

MTPASA BID FORMAT AND VALIDATION

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Executive Summary

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Table of Contents

1.	Reference	5
1.1	Abbreviations	5
1.2	References	5
1.2.1	Documents made obsolete	5
2.	MTPASA Bid file	5
2.1	File name	5
2.2	Layout	6
2.3	File Submission and Processing	8
2.4	MTPASA bid example	9
2.5	MTPASA bid validation	9
3.	MTPASA Acknowledgement files	10
3.1	File name	10
3.2	Layout	11
3.3	File Location	11
3.4	MTPASA Acknowledgement example	11

1. Reference

1.1 Abbreviations

Abbreviation	Abbreviation Explanation
Rules	National Electricity Rules (NER)
CSV	comma-separated variable
MMS	Market Management System; software, hardware, network and related processes to implement the National Electricity Market (NEM); a AEMO department responsible for maintaining the system
MTPASA	Medium Term Projected Assessment of System Adequacy
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 *MTPASA Bid Format and Validation*. No documents are made obsolete by releasing this document.

2. MTPASA Bid file

This section details the interface provided to Market participants to submit and maintain Medium Term Projected Assessment of System Adequacy (MTPASA) Bids. This information must be submitted to AEMO through NEMNet to the participant file server.

The Market Participant creates the bids. To be valid bids, they must be provided using the Bidding Spreadsheet (provided by AEMO) or an alternative system provided by the Participant.

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

The response to a bid file is an acknowledgement file, either positive (accepted) or negative (rejected, with errors). For more details, refer to *MTPASA Acknowledgement files* on page 10.

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

2.1 File name

The file name identifies the Participant, the effective starting date, plus the date and time of submission. The characteristic identifying the file as a MT PASA bid file is that the name contains the string “_MTPASA_” somewhere in the name (i.e. matches the windows search string “*_MTPASA_*.csv”). 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_MTPASA_20040314_20040308162815.csv”, the components of the name are as follows:

- “ppp” is the assigned Participant Identifier for the Participant submitting the bid file
- “_MTPASA_” is the fixed part of the file name identifying this as a bid
- “20040314” is the date for the first effective transaction in the bid file. The date is in the form YYYYMMDD (being the 4 digit year, 2 digit month, 2 digit day).
- “_20040308162815” is the date and time of creation of the file, preceded by an underscore. The date is in the form YYYYMMDDhhmmss (being the 4 digit year, 2 digit month, 2 digit day, 2 digit hour in 24-hour count, 2 digit minute and 2 digit second).

2.2 Layout

The bid file starts with a comment line followed by the fixed format information line then the data lines.

The bid file allows for multiple generators. Each data line is for one week, notifying the weekly energy limit and the capacity for each day in the week.

The bid file ends with a comment line clearly identifying the end of the bids, plus a file validation check.

Blank lines are not normally used, but the Bid Loader ignores empty lines.

Comment Line

The first line starts with a “C”, indicating it is a comment line. Some fields in the first comment line are subject to validation rules and others are optional. The fields are (each followed by a comma):

- single character “C” (required)
- intended target system (optional), for example “Production”
- system identifier (required), being “MTPASA”
- source participant identifier (required), for example “HYDROTAS”
- target (required), being “NEMMCO”
- creation date (optional) in the format YYYY/MM/DD
- creation time (optional) in the format HH:MM:SS
- name of authorising person (optional)
- version number (optional), being a number of 1 to 3 digits

For example:

```
C,Production,MTPASA,HYDROTAS,NEMMCO,2004/03/08,16:28:17,Mike Muir,1,
```

The simplest acceptable first comment line has seven fields, being

```
C,,MTPASA,participantid,NEMMCO,,,,
```

The participant identifier is in three places, being in the file contents (fourth field of first comment line), the file name and the file share name of the submission directory. All three of these must agree for the file to be acceptable.

Information Line

The information line is the column headings for the following data. The line is ignored for validation purposes, but is useful for human readers.

```
I,MTPASA,BID,1,DATE,DUID,ENERGY,CAPACITY1,CAPACITY2,CAPACITY3,CAPACITY4,CAPACITY5,CAPACITY6,CAPACITY7,
```

Data Line

Each data line is one week with energy limit in MWhr (**ENERGY** field) and seven daily unit availabilities in MW from Sunday to Saturday (**CAPACITYn** fields). The fields are (each followed by a comma, including the last):

- single character “D”, indicating a data line
- report type identifier, being “MTPASA”
- report sub-type identifier, being “BID”
- report format version number, being “1”
- date of Sunday starting the week, in the format YYYY/MM/DD
- DUID of the generator unit
- Weekly energy limit in MWhr, with no value meaning no energy limit
- Daily capacity of the unit (seven times), in the inclusive range of zero to the registered maximum capacity

The first date must be a Sunday in the future, usually being the next Sunday after the bid creation. Successive data lines are for the same unit at weekly intervals for the period of the projection (usually two years). Other units can follow for as many as relevant.

Data lines have no spaces, including before numbers and for empty fields.

For example (with lines deleted for brevity):

```

D,MTPASA,BID,1,2004/03/14,BASTYAN,,80,80,80,80,80,80,80,
D,MTPASA,BID,1,2004/03/21,BASTYAN,,80,80,80,80,80,80,80,
D,MTPASA,BID,1,2004/03/28,BASTYAN,,80,80,80,80,80,80,80,
D,MTPASA,BID,1,2004/04/04,BASTYAN,,80,80,80,80,80,80,80,
...
D,MTPASA,BID,1,2007/01/07,BASTYAN,,80,80,80,80,80,80,80,
D,MTPASA,BID,1,2007/01/14,BASTYAN,,80,80,80,80,80,80,80,
D,MTPASA,BID,1,2007/01/21,BASTYAN,,80,80,80,80,80,80,80,
D,MTPASA,BID,1,2004/03/14,CETHANA,,85,85,85,85,85,85,85,
D,MTPASA,BID,1,2004/03/21,CETHANA,,85,85,85,85,85,85,85,
D,MTPASA,BID,1,2004/03/28,CETHANA,,85,85,85,85,85,85,85,
...
D,MTPASA,BID,1,2007/01/14,CETHANA,,85,85,85,85,85,85,85,
D,MTPASA,BID,1,2007/01/21,CETHANA,,85,85,85,85,85,85,85,

```

End of Bid line

The end of the file is with a line containing:

- the string “C,END OF REPORT,”
- the number of rows in the file (including this row) with no space before and followed by a comma and line termination

For example:

```
C,END OF REPORT,2853,
```

2.3 File Submission and Processing

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

Processing Order for Multiple Files

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

2.4 MTPASA bid example

```

C,Production,MTPASA,HYDROTAS,NEMMCO,2004/03/08,16:28:17,Mike Muir,1,
I,MTPASA,BID,1,DATE,DUID,ENERGY,CAPACITY1,CAPACITY2,CAPACITY3,CAPACITY4,CAPACITY5,CAPACITY6,CAPACITY
7,
D,MTPASA,BID,1,2004/03/14,BASTYAN,,80,80,80,80,80,80,80,
D,MTPASA,BID,1,2004/03/21,BASTYAN,,80,80,80,80,80,80,80,
D,MTPASA,BID,1,2004/03/28,BASTYAN,,80,80,80,80,80,80,80,
D,MTPASA,BID,1,2004/04/04,BASTYAN,,80,80,80,80,80,80,80,
...
D,MTPASA,BID,1,2007/01/07,BASTYAN,,80,80,80,80,80,80,80,
D,MTPASA,BID,1,2007/01/14,BASTYAN,,80,80,80,80,80,80,80,
D,MTPASA,BID,1,2007/01/21,BASTYAN,,80,80,80,80,80,80,80,
D,MTPASA,BID,1,2004/03/14,CETHANA,,85,85,85,85,85,85,85,
D,MTPASA,BID,1,2004/03/21,CETHANA,,85,85,85,85,85,85,85,
D,MTPASA,BID,1,2004/03/28,CETHANA,,85,85,85,85,85,85,85,
...
D,MTPASA,BID,1,2007/01/14,CETHANA,,85,85,85,85,85,85,85,
D,MTPASA,BID,1,2007/01/21,CETHANA,,85,85,85,85,85,85,85,
...
C,END OF REPORT,2853,

```

2.5 MTPASA bid validation

MTPASA bids are subject to validation as follows, with any error messages appearing the negative acknowledgement file (see *MTPASA Acknowledgement files* on page 10):

1. The Participant in file name exists and matches the Participant's share name. The related error message is "Participant ... cannot submit a file for ...".
2. The file name is unique. The related error message is "Bid file name is not unique".
3. The header record has the format "C,,MTPASA,ppp,NEMMCO,," as a minimum (where "ppp" is the Participant Identifier). The related error message is "Incorrect first record".
4. The Participant Identifier on the Header Line is the same as the Participant Identifier in the file name. The related error message is "Participant ID on first record does not match file name".
5. The file contains at least two records. The related error message is "File must have at least two records".
6. The file contains lines beginning with "C", "I" or "D". The bid processor ignores "I" lines, and "C" lines after the first. The related error message is "Invalid Line".
7. Each data line starts with "D,MTPASA,BID,1, ". The related error message is "Invalid data record".
8. Each data line contains at least 14 fields in total. The related error message is "Not enough fields".
9. The **DATE** field in each data line is a future Sunday. The related error message is "Date is not a Sunday in the future (...)".

10. The **ENERGY** field in each data line is an integer. The related error message is “Energy is NOT a positive integer for ... on ...”.
11. The **ENERGY** field in each data line is not less than zero. The related error message is “Energy is less than zero”.
12. The **CAPACITYn** fields in each data line are an integer. The related error message is “Capacity ... is NOT a positive integer for ... on ...”.
13. The unit is registered as active. The related error message is “Dispatchable Unit ... invalid or not active on ...”.
14. The Participant owns the **DUID** on the **DATE**. The related error message is “The ... cannot submit bid for ... unit ... on ...”.
15. The **ENERGY** (if specified) is not greater than the weekly maximum capacity (7 times daily maximum capacity) for the unit (**DUID**). The related error message is “Energy is greater than a weeks max capacity for unit ... on ...”.
16. Each capacity (**CAPACITYn**) is not greater than the daily maximum capacity for the unit (**DUID**). The related error message is “Capacity ... is greater than max capacity for unit ... on ...”.
17. The End of Bid line starts with “C,END OF REPORT,” and has a field for validation count. The related error message is “Incorrect last record”.
18. The validation count is an integer. The related error message is “END OF REPORT record count is not an integer”.
19. The validation count matches the number of lines in the file, including the End of Bid line itself. The related error message is “END OF REPORT record count is incorrect - should be ...”.

3. MTPASA Acknowledgement files

This section details the acknowledgement provided to Market participants after submitting a Medium Term Projected Assessment of System Adequacy (MTPASA) Bid. This information is on the participant file server available for access using NEMNet.

The Bid Loader creates the acknowledgement file in response to the Market Participant submitting a bid (see *MTPASA Bid file* on page 5).

Acknowledgement files are text files in a comma-separated variable (CSV) layout. The positive acknowledgement (i.e. accepted) has the same contents as the bid file, but a different name. The negative acknowledgement (i.e. rejected) has any error messages inserted in the file, and the control record updated accordingly.

3.1 File name

The file name is similar to the MTPASA Bid file (see *MTPASA Bid file* on page 5), with the only difference being the use of a different suffix (or file type).

The positive acknowledgement (i.e. accepted) has a suffix of “.A” (for Acknowledged) and the negative (rejected, with errors) has a suffix of “.C” (for Corrupt).

3.2 Layout

The MTPASA Acknowledgement file is the same format as the bid file, with the addition of any error messages as data lines. For details of the bid file layout, see *Layout* on page 6.

Error line

The error line is a data line with an error message, as follows:

- single character “D”, indicating a data line
- report type identifier, being “ERRORMSG”
- report sub-type identifier, being “MTPASA”
- report format version number, being “1”
- error message, in quotes

For a list of the possible error messages from the Bid Loader, see *MTPASA bid validation* on page 9.

For example:

```
D,ERRORMSG,MTPASA,1,"Not enough fields"
```

3.3 File Location

Acknowledgement files go into the `Import\PASA\` directory in each participant’s area on the AEMO Participant File Server. In cases where participant validation fails, the location of the acknowledgement is based on the directory for submission of the bid.

3.4 MTPASA Acknowledgement example

The positive acknowledgement file (“.A”, for no errors) is identical in content to the submitted bid file (see *MTPASA bid example* on page 9).

An example of a negative acknowledgement file (“.C”, with errors) is:

```
C,Production,MTPASA,ppp,NEMMCO,2003/09/18,08:36:46,Mike Muir,1,
I,MTPASA,BID,1,DATE,DUID,ENERGY,CAPACITY1,CAPACITY2,CAPACITY3,CAPACITY4,CAPACITY5,CAPACITY6,CAPACITY
7,
D,MTPASA,BID,1,2003/11/02,Unit1,,426,427,428,429,430,431,432,
D,MTPASA,BID,1,2003/11/09,Unit1,,425,425,425,425,425,425,425,
D,MTPASA,BID,1,2003/11/16,Unit1,,425.20,-425,XXX,425,425,425,425,
D,ERRORMSG,MTPASA,1,"Capacity 1 is NOT a positive integer for Unit1 on 2003-11-16"
D,ERRORMSG,MTPASA,1,"Capacity 2 is NOT a positive integer for Unit1 on 2003-11-16"
D,ERRORMSG,MTPASA,1,"Capacity 3 is NOT a positive integer for Unit1 on 2003-11-16"
D,MTPASA,BID,1,2003/11/23,Unit1,,425,425,425,425,
D,ERRORMSG,MTPASA,1,"Not enough fields"
D,MTPASA,BID,1,2003/11/30,Unit1,,425,425,425,425,425,425,425,
D,MTPASA,BID,1,2003/12/07,Unit1,,425,425,425,425,425,425,425,
D,MTPASA,BID,1,2003/12/14,Unit1,,425,425,425,425,425,425,425,
```

```

D,MTPASA,BID,1,2003/12/21,UnitX,,425,425,425,425,425,425,425,
D,ERRORMSG,MTPASA,1,"ppp cannot submit bid for ppp2 unit UnitX on 2003-12-21"
D,ERRORMSG,MTPASA,1,"Capacity 1 is greater than max capacity for unit UnitX on 2003-12-21"
D,ERRORMSG,MTPASA,1,"Capacity 2 is greater than max capacity for unit UnitX on 2003-12-21"
D,ERRORMSG,MTPASA,1,"Capacity 3 is greater than max capacity for unit UnitX on 2003-12-21"
D,ERRORMSG,MTPASA,1,"Capacity 4 is greater than max capacity for unit UnitX on 2003-12-21"
D,ERRORMSG,MTPASA,1,"Capacity 5 is greater than max capacity for unit UnitX on 2003-12-21"
D,ERRORMSG,MTPASA,1,"Capacity 6 is greater than max capacity for unit UnitX on 2003-12-21"
D,ERRORMSG,MTPASA,1,"Capacity 7 is greater than max capacity for unit UnitX on 2003-12-21"
D,MTPASA,BID,1,2003/12/28,Unit1,,425,425,425,425,425,425,425,
D,MTPASA,
D,ERRORMSG,MTPASA,1,"Invalid data record"
D,MTPASA,BID,1,2004/01/11,Unit1,,425,425,425,425,425,425,425,
D,MTPASA,BID,1,2004/01/18,Unit1,,425,425,425,425,425,425,425,
D,MTPASA,BID,1,2004/01/25,Unit2,,425,425,425,425,425,425,425,
D,ERRORMSG,MTPASA,1,"Dispatchable Unit Unit2 invalid or not active on 2004-01-25"
D,MTPASA,BID,1,2004/02/01,Unit1,,425,425,425,425,425,425,425,
D,MTPASA,BID,1,2004/02/08,Unit1,,425,425,425,425,425,425,425,
D,MTPASA,,,,,,,,,,,,,
D,ERRORMSG,MTPASA,1,"Invalid data record"
D,MTPASA,BID,1,2004/02/21,Unit1,,425,425,425,425,425,425,425,
D,ERRORMSG,MTPASA,1,"Date is not a Sunday in the future (2004-02-21)"
D,MTPASA,BID,1,2004/02/29,Unit1,,425,425,425,425,425,425,425,
D,MTPASA,BID,1,2004/03/07,Unit1,,425,425,425,425,425,425,425,
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
D,ERRORMSG,MTPASA,1,"Invalid Line"
D,MTPASA,BID,1,2004/03/14,Unit1,88000,425,425,425,425,425,425,425,
D,ERRORMSG,MTPASA,1,"Energy is greater than a weeks max capacity for unit Unit1 on 2004-03-14"
D,MTPASA,BID,1,2004/03/21,Unit1,,425,425,99000,425,425,425,425,
D,ERRORMSG,MTPASA,1,"Capacity 3 is greater than max capacity for unit Unit1 on 2004-03-21"
D,MTPASA,BID,1,2004/03/28,Unit1,,425,425,425,425,425,425,425,
D,MTPASA,BID,1,2004/04/04,Unit1,,425,0,0,0,0,0,0,0,
D,MTPASA,BID,1,2004/04/11,Unit1,,0,0,0,0,0,0,0,0,
D,MTPASA,BID,1,2004/04/18,Unit1,,0,0,0,0,0,0,0,0,
D,MTPASA,BID,1,2004/04/25,Unit1,,0,425,425,425,425,425,425,425,
D,MTPASA,BID,1,2004/05/02,Unit1,AA,425,425,425,425,425,425,425,
D,ERRORMSG,MTPASA,1,"Energy is NOT a positive integer for Unit1 on 2004-05-02"
D,MTPASA,BID,1,2004/05/09,Unit1,-1,425,425,425,425,425,425,425,
D,ERRORMSG,MTPASA,1,"Energy is NOT a positive integer for Unit1 on 2004-05-09"
D,MTPASA,BID,1,2004/05/16,Unit1,,425,425,425,425,425,425,425,
D,MTPASA,BID,1,2004/05/23,Unit1,,425,425,425,425,425,425,425,
D,MTPASA,BID,1,2004/05/30,Unit1,,425,425,425,425,425,425,425,
. . .
D,MTPASA,BID,1,2006/05/21,MPP_2,,425,425,425,425,425,425,425,
D,MTPASA,BID,1,2006/05/28,MPP_2,,425,425,425,425,425,425,425,
D,ERRORMSG,MTPASA,1,"Incorrect last record"
C,END OF REPORT,305

```