|  |
| --- |
| Notification FORM |
| Schedule 3.1 Bid Validation Data and State of Charge related Data |

Please complete this form to provide the data required under Schedule 3.1 of the National Electricity Rules (NER), or to provide State of Charge related data requested by AEMO.

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

Rules terms

Terms defined in the National Electricity Rules (*Rules* or NER) have the same meaning 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 Form submission

To submit an application to AEMO:

* Complete this Application Form, 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 you wish to submit to AEMO, and if files are over 10MB please use a zip file. Multiple emails are acceptable. If sending multiple emails, please number each email.

V5

Contents

[Overview 1](#_Toc193188650)

[Section A. Data Type 1](#_Toc193188651)

[Section B. Form Details 1](#_Toc193188652)

[B.1. Registered Participant details 1](#_Toc193188653)

[B.2. Declaration 1](#_Toc193188654)

[B.3. Form contact 2](#_Toc193188655)

[Section C. Scheduled and Semi-Scheduled Plant Data 2](#_Toc193188656)

[C.1. Dispatchable plant identification 2](#_Toc193188658)

[C.2. Production unit and load sets data 3](#_Toc193188659)

[C.3. Scheduled network service data 4](#_Toc193188665)

[Section D. Ancillary Service Unit (ASU) Data 4](#_Toc193188666)

[D.1. Unit identification 4](#_Toc193188667)

[D.2. Unit/Load information 5](#_Toc193188668)

[D.3. Determination of ancillary service information and control equipment information 6](#_Toc193188669)

[D.4. Controls, communications and telemetry information 6](#_Toc193188670)

[Appendix A. OSOC related Data 8](#_Toc193188671)

Overview

Complete this Notification Form (Form) to provide:

* the data required by Schedule 3.1 of the NER (**Schedule 3.1 Data**), which is required for the verification and compilation of *dispatch bids* on the *trading day* schedule; or
* State of Charge related data (**SOC related Data**), including Operational State of Charge data (**OSOC Data**) and/or Storage Import/Export Efficiency Factors requested by AEMO.

For Schedule 3.1 Data, please read Schedule 3.1 of the NER to ensure the appropriate information is provided using this Form at least six weeks prior to commencement in the *market* orthe date of the proposed change.

Where a requirement for information is ‘Not Applicable’, please put “NA” in the field.

Please direct any questions regarding the completion of this form to the AEMO Registration Team email: [onboarding@aemo.com.au](mailto:onboarding@aemo.com.au).

# Data Type

Please select the data type that you are providing from the list below:

|  |
| --- |
| Schedule 3.1 Data.  Complete sections A–B and relevant sections (C or D) |
| SOC related Data, includingOSOC Data and/or Storage Import/Export Efficiency Factors.  Complete sections A–B and Appendix A |

# Form Details

## Registered Participant details

|  |  |  |  |
| --- | --- | --- | --- |
| Entity Name: |  | | |
| ABN: |  | ACN: |  |
| Participant ID[[1]](#footnote-2): |  | | |

## Declaration

The Applicant is a *Registered Participant* in the NEM and is providing Schedule 3.1 Data or SOC related Data.

The Applicant declares that the Applicant authorises, approves and accepts that, in respect of this application and any related future application:

* AEMO may communicate with any person, 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 by or to a person who is the Applicant’s:
  + authorised officer;
  + delegate, appointed by the Applicant’s authorised officer; or
  + agent, appointed by the Applicant’s authorised officer (including as registration contact in respect of the application), without AEMO requiring a separate letter of authority in this regard.
* AEMO may rely on any such communication, as being:
  + given by the Applicant, when given by the person;
  + given to the Applicant, when given to the person;
  + 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, <Full Name>, <Position>, declare that I am authorised by the Applicant 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: | 29/04/2025 |

## Form contact

Please provide contact details for all questions regarding data provided in this Form.

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

# Scheduled and Semi-Scheduled Plant Data

Please complete this section for each of the following

* *scheduled generating unit* / *semi-scheduled generating unit*,
* *scheduled load*,
* *scheduled bidirectional unit,* and
* *scheduled network service*.

Notes: If there is more than one DUID, please complete Section C of a new form (one for each additional DUID) and attach as an addition to ‘Section C’ in the main application.

If changes are required to the name, DUID name, maximum *generation/consumption/service*, *maximum ramp rate* or *maximum storage capacity*, please indicate the change by also including the original values below.

## Dispatchable plant identification

|  |  |  |
| --- | --- | --- |
| Item | Value (Original Value) | |
| Station ID: |  | |
| Name[[2]](#footnote-3): | (     ) | |
| Dispatchable Unit Identifier(DUID)[[3]](#footnote-4): |  | |
| DUID Name[[4]](#footnote-5): | (     ) | |
| Maximum *generation*[[5]](#footnote-6) (MW): | (     ) | |
| Maximum *consumption[[6]](#footnote-7)* (MW): | (     ) | |
| Maximum *service[[7]](#footnote-8)* (MW): | (     ) | |
| Maximum ramp rate[[8]](#footnote-9) (MW/Min): | (     ) | |
| Maximum ramp rate of the scheduled bidirectional unit (in relation to generation) (MW/Min): | (     ) | |
| Maximum ramp rate of the scheduled bidirectional unit (in relation to consumption) (MW/Min): | (     ) | |
| Maximum storage capacity of the scheduled bidirectional unit (MWh) | (     ) |

## Production unit and load sets data

Please complete this section only if you are updating maximum *generation/consumption* and/or *maximum storage capacity* for each of the following.

* *scheduled generating unit* / *semi-scheduled generating unit*,
* *scheduled load*, and
* *scheduled bidirectional unit*

**Note:** Maximum storage capacity only applies to *scheduled bidirectional unit*.

Please indicate the maximum *generation/consumption* and/or *maximum storage capacity* of each individual *production unit* / *scheduled load* within the dispatchable plant identified in Section C.1.

Please indicate the maximum *generation/consumption* and/or *maximum storage capacity* by grouping the individual *production unit*s with the same maximum *generation/consumption* or same *maximum storage capacity* and specifying the number of individual *production unit*s within each group.

| Unit Identifier[[9]](#footnote-10) | Generation or consumption | Maximum capacity (MW)[[10]](#footnote-11)  Value (Original Value) | Maximum storage capacity (MWh)[[11]](#footnote-12)  Value (Original Value) | No. of physical units |
| --- | --- | --- | --- | --- |
|  | Generation  Consumption | (     ) | (     ) |  |
|  | Generation  Consumption | (     ) | (     ) |  |
|  | Generation  Consumption | (     ) | (     ) |  |
|  | Generation  Consumption | (     ) | (     ) |  |

## Scheduled network service data

For all aggregated *scheduled network services,* please indicate the number of individual *scheduled network services* that have been aggregated within the dispatchable plant identified in Section C.1.

|  |  |
| --- | --- |
| No. of individual units: |  |

# Ancillary Service Unit (ASU) Data

Please complete all fields in this section as required.

Note: If there is more than one *ancillary service unit,* or for each group of *production units* or *loads* that have the same registration details other than *dispatchable unit identifier*, please complete Section D of a new form (one for each DUID) and attach as an addition to ‘Section D’ in the main application.

## Unit identification

|  |  |
| --- | --- |
| Power station/ load installation name: |  |
| Unit/ load name: |  |
| Dispatchable unit identifier: |  |

## Unit/Load information

Please complete this table to reflect the current and proposed FCAS values. Indicate the original values in brackets. For example, “(5) 10” where 5 was the original value.

Note: This form can only be used to change the registered values for existing services. It cannot be used to classify an ASU for a new service types.

| Frequency Control Ancillary Services | Service provided (Y/N) | | Switching controller (Y/N) | | Max market ancillary service Capacity (MW) | | Min Enablement Level (MW) | Max Enablement Level (MW) | Max Lower Angle (Deg) | Max Upper Angle (Deg) |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Very Fast Raise Service (RAISE1SEC) | | Yes  No | | Yes  No | |  |  |  |  |  |
| Very Fast Lower Service (LOWER1SEC) | | Yes  No | | Yes  No | |  |  |  |  |  |
| Fast Raise Service (RAISE6SEC) | | Yes  No | | Yes  No | |  |  |  |  |  |
| Fast Lower Service (LOWER6SEC) | | Yes  No | | Yes  No | |  |  |  |  |  |
| Slow Raise Service (RAISE60SEC) | | Yes  No | | Yes  No | |  |  |  |  |  |
| Slow Lower Service (LOWER60SEC) | | Yes  No | | Yes  No | |  |  |  |  |  |
| Delayed Raise Service (RAISE5MIN) | | Yes  No | | Yes  No | |  |  |  |  |  |
| Delayed Lower Service (LOWER5MIN) | | Yes  No | | Yes  No | |  |  |  |  |  |
| Regulating Raise Service (RAISEREG) | | Yes  No | | Yes  No | |  |  |  |  |  |
| Regulating Lower Service (LOWERREG) | | Yes  No | | Yes  No | |  |  |  |  |  |

## Determination of ancillary service information and control equipment information

Please indicate the basis on which the changes in the *ancillary services* information provided have been determined and provide further details if required:

Using *plant* design parameters

Based on services previously provided under an *ancillary services* agreement

The results of tests

Mathematical modelling of the *plant*

Other (please describe):

|  |  |
| --- | --- |
| Details: |  |

## Controls, communications and telemetry information

### Facilities to receive enablement instructions

Please describe the facility installed to receive instructions from AEMO’s market systems for the enablement of each *ancillary service*.

For example: How will the *Integrated Resource Provider, Market Customer* or *Market Generator* find out when the *ancillary services* are enabled for the Facility by AEMO’s market systems? Does the plant operator have access to AEMO’s market systems, or does the plant operator rely on an alternate system/person telling them when necessary?

|  |  |
| --- | --- |
| Details: |  |

### Control facility

Please describe the control *facilities* installed for each *ancillary service* in accordance with the *Market Ancillary Service Specification* (MASS), including communications and telemetry where applicable. For example, are the fast and slow services to be provided by variable controllers or switching controllers?

Specify the switching controller settings if applicable. If the application is to aggregate additional *plant*, specify the switching controller settings for the additional *plant* only.

Please identify any *production units* with switching controllers that share the same under or over frequency relay for initiating the *ancillary service* response?

Is the *plant* controlled from a location other than the *plant* to provide these services?

|  |  |
| --- | --- |
| Details: |  |

### Monitoring and recording facilities

Please describe the monitoring and recording facilities installed for each *ancillary service* in accordance with the MASS, including communications and telemetry, where applicable.

For example, what is the sampling interval of active power and frequency records?

|  |  |
| --- | --- |
| Details: |  |

### Test data

For each controller type (e.g. Battery system controller model, load control model, etc.), provide test data that demonstrates the provision of the services applied for.

* Test data must be provided for each category of service applied for (fast, slow and/or delayed, raise and/or lower as applicable)
* For each category of service applied for:
  + Test data must be provided showing the response to frequency deviations according to the standard frequency ramp defined in the MASS;
  + Test data and the frequency deviation data must be on a common time-scale;
  + The resolution of the data must conform to the MASS;
  + If the controller allows the reversal of power (e.g. battery systems), the above tests must be repeated to demonstrate performance under reversal of power.

|  |  |
| --- | --- |
| Details: |  |

# Appendix A. SOC related Data

This information is requested by AEMO in addition to Schedule 3.1 Data.

Please note this section only applies to scheduled bidirectional units (**BDU**).

Please complete this section if you are intending to

* apply the Operational State of Charge (**OSOC**) constraint values as default values to limit the BDU DUID dispatch in AEMO’s pre dispatch systems such that the state of charge remains within the minimum and maximum OSOC;
* change the registered OSOC values and/or storage import/export efficiency factors; or
* provide storage import/export efficiency factors without opt in OSOC constraint.

If Energy Limits are provided in bids, the bid values override the registered default values.

Notes: If there is more than one DUID, please complete Section Appendix A of a new form (one for each additional DUID) and attach as an addition to ‘Section Appendix A’ in the main application.

Please indicate your intention:

I intend to apply the OSOC constraint values to limit the BDU DUID dispatch. Please provide values for all the items listed in the table below.

I intend to change the registered OSOC values and/or storage import/export efficiency factors. Please provide Station ID, Power Station Name, DUID and the related values. Please provide the value(s) and indicate the change by also including the original values.

I intend to provide Storage import/export efficiency factors without opting in to the OSOC constraint. Please only provide Station ID, Power Station Name, DUID and storage import/export efficiency factors values in the table below.

|  |  |  |
| --- | --- | --- |
| Items | Values | (Original Values) |
| Station ID |  |  |
| Power station name |  |  |
| Dispatchable Unit Identifier(DUID) |  |  |
| Minimum operational state of charge[[12]](#footnote-13) (MWh) |  | (     ) |
| Maximum operational state of charge12 (MWh) |  | (     ) |
| Storage import efficiency factor[[13]](#footnote-14) |  | (     ) |
| Storage export efficiency factor13 |  | (     ) |

1. Enter the Participant ID associated to the DUID in Section B.1 or C.1. [↑](#footnote-ref-2)
2. For scheduled and semi-scheduled generating unit – power station name/ID.  
   For load – load installation name/ID.

   For scheduled bidirectional unit – facility name/ID.  
   For scheduled network services – installation/link name. [↑](#footnote-ref-3)
3. DUID for scheduled network service includes the connection point identifier for each terminal node. [↑](#footnote-ref-4)
4. For scheduled and semi-scheduled generating unit – generating unit name.  
   For scheduled load – load name.

   For scheduled bidirectional unit – bidirectional unit name. [↑](#footnote-ref-5)
5. For scheduled and semi-scheduled generating unit and scheduled bidirectional unit – the maximum generation to which the production unit may be dispatched. For a coupled production unit classified as a semi-scheduled generating unit, the maximum generation must be limited to the maximum generation of that part of the coupled production unit that is intermittent. [↑](#footnote-ref-6)
6. For scheduled load and scheduled bidirectional unit – the maximum consumption to which the load or production unit may be dispatched. [↑](#footnote-ref-7)
7. For scheduled network service - maximum power transfer capability at each terminal node. [↑](#footnote-ref-8)
8. For scheduled and semi-scheduled generating unit – The sum, where applicable, of the maximum ramp rate of each generating unit outlined in C.1.  
   For load – maximum ramp rate of the scheduled load.  
   For scheduled network service - maximum ramp rate of power transfer capability at each terminal node. [↑](#footnote-ref-9)
9. Where possible, the Unit Identifier should align with the naming in the Generator or Integrated Resource Provider Performance Standards. [↑](#footnote-ref-10)
10. Scalar decimal number (to one decimal place or one significant figure if required to be greater than zero). [↑](#footnote-ref-11)
11. Scalar decimal number to one decimal place. [↑](#footnote-ref-12)
12. Scalar decimal number to one decimal place. [↑](#footnote-ref-13)
13. A number between 0 and 1. [↑](#footnote-ref-14)