

AS RE-OFFER BID FORMAT AND VALIDATION

PREPARED BY: IMT
DOCUMENT NO: MMSTDPD138
VERSION NO: 2.01
DATE: 12 December 2017
STATUS: Final

Disclaimer

This document is made available to you on the following basis:

Purpose

This User Guide - Template ("Guide") has been produced by the Australian Energy Market Operator Limited (AEMO) to provide information about submission of ancillary services re-offers in the National Electricity Market as at the date of publication.

No substitute

This Guide is not a substitute for, and should not be read in lieu of, the current National Electricity or Gas Rules ("Rules"), National Electricity or Gas Law ("Law"), or any other relevant laws, codes, rules, procedures or policies. Further, the contents of this Guide do not constitute legal or business advice and should not be relied on as a substitute for obtaining detailed advice about the Law, the Rules, or any other relevant laws, codes, rules, procedures or policies, or any aspect of the national electricity market or the electricity industry.

No warranty

While AEMO has used due care and skill in the production of this Guide, neither AEMO, nor any of its employees, agents and consultants make any representation or warranty as to the accuracy, reliability, completeness or suitability for particular purposes of the information in this Guide.

Limitation of liability

To the extent permitted by law, AEMO and its advisers, consultants and other contributors to this Guide (or their respective associated companies, businesses, partners, directors, officers or employees) shall not be liable for any errors, omissions, defects or misrepresentations in the information contained in this Guide, or for any loss or damage suffered by persons who use or rely on such information (including by reason of negligence, negligent misstatement or otherwise). If any law prohibits the exclusion of such liability, AEMO's liability is limited, at AEMO's option, to the re-supply of the information, provided that this limitation is permitted by law and is fair and reasonable.

Copyright

Copyright © 2017 Australian Energy Market Operator Limited. All rights reserved.

Distribution

Available to the public.

Document Meta-information

Title: AS Re-Offer Bid Format and Validation

Document ID: MMSTDPD138

Version: 2.01

Responsible Department: IMT

Notes: EMMS web portal can accept bids as well as file server.

Table of Contents

1.	Reference	4
1.1	Abbreviations	4
1.2	References	4
1.2.1	Documents made obsolete	4
2.	NMAS Offers	4
3.	Policy and procedure changes	4
4.	AS Re-Offer Bid file	4
4.1	File name	5
4.2	Layout	5
4.2.1	Start Of Bid File	6
4.2.2	Unit Identification	7
4.2.3	Governor	7
4.2.4	5 Minute Contingency (AGC)	8
4.2.5	Load Shedding	8
4.2.6	Rapid GenUnit Unloading	9
4.2.7	Reactive Power (including Excess To Gen and Sync Comp)	9
4.2.8	System Restart	11
4.2.9	Multiple Units in Bid File	12
4.2.10	End Of File	12
4.3	File Submission and Processing	12
4.3.1	Processing Order for Multiple Files	12
4.4	AS Re-Offer bid example	13
4.5	AS Re-Offer bid validation	15
5.	Needing Help?	20

1. Reference

1.1 Abbreviations

Abbreviation	Abbreviation Explanation
Rules	National Electricity Rules (NER).
EMMS	Electricity Market Management System; software, hardware, network and related processes to implement the wholesale electricity market.
NER	National Electricity Rules; also often just called the Rules.

TABLE 1: ABBREVIATIONS

1.2 References

1.2.1 Documents made obsolete

The release of this document changes only the version of the *AS Re-Offer Bid Format and Validation*. No documents are made obsolete by releasing this document.

2. NMAS Offers

This section details the interface provided to Market participants to submit and maintain non-market ancillary service (NMAS) offers against registered NMAS contracts. NMAS re-offers can be submitted to AEMO using either of:

- EMMS file server accessed through AEMO's private network, MarketNet. The traditional description of the files has been "Ancillary Services Re-Offer Bids". For more details, see "AS Re-Offer Bid file" below.
- EMMS web portal accessed through AEMO's private network, MarketNet. For more details, refer to the online help in the EMMS web portal (EMMS > Offers & Submissions > NMAS Offers > About NMAS).

The Market Participant creates the bids.

3. Policy and procedure changes

Since July 2015, the policy has changed with the submission of bid files. Previously, each individual unit associated with a facility was defined as a dispatchable unit in a contract. For future submissions, a dispatchable unit is defined at the facility level.

The bid file format described in this document is maintained for backwards compatibility with bid files prior to July 2015.

4. AS Re-Offer Bid file

Bid files are text files in a report layout. The sequence of elements is fixed. Each line must be terminated with an end-of-line (CRLF), including the last line.

The following sections in this document address the format of the file, specifically addressing the layout of the bid data.

4.1 File name

The file name identifies the Participant, the creation date and the version number. The characteristic identifying the file as an Ancillary Services Re-Offer bid file is that the name contains the string “_AS-REOFFER_” somewhere in the name (i.e. matches the windows search string “*_AS-REOFFER_*.I*”). An acceptable filename must be no greater than 40 characters in total length. A key concept is the file name must be unique (for traceability) and never used again.

For example, considering the file name

“ppp_AS-REOFFER_20040308.I001”, the components of the name are as follows:

- “ppp” is the assigned Participant Identifier for the Participant submitting the bid file, and is validated
- “_AS-REOFFER_” is the fixed part of the file name identifying this as a bid
- “20040308” is the effective date of the bid file, being the Caseld of the file. The date is in the form YYYYMMDD (being the 4 digit year, 2 digit month, 2 digit day).
- “.I” is a fixed part of the filename.
- “001” is the version number within the creation date, being three digits and is validated with contents within the file.

4.2 Layout

The bid file starts with a heading followed by compulsory items needed to clearly identify the source, date, time and version of the submission.

The bid file allows for bids for multiple dispatchable units. Each unit has entries for each of the service contracts. Please note a dispatchable unit is now defined as facility, not individual units associated with a facility.

Where a unit is not re-offering for a service, then the compulsory headings have no data lines following them. The service contracts are (in required sequence for each unit):

- Governor (No label)
- 5 Minute Contingency (AGC)
- Load Shedding
- Rapid GenUnit Unloading
- Reactive Power
or
Reactive Power - Excess To Gen
and/or
Reactive Power - Sync Comp
- System Restart

The bid file ends with a marker heading clearly identifying the completion of all bids.

The Bid Loader ignores all lines beginning with a hyphen (-), beginning with a blank or are empty. These lines are only useful to improve readability for humans. The compulsory heading lines must start in the first column.

The Bid Loader is case-insensitive, so recognises “PERIOD” and “period” as being the same, for example.

The compulsory heading line for each service sets the width of the columns in the following data lines. The first character of each keyword in the heading marks the beginning of the column. The end of the column is the beginning of the next column or the end of the line. For human readability, ensure sufficient column width to have spaces around each value.

Data line entries are for a specific time period of the market day. Each entry is effective until superseded with another entry in this bid or a future bid. Data lines for multiple periods must be in ascending time sequence. No data for a contract means no change, but the headings for each service contract must still exist.

4.2.1 Start Of Bid File

The following items are compulsory in the Heading block of the bid file:

- “ANCILLIARY SERVICES RE-OFFER FOR PERIOD ” being the heading marking the start of the file, followed by the market date when this bid file applies (i.e. effective date) in the format DD/MM/YYYY
- “From:” followed by at least one whitespace character (space or tab) and the assigned Identifier for the Participant submitting the bid file
- “To:” followed by at least one space and “AEMO”
- “Date Issued:” followed by at least one whitespace character (space or tab) and creation date and time in the format of DD/MM/YYYY hh:mm
- “Version No:” followed by at least one whitespace character (space or tab) and number of 1 to 3 digits – matching the numerical value of the version in the file name
- “Authorised:” followed by at least one whitespace character (space or tab) and name of authorising person with a maximum length of 15 characters

The combination of Participant Identifier (“From:”), Effective Date (“Date Issued:”) and Version (“Version No:”) must be different to any previously submitted file, so allowing for traceability.

For example:

```
-----
ANCILLIARY SERVICES RE-OFFER FOR PERIOD 08/03/2004
-----
```

```
From:      hydrotas
To:        AEMO
Date Issued: 08/03/2004 16:31
Version:   1
Authorised: Mike Muir
-----
```

The participant identifier is in three places, being in the file contents, the file name and the file path. All three of these must agree for the file to be acceptable.

4.2.2 Unit Identification

The bid file contains bids for one or more units. Each unit begins by identifying the unit using the DUID and has compulsory sections for each of the possible bid types. Any data lines in each section indicate the re-offers for the relevant service contract, otherwise omit the data lines.

The compulsory line to identify the unit is:

- “Dispatchable Unit: ” followed by unit DUID

For example:

```
Dispatchable Unit: BASTYAN
```

4.2.3 Governor

Governor service contracts are no longer actively in use. However the entry of the headings is necessary to be compatible with existing systems.

The Governor block must have:

- column heading, with the line starting with “Period” and the rest of the line containing the strings “Availability”, “Availability”, “Availability” and “Availability”.
- no data lines, since Governor service contracts are no longer in use

The Governor block has column headings for

- “Period”
- “6 Second Up Availability”
- “6 Second Down Availability”
- “60 Second Up Availability”
- “60 Second Down Availability”

For example:

Period	6 Second Up Availability	6 Second Down Availability	60 Second Up Availability	60 Second Down Availability
-----	-----	-----	-----	-----

4.2.4 5 Minute Contingency (AGC)

The block for 5 Minute Contingency (AGC) has:

- “5 Minute Contingency” as a compulsory line
- column headings, with the first starting with “Period” and the rest of the line containing the strings “Up MW/min”, “Down MW/min”, “Lower” and “Upper”.
- data lines (none, one or many)

The 5 Minute Contingency (AGC) block for each unit has column headings for

- “Period”, being the ending time for a half-hour settlement period.
- “Up MW/min” being the AGC Ramp Rate Up, in MW per minute
- “Down MW/min”, being the AGC Ramp Rate Down, in MW per minute
- “Lower Cntrl Limit”, being the Lower Control Limit, in MW
- “Upper Cntrl Limit”, being the Upper Control Limit, in MW

The entry under each column heading is:

- for “Period”, a time in the 24-hour format ‘hh:mm’ ending with “:00” or “:30”.
- for “Up MW/min”, an integer from 0 to 999, inclusive
- for “Down MW/min”, an integer from 0 to 999, inclusive
- for “Lower Cntrl Limit”, an integer from 0 to 9999, inclusive and not greater than the “Upper Cntrl Limit”
- for “Upper Cntrl Limit”, an integer from 0 to 9999, inclusive and not less than the “Lower Cntrl Limit”

For example (not necessarily realistic):

5 Minute Contingency				
Period	Up MW/min	Down MW/min	Lower Cntrl Limit	Upper Cntrl Limit
-----	-----	-----	-----	-----
13:30	123	456	321	1234

4.2.5 Load Shedding

The block for LOAD SHEDDING has:

- “LOAD SHEDDING” as a compulsory line

- column heading, starting with “Period” and the rest of the line containing the string “Control Range”
- data lines (none, one or many)

The LOAD SHEDDING block for each unit has column headings for

- “Period”, being the ending time for a half-hour settlement period.
- “Control Range”, being the available load shed quantity, in MW

The entry under each column heading is:

- for “Period”, a time in the 24-hour format ‘hh:mm’ ending with “:00” or “:30”
- for “Control Range”, an integer from 0 to 9999, inclusive

For example (not necessarily realistic):

```
LOAD SHEDDING
-----
Period Control Range
-----
18:30 1234
```

4.2.6 Rapid GenUnit Unloading

Rapid GenUnit Unloading service contracts are no longer actively in use. However the entry of the headings is necessary to be compatible with existing systems.

The block for RAPID GENUNIT UNLOADING has:

- “RAPID GENUNIT UNLOADING” as a compulsory line
- column headings
- no data lines, since Rapid GenUnit Unloading service contracts are no longer in use

The RAPID GENUNIT UNLOADING block for each unit has column headings for

- for “Period”, a time in the 24-hour format ‘hh:mm’ ending with “:00” or “:30”.
- “Control Range”, being the available rapid unit unloading quantity, in MW

For example:

```
RAPID GENUNIT UNLOADING
-----
Period Control Range
-----
```

4.2.7 Reactive Power (including Excess To Gen and Sync Comp)

The generic Reactive Power format suits the situation of a single reactive power contract against a dispatchable unit. The generic Reactive Power format is inadequate to cater for a dispatchable unit to offer against both Excess to Generation and Synchronous Compensator Reactive Power contracts. AEMO has signed both Excess to Generation and Synchronous

Compensator Reactive Power Contracts against a single dispatchable unit. (See Change Notice 351 for details of the introduction of re-offers for specific reactive power contracts for a single unit.)

The block for Reactive Power exists only if neither of the other reactive power blocks (Excess To Gen, Sync Comp) is included in the unit bid. If one of the more specific reactive power blocks exist (Excess To Gen, Sync Comp), the other can also exist but not the unqualified reactive power block (Reactive Power). At least one of the reactive power blocks must exist for the unit, even if it contains no data.

When re-offering for units with only one contract, the applicable specific label can be optionally used in place of the generic “REACTIVE POWER” label.

When re-offering for units with both ‘Excess to Gen’ and ‘Sync Comp’ contracts, the specific labels must be used (“REACTIVE POWER - EXCESS TO GEN”, “REACTIVE POWER - SYNC COMP”). Use of the generic “REACTIVE POWER” label for one of these contracts causes rejection of the offer. For units with both contracts, the new labels can be used independently (i.e. in two different bid files) or both can be included in the one re-offer.

Each of the reactive power blocks has the same format, except for the heading.

The block for Reactive Power has:

- “REACTIVE POWER” as a compulsory line
- column headings
- data lines (none, one or many)

The block for Excess To Gen has:

- “REACTIVE POWER - EXCESS TO GEN” as a compulsory line
- column headings
- data lines (none, one or many)

The block for SYNC COMP has:

- “REACTIVE POWER - SYNC COMP” as a compulsory line
- column headings
- data lines (none, one or many)

The reactive power block for each unit has column headings for

- “Period”, being the ending time for a half-hour settlement period.
- “Availability”, being availability of service
- “Max Absorpt MVar”, being the total reactive power absorption capability (rather than just the excess), in MVar

- “Max Gener MVar” being the total reactive power generation capability (rather than just the excess), in MVar

The entry under each column heading is a row for each nominated period:

- for “Period”, a time in the 24-hour format ‘hh:mm’ ending with “:00” or “:30”
- for “Availability”, either “Y” or “N”
- for “Max Absorpt MVar”, a non-negative integer less than 10,000
- for “Max Gener MVar”, a non-negative integer less than 10,000

For a Reactive Power example:

REACTIVE POWER			
Period	Availability	Max Absorpt Mvar	Max Gener MVar
08:30	N	0000	0000
17:00	Y	0017	0024

For an Excess To Gen example:

REACTIVE POWER - EXCESS TO GEN			
Period	Availability	Max Absorpt Mvar	Max Gener MVar
08:30	N	0000	0000
17:00	Y	0017	0024

For a SYNC COMP example:

REACTIVE POWER - SYNC COMP			
Period	Availability	Max Absorpt Mvar	Max Gener MVar
08:30	N	0000	0000
17:00	Y	0017	0024

4.2.8 System Restart

The block for System Restart has:

- “SYSTEM RESTART” as a compulsory line
- column headings
- data lines (none, one or many)

The System Restart block for each unit has column headings for

- “Period”, being the ending time for a half-hour settlement period.
- “Availability”, being availability of service

The entry under each column heading is:

- for “Period”, the ending time for a half-hour settlement period on the day, in the format hh:mm (e.g. 00:30) with no duplicates and in ascending sequence

- for “Availability”, either “Y” or “N”

For example:

```
SYSTEM RESTART
-----
Period  Availability
-----
08:30   n
```

4.2.9 Multiple Units in Bid File

For multiple units in a bid file, all sections above from *Unit Identification* (on page 7) to here repeat for each unit.

When there are no more units, the marker for end of the file is compulsory.

4.2.10 End Of File

The end of file marker cannot be followed by anything.

The end of file marker is a line with:

- “END OF FILE”

An example of the end of bid marker is:

```
-----
END OF FILE
-----
```

4.3 File Submission and Processing

Bid files must be submitted to the `\Export\ASBIDS\` directory from each participant’s area on the AEMO Participant File Server.

The Bid Loader creates an acknowledgement (either positive and negative) for each bid file, putting the acknowledgement in the `\Import\Acknowledgments\` directory.

4.3.1 Processing Order for Multiple Files

If more than one file is present in a participant’s `\Export\ASBIDS\` directory, the bid processor handles files in ascending order determined by the modified date on the files.

4.4 AS Re-Offer bid example

```

-----
ANCILLIARY SERVICES RE-OFFER FOR PERIOD 08/03/2004
-----
From:      hydrotas

To:        AEMO

Date Issued: 08/03/2004 16:31

Version:    1

Authorised: Mike Muir
-----

Dispatchable Unit: BASTYAN

        6 Second Up   6 Second Down   60 Second Up   60 Second Down
Period   Availability Availability Availability Availability
-----

5 Minute Contingency
-----
Period  Up MW/min    Down MW/min    Lower          Upper
        -----    -----    Cntrl Limit   Cntrl Limit
-----

LOAD SHEDDING
-----
Period  Control Range
-----

RAPID GENUNIT UNLOADING
-----
Period  Control Range
-----

REACTIVE POWER
-----
Period  Availability  Max Absorpt Mvar  Max Gener MVar
-----
22:30   Y           0020              0011

SYSTEM RESTART
-----
Period  Availability
-----

Dispatchable Unit: CETHANA

        6 Second Up   6 Second Down   60 Second Up   60 Second Down
Period   Availability Availability Availability Availability
-----

5 Minute Contingency
-----
Period  Up MW/min    Down MW/min    Lower          Upper
        -----    -----    Cntrl Limit   Cntrl Limit
-----

LOAD SHEDDING
-----
Period  Control Range
-----
22:00   0010 MW

RAPID GENUNIT UNLOADING
-----
Period  Control Range
-----
22:00   0012 MW

REACTIVE POWER - EXCESS TO GEN
-----
Period  Availability  Max Absorpt Mvar  Max Gener MVar

```

 SYSTEM RESTART

Period Availability

22:00 Y

Dispatchable Unit: DEVILS_G

Period	6 Second Up Availability	6 Second Down Availability	60 Second Up Availability	60 Second Down Availability
-----	-----	-----	-----	-----

5 Minute Contingency

Period	Up MW/min	Down MW/min	Lower Cntrl Limit	Upper Cntrl Limit
-----	-----	-----	-----	-----

LOAD SHEDDING

Period Control Range

RAPID GENUNIT UNLOADING

Period Control Range

REACTIVE POWER - EXCESS TO GEN

Period	Availability	Max Absorpt Mvar	Max Gener MVar
-----	-----	-----	-----
18:00	Y	0014	0015

SYSTEM RESTART

Period Availability

Dispatchable Unit: FISHER

Period	6 Second Up Availability	6 Second Down Availability	60 Second Up Availability	60 Second Down Availability
-----	-----	-----	-----	-----

5 Minute Contingency

Period	Up MW/min	Down MW/min	Lower Cntrl Limit	Upper Cntrl Limit
-----	-----	-----	-----	-----

LOAD SHEDDING

Period Control Range

RAPID GENUNIT UNLOADING

Period Control Range

REACTIVE POWER - SYNC COMP

Period	Availability	Max Absorpt Mvar	Max Gener MVar
-----	-----	-----	-----
18:30	Y	0016	0017

SYSTEM RESTART

Period Availability

 END OF FILE

4.5 AS Re-Offer bid validation

The Bid Loader is insensitive to uppercase or lowercase text, with all input converted to uppercase for internal comparisons.

AS Re-Offer bids are subject to validation as follows:

VALIDATION GROUP	VALIDATIONS
For headings	<ul style="list-style-type: none"> • The heading line must be the first non-ignored line, and begin with “ANCILLIARY SERVICES RE-OFFER FOR PERIOD”. The misspelling of “ANCILLIARY” is embedded in the Bid Loader validation as well as in existing bid file generators. “The related error message is “Invalid or missing header in file”. • The date at the end of the heading line must be a valid date in the format of DD/MM/YYYY starting at least one space after the header string. The related error message is “Invalid date format in header”. • The Heading block must contain lines starting with “FROM:”, “TO:”, “DATE ISSUED:”, “VERSION:” and “AUTHORISED:”. The related error message is “Incorrect or missing field identifier in header”. • The Participant in the file name exists and matches the Participant’s share name. The related error message is “Ancillary Services Re-Offer file ... cannot be submitted by ...”. • The Participant in the file name matches the Participant in the “From:” line of the file heading. The related error message is “mismatch between ParticipantID in the file name (...) and the file content (...)”. • The date in the filename is the same day as the date in the “Date Issued:” line of the Header block. The related error message is “Effective date in header does not match file name date”. • The version number in the file suffix has the same value as the version number in the “Version No:” line of the file heading. The related error message is “Version No. in header does not match file version number”. • The version number in the Heading block must be an integer. The related error message is “Version No. ... invalid.”. • The version number in the “Version No:” line of the file heading cannot be less than 1. The related error message is “Version No. must be greater than 0”. • The version number in the “Version No:” line of the file heading cannot exceed 999. The related error message is “Version No. must be less than 1000”. • The file must be unique in the combination of Participant Identifier (“From:”), Effective Date (“Date Issued:”) and Version (“Version No:”) from all previous submissions. The related error message is “Offer with (... , ... , ...) was already submitted”.

VALIDATION GROUP	VALIDATIONS
	<ul style="list-style-type: none"> The re-offer must identify the authoriser. The related error message is “Authorised by field cannot be blank”.
<p>For unit identification – <i>not required for SRAS</i></p>	<ul style="list-style-type: none"> The unit identification line is after the Heading or after the System Restart block of a previous unit, and starts with “Dispatchable Unit: ”. The related error message is “DUID Section Identifier not found”. The unit must belong to the Participant. The related error message is “Dispatchable Unit ... not registered for Participant ...”. The Bid Loader can insert the record into table OFFERASTRACK. The related error message is “Internal Error. Could not insert tracking record. Error -...”. Please contact the AEMO Information and Support Hub. The Bid Loader can insert record into table PSSCHANGETABLE. The related error message is “Internal Error. Could not update PSSCHANGETABLE. Error - ...”. Please contact the AEMO Information and Support Hub.
<p>For general</p>	<p>The following conditions apply to all types of contract, or, where indicated, to more than one type of contract.</p> <ul style="list-style-type: none"> File must be readable. The related error message is “General Error reading file. Error -...”. Please contact the AEMO Information and Support Hub. The Participant must have registered an associated contract for the unit and the service before re-offering. The related error message is “Error while finding active contracts for dispatchable unit ... - ...”. The Bid Loader receives acceptable headers and lines for each unit, in the expected sequence and layout. The related error message is “General Error reading DUID in bid file. Error -...”. In the data lines for all contract types, any period must be within the day. The related error message is “PeriodID must be between 00:30 and 24:00” In the data lines for all contract types, each period must be on the hour or half-hour, being the end of the half-hour settlement periods. The related error message is “Time value must be at the end of a period”. In the data lines for all contract types, each period must be unique. The related error message is “Values already submitted for period ...”. In the data lines for all contract types, re-offers can only be for current and future time periods. The related error message is “Re-offered periods must be greater than or equal to the current date/period”. In the data lines for all contract types, the periods need to be in sequence of increasing time from the beginning of the day. The related

VALIDATION GROUP	VALIDATIONS
	<p>error message is “Periods must appear in ascending order”.</p> <ul style="list-style-type: none"> • In the data lines for LOAD SHEDDING and RAPID GENUNIT UNLOADING, each value for “Control Range” must be a number. The related error message is “Invalid integer value for column”. • In the data lines for LOAD SHEDDING and RAPID GENUNIT UNLOADING, each value for “Control Range” must be a whole number (i.e. without a decimal point). The related error message is “Re-offered values must be integers”. • In the data lines for LOAD SHEDDING and RAPID GENUNIT UNLOADING, each value for “Control Range” must be not be less than zero. The related error message is “The lower bound for re-offered values is 0”. • In the data lines for LOAD SHEDDING and RAPID GENUNIT UNLOADING, each value for “Control Range” must be not greater than 9999. The related error message is “The upper bound for re-offered values is 9999”.
For governor	<ul style="list-style-type: none"> • In the Governor block, the second column heading line must start with “Period” and the rest of the line contain the case-insensitive strings “Availability”, “Availability”, “Availability” and “Availability”. The related error message is “Could not find column ...”. • For any data lines, a contract for Governor must already exist and be effective for the re-offer to be acceptable. The related error message is “No Governor Control contract was found for unit ... for ...”. • In the data lines for Governor block, all Availability columns must have a value of either “Y” or “N” (case-insensitive). The related error message is “Availability columns must contain "Y" or "N"”. • In the data lines for Governor, the Bid Loader can successfully read and interpret all items. The related error message is “Error while reading period values for governor control section -...”.
For 5 Minute Contingency (AGC)	<ul style="list-style-type: none"> • In the block for 5 Minute Contingency (AGC), the first column heading line must start with “Period” and the rest of the line contain the case-insensitive strings “Up MW/min”, “Down MW/min”, “Lower” and “Upper”. The related error message is “Could not find column ...”. • For any data lines, a contract for 5 Minute Contingency (AGC) must already exist and be effective for the re-offer to be acceptable. The related error message is “No AGC contract was found for unit ... for ...”. • In the data lines for 5 Minute Contingency (AGC), each value for “Up MW/min”, “Down MW/min”, “Lower Cntrl Limit” and “Upper Cntrl Limit” must be a number. The related error message is “Invalid integer value for column”. • In the data lines for 5 Minute Contingency (AGC), each value for “Up

VALIDATION GROUP	VALIDATIONS
	<p>MW/min”, “Down MW/min”, “Lower Cntrl Limit” and “Upper Cntrl Limit” must be a whole number (i.e. without a decimal point). The related error message is “Re-offered values must be integers”.</p> <ul style="list-style-type: none"> • In the data lines for 5 Minute Contingency (AGC), each value for “Up MW/min”, “Down MW/min”, “Lower Cntrl Limit” and “Upper Cntrl Limit” must be not be less than zero. The related error message is “The lower bound for re-offered values is 0”. • In the data lines for 5 Minute Contingency (AGC), each value for “Up MW/min”, “Down MW/min”, “Lower Cntrl Limit” and “Upper Cntrl Limit” must be not be greater than 9999. The related error message is “The upper bound for re-offered values is 9999”. • In the data lines for 5 Minute Contingency (AGC), the “Lower Cntrl Limit” cannot exceed the “Upper Cntrl Limit”. The related error message is “AGC upper limit must exceed or match the AGC lower limit”. • In the data lines for 5 Minute Contingency (AGC), the Bid Loader can successfully read and interpret all items. The related error message is “Error while reading period values for AGC Section -...”.
For Load Shedding	<ul style="list-style-type: none"> • In the block for Load Shedding, the first column heading line must start with “Period” and the rest of the line contain the case-insensitive string “Control Range”. The related error message is “Could not find column ...”. • For any data lines, a contract for Load Shedding must already exist and be effective for the re-offer to be acceptable. The related error message is “No Load Shed contract was found for unit ... for ...”. • In the data lines for Load Shedding, the Bid Loader can successfully read and interpret all items. The related error message is “Error while reading period values for Load Shedding Section - ...”.
For Rapid GenUnit Unloading	<ul style="list-style-type: none"> • In the block for Rapid GenUnit Unloading, the first column heading line must start with “Period” (case-insensitive) and the rest of the line contain the case-insensitive string “Control Range”. The related error message is “Could not find column ...”. • For any data lines, a contract for Rapid GenUnit Unloading must already exist and be effective for the re-offer to be acceptable. The related error message is “No RGUL contract was found for unit ...”. • In the data lines for Rapid GenUnit Unloading, the Bid Loader can successfully read and interpret all items. The related error message is “Error while reading period values for RGUL Section - ...”.
For Reactive Power (including	<ul style="list-style-type: none"> • If a unit has a generic reactive power service, then the unit can only have one reactive power service. Equivalently, if a unit has a specific reactive power service, then it cannot have a generic power service. The related error message is “... is defined for more than one concurrent Reactive

VALIDATION GROUP	VALIDATIONS
Excess To Gen and Sync Comp)	<p>Power service - label "REACTIVE POWER" is ambiguous".</p> <ul style="list-style-type: none"> • If the re-offer has the generic Reactive Power heading, then it cannot have either of the specific Reactive Power headings. "Offer can include either generic "REACTIVE POWER" header or specific headers "REACTIVE POWER - EXCESS TO GEN" and/or "REACTIVE POWER - SYNC COMP", but not both". • A re-offer cannot contain both a generic Reactive Power block and an Excess To Gen block. The related error message is "Generic "REACTIVE POWER" offer already made - offer cannot contain both generic Reactive Power offer and specific "REACTIVE POWER - EXCESS TO GEN" labels". • A re-offer cannot contain both a generic Reactive Power block and a Sync Comp block. The related error message is "Generic "REACTIVE POWER" offer already made - offer cannot contain both generic Reactive Power offer and specific "REACTIVE POWER - SYNC COMP" labels". • In the blocks for each Reactive Power, the first column heading line must start with "Period" (case-insensitive) and the rest of the line contain the case-insensitive strings "Availability", "Max Absorpt MVar" and "Max Gener MVar". The related error message is "Could not find column ...". • For any data lines in a generic Reactive Power block, a contract for Reactive Power must already exist for a re-offer to be acceptable. The related error message is "No Reactive Power contract was found for unit ... for ...". • For any data lines in an Excess to Gen block, a contract for Reactive Power Excess to Gen must already exist for a re-offer to be acceptable. The related error message is "No Reactive Power Excess To Gen contract was found for unit ... for ...". • Excess to Gen in a Sync Comp block, a contract for Reactive Power Sync Comp must already exist for a re-offer to be acceptable. The related error message is "No Reactive Power Sync Comp contract was found for unit ... for ...". • In the data lines for any Reactive Power block, each value for "Max Absorpt MVar" and "Max Gener MVar" must be a number. The related error message is "Invalid integer value for column". • In the data lines for any Reactive Power block, each value for "Max Absorpt MVar" and "Max Gener MVar" must be a whole number (i.e. without a decimal point). The related error message is "Re-offered values must be integers". • In the data lines for any Reactive Power block, each value for "Max Absorpt MVar" and "Max Gener MVar" must be not be less than zero. The related error message is "The lower bound for re-offered values is 0".

VALIDATION GROUP	VALIDATIONS
	<ul style="list-style-type: none"> • In the data lines for any Reactive Power block, each value for “Max Absorpt MVar” and “Max Gener MVar” must be not be greater than 9999. The related error message is “The upper bound for re-offered values is 9999”. • In the data lines for any Reactive Power block, the value for “Availability” must be case-insensitive “Y” or “N”. The related error message is “Availability columns must contain "Y" or "N"”. • In the data lines for any Reactive Power block, the Bid Loader can successfully read and interpret all items. The related error message is “Error while reading period values for Reactive Power Section - ...”.
For System Restart	<ul style="list-style-type: none"> • In the System Restart block, the first column heading line must start with “Period” (case-insensitive) and the rest of the line contain the case-insensitive string “Availability”. The related error message is “Could not find column ...”. • In the data lines for System Restart, the value for “Availability” must be case-insensitive “Y” or “N”. The related error message is “Availability columns must contain "Y" or "N"”. • In the data lines for System Restart, the Bid Loader can successfully read and interpret all items. The related error message is “Error while reading period values for System Restart Section - ...”. • A contract for System Restart must already exist for a re-offer to be acceptable. The related error message is “No System Restart contract was found for unit ... for ...”.

5. Needing Help?

To assist participants with IT related issues and provide guidance for requesting assistance from AEMO, please see the web page “IT Assistance” (<http://www.aemo.com.au/en/About-AEMO/Energy-Market-Registration/Understanding-Energy-Market-Information-Systems/IT-Assistance>, Home > About AEMO > Energy Market Registration > Understanding Energy Market Information Systems > IT Assistance, viewed on 11 July 2012).

To contact the AEMO Information and Support Hub:

- Phone: 1300 AEMO 00 (1300 226 600).
- E-mail: supporthub@aemo.com.au.