



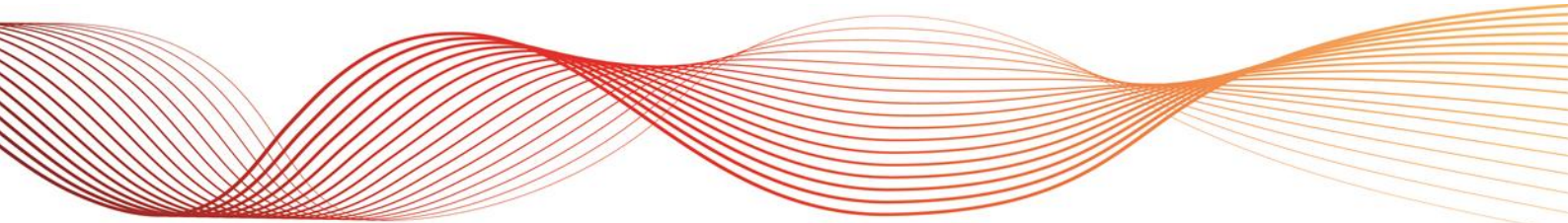
BB DATA SUBMISSION PROCEDURES

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0.1 

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IMPORTANT NOTICE

Purpose

These BB Data Submission Procedures are made by AEMO under section 227 of the National Gas Law to specify the manner and form for providing information to AEMO for 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 BB Data Submission Procedures to the extent of any inconsistency.

Document Identification

Document owner: Executive General Manager, Markets

Prepared by: Hugh Ridgway

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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

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1. OVERVIEW

1.1 Purpose

These BB Data Submission Procedures specify the requirements for *BB reporting entities* to submit forecast and actual data to AEMO for the Natural Gas Services Bulletin Board. These BB Data Submission Procedures form part of the *BB Procedures*. If there is any inconsistency between these BB Data Submission Procedures and the document named the 'BB Procedures', the document named the 'BB Procedures' prevails.

1.2 Application

These BB Data Submission Procedures apply to AEMO and each person to whom they are expressed to apply under the National Gas Law or Rules.

1.3 Terminology and Definitions

The words, phrases and abbreviations set out below have the meanings set out opposite them when used in these BB Data Submission Procedures. Terms defined in the National Gas Law or the Rules have the same meanings in these BB Data Submission Procedures unless otherwise specified in this clause. Those terms are intended to be identified in these BB Data Submission Procedures by italicising them, but failure to italicise a defined term does not affect its meaning.

1.3.1 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 has to 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.
REST	Representational State Transfer.
URL	Uniform Resource Locator.

1.3.2 Terms

Term	Definition
Authorised User	A person authorised by a <i>BB reporting entity</i> to submit information to the Bulletin Board for that <i>BB reporting entity</i> .
Connection Point	A <i>receipt point</i> or <i>delivery point</i> .
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 BB 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.
Rules	The National Gas Rules.



1.4 Interpretation of these Procedures

The following principles of interpretation apply to these BB Data Submission Procedures unless otherwise expressly indicated:

- (a) These BB Data Submission Procedures are subject to the principles of interpretation set out in Schedule 2 of the National Gas Law.
- (b) References to time are references to Australian Eastern Standard Time.
- (c) References to rules or sub-rules are to the relevant provision in the Rules.
- (d) A reference to a change in capacity or quantity includes an increase or decrease.
- (e) Where these Procedures contain a summary of a Rule in italics, the summary is for ease of reference only and does not form part of the Procedures.



2. TECHNICAL OVERVIEW

The provision of data from *BB reporting entities* to the BB in these BB Data Submission Procedures are explained and divided into two key areas:

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

There are several methods available to submit data to the BB:

- BB website CSV file transfer mechanisms: CSV file upload using the BB website upload page. Refer to section [5.1](#)
- FTP CSV file transfer mechanisms: CSV file upload using FTP. Refer to section [5.2](#)
- HTTPS JSON content transfer mechanisms: JSON content upload using a RESTful interface available through HTTPS. Refer to section [5.3](#)

Any of the above-mentioned 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 PROVISION REQUIREMENTS

In addition to the requirements in the National Gas Rules and the document named the *BB Procedures*, these BB Data Submission Procedures specifies provision of data from *BB reporting entities* to the BB as required by the Rules. This information includes the form, requirements, and timing of submissions.

Table 1 summarises the transaction data responsibilities of all parties as defined within Division 5 of the Rules.

Table 1 Transaction data responsibilities

BB Participant	Description	Reporting frequency	Production Facility Operators	Storage Facility Operators	Pipeline Operators	Submission cut-off times
<u>Capacity Outlook</u>	Provides on each gas day D, the <i>BB facility</i> operator's good faith estimate of the daily capacity of the <i>BB facility</i> for gas days D+1 to D+7.	Daily	●	●	●	7:00 pm on gas day D.
<u>Daily Production and Flow</u>	Provides on each gas day D, the <i>BB facility</i> operator's daily gas flow data for injections and withdrawals at each connection point for gas day D-1.	Daily	●	●	●	1:00 pm on gas day D.
<u>Daily Storage</u>	Provides on each gas day D, the actual quantity of natural gas held in each <i>BB storage facility</i> at the end of gas day D-1.	Daily		●		1:00 pm on gas day D.
<u>Gate Station Nameplate Rating</u>	Provides the nameplate rating for each gate station connection point owned, controlled, or operated by the <i>BB pipeline</i> operator and connected to each of its <i>BB pipelines</i> . Where a gate station connection point that is connected to a <i>BB pipeline</i> is not owned by the <i>BB pipeline</i> operator, the nameplate rating will be provided by the <i>BB pipeline</i> operator if available.	Annually			●	31 March annually and whenever the standing capacity changes.
<u>Linepack Capacity Adequacy</u>	Provides on each gas day D, the <i>BB pipeline</i> operator's Linepack Capacity Adequacy (LCA) flag for gas days D to D+2.	Daily			●	7:00 pm on gas day D.
<u>Medium Term Capacity Outlook</u>	Provides details of any activity expected to affect the daily capacity of a <i>BB pipeline</i> , <i>BB production</i> or <i>BB storage facility</i> in the next 12 months.	Adhoc	●	●	●	Whenever the Medium Term Capacity changes.



Nameplate Rating	Provides the nameplate rating of each <i>BB facility</i> annually or information about any planned permanent capacity reduction or expansion due to modification of the <i>BB facility</i> .	Annually	●	●	●	31 March annually and whenever the standing capacity changes.
Nomination and Forecasts	<ul style="list-style-type: none"> For <i>BB pipelines</i> 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 <i>BB facility</i> 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	●	●	●	7:00 pm on gas day D.
Secondary Pipeline Capacity Bid and Offer Summary	Provides information on spare capacity for <i>BB pipelines</i> . This is limited to <i>BB pipelines</i> where the <i>BB pipeline</i> operator owns, controls or operates a secondary <i>BB pipeline</i> 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 <i>BB pipelines</i> where the pipeline operator owns, controls or operates a secondary pipeline capacity trading platform.	Weekly			●	7:00 pm every Monday.
Uncontracted Capacity Outlook	<ul style="list-style-type: none"> Uncontracted primary pipeline capacity on <i>BB pipelines</i> for the next 12 months. Note: This does not include <i>BB pipelines</i> in the Declared Transmission System. Uncontracted storage capacity on <i>BB storage facilities</i> 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.



3.1 Facility and Connection Point Identifiers

This section describes the changes to naming conventions for Facility Identifiers and Connection Point Identifiers Facility identifiers.

3.1.1 Facility Identifiers

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

5+[2-8]+[0-9]{1,4}

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

Facility identifiers have the following characteristics:

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

For example, Facility identifiers “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.

3.1.2 Connection Point Identifiers

Connection Point Identifiers used in transactions and reports subscribe to the following format:

1+[2-8]+[0-9]{1,5}

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

Connection Point Ids have the following characteristics:



- Connection Point Ids are defined and allocated by AEMO to *BB reporting entities* during the registration process.
- Individual Connection Point Id can be defined as supporting unidirectional or bidirectional gas flows.
- *BB reporting entities* must report flows into their respective facilities as receipts, and flows out of their respective facilities as deliveries, for each Connection Point Id.
- Where facilities are connected, from the perspective of BB reporting, flows are to be reported using a single shared Connection Point Id. Note that the direction of flow for a single Connection Point Id will be different from the perspective of each *BB reporting entity*.
- The state code element for a Connection Point Id corresponds to its physical location. In the case of *BB pipelines* that traverse multiple states, state codes for Connection Point Ids along the line can differ from that of other Connection Point Id and the pipeline's Facility Id.
- The 00001-99999 unique identifying number of a Connection Point Id to be unique for each state. Thus two Connection Point Ids 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 numeric identifier of "01000".
- Connection Point Id "1401000" relates to a connection point within Queensland with the state based unique numeric identifier of "01000".



4. TRANSACTIONS

This section provides information on the form, requirements, and timing of submissions for gas transactions.

4.1 Short Term Capacity Outlook

Purpose	Provide on each gas day D the <i>BB facility</i> operator's good faith estimate of the daily capacity of the <i>BB facility</i> for gas days D+1 to D+7.
Submission cut-off time	Whenever there is a material change.
Rollover	Submitted values roll forward in the following manner: <ul style="list-style-type: none"> 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	<i>BB pipelines, BB production facilities, and BB storage facilities.</i>
Exemptions	No exemptions will be given for this submission.
Notes	<ul style="list-style-type: none"> Submission can contain values for gas days from D up to D+7. In the case that the submission contains values for the current gas day (D), the submission is deemed to be an intra-day submission. Intra-day submissions for the current gas day (D) will be accepted up to the end of gas day. AEMO will always publish the latest Capacity Outlook submission, however a timeline of historic submissions may be reportable.

4.1.1 Data elements

Data	Description	Mandatory
Facility Id	A unique AEMO defined Facility identifier.	Yes
Gas Date	Date of gas day. Any time component supplied will be ignored. The gas day is that applicable under the pipeline contract or market rules.	Yes
Capacity Type	Capacity type may be: <ul style="list-style-type: none"> Storage: Holding capacity in storage, or MDQ: Daily maximum firm capacity under the expected operating conditions. 	Yes
Outlook Quantity	Capacity Outlook quantity.	Yes
Flow Direction	Indicates whether the capacity is for a <i>BB storage facility's</i> capacity for injecting into or withdrawing from a <i>BB pipeline</i> . Flow Direction can be: <ul style="list-style-type: none"> Receipt: The flow of gas <u>into</u> the <i>BB storage facility</i>, or Delivery: The flow of gas <u>out</u> of the <i>BB storage facility</i>. 	Conditional This field is mandatory for <i>BB storage facilities</i> . Other facilities must leave this field blank.
Capacity Description	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.	Conditional This information is mandatory for BB pipelines. Other facilities must leave this field blank.
Receipt Location	The Connection Point Id that best represents the receipt location. In conjunction with the Delivery location, this will indicate direction and location of the capacity.	Conditional This information is mandatory for BB pipelines. Other facilities must leave this field blank.



Data	Description	Mandatory
Delivery Location	The Connection Point Id that best represents the delivery location. In conjunction with the receipt location, this will indicate direction and location of the capacity.	Conditional This information is mandatory for <i>BB pipelines</i> . Other facilities must leave this field blank.
Description	Free text facility use is restricted to a description for reasons or comments directly related to the quantity or the change in outlook quantity provided in relation to a <i>BB facility</i> and the times, dates, or duration for which those quantities or changes in quantities are expected to apply.	No

4.1.2 Requirements

- Outlook Quantity values must be submitted in TJs to three decimal places.
- *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.
- *BB 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.
- Where a facility's capacity is reduced to zero, a zero value must be submitted.
- Submissions must only contain *BB pipelines*, *BB production facilities*, or *BB storage facilities* operated by the *BB reporting entity*.

4.2 Daily Production and Flow

Purpose	Provide on each gas day D, the <i>BB facility</i> operator's daily gas flow data for receipts and deliveries at each connection point for D-1.
Submission cut-off time	1:00 pm on gas day D.
Rollover	No rollover.
Required by	<i>BB pipelines</i> , <i>BB production facilities</i> , and <i>BB storage facilities</i> .
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 in respect of the shared connection point are not accepted.
Notes	<ul style="list-style-type: none"> • 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 submission. However, a timeline of historic submissions may be reportable.

4.2.1 Data elements

Data	Description	Mandatory
Gas Date	Date of gas day. Any time component supplied will be ignored. The gas day is that applicable under the pipeline contract or market rules.	Yes
Actual Quantity	The actual quantity of gas that flowed into a <i>BB facility</i> or out of a <i>BB facility</i>	Conditional This field is mandatory where Quality is OK



Data	Description	Mandatory
Facility Id	A unique AEMO defined Facility identifier.	Yes
Connection Point Id	A unique AEMO defined connection point identifier.	Yes
Flow Direction	Flow Direction can be: <ul style="list-style-type: none"> Receipt: The flow of gas <u>into</u> the <i>BB facility</i>, or Delivery: The flow of gas <u>out</u> of the <i>BB facility</i>. 	Yes
Quality	Quality can be: <ul style="list-style-type: none"> OK: Connection Point Actual Quantity data for gas flow into or out of the <i>BB facility</i> is based on meter data. Nil: Connection Point Actual Quantity data for gas flow into or out of the <i>BB facility</i> cannot be determined due to an operational issue. 	Yes

4.2.2 Requirements

- Actual Quantity values must be submitted in TJs to three decimal places.
- Where a connection point supports bidirectional flows, Actual Quantities must be provided separately for receipts and deliveries.
- Where there are zero receipts or zero deliveries at a connection point, an Actual Quantity of zero must be submitted for the relevant direction.
- Where a connection point is unidirectional an Actual Quantity for this direction, either as a receipt or delivery must be provided.
- Where no available data exists for a connection point during the submission period due to an operational issue then a NULL Actual Quantity should be submitted for that direction.
- Submitted connection points must be registered against the Facility Id during the connection point registration process.
- Submissions must only contain *BB pipelines*, *BB production*, or *BB storage facilities* operated by the *BB reporting entity*.

4.3 Daily Storage

Purpose	Provide for each gas day, the actual quantity of natural gas held in each <i>BB storage facilities</i> at the end of gas day D-1.
Submission cut-off time	1:00 pm on gas day D.
Rollover	No Rollover.
Required by	<i>BB storage facilities</i> .
Exemptions	No exemptions are given for this submission.

4.3.1 Data elements

Data	Description	Mandatory
Facility Id	A unique AEMO defined Facility identifier.	Yes
Gas Date	Date of gas day. Any time component supplied will be ignored. The gas day is that applicable under the pipeline contract or market rules.	Yes
Actual Quantity	The actual quantity of gas held in a <i>BB storage facility</i> .	Yes



4.3.2 Requirements

- Actual Held Quantity must be submitted in TJs to three decimal places.
- Submissions must only contain *BB storage facilities* operated by the *BB reporting entity*.

4.4 Gate Station Nameplate Rating

Purpose	Provide nameplate ratings: <ul style="list-style-type: none"> • For each gate station connection point owned, controlled, or operated by the <i>BB pipeline</i> operator and connected to each of its <i>BB pipelines</i>. • For each gate station connection point connected to each of its pipelines which is not owned, controlled, or operated by the <i>BB pipeline</i> operator where the connection point nameplate rating has been provided to the <i>BB pipeline</i> operator by the facility who owns, controls, or operates the gate station.
Submission cut-off time	31 March annually and whenever the standing capacity changes.
Rollover	No rollover.
Required by	<i>BB pipelines</i> .
Exemptions	No exemptions are given for this submission.

4.4.1 Data elements

Data	Description	Mandatory
Connection Point Id	A unique AEMO defined connection point identifier.	Yes
Capacity Quantity	Standing capacity quantity.	Yes
Effective Date	Gas day date that corresponding record takes effect. Any time component supplied will be ignored.	Yes
Description	Free text facility use is restricted to a description for reasons or comments directly related to the capacity quantity or the change in quantity provided in relation to a <i>BB facility</i> and the times, dates, or duration for which those quantities or changes in quantities are expected to apply.	No

4.4.2 Requirements

- Capacity Quantity values must be submitted in TJs to three decimal places.
- Gate Station Connection points are assumed to only support Delivery flows. Therefore, for each connection point, only a delivery Capacity Quantity must be provided. A Capacity Quantity value of zero must be submitted if there is no delivery flow.
- Submitted connection points must be registered against the Facility Id during the connection point registration process.

4.5 Linepack Capacity Adequacy

Purpose	Provide on any gas day D, the <i>BB pipeline</i> operator's Linepack Capacity Adequacy (LCA) flag for gas days D to D+2.
Submission cut-off time	Whenever there is a change.
Rollover	Submitted values roll forward in the following manner: <ul style="list-style-type: none"> • The last 3-day LCA Outlook provided for that <i>BB pipeline</i> is deemed to be unchanged. • The <i>LCA flag</i> for the subsequent gas day is deemed to be the same as the <i>LCA flag</i> for D+2.
Required by	<i>BB pipelines</i> .
Exemptions	No exemptions are given for this submission.



Notes	<ul style="list-style-type: none"> Submissions can contain values for gas days from D onwards. Intra-day submissions for the current gas day (D) will be accepted up to the end of gas day. AEMO always publishes the latest LCA submission.
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4.5.1 Data elements

Data	Description	Mandatory
Facility Id	A unique AEMO defined Facility identifier.	Yes
Gas Date	Date of gas day. Any time component supplied will be ignored. The gas day is that applicable under the pipeline contract or market rules.	Yes
Flag	<i>LCA flag</i> for a <i>BB pipeline</i> categorised as red, amber, or green.	Yes
Description	Free text facility use is restricted to a description for reasons or comments directly related to the change in the <i>LCA flag</i> and the times, dates, or duration for which those changes are expected to apply.	Yes

4.6 Medium Term Capacity Outlook

4.6.1 Transaction definition

Purpose	Provide details of any activity expected to affect the daily capacity of a <i>BB pipeline</i> , <i>BB production</i> , or <i>BB storage facility</i> in the next 12 months.
Submission cut-off time	Not applicable as this report is ad hoc.
Rollover	No rollover.
Required by	<i>BB pipelines</i> , <i>BB production facilities</i> , or <i>BB storage facilities</i> .
Exemptions	No exemptions are given for this submission.
Notes	<ul style="list-style-type: none"> Where a <i>BB reporting entity</i> 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

4.6.2 Data elements

Data	Description	Mandatory
Facility Id	A unique AEMO defined Facility identifier.	Yes
From Gas Date	Date of gas day. Any time component supplied is ignored. The gas day is applicable under the pipeline contract or market rules.	Yes
To Gas Date	Date of gas day. Any time component supplied is ignored. The gas day is that applicable under the pipeline contract or market rules.	Yes
Capacity Type	Capacity type can be either: <ul style="list-style-type: none"> 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). 	Yes
Outlook Quantity	Capacity Outlook quantity.	Yes



Data	Description	Mandatory
Flow Direction	Indicates whether the capacity is for a <i>BB storage facility's</i> capacity for injecting into or withdrawing from a <i>BB pipeline</i> . Flow Direction can be: <ul style="list-style-type: none"> Receipt: The flow of gas <u>into</u> the <i>BB storage facility</i>, or Delivery: The flow of gas <u>out</u> of the <i>BB storage facility</i>. 	Conditional This field is mandatory for BB storage facilities. Other facilities must leave this field blank.
Capacity Description	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.	Conditional This information is mandatory for BB pipelines. Other facilities must leave this field blank.
Receipt Location	The Connection Point Id that best represents the receipt location. In conjunction with the Delivery location, this will indicate direction and location of the capacity.	Conditional This information is mandatory for BB pipelines. Other facilities must leave this field blank.
Delivery Location	The Connection Point Id that best represents the delivery location. In conjunction with the receipt location, this will indicate direction and location of the capacity.	Conditional This information is mandatory for BB pipelines. Other facilities must leave this field blank.
Description	Free text facility use is restricted to a description for reasons or comments directly related to the outlook quantity or the change in quantity provided in relation to a <i>BB facility</i> and the times, dates, or duration for which those quantities or changes in quantities are expected to apply.	No

4.6.3 Requirements

- Outlook Quantity values must be submitted in TJs to three decimal places.
- *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 and Receipt Points. Note that for complex pipeline facilities that involve more than two directions of flow, more than two capacities may be required.
- *BB 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.
- Where a facility's capacity is reduced to zero, a zero value must be submitted.
- *Submissions* must only contain *BB pipelines*, *BB production facilities*, or *BB storage facilities* operated by the *BB reporting entity*.

4.7 Nameplate Rating

Purpose	Provide the nameplate rating of each <i>BB facility</i> annually or information about any planned permanent capacity reduction or expansion due to modification of the <i>BB facility</i> . With respect to production capacity, Standing Capacity should take long term field performance trends into account.
Submission cut-off time	31 March annually and whenever the standing capacity changes.
Rollover	No rollover.
Required by	<i>BB pipelines</i> , <i>BB production facilities</i> , or <i>BB storage facilities</i> .



Exemptions	No exemptions are given for this submission.
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4.7.1 Data elements

Data	Description	Mandatory
Facility Id	A unique AEMO defined Facility identifier.	Yes
Capacity Type	Capacity type can be either: <ul style="list-style-type: none"> 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). 	Yes
Capacity Quantity	Standing capacity quantity.	Yes
Flow Direction	Indicates whether the capacity is for a <i>BB storage facility's</i> capacity for injecting into or withdrawing from a <i>BB pipeline</i> . Flow Direction can be: <ul style="list-style-type: none"> Receipt: The flow of gas <u>into</u> the <i>BB storage facility</i>, or Delivery: The flow of gas <u>out</u> of the <i>BB storage facility</i>. 	Conditional This field is mandatory for BB storage facilities. Other facilities must leave this field blank.
Capacity Description	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..	Conditional This information is mandatory for BB pipelines. Other facilities must leave this field blank.
Receipt Point	The Connection Point ID for the receipt point. In conjunction with the Delivery point, this will indicate direction and location of the capacity.	Conditional This information is mandatory for BB pipelines. Other facilities must leave this field blank.
Delivery Point	The Connection Point ID for the delivery point. In conjunction with the Receipt point, this will indicate direction and location of the capacity.	Conditional This information is mandatory for BB pipelines. Other facilities must leave this field blank.
Effective Date	Gas day date that corresponding record takes effect. Any time component supplied will be ignored.	Yes
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 <i>BB facility</i> (such as daily production data, nameplate rating, <i>LCA flag</i> , etc.), and the times, dates, or duration for which those quantities or changes in quantities are expected to apply.	No

4.7.2 Requirements

- Capacity Quantity must be submitted in TJs to three decimal places.
- 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 Points. Note that for complex pipeline facilities that involve more than two directions of flow, more than two capacities may be required.
- BB 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.



- Submissions must only contain *BB pipelines*, *BB production* facilities, or *BB storage* facilities operated by the *BB reporting entity*.

4.8 Nominations and Forecasts

Purpose	<ul style="list-style-type: none"> • For <i>BB pipelines</i> 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 D to D+2. • For all other <i>BB facility</i> operators, provide on each gas day D the aggregated nominated and forecast injections and aggregated nominated and forecast withdrawals at each connection point for D to D+6.
Submission cut-off time	7:00pm on gas day D.
Rollover	No rollover.
Required by	<i>BB pipelines</i> , <i>BB production</i> facilities, and <i>BB storage</i> 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 accepted.
Notes	<ul style="list-style-type: none"> • 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.

4.8.1 Data elements

Data	Description	Mandatory
Gas Date	Date of gas day. Any time component supplied will be ignored. The gas day is that applicable under the pipeline contract or market rules.	Yes
Facility ID	A unique AEMO defined Facility identifier.	Yes
Connection Point ID	A unique AEMO defined connection point identifier.	Yes
Flow Direction	Flow Direction can be: <ul style="list-style-type: none"> • Receipt: The flow of gas <u>into</u> the <i>BB facility</i>, or • Delivery: The flow of gas out of the <i>BB facility</i>. 	Yes
Nomination Quantity	Delivery Nomination quantity.	Yes

4.8.2 Requirements

- Nomination Quantity values greater than zero must be submitted in TJs to three decimal places.
- Where a connection point supports bidirectional flows, Nomination Quantities must be provided separately for receipts and deliveries.
- Where there are zero receipts or zero deliveries at a connection point, a Nomination Quantity of zero must be submitted for the relevant direction.
- Where a connection point is unidirectional a Nomination Quantity for this direction, either as a receipt or delivery must be provided.
- Submitted connection points must be registered against the Facility ID during the connection point registration process.



- Submissions must only contain BB pipelines, BB production facilities, or BB storage facilities operated by the BB reporting entity.

4.9 Secondary Pipeline Capacity Bid and Offer Summary

Purpose	Provide information on secondary pipeline capacity available for sale on <i>BB pipelines</i> . 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 7:00 pm.
Rollover	No rollover.
Required by	<i>BB pipelines</i> .
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.

4.9.1 Data elements

Data	Description	Mandatory
Facility Id	A unique AEMO defined Facility identifier.	Yes
Buy Sell	Buy: The shipper is in a position to buy spare <i>BB pipeline</i> capacity. Sell: The shipper is in a position to sell their spare <i>BB pipeline</i> capacity.	Yes
Available Quantity	Available quantity of spare pipeline capacity.	Yes
Price	The price of spare pipeline capacity.	No
From Gas Date	Date of gas day. Any time component supplied is ignored. The gas day is applicable under the pipeline contract or market rules.	Yes
To Gas Date	Date of gas day. Any time component supplied is ignored. The gas day is that applicable under the pipeline contract or market rules.	Yes
Receipt Point	Connection Point Id of the location where gas is injected into the pipeline.	Yes
Delivery Point	Connection Point Id of the location where gas is withdrawn from the pipeline.	Yes
Contact Details	Details of the relevant shipper contact person such as name and phone number.	Yes

4.9.2 Requirements

- Available Quantity shall be submitted in TJs to three decimal places.
- Price shall be submitted in \$/GJ.
- Submitted connection points must be registered against the Facility Id during the connection point registration process.
- Submissions must only contain *BB pipelines* operated by the *BB reporting entity*.

4.10 Secondary Pipeline Capacity Trade Summary

Purpose	Provide information on secondary pipeline capacity trades that have occurred. This is limited to <i>BB pipelines</i> where the pipeline operator owns, controls, or operates a secondary pipeline capacity trading platform
Submission cut-off time	Every Monday at 7:00 pm.
Rollover	No rollover.



Required by	<i>BB pipelines.</i>
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.

4.10.1 Data elements

Data	Description	Mandatory
Facility Id	A unique AEMO defined Facility identifier.	Yes
Gas Date	Date of gas day. Any time component supplied will be ignored. The gas day is that applicable under the pipeline contract or market rules.	Yes
Receipt Point	Connection Point Id of the location where gas is injected into the pipeline.	Yes
Delivery Point	Connection Point Id of the location where gas is withdrawn from the pipeline.	Yes
Nameplate Capacity	Nameplate capacity of the <i>BB facility</i> .	Yes
Daily Nominations	Daily aggregate quantity of gas nominated for delivery from the <i>BB pipeline</i> .	Yes
Daily Utilisation	Percentage of the <i>BB pipeline</i> capacity that is utilised per day.	Yes
Available Capacity	Operational pipeline capacity minus nominations each day.	Yes
Capacity On Offer	Sum of total capacity offered for sale.	Yes
Daily Capacity Traded	Sum of total daily sold <i>BB pipeline</i> capacity.	Yes
Daily Capacity	Operational capacity of the <i>BB pipeline</i> .	No
Contracted Capacity	Firm contracted pipeline capacity.	No
Average Annual Capacity Traded	Sum of total annual sold pipeline capacity divided by number of days, year to date.	No

4.10.2 Requirements

- Capacity data shall be submitted in TJs to three decimal places.
- Submitted connection points must be registered against the Facility Id during the connection point registration process.
- Submissions must only contain *BB pipelines* operated by the *BB reporting entity*.

4.11 Uncontracted Capacity Outlook

Purpose	Provides information on: <ul style="list-style-type: none"> • Uncontracted primary pipeline capacity on <i>BB pipelines</i> for the next 12 months. Note: This does not include <i>BB pipelines</i> in the Declared Transmission System. • Uncontracted storage capacity on <i>BB storage facilities</i> 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: <ul style="list-style-type: none"> • 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	<i>BB pipelines</i> and <i>BB storage facilities</i> .
Exemptions	No exemptions are given for this submission.



4.11.1 Data elements

Data	Description	Mandatory
Facility Id	A unique AEMO defined Facility identifier.	Yes
Outlook Month	The outlook month.	Yes
Outlook Year	The outlook year.	Yes
Capacity Type	Capacity type can be either: <ul style="list-style-type: none"> 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). 	Yes
Outlook Quantity	Capacity Outlook quantity.	Yes
Flow Direction	Indicates whether the capacity is for a <i>BB storage facility's</i> capacity for injecting into or withdrawing from a <i>BB pipeline</i> . Flow Direction can be: <ul style="list-style-type: none"> Receipt: The flow of gas <u>into</u> the <i>BB storage facility</i>, or Delivery: The flow of gas <u>out</u> of the <i>BB storage facility</i>. 	Conditional This field is mandatory for BB storage facilities. Other facilities must leave this field blank.
Capacity Description	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.	Conditional This information is mandatory for BB pipelines. Other facilities must leave this field blank.
Receipt Point	The Connection Point Id for the receipt point. In conjunction with the Delivery point, this will indicate direction and location of the capacity.	Conditional This information is mandatory for BB pipelines. Other facilities must leave this field blank.
Delivery Point	The Connection Point Id for the delivery point. In conjunction with the Receipt point, this will indicate direction and location of the capacity.	Conditional This information is mandatory for BB pipelines. Other facilities must leave this field blank.
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 <i>BB facility</i> (such as daily production data, nameplate rating, <i>LCA flag</i> , etc.), and the times, dates, or duration for which those quantities or changes in quantities are expected to apply.	No

4.11.2 Requirements

- Outlook Quantity must be submitted in TJs to three decimal places.
- *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 and Receipt Points. Note that for complex pipeline facilities that involve more than two directions of flow, more than two capacities may be required.
- *BB 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.
- Where a facility's capacity is reduced to zero, a zero value must be submitted.



- Submissions must only contain *BB pipelines* or *BB storage facilities* operated by the *BB Reporting Entity*.



5. DATA SUBMISSION METHODS

This section describes the submission and validation process for uploading CSV content using the BB website, FTP, or JSON content through the RESTful interface.

AEMO will only offer FTP as a means for to submit transactions until September 30th 2019. Support for this submission method will not be extending past this date. *BB reporting entities* looking to automate submissions should transition to the HTTPS JSON content transfer mechanism.

5.1 BB website CSV file transfer mechanism

Submitting transaction data as a CSV file using the upload submissions feature available to Authorised users through the BB website URLs:

- Pre-production server: <http://preprod.gbb.aemo.com.au/>
- Production server: <http://gbb.aemo.com.au/>

5.1.1 System requirements

Use of the BB website CSV upload submission interface requires:

- Public internet access (AEMO network access is not required).
- Authorised user access to the BB Website.
- The BB Website supports the current and previous versions of Microsoft Internet Explorer (IE11/Edge) and Google Chrome.

5.1.2 Uploading a CSV file using the BB website upload submission interface

[Mechanism will be detailed when upon GBB redesign]

5.2 FTP CSV file transfer mechanism

5.2.1 System requirements

Use of the FTP data submission interface requires:

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

5.2.2 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. Refer to Transactions for transaction specifications and requirements.

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

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



3. 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>

AEMO recommends the use of PASSIVE mode for FTP connections.

Once connected, you are directed to the default directory as shown in **Error! Reference source not found.**

4. Transfer the files using FTP into the “Upload” subdirectory within your organisation’s FTP directory. The BB systems continually poll each ‘Upload’ subdirectory for any new files and processes them accordingly.
5. The files are validated and transaction success or failure is provided in the INT944 Transaction Log which is deposited in your organisation’s FTP directory. The Transaction Log includes details of any error found within the submitted file/s.

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

5.2.3 Transaction acknowledgement

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.

5.2.4 CSV file validation error codes

The validation error codes shown in the following table apply to all transaction types. Refer to the specific validation errors for each Transaction Type in Transactions.

Validation	Error code	Error message
The submitted file passes all validations without errors and is been accepted by the system	0	File processed without errors or alarms, [NO_OF_ROWS] rows accepted.
Unknown file processing error occurred	1	Unexpected file processing error.
Unknown data processing error occurred	2	Unexpected data processing error.
The filename provided must comply with the file naming convention.	3	File name provided does not comply with COMPID_TRANSACTIONNAME_CCYYMMDDHHMMSS.CSV naming convention.
The transaction name provided in the filename must be an existing known transaction type.	4	The transaction name [TRANSACTION_NAME] within the file name provided is not of a known type.



Validation	Error code	Error message
All mandatory fields for the transaction must be provided, and the fields provided within the transaction file must match those associated to the transaction name.	5	The transaction fields do not match those associated to the transaction name.
The data types provided for the transaction file fields must be valid data types for the specified fields.	8	Invalid data provided [INVALID_DATA] for type [DATA_TYPE]
The submitted file contains multiple rows with the same primary key.	89	Rows with duplicate key information are present in the file.

Where:

Label	Description
[NO_OF_ROWS]	The total number of rows accepted by the system in the valid file.
[TRANSACTION_NAME]	The transaction name within the file name of the uploaded file.
[INVALID_DATA]	The invalid data provided for a field in the uploaded file.
[DATA_TYPE]	The data type for a field in the uploaded file.

5.3 HTTPS JSON content transfer mechanisms

Submitting transaction data using HTTPS is performed in a RESTful style by submitting JSON content using a POST request to the following GBB submission URLs:

- Pre-production server: <https://gbb.preprod.aemo.com.au/api/v1/>
- Production server: <https://gbb.aemo.com.au/api/v1/>

5.3.1 System requirements

Use of the RESTful interface through HTTPS requires:

- The BB Web Services are accessed via the public internet (AEMO network access is not required).
- An API Key provided by AEMO.

5.3.2 API key authentication

Accessing the HTTPS submission mechanism requires an API key to log in and obtain a session ID to the BB website. Once a session ID is obtained, *BB reporting entities* may use the session id to access the submission web services.

An API key consists of a username and password. They are used in a similar way when accessing the web services, as described in HTTP request.

5.3.3 HTTP request

The submission must be a POST request to a valid GBB submission URL.

The submission must set a number of HTTP headers, and the body must contain the content of a single JSON submission as described in the following tables.

Table 1 HTTP Request Headers for authentication

Header	Description	Example / Allowed values
Authorization	Specifies basic HTTP authentication containing the	Authorization: Basic QFhQVC0wMDAwMzoyZW50wY2I0LTQwZj



	Base64[1] encoded API key ID and secret. The username and password are concatenated with a colon separator and then Base64 encoded.	ctOTIyMS0yODUxNmM4N2MxNjQ= For username "@XPT-00003" and password "2edf8baa-0cb4-40f7-9221-28516c87c164"
--	---	---

For authentication, the body of the request is irrelevant.

An example of a submission HTTP request is shown below:

```
Request URL: https://gbb.aemo.com.au/api/Identity/AemoPortal Method: POST

Headers:
Authorization: Basic QFhQVC0wMDAwMzoyZWZWRmOGJhYS0wY2I0LTQwZjctOTIyMS0yODUxNmM4N2MxNjQ=
```

Table 2 HTTP Request Headers for requests/submissions

Header	Description	Example / Allowed values
Content-Type	Specifies the type of content sent in the body of the request. The value should be set to application/json	Content-Type: application/json

The body must contain the request or submission data in JSON objects and properties. For example:

```
Request URL: https://gbb.aemo.com.au/api/v1/exampleRequest Method: POST

Headers:
Content-Type: application/json

Body:
{
  "Properties": {
    ...
  }
}
```

5.3.4 HTTP Response

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 Table 3.

Table 3 HTTP Response Codes

Code	Meaning	Description
201	Created	Returned when a submission was successful.
400	Bad Request	The submission failed to be parsed. The request contained JSON which could not be parsed.
403	Forbidden	The supplied credentials were incorrect, or the account to which the credentials are associated does not have sufficient permission to make the submission.



422	Unprocessable Entity	The request failed business validation. The response will contain messages to indicate which validation it failed to pass.
500	Internal Server Error	There was an internal error processing the submission. Contact support hub.

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 4 **Response fields**

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

An example of a successful submission response is shown below:

```
{
  "data": {
    ...
  }
}
```

An example of an unsuccessful submission response is shown below:

```
{
  error:[
    "Gas day cannot be in the past"
  ]
}
```

Using a HTTPS RESTful interface the transaction data will only be accepted by the system if **all** its records have passed all validations.
