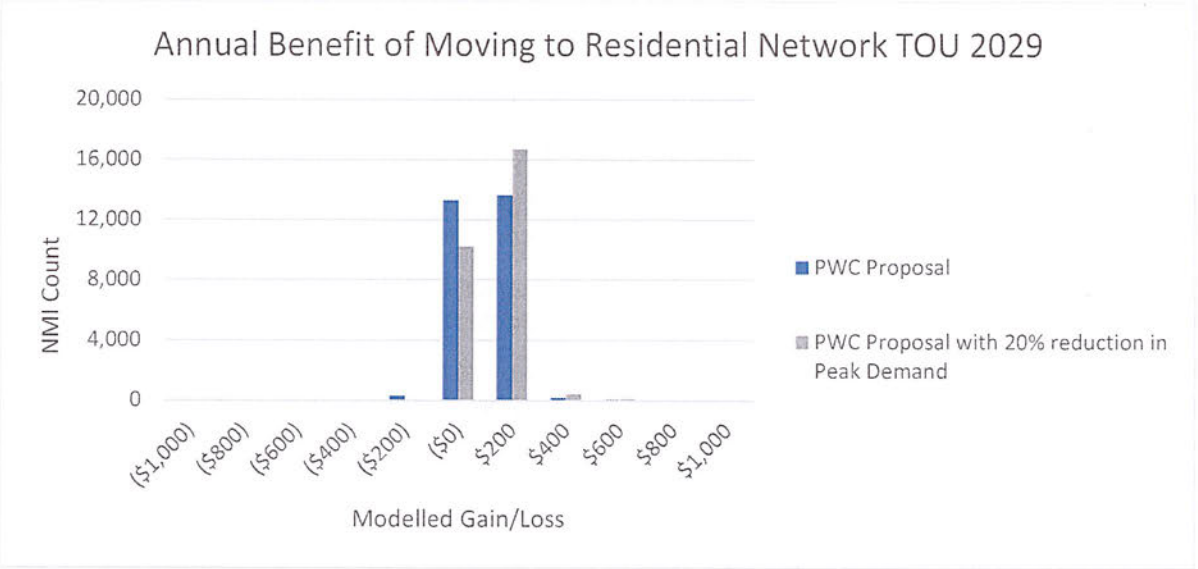


Figure 2: Annual Benefit of Moving to Residential Network TOU – 2028/29



General Statistics – Commercial Network Tariff 3(b) and 3(c)

Jacana Energy assessed the TOU tariff (T3b and T3c) impact to all residential customers compared to if the customers were instead charged the standard variable tariff (T2).

Our analysis found that in 2024/25 over 4,200 customers (80%) would be worse off (Figure 3) and in 2028/29 over 3,700 customers (73%) would be worse off (Figure 4).

Jacana Energy further assessed what the results would be if all customers reduced peak demand by 20%. Our analysis found that with a reduction of 20% in peak demand, in 2024/25 over 4,300 customers (76%) would be worse off (Figure 3) and in 2028/29 over 3,800 customers (69%) would be worse off (Figure 4).

Note point ($0) on the histogram represents customers in the range of -$200 to $0.

Figure 3: Annual Benefit of Moving to Commercial Network TOU – 2024/25

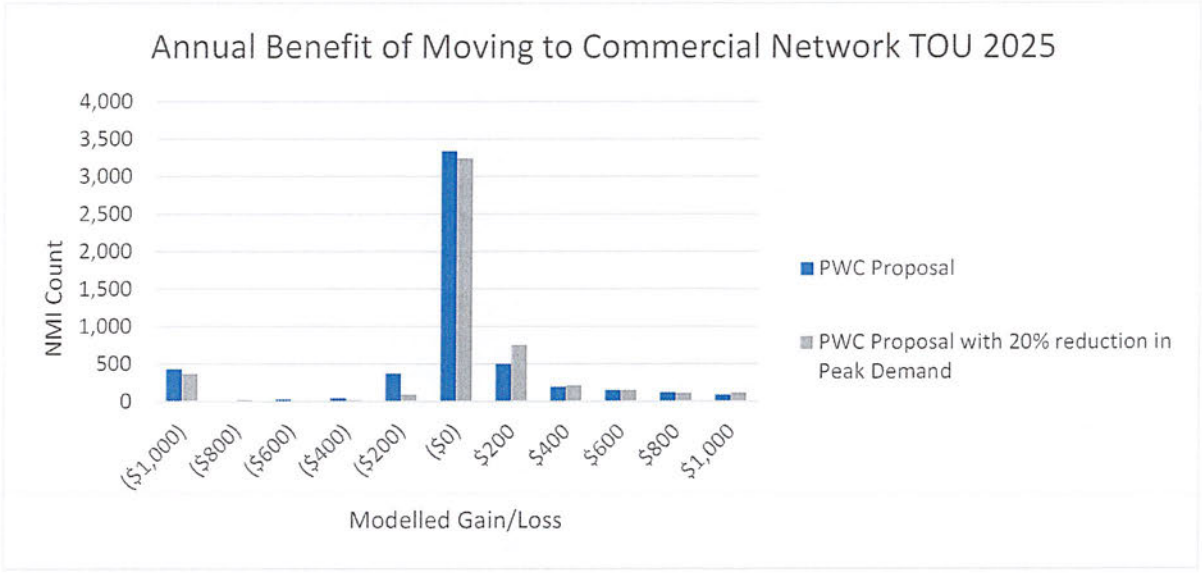
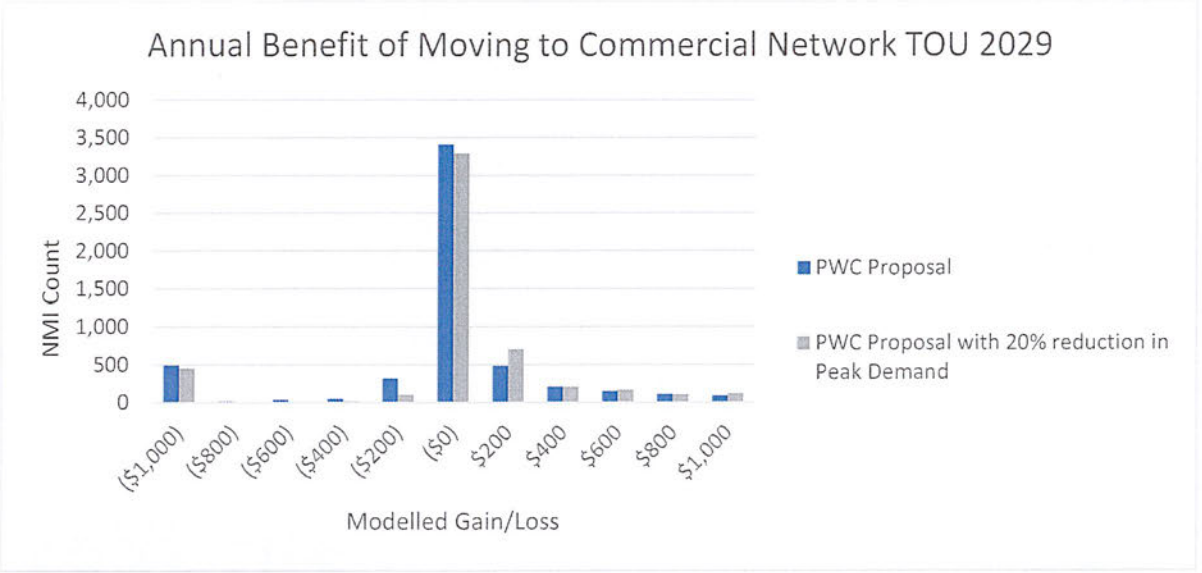


Figure 4: Annual Benefit of Moving to Commercial Network TOU – 2028/29



Scenario 1: Residential Customer with Solar PV

Jacana Energy assessed the TOU tariff (T3a) impact on an average residential customer with solar PV installed and compared this to if the same customer were instead charged the standard variable tariff (T1). This customer had an annual consumption of 8,151kWh which followed the demand curve presented in Figure 5.

Our analysis in Table 4 below demonstrates this customer is $76 worse off in 2024/25 and $92 worse off in 2028/29 under the TOU T3(a) tariff when compared to the standard variable tariff (T1).

Jacana Energy notes additional complexity associated with changing demand behaviors of customers with solar PV, including:

- Typically, these customers have already shifted much of their readily shiftable demand (such as pool filters) to the T3 low period, where solar production is at its highest.
- As the customers receive periods of 'free' power through solar PV, as well as feed-in tariffs from retailers, these customers may have higher consumption during peak periods as their power costs have been offset during the day.

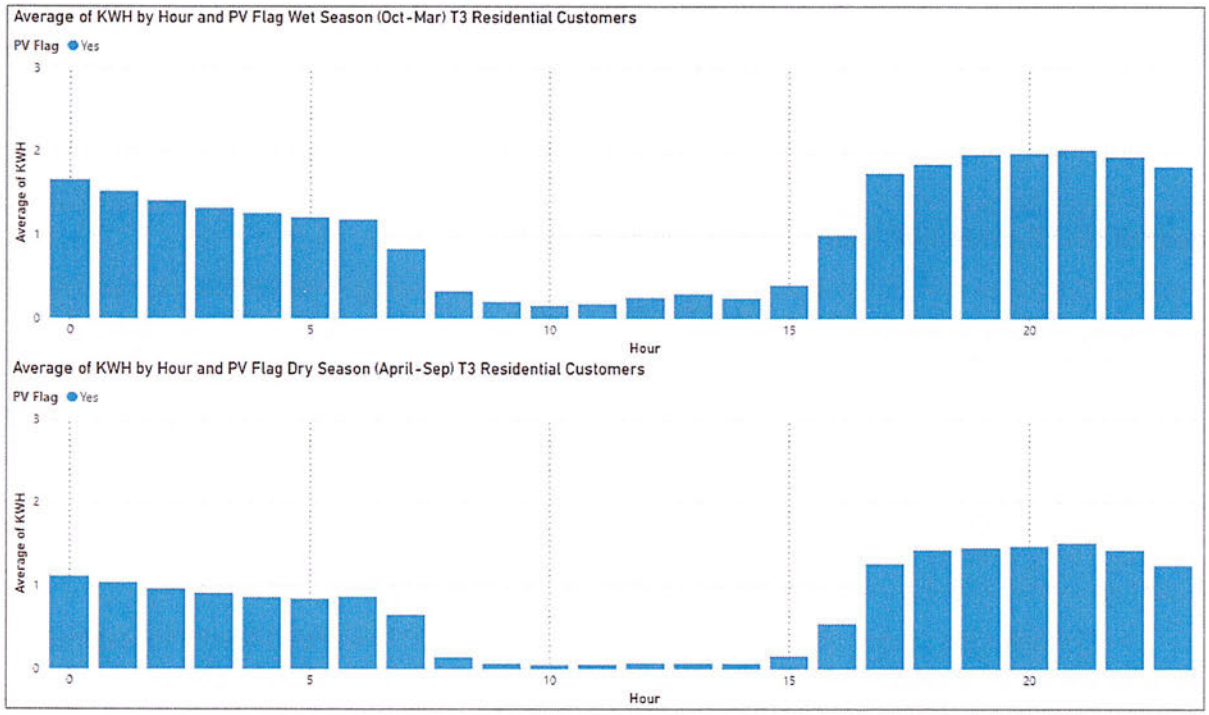
- The demand behavior changes again where these customers have batteries installed, whereby (assuming appropriate capacity) the battery would provide for the customers demand during the peak period, at the benefit to the network.

It is unlikely that the TOU tariffs will incentivise these customers to further shift their medium and high period demand without additional technological investment. Therefore, Jacana Energy believes incentivising solar PV customers without batteries to invest in battery technology would provide better manage peak period demand. For example, a tariff specifically for solar PV customers with batteries could be designed to incentivise solar customers to invest in batteries which would support the lowering of peak period demand.

Table 4: Tariff – Typical Residential Customer with Solar PV

Tariff	Consumption (kWh)	Revised 2024/25	Revised 2028/29
T3a - Low Period	314	-	-
T3a - Med Period	6,689	$328	$441
T3a - High Period	1,149	$213	$221
T3a Sub-Total		***$541***	***$662***
Fixed Charge	-	$710	$874
Total T3a		**$1,251**	**$1,536**
T1 Standard Variable	8,151	$465	$570
Fixed Charge	-	$710	$874
Total T1		**$1,175**	**$1,444**
Variance $		**$76**	**$92**
Variance %		**6.4%**	**6.4%**

Figure 5: Consumption - Typical Residential Customer with Solar PV



Scenario 2: Residential Customer with No Solar PV

Jacana Energy assessed the TOU tariff (T3a) impact to an average residential customer without solar PV installed and compared this to if the same customer were instead charged the standard variable tariff (T1). This customer had an annual consumption of 7,913kWh which followed the demand curve presented in Figure 6.

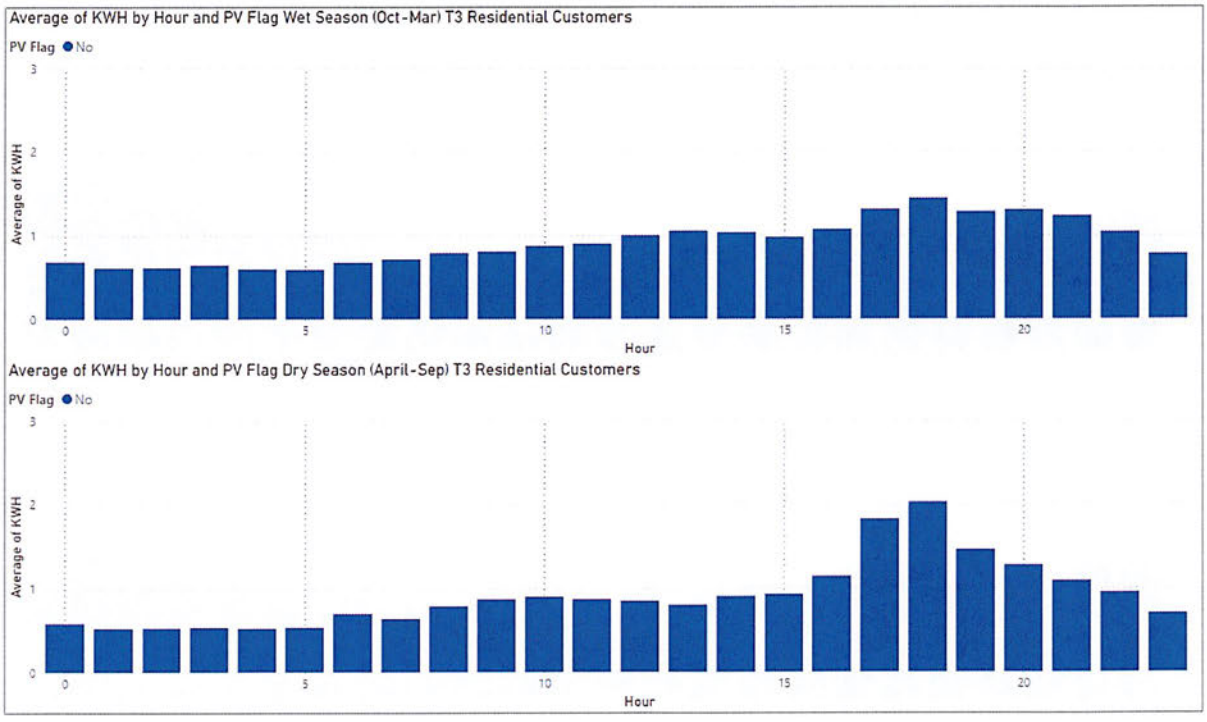
Our analysis in Table 5 noted this customer is $26 better off in 2024/25 and $37 better off in 2028/29 under the TOU T3(a) tariff when compared to the standard variable tariff (T1).

Jacana Energy notes that if these customers do not have mechanisms available to shift their demand, the lower risk option for these customers would be to remain on the standard variable tariff (T1).

Table 5: Tariff – Typical Residential Customer with No Solar PV

Tariff	Consumption (kWh)	Revised 2024/25	Revised 2028/29
T3a - Low Period	1,940	-	-
T3a - Med Period	4,998	$245	$330
T3a - High Period	975	$180	$187
T3a Sub-Total		***$425***	***$517***
Fixed Charge	-	$710	$874
Total T3a		**$1,135**	**$1,391**
T1 Standard Variable	7,913	$451	$554
Fixed Charge	-	$710	$874
Total T1		**$1,161**	**$1,428**
Variance $		**($26)**	**($37)**
Variance %		**(2.2%)**	**(2.6%)**

Figure 6: Consumption - Residential Customer with No PV



Scenario 3: Residential Customer with Payment Plan

Jacana Energy assessed the TOU tariff (T3a) impact to a typical residential customer facing payment difficulties (on a payment plan) and compared this to if the same customer were instead charged the standard variable tariff (T1). This customer had an annual consumption of 9,114 kWh which followed the demand curve presented in Figure 7.

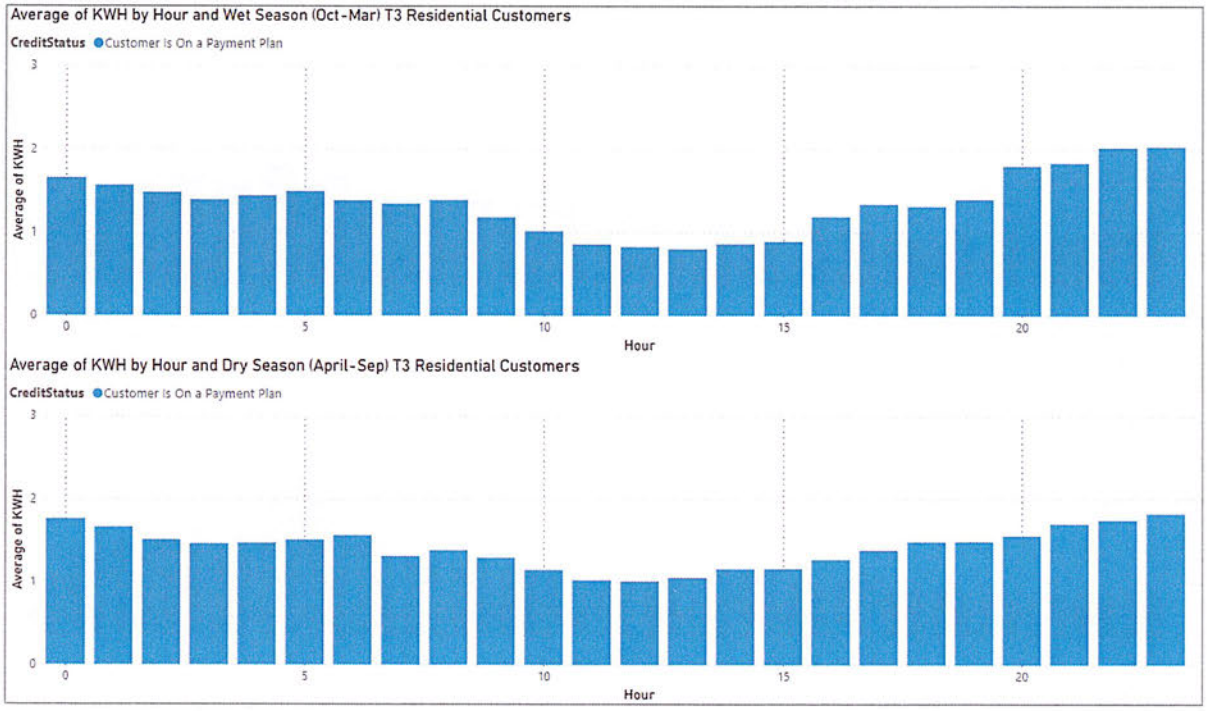
Our analysis in Table 6 noted this customer is $51 worse off in 2024/25 and $36 worse off in 2028/29 under the TOU T3(a) tariff when compared to the standard variable tariff (T1).

Jacana Energy notes that typically residential customers facing payment difficulty do not have the means to invest in technological solutions to support shifting their demand to alternative times.

Table 6: Tariff – Typical Residential Customer with Payment Plan

Tariff	Consumption (kWh)	Revised 2024/25	Revised 2028/29
T3a - Low Period	2,001	-	-
T3a - Med Period	5,487	$269	$362
T3a - High Period	1,626	$301	$312
T3a Sub-Total		***$570***	***$674***
Fixed Charge	-	$710	$874
Total T3a		**$1,280**	**$1,549**
T1 Standard Variable	9,114	$519	$638
Fixed Charge	-	$710	$874
Total T1		**$1,229**	**$1,512**
Variance $		**$51**	**$36**
Variance %		**4.1%**	**2.4%**

Figure 7: Consumption - Residential Customer with Payment Plan



Scenario 4: Commercial Operation

Jacana Energy assessed the TOU tariff (T3b) impact to a commercial customer (a laundry service) with peak operations in the afternoon and compared this to if the same customer were instead charged the standard variable tariff (T2). This customer had an annual consumption of 62,356 kWh which followed the demand curve presented in Figure 8.

Our analysis in Table 7 noted this customer is $641 worse off in 2024/25 and $710 worse off in 2028/29 under the TOU T3(b) tariff when compared to the standard variable tariff (T2).

Jacana Energy notes that due to the nature of this business' operations, this business would be unable to shift its demand peak and is significantly penalised under the proposed TOU tariff structure. This business could only reduce peak period consumption though investment in a battery energy storage system.

Table 7: Tariff - Commercial Operation

Tariff	Consumption (kWh)	Revised 2024/25	Revised 2028/29
T3b - Low Period	12,534	-	-
T3b - Med Period	39,252	$2,198	$2,472
T3b - High Period	10,570	$2,568	$2,506
T3b Sub-Total		***$4,766***	***$4,978***
Fixed Charge	-	$887	$1,112
Total T3b		**$5,653**	**$6,090**
T2 Standard Variable	62,356	$4,302	$4,427
Fixed Charge	-	$710	$953
Total T2		**$5,012**	**$5,380**
Variance $		**$641**	**$710**
Variance %		**12.8%**	**13.2%**

Figure 8: Consumption - Commercial Operation