



Provisional Security Enablement Procedure (Improving Security Frameworks)

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Current version release details

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1.0	30 June 2024	First version for publication.

Note: There is a full version history at the end of this document.

1. Introduction

1.1. Purpose and scope

These Provisional Security Enablement Procedures (Provisional Procedures) are published pursuant to clause 11.168.2(b) of the National Electricity Rules (NER or Rules).

NER 11.168.2 was introduced into the NER by the *National Electricity Amendment (Improving security frameworks for the energy transition) Rule 2024* (ISF Rule)¹, and will require AEMO to develop and publish, in accordance with the *Rules consultation procedures*, procedures for the *enablement of system security services* (*Security Enablement Procedures*) by 31 August 2025.

Prior to developing and publishing the *Security Enablement Procedures*, AEMO is required under NER 11.168.2(b) to publish the information in new clause 4.4A.6(a)(3), namely any minimum or recommended requirements to be included in agreements for the provision of *system security services* entered into by Transmission Network Service Providers (TNSPs). AEMO is required to publish this information by 30 June 2024. Publication by AEMO of minimum or recommended requirements is intended to guide TNSP procurement of *system security services* in advance of publication of the full *Security Enablement Procedures* so as to ensure that TNSP contracts are compatible with any scheduling tool developed by AEMO in time for full commencement of the ISF Rule on 2 December 2025².

These Provisional Procedures set out the minimum or recommended requirements to be included in agreements for the provision of *system security services* entered into by TNSPs as required by NER 11.168.2(b). As such, they pertain only to new clause 4.4A.6(a)(3) and do not provide information on new clause 4.4A.6(a)(1), (2) or (4).

AEMO acknowledges that the requirements set out in these Provisional Procedures might restrict the flexibility of future contracting arrangements for TNSPs and the providers of *system security services* (Providers) and has attempted to balance the needs of scheduling with the potential range of preferred contracting arrangements.

The minimum or recommended requirements included in the full *Security Enablement Procedures* may differ from those included in these Provisional Procedures as implementation of the ISF Rule continues to evolve. However, NER 11.168.2(e) provides that any agreement for the provision of *system security services* entered into by a TNSP before 31 August 2025 that is compliant with these Provisional Procedures is deemed to be compliant with the minimum or recommended requirements per new clause 4.4A.6(a)(3) in the full *Security Enablement Procedures* to the extent they differ from those specified in these Provisional Procedures. Parties to an agreement will also need to be prepared to account for information published in and future compliance with any requirements in the full *Security Enablement Procedures* relating to new clause 4.4A.6(a)(1), (2) or (4).

In the interests of effective implementation of the ISF Rule, AEMO may revise the information published in these Provisional Procedures prior to the publication of the full *Security*

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¹ ISF Rule Determination: https://www.aemc.gov.au/sites/default/files/2024-03/ERC0290%20-%20ISF%20final%20determination.pdf.

² ISF Rule Final Determination, p79.

Enablement Procedures. AEMO will provide reasonable notice of any proposed changes and the effective date for those changes.

These Provisional Procedures have effect only for the purposes set out in the NER. The NER and the National Electricity Law prevail over these Provisional Procedures to the extent of any inconsistency.

1.2. Definitions and interpretation

1.2.1. Glossary

Terms defined in the National Electricity Law and the NER have the same meanings in these Provisional Procedures unless otherwise specified in this clause.

Terms defined in the NER are intended to be identified in these Provisional Procedures by italicising them, but failure to italicise a defined term does not affect its meaning.

In addition, the words, phrases and abbreviations in the table below have the meanings set out opposite them when used in these Provisional Procedures.

Term	Definition
Activation Lead Time	The time required for an ISF asset to become <i>enabled</i> for a <i>system security service</i> /s after receiving an instruction from AEMO for <i>enablement</i> .
Activation Payment	A payment to reflect the Provider's cost of commencing operation from a previously inactive state. See Section 2.3 for further information.
Activation Period	The period (corresponding to the Activation Lead Time) between an ISF asset being instructed for <i>enablement</i> and being <i>enabled</i> to provide a <i>system security service</i> .
AEMO	Australian Energy Market Operator Limited
Available	An ISF asset is Available if it is capable of providing system security services after its Activation Period if instructed by AEMO to do so.
Availability Payment	A payment that reflects a Provider's fixed costs for maintaining the Availability of the system security service. See Section 2.3 for further information.
DUID	Dispatchable unit identifier
Enabled	As provided in the NER, a system security service is enabled when an ISF asset provides the service in accordance with AEMO's instructions. A service commences enablement after the Activation Period ends.
Enablement period	The period over which an ISF asset is instructed by AEMO to provide a <i>system security service</i> /s.
Energy Revenue	The transfer to the TNSP of revenue from the sale of electricity on the <i>spot market</i> (positive or negative) resulting from the ISF Asset being <i>enabled</i> at Minimum Dispatch or Auxiliary Load (if applicable). See Section 2.3 for more information.
FCAS	Frequency control ancillary service/s
Indicative schedule	A schedule issued by AEMO indicating the system security services AEMO intends to <i>enable</i> during the period covered by the schedule.
ISF asset	A production unit, network element, other plant or facility that is under an agreement to provide a system security service/s.
Minimum Dispatch	Minimum stable level of <i>energy</i> dispatch (in absolute terms) required to provide the <i>system security service</i> for a generator, scheduled load or bi-directional unit if applicable. For example, the Minimum Dispatch for a generator would be its minimum stable generation level required to provide the <i>system security service</i> .
Non-energy costs	FCAS payments, participant fees and other fees; if or where relevant. See Section 2.3 for more information.

Term	Definition	
NSCAS	network support and control ancillary service/s	
Provider	A System Security Service Provider who is providing system security services, or a Registered Participant who has agreed with a System Security Service Provider to provide system security services, as appropriate.	
Security Enablement Procedures	The procedures to be made by AEMO in accordance with NER 11.168.2(a), which will replace these Provisional Procedures by operation of NER 11.168.2(d).	
Spot market operation	An ISF asset is in <i>spot market</i> operation if it is operating for the purpose of earning <i>energy</i> revenue and/or FCAS revenue. See Section 2.2.3 for more information.	
System security service	A system security service as defined in the NER, being: a) a system strength service; b) an inertia network service; c) a NSCAS; or d) a transitional service, to the extent procured by AEMO or a TNSP under an agreement for that service under the NER.	
TNSP	transmission network service provider, or AEMO where the system security service is a transitional service	
Usage Payment	A payment to compensate the Provider for costs of operating in the manner required to provide the relevant <i>system security service</i> . See Section 2.3 for more information.	

1.2.2. Interpretation

The following principles of interpretation apply to these Provisional Procedures unless otherwise expressly indicated:

- (a) These Provisional Procedures are subject to the principles of interpretation set out in Schedule 2 of the National Electricity Law.
- (b) References to time are references to Australian Eastern Standard Time.

2. Requirements of a contract

These Provisional Procedures set out the minimum or recommended requirements for agreements according to the following aspects that are expected to form part of an agreement:

- · General agreement structure.
- · Defining service provision.
- Financial structure.
- Intended scheduling arrangements.
- General requirements.

Within each of these sections, these Provisional Procedures specify the minimum requirements or recommended requirements, as relevant.

2.1. General agreement structure

This section sets out minimum requirements with respect to the general structure of agreements, including requirements regarding the relationship between contractual terms and ISF assets that are necessary to facilitate AEMO's approach to scheduling and *enabling system security services*:

- Agreements should be structured to allow AEMO to individually enable ISF assets.
- AEMO will enable ISF assets in a binary manner; AEMO will not partially enable ISF assets.
- An ISF asset must not encompass more than one DUID.
- An ISF asset may be capable of operating in more than one mode in order to provide *system* security services. In this circumstance, the parameters required to be included in an agreement should be specified for each operating mode.

A single agreement may cover multiple ISF assets.

2.2. Defining service provision

2.2.1. Parameters for inclusion in agreements

The following parameters are to be defined within the agreement and must be promptly notified to AEMO, including any agreed variations, in accordance with the *Security Enablement Procedures*.

Table 1 Fixed and default parameters

Category	Requirement	Description
Name and type of asset	Identify the specific assets and technology providing the service, and existing NEM registration details. If an agreement involves an asset with multiple units, each unit should be separately identified as each unit may be separately enabled. List any specifications that are relevant to AEMO's enablement of the asset, e.g. when enabled a portion of the asset's energy storage capacity is withheld.	 Connection point. DUID/s (if applicable). Registration status, e.g.: Scheduled market.
Services	System security service(s) provided by the asset/s at an individual unit/asset level, e.g. Fault current, inertia. An asset must be capable of continuous service provision for at least 2 hours.	 Quantity and form, e.g. Unit or Asset 1: X megavolt-amperes (MVA) fault current, Y megawatt-seconds (MWs) of inertia, participation in a minimum secure commitment configuration.
Auxiliary Load	For units that are not generators, scheduled loads or bidirectional unit technologies, expected load consumed when providing service. E.g. synchronous condensers.	Megawatts (MW).
Default Activation Lead Time	The expected maximum lead time for the system security service to be enabled from a non-operational state. This will be adjustable in real time – see Section 2.2.2.	 Defined in hours and minutes. Less than 5 minutes can be stated as zero. ISF Rule prevents AEMO from <i>enabling</i> an ISF asset where the Activation Lead time is more than 12 hours.

Category	Requirement	Description
	AEMO acknowledges that an ISF asset may have different activation lead times for different services. Where this is the case the applicable activation lead time for each service should be specified.	 If the Activation Lead Time is more than 12 hours the service will be considered unavailable for scheduling and enablement.
Default Minimum Dispatch	Minimum stable level of energy dispatch (in absolute terms) required to provide the system security service for a generator, scheduled load or bi-directional unit, if applicable.	 MW Adjustable in real time for physical reasons – see Section 2.2.2. Adjustment will not change service provider's Usage Payment.

AEMO, in performing its scheduling and *enablement* functions, will not explicitly take into account any special timing requirements or other circumstances relating to when the *system security service* is expected to be available (other than those parameters detailed in section 2.2.2), nor any limitations to continuous service provision. Examples include availability during specific months only or during business hours only. If agreements include such special timing requirements or other circumstances, it will be the responsibility of the Provider to reflect these requirements via notification to AEMO of the Availability of the asset in real-time in accordance with the Security Enablement Procedures.

AEMO may require additional information to satisfy its scheduling and *enablement* obligations under new clause 4.4A.1. Agreements should include a general obligation for Providers and TNSPs to provide information requested by AEMO for this purpose in accordance with the full *Security Enablement Procedures*.

For information only: the means by which AEMO sources emissions intensity for the purpose of new clause 4.4A.4(d)(2) will be set out in the *Security Enablement Procedures*.

2.2.2. Variable parameters required to be restated

The following parameters that will be used by AEMO in scheduling and *enabling system security* services may change and must be promptly restated to AEMO in accordance with the Security Enablement Procedures.

AEMO will develop an information system for Providers to deliver this information to AEMO and TNSPs.

Table 2 Variable parameters

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Category	Requirement	Description
Availability	Current and forecast Availability of the service across the full-time horizon covered by the information system.	This is a binary Available or non-Available.
	This is expected to change due to the physical condition of asset.	 Spot market operation is considered Available.
	It may also be necessary to use Availability reductions to manage operations around commercial conditions, such as the management of stored energy.	
	The Provider must, in the form and at the times specified in the Security Enablement Procedures, provide the current Availability and a continuous forecast of	
	Availability to AEMO and the TNSP and must	

Category	Requirement	Description
	immediately update AEMO and the TNSP if there is any change in current or forecast Availability of the ISF asset.	
Activation Lead Time	The Activation Lead Time may be restated from the default contractual parameters where physical conditions have changed.	 Defined in hours and minutes. Less than 5 minutes can be stated as zero.
	An example is where a generator has recently been operating and can therefore achieve a shorter Activation Lead Time.	ISF Rule prevents AEMO from enabling an ISF asset where the Activation Lead time is more than 12 hours. If the Activation Lead Time is.
		 If the Activation Lead Time is more than 12 hours, the service will be considered unavailable for scheduling and enablement.
Minimum Dispatch	The minimum dispatch may be restated from the default contractual parameters where unusual physical conditions have arisen.	MW.Will not have Usage Payment consequences.
	An example is where poor fuel quality or ambient conditions has temporarily raised the minimum stable boiler flame and resulting generation.	 Will have Energy Revenue transfer consequences that AEMO will take into account in scheduling and enablement.

It is a minimum requirement of agreements that the Provider must ensure the ISF asset is at all times prepared to deliver *system security services* in a manner that is consistent with its Availability, Activation Lead Time and Minimum Dispatch. This includes ensuring that the Provider is able to procure fuel or replenish stored energy within the Activation Lead Time. If it is unable to do this, the asset is considered unavailable and the Provider should immediately update AEMO and the TNSP of this change in Availability.

2.2.3. Spot market operation and enablement

This section applies for ISF assets that are capable of and registered for *spot market* operation.

It is a minimum requirement that agreements recognise, and do not contain provisions that are inconsistent with, the following operational arrangements:

- If an ISF asset has a requirement for *energy* dispatch when *enabled*, such as a minimum stable generation level, it cannot undertake *spot market* operation concurrently with *enablement*. This is in alignment with the underlying principle behind new clause 4.4A.4(c), given that ISF assets with a requirement for *energy* dispatch when *enabled* would not have been online were it not for their *enablement* and therefore may not have undertaken *spot market* operation were it not for their *enablement*. For an ISF asset with a requirement for *energy* dispatch when *enabled*, to undertake *spot market* operation, it must:
 - End its enablement by bidding the ISF asset to reflect the new form of operation in a manner consistent with the full Security Enablement Procedures; and
 - Continue providing the system security service throughout the enablement period as
 initially stated in AEMO's instruction for enablement, via spot market operation or by
 returning to ISF enablement (so as not to create a security gap, nor with the intention of
 decommitting from operation prior to the end of the enablement period).
- Conversely, if an ISF asset does not have a requirement for *energy* dispatch when *enabled*, it can undertake *spot market* operation, because it would have been capable of doing so

were it not for the enablement of *system security services*. The ISF asset must continue to provide the *system security service* for the duration of the *enablement* period.

2.2.4. General service provision requirements

It is a minimum requirement that agreements recognise, and do not contain provisions that are inconsistent with, the following general service requirements:

- The Provider must operate the ISF asset in accordance with the NER and all applicable rules and procedures whilst providing the *enabled system security services*. This includes, but is not limited to, meeting its Generator Performance Standards, and Primary Frequency Response obligations.
- In accordance with new clause 4.11.1(b), the Provider must ensure appropriate monitoring and control equipment is in place for the ISF Asset/s.
- When enabled or scheduled to provide system security services, the Provider must comply
 with the instruction in a manner that is consistent with the form of operation required to
 provide the services in accordance with new clause 4.4A.5(e)(f)(g) and the Security
 Enablement Procedures.
- When instructed to cease providing *system security services*, the Provider must comply with the instruction in a manner that is consistent with the form of operation required to cease providing the services in accordance with new clause 4.4A.5(e)(f)(g) and the *Security Enablement Procedures*.
- Certain information provisions are specified throughout these Provisional Procedures. In
 addition to these, it is a minimum requirement for agreements to include a general provision
 that parties must comply with the information provision requirement set out in the full
 Security Enablement Procedures, including with respect to the form and timing requirements
 for the provision of information.

2.2.5. Parameters AEMO will not consider for scheduling

It is recommended that the below parameters are not included in agreements and that TNSPs seek to manage operational constraints within the fixed and variable parameters described in Sections 2.2.1 and 2.2.2. To confirm, for consistent scheduling and *enablement*, AEMO will not take the following contractual terms into account:

- (a) Minimum run time. It is recommended that the Activation Payment be used to cover the cycling costs of any length of run.
- (b) Minimum off time. It is recommended that the Activation Payment to be used to cover the cycling costs of any length of off time.
- (c) Real-time stored energy requirements. Where stored energy must be retained to provide service, this is the responsibility of the Provider, not AEMO scheduling. On occasion this may result in a change to, and require restatement of, Availability and Activation Lead Time.
- (d) Ramp rates.

2.3. Financial structure

This section sets out minimum requirements with respect to the financial structure of agreements. These requirements reflect AEMO's need for agreements to adopt a consistent financial structure to facilitate the scheduling and *enablement* of *system security services* in accordance with the *enablement* principles in new clause 4.4A.4.

AEMO will not be a party to agreements between TNSPs and Providers but will be responsible for day to day scheduling and *enablement* of services provided under those agreements. Accordingly, AEMO will not be liable for any costs or liabilities that arise when the agreement is in operation, including any unanticipated costs that are not adequately provided for in Usage Payments and Activation Payments. Similarly, AEMO will not play a role in settling these agreements; all settlements are between the TNSP and Provider. Any *spot market* settlements between AEMO and the Provider are unaffected.

The following diagram provides an overview of AEMO's expectations in broad terms for the financial structure of agreements and indicates which payment flows will be taken into account for the purpose of scheduling and *enabling system security services*.

Availability payment

Activation Payment

Usage Payment

Energy Revenue

Non-energy costs

Legend

Not a minimum requirement

Minimum requirement

Figure 1 Financial structure

The broad forms of settlement that AEMO expects may be incorporated in agreements are:

An Availability Payment, which is assumed to compensate the Provider's fixed costs for
maintaining the Availability of the system security service, including profit and performance
incentives. AEMO will not take these payments into account in its daily scheduling and
enabling activities.

- A Usage Payment (\$/hr), which is to compensate the Provider for costs (if applicable) of operating in the manner required to provide the relevant system security service.
- An Activation Payment (\$/activation), which is to compensate the Provider for the cost of commencing operation from a previously inactive state.
- Energy Revenue (\$), which is the transfer to the TNSP of revenue from the sale of electricity
 on the spot market (positive or negative) resulting from the ISF Asset being enabled at
 Minimum Dispatch or Auxiliary Load (if applicable). If applicable and non-zero in an
 agreement, AEMO's scheduling function will consider this to be a transfer of all energy
 market revenue.
- Non-energy costs: any exchange of Frequency Control Ancillary Service (FCAS) payments, participant fees and other fees; if or where relevant. These are to be considered as separate items to Activation Payments, Usage Payments and Energy Revenues.

It is not a minimum requirement that agreements make provision for Availability Payments or Non-energy costs, as AEMO will not take these payments into account in its daily scheduling and *enabling* activities. These may or may not be included in agreements at the discretion of TNSPs and Providers.

It is a minimum requirement that agreements make provision for Usage Payments, Activation Payments and Energy Revenue. This does not, however, require that they have non-zero values. The value of Usage Payments and Activation Payments may be specified as zero, and Energy Revenue may be specified as zero. In this manner, TNSPs and Providers have flexibility as to the value of the financial flows for each payment type required to be included in an agreement.

It is a minimum requirement that these payments are stated separately to each other in agreements. This is necessary for AEMO to establish a consistent and workable scheduling function. For example, if a single payment type was prescribed in a contract that represents the intent of both Activation Payment (\$/activation) and Usage Payments (\$/hr) combined, this would not be workable for the purpose of AEMO's scheduling function.

The below table summarises those payment types that will be included in AEMO's scheduling function.

Table 3 Financial parameters in AEMO's scheduling function

Category	Definition	Stipulations
Usage Payment	The payment, stated on a per hour basis, that the Provider will receive from the TNSP when the service is <i>enabled</i> . Usage Payments (if relevant) are payable when the asset is <i>enabled</i> to provide services and would not otherwise be operating for the purpose of earning Energy Revenue (via <i>spot market</i> operation).	 Dollars per hour of service operation. That is, not dollars per megawatt hour (MWh). Settlement will be calculated on a trading interval basis. Fixed but may be restated annually. Intra-year revisions allowable with endorsement of TNSP where triggered via a verifiable cause, such as a change in fuel costs. Limited to a maximum of 1 intra-year revision per 30 days. Notification of an intra-year revision is to be provided to AEMO at least 5 business days prior to application. Usage Payments are not payable during the Activation Lead Time. Usage Payment will not be adjusted for unforeseen costs. This payment does not change in real-time, even if: Fuel prices or stored energy costs vary;

Category	Definition	Stipulations
		 Minimum Dispatch is altered. The Provider must not be paid Usage Payments nor transfer Energy Revenue to the TNSP if enablement is discontinued for any reason.
Activation Payment	Activation Payments (if relevant) are made when an ISF asset performs a physical start from a previously inactive state as a result of AEMO selecting the system security service to be enabled. If the ISF asset was already operating prior to AEMO selecting the system security service to be enabled, no Activation Payment is made.	 Fixed payment in dollars. Fixed but may be restated annually. Intra-year revisions allowable with endorsement of TNSP where triggered via a verifiable cause, such as a change in fuel costs. Limited to a maximum of 1 intra-year revision per 30 days. Notification of an intra-year revision is to be provided to AEMO at least 5 business days prior to application. If AEMO instructs the Provider to cease providing services or cancels or amends a schedule indicating an intention to enable a service: If the instruction is given or schedule is cancelled or amended before the Activation Period, no Activation Payment is payable. If the instruction is given or schedule is cancelled or amended within the Activation Period, the full Activation Payment is payable.
Energy revenue	Energy Revenue is the transfer of revenue from the sale of electricity on the spot market (positive or negative) to the TNSP resulting from the Provider being enabled at Minimum Dispatch or Auxiliary load (if applicable).	 If Energy Revenue is a calculated amount in an agreement, AEMO will assume (for scheduling purposes that) the Energy Revenue calculation represents immediate bidirectional pass through of Energy Revenue (positive and negative) associated with the Minimum Dispatch (where relevant) or auxiliary load (e.g. that associated with a synchronous condenser). AEMO will not consider a transfer that is unidirectional in its scheduling, such as "price floors", or those determined based on average prices over a period of time. The Provider must not continue to be paid Usage Payments nor transfer Energy Revenue to the TNSP if enablement is discontinued for any reason.

2.4. Intended scheduling arrangements

It is a minimum requirement that agreements recognise, and do not contain provisions that are inconsistent with, the activation and *enablement* arrangements set out below:

- In accordance with 4.4A.5(b), AEMO may at any time give an instruction to a Provider stating that AEMO requires *system security services* to be *enabled*. To facilitate the giving of *enablement* instructions:
 - AEMO may issue an indicative schedule indicating an intention to enable an ISF asset at any time the asset is notified as Available, allowing for the Activation Lead Time. If AEMO has issued an indicative schedule, AEMO may cancel or amend the schedule at any time.
 - An indicative schedule may be made for a time prior to both the intended period of enablement and the Activation Period.
 - An ISF asset may be selected for *enablement* by AEMO at or before the Activation Lead
 Time.
 - Enablement instructions will be given by AEMO in the manner specified by the Security
 Enablement Procedures in accordance with new clause 4.4A.5(b).

- In accordance with new clause 4.4A.5(c) AEMO may at any time give an instruction stating that AEMO requires the provision of system security services to cease.
- There is no minimum or maximum period for which services can be *enabled*, subject to the notified Availability and Activation Lead Time.

2.5. General requirements

AEMO intends to introduce more automated scheduling processes over time which may affect the operability of existing agreements. Further, it is possible that in developing the *Security Enablement Procedures* and setting out the methodology for *enabling system security services*, a misalignment may arise between the methodology and the contract requirements set out in this Provisional Procedure.

Notwithstanding NER 11.168.2(e), agreements must also include a requirement that, if AEMO reasonably requires them to do so for the purpose of scheduling and *enablement*, the parties will consult with AEMO on any such misalignment and negotiate in good faith to make any variations to the agreement that are required to ensure it operates in a manner that is consistent with the new processes.

Version release history

Version	Effective Date	Summary of Changes
1.0	30 June 2024	First version for publication.