

8 May 2024

Mr Gavin Fox  
General Manager  
[energyqueensland2025@aer.gov.au](mailto:energyqueensland2025@aer.gov.au)

Dear Mr Fox

Noosa Council welcomes the opportunity to provide input into the AER Issues Paper – Ergon Energy and Energex electricity determination 2025 – 30. This response will specifically address the AER's Issue Paper Question 17 “Do you consider there are any aspects of Ergon or Energex’s proposed TSS that require adjustment?”

This response considers the implications of the Energex storage network tariff proposals for community batteries, the impact on the current Noosaville Community Battery project funded by the Federal Government and the overall energy transition across Queensland as outlined in numerous State and Federal Government policy statements.

## Introduction

Noosa Council is committed to reducing emissions throughout its operations, with an ambitious target to achieve net zero emissions by 2026. In 2019, Noosa Council was the first Queensland Council to declare a “climate emergency” in recognition of climate science demonstrating that urgent action is required globally to minimise the impacts of devastating climate change.

Noosa Council is committed to aiding the broader Noosa community in their efforts to minimize emissions. One notable initiative in this regard is the partnership between Noosa Council, Zero Emissions Noosa Inc (ZEN Inc), and Yarra Energy Foundation (YEF). Together, we have been successful in our grant application to install a community battery in Noosaville under the Federal Government’s **Community Batteries for Household Solar Program Stream 1**. This grant funding is an election commitment to install 400 community batteries across Australia. Stream 1 of this funding program stipulated fifty-eight locations across Australia in defined locations. A condition of this grant funding is that the community battery is to be in Noosaville and that it is to be in front of the meter.

The Australian Government has committed to funding \$224.3 million to help install 400 community batteries across Australia. The Program aims to deploy these community batteries to help lower bills, cut emissions and reduce pressure on the electricity grid by allowing neighbourhoods to store and use the excess power they produce.

Noosa Council is the only non DNSP in Queensland to receive this funding. Noosa Council views this project as a demonstration project to show how a community battery can operate with a benefit to the local community.

Noosa Council made the decision to own and operate the Noosaville community battery based on several significant factors:

- Benefits of community batteries such as:

- Facilitating the further roll out of solar PV generation throughout Noosa Shire, contributing to Noosa's objective to reduce emissions and achieve 100% renewable energy
- Enabling the renewable energy generated locally to be stored during times of high solar penetration for access during periods of peak demand, typically in the evening, thereby improving the efficiency of local solar assets
- Reducing solar export limitations into the grid
- Reducing network instability resulting from excessive solar generation with minimal load
- Deferring network upgrades
- The opportunity to provide a benefit back to the community from any excess revenue raised through participating in the National Energy Market.
- Federal and State Policies and commitments which recognise the need to scale up batteries of all sizes to support increase energy demand, solar generation, and emission reductions (Refer Appendix 1).
- Other states, such as Victoria, having successfully installed community batteries. Of note is the Yarra Energy Foundation Fitzroy North Battery that demonstrates community benefit through participation in the National Energy Market.
- DNSPs implementing 2-way network tariffs that support the operation of a community battery.

In addition to these benefits, awareness is also emerging of the value proposition offered by community batteries due to their speed and flexibility in roll-out, when compared to the emerging social licence difficulties, high costs and extended timelines for larger high voltage connected renewable energy alternatives.

When Noosa Council undertook the initial business case for the Federal Grant application, there was no Energex tariff for a community battery, therefore the financial projections were completed based on the CitiPower community battery tariff. This tariff has a daily charge of \$0.45 per day (\$164.25 per year) and provides incentives to operate the community battery in a manner that supports the operation of the network. The business case forecast a net income from the DNSP community battery tariff. Any excess revenue from operating the community battery is to be used for further emission reduction projects within the Noosa Shire in consultation with a community advisory group.

It is reasonable that Noosa Council considered other DNSP network tariffs for battery storage in making its business decision. It is also a reasonable expectation that Energex would implement a tariff similar to other DNSPs to support the uptake of battery technology and the energy transition as stated in numerous policy documents across all levels of government and in particular achieve the policies of its shareholder, the Queensland Government.

The following activities have been undertaken for the Noosaville Community Battery project:

- Conducted extensive assessments of potential sites within Noosaville to locate the community battery
- Engaged with residents on the purpose and benefit of the community battery in Noosaville
- Engaged Energex to complete engineering studies as part of the connection application for the preferred Noosaville location

- Completed a risk assessment of the community battery with Energex, QFES, Noosa Council and Noosa community representatives
- Commenced a Land Management Plan for the community battery
- Met with representatives of DCCEEW to discuss the implications of the proposed Energex Network tariffs.

Work on this project has been placed on hold whilst the implications of the proposed Energex tariffs are assessed.

The proposed Energex Storage tariff structure has significant implications for the Noosaville Community battery and potentially jeopardizes the roll out of community batteries across Queensland and Australia.

Due to the substantial difference in the tariff structure proposed by Energex under its recent TSS proposal to the AER, the Noosaville Community Battery will not be financially viable as it will cost the Council approximately \$8000 per year with no community benefit.

We therefore request that the AER ask Energex to reconsider its Dynamic Network (Storage) Tariffs and develop a revised tariff that incentivises investment in community batteries. This revised tariff should consider the benefits and support provided to the Energex network in constrained and not constrained parts of the network. It should be simple and specific with regards to achieving rewards for providing network support rather than at “Energex’s discretion” to provide investment certainty. As the only non DNSP owner and operator of a community battery within Queensland, Noosa Council requests to be involved in the review of a revised tariff.

### **Energex Proposed Network Storage Tariff**

Energex has acknowledged the impact of high decentralised renewable generation on the network throughout its **Overview Energex Regulatory Proposal for 2025-30 January 2024**<sup>1</sup>.

*“The current trend towards high penetration of renewable, decentralised generation has the potential to cause network reliability and security issues and require additional investment to address them”. (Page 13)*

*“The rapid growth in generation from house rooftops during daylight hours is resulting in the need to manage the challenge of minimum demand, which is when generation from rooftop solar and batteries matches or exceeds demand on the network”. (Page 32).*

*“As a Government Owned Corporation, Energex is a key partner in delivering the policies set by our shareholder, the Queensland Government. As such, we will be supporting the delivery of the State’s pathway for accelerating the transition to renewable energy to reduce emissions. This energy transformation focuses on developing solar and wind generation and battery and pumped hydro energy storage and ensuring there is supporting infrastructure to transport renewable energy to all households and businesses across the region.” (page 61).*

Community batteries, particularly those operating under a dynamic operating envelope (DOE) provide the services required by Energex as stated above. Community batteries soak up the

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<sup>1</sup> <https://www.aer.gov.au/system/files/2024-02/Energex%20-%202025-30%20Regulatory%20Proposal%20Overview%20-%20January%202024%20-%20public.pdf>

excess solar during the day, whilst providing further renewable energy into the network during the evening peak period potentially deferring network augmentation, whilst providing community benefit.

Energex's proposed Network Tariff for the Large Dynamic Flex/Price Storage tariffs do not recognise the important role community batteries contribute to grid stability, increasing renewable energy uptake and emission reduction.

Energex has also stated "*as it will not always be possible to avoid the need for network investment, we have forecast that we will need to spend \$56 million to upgrade the network in certain areas to handle the high volume of energy that is expected to be exported into the grid and allow customers to benefit from their investments.*"(page 32).

Community Batteries can assist to defer this expenditure.

### **Proposed Energex Network Tariffs applicable to the Noosaville Community Battery**

Noosa Council acknowledges and is grateful for the opportunity to discuss the Noosaville Community Battery with several departments across Energex. Following the publication of the Energex TSS on the AER website Noosa Council was able to have a specific session with the Energex tariff team to understand and clarify the proposed storage tariff which would apply to the Noosaville Community Battery.

Energex has proposed Dynamic Network (Storage) Tariffs for customers that take load from the network solely for the purpose to export into the grid. Energex states that this tariff will "*incentivise storage to 'soak up' excess solar in the middle of the day and export at times most likely to avoid or defer future network investment*" (page 20<sup>2</sup>).

The Dynamic (Flex) Storage Tariff is applicable to the Noosaville Community Battery is outlined in Table 1.

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<sup>2</sup> <https://www.aer.gov.au/documents/energex-tariff-structure-statement-explanatory-statement-january-2024>

**Table 1: Indicative Network Use of System (NUOS) prices for 2025/26 and 2029/30 for the Large Dynamic Flex Storage**

Indicative Network Use of System (NUOS) prices for 2025-26 and 2029-2030								
	Fixed Network Access Charge	Energy Consumption (volume - \$/kWh)				Export		
		Anytime	Peak	Off-Peak (11am-1pm)	Shoulder (midnight to 11am, 1pm to midnight)	Critical Peak Period Import Charge (\$/kVA) (maximum 40 hours per year and at discretion of DNSP)	Critical Peak Period Export Charge (\$/kW) (maximum 40 hours per year and at discretion of DNSP)	Critical Peak Period Reward Charge (\$/kW)(maximum 40 hours per year and at discretion of DNSP)
<b>2025-2026</b>								
Large Dynamic Flex Storage	\$17.844 per day (\$6513 per annum)	No rate specified	0.00972	0.00972	0.00972	-	-	-\$1.66
<b>2029-3030</b>	This rate rises to \$19.791/day (\$7223 in 29-30)		0.01226	0.01226		\$1.668	\$0.079	-\$1.853

Definition of Critical Peak Period (TSS, p. 22)

A critical peak period may occur for import (CPPI), export (CPPE) or export reward (CPPR). These periods may occur individually or concurrently. Each form of Critical Peak will include its own Critical Peak Cap, nominally set at 40 hours (80 periods) per year. A Critical Peak Period may be called across the Network or local Network, at anytime, for a duration of between 30-minutes (1 period) and five hours (10 periods), capped at 40 hours (80 periods) per year.

Noosa Council is particularly concerned that the proposed Large Dynamic Storage Flex Tariffs renders Noosaville community battery unviable, despite receiving capital funding from DCCEEW for its implementation. The daily charge to operate the battery is \$17.844 (\$6513/annum) 2025/26 increasing to \$19.791 (\$7224/annum) in 2029/30. Although there is a possibility of offsetting these charges through a reward of \$1.66/kW for up to 40 hours per year during critical peak periods, the criteria for such events, their frequency, and their management remain ambiguous in Energex's TSS Explanatory Statement. Energex acknowledges the need for further development of internal systems to facilitate pricing for these critical events. Discussions with Energex revealed that critical peak period events are unlikely to apply to the Noosaville community battery because the network that it will connect to is not constrained. These critical events are unlikely to be called during the trial period of 2024/25, so the purpose of the trial is questionable.

Under these proposed tariffs, the Noosaville Community Battery is likely to operate with a loss of approximately \$8000 per annum, a cost to the Noosa community. Despite Energex recognising that storage “soaks up excess solar in the middle of the day and can defer future network investment” (page 20), the proposed tariffs actually **penalise** the Noosaville community battery for providing the exact service that Energex acknowledges it needs.

### **Proposed Energex Network Tariffs and Community Batteries throughout Queensland**

Noosa Council expresses grave concern over the anticipated adverse impact of the proposed Energex Dynamic Network (Storage) Tariffs on investment prospects for community/neighbourhood batteries across Queensland. The combination of high daily costs and the uncertainty surrounding any potential rewards during critical peak periods, at Energex's discretion, poses significant risks for investors, despite grant funding availability. With Energex's tariff proposal lacking crucial details regarding potential rewards during critical events, the operational costs of community batteries remain indeterminable. Given this substantial risk, it's highly improbable for investors to consider such ventures.

The Queensland Government's commitment of \$500 million toward expanding large-scale and community batteries reflects an understanding of the necessity for storage solutions across the grid. However, the proposed Energex storage tariff introduces significant uncertainty and risk, endangering investment at the neighborhood scale within the low-voltage network. This poses a direct threat to Queensland's efforts to establish a robust battery industry, which is poised to generate employment opportunities and bolster the economy. The Energex proposal severely undermines the community/neighbourhood sector of the battery industry by rendering these batteries financially unviable for operation. For an average sized Low Voltage community battery, within a LV network with no current network constraint, it is unlikely a Critical Peak Period would be declared by Energex for a few years, costing the owner \$7-8,000 per annum, which, added to asset running costs, makes the project unfeasible.

### **Justification for high daily costs**

Noosa Council raises concerns regarding the rationale behind the high daily costs imposed on community batteries. With an annual fixed cost of \$6513, this figure stands as the highest among all Distribution Network Service Providers (DNSPs) across Australia. Despite this, Energex has not provided any explanation for the derivation of these daily costs. The proposed tariffs seemingly assume that community batteries disproportionately utilise the Energex network. A recent report for the AER (June 2022) highlighted the potential for shared batteries, such as community batteries connected at the low voltage level, to deliver significant benefits

to all network users. The report emphasizes the need to ensure that network tariffs do not hinder the development of such schemes.<sup>3</sup>

Moreover, the report acknowledges that “community battery schemes have been commercially disadvantaged by standard network tariffs that presume all energy travels the full way from a wholesale market reference point, via the transmission network, then the high voltage distribution network, to the local voltage area where the community battery and its users are located. Instead, the laws of electricity flow mean that a locally generated electron harvested by the community battery may not travel far and therefore may not utilise assets other than low voltage poles, wires, and transformers. The same electron released by a battery during the peak consumption period travels locally and helps to avoid the network augmentation costs that are signalled by the peak period network consumption charge”.

System costs are minimised when the load is near the generation. Locating generation close to the load or providing a storage solution to achieve a temporary balancing of load and generation is beneficial to all parties, including the network. Additionally, if the local flows to or from the battery occur at a time at which those flows have no impact in the network’s need to invest in additional infrastructure, the battery operator should only be charged an amount that reflects the operating costs the network experiences to accommodate those local energy flows at those times.

### **Energex Network Storage Tariffs compared to other DNSPs.**

There is a considerable diversity in approaches among (DNSPs) regarding community battery trial tariffs. Presently, across Victoria, New South Wales, and the ACT, there are 8 DNSPs with 5 Australian Energy Regulator (AER) approved community battery tariffs. The fixed daily or annual access charges vary significantly among DNSPs:

- \$165 per year (Powercor/Citipower/United Energy)
- \$2477 (Ausgrid)
- \$3102 (Jemena)
- \$5770 (Essential Energy)

Additionally, tariffs across DNSPs vary widely for load and generation charges/rewards. Despite these variations, all DNSPs acknowledge that community batteries offer a shared solution for neighbourhoods, enabling both local communities and the wider community to access multiple benefits.

The following highlights the differences in approaches across DNSPs:

#### **Victoria (Powercor/United Energy/Citipower):**

These DNSPs reward the battery for acting as a "solar soak" during midday and exporting stored renewable energy during peak evening periods.

<https://media.powercor.com.au/wp-content/uploads/2022/02/28084618/Community-Battery-Trial-Tariff-factsheet.pdf>

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<sup>3</sup> [https://www.aer.gov.au/system/files/Argyle%20Consulting%20and%20Endgame%20Economics%20-%20Battery%20tariffs%20-%20Network%20tariffs%20for%20the%20DER%20future\\_0.pdf](https://www.aer.gov.au/system/files/Argyle%20Consulting%20and%20Endgame%20Economics%20-%20Battery%20tariffs%20-%20Network%20tariffs%20for%20the%20DER%20future_0.pdf)

**Victoria (Jemena):**

Jemena implements a fixed charge approximately half of the Energex proposal and provides rewards of 1.5c/kWh for consumption during the solar soak period and the evening peak.

<https://www.jemena.com.au/electricity/jemena-electricity-network/network-information/trial-tariffs/>

**New South Wales (Ausgrid)**

Ausgrid is currently trialling a "critical peak price" community battery tariff, where there is no cost for charging or discharging the battery for most of the year. However, the battery operator receives a significant payment up to 10 times a year for charging/exporting during periods of very high rooftop solar exports.

<https://www.ausgrid.com.au/Industry/Regulation/Network-prices>

**New South Wales (Essential Energy):**

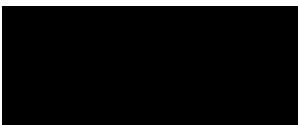
Essential Energy has designed grid-scale battery tariffs for various customer categories, aiming to minimize barriers to grid-scale battery deployment and incentivize battery operation in a manner that recognizes potential costs and benefits to the network and customers.

<https://www.essentialenergy.com.au/our-network/network-pricing-and-regulatory-reporting/timing-is-everything/electricity-pricing-and-network-tariffs>

**Conclusion**

Thank you for the opportunity to provide this input into the AER Issues Paper. As mentioned earlier, Noosa Council has several concerns regarding the proposed Energex Dynamic Network (Storage) Tariffs and their potential impact on the commercial viability of the Noosaville community battery, as well as the broader rollout of community batteries across Australia, as pledged by the State and Federal Governments. Noosa Council welcomes the opportunity to participate in a review of these tariffs to ensure an equitable transition to Queensland's clean energy future.

Yours sincerely



Larry Sengstock  
Noosa Council CEO (Acting)



**Appendix 1 - Renewable Energy Policies**

Policy/Legislation	
<b>Federal</b>	
Climate Change Act 2022	The Act sets out Australia’s Greenhouse gas targets of a 43% reduction below 2005 levels by 2030 and to achieve net zero emissions by 2050.
Powering Australia Plan <a href="#">Powering Australia Plan</a>	This plan is focused on creating jobs, reducing pressure on energy bills and lowering emissions by boosting renewable energy and allocated funding of \$224.3 million over 4 years in the 2022-23 Budget to deploy 400 Community Batteries across Australia to reduce bills, cut emissions and ease pressure on the grid.
Australian Energy Regulator Explanatory Note September 2021 <a href="#">AER Explanatory Note</a>	“Distributors should view both tariff reform and network support service procurement as alternatives to expensive network investment. In the future, we expect distributors to focus on designing new and innovative tariffs that are informed by tariff trials. They should work with retailers, aggregators and governments to create new service models. We also expect them to help consumers participate in new energy markets as part of the Energy Security Board’s two-sided markets reform work”.
Community Batteries for Household Solar Program - Delivery of Election Commitments Stream 1 <a href="https://www.dcceew.gov.au/energy/renewable/community-batteries">https://www.dcceew.gov.au/energy/renewable/community-batteries</a>	This grant opportunity will deliver community batteries to support lower electricity bills and emissions, support storage of excess solar energy, and reduce pressure on the grid. Noosa Council was successful in this grant funding to implement the community battery in Noosaville.
ARENA Community Batteries Funding Round 1 <a href="https://www.energy.gov.au/news-media/news/120-million-roll-out-community-batteries-across-australia">https://www.energy.gov.au/news-media/news/120-million-roll-out-community-batteries-across-australia</a>	The Community Batteries Funding Round 1 of \$120 million seeks to support the deployment of community batteries across Australia to lower energy bills, cut emissions, reduce pressure on the electricity grid and enable further distributed solar installations. This funding is equally split between 2 streams - Stream A for DNSPs and Stream B for applicants that are non DNSPs. ARENA CEO stated “Not everyone is able to install rooftop solar, but by storing electricity close to the point of consumer demand, we can reduce network costs and

	alleviate constraints in areas with high solar penetration. This will ultimately reduce electricity costs for all consumers.”
Announcement of the Future Made in Australia Act ( April 10 2024) <a href="https://anthonyalbanese.com.au/media-centre/a-future-made-in-australia-qmc">https://anthonyalbanese.com.au/media-centre/a-future-made-in-australia-qmc</a>	This recent announcement by Prime Minister Albanese emphasised the work of the Net Zero Authority to facilitate investment in renewable energy and storage industries
Australian Energy Market Operator draft Integrated System Plan <a href="https://aemo.com.au/en/energy-systems/major-publications/integrated-system-plan-isp/2024-integrated-system-plan-isp">https://aemo.com.au/en/energy-systems/major-publications/integrated-system-plan-isp/2024-integrated-system-plan-isp</a>	This plan recognises the energy transition is well underway and that the NEM must triple its capacity to supply energy by 2050. Rooftop solar alone contributed more electricity to the grid in the first quarter of 2023 (12.1%) than did grid-scale solar, wind, hydro or gas. This draft plan supports a four-fold increase in rooftop solar capacity reaching 72 GW by 2050, and facilitating the use of consumer-owned batteries and VPPs to deliver 27 GW of flexible demand response for the NEM. AEMO noted that 6.7 GW of “shallow storage”(community batteries) is required to contribute to intra-day shifting.
Australian Energy Market Commission (AEMC) <a href="https://www.aemc.gov.au/rule-changes/access-pricing-and-incentive-arrangements-distributed-energy-resources">https://www.aemc.gov.au/rule-changes/access-pricing-and-incentive-arrangements-distributed-energy-resources</a>	The final determination makes way for a future of solar, batteries and electric vehicles, bringing power networks into the 21st century. It recognises the significant uptake of solar PV and other DER by consumers and provides a long-term, sustainable plan to get more solar into the grid.
<b>Queensland</b>	
Energy (Renewable Transformation and Jobs) Bill 2023 <a href="https://www.parliament.qld.gov.au/Work-of-Committees/Committees/Committee-Details?cid=173&amp;id=4296">https://www.parliament.qld.gov.au/Work-of-Committees/Committees/Committee-Details?cid=173&amp;id=4296</a>	In March 2024, the Clean Economy Jobs, Resources and Transport Committee recommended the Bill be passed. The Bill would enshrine the Queensland Renewable Energy Targets 50 per cent clean energy by 2030, 70 per cent by 2032 and 80 per cent by 2035.
<b>Noosa</b>	
Climate Emergency Declaration <a href="https://www.noosa.qld.gov.au/climate-emergency-declaration">https://www.noosa.qld.gov.au/climate-emergency-declaration</a>	Council accepts the latest science on climate change provided in the October 2018 report of the Intergovernmental Panel on Climate Change and acknowledges that the Noosa Shire is vulnerable to the impacts of climate change including heat waves, more intense storms and sea level rise all of which is likely to adversely affect the Noosa natural and human environment. Council therefore declares that we are in a ‘Climate Emergency” which requires urgent action by all levels of government."
Climate Change Response Plan <a href="https://www.noosa.qld.gov.au/downloads/file/3226/climate-change-response-plan">https://www.noosa.qld.gov.au/downloads/file/3226/climate-change-response-plan</a>	This Climate Change Response Plan is a vision for a new future for Noosa, and a blueprint for us all to do our bit locally and to be an example for others of something better. It challenges us all to think big, heed the scientific advice and take careful and resolute action now.