|  |
| --- |
| APPLICATION FORM |
| Application for Registration as a Network Service Provider in the NEM |

Please complete this Application form using the appropriate Application Guide, and any other documents and information sources mentioned in this document.

The information in this Application Form is not to be altered without the prior written consent of Australian Energy Market Operator Ltd (AEMO).

Terms

Terms defined in the National Electricity Rules (*Rules* or NER) have the same meanings in this Application Form unless otherwise specified. Those terms are intended to be identified in this form by italicising them, but failure to italicise such a term does not affect its meaning.

Application Submission

To apply for Registration as a Network Service Provider in the NEM:

* Complete this Application Form for *AEMO*. Please ensure all required sections are complete and any prerequisites are met.
* Sign the form. If using a digital signature, please ensure the signatory is copied into the submission email.
* Ensure any required letter of authority is in place. For more information and a template letter of authority please see [*AEMO*’s website.](https://aemo.com.au/energy-systems/electricity/national-electricity-market-nem/participate-in-the-market/registration)
* Email a copy of the completed, signed form including all attachments to the *AEMO* Market Registration Team via email to [onboarding@aemo.com.au](mailto:onboarding@aemo.com.au).

**Note:** *AEMO*’s Market Registration team is unable to access external file share links. Please attach all documentation along with the form, and if files are over 10MB please use a zip file. Multiple emails are acceptable. If sending multiple emails, please number each email.

V1

Contents

[Section A. Participant Category 1](#_Toc164081338)

[Section B. Application Details 1](#_Toc164081339)

[B.1. Applicant details 1](#_Toc164081340)

[B.2. Applicant association 1](#_Toc164081341)

[B.3. Intermediary 2](#_Toc164081342)

[B.4. Evidence of *AER* exemption 2](#_Toc164081343)

[B.5. Declaration 2](#_Toc164081344)

[Section C. Contact Details 3](#_Toc164081345)

[C.1. Registration Contact 3](#_Toc164081346)

[C.2. Head office and branch office contact details 3](#_Toc164081347)

[C.3. Personnel Contacts 4](#_Toc164081348)

[Section D. Required Information 6](#_Toc164081349)

[D.1. Partnership Status 6](#_Toc164081350)

[D.2. Trust status 6](#_Toc164081351)

[D.3. Organisational Capability 6](#_Toc164081352)

[D.4. Financial Viability 6](#_Toc164081353)

[D.5. Regulatory Compliance 7](#_Toc164081354)

[D.6. Participant Criteria 7](#_Toc164081355)

[D.7. Credit Support 7](#_Toc164081356)

[D.8. Recipient Created Tax Invoice 7](#_Toc164081357)

[D.9. Austraclear 8](#_Toc164081358)

[Section E. System Details 8](#_Toc164081359)

[Section F. Local Black System Procedures 8](#_Toc164081360)

[Section G. Register as a *Market Network Service Provider* 9](#_Toc164081361)

[G.1. Register as a Market Network Service Provider 9](#_Toc164081362)

[G.2. Market network service 9](#_Toc164081363)

[G.3. Market network service information 9](#_Toc164081364)

[G.4. Conditions for connection 10](#_Toc164081365)

[Section H. Register as a *Network Service Provider* 14](#_Toc164081366)

[Section I. Metering Requirements 17](#_Toc164081367)

[I.1. Connection Point Checklist 17](#_Toc164081368)

[I.2. Meter Installation Checklist 18](#_Toc164081369)

[I.3. Metering information for Network Service Providers without network assets 20](#_Toc164081370)

[Section J. IT Systems 20](#_Toc164081371)

[J.1. MarketNet connection 20](#_Toc164081372)

[J.2. IT Notifications email address 21](#_Toc164081373)

[J.3. e-Hub access 21](#_Toc164081374)

Application Overview

Complete this Application Form to apply for registration in the *National Electricity Market* (*NEM*) as a *Network Service Provider*.

Where a field in the application form is ‘Not Applicable’ to the Applicant, please put “NA” in the field.

For help in completing this form, refer to the [*Application Guide for Registration as a Network Service Provider*](https://www.aemo.com.au/-/media/files/electricity/nem/participant_information/nem-network-service-provider-registration-guide.docx)available from the *AEMO* website*.*

Please direct any questions regarding the application to the *AEMO* Registration Team email: [onboarding@AEMO.com.au](mailto:onboarding@aemo.com.au).

# Participant Category

This application is for registration as a *Network Service Provider\** in the *NEM*.

*Under clause 2.5.1* of the *NER*, and subject to its sub-clauses, a proprietor must not engage in the activity of owning, controlling, or operating a *transmission or distribution system* unless that proprietor is registered by *AEMO* as a *Network Service Provider*[[1]](#footnote-2).

Please select the applicable registration category of *Network Service Provider*:

*Transmission System*  *Distribution System*

Will the applicant be operating in a Renewable Energy Zone (REZ):  *Yes*  *No*

# Application Details

Please clearly mark all attachments as “Attachment to Section B“ and number each page consecutively.

## Applicant details

|  |  |  |  |
| --- | --- | --- | --- |
| Entity Name: |  | | |
| Trading Name: |  | | |
| ABN: |  | ACN: |  |
| Participant ID[[2]](#footnote-3): |  | | |

## Applicant association

Please confirm the Applicant’s association with the *transmission or distribution system* described in Section E is as follows (mark ALL that apply):

Controller

Operator

Owner

Intermediary (please complete Section B.3, Intermediary)

## Intermediary

**Evidence of intermediary arrangements**

Under *NER 2.9.3(c)*, please provide documentation that evidences an *intermediary* arrangement in relation to the *transmission* *system* or *distribution system*.

Please confirm the following which the *intermediary* acts in relation to:

All the business in respect of the transmission system or distribution system described in Section E.

Part of the business in respect of the transmission system or distribution system described in Section E, and that part represents one or more discrete systems, distribution systems or transmission systems.

The Applicant consents to act as an *Intermediary* for the following proprietor who will own, control and/or operate the *transmission* or *distribution system*, and who have nominated the Applicant to act as its *Intermediary*. Each party for which the Applicant is acting as an *Intermediary* will need to submit an exemption application form.

|  |  |  |
| --- | --- | --- |
| Nominator name | ABN | Relationship with the generating system (controller, operator and/or owner) |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

***Consent of intermediary***

Please provide evidence of the consent of the proprietors identified in section B.3.1 to act as an intermediary under NER clause 2.9.3(b)(2).

## Evidence of *AER* exemption

The Applicant holds an exemption from the requirement to register as a *Network Service Provider* under *NER clause 2.5.1(d).*

By submitting this application, the Applicant consent to *AEMO* contacting the *AER* to seek confirmation about the application for, and grant of, any exemption *under clause 2.5.1(d)* of the *Rules*.

Please provide a copy of the application(s) to the *AER* for exemption from registration in respect of all nominating proprietors, and a copy of the *AER* exemption.

## Declaration

The Applicant is applying to be registered as a *Network Service Provider* in the *NEM* which is managed by *AEMO* under the *NER*.

The Applicant declares that they authorise, approve, and accept that, in respect of this application and any related future application:

* *AEMO* may communicate with any proprietor, as appropriate, including to verify information,
* *AEMO* may treat any communication on the Applicant’s behalf, whether physical or electronic through a login to *AEMO*’s systems (including using access rights given by a Participant Administrator), as being an:
  + Authorised officer,
  + Delegate, appointed by the Applicant’s authorised officer, or
  + Agent, appointed by the Applicant’s authorised officer (including a registration contact in respect of this application), without *AEMO* requiring a separate letter of authority in this regard.
* *AEMO* may rely on any such communication, as being:
  + The Applicant’s in respect of any acts, omissions, statements, representations, and notices,
  + Instructed by the Applicant, regardless of whether any such instruction has been given, or its terms; and
  + Complete, true, and correct.

I,       declare that I am authorised to submit this Application on the Applicant’s behalf and certify that the contents of this Application and any further submissions are true and correct.

|  |  |  |  |
| --- | --- | --- | --- |
| Signature: |  | Date: |  |

# Contact Details

Please clearly mark all attachments as “Attachment to Section C” and number each page consecutively.

The Applicant must provide contact details to assist with communication between *AEMO* and their organisation. Provide contact details for the Applicant head office and any branch offices.

## Registration Contact

Please provide contact details for all questions regarding this Application.

|  |  |  |  |
| --- | --- | --- | --- |
| Name: |  | | |
| Position: |  | Email: |  |
| Phone: |  | Mobile: |  |

## Head office and branch office contact details

|  |  |  |  |
| --- | --- | --- | --- |
| Office Name\*: |  | | |
| Street address: |  | | |
| State: |  | Postcode: |  |
| Postal address: |  | | |
| State: |  | Postcode: |  |
| Phone: |  |  |  |
| Email: |  | | |
| \* Type “Head Office” or the name of the branch | | | |

## Personnel Contacts

Provide details for the following roles in the Applicant desired format, for example, a list exported from Microsoft Outlook, Excel, or Word and check each checkbox in the list below to confirm details have been provided.

The minimum details required are role(s), name, position, phone number, mobile number, email, and office address.

Each contact can have more than one role.

| Mandatory Contacts | |
| --- | --- |
| CEO / MD |  |
| CEO / MD Assistant |  |
| Chair |  |
| Communications – Corporate Relations Manager |  |
| Communications – Crisis Contact |  |
| Company Secretary |  |
| Dispute Management Contact |  |
| IT After Hours / Emergency Contact (Primary) |  |
| IT After Hours / Emergency Contact (Secondary) |  |
| IT Manager |  |
| IT Security Contact (Primary) |  |
| IT Security Contact (Secondary) |  |
| IT Technical Network Contact |  |
| Local Black System Contact |  |
| Metering – Data Wholesale |  |
| Metering – Manager |  |
| Metering – Proprietor Responsible |  |
| Metering – Strategy |  |
| Metering – Technical |  |
| Metering – Technology |  |
| Operations – Manager |  |
| Operations – Shift Supervisor |  |
| NEM Observer |  |
| NEM Primary Contact |  |
| Registration Contact (must match [Section C.1](#_Registration_contact) details) |  |
| 24/7 Control Room Operational Contact |  |

|  |  |
| --- | --- |
| Additional Contacts if changes made to currently registered contact | |
| Operations – Bidding Contact |  |
| Operations – Trading Manager |  |
| Settlements – Austraclear |  |
| Settlements – Finance Manager |  |
| Settlements – Prudentials |  |
| Settlements – Settlements Manager |  |
| Settlements – Settlements Officer |  |

|  |  |
| --- | --- |
| Additional Contacts if the Applicant are NOT classifying a market network service | |
| IT Network / Communications Contact |  |
| Connections Manager |  |
| Network Planning Manager |  |

# Required Information

Include the following information (where relevant) and attach evidence to this application. Click in each checkbox to indicate that the Applicant have attached the information required. If the Applicant cannot address all necessary items, please provide a reason in the field provided.

Please clearly mark all attachments as “Attachment to Section D” and number each page consecutively.

## Partnership Status

Is the Applicant applying on behalf of a partnership?  Yes  No

If Yes,

Please attach a partnership agreement.

|  |  |
| --- | --- |
| Reason if not attached: |  |

## Trust status

Is the Applicant applying for registration on behalf of a Trust?  Yes  No

If Yes,

Please attach a copy of the Trust Deed establishing the Trust.

Please attach an executed [Trustee Deed Poll](https://www.aemo.com.au/-/media/files/electricity/nem/participant_information/application-forms-and-supporting-documentation/aemo-nem-trustee-deed-poll.docx) in favour of *AEMO*.

|  |  |
| --- | --- |
| Reason if not attached: |  |

## Organisational Capability

Please confirm the following information has been considered, and attached if applicable:

An organisation chart and other documents detailing the necessary expertise to comply with the *Rules*, where related, carry out electricity industry operations, including operations management, settlements, and risk management.

A corporate structure chart explaining any links with a parent company or other organisations that provides evidence of the Applicant’s ability to comply with the *Rules*.

Brief resumes of key managers and information about their responsibilities.

A document that demonstrates the *NEM*-related policies and procedures which are already in place or under development (do not submit the documents to *AEMO*, simply advise that they exist or are being developed).

Evidence of the IT systems in place to support the Applicant’s intended *NEM* activities.

If the Applicant has not participated in the *NEM* before, evidence they have brought in expertise to ensure they can meet the obligations.

|  |  |
| --- | --- |
| Reason if not attached: |  |

## Financial Viability

**Note:** This section is applicable to *Market Network Service Provider* Applicants **only**.

Copies of recently audited financial statements are attached. If no audited statements are available, please provide parent organisation financial statements, and partnership or trustee financials.

An explanation of financial links with parent organisations and other organisations that may improve financial viability is attached.

|  |  |
| --- | --- |
| Reason if not attached: |  |

## Regulatory Compliance

Please indicate if the Applicant has an existing jurisdictional electricity licence or authorisation to carry on the activity of a *Network Service Provider*?

Yes: Provide copy of current electricity licence or authorisation in one or more *NEM* jurisdictions.

No: Provide evidence of exemption from the requirement to hold a jurisdictional electricity licence or, if relevant, explain why no such requirement applies. Include copies of any applicable exemption or derogation.

|  |  |
| --- | --- |
| Reason if not attached: |  |

Please indicate if there any outstanding non-compliances with regulatory obligations in respect of existing or proposed activities as a *Network Service Provider* by any proprietor associated with this application?

Yes: Provide details of any non-compliance

No

|  |  |
| --- | --- |
| Reason if not attached: |  |

## Participant Criteria

The Applicant declares that it is:

A resident in, or has a permanent establishment in, Australia,

Not immune from suit in respect of the obligations of the Participant under the *Rules*; and,

Capable of being sued in its own name in an Australian court.

## Credit Support

**Note:** This section is applicable to *Market Network Service Provider* Applicants **only**.

Does the Applicant meet the acceptable credit criteria detailed in *clause 3.3.3 of the* Rules?

Yes: Please provide evidence that the Applicant meets the criteria.

No: The Applicant is then required to provide credit support.

Note: Applicants applying to register as a Market Participant that do not meet the *acceptable credit criteria* must provide credit support equal to or greater than their maximum credit limit (MCL). On receipt of the Application, *AEMO* will request an estimate of the Applicant’ s daily energy usage in MWh during the first 3 months of operation to determine the MCL. A guarantee is required from the Applicant financial institution and must be in the AEMO [Guarantee Pro Forma](https://aemo.com.au/-/media/Files/About_AEMO/AEMO-Bank-Guarantee-Pro-Forma---editable-form.docx) format available on the AEMO website.

For further assistance with financial guarantees, see the [Credit Support Management Guide](https://www.aemo.com.au/-/media/Files/About_AEMO/Guide_to_AEMO_Credit_Support_Management_April_2014.pdf) on the AEMO website.

|  |  |
| --- | --- |
| Reason if not attached: |  |

## Recipient Created Tax Invoice

**Note:** This section is applicable to *Market Network Service Provider* Applicants **only**.

If the Applicant company (having the same ABN as this application) has signed a current version of the Recipient Created Tax Invoice Agreement (RCTI), the Applicant do not need to complete a new one. To see if the Applicant RCTI is still current, check the **Last Updated** date in the latest Agreement's "notes for completion".

If the Applicant needs to complete an RCTI, please submit the application with a completed copy of the [RCTI](https://www.aemo.com.au/-/media/files/about_aemo/recipient-created-tax-invoice-agreement.docx?la=en) available from the AEMO website.

## Austraclear

Austraclear is **only** required for market settlement (*Market Network Service Provider* or *Transmission Network Service Provider* with interconnector).

*AEMO* uses an external electronic funds transfer system provided by Austraclear. Please apply directly to [Austraclear](https://www.asx.com.au/services/settlement/austraclear.htm) for membership. Membership approvals can take up to five weeks to process and charges are payable direct to Austraclear*. See* <https://www.asx.com.au/services/settlement/austraclear.htm>.

|  |  |
| --- | --- |
| Austraclear Membership Number: |  |
| Is the Applicant the Austraclear Account Holder?  Yes  No: Please provide evidence of permission from an authorised officer on behalf of the Austraclear account holder for the Applicant to use this Austraclear account.   |  |  | | --- | --- | | Reason if not attached: |  | | |

# System Details

Please provide information with respect to the network.

Transmission or distribution system details:

|  |  |  |  |
| --- | --- | --- | --- |
| System Name |  | | |
| System Description: |  | | |
| Line Length (in km): |  | Voltage: |  |
| From Network Connection Location: |  | | |
| To Connection Location(s): |  | | |
| Assets |  | | |

Please submit the following supporting documents for each System:

Single line diagram attachment as “Attachment to Section E” and number each page consecutively.

Upon completion of the above details, please proceed to Sections F through to J for providing demonstrated capability and accompanying evidence for registration as a *Network Service Provider*.

# Local Black System Procedures

Please enclose an updated version of the *local black system procedures* for each relevant *transmission system* or *distribution system* as an attachment to this section.

Please clearly mark all attachments as "Attachment to Section F" and number each page consecutively.

|  |  |
| --- | --- |
| Reason if not attached: |  |

# Register as a *Market Network Service Provider*

**Note:** This section is applicable to *Market Network Service Provider* Applicants **only**.

Please clearly mark all attachments as "Attachment to Section G" and number each page consecutively.

## Register as a Market Network Service Provider

Please confirm the classification of service:

Registration of a *Market Network Service*. Continue to section G.2.

Registration of a *Network Service*. Proceed to Section H.

## Market network service

Please indicate the following conditions have been satisfied and will continue to be satisfied. Include supporting evidence from the *Network Service Providers* whose networks are connected to the Applicant *network service* and government authorities where relevant as per *clause 2.5.2(a)*.

The *network elements* which provide the relevant *market network service* are contained within the *transmission* or *distribution system* described in Section E (see below).

The relevant *network service* is to be provided by network elements that comprise a *two‑terminal link* and do not provide any *prescribed* *transmission service* or prescribed *distribution service*.

The relevant *network service*:

* Has never been a *transmission service* to which a *transmission determination* has applied or a direct control service, or
* Is ineligible to be such a service.

The *connection points* of the relevant *two-terminal link* are assigned to different *regional reference nodes*.

The relevant *two-terminal link* through which the *network service* is provided:

* Does not form part of a *network loop*, or
* Is an independently controllable two-terminal link and has a registered power transfer capability of at least 30 MW.

Please supply evidence of *participant* *derogations* provided by the *AEMC* if applicable.

## Market network service information

|  |  |  |
| --- | --- | --- |
| Installation / link name (Station name - Maximum of 20 characters) |  | |
| Suggested installation / link name identifier (Station ID - Maximum of 8 characters) |  | |
| Dispatchable unit identifier(s) | A | B |
| Connection point identifiers for terminal nodes A and B | A | B |
| Meter ID (NMI) | A | B |
| Maximum power transfer capability to node A (Maximum Capacity of node A) | MW | |
| Maximum power transfer capability to node B (Maximum Capacity of node B) | MW | |
| Maximum ramp rate of power transfer capability (Maximum Rate of Change of node A and node B) | MW / minute | |

## Conditions for connection

Please complete the following table confirming compliance with the technical requirements of Chapter 5 and Schedule 5.3a of the *NER* by indicating YES in the Compliance column and any evidence with respect to the relevant *Rules*.

If compliance was left blank, for example, if the clause is not relevant to the Applicant’s circumstances, please explain why in the Comment column. A reference to the specific attachment is also to be noted in the Comments column.

Shaded areas do not require completion and are included for ease of reference.

Please clearly mark all attachments as "Attachment to Section G" and number each page consecutively.

| Schedule 5.3a Conditions for Connection of Market Network Services | | | |
| --- | --- | --- | --- |
| Clause | Clause Text | Comment | Compliance |
| S5.3a.2 | Application of settings |  |  |
|  | A *Market Network Service Provider* must only apply settings to a control system or a protection system that are necessary to comply with performance requirements of this schedule 5.3a if the settings have been approved in writing by the *Network Service Provider* and, if the requirement is one that would involve *AEMO* under clause 5.3.4A(c) of the *Rules*, also by *AEMO*.  A *Market Network Service Provider* must not allow its market network service facilities to take electricity from the power system without such prior approval. |  |  |
|  | If a *Market Network Service Provider* seeks approval from the *Network Service Provider* to change a setting, approval must not be withheld unless the *Network Service Provider* or, if the requirement is one that would involve *AEMO* under clause 5.3.4A(c) of the *Rules*, *AEMO*, reasonably determines that the changed setting would cause the market network service facilities to become non-compliant with relevant performance standards or cause an inter-regional/intra-regional power transfer capability reductions. |  |  |
|  | If the *Network Service Provider* or, if the requirement is one that would involve *AEMO* under clause 5.3.4A(c) of the *Rules*, *AEMO*, reasonably determines that a setting of a market network service facility control system or protection system needs to change to comply with the relevant performance standard or to maintain or restore an inter-regional/intra-regional power transfer capability, the *Network Service Provider* or *AEMO* (as applicable) must consult with the *Market Network Service Provider*, and may request in writing that a setting be applied. |  |  |
|  | The *Network Service Provider* may also request a test to verify the performance of the relevant plant with the new setting.  The *Network Service Provider* must provide *AEMO* with a copy of its request to a *Market Network Service Provider* to apply a setting or to conduct a test. |  |  |
|  | A *Market Network Service Provider* who receives such a request must arrange for the notified setting to be applied as requested and for a test to be conducted as requested. After the test, the Market *Network Service Provider* must, on request, provide both *AEMO* and the *Network Service Provider* with a report of a requested test, including evidence of its success or failure. Such a report of a test is confidential information. |  |  |
|  | A *Market Network Service Provider* must not change a setting requested by the *Network Service Provider* without prior written agreement. If the *Network Service Provider* requires a Market *Network Service Provider* to change a setting within 18 months of a previous request, the *Network Service Provider* must pay the *Market Network Service Provider* reasonable costs of changing the setting and conducting the tests as requested. |  |  |
| S5.3a.4 | Monitoring and control requirements |  |  |
| S5.3a.4.3 | Communications Equipment |  |  |
|  | A *Market Network Service Provider* must provide electricity supplies for any remote monitoring and remote-control equipment installed in relation to its facilities and be capable of keeping such equipment available for at least three hours following a total loss of supply at the connection point for their facility. |  |  |
|  | A *Market Network Service Provider* must provide communications paths (with appropriate redundancy) for any remote monitoring or remote-control equipment installed at any of its facilities that can tie into a communications interface in a location reasonably acceptable to the *Network Service Provider* at the relevant connection point. Communications systems between this interface and the control centre are the responsibility of the *Network Service Provider* unless otherwise agreed by the *Market Network Service Provider* and the *Network Service Provider*. |  |  |
|  | Telecommunications between *Network Service Provider*s and *Market Network Service Provider*s for operational communications must be established in accordance with the requirements set down below. |  |  |
| S5.3a.4.3 (a) | Primary Speech Facility |  |  |
|  | The relevant *Network Service Provider* must provide and maintain equipment by means of which routine and emergency control telephone calls may be established between the *Market Network Service Provider*’s responsible Engineer/Operator and *AEMO*. |  |  |
|  | The facilities to be provided, including the interface requirement between the *Network Service Provider*’s equipment and the *Market Network Service Provider*’s equipment must be specified by the *Network Service Provider*. |  |  |
|  | The costs of the equipment must be recovered by the *Network Service Provider* only through the charge for connection. |  |  |
| S5.3a.4.3 (b) | Back-up Speech Facility |  |  |
|  | Where the *Network Service Provider* or *AEMO* reasonably determines that a back-up speech facility to the primary facility is required, the *Network Service Provider* must provide and maintain a separate telephone link or radio installation on a cost-recovery basis only through the charge for connection. |  |  |
|  | The *Network Service Provider* is responsible for radio system planning and for obtaining all necessary radio licences. |  |  |
| S5.3a.5 | Design standards |  |  |
|  | A *Market Network Service Provider* must ensure that: |  |  |
|  | 1. the electrical plant in its facility complies with the relevant Australian Standards as applicable at the time of first installation of that electrical plant in the facility; |  |  |
|  | 1. circuit breakers provided to isolate the *Market Network Service Provider*’s facilities from the *Network Service Provider*’s facilities are capable of breaking, without damage or restrike, fault currents nominated by the *Network Service Provider* in the relevant connection agreement; and |  |  |
|  | 1. all new equipment including circuit-breakers provided to isolate the *Market Network Service Provider*’s facilities from the *Network Service Provider*’s facilities is capable of withstanding, without damage, power frequency voltages and impulse levels nominated by the *Network Service Provider* in accordance with the relevant provisions of the system standards and recorded in the relevant connection agreement. |  |  |
| S5.3a.13 | Market network service response to disturbances in the power system |  |  |
| S5.3a.13 (a) | Each market network service must be capable of continuous uninterrupted operation during the occurrence of: |  |  |
|  | 1. power system frequency within the frequency operating standards; or |  |  |
|  | 1. the range of voltage variation conditions permitted by the system standards. |  |  |
| S5.3a.13 (b) | The equipment associated with each market network service must be designed to withstand without damage or reduction in life expectancy the harmonic distortion and voltage unbalance conditions determined to apply in accordance with the provisions of schedule 5.1, clauses S5.1.6 and S5.1.7, respectively, at the connection point. |  |  |

# Register as a *Network Service Provider*

Please complete the following table confirming the Applicant can demonstrate the specified capability as a *Network Service Provider* by indicating YES in the Compliance column and any evidence with respect to the relevant *Rules.*

If compliance was left blank, for example, if the clause is not relevant to the Applicant’s circumstances, please explain why in the Comment column. A reference to the specific attachment is also to be noted in the Comments column.

Please clearly mark all attachments as "Attachment to Section H" and number each page consecutively.

| Conditions for Registration as a Network Service Provider | | | |
| --- | --- | --- | --- |
| Capability | Required Information | Comment | Compliance |
| Power System Security and Operation | Detailed design documents in the form of brochures, manufacturers documents, test certificates for proposed implementation or finalised documents of the Energy Monitoring System (EMS) / Supervisory Control and Data Acquisition (SCADA) system deployed (or proposed to be deployed) by the Applicant connecting to *AEMO* systems. Please include the following details:   * + How the system meets the requirements of the Power System Data Communication Standard.   + General capabilities such as state estimation, contingency analysis, voltage stability analysis, transient stability analysis, etc.   + How the system will support the Applicant to maintain situational awareness and operate its network in accordance with the Power System Stability Guidelines. |  |  |
| Documentation of detailed timelines (i.e., Gantt Chart) for and the key elements of the Applicant’s Local Black System Procedure (LBSP). These items are set out in the Guidelines for Preparing Local Black System Procedures. [*AEMO* | Power system operation](https://aemo.com.au/en/energy-systems/electricity/national-electricity-market-nem/system-operations/power-system-operation)  The final LBSP is required to be submitted to *AEMO* prior to first energisation of any part of the Applicant’s network. |  |  |
| Design plan of and the detailed arrangements of the Applicant’s 24/7 control room function physically located within Australia, including appropriate backup and/or disaster recovery arrangements. Please refer to System Restart Communications Protocol. [*AEMO* | System Restart Communication Protocol](https://aemo.com.au/-/media/files/stakeholder_consultation/consultations/nem-consultations/2019/lbsp-amendments/system-restart-communications-protocol.pdf?la=en) |  |  |
| Documentation outlining organisational structure, experience, and competency of key personnel (supply resumes), to operate the Applicant’s network in accordance with the power system operating procedures and explains the Applicant ability to comply with the Rules. |  |  |
| Documentation outlining experience and competency of any third parties that provide capability and/or perform functions on the Applicant behalf. |  |  |
| Detailed process documentation outlining the Applicant’s ability to respond to, coordinate, rectify, and recover from power system operating incidents and other power system emergency conditions. |  |  |
| Network Connection | Detailed documentation of procedures for the Applicant’s organisational capability to receive and process applications to connect to the Applicant’s network. This includes existing or planned arrangements for access to appropriate human resources, analysis systems, and similar capability. |  |  |
| Modelling documentation of the Applicant’s ability to conduct detailed and complex power system analysis, including power flow, Root Mean Square (RMS) stability, Small-signal and Electromagnetic Transient (EMT) studies as per the Power System Model Guidelines (PSMG). |  |  |
| Evidence of ability to plan and conduct test and commissioning activities to demonstrate compliance with *Rules* performance standards for both the Applicant’s own network and any party connecting to the Applicant’s network. |  |  |
| Policy documentation of the Applicant’s policies for managing confidential information, including data provisions from generators, *AEMO*, *Network Service Provider*s and Original Equipment Manufacturers (OEM). |  |  |
| Network Planning and Performance | Design documentation demonstrating the Applicant’s network will be designed and operated to meet the network performance requirements in Schedule 5.1 of the *Rules* on an ongoing basis. |  |  |
| Documentation demonstrating the Applicant understands obligations under 4.10.1 of the *Rules* to provide advanced schedule of network outages. |  |  |

# Metering Requirements

## Connection Point Checklist

**Note:** This section is applicable to *Market Network Service Provider* Applicants **only**.

Ensure the Metering – Technical contact details have been completed and attached in Section C.

| General and technical details | | | |
| --- | --- | --- | --- |
| Connection Point Registration Type | New  Existing | | |
| Expected Commissioning Date |  | | |
| Connection Point NMI(s) |  | | |
| Logical NMI – Algorithm | Yes  No  If Yes, provide details.  Attached | | |
| Transmission Node ID (TNI) |  | | |
| List any TNIs or NMIs to be made extinct? |  | | |
| Single Line (Schematic) drawing of the Connection Point showing installation details | Drawing Number:        Attached | | |
| Detailed wiring diagram of the Metering Installation | Drawing Number:        Attached | | |
| Transmission area drawing showing Connection Point relativity | Drawing Number:        Attached | | |
| Proprietor responsible for Connection Point | Name:       Phone:  Email: | | |
| Physical address of Connection Point |  | | |
| Physical location of Connection Point |  | | |
| Feeder capacity | MVA or       Amps | | |
| Transformer capacity | MVA | | |
| Energy pattern – new | Attach expected half hour energy profile for first year of operation | | |
| Energy pattern – existing | Provide any details on changes in load profile. i.e., transfer from X | | |
| Participant relationships in MSATS | Role ID | Participant ID | Participant Name |
| FRMP |  |  |
| LNSP |  |  |
| NSP2 |  |  |
| LR |  |  |
| MDP / MPC |  |  |
| MPB |  |  |
| MC |  |  |
| ROLR |  |  |

## Meter Installation Checklist

**Note:** This section is applicable to *Market Network Service Provider* Applicants **only**.

| Revenue Metering Installation Details | | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| Meter details: | | | | | | |
| Metering installation type (S7.2.3) | | |  | | | |
| Meter Serial No | Meter Make & Model | Pattern Approval Cert No | Meter class accuracy | Is meter bi-directional? | Current rating | Meter test results |
|  |  |  |  | Yes  No | A | Attached |
|  |  |  |  | Yes  No | A | Attached |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Current Transformer (CT) Details | | | | | |
| CT Serial No. | CT Ratios Available | CT Connected Ratio | CT Burden (Rated) | CT Class | CT Test Results |
|  |  |  | VA |  | Attached |
|  |  |  | VA |  | Attached |
|  |  |  | VA |  | Attached |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Voltage Transformer (VT) Details | | | | |
| VT Arrangement | 3 x 1Ph VT or  3Ph VT | | | |
| VT Serial No. | VT Ratio | VT Burden (Rated) | VT Class | VT Test Results |
|  | KV/       V | VA |  | Attached |
|  | KV/       V | VA |  | Attached |
|  | KV/       V | VA |  | Attached |

| Check Metering Installation Details | | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| Check metering installation Partial check metering | | | | | | |
| Meter details: | | | | | | |
| Meter Serial No | Meter Make & Model | Pattern Approval Cert No | Meter class accuracy | Is meter bi-directional? | Current rating | Meter test results |
|  |  |  |  | Yes  No | A | Attached |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Current Transformer (CT) Details | | | | | |
| CT Serial No. | CT Ratios Available | CT Connected Ratio | CT Burden (Rated) | CT Class | CT Test Results |
|  |  |  | VA |  | Attached |
|  |  |  | VA |  | Attached |
|  |  |  | VA |  | Attached |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Voltage Transformer (VT) Details | | | | |
| VT Arrangement | 3 x 1Ph VT or  3Ph VT | | | |
| VT Serial No. | VT Ratio | VT Burden (Rated) | VT Class | VT Test Results |
|  | KV/       V | VA |  | Attached |
|  | KV/       V | VA |  | Attached |
|  | KV/       V | VA |  | Attached |

Please clearly mark all attachments as "Attachment to Section I" and number each page consecutively.

## Metering information for Network Service Providers without network assets

This section is required information for registration as *Network Service Provider* without established network assets **only**.

Please provide the following evidence for *AEMO* to assess:

* A timeline of, and list of the proposed and/or actual sites the Applicant will be responsible for,
* Single Line Diagram(s) and/or network diagram(s) illustrating any *connection points*, if available at the time of registration, and
* Evidence that key personnel are competent in the Market Settlement and Transfer Systems (MSATS).

*Metering Installation* details and updated single line diagrams will need to be provided to *AEMO* prior to first energisation of the network.

**Note:** For further information please reference - [AEMO | Metering procedures, guidelines and processes](https://www.aemo.com.au/energy-systems/electricity/national-electricity-market-nem/market-operations/retail-and-metering/metering-procedures-guidelines-and-processes)

# IT Systems

This section is for the configuration and connectivity to *AEMO* IT systems. Please provide the following information.

## MarketNet connection

For details regarding *AEMO’*s private data network connection (MarketNet), options and entitlements, see the [Guide to Information Systems](https://www.aemo.com.au/-/media/Files/IT_Changes/Guide-to-Information-Systems.pdf) on *AEMO*’s website.

Does the Applicant require a new MarketNet connection?  Yes  No

If ‘Yes’, please fill in the following information:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Connection types: | Primary: |  | | Backup: |  |
| IT Technical Network Contact: | | | | | |
| Contact number: | | | Email: | | |

## IT Notifications email address

Please note it is important to receive *AEMO* notifications regarding IT changes or outages that may impact the Applicants business.

Please have the Applicant IT staff set up and maintain a group email address with an appropriate distribution list of members for this to occur (individual email addresses are not accepted).

|  |  |
| --- | --- |
| IT Notifications email address: | <e.g. AEMOIT@the Applicantrdomain.com.au> |

## e-Hub access

Note:*Distribution Network Service Providers* and *Transmission**Network Service Providers* must complete this section.

For details regarding access to the e-Hub (using APIs), obtaining new certificates and submitting a Certificate Signing Request (CSR), please see the [**Manage TLS Certificates**](https://portal.aemo.com.au/help/Content/TLSCertificateManagement/TLSCertificateManagement.html) guide.

Access to e-Hub is recommended for *Distribution Network Service Providers* and *Transmission Network Service Providers*.

Does the Applicant require e-Hub access?  Yes  No

1. Note that as per the NSW EII Act, a Network Operator holds the same meaning as a Network Service Provider and must register with AEMO using the same registration process. [↑](#footnote-ref-2)
2. Enter the Applicant preferred Participant ID. If the proposed Participant ID is already taken or if the field is left blank, one will be provided by AEMO. [↑](#footnote-ref-3)