



Department of  
Energy and Economic  
Diversification

Energy  
Policy WA

# Coordinator of Energy Determination - Western Power Non-co-optimised Essential System Services Trigger Submission

Network Support Services for the Geraldton Area  
3 July 2025

Working together for a **brighter** energy future.

---

*An appropriate citation for this paper is: The Coordinator of Energy Determination - Non-Co-optimised Essential System Services Trigger Submission – Network Support Services for the Geraldton Area*

**Energy Policy WA**

Level 1, 66 St Georges Terrace  
Perth WA 6000

Locked Bag 100, East Perth WA 6892  
Telephone: 08 6551 4600

[www.energy.wa.gov.au](http://www.energy.wa.gov.au)  
ABN 84 730 831 715

*Enquiries about this report should be directed to:*

Email: [energymarkets@deed.wa.gov.au](mailto:energymarkets@deed.wa.gov.au)

# Contents

<b>1.</b>	<b>This Determination</b>	<b>4</b>
<b>2.</b>	<b>Background to the Determination</b>	<b>4</b>
2.1	The NCESS Framework	4
<b>3.</b>	<b>Western Power Submission</b>	<b>4</b>
3.1	Submission Process	4
3.2	Western Power's Submission in brief	5
3.2.1	Services Sought	5
<b>4.</b>	<b>Coordinator's Assessment</b>	<b>7</b>
4.1	Where the issues relate to Power System Security or Power System Reliability, the extent to which an NCESS will address these issues (clause 3.11A.7(a))	7
4.1.1	The issue the NCESS is aiming to address	7
4.1.2	Extent to which NCESS will address this issue	7
4.2	The extent to which an NCESS will minimise costs in the WEM (clause 3.11A.7(b))	8
4.3	The relative merits between procuring an NCESS or augmenting the network (clause 3.11A.7(c))	8
4.4	Whether it is suspected that there is a potential exercise of market power (clause 3.11A.7(d))	8
4.5	Whether the procurement of an NCESS is consistent with the State Electricity Objectives (clause 3.11A.7(e))	8
4.6	Whether procurement of an NCESS will be in the long-term interests of consumers (clause 3.11A.7(f))	9
<b>5.</b>	<b>Determination Summary</b>	<b>10</b>
<b>6.</b>	<b>Next Steps - NCESS Procurement Process</b>	<b>10</b>

# 1. This Determination

The Coordinator of Energy (Coordinator) has determined, under clause 3.11A.4 of the Electricity System and Market (ESM) Rules, to trigger a Non-Co-optimised Essential System Services (NCESS) procurement process by Western Power for Network Support Services (NSS) to resolve a minimum demand issue in the Geraldton area. The services are to commence on 1 January 2026 and have a three-year duration.

An NSS, procured through the NCESS process, is a contracted service provided to the network operator/Distribution System Operator (DSO) by a generator, retailer, Distributed Energy Resource (DER) aggregator or customers to help manage or solve local network constraints.

The timing of the proposed services commencement will be refined through this NCESS procurement process, including through input from potential service providers in the Expressions of Interest stage of the process.

In accordance with clause 3.11A.8 of the ESM Rules, the Coordinator is publishing this determination to outline the reasons for triggering the NCESS procurement process on this occasion.

## 2. Background to the Determination

### 2.1 The NCESS Framework

The primary objective of the NCESS framework is to enable AEMO, the Network Operator or the Coordinator to identify and justify the need for services, not already available through existing market mechanisms, and procure those services in a transparent and efficient manner.

More specifically, the NCESS framework is intended to:

- enable the procurement of new services to respond to unforeseen events or changes in the power system that may threaten system security;
- create appropriate incentives for non-network services to be procured to meet power system security and reliability requirements in a more economically efficient manner when compared to network augmentation;
- enable maintenance of power system security and reliability at the lowest efficient cost to consumers; and
- ensure the rapidly evolving power system continues to meet emerging technical requirements, and power system security and reliability standards.

Under the NCESS framework, AEMO and the Network Operator may identify the need for NCESS through system planning processes, and if certain conditions are met, must submit a request to the Coordinator to trigger the NCESS procurement process under the ESM Rules.

The ESM Rules outline the process by which each of the entities must seek to trigger the NCESS procurement process and the factors the Coordinator must consider in assessing a submission by AEMO or the Network Operator.

## 3. Western Power Submission

### 3.1 Submission Process

The Coordinator received a submission from Western Power on 3 July 2025, requesting that the Coordinator triggers the NCESS procurement process for NSS to resolve a minimum demand issue in the Geraldton area.

Under clause 3.11A.2 of the ESM Rules, AEMO or the Network Operator must make a submission to the Coordinator to determine whether to trigger an NCESS procurement process if they reasonably consider that one or more of the following events has occurred or applies:

- if the forecasted or actual magnitude and frequency of Energy Uplift Payments in the WEM increases to an uneconomic level (assuming locational and situational market power is being controlled under the relevant processes), indicating a locational constraint in the network;
- if frequent AEMO Intervention Events to relieve non-frequency control constraints such as loss of reactive power or system strength indicate a network security problem;
- if network planning assumptions change at any time during the network planning timeframe (for example, demand is lower or higher than forecast), signalling the need for an emerging service such as reactive power support or voltage stability which could be provided by non-network services located in the relevant part of the network;
- if a modification to an existing Power System Security or Power System Reliability standard or the introduction of a new Power System Security or Power System Reliability standard within a network planning cycle trigger the needs for an NCESS; or
- if AEMO considers, in the course of its normal power system operations, that a significant threat to Power System Security or Power System Reliability exists or is emerging, and the existing mechanisms under these ESM Rules may not be sufficient to address the threat.

An NCESS submission must contain sufficient information and analysis regarding the potential or actual impact on Power System Security, Power System Reliability or costs for each trigger event to enable the Coordinator to make a determination (clause 3.11A3.3(c)).

The next section provides a summary of the issues raised in Western Power's NCESS submission. A more detailed version of Western Power's submission is available [here](#) on the Coordinator web page.

## 3.2 Western Power's Submission in brief

Western Power has identified the location on the distribution network where a minimum demand issue may be addressed through orchestrated DER and demand side management solutions as an alternative option to major augmentation or new network facilities investment.

Western Power is seeking to procure NSS to resolve a minimum demand issue in the Geraldton area during times when planned or unplanned outages of the 132kV line will require this part of the grid to be islanded.

The trigger submission summarises Western Power's assessment of why a non-network solution may be the most suitable and cost-effective option to address the minimum demand issue in the Geraldton area during the time when the grid in this location is islanded.

Western Power consulted Energy Policy WA and AEMO, as required by section 3.2 of the NCESS Guideline (published in accordance with clause 3.11A.2A of the ESM Rules) and clause 3.11A.2(f) of the ESM Rules. Outcomes from this engagement were included in Western Power's submission.

### 3.2.1 Services Sought

Western Power seeks to procure NSS to address a minimum demand issue in the Geraldton area during times when planned or unplanned outages of the 132kV line will require this part of the grid to be islanded, which may result in a locational operational constraint caused by minimum demand. The services sought include:

- a non-network solution that aggregates behind the meter DER to curtail exports; and
- a non-network solution from large use customers by increasing behind the meter load.

There are times when planned or unplanned outages of the 132kV line will require this part of the grid to be islanded and supplied by the Mungarra Power Station. This may result in a locational

operational constraint caused by minimum demand when the supply on both TS-MBA 81 and TS-MGA 81 transmission lines are interrupted.

A minimum demand of 10MW is required at the Mungarra Power Station for operational stability.

- On minimum demand days, typically in Spring and Autumn, the demand can be as low as 2MW.
- Outages are typically over several business days multiple times per year.

The proposed NCESS contract term is from 1 January 2026 to the end of the 2028 calendar year with availability in the minimum demand periods (Spring, Summer and Autumn months).

Western Power will seek to gain industry feedback through the NCESS process Expression of Interest step on any benefits associated with a different contract duration or a change to the commencement date.

The quantity of the services will be set at the forecasted export curtailment / increase in demand required for the 2026 to 2028 minimum demand periods, as listed in Table 1 below.

**Table 1: Curtailment / demand increase requirements**

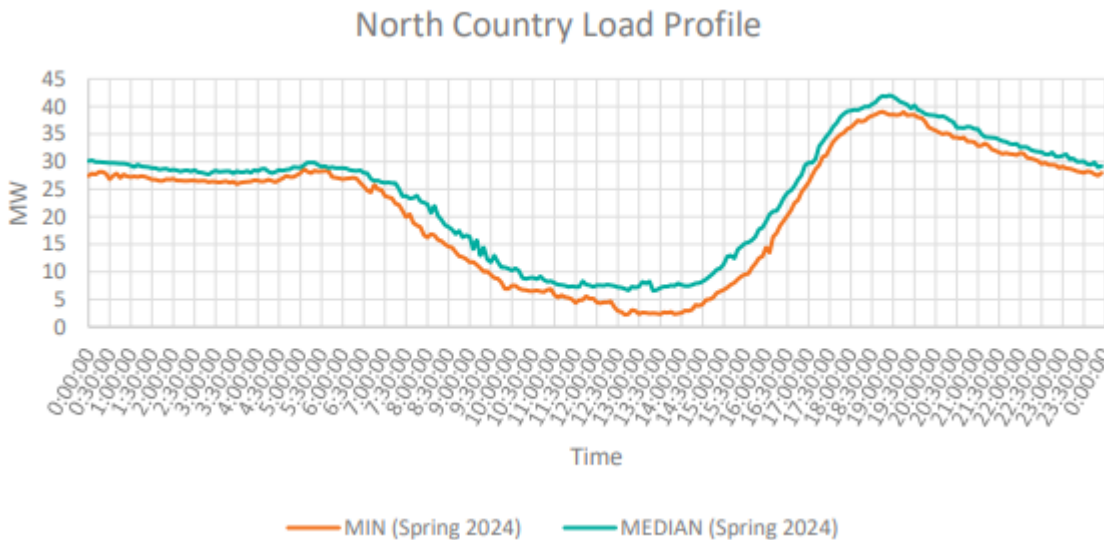
Service	Active Power range	Activation period	Availability
DER export curtailment	Up to 10MW	8:30AM – 4:30PM	Forecast minimum demand days
Demand increase	Up to 10MW		

The proposed service will be activated between the hours of 8:30AM and 4:30PM AWST or parts thereof.

The service will need to be available for any day (likely business days) in the minimum demand period, with the services being called on as a priority to any other services contracted.

The contracted service is expected to be activated on no more than 10 days each calendar year for a duration up to a maximum of 7 hours per event aligned with the profile in Figure 1 below.

**Figure 1: Geraldton area demand profile**



Activation will typically be with 3 days advance notice.

Multiple providers for this service will be considered for both the service duration and quantity.

## 4. Coordinator's Assessment

In accordance with clause 3.11A.7 of the ESM Rules, the Coordinator is required to take several factors into account when assessing Western Power's submission and determining whether to trigger the NCESS procurement process.

This section provides a summary of the Coordinator's assessment of these factors, which has relied heavily on the analysis provided in Western Power's submission.

### 4.1 Where the issues relate to Power System Security or Power System Reliability, the extent to which an NCESS will address these issues (clause 3.11A.7(a))

The Coordinator has determined that a non-network solution, in the location identified by Western Power, may be the most suitable and cost-effective option to resolve minimum demand issues in the Geraldton area in the short to medium term.

Western Power has submitted that there are times when planned or unplanned outages of the 132kV line require this part of the grid to be islanded and supplied by the Mungarra Power Station. This may result in a locational operational constraint caused by minimum demand. A minimum demand of 10MW is required at this location for operational stability of the power station.

The Coordinator considers that, without procuring the NSS via the NCESS procurement process, there is a material risk that high levels of DER installations will continue to increase exports and lead to more pronounced minimum demand days. This presents an ongoing risk to grid operational stability when the Geraldton area is islanded, leading to increased risk of customer outages as well as non-compliance with the current Technical Rules under the Access Code.

#### 4.1.1 The issue the NCESS is aiming to address

Western Power is required to seek the most prudent and efficient solution to resolve any network risks or constraints. As a result, Western Power assesses a range of non-network and network options, including whether these options can meet the scale and timing of identified network needs.

Western Power has also recognised the medium to longer term need to support the emerging NSS market in a way that enables unlocking DER capabilities and value in the South West Interconnected System (SWIS) through Western Power's role as the DSO.

The importance of unlocking DER capabilities in mitigating network capacity risks has been reinforced as a high priority as for Western Power these capabilities may:

- offer more cost-effective alternate solutions;
- buy time for longer lead network investment, lowering network outage risks; and
- complement network investments, reducing their scale and cost.

Western Power has indicated that it seeks to provide the market with opportunities for NSS to support gradual market development in delivering viable non-network solutions. These activities form part of the DER Roadmap core actions (Action 24c) and will enable NSS provision by virtual power plant (VPP).

#### 4.1.2 Extent to which NCESS will address this issue

The Coordinator agrees that this NCESS procurement process has the potential to enable services provided by aggregated DER to deliver network benefits for the market and electricity consumers.

## 4.2 The extent to which an NCESS will minimise costs in the WEM (clause 3.11A.7(b))

Western Power has provided financial analysis, which has been redacted in the publication of this determination, of a non-network solution versus a network build. This analysis demonstrates that procuring NSS via the NCESS framework will cost significantly less than the cost of the network build that would be required as an alternative.

The Coordinator considers that procuring the NSS via the NCESS framework is a cost-efficient alternative option to major augmentation or new network facilities investment in the Geraldton area in the short to medium term.

The Coordinator considers that Western Power must apply appropriate mitigation measures to minimise the cost of this procurement. In particular, consideration must be given to the requirements in the Service Specification to ensure that a range of providers and technologies can compete for the NSS.

Contracts should be structured in a manner that ensures availability and delivery of the service without exceeding the value of the service to consumers.

At the request of Western Power, the Coordinator has redacted commercially sensitive information from the analysis in accordance with 3.11A.8.

## 4.3 The relative merits between procuring an NCESS or augmenting the network (clause 3.11A.7(c))

Based on its assessment, Western Power considers a non-network solution in the Geraldton area may be the most suitable and cost-effective option to address the minimum demand risk for the Geraldton area in the short to medium term.

While a network build to address the minimum demand situation is not planned by Western Power at this stage, this would present a significant investment driven by a large increase in demand in the area.

- At this stage, a suitable network solution would likely include a 330kV extension from Three Springs and the establishment of a new terminal in the Geraldton area to supply the existing substations as well as new demand.

The Coordinator accepts that market-based service is the most suitable option to address the minimum demand risk for the Geraldton area in the short to medium term, to ensure reliable and secure supply as required by the minimum reliability standards.

## 4.4 Whether it is suspected that there is a potential exercise of market power (clause 3.11A.7(d))

The Coordinator is not aware of any market power aspects relating to the identified trigger.

## 4.5 Whether the procurement of an NCESS is consistent with the State Electricity Objective (clause 3.11A.7(e))

The State Electricity Objective was recently updated to keep pace with the rapidly transitioning power system, and to adapt to the integration of new technologies while having regard to the environment, including electricity sector emissions.

The State Electricity Objective, under section 122 of the Electricity Industry Act 2004 is to promote efficient investment in, and efficient operation and use of, electricity services for the long-term interests of consumers of electricity in relation to:

- a) the quality, safety, security and reliability of supply of electricity;
- b) the price of electricity; and
- c) the environment, including reducing greenhouse gas emissions.

The Coordinator considers that the proposed procurement of an NCESS as a mitigation of the risks identified in the Western Power submission is consistent with the State Electricity Objective in relation to:

#### The quality, safety, security and reliability of supply of electricity

The Coordinator considers that issues the proposed NCESS is aimed at addressing relate to Power System Security and Power System Reliability, and NSS procured via the NCESS has the potential to adequately address the issues.

#### The price of electricity

The Coordinator considers that the two-stage NCESS procurement process in the ESM Rules has been developed to encourage maximum competition and ensure the cost of the services is as efficient as possible. This can have a significant influence on costs, minimising the long-term cost of electricity supply to customers in the SWIS.

The Coordinator considers that the proposed procurement of NCESS has the potential to minimise the long-term cost of electricity services to customers in the SWIS, as follows:

- in accordance with clause 3.11B.10, Western Power must select one or more NCESS offers which meet the NCESS Service Specification and will result in the highest value for money for providing the NCESS;
- in accordance with clause 3.11B.11, Western Power must, when assessing highest value for money conduct cost-benefit analysis or other assessments to demonstrate how a NCESS offer will maximise value for money; and
- in accordance with clause 3.11B.12, Western Power may decide to not select any NCESS offers if it considers that none of the NCESS Submissions represent value for money.

#### The environment, including reducing greenhouse gas emission

In accordance with clause 3.11B.1, Western Power must prepare a draft NCESS service specification.

The Coordinator considers that, to meet the State Electricity Objective, a service specification can (and should) be developed by Western Power such that the service can be delivered by a range of technologies, including sustainable energy options and technologies such as those that make use of renewable resources or that reduce overall greenhouse gas emissions.

In accordance with clause 3.11B.3A, Western Power must develop and publish, an Expressions of Interest form, setting out the details prospective service providers must provide, which must include whether the facility or equipment that may be able to provide the service can “fully or partially” meet the draft NCESS Service Specification. This would allow a range of technologies to compete for the services.

## 4.6 Whether procurement of an NCESS will be in the long-term interests of consumers (clause 3.11A.7(f))

The Coordinator considers that a not-network solution as outlined in Western Power’s submission may be the most suitable and cost-effective option in the short to medium term as an alternative option to major augmentation or new network facilities investment to ensure reliable and secure supply as required by the minimum reliability standards.

As noted in section 4.2, Western Power must continue to consider mitigation measures to minimise the cost of the proposed NCESS procurement. It must also ensure that the NCESS procurement

process and the Service Specification include measures to deliver the lowest cost to consumers, as discussed in section 4.5.

## 5. Determination Summary

On the basis of the assessment in this determination, the Coordinator considers that an NCESS procurement for the services by Western Power is the most suitable and cost-effective option to address the minimum demand risk for the Geraldton area in the short to medium term to ensure reliable and secure supply as required by the minimum reliability standards.

Western Power's submission included analysis demonstrating that the continuing high levels of DER installations will increase exports to the grid and will lead to more pronounced minimum demand days. When the Geraldton area is islanded this presents an ongoing risk to the grid operational stability that can lead to the increased risk of customer outages as well as non-compliance with the current Technical Rules under the Access Code.

Western Power's submission included financial analysis of a non-network solution versus a network build, which demonstrates that procuring the services using the NCESS framework will cost significantly less than the cost of the network build that would be required as an alternative.

The Coordinator is satisfied that the trigger conditions in section 3.11A of the ESM Rules have been met and that an NCESS procurement process should be conducted in accordance with section 3.11B of the ESM Rules.

The Coordinator expects that Western Power will take into account the matters regarding the NCESS procurement process addressed by the Coordinator in section 4 of this determination.

## 6. Next Steps - NCESS Procurement Process

Based on the information in Western Power's submission, the Coordinator has determined that Western Power is the procuring party for this NCESS and will be responsible for paying for the services once the commercial terms are determined.

On this basis, Western Power must prepare a draft NCESS Service Specification in accordance with clause 3.11B.5 of the ESM Rules. Western Power must consult with the Coordinator and AEMO in the preparation of this draft specification.

Within 20 Business Days of the publication of this determination, unless otherwise agreed with the Coordinator, Western Power must advertise a call for Expressions of Interest on the WEM Website and in a major Australian newspaper.

Respondents must be given at least 20 Business Days to respond to the Expressions of Interest call, from the time it is published.

This first step of the process will enable Western Power to determine what suitable service providers exist and what solutions they can provide to meet fully or partially the requirements. Suitability may depend on several factors such as the type of technology, operational limitations, etc. If suitable providers are not found, the service specification may need to be modified.

If the NCESS procurement is to proceed based on the Expressions of Interest received, Western Power will issue a request for submissions and publish a final service specification to commence the procurement process.

Any existing or new facility or equipment whether belonging to registered or intending market participants is able to participate in an NCESS procurement. New providers that did not participate in the Expressions of Interest step can also participate.

## **Energy Policy WA**

Level 1, 66 St Georges Terrace, Perth WA 6000

Locked Bag 100, East Perth WA 6892

Telephone: 08 6551 4600

[www.energy.wa.gov.au](http://www.energy.wa.gov.au)

