



APPLICATION GUIDE

Guide for Demand Response Service Providers – NEM – change or classify new Ancillary Service Unit

This guide is to be used in conjunction with the PMS User Guide when making applications through the Portfolio Management System (PMS) and is not to be altered without the prior consent of AEMO.

Disclaimer

This Application Guide (this Guide) is made available to you on the following basis:

Purpose This Guide has been produced by the Australian Energy Market Operator Limited (AEMO) for the purposes of clause 2.1.3 of the National Electricity Rules (NER or Rules) to provide information about the process for becoming registered as a Participant in the National Electricity Market (NEM) as at the date of this publication.

Disclaimer The information in this Guide is provided for explanatory purposes and may be subsequently updated or amended.

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Rules terms

Terms defined in the Rules are italicised, and have the same meaning, when used in this Guide. Any failure to italicise such a term in this Guide does not change its meaning under the Rules, unless this Guide specifies otherwise.

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1. Introduction

This Application Guide (this Guide) has been developed to help those completing an application using the Portfolio Management System (PMS).

If you require any further assistance, please contact onboarding@aemo.com.au or phone 1300 236 600 (International callers dial +61 3 9609 8000).

1.1 Purpose of this guide

This Guide steps through the requirements for application to ensure Applicants understand the information required and how to complete an application via the PMS.

The Portfolio Management System User Guide is published as an online help in the PMS. The User Guide contains instructions on how to use PMS and should be used in conjunction with this Application Guide.

AEMO will only process an application which meets all of the application information criteria and which contains all of the required attachments.

Note: You should not use this guide if you are not a registered DRSP and do not have an existing portfolio in PMS.

This Guide covers the following applications type:

- *New ancillary service unit*: to classify *plant* as *ancillary service unit* (ASU) to provide *market ancillary services*, *Frequency Control Ancillary Services* (FCAS) in a new region or for a new technology type, and aggregate if applicable. This can also be used if you are already a DRSP, in respect to WDRU only, and now want to classify *plant* as ASU.
- *Amend ancillary service unit*: to amend your current ASU portfolio, including to:
 - Classify additional *plant(s)* as ASU to provide new FCAS and aggregate it with your existing group (the word "group" is used interchangeably with "DUID" in this Guide).
 - Amend *bid validation data*.
 - Move a NMI which is already classified as ASU from one DUID to another DUID and aggregate the NMI with the new or existing group, as the case may be.
 - Declassify a NMI from your existing group along with other amendments.
 - The declassification effective date will be the date you have nominated in your application to AEMO, not the registration approval date of the application. The nominated declassification effective date must be within 14 days of the submission of the application to AEMO.
 - You must provide a formal letter to confirm NMIs within the DUID are to be declassified, as well as the declassification effective date.
 - If you move all your classified NMIs from one DUID to another, then the initial DUID will be made inactive and can no longer be used.

This Guide does not cover the declassification of all your *plants* as an ASU. In this case, please refer to [AEMO's website](#).

1.2 Requirement to classify ASU

Under clause 2.3D.1(a) of the Rules a person must apply to classify *plant* as ASU.

If a *Market Participant* in respect of a *plant* connected at a *market connection point* for which it is the *financially responsible Market Participant*, wishes to use that *plant* to provide *market ancillary services* in

accordance with Chapter 3, then the *Market Participant* must apply to AEMO for approval to classify the *plant* as an ASU.

1.3 Documents to be submitted

Applicants may need to submit other documents as evidence of their eligibility to classify ASU or their ability to provide market ancillary services. These requirements may vary depending on the classification request.


1.3.1 Supporting Information


Applicants who apply to classify a new *plant* as an ASU or amend their existing portfolio of ASUs will need to provide information to AEMO to support their application. This includes, but is not limited to:

- Contact Details.
- System Preparedness.
- Information on Control Equipment.
- Other supporting documents.

The maximum file size limit is 20mb. Please split the document into manageable sizes to load directly into PMS.

File types that can be uploaded to PMS are "pdf", "doc", "docx", "png", "jpeg", "csv" and "xlsx".

 Please ensure the relevant documents are clearly identified and numbered sequentially (for example: "Information on Control Equipment-1"). The filename cannot be greater than 40 characters.

 Where changes to supporting information are required, the file name must reflect the change ("Information on Control Equipment-1" to "Information on Control Equipment-2").

1.3.2 Zip file contents – ASU

Applicants applying to classify an ASU, or to amend their existing portfolio of ASUs, will load into PMS a zip file which contains information that pertains to each DUID. This zip file is the application to AEMO. This zip file must only include:

- FCAS_Group.csv
- FCAS_GroupService.csv
- FCAS_NMI.csv
- FCAS_Device.csv

If information is to be changed within a csv after it has already been successfully uploaded to PMS, then the csv file name must remain the same, however the application version number field must be updated sequentially within FCAS_Group csv.

If supporting information is included in the zip file, then the zip file will be rejected. Supporting information can be uploaded in the Supporting Evidence tab of the application once it is in draft state.

The csv file names must never change, as they are required to allow automated system processes and validation to avoid unnecessary delays in the assessment process.

1.3.3 Zip file examples

The following are examples of expected zip file configurations:

Example 1. A DRSP applying to classify ASU and aggregate, if applicable, using one DUID will submit one zip file containing information outlined in Section 1.2.2.

Example 2. A DRSP applying to classify ASU and aggregate, if applicable, using two DUIDs will submit two zip files (one for each DUID), each with the information outlined in Section 1.2.2.

Example 3. A DRSP has applied to classify ASU and aggregate, if applicable, using two separate DUIDs. AEMO has assessed and requested further information and/or clarification. To do this you must:

- Load the relevant updated documents directly into PMS. Supporting documents must reflect the fact that the document has been updated eg: "Information on Control Equipment-1" to "Information on Control Equipment-2".
- Load the corrected csv/s contained within the zip file. The entire zip file as outlined in Section 1.2.2 is to be re-uploaded into PMS. If information is to be changed within a csv, then the csv file name must remain the same, however the version field must be updated sequentially within the FCAS_Group csv.

Example 4: A DRSP applying to amend their Schedule 3.1 bid validation data for one DUID will submit one zip file containing information outlined in Section 1.2.2.

Note: To ensure your zip file is in the form prescribed by AEMO care must be taken to ensure that:

- The csv filename has not been changed.
- Headers within the csv are not removed/modified/added,
- The required formatting within the csv has been used. Refer to Appendices A, B and C.
- The four csv files must remain in the zip, even if there are no changes.
- The maximum zip file size is 20mb. Only if the zip file limit has been reached can supporting information be submitted to AEMO via email. Please do not submit information to AEMO via a link. AEMO will only accept information attached to an email.
- neither zip nor csv is to be password protected.

1.4 Fees

1.4.1 Registration Fee

All Applicants for registration must pay a Registration fee in accordance with AEMO's currently published [fee schedule](#).

After the initial receipt and processing of the Form, AEMO will send a tax invoice to the applicant for payment. The registration fee can be paid by EFT. You should provide a remittance advice from your bank once payment has been lodged.

Please note that assessment of an application will not be completed without confirmed payment of the registration fee.

Each additional ASU DUID which is subject to the registration application is charged an additional fee.

1.4.2 Participant Fees

Clause 2.11.1(b)(2) of the *Rules* provides that *participant fees* should recover the budgeted revenue requirements for AEMO. Clause 2.11.1(b)(3) provides that the components of *participant fees* charged to each *registered participant* should be reflective of the extent to which the budgeted revenue requirements for AEMO involve that *registered participant*.

You should refer to the AEMO website for a summary of the [AEMO budget and fees](#) that are currently applicable.

2. Registration Procedure

Chapter 2 of the *Rules* deals with registration. Each prospective Applicant must apply to AEMO for registration by using the relevant application form.

The classification procedure for an existing DRSP consists of the following steps:

Step 1 Submit your application to AEMO. Do this by loading, and then submitting the required zip file containing the required csv files and supporting information into PMS. Ensure every document is clearly identified and is numbered sequentially (for example: "Information on Control Equipment 1-1"), csv names do not change.

If the csv files are in a form which is not prescribed by AEMO, then you will not be able to submit your application and AEMO will be unable to commence the assessment process.

For phone assistance, contact AEMO on 1300 236 600 (International callers dial +61 3 9609 8000).

Step 2 AEMO will receive your application via PMS once you submit it ("Receiving Date 1"). After Receiving Date 1, AEMO will send an invoice for payment by electronic funds transfer (EFT).

For information regarding participant fees, see Fees and Charges on the AEMO website, as well as section 1.3 above.

Step 3 AEMO will, within 5 *business days* of receiving your application, advise you of any further information or clarification which AEMO requires in support of your application (clause 2.3D.1(d) of the *Rules*).

Step 4 You must supply the further information or clarification for AEMO's receipt within 15 *business days* of any request by AEMO under Step 3 (clause 2.3D.1(e) of the *Rules*) ("Receiving Date 2"), by re-uploading information into PMS. If the further information or clarification is not provided to AEMO's satisfaction by Receiving Date 2, AEMO may, on notice to you at any time after expiry of that period, elect to treat the application as withdrawn and you will be taken to have withdrawn the application.

Step 5 AEMO will within 15 business days of the later of Receiving Date 1 or Receiving Date 2, determine the classification application. If AEMO is reasonably satisfied of the relevant matters in clause 2.3D.1(e) of the *Rules*, AEMO will advise of the approval with:

- Any terms or conditions of classification which AEMO considers to be necessary to ensure that the provisions of the *Rules* which apply to market ancillary services can be met; and
- An effective date of the classification, which will be determined considering AEMO's software change management process.

If AEMO rejects your application, you will be notified of the reason(s) (Clause 2.9.2(c) of the *Rules*).

Note: If your application only is to aggregate previously-classified ASUs, then AEMO will reply within 20 business days of your complete application, setting out whether your application is to be approved and the conditions which apply to that proposed approval (clause 3.8.3(e) of the *Rules*).

Note: Regardless of outcome, application processing activities and timeframes are the same and carry the same overheads, so fees and charges are non-refundable.

3. Submitting an application

The PMS User Guide sets out information on how to submit the application via PMS. This section discusses the information which you must consider when you apply to AEMO.

3.1 Declarations

In PMS, each time you upload or reupload your application, you will be asked to confirm that the mandatory declarations from your initial ASU classification applications are still true and valid, with the following declarations called out.

- You confirm that all declarations made in your initial *Market Customer*, DRSP or SRA application, including obligations and compliance declarations, continue to be true and valid, including the following:
 - You have read, understood, and can comply with the relevant NER clauses and AEMO policies and procedures, relevant to this application and the provision of *Frequency Control Ancillary Services*. This includes the Registration Application Guide, *market ancillary service specification* as well as the PMS user guide.
 - You have the approval of your company to submit this application on their behalf, as your company's:
 - authorised officer;
 - delegate, appointed by your company's authorised officer; or
 - agent, appointed by your company's authorised officer.
 - Where applicable, you have the consent of the *retail customer* or *SRA customer* to access confidential metering information with respect to their *market connection point*.

When you submit your application in PMS, you will be required to confirm that the following mandatory declarations. AEMO has intentionally not provided an 'accept all' declaration button as it is a requirement that you read and accept each declaration at the time of each application.

By submitting this application in relation to ASU classifications you confirm:

- That all declarations, including obligations and compliance declarations, made in your initial application continue to be true and valid, including the following:
 - The *plant* being classified is connected at a *Market Customer's* or an SRA's *market connection point*.
 - Where relevant the *connection point* is not a *market connection point* for a *scheduled load*.
 - There is no *production unit* at the *connection point* in respect of which the owner, controller or operator is registered, or required to be registered, as a *Generator* or *Integrated Resource Provider*.
 - The appropriate arrangement(s) are in place with *retail customer(s)* or *SRA customers* at the relevant *connection point(s)* for the supply of *market ancillary services*.
 - The *plant* can be used to provide *market ancillary services* in accordance with the *market ancillary services specification* (MASS).
 - The *plant* is not connected at a connected point that a different person has classified as a WDRU.
 - The *plant* is not connected at a *connection point* that a different person has classified as an ASU.
 - The Applicant has provided evidence that it has adequate communications and/or telemetry to support the issuing of *dispatch instructions* and the audit of responses.
 - You acknowledge AEMO may impose such terms and conditions as AEMO determines, which you must comply with.
 - You acknowledge that no changes (apart from a declassification request) will take effect until the AEMO approved effective date.

- A declassification request does not require approval, it is system driven and irreversible once submitted.
- The schedule 3.1 *bid validation data* submitted reflects any changes in this application and will be maintained and updated by you as soon as practical when operational conditions or classification status changes occur.
- If you are declassifying a ASU which will result in the remaining aggregated ASU comprising <1MW, your bid must be updated to reflect 0MW.
- If you declassify all ASUs in a Group, then you will be making the Group inactive and should set the *available capacity* to zero while AEMO processes the request.
- If you are a DRSP and you declassify all of your WDR units or ASUs you will be deregistered as a DRSP.
-

3.2 Loading a Zip file

To apply to AEMO, via PMS, you must submit a zip file as described in Section 1.2.2 above, once you have satisfied the declaration requirements which are set out in Section 3. 1 above.

3.2.1 Identifiers

The following table lists and describes the identifiers and names which are required to configure the PMS and [Electricity Market Management System](#) (EMMS). The identifiers which are denoted with 'PMS' will be used in the three csv files described in Section 3.2.2.

Name/ID	Description	System
DUID	Dispatchable Unit Identifier. This ID cannot change.	EMMS/PMS
DUID name	This is the name of the DUID. This is also the same as the client group reference which is used in PMS. This cannot be changed once implemented into AEMO systems.	EMMS
Group	A group can contain one or more <i>plants</i> (identified by their NMI) which you wish to classify as an ASU. If there is more than one <i>plant</i> , then you must apply to aggregate the <i>plants</i> , then be approved, such that the <i>plants</i> are treated as one ASU for central dispatch. A group will have one DUID.	PMS
Group name	This is the formal name of the group. This name is provided by you and is unique to your portfolio. The name is visible to you and AEMO and cannot be changed.	PMS
Participant ID	The Identifier for the Participant. An ABN can have many Participant IDs. A	EMMS

	Participant ID can be linked to many DUIDs.	
Portfolio name	This is the name of your portfolio of groups. There must be only one portfolio in respect of one Participant ID, but you can have many groups in your portfolio.	PMS
Client group reference	This is the informal name of the group. This is also the same as the DUID name which is used in EMMS. This cannot be changed once implemented into AEMO systems.	PMS
FCAS_Group.csv	This is a csv file which identifies the group level information	PMS
FCAS_GroupService.csv	This is a csv which identifies the parameters of the FCAS trapeziums.	PMS
FCAS_NMI.csv	This is a csv which identifies the maximum ancillary service capacity for each service per NMI.	PMS
FCAS_Device.csv	This is a csv that identifies each of the devices and their control systems per NMI.	PMS

A group must have one DUID. The DUID must have one Client Group Reference (DUID name). If you are applying to create a new group, then you can suggest DUID and Client Group reference for your group within the appropriate csv. AEMO will advise you of the suitability of these suggestions, prior to the establishment of the registration record.

The guidelines on how to determine the relevant identifiers are described below.

A new DUID must be allocated to each ASU for each region.

ASU controlled by the same technology types (switching control, variable control or combined) are to be aggregated together under either a switching DUID, variable DUID or a combined DUID.

The following naming guidelines apply to DUID(s) and Client Group reference(s):

- DUID is a maximum of 8 characters.
- IDs containing only alphanumeric characters are preferred. Special symbols (e.g. dashes, underscores) and the letter "O" are not acceptable.
- DUID and Client Group reference should follow the following naming convention:

Client Group Reference (20 characters)	Dispatchable unit identifier (8 characters)
• Will be prepended with DR	• Will be prepended with DR

Client Group Reference (20 characters)	Dispatchable unit identifier (8 characters)
<ul style="list-style-type: none"> • 1 character space DRSP can nominate up to 12 characters which are an intuitive representation of the DRSP • 1 character space • A single-letter <u>RegionID</u>: S, V, T, N or Q • 1 character space • DUIDs will be appended with a sequential number, increasing by 1 from that DRSP's last DUID in the same region 	<ul style="list-style-type: none"> • DRSP can nominate four characters which are an intuitive representation of the DRSP name • DUIDs will be appended with a sequential number, increasing by 1 from that DRSP's last DUID.
AS <_ _ _ _ _ _ _ _ _ _><_> <##> Eg: DR BLUE SKY S 1	AS <_><_ _ _> <##> Eg: DRBLUE01

Note: Please take care in nominating these identifiers, as changes which are requested after names have been allocated are not supported.

3.2.2 Zip file

You must complete and submit the following information in one zip file. There must be one zip file for each group:

- FCAS_Group.csv - This must be submitted in csv format, in strict accordance with the [template](#) which is published on AEMO's website. Appendix B of this Guide provides further information on how to complete the csv. This csv identifies DUID level information and contact information.
- FCAS_GroupService.csv - This must be submitted in csv format, in strict accordance with the [template](#) which is published on AEMO's website. Appendix C of this Guide provides further information on how to complete the csv. This csv identifies DUID level information and Schedule 3.1 bid and validation data for each group, including level of each market ancillary service the group will provide and enablement levels. This csv enables AEMO to assess whether you have provided information which is required to satisfy clause 2.3.5(b) of the *Rules*. The DUID level information must reflect any change you have requested in the FCAS_NMI csv.
- FCAS_NMI.csv – This must be submitted in csv format, in strict accordance with the [template](#) which is published on AEMO's website. Appendix A of this Guide provides further information on how to complete the csv. This csv identifies the NMIs which you wish to classify as a ASU to provide FCAS or to amend your existing portfolio. This csv enables AEMO to assess whether you have provided the information which required to satisfy clause 2.3D.1(b) of the *Rules*.

Appendix G shows examples of a FCAS_NMI.csv for the following:

- Example 1 – classifying a new ASU to aggregate with an existing ASU
- Example 2 – classifying a new ASU to aggregate with an existing aggregated ASU
- Example 3 – moving a classified NMI from one group to another
- Example 4 – declassify a NMI from an existing aggregated ASU
- Example 5 – amending Schedule 3.1 bid validation data
- FCAS_Device.csv – This must be submitted in csv format, in strict accordance with the [template](#) which is published on AEMO's website. Appendix D of this Guide provides further information on how to complete the csv. This csv identifies the devices located at each site providing the FCAS response.

Note: Please take care when creating the csv files. Information provided in the incorrect format will result in the file being rejected, therefore not loaded into PMS. This includes ensuring converting information from excel to csv hasn't truncated data and you do not include commas in your text.

Note: Each zip will create its own application as it pertains to one group. There must be one zip file for each group.

Note: Once you have successfully loaded, your zip file you have an application in draft.

Note: The zip file must only include the four csv files.

Note: A single DUID may provide both ASU and WDR, to be co-optimised through NEMDE, with the following restrictions:

- The list of NMIs must be identical always.
- You could not add a NMI in respect of WDR where the NMI cannot also provide ASU, and vice versa.
- A technically satisfactory trapezium must be provided for the energy/ancillary services provision, to allow co-optimisation.

If you wish to pursue this construct, then AEMO considers that it would need to work through the scenarios with you, to ensure that the concepts will all work appropriately. You must contact AEMO prior to submitting your application.

Note: All four csv files are always required in a .zip file, but some can contain headers only. When uploading a subsequent application to amend an existing group, the following files can contain headers only providing the application meets certain conditions.

File/s allowed to be empty	Combination of populated files	Conditions	Example scenario/s
None	FCAS_Group.csv; FCAS_GroupService.csv; FCAS_NMI.csv; and FCAS_Device.csv	Always allowed. Always required for the first application to create a new group.	Creating a new group. Adding new NMIs to an existing group.
FCAS_NMI.csv FCAS_Device.csv	FCAS_Group.csv; and FCAS_Group.csv	FCAS_Group.csv and FCAS_GroupService.csv must always be provided with data. The FCAS_NMI.csv and FCAS_Device.csv can both be empty only when group maximum capacity is not being changed or added from the current approved value in the group.	Updating the maximum upper angle of the group.
FCAS_Device.csv	FCAS_Group.csv; FCAS_GroupService.csv; and FCAS_NMI.csv	FCAS_Group.csv and FCAS_GroupService.csv must always be provided with data. FCAS_Device.csv can be provided but empty when the FCAS_NMI.csv file is provided with data and the Application	Amending NMI maximum capacity values. Declassifying NMIs from the group.

Type field in the FCAS_NMI.csv contains only: 'AMEND', 'REMOVE' or 'DECLASSIFY'.

4. Supporting information


Please ensure that the mandatory information indicated in this Guide has been submitted as supporting information. Failure to do so will delay your application. Although a brief summary of mandatory items are listed here, please read this entire section, to ensure you submit the required information:

- Contact Details – This information must be supplied with each application.
- System Preparedness – You must provide an application capability declaration if you have not done so previously. Further, you must provide evidence that your systems are in place.
- Information on Control Equipment.
- Other supporting information.

4.1.1 Contact Details

You must provide the Registration contact within the FCAS_Group csv. Further, you must supply the operational contact details to assist with communication between AEMO and your organisation. Please refer to Appendix F for the required contact details.


Participants must notify AEMO as soon as reasonably practicable if contact details change. If contact details change during the registration process, please contact the [Onboarding team](#). After registration, Registered Participants must maintain up-to-date contact details of all nominated operational personnel with AEMO on a regular basis. To update your operational contacts after registration, please contact [AEMO Support Hub team](#).

 Please clearly mark all attachments, unless otherwise specified, as '**Contact Details**' and number each page before loading as supporting information.

4.1.2 System Preparedness


Please enclose a completed and signed [Application Capability Declaration](#) if you have not done so previously.

If you are applying to classify a *plant* as an ASU in a new region then you must demonstrate that your IT systems are in place and ready to support NEM activities. You will demonstrate your system is ready to use in AEMO's pre-production systems, once it has been configured to do so.

 Please clearly mark all attachments as 'Supporting Information - Operation and system readiness' and number each document consecutively before enclosing in the zip file.

4.1.3 Information on control equipment


You must submit Information on Control Equipment. The Information on Control Equipment document needs to enable AEMO to understand how you are intending to respond to dispatch instructions.

 Please clearly mark as '**Information of Control Equipment**' and number each page before loading as supporting information.


4.1.4 Other supporting information

If you are ceasing the classification of ASU of a NMI, please submit a formal letter to AEMO in the form prescribed on [AEMO's website](#). This letter must acknowledge that once the application with declassification request has been submitted to AEMO the declassification cannot be reversed, regardless of the status of the

application. You must review your Schedule 3.1 bid validation data to ensure you can still meet your obligations.

 Please clearly mark this letter as '**Letter of intention to declassify**' and number each page before loading as supporting information.

AEMO will review your application and may request clarification or further information to be submitted.

 Please clearly mark all attachments, unless otherwise specified, as '**Supporting information**' and number each page before loading as supporting information.

Appendix A. FCAS_NMI.csv

Please refer to the following table when creating the csv file to identify the *plants* and their FCAS capability.

Header in CSV	Required Format
NMI	<ol style="list-style-type: none"> 1. Required 2. Must be unique to your ABN 3. Must be 10 digits; 4. NMI must be status "A" (active) in MSATS e.g. cannot be D,X,G,N etc. 5. Must not be classified or in assessment for any other market participant.
Site Name	<ol style="list-style-type: none"> 1. Required; and 2. When provided, it must be minimum 3 and maximum 50 characters in length.
Role	<ol style="list-style-type: none"> 1. Required, identifies the role the participant has in relation to the <i>plant</i> that is the subject of the application. 2. Must be, Market Customer, SRA or DRSP
Declassification date	<ol style="list-style-type: none"> 1. Required if application type is 'declassify' 2. Date must be within 14 days of the submission of the application to AEMO. 3. Must be in the following format: <ul style="list-style-type: none"> - dd/mm/yyyy or d/mm/yyyy
Application Type	<ol style="list-style-type: none"> 1. Required; and 2. Value in this column must be: <ul style="list-style-type: none"> o New: a new <i>plant</i>, identified by the NMI, to be classified, and aggregate if applicable. o Amend: attributes for a classified NMI changes. The amendment of one or more NMI maximum capacities for any service will result in the reassessment of the DUID-level maximum capacity. o Declassify: a connection point's classification is to be terminated.

Header in CSV	Required Format
	<p>Declassification of classification do not need AEMO's approval. Therefore, the deregistration effective date will be as the date inserted into PMS deregistration effective date. This cannot be changed once submitted.</p> <ul style="list-style-type: none"> ○ Add: add a previously classified connection point, as identified by it's NMI, to this DUID from another. ○ Remove: move a connection point, as identified by it's NMI, from this DUID to another.
Lower Frequency Setting	<p>This setting identifies the lower FCAS frequency deviation setting of a switching controller or the upper limit of the frequency dead-band of a variable controller.</p> <ol style="list-style-type: none"> 1. Required if providing lower services; 2. Can be up to 3 decimal places 3. Can be up to 5 digits e.g. 50.150 Hz 4. If this field is not relevant to this application, field must be left blank
Raise Frequency Setting	<p>This setting identifies the raise FCAS frequency deviation setting of a switching controller or the lower limit of the frequency dead-band of a variable controller.</p> <ol style="list-style-type: none"> 1. Required if providing raise services; and 2. Can be up to 3 decimal places 3. Can be up to 5 digits e.g. 49.850 Hz 4. If this field is not relevant to this application, field must be left blank
Max Cap LOWER1SEC	<ol style="list-style-type: none"> 1. Required if providing LOWER1SEC; and 2. Must be the MW value 3. Can be up to 3 decimal places 4. If this field is not relevant to this application, field must be left blank
Max Cap LOWER6SEC	<ol style="list-style-type: none"> 1. Required if providing LOWER6SEC; and 2. Must be the MW value 3. Can be up to 3 decimal places 4. If this field is not relevant to this application, field must be left blank
Max Cap LOWER60SEC	<ol style="list-style-type: none"> 1. Required if providing LOWER60SEC; and 2. Must be the MW value 3. Can be up to 3 decimal places 4. If this field is not relevant to this application, field must be left blank

Header in CSV	Required Format
Max Cap LOWER5MIN	<ol style="list-style-type: none"> 1. Required if providing LOWER5MIN; and 2. Must be the MW value 3. Can be up to 3 decimal places 4. If this field is not relevant to this application, field must be left blank
Max Cap RAISE1SEC	<ol style="list-style-type: none"> 1. Required if providing RASIE1SEC; and 2. Must be the MW value 3. Can be up to 3 decimal places 4. If this field is not relevant to this application, field must be left blank
Max Cap RAISE6SEC	<ol style="list-style-type: none"> 5. Required if providing RASIE6SEC; and 6. Must be the MW value 7. Can be up to 3 decimal places 8. If this field is not relevant to this application, field must be left blank
Max Cap RAISE60SEC	<ol style="list-style-type: none"> 1. Required if providing RASIE60SEC; and 2. Must be the MW value 3. Can be up to 3 decimal places 4. If this field is not relevant to this application, field must be left blank
Max Cap RAISE5MIN	<ol style="list-style-type: none"> 1. Required if providing RASIE5MIN; and 2. Must be the MW value 3. Can be up to 3 decimal places 4. If this field is not relevant to this application, field must be left blank

Appendix B. **FCAS_Group.csv**

Please refer to the following table when creating the csv file to submit information relating to the ASU group.

Header in CSV	Required format
Application Reference	<p>This reference is used to identify your PMS application. It must not change throughout this application's lifecycle. This is not a system generated identifier.</p> <ol style="list-style-type: none"> 1. Required; 2. Must be minimum 3 and maximum 50 characters long; and 3. Must be unique across PMS.

Header in CSV	Required format
	<p>Ensure this reference is intuitive to your portfolio and the individual PMS application.</p>
Application Version	<p>This number identifies the version of the application submitted to AEMO. E.g. If this is the initial submission then the version will be 1. Should you need to provide further information or clarification then the next submission the version will be 2 etc.</p> <ol style="list-style-type: none"> 1. Required; 2. Must be minimum 1 character and maximum 50 characters;
Client Group Reference	<p>This is the informal name of the group, and is also considered the 'DUID name'.</p> <ol style="list-style-type: none"> 1. Required; and 2. Must be minimum 1 character and maximum 20 characters.
Group Name	<p>A group can contain one or more <i>plants</i> (identified by their NMI) that you wish to classify as ASU.</p> <p>This is the formal name of the group. This name is provided by you and unique to your portfolio. The name is visible to you and AEMO and cannot be changed.</p> <ol style="list-style-type: none"> 1. Required; 2. Must be minimum 1 character and maximum 50 characters; 3. Must have only one group in one .csv (e.g. cannot have two+ groups); and 4. Must be unique to your portfolio.
Technology Type	<ol style="list-style-type: none"> 1. Required; and 2. Either Switching, Variable or Combined
DUID	<p>This is the dispatchable unit identifier. This ID cannot change.</p> <ol style="list-style-type: none"> 1. Required; 2. Must be minimum 3 and maximum 8 characters; and 3. Must be unique in EMMS production.
Region	<ol style="list-style-type: none"> 1. Required; and 2. Must be only one of the following dispatch regions: <ol style="list-style-type: none"> a. NSW1

Header in CSV	Required format
	<ul style="list-style-type: none"> b. QLD1 c. SA1 d. TAS1 e. VIC1
Registration Contact Name	<ul style="list-style-type: none"> 1. Required; and 2. Must be minimum 1 character and maximum 50 characters.
Registration Contact Position	<ul style="list-style-type: none"> 1. Required; and 2. Must be minimum 1 character and maximum 50 characters
Registration Contact Email	<ul style="list-style-type: none"> 1. Required; 2. Must be minimum 5 characters and maximum 250 characters; and 3. Must be a valid email address
Registration Contact Phone	<ul style="list-style-type: none"> 1. Required; 2. Must be 8-10 digits only; 3. Must be provided if Registration Contact Mobile is not provided; and 4. No spaces. <p>Ensure phone number is not truncated</p>
Registration Contact Mobile	<ul style="list-style-type: none"> 1. Required; 2. Must be 10 digits only (Australian mobile format without '+61'); 3. Must be provided if Registration Contact Phone is not provided; 4. Must start from '04'; and 5. No spaces. <p>Ensure phone number is not truncated</p>

Appendix C. FCAS_GroupService.csv

Please refer to the following table when creating the csv file to identify the exclusion days. This csv must be included in the zip, even if you have no exclusion days to report.

Header in CSV	Required format
Bid Type	<ul style="list-style-type: none"> 1. Required 2. Must be one of LOWER1SEC, LOWER6SEC, LOWER60SEC, LOWER5MIN, RAISE1SEC, RAISE6SEC, RAISE60SEC, RAISE5MIN
Maximum Capacity	<ul style="list-style-type: none"> 1. Identifies the maximum capacity of each service provided by the group

Header in CSV	Required format
	2. Must be an integer, rounded down to the nearest MW.
Minimum Enablement	<ol style="list-style-type: none"> 1. Required; and 2. Must be an integer 3. Must be the MW value 4. Must be 0 MW for a non-scheduled load
Maximum Enablement	<ol style="list-style-type: none"> 1. Required; and 2. Must be an integer 3. Must be the MW value 4. Must be 0 MW for a non-scheduled load
Maximum Lower Angle	<ol style="list-style-type: none"> 1. Required; and 2. Must be an integer 3. Must be 90° for a non-scheduled load
Maximum Upper Angle	<ol style="list-style-type: none"> 1. Required; and 2. Must be an integer 3. Must be 90° for a non-scheduled load

Appendix D. FCAS_Device.csv

Please refer to the following table when creating the csv file to identify the exclusion days. This csv must be included in the zip, even if you have no exclusion days to report.


Header in CSV	Required format
NMI	<ol style="list-style-type: none"> 1. Required 2. Must be unique to your ABN 3. Must be 10 digits; 4. NMI must be status "A" (active) in MSATS e.g. cannot be D,X,G,N etc. 5. Must not be classified or in assessment for any other market participant.
Device Type	<ol style="list-style-type: none"> 1. Required; 2. Contains the primary technology used to deliver FCAS. Some examples of Device type are Storage or Load 3. Must be between 3-50 characters 4. Must be alphanumeric string
Device Manufacturer	<ol style="list-style-type: none"> 1. Required; 2. Contains the name of the device manufacturer 3. Must be between 3-50 characters 4. Must be alphanumeric string
Device Model	<ol style="list-style-type: none"> 1. Required; 2. Contains the Model and version number of the device

Header in CSV	Required format
	<ol style="list-style-type: none"> 3. Must be between 3-50 characters 4. Must be alphanumeric string
Number of Devices	<ol style="list-style-type: none"> 1. Required; 2. Must be 1-9999 digits 3. Must be numeric 4. Must be integer
Control box model	<ol style="list-style-type: none"> 1. Required; 2. Contains the name of the control box 3. Must be 3-50 characters 4. Must be alphanumeric string
Control Box Identifier	<ol style="list-style-type: none"> 1. Required; 2. Contains the Model and version number of the control box 3. Must be 1-9999 4. Must be numeric 5. Must be integer

Appendix E. Contact Definitions

Contact type	Definition
Registration	AEMO Onboarding's primary point of contact with the Applicant in regard to their registration. Able to liaise extensively within their organisation and with the different teams in AEMO. This person nominated in this Form must also be specified in the FCAS_Group.csv.
Trading Room	Group contact details of trading room or trading desk, for bidding operations. Trading room must be contactable 24/7. Trading room phone numbers should not be a mobile number or desk number of an individual. It is the Applicant's responsibility to ensure the trading room phone is physically staffed at all times or transfers incoming calls to rostered individuals who can receive calls at all times.

Appendix F. **Contact Details**

 Please clearly mark all attachments as "Supporting Information – Contact Details" and number each page consecutively. This information must be provided in each PMS application.

You must provide contact details to assist with communication between AEMO and your organisation. Provide contact details for your head office, any branch offices, and all relevant personnel.

Operational contacts

Control room (physical plant operations – must be contactable 24/7)

Primary phone:

Other:

Email:

Trading room (24/7 bidding operations – must be contactable 24/7)

Primary phone:

Other:

Email:

Please confirm the Registration has been notified of their involvement in this application.

Yes

No - please supply a reason why.

Reason:

Appendix G. CSV Examples

These examples are of the csv content.

Example 1 – classifying a new ASU to aggregate with an existing ASU

FCAS_Group.csv

Application Reference	Application Version Number	Client Group Reference	Group Name	Technology type	DUID	Region	Registration Contact Name	Registration Contact Position	Registration Contact Email	Registration Contact Phone	Registration Contact Mobile
EnergySaveNSWG01	1	AS Energy Save N 1	EnergySave Location REF G01	COMBINED	ASESAV 01	NSW1	Superman	Earth Protection Services	superman@EPS.com.au	0396098456	0404123456

FCAS_GroupService.csv

Bid Type	Maximum Capacity	Minimum Enablement	Maximum Enablement	Maximum Lower Angle	Maximum Upper Angle
RAISE60SEC	2	0	0	90	90
LOWER60SEC	2	0	0	90	90

FCAS_NMI.csv

NMI	Site Name	Role	Declassification Date	Application Type	Lower Frequency Setting	Raise Frequency Setting
4310741931	Smallville	DRSP		New	50.200	49.800
4310719287	Smallville	DRSP		New	50.200	49.800
4310987923	Smallville	DRSP		New	50.200	49.800

Max Cap LOWER1SEC	Max Cap LOWER6SEC	Max Cap LOWER60SEC	Max Cap LOWER5MIN	Max Cap RAISE1SEC	Max Cap RAISE6SEC	Max Cap RAISE60SEC	Max Cap RAISE5MIN
		0.750				0.750	
		0.750				0.750	
		0.750				0.750	

FCAS_Device.csv

NMI	Device Type	Device Manufacturer	Device Model	Number of Devices	Control Box Model	Control Box Identifier
4310741931	Storage	Battery Power Company	Homebattery12	1	BatteryInstruct1	1
4310741932	Storage	Battery Power Company	Homebattery12	1	BatteryInstruct1	1
4310719287	Storage	Battery Power Company	Homebattery12	2	BatteryInstruct1	1
4310719287	Hot Water System	Hot Water Pty Ltd	Hotwater273	2	BatteryInstruct1	2
4310987923	Storage	Battery Power Company	Homebattery12	2	BatteryInstruct1	1
4310987923	Hot Water System	Hot Water Pty Ltd	Hotwater273	2	BatteryInstruct2	1

Example 2 – classifying a new ASU to aggregate with an existing aggregated ASU

FCAS_Group.csv

Application Reference	Application Version Number	Client Group Reference	Group Name	Technology type	DUID	Region	Registration Contact Name	Registration Contact Position	Registration Contact Email	Registration Contact Phone	Registration Contact Mobile
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EnergySaveNS WG01	1	AS Energy Save N 1	EnergySave Location REF G01	COMBINED	ASESAV 01	NSW1	Superman	Earth Protection Services	superman@EPS. com.au	0396098456	0404123456
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FCAS_GroupService.csv

Bid Type	Maximum Capacity	Minimum Enablement	Maximum Enablement	Maximum Lower Angle	Maximum Upper Angle
RAISE60SEC	3	0	0	90	90
LOWER60SEC	3	0	0	90	90

FCAS_NMI.csv

NMI	Site Name	Role	Declassification Date	Application Type	Lower Frequency Setting	Raise Frequency Setting
4311251659	Smallville	DRSP		New	50.200	49.800

Max Cap LOWER1SEC	Max Cap LOWER6SEC	Max Cap LOWER60SEC	Max Cap LOWER5MIN	Max Cap RAISE1SEC	Max Cap RAISE6SEC	Max Cap RAISE60SEC	Max Cap RAISE5MIN
0	0	0.85	0	0	0	0.85	0

FCAS_Device.csv

NMI	Device Type	Device Manufacturer	Device Model	Number of Devices	Control Box Model	Control Box Identifier
4311251659	Storage	Battery Power Company	Homebattery12	1	BatteryInstruct1	1

Example 3 – move a classified NMI from one group (DUID) to another.

FCAS_Group.csv - ADD

Application Reference	Application Version Number	Client Group Reference	Group Name	Technology type	DUID	Region	Registration Contact Name	Registration Contact Position	Registration Contact Email	Registration Contact Phone	Registration Contact Mobile
EnergySaveNS WG03	1	AS Energy Save N 3	EnergySave Location REF G03	COMBINED	ASESAV 03	NSW1	Superman	Earth Protection Services	superman@EPS.com.au	0396098456	0404123456

FCAS_GroupService.csv -ADD

Bid Type	Maximum Capacity	Minimum Enablement	Maximum Enablement	Maximum Lower Angle	Maximum Upper Angle
RAISE60SEC	7	0	0	90	90
LOWER60SEC	7	0	0	90	90

FCAS_NMI.csv - ADD

NMI	Site Name	Role	Declassification Date	Application Type	Lower Frequency Setting	Raise Frequency Setting
4310741931	Smallville	DRSP		Add	50.2	49.8

Max Cap LOWER1SEC	Max Cap LOWER6SEC	Max Cap LOWER60SEC	Max Cap LOWER5MIN	Max Cap RAISE1SEC	Max Cap RAISE6SEC	Max Cap RAISE60SEC	Max Cap RAISE5MIN
		0.75				0.75	

FCAS_Device.csv - ADD

NMI	Device Type	Device Manufacturer	Device Model	Number of Devices	Control Box Model	Control Box Identifier
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4310741931	Storage	Battery Power Company	Homebattery12	1	BatteryInstruct1	1
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Example 3 continued – move a classified NMI from one group (DUID) to another.

FCAS_Group.csv - REMOVE

Application Reference	Application Version Number	Client Group Reference	Group Name	Technology type	DUID	Region	Registration Contact Name	Registration Contact Position	Registration Contact Email	Registration Contact Phone	Registration Contact Mobile
EnergySave Remove 01	1	AS Energy Save N 1	EnergySave Location REF G01	COMBINED	ASESAV 01	NSW1	Superman	Earth Protection Services	superman@EPS.com.au	0396098456	0404123456

FCAS_GroupService.csv - REMOVE

Bid Type	Maximum Capacity	Minimum Enablement	Maximum Enablement	Maximum Lower Angle	Maximum Upper Angle
RAISE60SEC	1	0	0	90	90
LOWER60SEC	1	0	0	90	90

FCAS_NMI.csv - REMOVE

NMI	Site Name	Role	Declassification Date	Application Type	Lower Frequency Setting	Raise Frequency Setting
4310741931	Smallville	DRSP		Remove	52.000	49.800

Max Cap LOWER1SEC	Max Cap LOWER6SEC	Max Cap LOWER60SEC	Max Cap LOWER5MIN	Max Cap RAISE1SEC	Max Cap RAISE6SEC	Max Cap RAISE60SEC	Max Cap RAISE5MIN
		0.750				0.750	

FCAS_Device.csv - REMOVE

NMI	Device Type	Device Manufacturer	Device Model	Number of Devices	Control Box Model	Control Box Identifier
4310741931	Storage	Battery Power Company	Homebattery12	1	BatteryInstruct1	1

Example 4 – declassify a NMI from an existing aggregated ASU.

FCAS_Group.csv

Application Reference	Application Version Number	Client Group Reference	Group Name	Technology type	DUID	Region	Registration Contact Name	Registration Contact Position	Registration Contact Email	Registration Contact Phone	Registration Contact Mobile
EnergySaveNSWG01	1	AS Energy Save N 1	EnergySave Location REF G01	COMBINED	ASESAV 01	NSW1	Superman	Earth Protection Services	superman@EPS.com.au	0396098456	0404123456

FCAS_GroupService.csv

Bid Type	Maximum Capacity	Minimum Enablement	Maximum Enablement	Maximum Lower Angle	Maximum Upper Angle
RAISE60SEC	1	0	0	90	90
LOWER60SEC	1	0	0	90	90

FCAS_NMI.csv

NMI	Site Name	Role	Declassification Date	Application Type	Lower Frequency Setting	Raise Frequency Setting
4310741931	Smallville	DRSP	31/01/2023	Declassify	50.200	49.800

Max Cap LOWER1SEC	Max Cap LOWER6SEC	Max Cap LOWER60SEC	Max Cap LOWER5MIN	Max Cap RAISE1SEC	Max Cap RAISE6SEC	Max Cap RAISE60SEC	Max Cap RAISE5MIN
		0.750				0.750	

FCAS_Device.csv

NMI	Device Type	Device Manufacturer	Device Model	Number of Devices	Control Box Model	Control Box Identifier
4310741931	Storage	Battery Power Company	Homebattery12	1	BatteryInstruct1	1

Example 5 – amend Schedule 3.1 bid and offer validation data (DUID-level) – Group Maximum Capacity

FCAS_Group.csv

Application Reference	Application Version Number	Client Group Reference	Group Name	Technology type	DUID	Region	Registration Contact Name	Registration Contact Position	Registration Contact Email	Registration Contact Phone	Registration Contact Mobile
EnergySaveNSWG01	1	AS Energy Save N 1	EnergySave Location REF G01	COMBINED	ASESAV 01	NSW1	Superman	Earth Protection Services	superman@EPS.com.au	0396098456	0404123456

FCAS_GroupService.csv

Bid Type	Maximum Capacity	Minimum Enablement	Maximum Enablement	Maximum Lower Angle	Maximum Upper Angle
RAISE60SEC	1	0	0	90	90
LOWER60SEC	1	0	0	90	90

FCAS_NMI.csv

NMI	Site Name	Role	Declassification Date	Application Type	Lower Frequency Setting	Raise Frequency Setting
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4310741931	Smallville	DRSP	Amend	50.200	49.800
4310719287	Smallville	DRSP	Amend	50.200	49.800
4310987923	Smallville	DRSP	Amend	50.200	49.800

Max Cap LOWER1SEC	Max Cap LOWER6SEC	Max Cap LOWER60SEC	Max Cap LOWER5MIN	Max Cap RAISE1SEC	Max Cap RAISE6SEC	Max Cap RAISE60SEC	Max Cap RAISE5MIN
		0.750				0.750	
		0.750				0.750	
		0.750				0.750	

FCAS_Device.csv

NMI	Device Type	Device Manufacturer	Device Model	Number of Devices	Control Box Model	Control Box Identifier
4310741931	Storage	Battery Power Company	Homebattery12	1	BatteryInstruct1	1
4310741932	Storage	Battery Power Company	Homebattery12	1	BatteryInstruct1	1
4310719287	Storage	Battery Power Company	Homebattery12	2	BatteryInstruct1	1
4310719287	Hot Water System	Hot Water Pty Ltd	Hotwater273	2	BatteryInstruct1	2
4310987923	Storage	Battery Power Company	Homebattery12	2	BatteryInstruct1	1
4310987923	Hot Water System	Hot Water Pty Ltd	Hotwater273	2	BatteryInstruct2	1