



# Attachment 6.2

Nominated cost pass through event -  
Network Support Event

30 November 2023

PowerWater

# 1. Background

Pass through events provide us with an ability to recover sufficient revenue or pass on cost savings if a nominated event materialises, resulting in a change in our costs of providing distribution services that is outside our control. The pass through mechanism allows us to recover the efficient cost of these events from customers, or pass on cost savings to customers, which we would otherwise not be able to, during the regulatory period.

The accepted rationale for pass through events is that material changes in costs of providing distribution services, due to events we have no control over, undermines the five-year revenue forecast and the consequent regulatory allowance. This would lead to us having insufficient or too much revenue for the distribution services being provided and the investment required to operate and maintain the network.

The pass through events mechanism fills any gap left after all other avenues to address the risk have been exhausted e.g., event avoidance, mitigation, commercial insurance and self insurance.

## 1.1 Our initial proposal

In our initial proposal, we nominated four specific, pre-defined cost pass through events that the Australian Energy Regulator (AER) accepted in its draft decision. These events were:

- Insurance coverage event
- Insurers credit risk event
- Terrorism event
- Natural disaster event

We also nominated a fifth confidential cost pass through which is addressed in Confidential Attachment 6.1.

We did not nominate a new cost pass through event for the provision of network support services. However, there have been significant changes to the energy landscape during the past few years which change the actions we must take to ensure safe and reliable provision of network services, consistent with the National Electricity Objective.

This nominated cost pass through event is a direct response to the risk of a shortfall in revenue resulting from an inability to reasonably recover costs associated with the provision of network support services raised by Territory Generation in its submission to the AER.

## 1.2 Submissions on our initial proposal

In its submission to the AER, Territory Generation identified the potential need for us to incur additional operating expenditure to pay for essential system services (ESS) provided by other parties.<sup>1</sup> Specifically,

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<sup>1</sup> Territory Generation submission to the 2024-29 Electricity determination of Power and Water Corporation, May 2023, available at: <https://www.aer.gov.au/system/files/Territory%20Generation%20-%20Submission%20-%202024-29%20Electricity%20Determination%20-%20PWC%20-%20May%202023.pdf>

Territory Generation noted that it currently provides a number of services that are, or are likely to be, the responsibility of Power and Water, in particular voltage management, system strength and network support services<sup>2</sup>.

Territory Generation stated in its submission that it currently provides several services from existing generation assets that it is not compensated for:

*Examples of Network Operator related services currently provided by Territory Generation, which are not currently compensated, include:*

- *Network support through the provision of capacity / N-1 of the 132kV line to Katherine.*
- *Provision of voltage management.*
- *Provision of inertia and system strength through out of merit dispatch.*

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<sup>2</sup> The submission referenced the NT Government's draft position identifying the responsibility for the provision of voltage management, network support and system strength services reside with the network operator.

## 2. Proposed pass through event

In response to the identified cost of ESS highlighted by Territory Generation, we propose to nominate a specific cost pass through event to provide us with a reasonable ability to recover the cost of network support payments that are likely to arise in the 2024-29 regulatory period:

### A Network Support Pass Through Event.

#### 2.1 Why we need a pass through event

The Northern Territory (NT) Government's target is to achieve 50 per cent of underlying demand being sourced from renewable energy by 2030. The objective is to reduce emissions and lower generation costs by substituting existing synchronous generating plant with renewable energy sources.

The increasing diversity of the NT's electricity systems, in terms of technologies and participants, is being facilitated by implementation of the NT Electricity Market (NTEM) Priority Reform Program. The program was established to:

- Improve coordination of solar and gas-fired generators.
- Ensure there is sufficient generation capacity available to meet consumers' needs.
- Facilitate payments between retailers and generators.
- Improve the efficiency of the provision of essential power system security services.

The reform program included the release of a series of draft position and consultation papers in January 2021 relating to dispatch and settlement, essential system services and the design of a capacity mechanism.

While the details of the NTEM Priority Reform Program are being finalised, we understand there is a clear intention for Power and Water as the transmission and distribution network operator, to be responsible for procurement of voltage management / network support and system strength services<sup>3</sup> should a shortfall be identified.

Specifically for voltage management, the review stated:

*Where an essential system service for voltage management or network support is not defined, the network operator will be forced to manage voltage or capacity issues through reinforcement, which may result in the requirement for procurement of more expensive solutions such as installation of [static var compensators] and [static synchronous compensators] for reactive power support, or through conventional capacity reinforcements such as larger cables / overhead lines. A holistic approach that considers all technical solutions would result in overall lower costs for the consumer in the NT by avoiding reinforcement costs where a lower cost solution is available.*

Specifically for system strength, the review stated:

*Detailed electromagnetic transient studies are required to investigate system strength issues and identify optimal mitigation measures. The [Network Technical Code and Planning Criteria (NTC)] requires that the Network Operator undertake those studies with provisions in the NTC*

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<sup>3</sup> Refer Appendix A, reproduced from Table 2-3, NTEM Priority Reform Program: Review of essential system services.

*ensuring that the Network Operator has access to the detailed models required. It is therefore appropriate that the Network Operator assess any requirement for a system strength essential system service.*

The basis for procuring non-network alternatives to maintain network reliability is well established in Australia. These costs are defined in other jurisdictions regulated under the National Electricity Rules (NER) as 'network support'. The AER describes network support as:<sup>4</sup>

*Network support provides a direct benefit to transmission customers and end users, as it can defer the need for transmission augmentation, and hence results in lower transmission charges, while maintaining the reliability of the network. However, the amount of network support required by a [transmission network service provider (TNSP)] in any given year is dependent on factors that are outside the control of the TNSP such as weather conditions, demand levels, and electricity usage patterns.*

As the transition to renewable energy occurs and existing synchronous generating plant retire, there are likely to be several instances where a network solution may not be the most efficient method to address a need that arises. In these instances, a network support solution is required. Without a cost pass through event, we would be incentivised to pursue the inefficient network solution in order to be able to recover our costs. This is a clear perverse incentive.

A cost pass through mechanism is required to ensure we can deliver better outcomes for our customers.

Put simply:

- We have a reasonable basis on which to expect to be responsible for the costs associated with provision of these non-network alternatives in the next regulatory period.
- We are already accountable for a number of services provided by third parties like Territory Generation, meaning there would not necessarily need to be a change to legislation in order to be required to pay for these services.
- The timing of the market reforms that would formally place an obligation on us remains uncertain.
- In the absence of market reforms, we are unable to use the Regulatory Change Event to recover these costs.
- A nominated cost pass through is the only way we are able to recover these costs from customers.

## 2.2 Recovering our efficient costs

Under the NER, transmission network services providers are able to recover the costs associated with the procurement of network support from customers where the cost increases (or decreases) are beyond their control through a cost pass through event.<sup>5</sup> This ensures the network service provider does not bear the risk (or benefit) arising from changes in costs.

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<sup>4</sup> AER, Procedural guideline for preparing a transmission network support pass through application. June 2011

<sup>5</sup> Clause 6A.7.2 of the NER

As stated in the AER's Guideline for network support pass through applications:<sup>6</sup>

*a TNSP may find it more cost effective to use generators to maintain system reliability, rather than undertake network augmentation*

...

*Network support payments are made by TNSPs to network support providers for services to manage anticipated network constraints.*

Unlike other network operators regulated under the NER, we do not have a clear mechanism to recover network support costs under the economic regulatory framework. For the purposes of economic regulation by the AER, the NT NER provides that all of our regulated network services are treated as distribution services. This means services that would otherwise be defined as transmission services are classified as distribution services and subject to economic regulation under Chapter 6. This is so there is only one regulatory proposal and determination that need to be made.

As the network support costs are associated with transmission network service providers, the relevant provisions are included in chapter 6A of the NER<sup>7</sup> and therefore do not apply to us.

We have proposed a nominated cost pass through, consistent with that which is included in the NER for transmission network service providers in other jurisdictions that the AER regulates. We consider this is an appropriate approach to ensure we have a reasonable opportunity to recover our efficient costs of providing or procuring network support services.

## 2.3 Proposed definition

Our proposed nominated cost pass through event is defined as:

*A **network support event** occurs if:*

*Network support payments, as defined in Chapter 10 of the NT NER, are made by Power and Water Corporation in its role as the Transmission Network Service Provider.*

This event is based on the definitions of network support services and network support payments in Chapter 10 (Glossary) of the NT NER, and is consistent with the application of clause 6A.7.2 of the NER.

We have applied the definitions to Power and Water in its role as the Transmission Network Service Provider although we are regulated as if the business was a Distribution Network Service Provider under section 6 of the NT NER.

We expect this cost pass through event to be retained into the future as a way to manage these variable costs that are difficult to forecast. The retention of this pass through is consistent with provisions in the NER that apply to transmission network service providers<sup>8</sup>, and included in the NT NER but not yet enforced.

The definitions of **Network support event**, **Network support pass through amount** and **Network support payment** are proposed to apply, consistent with Chapter 10 of the NT NER.<sup>9</sup>

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<sup>6</sup> AER, Procedural guideline for preparing a transmission network support pass through application, June 2011

<sup>7</sup> Chapter 6A of the NER provides a defined pass through event for network support payments paid by transmission network service providers.

<sup>8</sup> More information is provided in the AER's Procedural Guideline for preparing a transmission network support pass through application, available at: <https://www.aer.gov.au/system/files/Guideline%20-%20final.pdf>

<sup>9</sup> Based on v108 of the NT NER

For this Network Support Event:

- Transmission Network Service Provider means Power and Water.
- Transmission Network Users (where referenced) is substituted with Distribution Network Users to align with Power and Water being regulated under Chapter 6.
- Network support services includes voltage management / network support and system strength, consistent with the definition in the ESS draft position paper.
- For network support payments referred to in clause 5.3A.12, this clause has no effect in the NT. We propose substitute the reference to 5.3A.12 with the definition of network support payments and functions included in 5.3A.12, where item (i) is removed as the requirements or references to AEMO and chapter 3 (including clause 3.9.7) have no effect in the NT.

The full definitions are reproduced for convenience in Appendix B.

Generally, pass through events are developed and operate as part of the control mechanism which applies to Standard Control Services under clause 6.6.1 of the NT NER. The NT NER also recognises that the pass through events mechanism provided for in the NT NER can also apply to alternative control services.<sup>10</sup>

We propose that this nominated cost pass through event also be applied as to Alternative Control Services. This is particularly important for our metering services, which are based on a revenue build up approach to derive the prices. This approach is consistent with and promotes the pricing principle set out in section 7(A)(2) of the NT National Electricity Law, which provides that network businesses should be given a reasonable opportunity to be able to recover at least the efficient costs incurred in providing direct control services and complying with regulatory obligations or requirements.

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<sup>10</sup> Clause 6.2.6 (b) and (c) of the NT NER

### 3. Meeting the NT NER requirements

As part of the AER’s assessment of additional pass through events it must assess them against the NER considerations for a nominated cost pass through event set out in clause 6.5.10(b)) of the NT NER. These considerations are set out in Table 3.1 together with an assessment of the proposed pass through event.

Our analysis of the considerations included in the NT NER concludes that the AER should accept the proposed event as meeting the requirements of the nominated pass through event considerations.

Table 3.1: Summary of assessment against the NT NER requirements

NT NER consideration (6.5.10(b))	Assessment of the event against rule considerations
Whether the event proposed is an event covered by a category of pass through event specified in the Rules clause 6.6.1(a1)(1) to (4)	No
Whether the nature or type of event can be clearly identified at the time the determination is made for the service provider	Yes, the event can be clearly identified as per the proposed definition
Whether a prudent service provider could reasonably prevent an event of that nature or type from occurring or substantially mitigate the cost impact of such an event	No, these costs reflect the most efficient solution to ensure we are compliant with network design criteria under the NT Network Technical Code and Planning Criteria. These costs are incurred as an alternative to more costly network augmentation solutions
Whether the relevant service provider could insure against the event, having regard to: <ul style="list-style-type: none"> <li>• the availability (including the extent of availability in terms of liability limits) of insurance against the event on reasonable commercial terms; or</li> <li>• whether the event can be self-insured on the basis that:               <ul style="list-style-type: none"> <li>– it is possible to calculate the self-insurance premium; and</li> <li>– the potential cost to the relevant service provider would not have a significant impact on the service provider’s ability to provide network services</li> </ul> </li> </ul>	It would not be possible for us to insure or self-insure against this event as these costs reflect business as usual operations in our role as a transmission network service provider
Any other matter the AER considers relevant and which the AER has notified network service providers is a nominated pass through event consideration	The NER and the AER’s guideline for preparing network support pass through applications includes similar provisions for the recovery of costs associated with network support services. This is an enduring pass through event in the NER that we are looking to replicate in our role as the transmission network service provider in the NT



## Appendix A

# NT essential system services

Table 4.2: Summary of network support services, purpose, responsibility and cost recovery mechanisms

Essential system service	NTC definition	Purpose (ESS Paper)	Procurement responsibility
Rate of Change of Frequency (RoCoF) Control	Frequency support	<ul style="list-style-type: none"> <li>Control maximum RoCoF on power systems.</li> <li>Ensure system security for credible contingency events and 'protected events'.</li> </ul>	System Controller
Contingency frequency control (raise)	Frequency support	<ul style="list-style-type: none"> <li>Stabilise frequency within 'emergency' defined operating band after a credible contingency resulting in the net disconnection of generation.</li> <li>Ensure system security without Under Frequency Load Shedding for all credible contingency events.</li> </ul>	System Controller
Contingency frequency control (lower)	Frequency support	<ul style="list-style-type: none"> <li>Stabilise frequency within 'emergency' defined operating band after a credible contingency resulting in the net disconnection of load.</li> <li>Ensure system security without over frequency generator tripping for all credible contingency events.</li> </ul>	System Controller
Regulating frequency control	Frequency support	<ul style="list-style-type: none"> <li>Regulate power system frequency within normal defined frequency operating band.</li> </ul>	System Controller
Voltage management / network support	Voltage management	<ul style="list-style-type: none"> <li>Management of network voltage control issues where required.</li> <li>Management of network capacity shortfall issues where required.</li> </ul>	Network Operator
System restart	Black start services	<ul style="list-style-type: none"> <li>Enable the restart of the regulated power systems from a 'black system' event.</li> </ul>	System Controller
System strength	System strength (new connections only)	<ul style="list-style-type: none"> <li>Sufficient system strength capability to ensure voltage stability and sufficient fault current.</li> </ul>	Network Operator
Additional services	Not defined	<ul style="list-style-type: none"> <li>Services necessary to address a system security issue that cannot be managed through the planning timescales, as approved by the Utilities Commission.</li> </ul>	System Controller

## Appendix B

# NER definitions

## **A network support event**

- a. If, at the end of a regulatory year of a regulatory control period, the amount of *network support payments* made by a *Transmission Network Service Provider* for that previous regulatory year is higher or lower than the amount of the *network support payment allowance* (if any) for the *Transmission Network Service Provider* for that previous regulatory year, this constitutes a *network support event*.
- b. In calculating the amount for the purposes of a *network support event* referred to in paragraph (a), the amount of *network support payments* made by a *Transmission Network Service Provider* must not include an amount of *network support payments* that are a substitute for a *network augmentation* where an allowance for capital expenditure in relation to that *network augmentation* has been provided for in the *revenue determination* or an approved pass through amount arising from an *inertia shortfall event*.

## **Network support pass through amount**

The amount that should be passed through to *Transmission Network Users* in the regulatory year following the preceding regulatory year, in respect of a *network support event* for a *Transmission Network Service Provider*.

## **Network support payment**

Any of the following payments:

- a. a payment made by a *Transmission Network Service Provider* to:
  - i. any *Generator* providing *network support services* in accordance with clause 5.3A.12; or
  - ii. any other person providing a *network support service* that is an alternative to *network augmentation*;
- b. an *inertia service payment*; and
- c. a *system strength service payment*.

## **Network support payments and functions**

- a. When negotiating the amount of a *network support payment* with an *Embedded Generator*, the *Transmission Network Service Provider* must take into account the:
  - i. nature of the *network support services* being provided by the *Embedded Generator*; and
  - ii. extent to which the *Embedded Generator* is being, or will be, compensated for providing those *network support services* by receiving avoided *Customer TUOS charges*.
- b. Where the relevant *Transmission Network Service Provider* or *Distribution Network Service Provider* decides to implement a generation option as an alternative to *network augmentation*, the *Network Service Provider* must:
  - i. register the generating unit with AEMO and specify that the generating unit may be periodically used to provide a *network support function* and will not be eligible to set spot prices when constrained on in accordance with clause 3.9.7; and
  - ii. include the cost of this *network support service* in the calculation of transmission service and distribution service prices determined in accordance with Chapter 6 or Chapter 6A, as the case may be.

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