GUIDE TO GAS BULLETIN BOARD DATA SUBMISSIONS

HOW TO PREPARE AND SUBMIT GBB DATA

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AEMO
AUSTRALIAN ENERGY MARKET OPERATOR

IMPORTANT NOTICE

Purpose

These Guide to Gas Bulletin Board Participant Submission Interface are made by AEMO under section 227 of the National Gas Law to specify the manner and form for providing information to AEMOfor the *Bulletin Board* under Part 18 of the National Gas Rules (Rules), as at the date of publication, and have effect only for the purposes set out in the Rules. The Rules, the National Gas Law and the document named the BB Procedures prevail over these Gas Bulletin Board Data Submission Procedures to the extent of any inconsistency.

Document Identification

Business custodian: Manager, Gas Market Monitoring

IT custodian: Manager, Market Systems

Prepared by: Technical Writer

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Version History

0.1 First draft

0.2 Added formatting information for CSV description fields.

0.3 Removed Company Id from JSON examples.

0.4 Added data submission types.

0.5 Updated CSV and JSON examples

0.6 Added section for CSV Data Submission via Marketnet

0.7 Modifed FTP upload details

1.0 Final version to support Bulletin Board redevelopment

2.0 Final version to include changes to support Pipeline Capacity Trading *Rule* changes

2.1 Update of existing BB reports to support Pipeline Capacity Trading *Rule* changes

What's changed in v2.1

Item	What's changed
Support Part 24 Participants	Modified existing submissions to include Part 24 facilities Addition of new BB Capacity Transaction submission

Further Information

For further information, please visit AEMO's website http://gbb.aemo.com.au/ or contact:

AEMO Information and Support Hub Phone: 1300 AEMO 00 (1300 236 600) and follow the prompts.
Email: *supporthub@aemo.com.au*

Feedback

Your feedback is important and helps us improve our services and products. To suggest improvements, please contact AEMO's Information and Support Hub.

CONTENTS

1. INTRODUCTION

1.1 Purpose

This guide describes the methods and format that must be used by *BB reporting entities* to submit forecast and actual data to AEMO's Natural Gas Services Bulletin Board.

1.2 Audience

This guide is for gas *Market Participants* submitting transaction data in accordance with Division 5 of the Rules.

The intended audience is technical and software development staff, responsible for IT systems implementation.

1.3 What's in this guide

- "Technical overview" provides an overview of the *BB reporting entity* transfer mechanisms and BB data submission requirements.
- "Data submission requirements" provides a list and description of transaction data *BB reporting entities* need to provide.
- "Data Identifiers" details the naming conventions for key data identifiers and CSV files.
- "data submission" describes the requirements and process for submitting transaction data using FTP
- "RESTful web services data submission" provides information for submitting data using HTTP POST requests.

1.4 Related resources

Resource	Description
Guide to AEMO's e-Hub APIs	Guide on AEMO's API standards and how to use the AEMO API Portal.
AEMO API Portal (pre-production environment)	Web portal for BB API information and API guides.
AEMO API Portal (production environment)	Web portal for BB API information and API guides.
Capacity Outlook	Specification for submitting Capacity Outlook data to the BB.
Daily Production and Flow	Specification for submitting Daily Production and Flow data to the BB.
Daily Storage	Specification for submitting Daily Storage data to the BB.
Gate Station Nameplate Rating	Specification for submitting Gate Station Nameplate Rating data to the BB.
Connection Point Nameplate Rating	Specification for submitting Connection Point Nameplate Rating data to the BB.
Linepack Capacity Adequacy	Specification for submitting Linepack Capacity Adequacy data to the BB.
Medium Term Capacity Outlook	Specification for submitting Medium Term Capacity Outlook data to the BB.
Nameplate Rating	Specification for submitting Nameplate Rating data to the BB.
Nomination and Forecasts	Specification for submitting Nomination and Forecasts data to the BB.
Secondary Pipeline Capacity Bid and Offer Summary	Specification for submitting Secondary Pipeline Capacity Bid and Offer Summary data to the BB.
Secondary Pipeline Capacity Trade Summary	Specification for submitting Secondary Pipeline Capacity Trade Summary data to the BB.

Resource	Description
Uncontracted Capacity Outlook	Specification for submitting Uncontracted Capacity Outlook data to the BB.

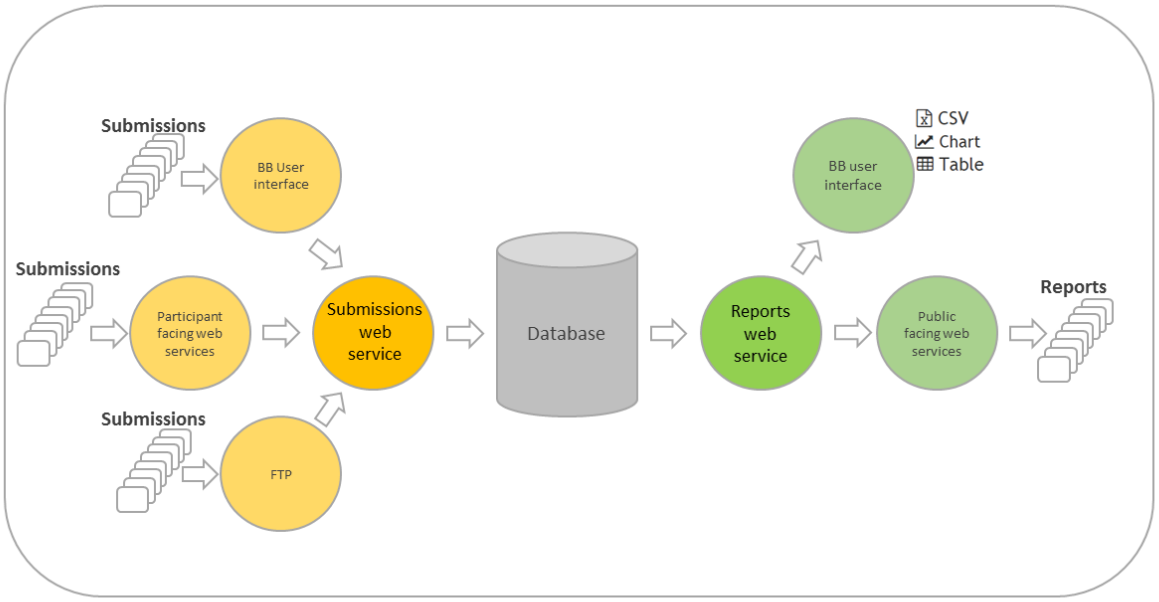
2. TECHNICAL OVERVIEW

Data exchange between Participants and the BB consists of:

- Participants submitting data to the BB, and
- Participant retrieving data reports from the BB.

Figure 1 illustrates the mechanisms at a conceptual level.

Figure 1 BB data exchange mechanisms



Data submission from *BB reporting entities* to the BB are divided into two key areas:

- Data transfer formats which includes the form, validation rules, and timing of submissions.
- Data submission methods to the BB, and how the success and failure of those submissions is communicated back to the submitter.

There are several data submission methods available to the BB:

- BB user interface file upload (under development): CSV file upload using the BB website upload page.
- CSV file transfer using FTP.
- RESTful web services: HTTPS POST request using RESTful interfaces.

Any data submission methods may be used depending on the IT systems and requirements of the *BB reporting entity*.

All *BB reporting entities* submitting data to the BB must be registered in accordance with the Rules to be given access credentials to the BB.

3. DATA SUBMISSION REQUIREMENTS

In addition to the requirements in the National Gas Rules and the document named the *BB Procedures*, these Gas Bulletin Board Data Submission Procedures specify the way information is to be provided to AEMO as required by the Rules.

Data provision responsibilities details the data provision responsibilities of all *BB entities* as defined within Division 5 of the Rules.

Individual transaction data specifications are provided on the Gas Bulletin Board..

Table 1 **Data provision responsibilities**

BB Participant / Transaction	Description	Reporting frequency	Production Facility Operators	Storage Facility Operators	Pipeline Operators	Submission cut-off times
Short Term Capacity Outlook	Provides on each gas day D, the *BB facility* operator's good faith estimate of the daily capacity of the *BB facility* for gas days D+1 to D+7.	Daily	●	●	●	7:00 pm on gas day D.
Daily Production and Flow	Provides on each gas day D, the *BB facility* operator's daily gas flow data for injections and withdrawals at each connection point for gas day D.	Daily	●	●	●	1:00 pm on gas day D+1.
Daily Storage	Provides on each gas day D, the actual quantity of natural gas held in each *BB storage facility* at the end of gas day D.	Daily		●		1:00 pm on gas day D+1.
Gate Station Nameplate Rating	Provides the nameplate rating for each gate station connection point owned, controlled, or operated by the *BB pipeline* operator and connected to each of its *BB pipelines*. Where a gate station connection point that is connected to a *BB pipeline* is not owned by the *BB pipeline* operator, the nameplate rating will be provided by the *BB pipeline* operator if available.	Annually			●	31 March annually and whenever the standing capacity changes.
Connection Point Nameplate Rating	Provides the nameplate rating for each connection point owned, controlled, or operated by the facility operator and connected to each of its *BB pipelines* or *transitional compression facilities*. Where a connection point that is connected to a *BB pipeline* or *transitional compression facility* is not owned by the facility operator, the nameplate rating will be provided by the *BB pipeline* or *transitional compression facility* operator if available.	Annually			●	31 March annually and whenever the standing capacity changes.

Linepack Capacity Adequacy	Provides on each gas day D, the *BB pipeline* operator's Linepack Capacity Adequacy (LCA) flag for gas days D to D+2.	Daily			●	7:00 pm on gas day D.
Medium Term Capacity Outlook	Provides details of any activity expected to affect the daily capacity of a *BB pipeline*, *BB production* or *BB storage facility* in the next 12 months.	Adhoc	●	●	●	Whenever the Medium-Term Capacity changes.
Nameplate Rating	Provides the nameplate rating of each *BB facility* annually or information about any planned permanent capacity reduction or expansion due to modification of the *BB facility*.	Annually	●	●	●	31 March annually and whenever the standing capacity changes.
Nomination and Forecasts	• For *BB pipelines* forming part of a Declared Transmission System, provides on each gas day D, the aggregated scheduled injections and withdrawals at each controllable system point for gas days D+1 and D+2. • For all other *BB facility* operators, provides on each gas day D the aggregate nominated and forecast injections and withdrawals at each connection point for gas days D+1 to D+6.	Daily	●	●	●	9:00 pm on gas day D.
Secondary Pipeline Capacity Bid and Offer Summary	Provides information on spare capacity for *BB pipelines*. This is limited to *BB pipelines* where the *BB pipeline* operator owns, controls or operates a secondary *BB pipeline* capacity trading platform.	Weekly			●	7:00 pm every Monday.
Secondary Pipeline Capacity Trade Summary	Provides information on secondary pipeline capacity trades that have occurred. This is limited to *BB pipelines* where the pipeline operator owns, controls or operates a secondary pipeline capacity trading platform.	Weekly			●	7:00 pm every Monday.
Uncontracted Capacity Outlook	• Uncontracted primary pipeline capacity on *BB pipelines* for the next 12 months. Note: This does not include *BB pipelines* in the Declared Transmission System. • Uncontracted storage capacity on *BB storage facilities* for each of the next 12 months.	Monthly		●	●	7:00 pm on the last gas day of each month.

Legend

● Obligation under the *Rules* to provide data to AEMO.

4. DATA IDENTIFIERS

This chapter describes the conventions for key data identifiers when submitting transaction data.

4.1 Facility identifiers

Facility identifiers (FacilityId) used in transactions and reports subscribe to the following format:

```
5[2-8]((?!0000)[0-9]{4})
```

Item	Description	Values
1	Energy type identifier	5 Gas
2	State code of element	2 NSW and ACT 3 Victoria 4 Queensland 5 South Australia 6 Western Australia 7 Tasmania 8 Northern Territory
3	State based unique identifying number	1 to 9999

FacilityIds have the following characteristics:

- FacilityIds are defined and allocated by AEMO to *BB reporting entities* during the registration process.
- A *BB reporting entity* may report on multiple FacilityIds.

For example, FacilityId “520345” relates to an element (*BB reporting entity*) within NSW and ACT with a unique identifier of “0345” which is related to the gas industry.

4.2 Connection Point Identifiers

Connection Point identifiers (ConnectionPointId) used in transactions and reports subscribe to the following format:

```
1[2-8]((?!00000)[0-9]{5})
```

Item	Description	Values
1	Connection point identifier	1
2	State code of element	2 NSW and ACT 3 Victoria 4 Queensland 5 South Australia 7 Tasmania 8 Northern Territory
3	State based unique identifying number	1 to 99999

ConnectionPointIds have the following characteristics:

- ConnectionPointIds are defined and allocated by AEMO to *BB reporting entities* during the registration process.
- Individual Connection Point Ids will be defined to support each receipt and delivery flow direction
- *BB reporting entities* must report flows into their respective facilities as receipts, and flows out of their respective facilities as deliveries, for each ConnectionPointId.
- The state code element for a ConnectionPointId corresponds to its physical location. In the case of *BB pipelines* that traverse multiple states, state codes for ConnectionPointIds along the line can differ from that of other ConnectionPointId and the pipeline's FacilityId.
- The 00001-9999 unique identifying number of a ConnectionPointId to be unique for each state. Thus, two ConnectionPointIds in different states can have the same identifying number.

For example:

- Connection Point ID "1301000" relates to a connection point within Victoria with the state based unique number identifier of "1000".
- Connection Point ID "1401000" relates to a connection point within Queensland with the state based unique number identifier of "1000".

5. DATA SUBMISSION

This section describes how to submit and validate transaction data using:

- File transfer protocol (FTP)
- MarketNet

5.1 System requirements

Submitting data using the FTP interface requires:

- Access credentials to the BB file server.
- Public internet access (AEMO network access is not required).
- FTP client software.

Submitting data over MarketNet requires:

- Access credentials to MarketNet. Access is provided during registration.
- Participant user access rights provided by your company's participant administrator.
- Internet access (MarketNet connection is required).

5.2 CSV format

CSV data format is used to submit data using FTP. Details and examples of transaction data in CSV format are provided in transaction specifications. See Related resources.

A comma in a free text field (such as Capacity Description and Description) is treated as a value separator in the validation process and results in validation errors. To prevent this validation error, exclude commas in the description, or enclose the description with commas in double quotes "".

Filename convention

BB submitted CSV files must conform to the following naming convention:

[COMPID]_[TRANSACTIONNAME]_[CCYYMMDDHHMMSS].CSV

The format of each filename component is:

Name part	Description	Format
COMPID	The relevant gas company identifier of the *BB reporting entity* as allocated by AEMO during the registration process.	Text

Name part	Description	Format
TRANSACTIONNAME	The name of the transaction to which the CSV file is supplied, with no white spaces. The list of possible transaction names is: • SHORT_TERM_CAPACITY_OUTLOOK • DAILY_PRODUCTION_AND_FLOW • DAILY_STORAGE • NOMINATIONS_AND_FORECASTS • GS_NAMEPLATE_RATING • CP_NAMEPLATE_RATING • LINEPACK_CAPACITY_ADEQUACY • MEDIUM_TERM_CAPACITY_OUTLOOK • SECONDARY_BID_OFFER_SUMMARY • SECONDARY_TRADE_SUMMARY • NAMEPLATE_RATING • UNCONTRACTED_CAPACITY_OUTLOOK	Text
CCYYMMDDHHMMSS	Date/time stamp in the format CCYYMMDDHHmmSS when the file has been generated, 24-hour format, local time.	Datetime (CCYYMMDDhhmmss)
CSV	The file extension of "CSV", separated from the file name with a period "."	

For example, a filename for a linepack capacity adequacy transaction generated on the 2018-09-01 at 13:15:00 by the *BB reporting entity* with a company identifier of 123 is:

```
123_LINEPACK_CAPACITY_ADEQUACY_ 20180901131500.CSV
```

5.3 Uploading a CSV file using FTP

To upload a CSV file using FTP:

1. Prepare a data file in CSV format utilising a text editor, or third-party tool.

If you open a text file with .CSV extension in Microsoft Excel, the date format changes to dd-MM-YY that is incompatible with the AEMO date format specification YYYY-MM-dd.

Each CSV file can contain multiple records but only data pertaining to the transaction type specified in the <TRANSACTIONNAME> component of the filename.

2. Connect to one of the following FTP servers manually or using automated system/s by specifying a username and password.
   - Pre-production FTP server: ftp.preprod.gbb.aemo.com.au
   - Production FTP server: ftp.gbb.aemo.com.au

   Once connected, you are directed to the default directory.

AEMO recommends the use of PASSIVE mode for FTP connections.

3. Transfer the files using FTP into the “Export” subdirectory within your organisation’s FTP directory. The BB systems continually poll each ‘Export’ subdirectory for any new files and processes them accordingly. For example, */Export/COMPID_TRANSACTIONNAME_YYYYMMDDHHMMSS.csv*

The files are validated and transaction success or failure is provided in the INT944 Transaction Log which is deposited in the “Import” subdirectory in your organisation’s FTP directory. The Transaction Log includes details of any error found within the submitted file/s.

The CSV transaction file will only be accepted by the system if **all** its records have passed all validations.

5.4 Uploading a CSV file using MarketNet

To find out more about:

- How to submit data using CSV
- How to view Nominations and Forecasts data

5.5 Transaction acknowledgement

5.5.1 FTP

A Transaction Log report is generated for each FTP file submission which is available in the *BB reporting entities* private FTP file directory. The Transaction Log files are retained in a *BB reporting entities* file directory for seven days. Files exceeding the retention period are automatically moved into the Archive folder.

- If the CSV transaction file passed all validations, then the file is accepted, and the Transaction Log file is generated with a success message and error code 0.
- If at least one record in the submitted CSV transaction file fails validation, then the file is rejected and the Transaction Log file is generated with a list of the error codes. For a list of error codes, see Appendix A Validation error codes.

5.5.2 MarketNet

- If the uploaded CSV transaction file passes all validations, the file is accepted and a success message is displayed.
- If at least one record in the submitted CSV transaction file fails validation, then the file is rejected and an error message is displayed.

6. RESTFUL WEB SERVICES DATA SUBMISSION

You can submit transaction data in a RESTful style by a HTTPS POST request to BB submission URLs. To use the RESTful interface through HTTPS, AEMO's web services are accessed through a MarketNet connection.

6.1 API Web Portal

The AEMO API Web Portal provides information to implement your APIs and includes documentation, examples, code samples, and API policies:

Pre-production environment: https://apis.preprod.aemo.com.au:9319/ws/gbb/report/v1/{resourceName}

Production environment: https://apis.prod.aemo.com.au:9319/ws/gbb/submission/v1/{resourceName}

For detailed information on accessing the e-Hub (API Web Portal and API Gateway), and using the API Portal, see the Guide to AEMO's e-Hub APIs.

6.2 System requirements

API Web Portal

- MarketNet or internet connection. For more information about MarketNet, see Guide to Information Systems.
- User ID and password.

API Gateway

- Access to MarketNet.
- An application to Base64 encode your User Rights Management (URM) username and password for authorisation. Provided by your Participant Administrator.
- Authentication using an SSL digital certificate which contains a:
    - Digitally signed certificate: A digital certificate provided by the participant that is digitally signed by AEMO.
    - E-Hub public certificate: AEMO's public key certificate.
    - Root certificate: Public key certificate that identifies the root certificate authority (CA).

      For more information on how to obtain these certificates, see "SSL certificates" in the Guide to AEMO's e-Hub APIs.

Access to production and pre-production APIs require different SSL certificates.

6.3 HTTPS POST request format

A HTTPS POST request consists of:

- HTTPS request header attributes as shown in the following table.
- Request body which contains the submission data in JSON objects and properties. It must only contain the content of a single transaction type.

Table 2 **HTTPS request header attributes**

Header parameter	Description	Allowed values / Example
Content-Type	HTTPS request format.	`Content-type: application/json`
Accept	HTTPS response format.	`Accept: application/json`
Content-Length	Content length of file. The value is populated when the request is sent.	`Content-length: nnn`
X-initiatingParticipantID	The participant ID	`X-initiatingParticipantID: 123456`
X-market	The market type that the request applies.	`X-market: GAS`
Authorization	Specifies basic HTTP authentication containing the Base64[1] encoded username and password. The participant's URM username and password are concatenated with a colon separator and then Base64 encoded.	`Authorization: Basic QFhQVC0wMDAwMzoyZWRmOGJhYS0wY2I0LTQwZjctOTIyMS0yODUxNmM4N2MxNjQ=` (For URM username "@XPT-00003" and password "2edf8baa-0cb4-40f7-9221-28516c87c164")

An example of a Daily Storage HTTPS POST request is shown below.

- POST request URL: TBC
- Participant ID: 123456

```
OTHER HEADER INFORMATION TBC

Content-type: application/json
Accept: application/json
Content-length: nnn
Authorization: Basic QFhQVC0wMDAwMzoyZWRmOGJhYS0wY2I0LTQwZjctOTIyMS0yODUxNmM4N2MxNjQ=
X-initiatingParticipantID: 123456
X-market: GAS


{
  "ItemList": [
    {
      "GasDate": "2018-12-01T00:00:00",
      "FacilityId": 530038,
      "ActualQuantity": 200.861
    }
  ]
}
```

The JSON body properties for transaction POST requests is shown in the AEMO API portal > API Gallery > Gas Bulletin Board and the transaction specifications.

A swagger file can also be downloaded from AEMO API portal > API Gallery > Gas Bulletin Board > API documents which contains RESTful API specification for BB data submissions.

For NIL quality, you can use "null" for the property value, or alternatively excluding the data property in the submission automatically sets the property to null.

6.4 Submission URLs

A data submission must be a HTTPS POST request to a valid BB submission URL. Each transaction type has a unique submission URL as shown in the following table.

The URLs for reports share a common base URL format. The format of the base URL is shown below.

Market Facing Internet web service host

https://apis.preprod.aemo.com.au:9319/ws/gbb/submission/v1/{resourceName}

https://apis.prod.aemo.com.au:9319/ws/gbb/submission/v1/{resourceName}

Market Facing MarketNet web service host

https://apis.preprod.marketnet.net.au:9319/ws/gbb/submission/v1/{resourceName}

https://apis.prod.marketnet.net.au:9319/ws/gbb/submission/v1/{resourceName}

Notes:

- Participants can use either service (Internet or MarketNet) to submit data. For example, if you use MarketNet instead of the Internet service, substitute *https://apis.preprod.**aemo**.com.au:9319/ws/gbb/submission/v1/reportName* with *https://apis.preprod.**marketnet**.net.au:9319/ws/gbb/submission/v1/reportName*
- Submission URLs are case-sensitive. Resource Name is always camelCase.

Table 3 **URLs for submitting transaction data**

Transaction Type	URL
Daily Production and Flow	• BB pre-production server: (https://apis.preprod.aemo.com.au:9319/ws/gbb/submission/v1/dailyProductionAndFlow) • BB production server: (https://apis.prod.aemo.com.au:9319/ws/gbb/submission/v1/dailyProductionAndFlow)
Gate Station Nameplate Rating	• BB pre-production server: (https://apis.preprod.aemo.com.au:9319/ws/gbb/submission/v1/gateStationNameplateRating) • BB production server: (https://apis.prod.aemo.com.au:9319/ws/gbb/submission/v1/gateStationNameplateRating)
Connection Pont Nameplate Rating	• BB pre-production server: (https://apis.preprod.aemo.com.au:9319/ws/gbb/submission/v1/connectionPointNameplateRating) • BB production server: (https://apis.prod.aemo.com.au:9319/ws/gbb/submission/v1/connectionPointNameplateRating)
Linepack Capacity Adequacy	• BB pre-production server: (https://apis.preprod.aemo.com.au:9319/ws/gbb/submission/v1/linepackCapacityAdequacy) • BB production server: (https://apis.prod.aemo.com.au:9319/ws/gbb/submission/v1/linepackCapacityAdequacy)
Medium Term Capacity Outlook	• BB pre-production server: (https://apis.preprod.aemo.com.au:9319/ws/gbb/submission/v1/mediumTermCapacityOutlook) • BB production server: (https://apis.prod.aemo.com.au:9319/ws/gbb/submission/v1/mediumTermCapacityOutlook)
Nameplate Rating	• BB pre-production server: (https://apis.preprod.aemo.com.au:9319/ws/gbb/submission/v1/nameplateRating) • BB production server: (https://apis.prod.aemo.com.au:9319/ws/gbb/submission/v1/nameplateRating)
Nomination and Forecasts	• BB pre-production server: (https://apis.preprod.aemo.com.au:9319/ws/gbb/submission/v1/nominationsAndForecasts) • BB production server: (https://apis.prod.aemo.com.au:9319/ws/gbb/submission/v1/nominationsAndForecasts)

Transaction Type	URL
Secondary Pipeline Capacity Bid and Offer Summary	• BB pre-production server: (https://apis.preprod.aemo.com.au:9319/ws/gbb/submission/v1/secondaryPipelineCapacityBidsOffers) • BB production server: (https://apis.prod.aemo.com.au:9319/ws/gbb/submission/v1/secondaryPipelineCapacityBidsOffers)
Secondary Pipeline Capacity Trade Summary	• BB pre-production server: (https://apis.preprod.aemo.com.au:9319/ws/gbb/submission/v1/secondaryPipelineCapacityTrades) • BB production server: (https://apis.prod.aemo.com.au:9319/ws/gbb/submission/v1/secondaryPipelineCapacityTrades)
Uncontracted Capacity Outlook	• BB pre-production server: (https://apis.preprod.aemo.com.au:9319/ws/gbb/submission/v1/uncontractedCapacityOutlook) • BB production server: (https://apis.prod.aemo.com.au:9319/ws/gbb/submission/v1/uncontractedCapacityOutlook)

Transaction data is only accepted by the system if **all** data passes validations.

6.5 HTTPS response format

The submission response from the server consists of two parts: the response status code and the response body. The response status codes returned by the GBB are shown in the following table.

Table 4 **Response Codes**

Code	Response body	Data condition	Description
200	OK	Successful request.	Successful request.
400	{ "Fault": "<SystemMessageExceptionDump>" }	The service cannot be found for the endpoint reference (EPR) <URI>	The service cannot be found for the endpoint reference (EPR) <URI>
401	{ "Exception": "Unauthorized:Invalid UserName or Password" }	Invalid credentials.	Invalid credentials, or no username or password in the HTTP request header.
404	{ "Exception": "Resources for the endpoint URI not found. Endpoint URI: <Resource>" }	Resource not found.	Not found
405	{ "Exception": "Input request HTTP method is <Invalid Method passed> but operation <Resource Name> accepts only: [<Valid Method>]" }	Invalid Method used (e.g. GET used instead of POST)	Method Not Allowed
422	TBC	Business validation failure	Unprocessable entity.

500	{
	"Exception": "Application Unavailable"
	}
	{
		e-Hub is operational but downstream systems are not available.	Application Unavailable

503	"Exception": "Service invocation for API was rejected based on policy violation" }	Exceeds throttling limits	Service invocation for API was rejected based on policy violation
	Error message: javax.net.ssl.SSLHandshakeException: Received fatal alert: bad_certificate	SSL Certificate authentication validation failed	

The server returns a Content-Type of application/json, and a JSON formatted string consisting of two fields: status and error. The content of these fields is described in Table 4.

Table 5 **Response fields**

Field	Data Type	Description
Data	Object	This data object contains all the results of the submission. The properties of the data object are dependent on the service call.

An example of a successful submission response is shown below:

```
{
  "data": {},
  "errors": null
}
```

An example of an unsuccessful submission with HTTP response code 422 is shown below. A transaction error code is shown with details of the error.

```
{
        {
    "data": {},
    "errors": [
        {
            "code": 73,
            "title": "InvalidBuySell",
            "detail": "BuySell value 24.1 is not valid",
            "source": null
        }
    ]
}
```

For a complete list of transaction code errors, see Appendix A Validation error codes.

7. DATA SUBMISSION FORMATS

This chapter describes the submission types and format required for CSV file submissions and sending a HTTPS Post request.

7.1 Daily Production and Flow

7.1.1 Description

Transaction name	DAILY_PRODUCTION_AND_FLOW
Purpose	Provide on each gas day D, the BB facility operator's daily gas flow data for receipts and deliveries and transitional compression facility operator's daily gas compression.
Submission frequency	Daily
Submission cut-off time	1:00 pm on gas day D+1.
Rollover	No rollover.
Required by	*BB pipelines*, *BB production facilities*, *BB storage facilities* and *transitional compression facilities.*
Exemptions	Two facilities connected to a single connection point may both be registered by AEMO. If one of these facilities is exempt from reporting flows for the connection point, submissions from that FacilityId are not mandatory.
Notes	• Re-submissions and amendments on the initial submission are permitted. The BB Operator is notified if a re-submission is made after the submission cut-off time. • AEMO always publish the latest actual flow and compression submission. However, a timeline of historic submissions may be reportable.

7.1.2 Data fields

Data element	Data field name	Description	Mandatory	Data type	Example / Allowed values
Gas Date	GasDate	Date of gas day. Timestamps are ignored. The gas day as defined in the pipeline contract or market rules.	Yes	datetime	2018-09-23
Facility Id	FacilityId	A unique AEMO defined Facility identifier.	Yes	int	520345
Connection Point Id	ConnectionPointId	A unique AEMO defined connection point identifier.	Conditional: This information is mandatory for *BB pipelines*. Otherwise leave this field blank.	int	1201001
Flow Direction	FlowDirection	Values can be either: RECEIPT — A flow of gas into the *BB facility*, or DELIVERY — A flow of gas out of the *BB facility*. N/A — Zero gas flows have been measured for the gas date or data is unavailable. COMPRESSED – The action performed by a *transitional compression facility*	Yes	char(8)	RECEIPT; DELIVERY; N/A; COMPRESSED
Actual Quantity	ActualQuantity	The actual flow or compressed quantity reported in TJ to the nearest gigajoule with three decimal places. Three decimal places are not required if the value has trailing zeros after the decimal place.	Conditional: This information is mandatory when Quality value is "OK".	number(18,3)	32.232 25.2 (if Actual Quantity is 25.200)
Quality	Quality	Indicates whether meter data for the submission date is available. Values can be either: OK — Connection point Actual Quantity data for gas flow into or out of a BB facility based on meter data, or NIL — Connection Point Actual Quantity data for gas flow into or out of a BB facility cannot be determined due to an operational issue.	Yes	char(3)	OK; NIL

7.1.3 Data Submission Examples

The following scenarios show the Daily Production and Flow data submissions in a CSV file format for FTP transfer or BB website upload, and JSON file format for HTTP web services.

Example 1

Example 1 is a Daily Production and Flow data submission for three connection points.

A CSV file format example is shown for FTP transfer or BB website upload, and JSON file format for HTTP web services. The JSON format example only illustrates information relating to the transaction data, and does not include header file information.

- Submission date is 2018-09-01 for 2018-08-31 (D-1).
- Daily actual flow for a *BB pipeline* 520047.
- Connection Points:
  - Connection Point 1201001 with Storage Facility 520068.
  - Connection Point 1201002 with Production Facility 520070.
  - Connection Point 1201003 with Pipeline 530015.

CSV file example

```
GasDate,FacilityId,ConnectionPointId,FlowDirection,ActualQuantity,Quality
2018-08-31,520047,1201001,DELIVERY,25.525,OK
2018-08-31,520047,1201001,RECEIPT,0.345,OK
2018-08-31,520047,1201002,RECEIPT,15.513,OK
2018-08-31,520047,1201003,RECEIPT,12.221,OK
```

JSON format example

```
{
  "ItemList": [
    {
      "GasDate": "2017-08-31T00:00:00",
      "FacilityId": 520047,
      "ConnectionPointId": 1201001,
      "ActualQuantity": 25.525,
      "Quality": "OK",
      "FlowDirection": "DELIVERY"
    },
    {
      "GasDate": "2017-12-01T00:00:00",
      "FacilityId": 520047,
      "ConnectionPointId": 1201001,
      "ActualQuantity": 0.345,
      "Quality": "OK",
      "FlowDirection": "RECEIPT"
    },
    {
```

```
      "GasDate": "2017-12-01T00:00:00",
      "FacilityId": 520047,
      "ConnectionPointId": 1201002,
      "ActualQuantity": 15.513,
      "Quality": "OK",
      "FlowDirection": "RECEIPT"
    },
    {
      "GasDate": "2017-12-01T00:00:00",
      "FacilityId": 530038,
      "ConnectionPointId": 1201003,
      "ActualQuantity": 12.221,
      "Quality": "OK",
      "FlowDirection": "RECEIPT"
    }
  ]
}
```


Example 2

Example 2 is a data submission that includes a connection point in the delivery flow direction that was not operational. Hence, gas flow could not be measured resulting in a “NIL” Quality value and null Actual Quantity value.

A CSV file format example is shown for FTP transfer or BB website upload, and JSON file format for HTTP web services. The JSON format example only illustrates information relating to the transaction data, and does not include header file information.

- Submission date is 2018-09-01 for 2018-08-31 (D-1).
- Daily actual flow for a BB Storage Facility 520068.
- Connection Point 1201001 with Pipeline 520047.

CSV file example

```
GasDate,FacilityId,ConnectionPointId,FlowDirection,ActualQuantity,Quality
2018-08-31,520068,,RECEIPT,25.525,OK
2018-08-31,520068,,N/A,,NIL
```

JSON format example

```
{
```

```
  "ItemList": [
    {
      "GasDate": "2018-08-31T00:00:00",
      "FacilityId": 520068,
      "ConnectionPointId": null,
      "ActualQuantity": 25.525,
      "Quality": "OK",
      "FlowDirection": "RECEIPT"
    },
    {
      "GasDate": "2018-08-31T00:00:00",
      "FacilityId": 520068,
      "ConnectionPointId": null,
      "ActualQuantity": null,
      "Quality": "NIL",
      "FlowDirection": "N/A"
    }
  ]
}
```


7.1.4 Validation rules

- Gas Date must conform to the date format YYYY-MM-DD.
- Submissions must only contain Facility Ids operated by the *BB reporting entity*.
- Connection Point Ids submitted must be registered against the Facility Id.
- Actual Quantity values must represent physical gas flows or compressed gas.
- Negative Actual Quantity values are not accepted.
- Connection point Actual Quantity must be provided as a receipt or delivery value.
- *Transitional compression facility* Actual Quantity must be provided as a compressed value.
- Where there are zero gas flows at a connection point, an Actual Quantity of zero must be submitted with a flow direction of ‘N/A’ and Quality of ‘OK’.
- For each connection point in a submission, check the connection point's 'Flow Direction' as defined in the Detailed Information Facility in the BB.
- Where no available data exists for a connection point during the submission period due to an operational issue then a NULL Actual Quantity with a flow direction of ‘N/A’ and Quality of ‘NIL’ should be submitted.

7.2 Daily Storage

7.2.1 Description

Transaction name	DAILY_STORAGE
Purpose	Provide on each gas day D, the actual quantity of natural gas held in each storage facility at the end of the gas day D.
Submission Frequency	Daily
Submission cut-off time	1:00pm on gas day D+1.
Rollover	No Rollover.
Required by	*BB storage facilities.*
Exemptions	No exemptions are given for this submission

7.2.2 Data fields

Data element	Data field name	Description	Mandatory	Data type	Example / Allowed values
Gas Date	GasDate	Date of gas day. Timestamps are ignored. The gas day as defined in the pipeline contract or market rules.	Yes	datetime	2018-09-23
Facility Id	FacilityId	A unique AEMO defined Facility identifier.	Yes	int	520345
Actual Quantity	ActualQuantity	The actual quantity reported in TJ to the nearest gigajoule with three decimal places. Three decimal places is not required if the value has trailing zeros after the decimal place.	Yes	number(18,3)	32.232 25.2 (if Actual Quantity is 25.200)

7.2.3 Data submission example

The following example shows the Daily Storage data submission in a CSV file format for FTP transfer or BB website upload, and JSON file format for HTTP web services. The JSON format example only illustrates information relating to the transaction data, and does not include header file information.

- Submission date is 2018-09-01 for 2018-08-31 (D-1).
- *BB storage facility* 520047.

CSV file example

```
FacilityId,GasDate,ActualQuantity
520047,2018-08-31,158.335
520047,2018-08-31,160.753
520047,2018-08-31,199.324
```

JSON file example

```
{
  "ItemList": [
```

```
    {
      "GasDate": "2018-08-31T00:00:00",
      "FacilityId": 520047,
      "ActualQuantity": 158.335
    },
   {
      "GasDate": "2017-08-31T00:00:00",
      "FacilityId": 520047,
      "ActualQuantity": 160.753
    },
   {
      "GasDate": "2017-08-31T00:00:00",
      "FacilityId": 520047,
      "ActualQuantity": 199.324
    }
  ]
}
}
```


7.2.4 Validation rules

- Gas Date must conform to the date format YYYY-MM-DD.
- Submissions must only contain Facility Ids operated by the Company Id.
- Actual Quantity values greater than zero must be submitted in TJs accurate to three decimal places.
- Negative Actual Quantity values are not accepted.

7.3 Gate Station Nameplate Rating

This Submission will be removed all future data will be included in the Connection Point Nameplate Rating form 1 March 2019.

7.3.1 Description

Transaction name	GS_NAMEPLATE_RATING
Purpose	Provide nameplate ratings: • For each gate station connection point owned, controlled, or operated by the BB pipeline operator and connected to each of its BB pipelines. • For each gate station connection point connected to each of its pipelines which is not owned, controlled, or operated by the BB pipeline operator, where the connection point nameplate rating has been provided to the BB pipeline operator by the facility who owns, controls, or operates the gate station.

Submission frequency	Annually
Submission cut-off time	31 March or whenever the standing capacity changes.
Rollover	No rollover.
Required by	*BB pipelines*.
Exemptions	No exemptions are given for this submission.

7.3.2 Data fields

Data	Data field name	Description	Mandatory	Data type	Example / Allowed values
Connection Point Id	ConnectionPointId	A unique AEMO defined connection point identifier.	Yes	int	1201001
Capacity Quantity	CapacityQuantity	Standing capacity quantity in TJ to three decimal places. Three decimal places is not required if the value has trailing zeros after the decimal place.	Yes	number(18,3)	32.232 25.2 (if the value is 25.200)
Effective Date	EffectiveDate	Gas day date that corresponding record takes effect. Any time component supplied will be ignored.	Yes	datetime	2018-03-23
Description	Description	Facility use is restricted to a description for reasons or comments directly related to the capacity quantity or change in quantity in relation to a facility	No	varchar(255)	

7.3.3 Data submission example

The following example shows a Gate Station Nameplate Rating data submission. A CSV file format example is provided for FTP transfer or BB website upload, and JSON file format for HTTP web services. The JSON format example only illustrates information relating to the transaction data, and does not include header file information.

- Submission date is 2018-08-06.
- Connection Point 1201001 with Gate Station.

CSV file format

```
ConnectionPointId,CapacityQuantity,EffectiveDate,Description
1201001,201.65,2018-08-06,
1201002,200.783,2018-08-06,
```

JSON format example

```
{
"ItemList": [
        {
         "ConnectionPointId": "1201001",
```

```
        "CapacityQuantity": 201.65,
        "EffectiveDate": 2018-08-06,
        "Description": null
      },
      {
        "ConnectionPointId": "1201002",
        "CapacityQuantity": 200.783,
        "EffectiveDate": 2018-08-06,
        "Description": null
      }

      }
            ]
}
```


7.3.4 Validation rules

- Effective Date must conform to the date format yyyy-mm-dd.
- Submissions must only contain Connection Point Ids connected to a Pipeline operated by the CompanyId.
- A Capacity Quantity value of zero must be submitted if there is no delivery flow.
- For CSV file submissions, Description and Capacity Description with commas must be enclosed in double quotes, or exclude any commas.

7.4 Connection Point Nameplate Rating

7.4.1 Description

Transaction name	CP_NAMEPLATE_RATING
Purpose	Provide nameplate ratings: • For each connection point owned, controlled, or operated by the BB pipeline operator and connected to each of its BB pipelines. • For each connection point owned, controlled, or operated by the Part 24 facility operator and connected to each of its transitional compression facilities. • For each connection point connected to each of its pipelines which is not owned, controlled, or operated by the BB pipeline operator, where the connection point nameplate rating has been provided to the BB pipeline operator by the facility who owns, controls, or operates the connection point.
Submission frequency	Annually
Submission cut-off time	31 March or whenever the standing capacity changes.
Rollover	No rollover.
Required by	*BB pipelines*.

Exemptions	No exemptions are given for this submission.

7.4.2 Data fields

Data	Data field name	Description	Mandatory	Data type	Example / Allowed values
Connection Point Id	ConnectionPointId	A unique AEMO defined connection point identifier.	Yes	int	1201001
Capacity Quantity	CapacityQuantity	Standing capacity quantity in TJ to three decimal places. Three decimal places is not required if the value has trailing zeros after the decimal place.	Yes	number(18,3)	32.232 25.2 (if the value is 25.200)
Effective Date	EffectiveDate	Gas day date that corresponding record takes effect. Any time component supplied will be ignored.	Yes	datetime	2018-03-23
Description	Description	Facility use is restricted to a description for reasons or comments directly related to the capacity quantity or change in quantity in relation to a facility	No	varchar(255)	

7.4.3 Data submission example

The following example shows a Connection Point Nameplate Rating data submission. A CSV file format example is provided for FTP transfer or BB website upload, and JSON file format for HTTP web services. The JSON format example only illustrates information relating to the transaction data, and does not include header file information.

- Submission date is 2018-08-06.
- Connection Point 1301002.

CSV file format

```
ConnectionPointId,CapacityQuantity,EffectiveDate,Description
1301002,201.65,2018-08-06,
1301003,200.783,2018-08-06,
```

JSON format example

```
{
"ItemList": [
       {
        "ConnectionPointId": "1301002",
        "CapacityQuantity": 201.65,
        "EffectiveDate": 2018-08-06,
        "Description": null
      },
```

```
      {
        "ConnectionPointId": "1301003",
        "CapacityQuantity": 200.783,
        "EffectiveDate": 2018-08-06,
        "Description": null
      }


      }
              ]
}
```

7.4.4 Validation rules

- Effective Date must conform to the date format yyyy-mm-dd.
- Submissions must only contain Connection Point Ids connected to a Pipeline or transitional compression facility operated by the CompanyId.
- A Capacity Quantity value of zero must be submitted if there is no delivery flow.
- For CSV file submissions, Description and Capacity Description with commas must be enclosed in double quotes or exclude any commas.

7.5 Linepack Capacity Adequacy

7.5.1 Description

Transaction name	LINEPACK_CAPACITY_ADEQUACY
Purpose	Provide a Linepack Capacity Adequacy (LCA) report that indicates (flags) the status for each pipeline and *transitional compression facility* for a three-day outlook period. The flags are traffic light colours (Green, Amber, Red) indicates the LCA status for each pipeline.
Submission frequency	Whenever there is a change.
Rollover	A rollover is a process where submitted values roll forward until changed by a subsequent submission. A rollover can occur when: • The last 3-day LCA Outlook provided for that BB pipeline is deemed to be unchanged. • The LCA flag for the subsequent gas day is deemed to be the same as the LCA flag for D+2.
Required by	*BB pipelines* and *transitional compression facilities.*
Exemptions	No exemptions are given to this submission.
Notes	Submissions can contain values for gas days from D onwards.

7.5.2 Data fields

Data element	Data field name	Description	Mandatory	Data type	Example / Allowed values
Gas Date	GasDate	Date of gas day. Timestamps are ignored. The gas day as defined in the market rules.	Yes	datetime	2018-09-23
Facility Id	FacilityId	A unique AEMO defined Facility identifier.	Yes	int	520345
Flag	Flag	The flags are traffic light colours (Green, Amber, Red) indicating the LCA status for each pipeline. For more information, see the table below.	Yes	char(5)	RED; AMBER; GREEN
Description	Description	Field for providing reasons or comments directly related to the quantity or change in LCA flag and the time, dates, and/or duration for which the changes are expected to apply.	No	varchar(255)	

LCA flags for *BB pipelines*

LCA Flag	BB Pipelines	Declared Transmission System
GREEN	Pipeline is able to accommodate increased gas flows.	Pipeline is able to accommodate increased gas flows.
AMBER	Pipeline is flowing at full capacity, but no involuntary curtailment of 'firm' load is likely or happening.	A Net Flow Transportation Constraint has been applied to the BB Pipeline or *transitional compression facility* that is impacting a schedule, but no involuntary curtailment of load is likely or happening.
RED	Involuntary curtailment of 'firm' load is likely or happening.	Involuntary curtailment of load is likely or happening.

7.5.3 Data submission example

Example 1

The following scenarios is a LCA data submission for the Eastern pipeline.

A CSV file format example is shown for FTP transfer or BB website upload, and JSON file format for HTTP web services. The JSON format example only illustrates information relating to the transaction data, and does not include header file information.

- Submission date is 2018-09-01 for 2018-09-03.
- *BB pipeline* 520061.

CSV file example

```
GasDate,FacilityId,Flag,Description

2018-09-01,520061,GREEN,All ok

2018-09-02,520061,GREEN,All ok
```

```
2018-09-03,520061,GREEN,All ok
```

JSON file example

```
{
  "ItemList": [
    {
      "GasDate": "2018-09-01T00:00:00",
      "FacilityId": 520061,
      "Flag": GREEN
      "Description": All ok
    },
    {
      "GasDate": "2018-09-02T00:00:00",
      "FacilityId": 520061,
      "Flag": GREEN
      "Description": All ok
    },
    {
      "GasDate": "2018-09-03T00:00:00",
      "FacilityId": 520061,
      "Flag": GREEN
      "Description": All ok
    }
  ]
}
```

Example 2

The following scenarios is an intra-day LCA data submission for a BB pipeline that has an unplanned outage.

A CSV file format example is shown for FTP transfer or BB website upload, and JSON file format for HTTP web services. The JSON format example only illustrates information relating to the transaction data, and does not include header file information.

- Company Id is 100
- Submission date is 2018-09-01 for 2018-09-01 (D-1).
- *BB pipeline* 520052.

CSV file example

```
GasDate,FacilityId,Flag,Description

2018-09-01,550052,AMBER,Unplanned outage on the Berwyndale to Wallumbilla Pipeline
```

JSON file example

```
{
  "CompanyId": 100,
  "ItemList": [
    {
      "GasDate": "2018-09-01T00:00:00",
      "FacilityId": 550052,
      "Flag": "AMBER",
      "Description": "Unplanned outage on the Berwyndale to Wallumbilla Pipeline"
    }
  ]
}
```

7.5.4 Validation rules

- Gas Date must conform to the date format YYYY-MM-DD.
- Gas Date can be for D, D+1, or D+2.
- Submissions must only contain Facility Ids operated by the Company Id.
- Rolling forward - The last three-day Linepack Capacity Adequacy Outlook provided for that BB pipeline or *transitional compression facility* is deemed to be unchanged.
- Rolling forward - The Linepack Capacity Adequacy flag for the subsequent gas day is deemed to be the same as the Linepack Capacity Adequacy flag for D+2.
- For CSV file submissions, Description, and Capacity Description with commas must be enclosed in double quotes, or exclude any commas.

7.6 Medium Term Capacity Outlook

7.6.1 Description

Transaction name	MEDIUM_TERM_CAPACITY_OUTLOOK
Purpose	Provide details of any activity expected to affect the daily capacity of a *BB pipeline*, *BB production,* or *BB storage facility* in the next 12 months.
Submission cut-off time	Not applicable as this report is ad hoc.
Rollover	No rollover.

Required by	*BB pipelines*, *BB production* facilities, or *BB storage facilities*.
Exemptions	No exemptions are given for this submission.
Notes	• Where a BB reporting entity submits a Facility Id with record blank values for the remaining fields, this clears previous Medium Term Capacity Outlook submissions where the From Gas Date is on or after the current gas day (D) for the BB facility. • AEMO always publishes the latest Medium Term Capacity Outlook submission. However, a timeline of historic submissions may be reportable

7.6.2 Data fields

Data element	Data field name	Description	Mandatory	Data type	Example / Allowed values
Facility Id	FacilityId	A unique AEMO defined Facility Identifier.	Yes	int	520345
From Gas Date	FromGasDate	Date of gas day. Any time component supplied is ignored. The gas day is applicable under the pipeline contract or market rules.	Conditional: This field can be left blank if all other fields (excluding Facility Id) are also left blank. This clears all existing future dated Medium Term Capacity Outlook submissions.	datetime	2018-09-23
To Gas Date	ToGasDate	Date of gas day. Any time component supplied is ignored. The gas day is that applicable under the pipeline contract or market rules.	Conditional: This field can be left blank if all other fields (excluding Facility Id) are also left blank. This clears all existing future dated Medium Term Capacity Outlook submissions.	datetime	2018-09-23
Capacity Type	CapacityType	Capacity type values can be: STORAGE — Holding capacity in storage; or MDQ — Daily maximum firm capacity under the expected operating conditions.	Conditional: This field can be left blank if all other fields (excluding Facility Id) are also left blank. This clears all existing future dated Medium Term Capacity Outlook submissions.	varchar(10)	STORAGE; MDQ
Outlook Quantity	OutlookQuantity	Capacity outlook quantity in TJ to three decimal places. Three decimal places is not required if the value has trailing zeros after the decimal place.	Conditional: This field can be left blank if all other fields (excluding Facility Id) are also left blank. This clears all existing future dated Medium Term Capacity Outlook submissions.	number(18,3	200.531 190.2 (if the value is 190.200)
Flow Direction	FlowDirection	Gas flow direction. Values can be either: RECEIPT — A flow of gas into the *BB facility*, or DELIVERY — A flow of gas out of the *BB facility*.	Conditional: This information is mandatory for *BB storage facilities* with MDQ Capacity Type value. Otherwise leave this field blank.	char(8)	RECEIPT; DELIVERY

Data element	Data field name	Description	Mandatory	Data type	Example / Allowed values
Capacity Description	CapacityDescription	Free text to describe the meaning of the capacity number provided, including a description of material factors that impact the capacity number and any other relevant information.	Conditional: This information is mandatory for *BB pipeline* submissions with a MDQ Capacity Type. Otherwise leave this blank.	varchar(800)	
Receipt Location	ReceiptLocation	The Connection Point Id that best represents the receipt location. The Receipt Location in conjunction with the Delivery Location indicates the capacity direction and location.	Conditional: This information is mandatory for *BB pipeline* submissions with a MDQ Capacity Type. Otherwise leave this blank..	int	1200001
Delivery Location	DeliveryLocation	The Connection Point Id that best represents the delivery location. This location in conjunction with the Receipt Location indicates the capacity direction and location.	Conditional: This information is mandatory for *BB pipeline* submissions with a MDQ Capacity Type. Otherwise leave this blank.	int	1300056
Description	Description	Comments about the quantity or change in Outlook Quantity relating to the Facility Id, and the times, dates, or duration which those quantities or changes in quantities.	Conditional This field can be left blank if all other fields (excluding Facility Id) are also left blank.	varchar(255)	

7.6.3 Data submission example

A Medium Term Capacity Outlook data submission replaces all existing Medium Term Capacity Outlook data records for a facility where the start date is on or after the current gas day.

Active Medium Term Capacity Outlook data (where the start date is before the current gas day and the end date is on or after the current gas day) is end dated to the current gas date D-1.

You can delete all existing Medium Term Capacity Outlook data records for a facility by making a submission with the Facility Id and blank values for the remaining fields. All Medium Term Capacity Outlook data records are deleted for the specified facility where the start date is on or after the current gas day, and also end date any active Medium Term Capacity Outlook data.

Historical records where the Medium Term Capacity Outlook end date is before the current gas day cannot be modified or deleted.

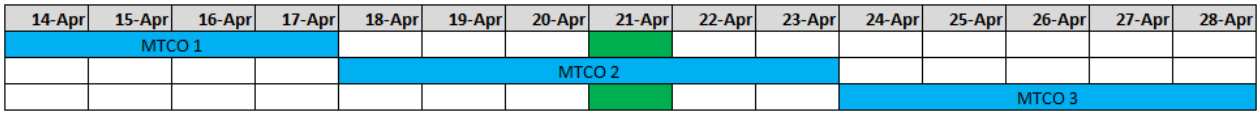
The following example illustrates the system behaviour for a Medium Term Capacity Outlook data submission.

Initial state

Medium Term Capacity Outlook submission 1: 14-17 April

Medium Term Capacity Outlook submission 2: 18-23 April

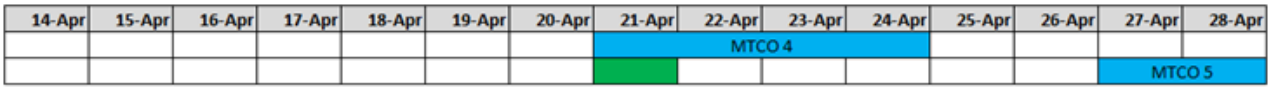
Medium Term Capacity Outlook submission 3: 24-28 April



File submissions with updated data

Medium Term Capacity Outlook submission 4: 21-24 April

Medium Term Capacity Outlook submission 5: 27-28 April



End state after the file submission

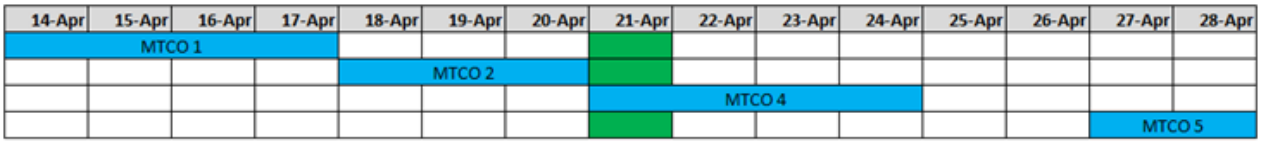
Medium Term Capacity Outlook submission 1: 14-17 April

Medium Term Capacity Outlook submission 2: 18-20 April

Medium Term Capacity Outlook submission 4: 21-24 April

Medium Term Capacity Outlook submission 5: 27-28 April

25-26 April does not have Medium Term Capacity Outlook data, so the facility's capacity is defined by it's Nameplate Rating.



Where multiple capacity types apply to an individual facility, then all details must be provided. This data is used in the Medium Term Capacity Outlook report.

7.6.4 Example submission format

A CSV file format example is shown for FTP transfer or BB website upload, and JSON file format for HTTP web services. The JSON format example only illustrates information relating to the transaction data, and does not include header file information.

- Submission for a *BB pipeline* (520066).
- A *BB pipeline* has a Capacity Type value "MDQ", and Capacity Description, Receipt Location, and Delivery Location must be provided.

CSV file format

```
FacilityId,FromGasDate,ToGasDate,CapacityType,OutlookQuantity,FlowDirection,Capaci
tyDescription,ReceiptLocation,DeliveryLocation,Description

540066,2018-06-22,2018-06-30,MDQ,100.522,,This transmission capacity is the amount
of gas that the Culcairn delivery point is able to withdraw from this pipeline
facility. This capacity is dependent on the forecast DTS demand and the
availability of key assets on this pipeline facility,1200001,1300004,Corrective
maintenance requiring reduction of operating pressure

540066,2018-06-22,2018-06-30,MDQ,67.801,,This transmission capacity is the amount
of gas that the Culcairn delivery point is able to withdraw from this pipeline
facility. This capacity is dependent on the forecast DTS demand and the
availability of key assets on this pipeline facility,1200001,1300004,Reversal of
previous entry

540066,2018-08-01,2018-08-10,MDQ,56.764,, This transmission capacity is the amount
of gas that the Culcairn delivery point is able to withdraw from this pipeline
facility. This capacity is dependent on the forecast DTS demand and the
availability of key assets on this pipeline facility,1200001,1300004,Gas
Conditioning Vessel Filter Install
```

JSON format


```
{
  "ItemList":[
       {
      "FromGasDate": "2018-06-22T00:00:00+10:00",
      "ToGasDate": "2018-06-30T00:00:00+10:00",
      "FacilityId": 540066,
      "CapacityType": "MDQ",
      "OutlookQuantity": 100.522,
      "FlowDirection": null
      "CapacityDescription": "This transmission capacity is the amount of gas that the Culcairn delivery point is able to withdraw from this pipeline facility. This capacity is dependent on the forecast DTS demand and the availability of key assets on this pipeline facility",
      "ReceiptLocation": 1200001,
      "DeliveryLocation": 1300004,
      "Description": "Corrective maintenance requiring reduction of operating pressure"
      },
       {
      "FromGasDate": "2018-06-22T00:00:00+10:00",
      "ToGasDate": "2018-06-30T00:00:00+10:00",
      "FacilityId": 540066,
      "CapacityType": "MDQ",
      "OutlookQuantity": 67.801,
      "FlowDirection": null
      "CapacityDescription": "This transmission capacity is the amount of gas that the Culcairn delivery point is able to withdraw from this pipeline facility. This capacity is dependent on the forecast DTS demand and the availability of key assets on this pipeline facility",
      "ReceiptLocation": 1200001,
      "DeliveryLocation": 1300004,
      "Description": "Reversal of previous entry"
      },
       {
      "FromGasDate": "2018-08-02T00:00:00+10:00",
      "ToGasDate": "2018-08-10T00:00:00+10:00",
```

```
      "FacilityId": 540066,

      "CapacityType": "MDQ",

      "OutlookQuantity": 67.801,

      "FlowDirection": null

      "CapacityDescription": "This transmission capacity is the amount of gas that
the Culcairn delivery point is able to withdraw from this pipeline facility. This
capacity is dependent on the forecast DTS demand and the availability of key
assets on this pipeline facility",

      "ReceiptLocation": 1200001,

      "DeliveryLocation": 1300004,

      "Description": "Reversal of previous entry"

      },

       {

      "FromGasDate": "2018-06-22T00:00:00+10:00",

      "ToGasDate": "2018-06-22T00:00:00+10:00",

      "FacilityId": 540066,

      "CapacityType": "MDQ",

      "OutlookQuantity": 56.764,

      "FlowDirection": null

      "CapacityDescription": "This transmission capacity is the amount of gas that
the Culcairn delivery point is able to withdraw from this pipeline facility. This
capacity is dependent on the forecast DTS demand and the availability of key
assets on this pipeline facility",

      "ReceiptLocation": 1200001,

      "DeliveryLocation": 1300004,

      "Description": "Gas Conditioning Vessel Filter Install"

      }


]

}
```


7.6.5 Validation rules

- GasDate must conform to the date format yyyy-mm-dd.
- Submissions must only contain Facility Ids operated by the Company Id.
- Negative values are not accepted for the receipt or delivery Capacity Quantity.

- Pipelines are required to submit capacities for each direction in which natural gas can be transported on the pipeline.
- Pipeline Outlook Quantity must be submitted with a Capacity Description and the Delivery and Receipt Points.
- Storage facilities are required report capacity for receipts into, and deliveries from, the BB storage facility as well as the quantity of natural gas that can be held in storage.
- For CSV file submissions, Description and Capacity Description with commas must be enclosed in double quotes, or exclude any commas.

7.7 Nameplate rating

7.7.1 Description

Transaction name	NAMEPLATE_RATING
Purpose	Provide the nameplate rating of each facility or information about any planned permanent capacity reduction or expansion due to modification of the facility.
Submission frequency	Annually
Submission cut-off time	31 March or whenever the standing capacity changes.
Rollover	No rollover.
Required by	*BB pipelines*, *BB production facilities*, *BB storage facilities* and *transitional compression facilities*.
Notes	BB pipelines are required to submit capacities for each direction in which natural gas can be transported on the pipeline. A Capacity Quantity must be submitted with a Capacity Description and the Delivery and Receipt Locations. Note that for complex pipeline facilities that involve more than two directions of flow, more than two capacities may be required. *Transitional compression facilities* must provide a Capacity Description of other maximum quantities under other standard operating conditions including a description of those conditions including expected inlet and outlet pressures

7.7.2 Data fields

Data element	Date field name	Description	Mandatory	Data type	Example / Allowed values
Facility Id	FacilityId	A unique AEMO defined Facility identifier.	Yes	int	520345
Capacity Type	CapacityType	Capacity type can be either: • Storage: Holding capacity in storage, or • MDQ: Daily maximum firm capacity (name plate) under the expected operating conditions adjusted for any facility that is 'mothballed', decommissioned or down-rated and / or cannot be recalled within one week, planned maintenance excepted. Reflects any long terms changes (greater than 12 months) or • The maximum quantity of gas that can be compressed by the *transitional compression facility* on a given day, without breaching operational limits.	Yes	varchar(10)	STORAGE; MDQ

Data element	Date field name	Description	Mandatory	Data type	Example / Allowed values
Capacity Quantity	CapacityQuantity	Standing capacity quantity in TJ to three decimal places. Three decimal places is not required if the value has trailing zeros after the decimal place.	Yes	number(18,3)	32.232 25.2 (if the value is 25.200)
Flow Direction	FlowDirection	Gas flow direction. Values can be either: RECEIPT — A flow of gas into the BB facility, or DELIVERY — A flow of gas out of the BB facility.	Conditional: This field is mandatory for *BB storage facilities* with a MDQ Capacity Type value. Otherwise leave this field blank.	varchar(10)	RECEIPT; DELIVERY
Capacity Description	CapacityDescription	Free text to describe the meaning of the capacity number provided, including relevant assumptions made in the calculation of the capacity number and any other relevant information. If applicable, *transitional compression facilities* must also provide a Capacity Description of other maximum quantities under other standard operating conditions including a description of those conditions including expected inlet and outlet pressures.	Conditional: This information is mandatory for *BB pipelines* and *transitional compression facilities*. Otherwise leave this field blank.	varchar(800)	
Receipt Location	ReceiptLocation	The Connection Point Id that best represents the receipt location. The Receipt Location in conjunction with the Delivery Location indicates the capacity direction and location.	Conditional: This information is mandatory for *BB pipelines*. Otherwise leave this field blank.	int	1200001
Delivery Location	DeliveryLocation	The Connection Point Id that best represents the delivery location. This location in conjunction with the Receipt Location indicates the capacity direction and location.	Conditional This information is mandatory for *BB pipelines*. Otherwise leave this field blank.	int	1300056
Effective Date	EffectiveDate	Gas day date that corresponding record takes effect. Any time component supplied will be ignored.	Yes	datetime	2018-03-23
Description	Description	Free text facility use is restricted to a description for reasons or comments directly related to the quantity or the change in quantity provided in relation to a *BB facility* (such as daily production data, nameplate rating, *LCA flag*, etc.), and the times, dates, or duration for which those quantities or changes in quantities are expected to apply.	Yes	varchar(255)	

7.7.3 Data submission examples

Example 1

The following scenario shows a nameplate data submission for *BB pipelines* due to changes in standing capacities. A CSV file format example is provided for FTP transfer or BB website upload, and JSON file format for HTTP web services. The JSON format example only illustrates information relating to the transaction data, and does not include header file information.

- Submission date is 2018-06-23.
- A nameplate submission for a *BB pipelines* (540043 and 540073)

CSV file format

```
FacilityId,CapacityType,CapacityQuantity,FlowDirection,CapacityDescription,Receipt
Location,DeliveryLocation,EffectiveDate,Description

540043,MDQ,223.01,,This transmission capacity is the amount of gas that the
Culcairn Delivery Location is able to withdraw from this pipeline
facility.,1300502,1300405,2018-06-23,increase in nameplate pipeline capacity due
to completion of VNIE Phase B

540073,MDQ,220.96,,This transmission capacity is the amount of gas that the
Longford Receipt Location and VicHub Receipt Location and TasHub Receipt Location
and the Lang Lang Receipt Location are able to inject into this pipeline facility.
This capacity is limited by the maximum operating pressure of this pipeline
facility and the maximum injection pressure of the Longford Gas
Plant,1500061,1500110,2018-06-23,increased pipeline capacity due to new the
commissioning of a new compressor facility
```

JSON format example

```
{

"ItemList": [

       {

        "FacilityId": 5400067,

        "CapacityType": "MDQ",

        "CapacityQuantity": 223.01,

        "FlowDirection": null,

        "Capacity Description": "This transmission capacity is the amount of gas
that the Culcairn Delivery Location is able to withdraw from this pipeline
facility",

        "ReceiptLocation": "1300502",

        "DeliveryLocation": "1300405",

        "EffectiveDate": "2018-06-23T00:00:00+10:00",

        "Description": "increase in nameplate pipeline capacity due to completion
of VNIE Phase B"

      },

       {

        "FacilityId": 5200073,
```

```
        "CapacityType":"MDQ",

        "CapacityQuantity": 220.96,

        "FlowDirection":null,

        "Capacity Description": "This transmission capacity is the amount of gas
that the Longford Receipt Location and VicHub Receipt Location and TasHub Receipt
Location and the Lang Lang Receipt Location are able to inject into this pipeline
facility. This capacity is limited by the maximum operating pressure of this
pipeline facility and the maximum injection pressure of the Longford Gas Plant",

        "ReceiptLocation": 1500061,

        "DeliveryLocation": 1500110,

        "EffectiveDate": "2018-06-23T00:00:00+10:00",

        "Description": "Increased pipeline capacity due to new the commissioning
of a new compressor facility"

      }


      }

             ]

}
```

Example 2

The following scenario shows a nameplate data submission for Silver Springs, a storage facility.

The facility has STORAGE Capacity Type value, therefore Flow Direction, Capacity Description, Receipt Location, and Delivery Location information are not required.

A CSV file format example is provided for FTP transfer or BB website upload, and JSON file format for HTTP web services. The JSON file example only illustrates information relating to the transaction data, and does not include header file information.

CSV file format

```
FacilityId,CapacityType,CapacityQuantity,FlowDirection,CapacityDescription,Receipt
Location,DeliveryLocation,EffectiveDate,Description
540062,STORAGE,330.60,,,,,2018-06-23,New storage tank added to facility
```

JSON file example

```
{
"CompanyId": 100,
"ItemList": [
       {
        "FacilityId": 540062,
        "CapacityType":"STORAGE",
```

```
        "CapacityQuantity": 330.60,
        "FlowDirection": null,
        "Capacity Description": null,
        "ReceiptLocation": null,
        "DeliveryLocation": null,
        "EffectiveDate": "2018-06-23T00:00:00+10:00",
        "Description": "New storage tank added to facility"
      }

      }
            ]
```


7.7.4 Validation rules

- Effective Date must conform to the date format yyyy-mm-dd.
- Submissions must only contain Facility Ids operated by the Company Id.
- Submissions must only contain FacilityIds operated by the reporting identity.
- Negative values are not accepted for the receipt or delivery Capacity Quantity.
- Pipelines are required to submit capacities for each direction in which natural gas can be transported on the pipeline.
- Pipeline Capacity Quantity must be submitted with a Capacity Description and the Delivery and Receipt Points.
- *Transitional compression facilities* must submit a Capacity Quantity with a Capacity Description for the facility.
- If applicable, *transitional compression facilities* must also provide a Capacity Description of other maximum quantities under other standard operating conditions including a description of those conditions
- Storage facilities are required to report capacity for receipts into, and deliveries from, the BB storage facility as well as the quantity of natural gas that can be held in storage.
- For CSV file submissions, Description and Capacity Description with commas must be enclosed in double quotes or exclude any commas.

7.8 Nominations and Forecasts

7.8.1 Description

Transaction name	NOMINATIONS_AND_FORECASTS
Purpose	• For BB pipelines forming part of a Declared Transmission System, provide on each gas day the aggregated scheduled injections and aggregated scheduled withdrawals at each controllable system point for gas day D to D+2. • For all other BB facility operators, provide on each gas day D the aggregated nominated and forecast injections and aggregated nominated and forecast withdrawals for gas day D to D+6.

Submission frequency	Daily
Submission cut-off time	For storage facilities providing nominations, one hour after the start of gas day D. For storage facilities providing forecast information and for all other facilities 9:00pm on gas day D.
Rollover	No rollover.
Required by	*BB pipelines*, *BB production facilities*, *BB storage facilities* and *transitional compression facilities*.
Exemptions	Two facilities connected to a single connection point may both be registered by AEMO. If one of these facilities is exempt from reporting flows for the connection point, submissions from that Facility Id are not mandatory.
Notes	• Submissions may contain data for the current gas day, which are intra-day changes to nominations and forecasts. Intra-day submissions are accepted four hours after the close of gas day D until midday on the gas day after (D+1). • AEMO always publish the latest Delivery Nomination submission. However, a timeline of historic submissions may be reportable.

7.8.2 Data fields

Data element	Data field name	Description	Mandatory	Data type	Example / Allowed values
Gas Date	GasDate	Date of gas day. Timestamps are ignored. The gas day as defined in the pipeline contract or market rules.	Yes	datetime	2018-09-23
Facility Id	FacilityId	A unique AEMO defined Facility Identifier.	Yes	int	520345
Connection Point Id	ConnectionPointId	A unique AEMO defined connection point identifier.	Conditional: This information is mandatory for *BB pipelines.* Otherwise leave this field blank.	int	1201001
Flow Direction	FlowDirection	Values can be either: RECEIPT — A flow of gas into the *BB facility*, or DELIVERY — A flow of gas out of the *BB facility*. COMPRESSED – the action performed by the *transitional compression facility*	Yes	char(8)	RECEIPT; DELIVERY; COMPRESSED;
Nomination Quantity	NominationQuantity	Receipt or delivery nomination quantity in TJ to three decimal places. Three decimal places is not required if the value has trailing zeros after the decimal place.	Yes	number(18,3)	32.561 25.2 (if the value is 25.200)

7.8.3 Data submission example

The following scenario shows a Nominations and Forecasts data submission for a *BB pipeline and* Gate Station. A CSV file format example is provided for FTP transfer or BB website upload, and JSON file format for HTTP web services. The JSON format example only illustrates information relating to the transaction data, and does not include header file information.

- Submission date 2018-09-01 for 2018-09-02 (D+1) to 2018-09-07 (D+6).
- A nominated and forecast flow submission for a *BB pipeline* (520047).
- Connection Points:
  - Connection Point 1201001 with Pipeline 530015.
  - Connection Point 1201002 with a Gate Station.

CSV file format

```
GasDate,FacilityId,ConnectionPointId,FlowDirection,NominationQuantity
2018-09-02,520047,1201001,DELIVERY,25.525
2018-09-02,520047,1201001,RECEIPT,20.21
2018-09-02,520047,1201002,DELIVERY,15.513
2018-09-02,520047,1201002,RECEIPT,25.23
2018-09-03,520047,1201001,DELIVERY,23.938
```

```
2018-09-03,520047,1201001,RECEIPT,11.27
2018-09-03,520047,1201002,DELIVERY,16.941
2018-09-03,520047,1201002,RECEIPT,21.32
2018-09-04,520047,1201001,DELIVERY,18.941
2018-09-04,520047,1201001,RECEIPT,30.32
2018-09-04,520047,1201002,DELIVERY,21.93
2018-09-04,520047,1201002,RECEIPT,22.32
2018-09-05,520047,1201001,DELIVERY,26
2018-09-05,520047,1201001,RECEIPT,25.3
2018-09-05,520047,1201002,DELIVERY,18.94
2018-09-05,520047,1201002,RECEIPT,20.32
2018-09-06,520047,1201001,DELIVERY,20.1
2018-09-06,520047,1201001,RECEIPT,24.4
2018-09-06,520047,1201002,DELIVERY,17
2018-09-06,520047,1201002,RECEIPT,31.3
2018-09-07,520047,1201001,DELIVERY,32.35
2018-09-07,520047,1201001,RECEIPT,28.1
2018-09-07,520047,1201002,RECEIPT,26.5
2018-09-07,520047,1201002,RECEIPT,25.2
```

JSON format example

```
{
"ItemList": [
       {
        "GasDate": "2018-09-02T00:00:00+10:00",
        "FacilityId": 520047,
        "ConnectionPointId":120001,
        "FlowDirection": "DELIVERY",
        "NominationQuantity": "25.525"
      },
             {
        "GasDate": "2018-09-02T00:00:00+10:00",
        "FacilityId": 520047,
        "ConnectionPointId":120001,
        "FlowDirection": "RECEIPT",
        "NominationQuantity": "20.21"

      },
```

```
    {
     "GasDate": "2018-09-02T00:00:00+10:00",
     "FacilityId": 520047,
     "ConnectionPointId":120002,
     "FlowDirection": "DELIVERY",
     "NominationQuantity": "15.513"

   },
    {
     "GasDate": "2018-09-02T00:00:00+10:00",
     "FacilityId": 520047,
     "ConnectionPointId":120002,
     "FlowDirection": "RECEIPT",
     "NominationQuantity": "25.23",

   },
    {
     "GasDate": "2018-09-03T00:00:00+10:00",
     "FacilityId": 520047,
     "ConnectionPointId":120001,
     "FlowDirection": "DELIVERY",
     "NominationQuantity": "23.938"

   },
    {
     "GasDate": "2018-09-03T00:00:00+10:00",
     "FacilityId": 520047,
     "ConnectionPointId":120001,
     "FlowDirection": "RECEIPT",
     "NominationQuantity": "11.27"

   },
    {
     "GasDate": "2018-09-03T00:00:00+10:00",
```

```
        "FacilityId": 520047,
        "ConnectionPointId":120002,
        "FlowDirection": "DELIVERY",
        "NominationQuantity": "25.525"

      },
       {
        "GasDate": "2018-09-03T00:00:00+10:00",
        "FacilityId": 520047,
        "ConnectionPointId":120002,
        "FlowDirection": "RECEIPT",
        "NominationQuantity": "21.32"
       }
...
      }
              ]
}
```


7.8.4 Validation rules

- GasDate must conform to the date format yyyy-mm-dd.
- Submissions must only contain Facility Ids operated by the Company Id.
- Negative values are not accepted for the receipt or delivery Nomination Quantity.
- For each connection point in a submission, check the connection point's 'Flow Direction' as defined in the reference data. If the connection point is bi-directional, a submission must contain a Nomination Quantity for receipt and delivery.
- If the connection point is unidirectional, a Nomination Quantity must be provided for the direction.

7.9 Secondary Pipeline Capacity Bid and Offer Summary

This Submission will be replaced by the Bilateral Trade Submission form 1 March 2019.

7.9.1 Description

Transaction name	SECONDARY_BID_OFFER_SUMMARY
Purpose	Provide information on secondary pipeline capacity available for sale on *BB pipelines*. This is limited to pipelines where the pipeline operator owns, controls, or operates a secondary pipeline capacity trading platform.

Submission cut-off time	Every Monday at 7:00pm.
Rollover	No rollover
Required by	*BB pipelines*.
Exemptions	No exemptions are given for this submission.
Notes	On submission of Secondary Pipeline Capacity Bid and Offer Summary data, all bid and offer summary data previously submitted by the operator shall be cleared and replaced with the contents of the new submission.

7.9.2 Data fields

Data element	Data field name	Description	Mandatory	Data type	Example / Allowed values
Facility Id	FacilityId	A unique AEMO defined Facility Identifier.	Yes	int	520345
Buy Sell	BuySell	Buy: The shipper is in a position to buy spare *BB pipeline* capacity. Sell: The shipper is in a position to sell their spare *BB pipeline* capacity.	Yes	char(4)	BUY;SELL
Available Quantity	AvailableQuantity	Available quantity of spare pipeline capacity in TJ to three decimal places. Three decimal places is not required if the value has trailing zeros after the decimal place..	Yes	number(18,3)	135.561
Price	Price	The price of spare pipeline capacity. Price is in $/GJ.	No	number(18,2)	45.34
From Gas Date	FromGasDate	Date of gas day. Any time component supplied is ignored. The gas day is applicable under the pipeline contract or market rules.	Yes	datetime	2018-09-23
To Gas Date	ToGasDate	Date of gas day. Any time component supplied is ignored. The gas day is that applicable under the pipeline contract or market rules.	Yes	datetime	2018-09-23
Receipt Location	ReceiptLocation	Connection Point Id of the location where gas is injected into the pipeline.	Yes	int	1200001
Delivery Location	DeliveryLocation	Connection Point Id of the location where gas is withdrawn from the pipeline.	Yes	int	1300056
Contact Details	ContactDetails	Details of the relevant shipper contact person such as name and phone number.	Yes	Varchar(255)	Joe Smith – 0444 222 111

7.9.3 Data submission example

A CSV file format example is shown for FTP transfer or BB website upload, and JSON file format for HTTP web services. The JSON format example only illustrates information relating to the transaction data, and does not include header file information.

CSV file format

```
FacilityId,BuySell,AvailableQuantity,Price,FromGasDate,ToGasDate,ReceiptLocation,D
eliveryLocation,ContactDetails

540066,BUY,100,45.22,2018-09-01,2016-03-30,1200001,1300056,Joe Smith - +61 3 9123
4567

540066,SELL,450,99.95,2018-08-01,2016-08-10,1200001,1300056,Peter Jones - +61 400
111 234
```

JSON format

```
{
  "ItemList":[
       {
      "FacilityId":540066,
      "BuySell":"BUY",
      "AvailableQuantity": 100,
      "Price": 45.22,
      "FromGateDate": "2018-09-01T00:00:00+10:00",
      "ToGateDate": "2018-09-30T00:00:00+10:00",
      "ReceiptLocation": 1200001,
      "DeliveryLocation": 1300056,
      "ContactDetails": "Joe Smith - +61 3 9123 4567"
      },
       {
      "FacilityId":,
      "BuySell": "2018-01-23T00:00:00+10:00",
      "AvailableQuantity": 450,
      "Price": 99.95,
      "FromGateDate": "2018-01-23T00:00:00+10:00",
      "ToGateDate": "2018-01-23T00:00:00+10:00",
      "ReceiptLocation": 1200001,
      "DeliveryLocation": 1300056,
      "ContactDetails": "Peter Jones - +61 400 111 234"
      }
]
}
```

7.9.4 Validation rules

- Submissions must only contain Facility Ids operated by the Company Id.
- Submissions must only contain Facility Ids operated by the reporting Identity.
- Price shall be submitted in $/GJ.
- Negative values are not accepted for Available Quantity.

- Submitted connection points must be registered against the Facility Id during the connection point registration process.

7.10 Secondary Pipeline Capacity Trade Summary

This Submission will be replaced by the Bilateral Trade Submission form 1 March 2019.

7.10.1 Description

Transaction name	SECONDARY_TRADE_SUMMARY
Purpose	Provide information on secondary pipeline capacity trades that have occurred. This is limited to *BB pipelines* where the pipeline operator owns, controls, or operates a secondary pipeline capacity trading platform.
Submission cut-off time	Monday at 7:00pm.
Rollover	No rollover
Required by	*BB pipelines*.
Exemptions	No exemptions are given for this submission.
Notes	On submission of Secondary Pipeline Capacity Trader Summary data, all bid and offer summary data previously submitted by the operator shall be replaced with the new submission data.

7.10.2 Data fields

Data element	Data field name	Description	Mandatory	Data type	Example / Allowed values
Gas Date	GasDate	Date of gas day. Timestamps are ignored. The gas day as defined in the pipeline contract or market rules.	Yes	datetime	2018-09-23
Facility Id	FacilityId	A unique AEMO defined Facility Identifier.	Yes	int	520345
Receipt Location	ReceiptLocation	Connection Point Id of the location where gas is injected into the pipeline.	Yes	int	1200001
Delivery Location	DeliveryLocation	Connection Point Id of the location where gas is withdrawn from the pipeline.	Yes	int	1300056
Nameplate Capacity	NameplateCapacity	Nameplate capacity of the *BB facility* in TJ. Three decimal places is not required if the value has trailing zeros after the decimal place	Yes	number(18,3)	11900.000
Daily Nominations	DailyNominations	Daily aggregate quantity of gas nominated for delivery from the *BB pipeline* in TJ. Three decimal places is not required if the value has trailing zeros after the decimal place	Yes	number(18,3)	8320.345
Daily Utilisation	DailyUtilisation	Percentage of the *BB pipeline* capacity that is utilised per day. Three decimal places is not required if the value has trailing zeros after the decimal place	Yes	number(18,3)	68.24
Available Capacity	AvailableCapacity	Operational pipeline capacity minus nominations each day in TJ. Three decimal places is not required if the value has trailing zeros after the decimal place	Yes	number(18,3)	3660.232

Data element	Data field name	Description	Mandatory	Data type	Example / Allowed values
Capacity On Offer	CapacityOnOffer	Sum of total capacity offered for sale in TJ. Three decimal places is not required if the value has trailing zeros after the decimal place	Yes	number(18,3)	1020.987
Daily Capacity Traded	DailyCapacityTraded	Sum of total daily sold *BB pipeline* capacity in TJ. Three decimal places is not required if the value has trailing zeros after the decimal place	Yes	number(18,3)	204.123
Daily Capacity	DailyCapacity	Operational capacity of the *BB pipeline* in TJ. Three decimal places is not required if the value has trailing zeros after the decimal place	No	number(18,3)	75.987
Contracted Capacity	ContractedCapacity	Firm contracted pipeline capacity in TJ. Three decimal places is not required if the value has trailing zeros after the decimal place	No	number(18,3)	7500.678
Average Annual Capacity Traded	AverageAnnualCapacityTraded	Sum of total annual sold pipeline capacity divided by number of days, year to date. Three decimal places is not required if the value has trailing zeros after the decimal place	No	number(18,3)	32459.012

7.10.3 Data submission example

A CSV file format example is shown for FTP transfer or BB website upload, and JSON file format for HTTP web services. The JSON format example only illustrates information relating to the transaction data, and does not include header file information.

- Submission for 2018-09-06

CSV file format

```
GasDate,FacilityId,ReceiptLocation,DeliveryLocation,NameplateCapacity,DailyNominations,DailyUtilisation,AvailableCapacity,CapacityOnOffer,DailyCapacityTraded,DailyCapacity,ContractedCapacity,AverageAnnualCapacityTraded
540060,2018-01-23,1200001,1300056,300000.25,245000.25,88,200000.25,200000.25,200000.25,300000.25,300000.25,1450000,25550052,
540071,2018-01-23,1200002,1300068,100000.25,66000.25,56.25,50000.25,50000.25,50000.25,100000.25,100000.25,450000.25
```

JSON format

```
{
  "ItemList":[
       {
      "GasDate": "2018-01-23T00:00:00+10:00",
      "FacilityId": 540060,
      "ReceiptLocation": 1200001,
      "DeliveryLocation": 1300056,
      "NameplateCapacity": 30000.25,
```

```
      "DailyNominations": 24500.25,
      "DailyUtilisation": 88,
      "AvailableCapacity": 20000.25,
      "CapacityOnOffer": 20000.25,
      "DailyCapacityTraded": 20000.25,
      "DailyCapacity": 30000.25,
      "ContractedCapacity": 145000,
      "AverageAnnualCapacityTraded": 2550052
      },
       {
      "GasDate": "2018-01-23T00:00:00+10:00",
      "FacilityId": 540071,
      "ReceiptLocation": 1200002,
      "DeliveryLocation": 1300068,
      "NameplateCapacity": 10000.25,
      "DailyNominations": 6600.25,
      "DailyUtilisation": 56.25,
      "AvailableCapacity": 5000.25,
      "CapacityOnOffer": 5000.25,
      "DailyCapacityTraded": 5000.25,
      "DailyCapacity": 10000.25,
      "ContractedCapacity": 10000.25,
      "AverageAnnualCapacityTraded": 45000.25
      }
]
}
```


7.10.4 Validation rules

- Submissions must only contain Facility Ids operated by the Company Id.
- Submissions must only contain Facility Ids operated by the reporting Identity.
- Negative values are not accepted for the receipt or delivery Outlook Quantity.
- Available Quantity values must be submitted as TJs to three decimal places.
- Submitted connection points must be registered against the FacilityId during the connection point registration process.

7.11 Short Term Capacity Outlook

7.11.1 Description

Transaction name	SHORT_TERM_CAPACITY_OUTLOOK
Purpose	Provide on each gas day D, the BB facility operator's good faith estimate of the daily capacity of the BB Facility for gas days D+1 to D+7.
Submission cut-off time	7:00pm on gas day D.
Rollover	A rollover is a process where submitted values roll forward until changed by a subsequent submission. A rollover can occur when: • The short term capacity outlook data is deemed to be unchanged for each of the gas days specified in the most recent submission; and • For subsequent gas days the short term capacity outlook data is deemed to be the same as the data for the last gas day included in the most recent short term capacity outlook submission.
Required by	*BB pipelines*, *BB production facilities*, *BB storage facilities and transitional compression facilities*.
Exemptions	No exemptions are given for this submission.
Notes	• *BB storage facilities* are required to report capacity for receipts into, and deliveries from, the BB storage facility, as well as the natural gas. • BB pipelines are required to submit capacities for each direction in which natural gas can be transported on the pipeline. An Outlook Quantity must be submitted with a Capacity Description and the Delivery Receipt Points. For complex pipeline facilities that involve more than two directions of flow, more than two capacity quantities may be required quantity that can be held in storage. • Intra-day submissions can be made due to unforeseen changes in the facility's operation.

7.11.2 Data fields

Data element	Data field name	Description	Mandatory	Data type	Example / Allowed values
Gas Date	GasDate	Date of gas day. Timestamps are ignored. The gas day as defined in the market rules.	Yes	datetime	2018-09-23
Facility Id	FacilityId	A unique AEMO defined Facility Identifier.	Yes	int	520345
Capacity Type	CapacityType	Capacity type values can be: STORAGE — Holding capacity in storage; or MDQ — Daily maximum firm capacity under the expected operating conditions.	Yes	varchar(10)	STORAGE; MDQ
Outlook Quantity	OutlookQuantity	Capacity outlook quantity in TJ to three decimal places. Three decimal places is not required if the value has trailing zeros after the decimal place.	Yes	number(18,3	200.531 190.2 (if the value is 190.200)
Flow Direction	FlowDirection	Gas flow direction. Values can be either: RECEIPT — A flow of gas into the *BB facility*, or DELIVERY — A flow of gas out of the *BB facility*.	Conditional: This information is mandatory for *BB storage facilities* with MDQ Capacity Type value. Otherwise leave this field blank.	char(8)	RECEIPT; DELIVERY
Capacity Description	CapacityDescription	Free text to describe the meaning of the capacity number provided, including a description of material factors that impact the capacity number and any other relevant information. For *transitional compression facilities* this should include expected inlet and outlet pressures.	Conditional: This information is mandatory for *BB pipelines* and *transitional compression facilities*. Otherwise leave this field blank.	varchar(800)	
Receipt Location	ReceiptLocation	The Connection Point Id that best represents the receipt location. The Receipt Location in conjunction with the Delivery Location indicates the capacity direction and location.	Conditional: This information is mandatory for *BB pipelines*. Otherwise leave this field blank.	int	1200001
Delivery Location	DeliveryLocation	The Connection Point Id that best represents the delivery location. This location in conjunction with the Receipt Location indicates the capacity direction and location.	Conditional: This information is mandatory for *BB pipelines*. Otherwise leave this field blank.	int	1300056
Description	Description	Comments about the quantity or change in Outlook Quantity relating to the Facility Id, and the times, dates, or duration which those quantities or changes in quantities.	No	varchar(255)	

7.11.3 Data submission examples

Example 1

The following example shows a Short Term Capacity Outlook intra-day data submission for a *BB pipeline* NSW-Victoria Interconnect. This is an amendment to D+5 of submission period 2018-09-02 to 2018-09-08 due to unplanned maintenance on the Eurora Compressor Station.

A CSV file format example is shown for FTP transfer or BB website upload, and JSON file format for HTTP web services. The JSON format example only illustrates information relating to the transaction data, and does not include header file information.

- Submission for 2018-09-06 (D+5).
- A nominated and forecast flow submission for a *BB pipeline* (520047).
- A *BB pipeline* has a Capacity Type value “MDQ”, and Capacity Description, Receipt Location, and Delivery Location must be provided.

CSV file format

```
GasDate,FacilityId,CapacityType,OutlookQuantity,FlowDirection,Capacity
Description,ReceiptLocation,DeliveryLocation,Description

2018-09-06,520047,MDQ,170.1,,This transmission capacity is the amount of gas that
the Culcairn delivery point is able to withdraw from this pipeline facility. This
capacity is dependent on the forecast DTS demand and the availability of key
assets on this pipeline facility,1200001,1200004,Capacity reduced due to unplanned
maintenance of Euroa Compressor Station
```

JSON file format

```
{

  "ItemList":[

       {

      "GasDate": "2018-09-06T00:00:00+10:00",

      "FacilityId": 520047,

      "CapacityType": "MDQ",

      "OutlookQuantity": 170.1,

     “FlowDirection”: null

      "CapacityDescription": “This transmission capacity is the amount of gas that
the Culcairn delivery point is able to withdraw from this pipeline facility. This
capacity is dependent on the forecast DTS demand and the availability of key
assets on this pipeline facility”,

      "ReceiptLocation": 1200001,

      "DeliveryLocation": 1300004,

      "Description": Capacity reduced due to unplanned maintenance of Euroa
Compressor Station

      }
```

```
]

}
```

Example 2

The following example shows a Short Term Capacity Outlook data submission for a *BB pipeline* Longford to Melbourne. A *BB pipeline* has a Capacity Type value "MDQ", and Capacity Description, Receipt Location, and Delivery Location must be provided.

A CSV file format example is shown for FTP transfer or BB website upload, and JSON file format for HTTP web services. A CSV file format example is shown for FTP transfer or BB website upload, and JSON file format for HTTP web services. The JSON format example only illustrates information relating to the transaction data, and does not include header file information.

- Submission date 2017-12-01 for 2017-12-02 (D+1) to 2017-12-08 (D+7).
- A nominated and forecast flow submission for a *BB pipeline* (530067).

CSV file format

```
GasDate,FacilityId,CapacityType,OutlookQuantity,FlowDirection,Capacity
Description,ReceiptLocation,DeliveryLocation,Description

2017-12-02,530067,MDQ,1030.525,,This transmission capacity is the amount of gas
that the Longford receipt point, VicHub receipt point, TasHub receipt point and
the Lang Lang receipt point are able to inject into this pipeline facility. This
capacity is limited by the maximum operating pressure of this pipeline facility
and the maximum injection pressure of the Longford Gas Plant,1700001,1300004,,

2017-12-03,530067,MDQ,1020.938,,This transmission capacity is the amount of gas
that the Longford receipt point, VicHub receipt point, TasHub receipt point and
the Lang Lang receipt point are able to inject into this pipeline facility. This
capacity is limited by the maximum operating pressure of this pipeline facility
and the maximum injection pressure of the Longford Gas Plant,1700001,1300004,,

2017-12-04,530067,MDQ,1025.941,,This transmission capacity is the amount of gas
that the Longford receipt point, VicHub receipt point, TasHub receipt point and
the Lang Lang receipt point are able to inject into this pipeline facility. This
capacity is limited by the maximum operating pressure of this pipeline facility
and the maximum injection pressure of the Longford Gas Plant,1700001,1300004,,

2017-12-05,530067,MDQ,1023.856,,This transmission capacity is the amount of gas
that the Longford receipt point, VicHub receipt point, TasHub receipt point and
the Lang Lang receipt point are able to inject into this pipeline facility. This
capacity is limited by the maximum operating pressure of this pipeline facility
and the maximum injection pressure of the Longford Gas Plant,1700001,1300004,,

2017-12-06,530067,MDQ,1020.1,,This transmission capacity is the amount of gas that
the Longford receipt point, VicHub receipt point, TasHub receipt point and the
Lang Lang receipt point are able to inject into this pipeline facility. This
capacity is limited by the maximum operating pressure of this pipeline facility
and the maximum injection pressure of the Longford Gas Plant,7200001,1300004,,

2017-12-07,530067,MDQ,1023.350,,This transmission capacity is the amount of gas
that the Culcairn delivery point is able to withdraw from this pipeline facility.
This capacity is dependent on the forecast DTS demand and the availability of key
assets on this pipeline facility,1700001,1300004,,
```

```
2017-12-08,530067,MDQ,1021.556,,This transmission capacity is the amount of gas
that the Culcairn delivery point is able to withdraw from this pipeline facility.
This capacity is dependent on the forecast DTS demand and the availability of key
assets on this pipeline facility,1700001,1300004,,
```

JSON file format

```
{

  "ItemList":[

     {

      "GasDate": "2017-12-02T00:00:00+10:00",

      "FacilityId": 530067,

      "CapacityType": "MDQ",

      "OutlookQuantity": 1030.525,

     "FlowDirection": null

      "CapacityDescription": "This transmission capacity is the amount of gas that
the Longford receipt point, VicHub receipt point, TasHub receipt point and the
Lang Lang receipt point are able to inject into this pipeline facility. This
capacity is limited by the maximum operating pressure of this pipeline facility
and the maximum injection pressure of the Longford Gas Plant",

      "ReceiptLocation": 1700001,

      "DeliveryLocation": 1300004,

      "Description": null,

      ]

      },

       {

      "GasDate": "2017-12-03T00:00:00+10:00",

      "FacilityId": 530067,

      "CapacityType": "MDQ",

      "OutlookQuantity": 1020.938,

     "FlowDirection": null

      "CapacityDescription": "This transmission capacity is the amount of gas that
the Longford receipt point, VicHub receipt point, TasHub receipt point and the
Lang Lang receipt point are able to inject into this pipeline facility. This
capacity is limited by the maximum operating pressure of this pipeline facility
and the maximum injection pressure of the Longford Gas Plant",

      "ReceiptLocation": 1700001,

      "DeliveryLocation": 1300004,

      "Description": null,

      }
```

```
       {
      "GasDate": "2017-12-04T00:00:00+10:00",
      "FacilityId": 530067,
      "CapacityType": "MDQ",
      "OutlookQuantity": 1025.941,
     "FlowDirection": null,
      "CapacityDescription": "This transmission capacity is the amount of gas that
the Longford receipt point, VicHub receipt point, TasHub receipt point and the
Lang Lang receipt point are able to inject into this pipeline facility. This
capacity is limited by the maximum operating pressure of this pipeline facility
and the maximum injection pressure of the Longford Gas Plant",
      "ReceiptLocation": 1700001,
      "DeliveryLocation": 1300004,
      "Description": null,
      },
       {
      "GasDate": "2018-12-05T00:00:00+10:00",
      "FacilityId": 530067,
      "CapacityType": "MDQ",
      "OutlookQuantity": 1023.856,
     "FlowDirection": null,
      "CapacityDescription": "This transmission capacity is the amount of gas that
the Longford receipt point, VicHub receipt point, TasHub receipt point and the
Lang Lang receipt point are able to inject into this pipeline facility. This
capacity is limited by the maximum operating pressure of this pipeline facility
and the maximum injection pressure of the Longford Gas Plant",
      "ReceiptLocation": 1700001,
      "DeliveryLocation": 1300004,
      "Description": null,
      },
       {
      "GasDate": "2017-12-06T00:00:00+10:00",
      "FacilityId": 530067,
      "CapacityType": "MDQ",
      "OutlookQuantity": 1020.1,
     "FlowDirection": null,
```

```
      "CapacityDescription": "This transmission capacity is the amount of gas that
the Longford receipt point, VicHub receipt point, TasHub receipt point and the
Lang Lang receipt point are able to inject into this pipeline facility. This
capacity is limited by the maximum operating pressure of this pipeline facility
and the maximum injection pressure of the Longford Gas Plant",

      "ReceiptLocation":1700001,

      "DeliveryLocation": 1300004,

      "Description": null,

      },

       {

      "GasDate": "2017-12-07T00:00:00+10:00",

      "FacilityId": 530067,

      "CapacityType": "MDQ",

      "OutlookQuantity": 1023.350,

     "FlowDirection": null,

      "CapacityDescription": "This transmission capacity is the amount of gas that
the Longford receipt point, VicHub receipt point, TasHub receipt point and the
Lang Lang receipt point are able to inject into this pipeline facility. This
capacity is limited by the maximum operating pressure of this pipeline facility
and the maximum injection pressure of the Longford Gas Plant",

      "ReceiptLocation": 1700001,

      "DeliveryLocation": 1300004,

      "Description": null,

      },

       {

      "GasDate": "2017-12-08T00:00:00+10:00",

      "FacilityId": 530067,

      "CapacityType": "MDQ",

      "OutlookQuantity": 1021.55,

     "FlowDirection": null,

      "CapacityDescription": "This transmission capacity is the amount of gas that
the Longford receipt point, VicHub receipt point, TasHub receipt point and the
Lang Lang receipt point are able to inject into this pipeline facility. This
capacity is limited by the maximum operating pressure of this pipeline facility
and the maximum injection pressure of the Longford Gas Plant",

      "ReceiptLocation": 1700001,

      "DeliveryLocation": 1300004,

      "Description": null

      }

]
```

```
}
```

Example 3

The following scenario shows a Short Term Capacity Outlook data submission for a *BB storage facility* LNG Storage Dandenong for gas withdrawn from the Victorian Declared Transmission System to top-up this storage facility. *BB storage facilities* are required to report capacity for receipts into, and deliveries from the *BB storage facility* as well as natural gas quantities that can be held in storage.

A CSV file format example is provided for FTP transfer or BB website upload, and JSON file format for HTTP web services. The JSON format example only illustrates information relating to the transaction data, and does not include header file information.

- Submission date 2018-10-14 for 2018-10-15 (D+1) to 2018-10-21 (D+7).
- A short term capacity submission for LNG Storage Dandenong (530020).
- A *BB storage facility* has a Capacity Type value “STORAGE”. Flow direction, Capacity Description, Receipt Location, Delivery Location, and Description information are not required.
- A *BB storage facility* has a Capacity Type value “MDQ”.

CSV file format

```
GasDate,FacilityId,CapacityType,OutlookQuantity,FlowDirection,Capacity
Description,ReceiptLocation,DeliveryLocation,Description
2018-10-15,530020,STORAGE,,237.525,,,,,
2018-10-15,530020,MDQ,RECEIPT,,150.321,,,,,
2018-10-15,530020,MDQ,DELIVERY,,37.601,,,,,
2018-10-16,530020,STORAGE,,300.961,,,,,
2018-10-16,530020,MDQ,RECEIPT,,135.901,,,,,
2018-10-16,530020,MDQ,DELIVERY,,126.781,,,,,
2018-10-17,530020,STORAGE,,240.961,,,,,
2018-10-17,530020,MDQ,RECEIPT,,130.805,,,,,
2018-10-17,530020,MDQ,DELIVERY,,160.729,,,,,
2018-10-18,530020,STORAGE,,238,,,,,
2018-10-18,530020,MDQ,RECEIPT,,237.525,,,,,
2018-10-18,530020,MDQ,DELIVERY,,240.647,,,,,
2018-10-19,530020,STORAGE,,236.1,,,,,
2018-10-19,530020,MDQ,RECEIPT,,236.189,,,,,
2018-10-19,530020,MDQ,DELIVERY,,240.665,,,,,
2018-10-20,530020,STORAGE,,235.35,,,,,
2018-10-20,530020,MDQ,RECEIPT,,235.792,,,,,
2018-10-20,530020,MDQ,DELIVERY,,234.15,,,,,
2018-10-21,530020,STORAGE,,236.556,,,,,
2018-10-21,530020,MDQ,RECEIPT,,242,,,,,
```

```
2018-10-21,530020,MDQ,DELIVERY,,239.185,,,,,
```

JSON file format

```
{
  "ItemList":[
     {
      "GasDate": "2018-10-15T00:00:00+10:00",
      "FacilityId": 530020,
      "CapacityType": "STORAGE",
      "OutlookQuantity": 237.525,
      "FlowDirection": null,
      "CapacityDescription": null,
      "ReceiptLocation": null,
      "DeliveryLocation": null,
      "Description": null
      },
     {
      "GasDate": "2018-10-15T00:00:00+10:00",
      "FacilityId": 530020,
      "CapacityType": "MDQ",
      "OutlookQuantity": 150.321,
      "FlowDirection": "RECEIPT",
      "CapacityDescription": null,
      "ReceiptLocation": null,
      "DeliveryLocation": null,
      "Description": null
      },
     {
      "GasDate": "2018-10-15T00:00:00+10:00",
      "FacilityId": 530020,
      "CapacityType": "MDQ",
      "OutlookQuantity": 37.601,
      "FlowDirection": "DELIVERY",
      "CapacityDescription": null,
```

```
"ReceiptLocation": null,
"DeliveryLocation": null,
"Description": null
},
 {
"GasDate": "2018-10-16T00:00:00+10:00",
"FacilityId": 530020,
"CapacityType": "STORAGE",
"OutlookQuantity": 300.961,
"FlowDirection": null,
"CapacityDescription": null,
"ReceiptLocation": null,
"DeliveryLocation": null,
"Description": null
},
 {
"GasDate": "2018-10-16T00:00:00+10:00",
"FacilityId": 530020,
"CapacityType": "MDQ",
"OutlookQuantity": 135.961,
"FlowDirection": "RECEIPT",
"CapacityDescription": null,
"ReceiptLocation": null,
"DeliveryLocation": null,
"Description": null
},
 {
"GasDate": "2018-12-16T00:00:00+10:00",
"FacilityId": 530020,
"CapacityType": "MDQ",
"OutlookQuantity": 126.781,
"FlowDirection": "DELIVERY",
"CapacityDescription": null,
"ReceiptLocation": null,
```

```
"DeliveryLocation": null,
"Description": null
},
{
"GasDate": "2018-10-17T00:00:00+10:00",
"FacilityId": 530020,
"CapacityType": "STORAGE",
"OutlookQuantity": 240.961,
"FlowDirection": null,
"CapacityDescription": null,
"ReceiptLocation": null,
"DeliveryLocation": null,
"Description": null
},
{
"GasDate": "2018-10-17T00:00:00+10:00",
"FacilityId": 530020,
"CapacityType": "MDQ",
"OutlookQuantity": 130.805,
"FlowDirection": "RECEIPT",
"CapacityDescription": null,
"ReceiptLocation": null,
"DeliveryLocation": null,
"Description": null
},
{
"GasDate": "2018-12-17T00:00:00+10:00",
"FacilityId": 530020,
"CapacityType": "MDQ",
"OutlookQuantity": 160.729,
"FlowDirection": "DELIVERY",
"CapacityDescription": null,
"ReceiptLocation": null,
"DeliveryLocation": null,
```

```
"Description": null
},
 {
"GasDate": "2018-10-18T00:00:00+10:00",
"FacilityId": 530020,
"CapacityType": "STORAGE",
"OutlookQuantity": 238,
"FlowDirection": null,
"CapacityDescription": null,
"ReceiptLocation": null,
"DeliveryLocation": null,
"Description": null
},
 {
"GasDate": "2018-10-18T00:00:00+10:00",
"FacilityId": 530020,
"CapacityType": "MDQ",
"OutlookQuantity": 237.525,
"FlowDirection": "RECEIPT",
"CapacityDescription": null,
"ReceiptLocation": null,
"DeliveryLocation": null,
"Description": null
},
 {
"GasDate": "2018-12-18T00:00:00+10:00",
"FacilityId": 530020,
"CapacityType": "MDQ",
"OutlookQuantity": 240.647,
"FlowDirection": "DELIVERY",
"CapacityDescription": null,
"ReceiptLocation": null,
"DeliveryLocation": null,
"Description": null
```

```
},
 {
"GasDate": "2018-10-19T00:00:00+10:00",
"FacilityId": 530020,
"CapacityType": "STORAGE",
"OutlookQuantity": 236.1,
"FlowDirection": null,
"CapacityDescription": null,
"ReceiptLocation": null,
"DeliveryLocation": null,
"Description": null
},
 {
"GasDate": "2018-10-19T00:00:00+10:00",
"FacilityId": 530020,
"CapacityType": "MDQ",
"OutlookQuantity": 236.189,
"FlowDirection": "RECEIPT",
"CapacityDescription": null,
"ReceiptLocation": null,
"DeliveryLocation": null,
"Description": null
},
 {
"GasDate": "2018-12-19T00:00:00+10:00",
"FacilityId": 530020,
"CapacityType": "MDQ",
"OutlookQuantity": 240.665,
"FlowDirection": "DELIVERY",
"CapacityDescription": null,
"ReceiptLocation": null,
"DeliveryLocation": null,
"Description": null
},
```

```
 {
"GasDate": "2018-10-20T00:00:00+10:00",
"FacilityId": 530020,
"CapacityType": "STORAGE",
"OutlookQuantity": 235.35,
"FlowDirection": null,
"CapacityDescription": null,
"ReceiptLocation": null,
"DeliveryLocation": null,
"Description": null
},
 {
"GasDate": "2018-10-20T00:00:00+10:00",
"FacilityId": 530020,
"CapacityType": "MDQ",
"OutlookQuantity": 235.792,
"FlowDirection": "RECEIPT",
"CapacityDescription": null,
"ReceiptLocation": null,
"DeliveryLocation": null,
"Description": null
},
 {
"GasDate": "2018-12-20T00:00:00+10:00",
"FacilityId": 530020,
"CapacityType": "MDQ",
"OutlookQuantity": 234.15,
"FlowDirection": "DELIVERY",
"CapacityDescription": null,
"ReceiptLocation": null,
"DeliveryLocation": null,
"Description": null
},
 {
```

```
      "GasDate": "2018-10-21T00:00:00+10:00",
      "FacilityId": 530020,
      "CapacityType": "STORAGE",
      "OutlookQuantity": 236.556,
      "FlowDirection": null,
      "CapacityDescription": null,
      "ReceiptLocation": null,
      "DeliveryLocation": null,
      "Description": null
      },
       {
      "GasDate": "2018-10-21T00:00:00+10:00",
      "FacilityId": 530020,
      "CapacityType": "MDQ",
      "OutlookQuantity": 242,
      "FlowDirection": "RECEIPT",
      "CapacityDescription": null,
      "ReceiptLocation": null,
      "DeliveryLocation": null,
      "Description": null
      },
       {
      "GasDate": "2018-12-21T00:00:00+10:00",
      "FacilityId": 530020,
      "CapacityType": "MDQ",
      "OutlookQuantity": 239.185,
      "FlowDirection": "DELIVERY",
      "CapacityDescription": null,
      "ReceiptLocation": null,
      "DeliveryLocation": null,
      "Description": null
      }
]
}
```

7.11.4 Validation rules

- GasDate must conform to the date format yyyy-mm-dd.
- Submissions must only contain FacilityIds operated by the CompId.
- Negative values are not accepted for the receipt or delivery Outlook Quantity.
- An Outlook Quantity should be greater than or equal to the LowRange and less than or equal to the HighRange of the BB facilities standing Capacity Quantity.
- Where a submission contains values for the current gas day (D), the submission is deemed to be an intra-day submission.
- Intra-day submissions are accepted up to the end of the gas day.

For CSV file submissions, Description and Capacity Description with commas must be enclosed in double quotes or exclude any commas.

7.12 Uncontracted Capacity Outlook

7.12.1 Description

Transaction name	UNCONTRACTED _CAPACITY_OUTLOOK
Purpose	Provides information on: • Uncontracted primary pipeline capacity on *BB pipelines* for the next 12 months. Note: This does not include *BB pipelines* in the Declared Transmission System. • Uncontracted storage capacity on *BB storage facilities* for the next 12 months. • Uncontracted primary compression capacity on *transitional compression facilities* for the next 12 months.
Submission cut-off time	By 7:00 pm on the last gas day of each month.
Rollover	Submitted values roll forward in the following manner: • The Uncontracted Capacity Outlook data is deemed to be unchanged for each of the months specified in the most recent submission; and • For subsequent months, the Uncontracted Capacity Outlook data is deemed to be the same as the data for the last month in the most recent Uncontracted Capacity Outlook submission.
Required by	*BB pipelines, BB storage facilities* and *transitional compression facilities*.
Exemptions	No exemptions are given for this submission.

7.12.2 Data fields

Data element	Data field name	Description	Mandatory	Data type	Example / Allowed values
Facility Id	FacilityId	A unique AEMO defined Facility Identifier.	Yes	int	520345
Outlook Month	OutlookMonth	The outlook month.	Yes	int	04
Outlook Year	OutlookYear	The outlook year.	Yes	int	2018
Capacity Type	CapacityType	Capacity type values can be: STORAGE — Holding capacity in storage; or MDQ — Daily maximum firm capacity (name plate) under the expected operating conditions adjusted for any Facility that is 'mothballed', decommissioned or down-rated and / or cannot be recalled within 1 week, planned maintenance excepted. Reflects any long terms changes (greater than 12 months), or The maximum quantity of gas that can be compressed by the *transitional compression facility* on a given day, without breaching operational limits.	Yes	varchar(10)	STORAGE; MDQ
Outlook Quantity	OutlookQuantity	Daily average quantity across a month, expressed in TJ to three decimal places. Three decimal places is not required if the value has trailing zeros after the decimal place.	Yes	number(18,3)	200.531 190.2 (if the value is 190.200)
Flow Direction	FlowDirection	Gas flow direction. Values can be either: RECEIPT — A flow of gas into the *BB facility*, or DELIVERY — A flow of gas out of the *BB facility*.	Conditional: This information is mandatory for *BB storage facilities* with MDQ Capacity Type value. Otherwise leave this field blank.	char(8)	RECEIPT; DELIVERY
Capacity Description	CapacityDescription	Free text to describe the meaning of the capacity number provided, including a description of material factors that impact the capacity number and any other relevant information.	Conditional: This information is mandatory for *BB pipeline* submissions with a MDQ Capacity Type. Otherwise leave this blank.	varchar(800)	
Receipt Location	ReceiptLocation	The Connection Point Id that best represents the receipt location. The Receipt Location in conjunction with the Delivery Location indicates the capacity direction and location.	Conditional: This information is mandatory for *BB pipeline* submissions with a MDQ Capacity Type. Otherwise leave this blank..	int	1200001

Data element	Data field name	Description	Mandatory	Data type	Example / Allowed values
Delivery Location	DeliveryLocation	The Connection Point Id that best represents the delivery location. This location in conjunction with the Receipt Location indicates the capacity direction and location.	Conditional: This information is mandatory for *BB pipeline* submissions with a MDQ Capacity Type. Otherwise leave this blank.	int	1300056
Description	Description	Comments about the quantity or change in Outlook Quantity relating to the Facility Id, and the times, dates, or duration which those quantities or changes in quantities.	No	varchar(255)	

7.12.3 Data submission example

The following examples is an Uncontracted Capacity Outlook submission for a *BB pipeline.*

A CSV file format example is shown for FTP transfer or BB website upload, and JSON file format for HTTP web services. The JSON format example only illustrates information relating to the transaction data, and does not include header file information.

- Submission for a *BB pipeline* (540066).
- A *BB pipeline* has a Capacity Type value “MDQ”, and Capacity Description, Receipt Location, and Delivery Location must be provided.

CSV file format

```
FacilityId,OutlookMonth,OutlookYear,CapacityType,OutlookQuantity,FlowDirection,Cap
acityDescription,ReceiptLocation,DeliveryLocation,Description

540066,2018,02,MDQ,100.522,,Capacity From BWP to SWQP
facility,1200001,1300004,Capacity Outlook for 2018-02-19

540066,2018,03,MDQ,67.801,,Capacity From BWP to SWQP
facility,1200001,1300004,Capacity Outlook for 2018-03-21
```

JSON format

```
{

  "ItemList":[

             {

      "FacilityId": 540066,

      "OutlookMonth": 02,

      "OutlookYear": 2018,

      "CapacityType": "MDQ",

      "OutlookQuantity": 100.522,
```

```
      "FlowDirection": null
      "CapacityDescription": "Capacity From BWP to SWQP facility",
      "ReceiptLocation": 1200001,
      "DeliveryLocation": 1300004,
      "Description": "Capacity Outlook for 2018-02-19"
      },
       {
      "FacilityId": 540066,
      "OutlookMonth": 02,
      "OutlookYear": 2018,
      "CapacityType": "MDQ",
      "OutlookQuantity": 67.801,
      "FlowDirection": null
      "CapacityDescription": "Capacity From BWP to SWQP facility",
      "ReceiptLocation": 1200001,
      "DeliveryLocation": 1300004,
      "Description": "Capacity Outlook for 2018-03-21"
     }
]
}
```


7.12.4 Validation rules

- GasDate must conform to the date format yyyy-mm-dd.
- Submissions must only contain Facility Ids operated by the Company Id.
- Negative values are not accepted for the receipt or delivery Capacity Quantity.
- For CSV file submissions, Description and Capacity Description with commas must be enclosed in double quotes, or exclude any commas.
- Pipelines are required to submit capacities for each direction in which natural gas can be transported on the pipeline.
- Pipeline Outlook Quantity must be submitted with a Capacity Description and the Delivery and Receipt Points.
- *Transitional compression facilities* must submit an Outlook Quantity with a Capacity Description for the facility.
- Storage facilities are required report capacity for receipts into, and deliveries from, the BB storage facility as well as the quantity of natural gas that can be held in storage.

7.13 BB Capacity Transaction

7.13.1 Description

Transaction name	BB_CAPACITY_TRANSACTION
Purpose	Provides information on BB Capacity Transactions, excluding those concluded through the gas trading exchange.
Submission cut-off time	The earlier of: (a) 1 business day after the trade date for the BB capacity transaction; and (b) The day prior to the date on which the service term for the BB capacity transaction starts. Or where the service term for a BB capacity transaction starts on the trade date for the transaction, as soon as reasonably practicable on the trade date.
Rollover	No rollover
Required by	*BB transportation facility user* or *capacity transaction reporting agent*
Exemptions	No exemptions are given for this submission.

7.13.2 Data fields

Data element	Data field name	Description	Mandatory	Data type	Example / Allowed values
Trade Id	TradeId	A unique AEMO defined trade identifier.	Conditional This field is mandatory when updating an existing trade.	int	123456
Trade Date	TradeDate	Date the trade was made.	Yes	datetime	2018-03-01
From Gas Date	FromGasDate	Effective start date of the trade	Yes	datetime	2018-03-10
To Gas Date	ToGasDate	Effective end date of the trade	Yes	datetime	2018-03-20
Buyer Name	BuyerName	The descriptive name of the buyer	Yes	String (255)	Star Energy
Seller Name	SellerName	The descriptive name of the seller	Yes	String (255)	Purple Energy
Facility Id	FacilityId	The unique AEMO defined Part 24 Facility Identifier	Conditional This information is mandatory for facilities registered in CTP or DAA. Otherwise leave this blank.	int	520001

Data element	Data field name	Description	Mandatory	Data type	Example / Allowed values
Facility Name	FacilityName	The descriptive name of the Facility that is not registered as a Part 24 Facility.	Conditional This information is mandatory for facilities not registered in CTP or DAA. Otherwise leave this blank.	String (255)	Tamworth pipeline
Flow Direction	FlowDirection	The directional of flow relative to the general direction of the facility that is not registered as a Part 24 facility. Valid values are: • NORTH • NORTH_EAST • NORTH_WEST • EAST • SOUTH • SOUTH_EAST • SOUTH_WEST WEST	Conditional This information is mandatory for facilities not registered in CTP or DAA. Otherwise leave this blank.	String (10)	NORTH
Standard OTSA	StandardOTSA	Identify if a standard OTSA was used. Valid values: • YES • NO	Yes	String (255)	YES
BB Transportation Service Type	BBTransportationServiceType	The transportation service type. Valid values: • FORWARD_HAUL • BACKHAUL • PARK • LOAN • COMPRESSION	Yes	String (12)	FORWARD_HAUL;
Priority	Priority	The priority of the traded capacity	Yes	String (3)	Secondary firm
Receipt Point Id	ReceiptPointId	The unique AEMO defined Receipt Part 24 Service Point identifier. This is the point where gas is injected into the pipeline.	Conditional This information is mandatory for facilities registered in CTP or DAA and BB Transportation Service Type = FORWARD_HAUL, BACKHAUL or COMPRESSION.	int	3001

Data element	Data field name	Description	Mandatory	Data type	Example / Allowed values
Delivery Point Id	DeliveryPointId	The unique AEMO defined Delivery Part 24 Service Point identifier. This is the point where gas is withdrawn from the pipeline.	Conditional This information is mandatory for facilities registered in CTP or DAA and BB Transportation Service Type = FORWARD_HAUL, BACKHAUL or COMPRESSION.	int	4001
Park Loan Point Id	ParkLoanPointId	The unique AEMO defined service point identifier for the Park and Loan point.	Conditional This information is mandatory for facilities registered in CTP or DAA and BB Transportation Service Type = PARK or LOAN.	int	5001
Quantity	Quantity	The traded maximum daily quantity (MDQ) (GJ/day).	Yes	int	240
MHQ	MHQ	The traded maximum hourly quantity (GJ/hour).	Yes	int	10
Price	Price	The price of the capacity traded ($/GJ/day).	Yes	Decimal (18,2)	4.20
Price Structure	PriceStructure	The price structure applied over the term of the trade.	No	varchar (255)	Variable
Price Escalation Mechanism	PriceEscalationMechanism	The price escalation mechanism applied over the term of the trade.	No	varchar (255)	10% per annum

7.13.3 Data submission example

A CSV file format example is shown for BB website upload, and JSON file format for HTTP web services. The JSON format example only illustrates information relating to the transaction data and does not include header file information.

- Submission for 2019-03-01

CSV file format

```
TradeId,TradeDate,FromGasDate,ToGasDate,BuyerName,SellerName,FacilityId,FacilityName,Flowdirection,StandardOTSA,BBTransportationServiceType,Priority,ReceiptPointId,DeliveryPointId,ParkLoanPointId,Quantity,MHQ,Price,PriceStrusture,PriceEscalationMechanism
```

```
123456,2019-03-01,2019-03-10,2019-03-20,Star Energy,Purple
Energy,52001,,,YES,FORWARD_HAUL,Secondary Firm,
3001,4001,,240,10,4.20,Variable,10% per annum
,2019-03-01,2019-03-10,2019-03-20,Star Energy,Purple Energy,,Tamworth
pipeline,NORTH_EAST,NO,BACKHAUL,Primary Firm,,,,240,10,4.20,Variable,
```

JSON format

```
{
  "ItemList":[
       {
      "TradeId": 123456,
      "TradeDate": "2019-03-01",
      "FromGasDate": "2019-03-10",
      "ToGasDate": "2019-03-20",
      "BuyerName": "Star Energy",
      "SellerName": "Purple Energy",
      "FacilityId": 52001,
      "FacilityName": null,
      "FlowDirection": null,
      "StandardOTSA": "YES",
      "BBTransportationServiceType": "FORWARD_HAUL",
      "Priority": "Secondary Firm",
      "ReceiptPointId": 3001,
      "DeliveryPointId": 4001,
      "ParkLoanPointId": null,
      "Quantity": 240,
      "MHQ": 10,
      "Price": 4.20,
      "PriceStructure": "Variable",
      "PriceEscalationMechanism": "10% per annum"
      },
       {
      "TradeId": null,
      "TradeDate": "2019-03-01",
      "FromGasDate": "2019-03-10",
      "ToGasDate": "2019-03-20",
```

```
      "BuyerName": "Star Energy",
      "SellerName": "Purple Energy",
      "FacilityId": null,
      "FacilityName": "Tamworth pipeline",
      "FlowDirection": "NORTH_EAST",
      "StandardOTSA": "NO",
      "BBTransportationServiceType": "FORWARD_HAUL",
      "Priority": "Primary Firm",
      "ReceiptPointId": null,
      "DeliveryPointId": null,
      "ParkLoanPointId": null,
      "Quantity": 240,
      "MHQ": 10,
      "Price": 4.20,
      "PriceStructure": "Variable",
      "PriceEscalationMechanism": null
      }
]
}
```


7.13.4 Validation rules

- Delivery and Receipt Point Id's must be valid within the registered list of service points in the transportation service point register established under Part 24 where the Facility Id is populated.
- Park Loan Point Id's must be valid within the registered list of service points in the transportation service point register established under Part 24 where the Facility Id is populated.
- Facility Name and Flow Direction must be populated where the Facility is not registered under Part 24.
- Quantity and MHQ must be greater than 0
- Price must be equal to or greater than 0.

8. GLOSSARY

8.1 Abbreviations

Abbreviation	Abbreviation explanation
AEMO	Australian Energy Market Operator.
API	Application Programming Interface.
BB	The Natural Gas Services Bulletin Board.
CSV	Comma Separated Values. Stores tabular data (numbers and text) in plain-text form. Plain text means the content is a sequence of characters, with no data that must be interpreted instead as binary numbers.
FTP	File Transfer Protocol – a protocol that allows users to copy files between any systems they can reach on the network.
HTTPS	Hypertext Transfer Protocol over SSL.
JSON	JavaScript Object Notation.
MDQ	Maximum Daily Quantity.
REST	Representational State Transfer.
URL	Uniform Resource Locator.
URM	User Rights Management.

8.2 Terms

Term	Definition
Authorised User	A person authorised by a *BB reporting entity* to submit information to the Bulletin Board for that *BB reporting entity.*
Connection Point	A *receipt point* or *delivery point*.
BB Procedures	The BB Procedures made under Part 18 of the National Gas Rules, which comprise of the document named the BB Procedures and these Gas Bulletin Board Data Submission Procedures.
Declared Transmission System	The Declared Transmission System (DTS), also known as the Victorian Transmission System (VTS), transports natural gas within Victoria, supplying the Melbourne metropolitan area and country areas.
e-Hub	API Web Portal and the API Gateway for both electricity and gas.
INT Reports	Interface (INT) Reports are AEMO's reporting system file outputs.
Rules	The National Gas Rules.
TJ	1 Terajoule, 1,000 Gigajoules, 1,000,000 Joules. A Joule is a unit of energy.

9. NEEDING HELP

9.1 Requesting AEMO assistance

9.1.1 Information to provide

Please provide the following information when requesting IT assistance from AEMO:

- Your name
- Organisation name
- Participant ID
- System or application name
- Environment: production or pre-production
- Problem description
- Screenshots

9.1.2 AEMO's Support Hub

IT assistance is requested through one of the following methods:

- Phone: 1300 AEMO 00 (1300 236 600)

For non-urgent issues, normal coverage is 8:00 AM to 6:00 PM on weekdays, Australian Eastern Standard Time (AEST).

- Email: supporthub@aemo.com.au

AEMO recommends participants call AEMO's Support Hub for all urgent issues, whether or not you have logged a call in the Customer Portal.

APPENDIX A. VALIDATION ERROR CODES

The validation error codes for all transaction types are shown in the following table.

Error code	Error type	Transaction log description
0	File processing success	File processed without errors or alarms, {0} rows accepted
1	File processing error	Unexpected file processing error
2	File processing error	Unexpected file processing error
3	File processing error	File name provided does not comply with COMPID_TRANSACTIONNAME_CCYYMMDDHHMMSS.CSV naming convention
4	File processing error	The transaction name {0} within the file name provided is not of a known type
5	File processing error	The transaction fields do not match those associated to the transaction name
8	File processing error	Invalid data provided {0} for type {1}
9	File processing error	Empty file submitted
89	File processing error	Rows with duplicate key information are present in the file
20	Date	The GasDate {0} provided is not a valid date
21	Date	The GasDate {0:yyyy-MM-dd HH:mm:ss} provided must be a current or future date
22	Date	The EffectiveDate {0} provided is not a valid date.
23	Date	Effective Date {1:yyyy-MM-dd HH:mm:ss} for facilty {0} is in the past.
24	Date	The TerminationDate {0} provided is not a valid date.
25	Date	The TerminationDate {0:yyyy-MM-dd HH:mm:ss} provided must be a current or future date
26	Date	Gas Date {1:yyyy-MM-dd HH:mm:ss} for facility {0} is not a historical date
27	Date	The TerminationDate {0:yyyy-MM-dd HH:mm:ss} must be later than the EffectiveDate
28	Date	ToGasDate must be equal to or greater than FromGasDate
29	Date	Effective Date {1:yyyy-MM-dd} for connection point {0} is in the past
30	Date	Month {0} provided is not valid. Must be between 1 and 12
31	Date	Year {0} provided is not valid
32	Date	Gas Date {0:yyyy-MM-dd HH:mm:ss} is not a historical date
33	Date	FromGasDate must be equal to or greater than current gas day.
34	Date	FromGasDate must not overlap the date range of any other row for the same FacilityId and Outlook Type.
35	Date	ToGasDate must not overlap the date range of any other row for the same FacilityId and Outlook Type.
36	Date	FromGasDate and ToGasDate can only be a maximum of one calendar month apart.
37	Date	Gas Date {0:yyyy-MM-dd} can be for either of D, D + 1 or D + 2.
105	Date	Gas Date is older than a month.
40	Identifier	Facility Id {0} does not exist in the database.
41	Identifier	Participant is not the registered operator of Facility {0}.

Error code	Error type	Transaction log description
42	Identifier	Zone ID {0} does not exist in the database.
43	Identifier	Zone ID {1} is not associated with Facility Id {0}.
44	Identifier	The OfferId provided does not exist in the database.
45	Identifier	The UserId provided does not exist on the database.
46	Identifier	The UserId provided is not associated with the file provider.
47	Identifier	The EventId provided does not exist on the database.
48	Identifier	The file provider is not authorised to upload transactions of this type.
49	Identifier	ConnectionPointId {0} does not exist in the database.
50	Identifier	Participant is not the registered operator of connection point {0}.
51	Identifier	Participant is not permitted to submit data for {0} transactions.
52	Identifier	Zone does not exist in the database for Facility {0}.
53	Identifier	Facility Id {0} is not a valid storage facility.
54	Identifier	Facility Id {0} is not a valid pipeline.
60	Type	Capacity type {1} for facility {0} is not valid.
61	Type	Demand type {1} for facility {0} is not valid.
62	Type	Nomination type {1} for facility {0} is not valid.
63	Type	Outlook type {1} for facility {0} is not valid.
64	Type	Flow type {1} for facility {0} is not valid.
65	Type	Offer type {1} for facility {0} is not valid.
66	Type	Status type {1} for facility {0} is not valid.
67	Type	Event type {1} for facility {0} is not valid.
68	Type	Flag type {1} for facility {0} is not valid.
69	Type	Quality type {1} for facility {0} is not valid.
70	Type	Outlook type {0} is not valid for a pipeline. Valid values are TRANC and REVC.
71	Type	Outlook type {0} is not valid for a storage facility. Valid values are PRODC, WDLC, INJC.
72	Type	Outlook type {0} is not valid for a production facility. Valid value is PRODC.
73	Type	BuySell value {0} is not valid
74	Type	Nomination type {0} is invalid for a Declared Transmission System facility. Valid values are D+0, D+1, D+2, D+3, D+4, D+5 or D+6.
75	Type	Nomination type {0} is invalid for a non-Declared Transmission System facility. Valid values are FCNOM, FIRMN or FIRMR.
76	Type	Flow Direction {0} is not valid
77	Type	Transmission Direction {0} is not valid

Where:

Label	Description
{0}	The invalid data provided for a field in the uploaded file.
{1}	The data type for a field in the uploaded file.