ANTORA ENERGY

24 September 2026

Australian Energy Market Commission

Level 15, 60 Castlereagh Street, Sydney NSW 2000

Lodged via aemc.gov.au

Re: Electricity Network Regulation Review, Package 2 consultation paper (EPR0201)

Dear Commissioners

1. Introduction

Antora Energy develops, owns and operates electric thermal energy storage (eTES) systems, which convert low-cost, variable electricity from the grid or directly from renewable generation into continuous industrial process heat. An eTES unit is a large and fully curtailable load: it charges in hours of surplus renewable generation and turns down during network and system peaks. Antora writes as a supplier and project developer of large industrial thermal energy storage for process heat electrification, with a growing pipeline of industrial customers across Australia.

The scale of industrial electrification matters for this Review. Australian industry burns around 600 PJ of fossil fuel a year for process heat.[1] As that demand moves onto the grid, flexibility is what keeps the change affordable and low-emission: an eTES draws power when renewable output is in surplus and cheap, and stays off the network at its peak. We estimate that eTES can serve more than half of industrial heating applications by temperature, and that in the near to medium term this represents approximately 32 TWh a year of new electricity demand in the NEM. Whether industrial electrification arrives as firm load or as flexible load will shape network investment for decades.

Antora made a submission on Package 1 of this Review on 23 July 2026[2] and a joint submission with Rondo Energy to the Pricing Review on 25 February 2026.[3] This submission builds on Appendix A of the Package 1 submission which sets out the network incentive gap for flexible load.

2. Our position

Large flexible industrial loads, such as eTES, can be switched off within a dispatch interval, charge when renewable generation is in surplus, and rapidly reduce load during hours of high grid stress and coincident peaks that drive network augmentation. Flexible loads can improve network utilisation by aligning their charging profile with variable renewable generation output and reduce the need for costly and underutilised network infrastructure investment.

---

[1] https://itpthermal.com/wp-content/uploads/2025/04/itpproccess-heat-report_final08042025.pdf

[2] Antora Energy, submission to the Electricity Network Regulation Review Package 1, 23 July 2026.

[3] Antora Energy and Rondo Energy, joint submission to the Pricing Review draft report, 25 February 2026.

Package 2 asks whether networks are incentivised to build efficiently and, in Question 7, whether they should be rewarded for making better use of the network they already have.[4] Today, three gaps prevent the current framework from rewarding higher network utilisation: (1) Revenue caps without utilisation incentives prevent NSPs from benefitting from higher throughput; (2) Utilisation metrics measure peak demand versus capacity without regard for utilisation in off-peak hours; and (3) Forecasts do not distinguish flexible load from firm load.

Under a revenue cap a Network Service Provider's (NSP's) revenue holds steady as demand varies, so energy carried through existing assets adds nothing to its revenue[5]. The Capital Expenditure Sharing Scheme (CESS) and the Demand Management Incentive Scheme (DMIS) lift measured utilisation by holding capacity down.[6] A network that connects a flexible load carries the cost and the risk of the flexible arrangement. The benefits of flexible load, however, go to customers without any share to the NSP. The lower costs associated with increased asset utilisation (which spreads the same revenue cap over a higher energy volume) are passed to customers annually through price resets. Reduced investment into new, underutilised infrastructure is passed to customers in the next revenue determination, while the benefits associated with renewable curtailment reduction show up as lower wholesale prices, which are, again, passed directly to customers.

The obvious method of incentivising higher utilisation, paying networks for improving against a utilisation metric, needs a metric that does not yet exist. Today's utilisation measure records peak headroom only. It moves when the peak rises or capacity falls, so a payment keyed to it would reward a network for the very load that drives augmentation and ignore the load that avoids it. Rewarding flexible load requires a measure of off-peak use, which the AER does not track today. Additionally, when a network assesses a connection application by the capacity it must guarantee at the network peak, not by how the load will actually operate, a flexible load appears to require augmentation it does not need. A network can offer curtailable terms case by case, but without a standard way to distinguish flexible from firm load, the framework still counts the load as firm.

Industrial electrification with grid flexibility attributes comes to the grid as a new large load connection application rather than as a demand management initiative, therefore current incentive programs do not support these projects. The DMIS rewards Distribution Network Service Providers (DNSPs) on demand management projects they undertake. The RIT-D and the RIT-T compare network and non-network solutions to an existing need for investment. Therefore, new flexible load that improves utilisation of current infrastructure is not adequately addressed.[7]

Antora's recommendations flow from three main objectives:

1) **A Flexible Connection Service classification**, put forward in the Package 1 submission[8];

[4]AEMC, Consultation paper, Electricity Network Regulation Review Package 2 (EPR0201), 13 August 2026, section 3.5.4, Question 7. Later references to "the consultation paper" are to this document.

[5]Consultation paper, section 4.2: "Because revenue is fixed and prices are not, an NSP's revenue does not change with demand." The AER has applied a revenue cap in recent DNSP determinations, and the NER prescribes a revenue cap for all TNSPs.

[6]Consultation paper, section 3.5.3.

[7]Consultation paper, section 3.3.2. Payments under the DMIS are capped at 1 per cent of a DNSP's allowed revenue, totalling $3.5 million over FY2020 to FY2024 against $433 million available, and the scheme applies to DNSPs alone.

[8]Antora Energy, Package 1 submission, 23 July 2026, proposed amendments to NER Chapters 6 and 6A and Appendix B.

2) **Differentiation of flexible and firm load** in demand forecasting and utilisation measurement; and
3) **A Demand Flexibility Performance Incentive** that gives networks a reason to offer flexible connections.

Antora asks the Commission to carry the Demand Flexibility Performance Incentive into the Package 2 options paper as a candidate mechanism under Question 7, and to define "whole of system" so that large flexible industrial load sits inside it.

3. Specific Recommendations

Recommendation 1: Establish a Demand Flexibility Performance Incentive (DFPI): a sharing mechanism, built on CESS and EBSS principles, that rewards a network during the regulatory period for increased infrastructure investment it verifiably defers or avoids by connecting flexible load on curtailable terms, valued using the AER's established method for avoided augmentation.[9] (Questions 7 and 5.1)

Recommendation 2: Amend the DMIS, or issue AER guidance, to confirm that a flexible connection arrangement, meaning a connection agreement with enforceable curtailment and peak avoidance obligations that defers or avoids network infrastructure expansion, is an eligible demand management project; that the network's costs of establishing, operating, and compensating the arrangement are eligible costs; and that its net benefit is the reduced renewable curtailment and increased network asset utilisation, valued using the AER's established method. The DMIS pays a share of cost rather than a share of value, so Recommendation 1 (R1) carries the incentive. (Question 5.1)

Recommendation 3: Measure network utilisation by capacity factor, meaning energy delivered relative to firm capacity, alongside peak headroom, at each substation and feeder and by time of day, counting flows in both directions, treating the capacity a customer has contracted and paid for as funded, and recognising how much a load actually draws at the asset's peak rather than its nameplate. Any incentive keyed to the measure should reward matching load to variable renewable resources and removing avoidable constraints. (Question 7)

Recommendation 4: Demand forecasts should distinguish flexible load from firm load and represent flexible load by its declared and metered operating profile rather than by its firm nameplate or contracted capacity, with the treatment visible to the AER. Without differentiating between firm and flexible loads, a flexible load would justify augmentation it does not require in reality. This augmentation would enter the revenue requirement and pass costs onto customers, canceling out real benefits. (Question 3)

Recommendation 5: Define "whole of system" to include large flexible loads connected at either the distribution or transmission level as well as consumer energy resources, and recognise prospective large industrial connections as a distinct consumer group with a defined place in the AER's engagement expectations from the Framework and Approach stage. (Questions 6.2 and 4)

[9] AER, Regulatory investment test for distribution, November 2024. The consultation paper cites this instrument at section 3.4.4, footnote 173.

Recommendation 6: Recognise that committed curtailable load reduces the risk of over building and stranded assets. Load that is contractually curtailable and metered should count as reducing risk rather than as firm demand when the AER assesses demand forecasts, the need for network expansion, and the timing of investment. Additionally, Networks should be able to connect qualifying flexible load now on curtailable terms using existing spare capacity with any network augmentation evaluated once verified demand requires it. (Questions 9 and 10)

Recommendation 7: Extend the market efficiency assessment criterion so that it covers how efficiently network assets are used and how efficiently they are built. (Question 12)

Part A. Rewarding networks for using the network they already have

A.1 The gap (Question 7.1)

An explicit incentive for efficient utilisation is warranted and it should reward the use of the existing network assets as well as the avoidance of investing in new, underutilised infrastructure assets.

Today a network has no financial reason to prefer a flexible connection over a firm one of the same size: its revenue is the same either way, and only the flexible connection brings it extra cost and risk. It carries the cost and the risk of the flexible arrangement, covering metering, control and curtailment administration, and the benefit reaches consumers at the next reset.[10]

Stakeholders have said that utilisation depends on factors outside a network's control.[11] That holds for a utilisation ratio. The DFPI rewards what a network controls: the terms it offers and the deferral it verifiably delivers.

The consultation paper rates the materiality of efficient utilisation as high and records the Pricing Review as addressing it in part.[12] Participants at the Commission's public forum on 18 August 2026 said that utilisation deserves more than a single peak based benchmark.[13]

A.2 The Demand Flexibility Performance Incentive (Question 7.2, R1)

Antora outlines below a proposal and structure for a Demand Flexibility Performance Incentive.

Design element	Proposed approach
Purpose	The DFPI closes the gap in A.1 so that networks actively seek to offer flexible connection terms.
What is rewarded	Verified curtailable capacity connected on flexible terms and the network build out demonstrably deferred or avoided at the relevant asset. A volume or utilisation ratio proxy stays outside the measure.

[10] Antora Energy, submission to the Electricity Network Regulation Review Package 1, 23 July 2026.

[11] Consultation paper, section 3.5.3.

[12] Consultation paper, Table A.7, which rates materiality as high, records other processes as partially addressed, and rates the issue as not separable.

[13] AEMC, ENRR public forum report, 18 August 2026, recording participant views that utilisation should not be reduced to a single benchmark and that minimum demand is absent from current measures.

How it is valued	The AER's established method for valuing avoided augmentation in the non-network options context, applied at the relevant location.[14]
How it is shared	Sharing between network and consumers on CESS and EBSS lines, with the ratio set by the AER. Antora proposes a reward only mechanism at the outset and leaves the question of a penalty side to the Commission.
Avoiding double counting	The avoided capex reaches consumers at the next determination. The DFPI rewards the revenue and the risk the network takes on during the period. This is the central design question, and Antora would be happy to work through it with the Commission.
Verification	Interval metering, assessed annually, against the Highly Flexible Load criteria in Appendix B of the Package 1 submission, covering curtailability, peak avoidance and charging concentration.[15]
Alignment with the Commission's conditions for a new scheme	The consultation paper sets four conditions: (1) material consumer benefit above the minimum standard, (2) an information or enforcement problem that obligations leave unsolved, (3) a need for new approaches, and (4) performance that can be measured and attributed[16]. The DFPI meets each condition. On the drawbacks the paper lists, cost to consumers is bounded by the sharing ratio and arises only where deferral is verified; complexity stays contained because the DFPI uses CESS and EBSS machinery; unintended consequences are limited by rewarding deferral at a named asset rather than a system wide ratio; and gaming is addressed by interval metering against contractual curtailment obligations.
Alignment with pricing reform	The DFPI complements dynamic network pricing and bridges to it. The paper positions dynamic pricing as the primary congestion mechanism in the long term vision and invites views on transitional mechanisms for the period while pricing reform takes effect.[17]

A.3 A level playing field for all technology types (Question 5.1, R2)

The current framework leaves demand side flexibility at a disadvantage at both the transmission and distribution level.

The consultation paper's dividing line runs between network and non-network options, and coordinated consumer energy resources providing network services are its leading example of the latter.[18] Demand side technology therefore sits within "all technology types". A flexible load meets

[14]AER, Regulatory investment test for distribution, November 2024. The consultation paper cites this instrument at section 3.4.4, footnote 173.

[15]Antora Energy, Package 1 submission, 23 July 2026, proposed amendments to NER Chapters 6 and 6A and Appendix B.

[16]Consultation paper, section 3.4.3.

[17]Consultation paper, sections 3.5.3 and 3.5.4.

[18]Consultation paper, section 3.3, which names coordinated CER providing network services as a non-network option, and section 3.3.2 on the DMIS, the RIT-D and the RIT-T.

two obstacles: it competes against augmentation as a non-network option on unequal terms and it connects on firm terms, so it is assessed as a firm peak load that triggers augmentation.

The paper identifies the drivers: differences between the regulated rate of return and an NSP's actual financing costs, the effect of the regulated rate of return on CESS and EBSS sharing ratios, interactions between those schemes for shorter asset lives, investor preference for long term stable returns, and perceived risk attaching to non-network options.[19]

To illustrate: a 100 MW flexible load that reduces its load during every network peak and charges only during periods of low grid stress and high renewable generation pays the same aggregate network charges as a 100 MW flat load charging through every system peak. Network charges represent 25 to 40 per cent of delivered electricity cost for eTES, largely driven by volumetric and non-coincident peak demand charges.[20] This creates a significant misalignment of cost allocation among loads that help improve the utilisation of existing network assets versus those that require new augmentation, leading to a significant disincentive to deploy flexible electrification investments.

A.4 How utilisation should be measured (Questions 7.2 and 7.3, R3)

Utilisation of network assets is currently measured as maximum demand at each network substation over a year relative to that substation's capacity. That measure records peak headroom alone. It leaves out when energy is used, minimum demand, two way flows and assets below the zone substation.[21] A flexible load charging only during low grid stress hours stays invisible to the utilisation metric, and a load that adds to the peak improves it. The same measure treats capacity a customer has contracted and paid for as idle.[22]

Load factor should be considered alongside headroom in the utilisation metric. Load factor measures the energy consumed by a load relative to its firm capacity. Load factor rises when the trough fills and falls when the peak grows, so it would reward flattening. For example, a 100 MVA substation with an 80 MW peak, a 40 MW average, and a load factor of 0.40 adds a new 30 MW eTES that charges for the lowest-valued eight hours in each 24 hour period. This holds the peak of the substation at 80 MW and lifts the load factor to 0.50, in comparison to adding a new 30 MW inflexible load that increases the peak to 110 MW and forces new network augmentation in order to support that load.

The data to support this scenario is building. The Enhancing Distribution Network Planning and Reporting final rule of 16 July 2026 requires DNSPs to publish distribution network data under AER guidelines, and the AER plans to work with stakeholders on utilisation metrics in the second half of 2026.[23] Antora offers to contribute to that work.

Network choices also suppress the use of spare capacity. Tariff structures with non-coincident peak and variable rate structures indirectly charge a flexible load regardless of the peak congestion it

[19] Consultation paper, section 3.3.1.

[20] Antora Energy, submission to the Electricity Network Regulation Review Package 1, 23 July 2026.

[21] Consultation paper, section 3.5.2 and Figure 3.10.

[22] Consultation paper, section 3.5.2 and Figure 3.10.

[23] AEMC, Enhancing Distribution Network Planning and Reporting, final determination, 16 July 2026; AER, Network performance reporting for regulated electricity and gas networks, final report, December 2025, p 13, cited at consultation paper section 3.5.2.

avoids. Box 10 of the paper describes a utilisation incentive that rewards networks for reducing avoidable price based or technical constraints while retaining tariffs and proportionate limits for genuinely congested periods.[24] Antora supports that design and asks that it extend to large flexible loads at the connection agreement level. We also note that improved cost allocation must be matched with market and system management capabilities to provide adequate signals for flexible loads to ramp consumption up and down to maintain system strength.

Part B. Treating flexible load for what it is

B.1 Demand forecasts (Question 3, R4)

Flexible load enters forecasts at its nameplate capacity. A 200 MW eTES that draws nothing at peak enters the forecast as 200 MW of peak growth and drives augmentation it would otherwise avoid causing as a result of its flexible charging.

The paper records the information asymmetry between networks, the regulator, and the resulting incentive to submit high forecasts.[25] It notes that capex determines the majority of network revenue and is repaid by consumers over asset lives of 40 years or more.[26] Forecasting flexible load at nameplate capacity compounds both effects.

Recommendation 4 asks the Commission to represent flexible load by its operating profile, to require networks to show engagement with the prospective connection pipeline including potential flexible loads, and to reflect that treatment in the AER's Expenditure Forecast Assessment Guideline.[27]

B.2 Curtailable load reduces over build risk (Question 9, R6)

The paper identifies large discrete loads and economy wide electrification as leading sources of rising demand forecast risk,[28] and records a significant increase since 2021 in cost pass throughs, contingent projects, and capex reopeners, which shift risk onto consumers.[29]

A load that draws on low value energy and spare network capacity with the ability to reduce its consumption on command protects other network consumers from over-building: where spare capacity exists the load uses it, and where spare capacity is unavailable or limited, the load reduces or shuts off. The flexible load's curtailability is contractual and metered so that the risk reduction is measurable. The framework does not currently consider this benefit.

Recommendation 6 asks that committed curtailable loads count as reducing over build and stranding risk when the AER assesses forecasts, the need for augmentation and the timing of investment.

B.3 Connect now, augment later (Question 10, R6)

[24] Consultation paper, Box 10.

[25] Consultation paper, section 2.4.1, citing Ofwat on the "incentive to submit high forecasts".

[26] Consultation paper, section 2.4.2 and Figure 2.4.

[27] AER, Expenditure Forecast Assessment Guideline for Electricity Distribution, October 2024.

[28] Consultation paper, section 4.3.1.

[29] Consultation paper, section 4.4 and Figure 4.1.

The paper names two barriers to investing ahead of need: (1) anticipatory expenditure must be justified against a demonstrated, quantifiable need, which suits a single well defined project better than a trend based program, and (2) the NSP bears the downside where the expenditure is later found inefficient or imprudent.[30] Box 13 records the AER declining CitiPower, Powercor, and United Energy's coordinated electrification upgrade approach on the first ground.[31] Committed curtailable load bounds the downside of building early and belongs in the optimal timing assessment as option value[32].

Recommendation 6 asks the Commission to allow networks to connect qualifying flexible load now on curtailable terms using existing spare network capacity, and to invest in new network augmentation later once verified demand requires it. Where electrification clusters form, committed flexible load that can operate within the bounds of existing network capacity while avoiding new infrastructure investment is what makes a trend based program safe for other network consumers.

Part C. Scope and representation

C.1 Defining "whole of system" (Question 6.2, R5)

Antora endorses the CER Taskforce framing recorded in Box 9: reduced distribution and transmission expenditure, lower wholesale market costs, improved system security, reduced curtailment and greater value from consumer energy resources.[33] Recommendation 5 asks that the definition apply to large flexible loads connected at either the distribution or transmission level as well as to consumer energy resources. Scope can be settled ahead of the DSO role being finalised.

On measurement, the paper proposes to explore how the definition and scope of whole system benefits shape incentive design.[34] Antora asks that any measure target the actions a DSO controls: capacity offered to flexible loads on flexible terms, time taken to connect flexible and schedulable load, and performance of flexible operating envelopes. This sits within the agreed policy path. Energy Ministers agreed in December 2025 to formalise DNSPs as the DSO. Work is underway to embed DSO rights and obligations in the NER, and AER led DSO reporting commences in 2026.[35]

C.2 Large industrial connections as a consumer group (Question 4, R5)

Recommendation 5 asks the Commission to name prospective large industrial connections as a distinct group in the AER's engagement expectations, with a defined place from the Framework and Approach stage. Antora offers to contribute through the Senior Advisory Group, a working group, or an industrial electrification reference group, whichever the Commission considers most useful.[36]

---

[30] Consultation paper, section 4.5.2.

[31] Consultation paper, Box 13.

[32] Consultation paper, section 4.5, footnote 229, on the option value of an investment.

[33] Consultation paper, Box 9, drawing on Department of Climate Change, Energy, the Environment and Water, Consumer Energy Resources Taskforce, Redefining roles and responsibilities for power system and market operations in a high CER future, December 2025.

[34] Consultation paper, section 3.4.4.

[35] Consultation paper, section 3.4.2; Energy and Climate Change Ministerial Council, meeting communique, 16 December 2025.

[36] AEMC, Senior Advisory Group membership and Working Group membership, September 2026.

C.3 Prioritisation and assessment criteria (Questions 1 and 12, R7)

Question 1: Antora agrees with the proposed prioritisation framework. The issue we raise, that the framework cannot measure, reward or recognise flexible load, meets all four criteria and should be a priority issue for the Review.

- **Materiality:** network costs make up a third to a half of customer bills, growth in demand and connections from electrification is a named driver of distribution capex, and the Commission itself describes efficient utilisation as one of the key levers available to reduce unit prices for consumers. Flexible electrification sits at the intersection of all of these issues.
- **Implementation feasibility:** the DFPI can be delivered through the NER and AER guidelines, using the AER's existing method for valuing avoided augmentation.
- **Other processes:** the Pricing Review addressed tariffs and considered utilisation incentives only to an extent, and the data centre rule changes govern how one class of load connects and pays; no other processes address the network's incentive to connect and use flexible load.
- **Separability:** the issue would be difficult to consider in isolation because it relates to multiple issues raised in the paper: utilisation (Question 7), tech-neutrality (Question 5), forecasting (Question 3) and risk allocation (Questions 9 and 10).

Question 12: Antora supports the five assessment criteria. The market efficiency criterion already refers to the provision and use of network services.[37] Recommendation 7 asks the Commission to apply it explicitly to how efficiently existing network assets are used. Antora welcomes emissions reduction, innovation, and flexibility, as criteria in their own right.

Closing

Antora would welcome the opportunity to discuss this submission and to take part in any working group, reference group or advisory process the Commission establishes for the Review.

Yours sincerely

Noah Long

Director, State & Regulatory Affairs
Antora Energy

noah.long@antora.energy

Appendix A. Highly Flexible Load qualifying criteria

The qualifying criteria are set out in Appendix B of Antora's Package 1 submission and cover curtailability, system peak avoidance, charging concentration, monitoring and compliance, and consequences of non-compliance.[38] They are referenced here rather than repeated.

[37] Consultation paper, section 5.3.2.

[38] Antora Energy, Package 1 submission, 23 July 2026, proposed amendments to NER Chapters 6 and 6A and Appendix B.