



17 January 2024

Mr. Arek Gulbenkoglou
Australian Energy Regulator

Via electronic lodgement: AERresets2024-29@aer.gov.au

Reference: **Essential Energy revised proposed tariffs related to submission for 2024-2029 revenue determination.**

Dear Mr. Gulbenkoglou

We thank the AER for the opportunity to provide this submission regarding Essential Energy's submission for the regulatory period 2024-2029. Our submission is focused on Essential Energy's proposed tariffs.

ACEnergy is a developer of renewable energy generation and storage. Within the Essential Energy's footprint, our developments consist mainly of distribution scale storage and distribution scale solar farms with storage, connecting to the High Voltage network.

This submission refers to the High Voltage Distribution Battery and Hybrid as proposed on Essential Energy revised Tarif Structure Statement¹ and accompanying documents.

The summary of our position is as per follows, further details are found in the appendix:

1. The revenue from the proposed tariff will far exceed the marginal and average cost of servicing the connections. Standalone batteries deliver benefits in terms of increasing hosting capacity for customer exports during the day and for customer load demand during the evening far exceed its marginal cost and providing a negative marginal cost.
2. Applying export charges to high voltage connected generation is not in line with the intent of bidirectional pricing rule change and amounts to cross-subsidisation. Costs are already recovered during the connection assessment and all required network augmentation is funded by the connection applicant, thus there is no impact to network capacity which needs to be recovered.
3. The removal of the evening peak rebate for storage fails to capture benefits from reduction of long run network costs introduced by the connection of high voltage storage.
4. Essential Energy is seeking waivers to deploy energy storage as regulated assets while applying costly tariffs to privately owned storage.

We posit Essential Energy's proposed tariff does not conform with the pricing principles set forth in the National Electricity Rules and if approved, the tariff will place significant barriers to the private development of high voltage storage and hybrid (storage and generator) projects and as consequence, customers in the Essential Energy's network area are likely to face increasing electricity costs.

¹ [Essential Energy – 901 Revised Tariff Structure Statement – Nov23 – Public 1](#)



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We therefore request that the AER do not approve Essential Energy's revised Tariff Structure Statement and that the proposed High Voltage Distribution Battery and Hybrid tariff be amended to reflect the benefits delivered by High Voltage Energy Storage.

For more information, please contact the undersigned.

Your sincerely,



Joel Prata
Head of Grid



Appendix:

1. Revenue from proposed High Voltage Distribution Battery and Hybrid tariff exceeds marginal and average cost of servicing the connection.

The revenue from the proposed tariff will far exceed the marginal and average cost of servicing the connections.

High Voltage Standalone Batteries operate by charging from the network on periods of low wholesale prices, which in NSW coincide with periods of excess solar generation, and discharge on periods of high wholesale prices, commonly in the early evening.

Therefore, the batteries will operate as a balance to the network demand, helping lower impact of minimum demands from excess solar and supplying local demand during peak demand times.

The figure below illustrates, using data from Essential Energy’s zone substation, how a battery will increase the hosting capacity for generation and load.

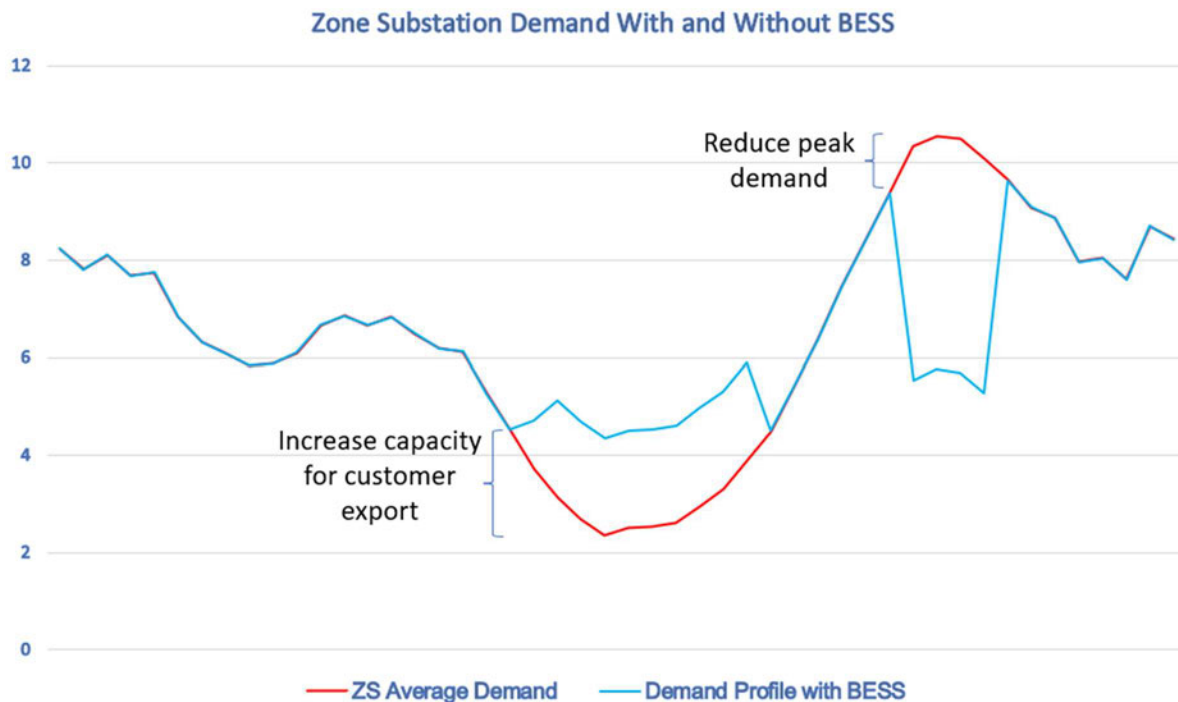


Figure 1: Average daily demand profile for zone substation with and without battery storage – assuming storage operation during times allowed by

The batteries will deliver benefits in terms of increasing hosting capacity for customer exports during the day and for customer load demand during the evening far exceed its marginal cost and providing a negative marginal cost.

Under the proposed tariff², the minimum charges a HV battery would incur is \$8,285 per year consisting primarily of Network Access Charge. This is notably more than the network access charge for a Subtransmission connection.

By supporting high voltage storage connections, Essential Energy could defer part of its estimates \$201 million capital expenditure proposed as part of its submission.³

Therefore, we posit that the tariff does not reflect the benefit in marginal cost as well as the indirect benefits of increased export enablement, improved voltage management and reduced network augmentation.

2. Applying Export Charges to High Voltage Generators does not conform with the intent of the Access, pricing and incentive arrangements for distributed energy resources⁴ rule change and amounts to cross subsidisation.

The Access, pricing and incentive arrangements for distributed energy resources rule change was made to facilitate small-scale solar into the grid and support the growth of batteries and electric vehicles. It allows for network energy businesses to propose two-way pricing, i.e. pricing on both consumption and export of electricity.

The purpose of the rule was to enable DNSP to recover the cost of providing export services to small scale Distributed Energy Resources (DER) connected through its Basic and Standard offers. Under those types of offers, the DNSP must fund augmentation of shared network to facilitate the connection service.

High Voltage Generators connect under Negotiated Connection Offers under which, the impact of the connection on the shared network is accessed by the DNSP and any impact on network capacity is augmented by the connection proponent.

The proposed tariff would result in NUOS charges of \$54,096 per year to a 5MW generator in addition to Network Access Charges. This is equivalent to more than ten percent of expected annual revenue from a generator of this size. An tariff impact of this magnitude will deter the development of low-cost solar generation in areas with available network capacity, resulting in worse outcomes for electricity users.

3. Removal of the evening discharge Rebate.

In its final proposed tariff, Essential Energy has removed the rebate for high voltage grid connected batteries.

The rebate originally proposed, albeit small, recognised the benefit the batteries could bring to the network in terms of enabling increased customer peak demand, deferring network augmentation and improved voltage management.

² [Essential Energy Indicative NUOS Price Schedule](#)

³ [Essential Energy - Revised Proposal - 2024-29 Revised Regulatory Proposal - Nov23 – Page 44 - Table 23.](#)

⁴ [Access, pricing and incentive arrangements for distributed energy resources rule change](#)

In its Draft Decision⁵ to Essential Energy's proposed tariff, the AER stated:

We consider the following elements need further analysis and consultation before we can be satisfied they comply with the distribution pricing principles and the NER:

- the appropriate rebate amount for grid-scale batteries connected to the HV network, on which Essential Energy is still consulting

This indicates the AER is not against the proposal of a rebate.

We note a rebate was maintained for low-voltage batteries, despite the benefit from low-voltage batteries to be significantly lower due its locational impact. High voltage connected batteries have the capability to reducing LRMC at a zone substation level, and enabling increasing peak demand from electrification, which is likely to occur during evening peak periods.

4. Applicability of waivers granted for installation of storage as regulated assets.

DNSP have sought waivers for installation of grid connected batteries under which it can generate unregulated revenue by leasing the batteries to private operators.

We consider the proposed tariff, in which the peak rebate has been removed and the high Network Access Charges, will act as a barrier to private investment, and subsequent delays on investment could be utilised as justification for approval of waivers for installation of network owned storage.

The proposed tariffs do not promote the efficient establishment of high voltage generation and storage. Therefore, we posit that the case for waivers lack merit.

⁵ [Draft Decision Essential Energy Electricity Distribution Determination 2024 to 2029 Attachment 19 Tariff Structure Statement.](#)