



Guide to Capacity Transfer and Day-Ahead Auction Transactions

1 October 2019

Version 1.2

Provides details about preparing and submitting data to and from the
capacity transfer and day-ahead auction market systems

Important notice

PURPOSE

This Guide to Capacity Transfer and Day-ahead Auction Transactions was produced by AEMO in accordance with the Capacity Transfer and Auction Procedures. It specifies the manner and form for submitting information to AEMO for Gas Trading Exchange (Capacity Transactions) and Capacity Auctions under Parts 24 and 25 of the National Gas Rules (Rules). To the extent of any inconsistency, the Rules, the National Gas Law, the Capacity Transfer and Auction Procedures and the terms of a capacity auction agreement will prevail over this Guide to Capacity Transfer and Day-Ahead Auction Transactions.

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VERSION HISTORY

Version	Release date	Changes
1.0	21/11/2018	Initial version
1.1	1/3/2019	Updated for Market Start
1.2	01/10/2019	Updated for Gas Day Harmonisation time changes

FURTHER INFORMATION

For further information, please visit AEMO's website <http://www.aemo.com.au/Gas/Pipeline-Capacity-Trading> 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.

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1. Introduction

1.1 Purpose

This guide describes the methods and format used by facility operators and trading participants to submit and receive data relating to capacity trades and day ahead auction for AEMO's Capacity Transfer Platform (CTP) and Day-Ahead Auction (DAA) market systems.

1.2 Audience

This guide is for facility operators and trading participants submitting transaction data in accordance with the Capacity Transfer and Auction Procedures, under Parts 24 and 25 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 data exchange mechanisms.
- "Data submission requirements" provides a list and description of transaction data CTP and DAA reporting entities need to provide.
- "Data Identifiers" details the naming conventions for key data identifiers.
- "RESTful Web Service" provides information for submitting and receiving data and using HTTPS requests.
- "Data submission transactions" details the format and structure of each data submission transaction.
- "Report transactions" details the format and structure of each report transaction.

1.4 How to use this guide

- The references listed throughout this document are primary resources and take precedence over this document.
- Text in [this format](#) indicates a resource on AEMO's website.
- This document is written in plain language for easy reading. Where there is a discrepancy between the Rules and information or a term in this document, the Rules take precedence.
- Glossary Terms are capitalised and have the meanings listed against them in 8.2.
 - *Italicised terms* are defined in the Rules. Any rules terms not in this format still have the same meaning.

1.5 Related resources

Resource	Description
Guide to AEMO's e-Hub APIs http://www.aemo.com.au/-/media/Files/Electricity/NEM/IT-Systems-and-Change/2018/Guide-to-AEMOs-eHub-APIs.pdf	Explains AEMO's API standards and how to use the AEMO API Portal.
AEMO API Portal pre-production environment: https://apiportal.preprod.aemo.com.au/	Web portal for API information and API guides.
AEMO API Portal production environment: https://apiportal.prod.aemo.com.au/	Web portal for API information and API guides.

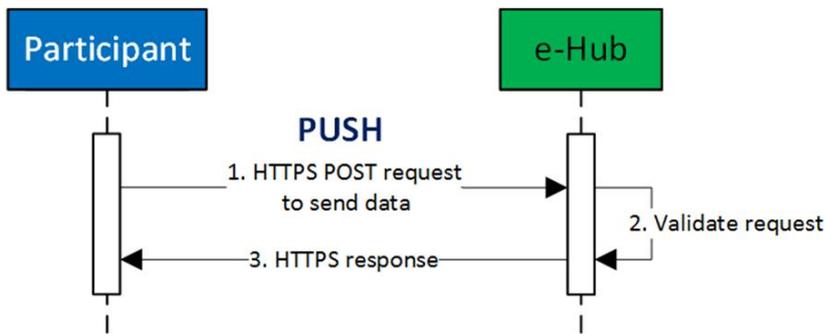
2. Technical overview

The data exchange between reporting entities and the CTP and DAA market systems consists of data submitted and retrieved by participants to the e-Hub API gateway using RESTful web services:

2.1 Data submissions

For data submissions, participants must push the data to the e-Hub using a HTTPS POST request. Figure 1 illustrates the PUSH mechanism.

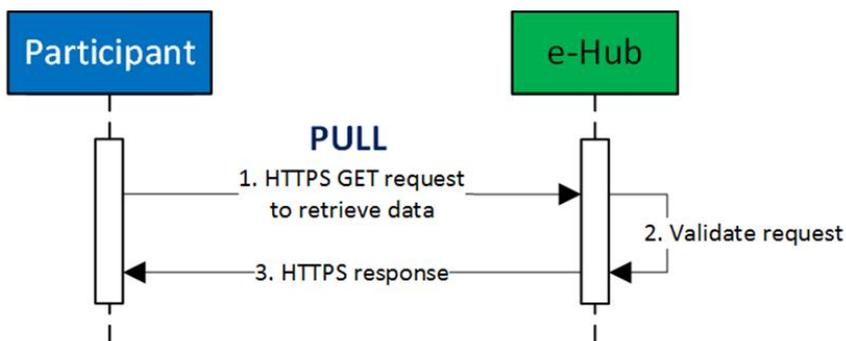
Figure 1 PUSH mechanism



2.2 Data retrieval

For data retrieval, participants must pull the data from the e-Hub using a HTTPS GET request. Figure 2 illustrates the PULL mechanism.

Figure 2 PULL mechanism



In both cases, the e-Hub generates an immediate HTTPS response message back to the participant.

To receive access credentials for the API gateway, all CTP and DAA reporting entities submitting data to the interface must register with AEMO in accordance with the Rules.

3. Data submission requirements

Table 1 below provides a summary of the data provision responsibilities of all **Capacity Transfer and Day-Ahead Auction** entities.

Table 1 Data provision responsibilities

Transaction	Reporting frequency	Facility operators	Auction Participants	Cut-off times	Delayed cut-off times
Contract Details	Ad hoc	●		N/A	N/A
Capacity Transfer Status	Daily	●		2:00 pm for day-ahead products 9:30 pm for forward traded products	3:00 pm for day-ahead products 10:30 pm for forward traded products
Auction Quantities	Daily	●		4:30 pm on gas day D-1	6:30 pm on gas day D-1
Auction Settlement Quantities	Daily	●		1:00 pm on gas day D+1	N/A
Auction Service Curtailment Notice	Ad hoc	●		N/A	N/A
Zone Curtailment Notice	Ad hoc	●		N/A	N/A
Auction Bid Profile	Ad hoc		■	5:00 pm on gas day D-1	7:00 pm on gas day D-1

Legend:

- Obligation under the *Rules* to provide data to AEMO
- Voluntary submission 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:

- Defined and allocated by AEMO to facility operators during the registration process of facilities under the Rules.
- A facility operator may report on multiple FacilityIDs. For example, FacilityID “520345” relates to an element within NSW and ACT with a unique identifier of “0345” relating to the gas industry and purpose.

4.2 Zone and Segment identifiers

Zone and Segment identifiers used in transactions and reports have the following format:

```
((?!00000)[0-9]{5})[2-8]((?!00)[0-9]{2})
```

Item	Description	Values
1	Facility identifier without the leading 5	1 - 99999
2	Component	2 Receipt Zone 3 Delivery Zone 4 Compressor Receipt Zone 5 Compressor Delivery Zone 6 Forward Haul Pipeline Segment 7 Backhaul Pipeline Segment 8 Compression Service Facility
3	Component based unique identifying number	1 to 99

4.3 Service Point identifiers

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

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

Item	Description	Values
1	Service Point identifier	1
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 99999

Service Point IDs have the following characteristics:

- Service Point IDs are defined and allocated by AEMO to Facility Operators during the registration process.
- BB Connection Point IDs are used for Service Point IDs where the service point is also a registered BB connection point.

5. RESTful web services

5.1 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://apiportal.preprod.aemo.com.au/#default/gallery>.
- Production environment: <https://apiportal.prod.aemo.com.au/#default/gallery>.

For detailed information on accessing the e-Hub (API Web Portal and API Gateway) and using the API Portal, see Guide to AEMO's e-Hub APIs (<http://www.aemo.com.au/-/media/Files/Electricity/NEM/IT-Systems-and-Change/2018/Guide-to-AEMOs-eHub-APIs.pdf>).

5.2 System requirements

5.2.1 API Web Portal

To access the API web portal, you require:

- A MarketNet or internet connection. For more information about MarketNet, see Guide to Information Systems.
- A User ID and password. You can register in the AEMO API Portal.

5.2.2 API Gateway

To access the API Gateway, you require:

- A MarketNet or internet connection.
- An application to Base64 encode your User Rights Management (URM) username and password for authorisation.

- Authentication using an SSL digital certificate containing:
 - a. An AEMO digital signature.
 - b. An e-Hub public certificate.
 - c. A root certificate: The public key certificate identifying the root certificate authority (CA).

For more information about obtaining these certificates, see “SSL certificates” in the Guide to AEMO’s e-Hub APIs (<http://www.aemo.com.au/-/media/Files/Electricity/NEM/IT-Systems-and-Change/2018/Guide-to-AEMOs-eHub-APIs.pdf>).

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

5.3 URLs

5.3.1 Data submissions

A data submission must be a HTTPS POST request to a valid submission URL. The following table shows the generic component of the submission URL.

Table 2 Generic URLs for submitting transaction data

Environment	URL
MarketNet Pre-production	https://apis.preprod.marketnet.net.au:9319/
MarketNet Production	https://apis.prod.marketnet.net.au:9319/
Public internet Pre-production	https://apis.preprod.aemo.com.au:9319/
Public internet Production	https://apis.prod.aemo.com.au:9319/

For the unique URL of each submission transaction, see Section 6.

The system only accepts transactions if ALL data passes validations.

5.3.2 Reports

A report transaction must be a HTTPS GET request to a valid report URL. This table shows the generic components of the report URL.

Table 3 Generic URLs for retrieving report data

Environment	URL
MarketNet Pre-production	https://apis.preprod.marketnet.net.au:9319/
MarketNet Production	https://apis.prod.marketnet.net.au:9319/
Public internet Pre-production	https://apis.preprod.aemo.com.au:9319/

Environment	URL
Public internet Production	https://apis.prod.aemo.com.au:9319/

For the unique URL of each report transaction, see Section 7.

Report data must be PULLED from the API gateway by the participant.

5.4 HTTPS request format

A HTTPS request consists of:

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

Table 4 HTTPS request header attributes

Header parameter	Description	Allowed values / Example
Content-Type	HTTPS request format.	Content-type: application/json (only required for POST methods)
Accept	HTTPS response format.	Accept: application/json
Content-Length	Content length of message. 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 QFhQVC0wMDAwMzoyZWRmOGJhYS0wY2I0LTQwZjctOTlyMS0yODUxNmM4N2MxNjQ= (For URM username "@XPT-00003" and password "2edf8baa-0cb4-40f7-9221-28516c87c164")

A HTTPS request must use one of the following methods:

- POST for data submissions
- GET for report data retrieval

Below is an example of a Contract Details HTTPS POST request with the following details:

- POST request URL: <https://apis.prod.marketnet.net.au:9319/ws/gsh/capacity/v1/contractDetails>
- 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": [
    {
      "FacilityId": 530001,
      "ParticipantId": 13,
      "ServiceReference": "SR00000011",
      "ServiceReferenceDescription": "RBP contract",
      "STTMContractReference": "RS00000011",
      "ContractType": "TRADE",
      "StartDate": "2018-01-01",
      "EndDate": "2018-12-31"
    }
  ]
}
```

The JSON body properties for POST and GET requests is shown in the AEMO API portal and the transaction specifications in Sections 6 and 7.

For these transactions, you can also download a swagger file from AEMO’s e-Hub API portal containing the RESTful API specification.

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.
For free text data fields such as ServiceReference, do not include commas within a name/value pair.

5.4.1 Filtering requests

You can filter GET requests by defining filter parameters in the GET request URL. The filter parameters available for each report are described in Section 7.

The following example shows the HTTPS GET request URL to retrieve the Transportation Facility Register report filtered by facilities and operators.

<https://xxxxxx/transportationFacilityRegister?FacilityIds=530001,530002&OperatorIds=583>

5.5 HTTPS response format

The submission response from the server consists of two parts: the response status code and the response body. The following table shows the response status codes returned.

Table 5 Response codes

Code	Response body	Data condition	Description
200	OK	Successful request.	Successful request

Code	Response body	Data condition	Description
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" }	The 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 following table describes these fields.

Table 6 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.

This is an example of a successful submission response.

```
OTHER HEADER INFORMATION TBC
Content-type: application/json
{
  "data": {},
  "errors": null
}
```

This is an example of an unsuccessful submission with HTTPS response code 422 with the transaction error code and error details.

OTHER HEADER INFORMATION TBC

Content-type: application/json

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

This is an example of a successful report response.

OTHER HEADER INFORMATION TBC

Content-type: application/json

```
{
  "data": [
    {
      "AuctionTransactionId": 10001,
      "AuctionDate": "2018-05-01T00:00:00",
      "FacilityId": 530001,
      "FacilityName": "VIC Pipeline",
      "ParticipantId": "13",
      "ParticipantName": "Star Energy",
      "ServiceReference": "SR00000001",
      "ReceiptPointId": 1001,
      "ReceiptPointName": "Echuca",
      "DeliveryPointId": 2001,
      "DeliveryPointName": "Melbourne",
      "AuctionQuantityWon": 100,
      "GasDate": "2018-05-02T00:00:00",
      "ProductPrice": 3.15,
      "LastUpdated": "2018-05-01T00:00:00"
    }
  ],
  "errors": null
}
```

For the complete list of transaction code errors, see Appendix A Validation Error Codes.

6. Data submission transactions

This section specifies the JSON message format, validation rules, and timing of submissions used by facility operators and auction participants to submit data to AEMO's Capacity Transfer Platform and Day-Ahead Auction market systems.

6.1 Contract Details

6.1.1 Description

Purpose	Provide a list of valid shipper contracts for a facility.
Submission cut-off time	Ad hoc whenever contract details change.
Required from	Facility operators
URL	https://<environment>/ws/gsh/capacity/v1/contractDetails
Method	POST
Notes	<p>Each submission must contain the full set of shipper contracts that are valid beyond the submission date in accordance with the Procedures.</p> <p>On submission of this data, the system replaces all contract details previously submitted by the facility operator with the contents of the new submission.</p> <p>This information is used by shippers to select an appropriate contract for a capacity product prior to trading.</p> <p>STTM contract references must be firm i.e. must be a Priority 1 registered facility service.</p>

6.1.2 Data fields

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
FacilityId	The unique AEMO defined Facility identifier.	Yes	int	Yes	530001
ParticipantId	The unique AEMO defined Participant identifier.	Yes	String(20)	Yes	13
ServiceReference	The service reference issued by the facility operator.	Yes	String(255)	Yes	SR00000001
ServiceReferenceDescription	Brief description of the service reference.	No	String(255)	No	
STTMContractReference	The STTM contract reference number for the registered facility service associated with the service reference. Mandatory where there is an associated STTM contract reference.	No	String(255)	No	RS0000011
ContractType	Indicates if a contract can be used for capacity trades, auctions or both. Valid values:	Yes	String(7)	No	TRADE; AUCTION; ALL

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
	TRADE - contract can only be used to trade capacity. AUCTION - contract can only be used to bid at auction. ALL - contract can be used to trade capacity and bid at auction.				
StartDate	Effective start date of the contract, in ISO 8601 date format (YYYY-MM-DD or YYYY-MM-DDThh:mm:ss). Timestamps are ignored. Note: It is recommended to use current date as the StartDate when an STTM Contract Reference has been provided and the start date is in the past. This reduces the chance of a failed submission due to Facility Operator start dates not aligning with the STTM start dates.	Yes	datetime	No	2018-01-01
EndDate	Effective end date of the contract, in ISO 8601 date format (YYYY-MM-DD or YYYY-MM-DDThh:mm:ss). Timestamps are ignored.	Yes	datetime	No	2018-12-31

6.1.3 Validation rules

Field	Validation
FacilityId	Must be a valid value in the Transportation Facility Register published by AEMO system. Submissions must only contain Facility Ids operated by the reporting entity.
ParticipantId	Must be a valid value in the AEMO system. Refer to the list of valid registered participant ID's published by AEMO.
STTMContractReference	Must be a valid value in the AEMO STTM system. Must be a Priority 1 registered facility service in the AEMO STTM system.
ContractType	Must be a value from the defined list of valid values.
StartDate	Must be less than or equal to EndDate. Must conform to the date format YYYY-MM-DD or YYYY-MM-DDThh:mm:ss
EndDate	Must be equal to or greater than StartDate. Must be greater than current date. Must conform to the date format YYYY-MM-DD or YYYY-MM-DDThh:mm:ss.

6.1.4 Data submission example

The JSON format example only illustrates information relating to the transaction data, and does not include header information:

Figure 3 JSON message format

```
{
  "ItemList": [
    {
      "FacilityId": 530001,
      "ParticipantId": "13",
      "ServiceReference": "SR00000011",
      "ServiceReferenceDescription": "ID for service in easterly direction.",
      "STTMContractReference": "RS00000011",
      "ContractType": "TRADE",
      "StartDate": "2018-01-01",
      "EndDate": "2018-12-31"
    },
    {
      "FacilityId": 530001,
      "ParticipantId": "14",
      "ServiceReference": "SR00000022",
      "ServiceReferenceDescription": " ID for service in westerly direction.",
      "STTMContractReference": "RS00000022",
      "ContractType": "ALL",
      "StartDate": "2018-01-01",
      "EndDate": "2018-12-31"
    }
  ]
}
```

6.2 Capacity Transfer Status

6.2.1 Description

Purpose	Provide a status of capacity transfer for each capacity transfer notice.
Submission cut-off time	By 2:00 pm daily for day-ahead products. By 9:30 pm daily for forward traded products. Note: These times are extended by one hour when the capacity transfer delay process is initiated by AEMO.
Required from	Facility operators
URL	<a href="https://<environment>/ws/gsh/capacity/v1/capacityTransferStatus">https://<environment>/ws/gsh/capacity/v1/capacityTransferStatus
Method	POST
Notes	Partial submissions are accepted. This allows facility operators to submit interim PENDING statuses for transfers that have failed. Facility operators are responsible for pro-rating capacity quantities where applicable i.e. if there is a shipper capacity shortfall. Facility operators may continue to submit this transaction beyond the cut-off time for the purposes of updating the invalid quantity and reason. Changes to day ahead capacity transfer transaction status and confirmed capacity quantity will be ignored after the day ahead transfer cut-off time. Changes to D-2 and 'bundled products' forward traded capacity transfer transaction status and confirmed capacity quantity will be ignored after the forward traded capacity transfer cut-off time. Changes to D-3 (and beyond) forward traded capacity transaction status and confirmed capacity quantity will be accepted for up to 24 hours after the forward traded capacity transfer cut-off time.

6.2.2 Data fields

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
CapacityTransferId	Unique capacity transaction identifier. This must match a capacity transaction identifier in the Capacity Transfer Notice issued by AEMO on the same day.	Yes	int	Yes	10001
TransactionStatus	Status of capacity transfer in the facility operator system. Valid values: TRANSFERRED PARTIAL REJECTED PENDING	Yes	String (11)	No	TRANSFERRED; PARTIAL; REJECTED; PENDING
ConfirmedCapacityQuantity	The overall capacity quantity transferred in the facility operator system, in GJ. This field is mandatory when TransactionStatus = TRANSFERRED, PENDING or PARTIAL. This is a signed value (+/-).	Conditional	int	No	96
Reason	Reason for rejection or partial transfer. This field is mandatory when TransactionStatus = PARTIAL, PENDING or REJECTED and InvalidQuantity is greater than 0. Valid values: SHIPPER_CAPACITY_SHORTFALL INVALID_CONTRACT_REFERENCE CONTRACT_TRANSFER_RESTRICTION	Conditional	String (40)	No	SHIPPER_CAPACITY_SHORTFALL; INVALID_CONTRACT_REFERENCE; CONTRACT_TRANSFER_RESTRICTION
InvalidQuantity	Invalid quantity to indicate the amount of a short sell or amount that a buyer could not accept due to incorrect contract. This field is mandatory when TransactionStatus = PENDING, PARTIAL or REJECTED.	Conditional	int	No	30

6.2.3 Validation rules

Field	Validation
CapacityTransferId	Must be a valid value in the AEMO system. The reporting entity must be the owner of the facility linked to the CapacityTransferId.
TransactionStatus	Must be a value from the defined list of valid values.
ConfirmedCapacityQuantity	Mandatory field when TransactionStatus = TRANSFERRED, PENDING or PARTIAL. Sign (+/-) must match the OverallQuantityChange reported in the Capacity Transfer Notice. Sum of the aggregated ConfirmedCapacityQuantity for each receipt and delivery zone pairing where TransactionStatus = TRANSFERRED or PARTIAL must equal 0.
Reason	Mandatory field when TransactionStatus = PARTIAL, PENDING or REJECTED and InvalidQuantity is greater than 0. Must be a value from the defined list of valid values.
InvalidQuantity	Mandatory field when TransactionStatus = PARTIAL, PENDING or REJECTED.

6.2.4 Data submission example

The JSON format example only illustrates information relating to the transaction data, and does not include header information:

Figure 4 JSON message format

```
{
  "ItemList": [
    {
      "CapacityTransferId": 10001,
      "TransactionStatus": "TRANSFERRED",
      "ConfirmedCapacityQuantity": 345,
      "Reason": null,
      "InvalidQuantity": 45
    },
    {
      "CapacityTransferId": 10002,
      "TransactionStatus": "PARTIAL",
      "ConfirmedCapacityQuantity": 296,
      "Reason": "SELLER_DELIVERY_FAULT",
      "InvalidQuantity": 45
    }
  ]
}
```

6.3 Auction Quantities

6.3.1 Description

Purpose	Provide the auction quantities available for the day ahead auction.
Submission cut-off time	By 4:30 pm daily on D-1. The capacity auction for gas day D is run on gas day D-1. Note: This time may be extended by two hours when the auction delay process is initiated by AEMO. Please refer to the Procedures for full description of the delay process.
Required from	Facility operators
URL	https://<environment>/ws/gsh/capacity/v1/auctionQuantities
Method	POST
Notes	A submission may include one or more facilities. A full set of product components must be provided for each facility included in a submission. For example, if two facilities are included in one submission, one facility has a full set of limits specified and the other does not, the entire submission will be rejected. If multiple submissions are received by AEMO, the data received in the latest submission for each facility prior to the cut-off time is used as input into the auction.

6.3.2 Data fields

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
AuctionDate	The date of the auction run, in ISO 8601 date format (YYYY-MM-DD or YYYY-MM-DDThh:mm:ss). Timestamps are ignored.	Yes	datetime	Yes	2018-03-01
GasDate	The gas date that the auction quantities are valid for, in ISO 8601 date format (YYYY-	Yes	datetime	Yes	2018-03-02

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
	MM-DD or YYYY-MM-DDThh:mm:ss). Timestamps are ignored.				
FacilityId	The unique AEMO defined Facility identifier.	Yes	int	Yes	530001
LimitId	The unique AEMO defined Limit identifier. Limit is the collective term used to represent all the product components - receipt point, delivery point, zone, or pipeline segment. The Limit identifier refers to the Zone Id, Service Point Id and Segment Id specified in the Transportation Service Point Register.	Yes	int	Yes	3001
LimitQuantity	The quantity associated with the limit in GJ.	Yes	int	No	230
TransitionalRightsQuantity	The quantity of nominations against transitional firm (grandfathered) rights in GJ.	No	int	No	120
OperationalOverride	Valid values: <ul style="list-style-type: none"> • YES • NO 	Yes	String (3)	No	YES; NO

6.3.3 Validation rules

Field	Validation
AuctionDate	Must conform to the date format YYYY-MM-DD or YYYY-MM-DDThh:mm:ss. Must be equal to current date.
GasDate	Must conform to the date format YYYY-MM-DD or YYYY-MM-DDThh:mm:ss. Must be equal to current date + 1.
FacilityId	Must be a valid value in the Transportation Facility Register published by AEMO system. The reporting entity must be the facility operator of the facility at the time of the submission.
LimitId	Must be a valid value in the AEMO system. Refer to the list of valid connection point IDs, zone IDs and pipeline segment IDs in the Transportation Service Point Register published by AEMO. Limit must be registered to the reporting entity. Submission must contain a limit record for each product segment associated with the facility.
LimitQuantity	Must be greater than or equal to 0.
TransitionalRightsQuantity	Must be greater than or equal to 0.
OperationalOverride	Must be a value from the defined list of valid values.

6.3.4 Data submission example

The JSON format example only illustrates information relating to the transaction data, and does not include header information:

Figure 5 JSON message format

```

{
  "ItemList": [
    {
      "AuctionDate": "2018-03-01",
      "GasDate": "2018-03-02",
      "FacilityId": 530001,
      "LimitId": 3001,
      "LimitQuantity": 230,
      "TransitionalRightsQuantity": 200,
      "OperationalOverride": "NO"
    },
    {
      "AuctionDate": "2018-03-01",
      "GasDate": "2018-03-02",
      "FacilityId": 530001,
      "LimitId": 4001,
      "LimitQuantity": 44,
      "TransitionalRightsQuantity": 30,
      "OperationalOverride": "YES"
    }
  ]
}

```

6.4 Auction Settlement Quantities

6.4.1 Description

Purpose	Provide the actual auction quantities and final nominations after the end of each gas day.
Submission cut-off time	By 1:00 pm on gas day D+1. Note: This is the preferred submission time, however data is accepted after this time. Please refer to the Procedures for detailed timing arrangements.
Required from	Facility operators
URL	https://<environment>/ws/gsh/capacity/v1/auctionSettlementQuantities
Method	POST
Notes	This information is required by AEMO for settlement purposes. If multiple submissions are received by AEMO, the data received in the latest submission prior to the cut-off time is used for indicative or final settlements. Auction quantity is used for settlements if data is not received by the cut-off time

6.4.2 Data fields

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
AuctionTransactionId	The unique AEMO defined auction transaction identifier.	Yes	int	Yes	10001
RevisedAuctionQuantity	The revised auction capacity quantity. This is used for settlements.	Yes	int	No	100
Reason	The reason for revised capacity quantity. Valid values: PIPELINE_CONSTRAINED	Conditional	String (40)	No	PIPELINE_CO NSTRAINED;

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
	FIRM_SHIPPER_RENOM INVALID_CONTRACT_REFEREN CE CONTRACT_TRANSFER_RESTRICTION				FIRM_SHIPPER_RENOM
FinalScheduledQuantity	Final scheduled quantity against auction quantity by the shipper.	Yes	int	No	100

6.4.3 Validation rules

Field	Validation
AuctionTransactionId	Must be a valid value in the AEMO system. The reporting entity must be the owner of the facility at the time of the submission. Submission must have a corresponding record for each auction transaction identifier in the Auction Results issued by AEMO for the corresponding auction.
RevisedAuctionQuantity	Must be greater than or equal to 0.
Reason	Mandatory when RevisedAuctionQuantity is different to the AuctionQuantityWon reported in the AUCTION_RESULTS. Must be a value from the defined list of valid values.
FinalScheduledQuantity	Must be greater than or equal to 0.

6.4.4 Data submission example

The JSON format example only illustrates information relating to the transaction data, and does not include header information:

Figure 6 JSON message format

```
{
  "ItemList": [
    {
      "AuctionTransactionId": 10001,
      "RevisedAuctionQuantity": 100,
      "Reason": null,
      "FinalScheduledQuantity": 100
    },
    {
      "AuctionTransactionId": 10002,
      "RevisedAuctionQuantity": 300,
      "Reason": "PIPELINE_CONSTRAINED",
      "FinalScheduledQuantity": 100
    }
  ]
}
```

6.5 Auction Service Curtailment Notice

6.5.1 Description

Purpose	Provide AEMO with notice of an auction service curtailment on an auction facility during a gas day.
Submission cut-off time	Ad hoc
Required from	Facility operators
URL	https://<environment>/ws/gsh/capacity/v1/auctionServiceCurtailmentNotice
Method	POST
Notes	

6.5.2 Data fields

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
FacilityId	The unique AEMO defined Facility identifier.	Yes	int	Yes	530001
AuctionService	The auction service impacted by curtailment. Valid values: <ul style="list-style-type: none"> • FORWARD_HAUL • BACKHAUL • COMPRESSION 	Yes	String (12)	Yes	FORWARD_HAUL; BACKHAUL; COMPRESSION
Curtailed	Flag to indicate curtailment. Valid values: <ul style="list-style-type: none"> • YES • NO 	Yes	String (3)	No	YES; NO
Material	Flag to indicate material curtailment. Valid values: <ul style="list-style-type: none"> • YES • NO 	Yes	String (3)	No	YES; NO
Description	Description of why the curtailment has occurred.	Yes	String (255)	No	
EffectiveDateTime	The date and time the curtailment is effective from, in ISO 8601 datetime format (yyyy-mm-ddThh:mm:ss).	Yes	datetime	Yes	2018-05-01T12:23:45
GasDate	The gas date for which the auction service is curtailed, in ISO 8601 date format (YYYY-MM-DD or YYYY-MM-DDThh:mm:ss). Timestamps are ignored.	Yes	datetime	Yes	2018-03-01

6.5.3 Validation rules

Field	Validation
FacilityId	Must be a valid value in the Transportation Facility Register published by AEMO. The reporting entity must be the owner of the facility at the time of the submission.
AuctionService	Must be a value from the defined list of valid values.

Field	Validation
Curtailed	Must be a value from the defined list of valid values.
Material	Must be a value from the defined list of valid values.
EffectiveDatetime	Must conform to the datetime format yyyy-mm-ddThh:mm:ss.
GasDate	Must conform to the date format yyyy-mm-dd or YYYY-MM-DDThh:mm:ss. Must be equal to or greater than current date.

6.5.4 Data submission example

The JSON format example only illustrates information relating to the transaction data, and does not include header information:

Figure 7 JSON message format

```
{
  "ItemList": [
    {
      "FacilityId": 10001,
      "AuctionService": "FORWARD_HAUL",
      "Curtailed": "YES",
      "Material": "YES",
      "Description": "Unplanned outage",
      "EffectiveDateTime": "2018-05-01T12:23:45",
      "GasDate": "2018-05-01"
    },
    {
      "FacilityId": 10002,
      "AuctionService": "BACKHAUL",
      "Curtailed": "NO",
      "Material": "NO",
      "Description": "Issue resolved",
      "EffectiveDateTime": "2018-05-01T15:23:45",
      "GasDate": "2018-05-01"
    }
  ]
}
```

6.6 Zone Curtailment Information

6.6.1 Description

Purpose	Provide AEMO with notice of curtailed shipper nominations against secondary firm rights.
Submission cut-off time	Ad hoc
Required from	Facility operators
URL	https://<environment>/ws/gsh/capacity/v1/zoneCurtailedInformation
Method	POST
Notes	

6.6.2 Data fields

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
FacilityId	The unique AEMO defined Facility identifier.	Yes	int	Yes	530001
ServicePointId	The unique identifier of the service point.	Yes	int	Yes	3001
GasDate	The gas date for which the nomination was curtailed, in ISO 8601 date format (YYYY-MM-DD or YYYY-MM-DDThh:mm:ss). Timestamps are ignored.	Yes	datetime	Yes	2018-03-01
CurtailedQuantity	The quantity of the curtailed nomination. This is the difference between the nominated quantity and the final scheduled quantity.	Yes	int	No	455

6.6.3 Validation rules

Field	Validation
FacilityId	Must be a valid value in the Transportation Facility Register published by AEMO. The reporting entity must be the owner of the facility at the time of the submission.
ServicePointId	Must be a valid value in the Transportation Service Point Register published by AEMO. ServicePoint must be registered to the reporting entity at the time of the submission. ServicePoint must belong to the Facility.
GasDate	Must conform to the date format YYYY-MM-DD or YYYY-MM-DDThh:mm:ss.
CurtailedQuantity	Must be greater than or equal to 0.

6.6.4 Data submission example

The JSON format example only illustrates information relating to the transaction data, and does not include header information.

Figure 8 JSON message format

```

{
  "ItemList": [
    {
      "FacilityId": 10001,
      "ServicePointId": 3001,
      "GasDate": "2018-05-01",
      "CurtailedQuantity": 455
    },
    {
      "FacilityId": 10001,
      "ServicePointId": 3002,
      "GasDate": "2018-05-01",
      "CurtailedQuantity": 233
    }
  ]
}

```

6.7 Auction Bid Profile

6.7.1 Description

Purpose	Allows auction participants to submit bids for the Day Ahead Auction.
Submission cut-off time	By 5:00 pm daily on D-1. The auction for CBU capacity for gas day D is run on gas day D-1. Note: This time is extended by two hours when the auction delay process is initiated by AEMO.
Required from	Auction participants
URL	https://<environment>/ws/gsh/capacityAuction/v1/bidProfileSubmission
Method	POST
Notes	Multiple bids may be submitted in a single bid profile. However, all bids must pass validation otherwise the entire transaction will be rejected. The latest bid profile submission will be used as the overall current bidding position for the specified date range. A previously submitted bid can be cancelled by submitting an empty bid profile for the same gas day.

6.7.2 Data fields

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
FromGasDate	The first gas date of the bid profile, in ISO 8601 datetime format (YYYY-MM-DD or YYYY-MM-DDThh:mm:ss). Timestamps are ignored.	Yes	datetime	Yes	2018-03-01
ToGasDate	The last gas date of the bid profile, in ISO 8601 datetime format (YYYY-MM-DD or YYYY-MM-DDThh:mm:ss). Timestamps are ignored.	Yes	datetime	Yes	2018-03-10
Bids	One or more bids may be submitted with each bid profile submission. A bid is comprised of the following: Bid Id Products (one or more) Steps (up to ten)		JSON Object		

6.7.2.1 Bids

Object Name	Bids				
Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
BidId	The unique AEMO defined bid identifier.	Yes	int	Yes	1
Products	One or more products may be contained within a bid.		JSON Object		
Steps	Up to ten steps may be contained within a bid.		JSON Object		

6.7.2.2 Products

Object Name	Products				
Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
FacilityId	The unique AEMO defined Facility identifier.	Yes	int	Yes	530001
AuctionProductTypeId	The product type, for example Forward haul, Backhaul or Compression.	Yes	String (20)	No	BACKHAUL
ReceiptPointId	The unique AEMO defined Receipt Point identifier. This is the point where gas is injected into the pipeline.	Yes	int	Yes	30001
ReceiptPointDWGMCompanyIdReference	The DWGM MP Company ID associated with the accreditation for a DWGM integrated Receipt Point.	Conditional	int	No	123
ReceiptPointDWGM MIRN Reference	The DWGM MIRN associated with the accreditation for a DWGM integrated Receipt Point.	Conditional	String (50)	No	200001PC
DeliveryPointId	The unique AEMO defined Delivery Point identifier. This is the point where gas is withdrawn from the pipeline.	Yes	int	Yes	30002
DeliveryPointDWGMCompanyIdReference	The DWGM MP Company ID associated with the accreditation for a DWGM integrated Delivery Point.	Conditional	int	No	123
DeliveryPointDWGM MIRN Reference	The DWGM MIRN associated with the accreditation for a DWGM integrated Delivery Point.	Conditional	String (50)	No	200002PC
ServiceReference	The service reference issued by the facility operator for the Facility that the Receipt and Delivery Points are related to.	Yes	String (255)	No	SR000001

6.7.2.3 Steps

Object Name	Steps				
Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
CumulativeStepQuantity	The cumulative bid step quantity.	Yes	int	Yes	123
StepPrice	The bid price.	Yes	Number	Yes	4.2032

6.7.3 Validation rules

Field	Validation
FacilityId	Must be a valid value in the Transportation Facility Register published by AEMO.
AuctionProductId	Must be a value from the defined list of valid values.
FromGasDate	Must conform to the date format YYYY-MM-DD or YYYY-MM-DDThh:mm:ss. Must be equal to or greater than current date + 1 If equal to current date + 1, submission time must be before the auction bid cut-off time Must be equal to or less than today + 14
ToGasDate	Must conform to the date format YYYY-MM-DD or YYYY-MM-DDThh:mm:ss. Must be equal to or greater than FromGasDate Must be equal to or less than today + 14 (configurable)
Products	Must specify at least one product per bid.
ReceiptPointId	Must be a valid value in the Transportation Service Point Register published by AEMO. Must belong to the Facility specified in the submission.
ReceiptPointDWGMCompanyReference	Mandatory when Receipt Point is a DWGM interface point. Must match the DWGM Company ID of the submitting participant or the DWGM Company ID of the appointing DWGM MP for the submitting participant.
ReceiptPointDWGMMIRNReference	Mandatory when Receipt Point is a DWGM interface point. Must match the MIRN associated with the Receipt Point. A DWGM accreditation must exist for the ReceiptPointDWGMCompanyReference and ReceiptPointDWGMMIRNReference combination, for the gas date range specified.
DeliveryPointId	Must be a valid value in the Transportation Service Point Register published by AEMO. Must belong to the same Facility as the ReceiptPointId. Must be a valid matching value for the ReceiptPointId specified.
DeliveryPointDWGMCompanyReference	Mandatory when Delivery Point is a DWGM interface point. Must match the DWGM Company ID of the submitting participant or appointing DWGM MP.
DeliveryPointDWGMMIRNReference	Mandatory when Delivery Point is a DWGM interface point. Must match the MIRN associated with the Delivery Point. A DWGM accreditation must exist for the DeliveryPointDWGMCompanyReference and DeliveryPointDWGMMIRNReference combination, for the gas date range specified.
ServiceReference	Must be valid for the gas date specified. Must be valid for the submitter.

Field	Validation
	Must be valid for the Facility associated with the receipt/delivery point pair.
Steps	Must specify at least one price/quantity step. Can only specify a maximum of 10 steps. Total bid quantity must be equal to or less than 100,000 GJ.
StepPrice	Must be equal to or greater than minimum step price (configurable - \$0 initially). Must be equal to or less than maximum step price (configurable -\$50 initially). Must decrease with each step. Must be no more than 4 decimal places.
CumulativeStepQuantity	First step must be greater than 0. Cumulative quantity must increase with each step. Cumulative quantity must be equal to or less than the maximum bid quantity (configurable – initially set to 500,000)

6.7.4 Data submission example

The JSON format example only illustrates information relating to the transaction data, and does not include header information.

Figure 9 JSON message format

```
{
  "ItemList":
  {
    "FromGasDate": "2018-05-01T00:00:00",
    "ToGasDate": "2018-05-01T00:00:00",
    "Bids":
    [
      {
        "BidId": 1,
        "Products":
        [
          {
            "FacilityId": 530001,
            "AuctionProductId": "BACKHAUL",
            "ReceiptPointId": 3001,
            "ReceiptPointDWGMCompanyIdReference": 123,
            "ReceiptPointDWGMMIRNReference": "200001PC",
            "DeliveryPointId": 3002,
            "DeliveryPointDWGMCompanyIdReference": null,
            "DeliveryPointDWGMMIRNReference": null,
            "ServiceReference": "SR00001"
          },
          {
            "FacilityId": 530002,
            "AuctionProductId": "BACKHAUL",
            "ReceiptPointId": 3003,
            "ReceiptPointDWGMCompanyIdReference": 345,
            "ReceiptPointDWGMMIRNReference": "500001PC",
            "DeliveryPointId": 3004,
            "DeliveryPointDWGMCompanyIdReference": null,
            "DeliveryPointDWGMMIRNReference": null,
            "ServiceReference": "SR00022"
          }
        ],
        "Steps":
        [
          {
            "StepPrice": "5.33",
            "CumulativeStepQuantity": 100
          },
          {
            "StepPrice": "4.33",
            "CumulativeStepQuantity": 150
          },
          {
            "StepPrice": "3.33",
            "CumulativeStepQuantity": 200
          },
          {
            "StepPrice": "2.33",
            "CumulativeStepQuantity": 250
          }
        ]
      }
    ]
  }
}
```

7. Report transactions

This section specifies the JSON message format for private report data that facility operators and trading participants retrieve from AEMO's Capacity Transfer Platform and Day-Ahead Auction market systems.

7.1 Capacity Transfer Notice

7.1.1 Description

Purpose	Provide the capacity quantity adjustment required for a shipper contract.
Visibility	Private
Recipients	Facility operators
Generated at	Between 12:30 pm and 1:00 pm daily for day-ahead products. Between 7:00 pm and 7:30 pm daily for forward traded products. Note: The end times may be extended by up to one hour when the capacity transfer delay process is initiated by AEMO.
Updated at	The capacity transfer notice is updated if the capacity cannot be transferred in AEMO systems for STTM and DWGM products. Between 12:30 pm and 2:30 pm daily for day-ahead products. Between 7:00 pm and 10:00 pm daily for forward traded products. Note: The end times may be extended by up to one hour when the capacity transfer delay process is initiated by AEMO.
URL	<a href="https://<environment>/ws/gsh/capacity/v1/reportCapacityTransferNotice">https://<environment>/ws/gsh/capacity/v1/reportCapacityTransferNotice
Method	GET
Notes	Facility operators use this data to update the capacity quantity on the relevant shipper contracts in their own systems. Each published version of the data contains both the incremental adjustment quantity and the cumulative/overall adjustment quantity that must be applied to a shipper's contracted capacity quantity, on the same day that this report is published. Park product transfers are identified by empty zone details and identical receipt and delivery points.

7.1.2 Data fields

Object Name	CapacityTransfers
--------------------	-------------------

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
CapacityTransferId	The unique AEMO defined Capacity Transfer transaction identifier.	Yes	int	Yes	10001
CapacityTransferGroupId	The unique identifier for a group of capacity transfer records.	Yes	int	No	201

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
FacilityId	The unique AEMO defined Facility identifier.	Yes	int	No	530001
FacilityName	The descriptive name of the Facility.	Yes	String (255)	No	VIC Pipeline
ParticipantId	The unique AEMO defined Participant identifier.	Yes	String(20)	No	13
ParticipantName	The descriptive name of the Participant.	Yes	String (255)	No	Star Energy
ServiceReference	The service reference issued by the facility operator.	Yes	String (255)	No	SR00000001
STTMContractReference	The STTM registered facility service identifier (CRN) associated with the service reference.	No	String (255)	No	RS00011
ReceiptPointId	The unique AEMO defined Receipt Point identifier. This is the point where gas is injected into the pipeline. For Park products, this will be identical to the DeliveryPointId.	Yes	int	No	1001
ReceiptPointName	The descriptive name of the Receipt Point. For Park products, this will be identical to the DeliveryPoinName.	Yes	String (255)	No	Echuca
DeliveryPointId	The unique AEMO defined Delivery Point identifier. This is the point where gas is withdrawn from the pipeline. For Park products, this will be identical to the ReceiptPointId.	Yes	int	No	2001
DeliveryPointName	The descriptive name of the Delivery Point. For Park products, this will be identical to the ReceiptPointName.	Yes	String (255)	No	Melbourne
ReceiptZoneId	The unique AEMO defined Receipt Zone identifier. For Park products, this will be NULL.	No	int	No	3001
ReceiptZoneName	The descriptive name of the Receipt Zone. For Park products, this will be NULL.	No	String (255)	No	Echuca Zone
DeliveryZoneId	The unique AEMO defined Delivery Zone identifier. For Park products, this will be NULL.	No	int	No	4001
DeliveryZoneName	The descriptive name of the Delivery Zone. For Park products, this will be NULL.	No	String (255)	No	Melbourne Zone
GasDate	The gas date that the capacity change applies to, in ISO 8601 datetime format (yyyy-mm-ddThh:mm:ss±hh:mm).	Yes	datetime	No	2018-05-20T00:00:00+10:00
IncrementalQuantityChange	The incremental capacity quantity adjustment (GJ/day) to be applied to the service reference on the day of this notice	Yes	int	No	-100

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
	is published for the gas date specified. This is a signed value (+/-).				
OverallQuantityChange	The overall capacity quantity adjustment (GJ/day) applied to the service reference on the day of this notice is published for the gas date specified. This is a signed value (+/-).	Yes	int	No	-100
LastChanged	Date and time record was last modified, in ISO 8601 datetime format (yyyy-mm-ddThh:mm:ss±hh:mm).	Yes	datetime	No	2018-05-01T12:23:45+10:00

7.1.3 Filters

This report can be filtered by:

- FacilityIds (multiple values may be specified)
- FromGasDate (mandatory)
- ToGasDate (mandatory)
- ChangedAfter (mandatory – this filters on the LastChanged field)

7.1.4 Report example

The JSON format example only illustrates information relating to the report data and does not include header information.

Figure 10 JSON message format

```
{
  "transactionId": "27d225a6-6c9a-4081-81dc-eb643fdd2a1d",
  "data":
    {"CapacityTransfers": [
      {
        "CapacityTransferId": 10001,
        "CapacityTransferGroupId": 201,
        "FacilityId": 530001,
        "FacilityName": "VIC Pipeline",
        "ParticipantId": "13",
        "ParticipantName": "Star Energy",
        "ServiceReference": "SR00000001",
        "STTMContractReference": "RS0001",
        "ReceiptPointId": 1001,
        "ReceiptPointName": "Echuca",
        "DeliveryPointId": 2001,
        "DeliveryPointName": "Melbourne",
        "ReceiptZoneId": 3001,
        "ReceiptZoneName": "Echuca Zone",
        "DeliveryZoneId": 4001,
        "DeliveryZoneName": "Melbourne Zone",
        "GasDate": "2018-05-20T00:00:00+10:00",
        "IncrementalQuantityChange": 100,
        "OverallQuantityChange": 100,
        "LastChanged": "2018-05-01T12:23:45+10:00"
      },
      {
        "CapacityTransferId": 10002,
        "CapacityTransferGroupId": 201,
        "FacilityId": 530001,
        "FacilityName": "VIC Pipeline",
        "ParticipantId": "13",
        "ParticipantName": "Star Energy",
        "ServiceReference": "SR00000002",
        "STTMContractReference": "RS0002",
        "ReceiptPointId": 1002,
        "ReceiptPointName": "Mildura",
        "DeliveryPointIdDeliveryPointID": 2002,
        "DeliveryPointName": "Echuca",
        "ReceiptZoneId": 3002,
        "ReceiptZoneName": "Mildura Zone",
        "DeliveryZoneId": 4002,
        "DeliveryZoneName": "Echuca Zone",
        "GasDate": "2018-05-25T00:00:00+10:00",
        "IncrementalQuantityChange": -200,
        "OverallQuantityChange": 0,
        "LastChanged": "2018-05-01T12:23:45+10:00"
      }
    ]
  },
  "errors": null
}
```

7.2 Auction Results

7.2.1 Description

Purpose	Provide the capacity quantity won by shippers at auction.
Visibility	Private
Recipients	Facility operators and Auction participants

Generated at Between 5:00 pm and 5:30 pm daily.
 Note: These times are extended by two hours when the auction delay process is initiated by AEMO.

Updated at N/A

URL https://<environment>/ws/gsh/capacity/v1/reportAuctionResults

Method GET

Notes Facility operators use this data to assign capacity of auction services to shippers.
 Facility operators that have an active facility in the auction will receive this report, regardless of whether there is any auction quantity won on their facility.
 Auction participants that have an active bid in the auction will receive this report, regardless of whether they win any capacity in the auction.

7.2.2 Data fields

7.2.2.1 Auction Run

Object Name AuctionRun

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
AuctionDate	The date of the auction, in ISO 8601 datetime format (yyyy-mm-ddThh:mm:ss±hh:mm).	Yes	datetime	Yes	2018-05-01T00:00:00+10:00
GasDate	The gas date for which capacity is assigned to the shipper, in ISO 8601 datetime format (yyyy-mm-ddThh:mm:ss±hh:mm).	Yes	datetime	Yes	2018-05-02T00:00:00+10:00
AuctionRunDatetime	The date and time that the auction was run (yyyy-mm-ddThh:mm:ss±hh:mm).	Yes	datetime	Yes	2018-05-02T00:00:00+10:00
ParticipantId	The unique AEMO defined GSH participant identifier.	Yes	String (20)	Yes	74
ParticipantCode	The unique participant code.	No	String (20)	No	SE584
LastChanged	Date and time record was last modified, in ISO 8601 datetime format (yyyy-mm-ddThh:mm:ss±hh:mm).	Yes	datetime	No	2018-05-01T12:23:45+10:00

7.2.2.2 Auction Results

Object Name AuctionResults

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
AuctionTransactionId	The unique identifier of the auction transaction.	Yes	int	Yes	10001
AuctionDate	The date of the auction, in ISO 8601 datetime format (yyyy-mm-ddThh:mm:ss±hh:mm).	Yes	datetime	No	2018-05-01T00:00:00+10:00
FacilityId	The unique AEMO defined Facility identifier.	Yes	int	No	530001
FacilityName	The descriptive name of the Facility.	Yes	String (255)	No	VIC Pipeline
ParticipantId	The unique AEMO defined Participant identifier.	Yes	String (20)	No	13
ParticipantCode	The unique participant code.	Yes	String (20)	No	SE584
ParticipantName	The descriptive name of the Participant.	Yes	String (255)	No	Star Energy
ServiceReference	The service reference issued by the facility operator.	Yes	String (255)	No	SR00000001
ReceiptPointId	The unique AEMO defined Receipt Point identifier. This is the point where gas is injected into the pipeline.	Yes	int	No	1001
ReceiptPointName	The descriptive name of the Receipt Point.	Yes	String (255)	No	Echuca
RPDWGMReference	The DWGM accreditation reference associated with the Receipt Point.	No	String (255)	No	
DeliveryPointId	The unique AEMO defined Delivery Point identifier. This is the point where gas is withdrawn from the pipeline.	Yes	int	No	2001
DeliveryPointName	The descriptive name of the Delivery Point.	Yes	String (255)	No	Melbourne
DPDWGMReference	The DWGM accreditation reference associated with the Delivery Point.	No	String (255)	No	
AuctionQuantityWon	The capacity quantity won at auction (GJ/day) by the participant.	Yes	int	No	100
GasDate	The gas date for which capacity is assigned to the shipper, in ISO 8601 datetime format (yyyy-mm-ddThh:mm:ss±hh:mm).	Yes	datetime	No	2018-05-02T00:00:00+10:00
ProductPrice	The price of the auction product won at auction (\$/GJ) by the participant.	Yes	decimal(18,2)	No	3.15
LastChanged	Date and time record was last modified, in ISO 8601 datetime format (yyyy-mm-ddThh:mm:ss±hh:mm).	Yes	datetime	No	2018-05-01T12:23:45+10:00

7.2.3 Filters

This report can be filtered by:

- FacilityIds (multiple values may be specified)
- FromAuctionDate
- ToAuctionDate
- FromGasDate
- ToGasDate

Filter rules:

- Auction results generated on the current date are returned if the date fields are not specified.
- If FromAuctionDate is provided, the ToAuctionDate must also be provided, and vice versa.
- If FromGasDate is provided, the ToGasDate must also be provided, and vice versa.
- If FromAuctionDate and FromGasDate are both provided, the FromGasDate must be one day after the FromAuctionDate.
- If ToAuctionDate and ToGasDate are both provided, the ToGasDate must be one day after the ToAuctionDate.

7.2.4 Report example

The JSON format example only illustrates information relating to the report data and does not include header information.

Figure 11 JSON message format

```
{
  "transactionId": "27d225a6-6c9a-4081-81dc-eb643fdd2a7d",
  "data":
  {
    "AuctionRun":
    [
      {
        "AuctionDate": "2018-05-01T12:23:45+10:00",
        "GasDate": "2018-05-02T12:23:45+10:00",
        "AuctionRunDatetime": "2018-05-01T12:23:45+10:00",
        "ParticipantId": "584",
        "ParticipantCode": "STAR",
        "LastChanged": "2018-05-01T12:23:45"
      }
    ],
    "AuctionResults":
    [
      {
        "AuctionTransactionId": 10001,
        "AuctionDate": "2018-05-01T00:00:00+10:00",
        "FacilityId": 530001,
        "FacilityName": "VIC Pipeline",
        "ParticipantId": "13",
        "ParticipantCode": "STAR",
        "ParticipantName": "Star Energy",
        "ServiceReference": "SR00000001",
        "ReceiptPointId": 1001,
        "ReceiptPointName": "Echuca",
        "RPDWGMReference": "23 200001PC",
        "DeliveryPointId": 2001,
        "DeliveryPointName": "Melbourne",
        "DPDWGMReference": null,
        "AuctionQuantityWon": 100,
        "GasDate": "2018-05-02T00:00:00+10:00",
        "ProductPrice": 3.15,
        "LastChanged": "2018-05-01T12:23:45+10:00"
      },
      {
        "AuctionTransactionId": 10002,
        "AuctionDate": "2018-05-01T00:00:00+10:00",
        "FacilityId": 530001,
        "FacilityName": "VIC Pipeline",
        "ParticipantId": "13",
        "ParticipantCode": "STAR",
        "ParticipantName": "Star Energy",
        "ServiceReference": "SR00000002",
        "ReceiptPointId": 1002,
        "ReceiptPointName": "Mildura",
        "RPDWGMReference": "23 200001PC",
        "DeliveryPointId": 2002,
        "DeliveryPointName": "Echuca",
        "DPDWGMReference": null,
        "AuctionQuantityWon": 45,
        "GasDate": "2018-05-02T00:00:00+10:00",
        "ProductPrice": 5.22,
        "LastChanged": "2018-05-01T12:23:45+10:00"
      }
    ]
  },
  "errors": null
}
```

7.3 Shipper Capacity Transfer Notification

7.3.1 Description

Purpose	Provide confirmation to facility operator that shipper is notified of a capacity transfer outcome.
Visibility	Private
Recipients	Facility operators and Trading participants
Generated at	Between 12:30 pm and 2:30 pm daily for day-ahead products. Between 7:00 pm and 10:00 pm daily for forward traded products. Note: The end times may be extended by up to one hour when the capacity transfer delay process is initiated by AEMO.
Updated at	N/A
URL	<a href="https://<environment>/ws/gsh/capacity/v1/reportShipperCapacityTransferNotification">https://<environment>/ws/gsh/capacity/v1/reportShipperCapacityTransferNotification
Method	GET
Notes	Failed capacity transfer can be due to: <ul style="list-style-type: none"> • Facility operator system failure preventing the capacity transfer in their system. • Facility operator system rejects the capacity transfer due to an issue with the contract specified. • AEMO system failure preventing the capacity transfer in the STTM or DWGM system. • AEMO STTM or DWGM system rejects the capacity transfer due to an issue with the STTM registered facility service (CRN) or DWGM accreditation reference specified. Park product transfers are identified by empty zone details and identical receipt and delivery points.

7.3.2 Data fields

Object Name	CapacityTransfers					
Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values	
CapacityTransferId	The unique AEMO defined Capacity Transfer transaction identifier.	Yes	int	Yes	10001	
GasDate	The gas date for the capacity change, in ISO 8601 datetime format (yyyy-mm-ddThh:mm:ss±hh:mm).	Yes	Datetime	No	2018-05-02T00:00:00+10:00	
ParticipantId	The unique AEMO defined Participant identifier.	Yes	String(20)	No	13	
ParticipantCode	The participant code used in the ETS.	Yes	String(20)	No	SE584	
ParticipantName	The descriptive name of the Participant.	Yes	String(255)	No	Star Energy	
FacilityId	The unique AEMO defined Facility identifier.	Yes	int	No	530001	
FacilityName	The descriptive name of the Facility.	Yes	String(255)	No	VIC Pipeline	

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
ServiceReference	The service reference issued by the facility operator.	Yes	String (255)	No	SR00000001
STTMContractReference	The STTM registered facility service identifier (CRN) associated with the service reference.	No	String (255)	No	RS00011
DWGMAccreditationReference	The DWGM accreditation reference associated with the service reference.	No	String (255)	No	MIRN001
ReceiptPointId	The unique identifier of the Receipt Point as defined in the Transportation Service Point Register. This is the point where gas is injected into the pipeline. For Park products, this will be identical to the DeliveryPointId.	Yes	int	No	2001
ReceiptPointName	The descriptive name of the Receipt Point as defined in the Transportation Service Point Register. For Park products, this will be identical to the DeliveryPointName.	Yes	String (255)	No	Run 1
DeliveryPointId	The unique identifier of the Delivery Point as defined in the Transportation Service Point Register. This is the point where gas is withdrawn from the pipeline. For Park products, this will be identical to the ReceiptPointId.	Yes	int	No	3001
DeliveryPointName	The descriptive name of the Delivery Point as defined in the Transportation Service Point Register. For Park products, this will be identical to the ReceiptPointName.	Yes	String (255)	No	Run 5
ReceiptZoneId	The unique identifier of the Receipt Zone as defined in the Transportation Service Point Register. For Park products, this will be NULL.	No	int	No	4001
ReceiptZoneName	The descriptive name of the Receipt Zone as defined in the Transportation Service Point Register. For Park products, this will be NULL.	No	String (255)	No	REC Zone 1
DeliveryZoneId	The unique identifier of the Delivery Zone as defined in the Transportation Service Point Register. For Park products, this will be NULL.	No	int	No	5001
DeliveryZoneName	The descriptive name of the Delivery Zone as defined in the Transportation Service Point Register. For Park products, this will be NULL.	No	String (255)	No	DEL Zone 1
Status	The status of the capacity transfer. Valid values: - TRANSFERRED - PARTIAL - PENDING - REJECTED	Yes	String (11)	Yes	TRANSFERRED PARTIAL PENDING REJECTED

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
	CANCELLED				CANCELLED
System	The system that has processed the capacity transfer. Valid values: - FACILITY_OPERATOR - AEMO - AEMO_STTM AEMO_DWGM	Yes	String (17)	Yes	FACILITY_OPERATOR AEMO AEMO_STTM AEMO_DWGM
Reason	The reason for REJECTED or CANCELLED capacity transfer. Valid values: - SHIPPER_CAPACITY_SHORTFALL - INVALID_CONTRACT_REFERENCE - CONTRACT_TRANSFER_RESTRICTION - SYSTEM_ISSUE - MATCHING_RECORD_NOT_FOUND (specific to AEMO STTM and DWGM)	No	String (40)	Yes	SHIPPER_CAPACITY_SHORTFALL; INVALID_CONTRACT_REFERENCE; CONTRACT_TRANSFER_RESTRICTION; SYSTEM_ISSUE; MATCHING_RECORD_NOT_FOUND
TransactionCompletedFlag	Flag to indicate whether the capacity transfer process is completed. Valid values are Yes or No.	Yes	String (3)	No	Yes
OverallQuantityChange	The overall capacity quantity adjustment (GJ/day) applied to the relevant contracts for this transfer date and gas date. This is a signed value (+/-).	Yes	int	No	-345
LastChanged	Date and time record was last modified, in ISO 8601 datetime format (yyyy-mm-ddThh:mm:ss±hh:mm).	Yes	datetime	No	2018-05-01T12:23:45+10:00

7.3.3 Filters

This report can be filtered by:

- FromGasDate
- ToGasDate
- ChangedAfter (this filters on the LastChanged field)

Filter rules:

- All records generated after 0:00 on the current date are returned if the ChangedAfter filter is not specified.

- If FromGasDate is provided, the ToGasDate must also be provided, and vice versa.

7.3.4 Report example

The JSON format example only illustrates information relating to the report data and does not include header information.

Figure 12 JSON message format

```
{
  "transactionId": "27d225a6-6c9a-4081-81dc-eb643fdd2a2d",
  "data":
    {"CapacityTransfers": [
      {
        "CapacityTransferId": 10001,
        "GasDate": "2018-05-02T00:00:00+10:00",
        "ParticipantId": "13",
        "ParticipantCode": "SE584",
        "ParticipantName": "Star Energy",
        "FacilityId": 530001,
        "FacilityName": "VIC Pipeline",
        "ServiceReference": "SR00000001",
        "STTMContractReference": "RS00011",
        "DWGMAccreditationReference": null,
        "ReceiptPointId": 1001,
        "ReceiptPointName": "Echuca",
        "DeliveryPointId": 2001,
        "DeliveryPointName": "Melbourne",
        "ReceiptZoneId": 3001,
        "ReceiptZoneName": "Echuca Zone",
        "DeliveryZoneId": 4001,
        "DeliveryZoneName": "Melbourne Zone",
        "Status": "TRANSFERRED",
        "System": "SERVICE_PROVIDER",
        "Reason": null,
        "TransactionCompletedFlag": "Yes",
        "OverallQuantityChange": -345,
        "LastChanged": "2018-05-01T12:23:45+10:00"
      },
      {
        "CapacityTransferId": 10002,
        "GasDate": "2018-05-02T00:00:00+10:00",
        "ParticipantId": "13",
        "ParticipantCode": "SE584",
        "ParticipantName": "Star Energy",
        "FacilityId": 530001,
        "FacilityName": "VIC Pipeline",
        "ServiceReference": "SR00000002",
        "STTMContractReference": "RS00022",
        "DWGMAccreditationReference": "MIRN002",
        "ReceiptPointId": 1001,
        "ReceiptPointName": "Echuca",
        "DeliveryPointId": 2001,
        "DeliveryPointName": "Melbourne",
        "ReceiptZoneId": 3001,
        "ReceiptZoneName": "Echuca Zone",
        "DeliveryZoneId": 4001,
        "DeliveryZoneName": "Melbourne Zone",
        "Status": "PENDING",
        "System": "SERVICE_PROVIDER",
        "Reason": "BUYER_INVALID_CONTRACT",
        "TransactionCompletedFlag": "Yes",
        "OverallQuantityChange": -345,
        "LastChanged": "2018-05-01T12:23:45+10:00"
      }
    ]
  },
  "errors": null
}
```

7.4 Registered Participants

7.4.1 Description

Purpose	The report contains the registration details of all participants currently registered in the GSH, CTP and DAA markets.
Visibility	Public
Recipients	All
Generated at	On creating or updating details of registered participant in the GSH market, and monthly at the beginning of each month.
Updated at	N/A
URL	https://<environment>/ws/gsh/capacity/v1/reportRegisteredParticipants
Method	GET
Notes	

7.4.2 Data fields

Object Name Participants

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
Market	The market in which the company is a participant, for example Gas Supply Hub or Gas Capacity Auction. Companies that participate in both markets have a separate row displayed for each market.	Yes	String (20)	Yes	Gas Supply Hub
ParticipantId	The unique identifier of the participant	Yes	String (20)	Yes	74
ParticipantCode	The participant code used in the Exchange Trading System (ETS)	Yes	String (20)	No	ES584
OrganisationName	Name of the organisation who has the ABN	Yes	String (80)	No	AGL
OrganisationCode	Unique code of the organisation	Yes	String (20)	No	AG256
TradingName	Trading name of the organisation	Yes	String (80)	No	AGL Hydro Partnership
HeadOfficeAddressLine1	The head office address of the organisation	No	String (80)	No	50 Collins St
HeadOfficeAddressLine2	The head office address of the organisation	No	String (80)	No	Melbourne
HeadOfficeAddressLine3	The head office address of the organisation	No	String (80)	No	VIC

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
HeadOfficeAddressLine4	The head office address of the organisation	No	String (80)	No	3001
PhoneNumber	The phone number of the organisation	No	String (80)	No	03 9658 7000
FaxNumber	The fax number for the organisation	No	String (80)	No	03 9658 7589
ABN	ABN of the organisation	No	String (20)	No	456874258
ARBN	ARBN of the organisation	No	String (20)	No	125874569
ACN	ACN of the organisation	No	String (20)	No	569845214
Classifications	The classification of the company in the GSH market, for example trading, view-only, facility operator etc.	Yes	String (255)	No	Trader,Reallocate, Facility Operator
AgentId	The unique participant identifier of the agent appointed to trade on the participant's behalf.	No	String (20)	No	123
AgentName	Name of the agent organisation	No	String (80)	No	Star Energy Pty Ltd
LastChanged	Date and time record was last modified, in ISO 8601 datetime format (yyyy-mm-ddThh:mm:ss±hh:mm).	Yes	datetime	No	2018-05-01T12:23:45+10:00

7.4.3 Filters

This report can be filtered by:

- Markets (multiple values may be specified)

7.4.4 Report example

The JSON format example only illustrates information relating to the report data and does not include header information.

Figure 13 JSON message format

```
{
  "transactionId": "27d225a6-6c9a-4081-81dc-eb643fdd2a3d",
  "data":
    {"Participants": [
      {
        "Market": "Gas Supply Hub",
        "ParticipantId": "74",
        "ParticipantCode": "ES584",
        "OrganisationName": "AGL",
        "OrganisationCode": "AG256",
        "TradingName": "AGL Hydro Partnership",
        "HeadOfficeAddressLine1": "50 Collins St",
        "HeadOfficeAddressLine2": "Melbourne",
        "HeadOfficeAddressLine3": "VIC",
        "HeadOfficeAddressLine4": "3001",
        "PhoneNumber": "03 9658 7000",
        "FaxNumber": "03 9658 7589",
        "ABN": "456874258",
        "ARBN": "125874569",
        "ACN": "569845214",
        "Classifications": "Facility Operator",
        "AgentId": 123,
        "AgentName": "Star Energy Pty Ltd",
        "LastChanged": "2018-05-01T12:23:45+10:00"
      },
      {
        "Market": "Gas Supply Hub",
        "ParticipantId": "56",
        "ParticipantCode": "ORRE",
        "OrganisationName": "Origin Energy Retail Ltd",
        "OrganisationCode": "ORIGINRETAIL",
        "TradingName": "Origin Energy Retail Ltd",
        "HeadOfficeAddressLine1": "Level 45",
        "HeadOfficeAddressLine2": "264-278 George Street",
        "HeadOfficeAddressLine3": "Sydney",
        "HeadOfficeAddressLine4": "NSW 2000",
        "PhoneNumber": "0295035209",
        "FaxNumber": "0292524066",
        "ABN": "22078868425",
        "ARBN": "",
        "ACN": "78868425",
        "Classifications": "Trader",
        "AgentId": 123,
        "AgentName": "Star Energy Pty Ltd",
        "LastChanged": "2018-05-01T12:23:45+10:00"
      }
    ]
  },
  "errors": null
}
```

7.5 Capacity Transfer and Auction Notice

7.5.1 Description

Purpose	The report notifies participants when the market delay or cancellation process is triggered.
Visibility	Public
Recipients	All
Generated at	Event triggered by the market delay or cancellation process.

Updated at	N/A
URL	https://<environment>/ws/gsh/capacity/v1/reportCapacityTransferAndAuctionNotice
Method	GET
Notes	

7.5.2 Data fields

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
NoticeId	The unique identifier of the notice.	Yes	int	Yes	123
NoticeDate	The date and time of the notice (yyyy-mm-ddThh:mm:ss±hh:mm).	Yes	datetime	No	2018-04-30T12:34:56+10:00
GasDate	The gas date that the notice applies to, in ISO 8601 datetime format (yyyy-mm-ddThh:mm:ss±hh:mm). This will be NULL for notices regarding forward trade capacity transfers.	No	datetime	No	2018-05-01T00:00:00+10:00
FacilityId	The unique AEMO defined Facility identifier.	No	int	No	530001
FacilityName	The descriptive name of the Facility.	No	String (255)	No	VIC Pipeline
Market	The market that has triggered the notice, for example CTP or DAA.	Yes	String (3)	Yes	CTP
NoticeType	The type of notice, for example: Capacity Trading Market Delay Day-ahead Auction Delay Facility Excluded from Auction Day-ahead Auction Cancelled	Yes	String (50)	No	Day-ahead Auction Delay
Description	The description of the notice.	Yes	String (1000)	No	
LastChanged	Date and time record was last modified, in ISO 8601 datetime format (yyyy-mm-ddThh:mm:ss±hh:mm).	Yes	datetime	No	2018-05-01T12:23:45+10:00

7.5.3 Filters

This report can be filtered by:

- FromGasDate
- ToGasDate
- FacilityIds (multiple values may be specified)

- Markets (multiple values may be specified)
- ChangedAfter (this filters on the LastChanged field)

Filter rules:

- All records generated after 0:00 on the current date are returned if the ChangedAfter filter is not specified.
- If FromGasDate is provided, the ToGasDate must also be provided, and vice versa.

7.5.4 Report example

The JSON format example only illustrates information relating to the report data and does not include header information.

Figure 14 JSON message format

```
{
  "transactionId": "27d225a6-6c9a-4081-81dc-eb643fdd2a4d",
  "data":
    {"Notices": [
      {
        "NoticeId": 123,
        "NoticeDate": "2018-04-30T12:34:56+10:00",
        "GasDate": "2018-05-01T00:00:00+10:00",
        "FacilityId": null,
        "FacilityName": null,
        "Market": "CTP",
        "NoticeType": "Delay",
        "Description": "Market has been delayed by 2 hours due to system issue",
        "LastChanged": "2018-05-01T12:23:45+10:00"
      }
    ]
  },
  "errors": null
}
```

7.6 Transportation Facility Register

7.6.1 Description

Purpose	The report contains a list of all the facilities currently registered under Part 24 of the Rules, for the capacity transfer and day ahead auction.
Visibility	Public
Recipients	All
Generated at	On creating or updating details of a registered facility in the CTP and DAA markets Monthly at the beginning of each month.
Updated at	N/A
URL	https://<environment>/ws/gsh/capacity/v1/reportTransportationFacilityRegister
Method	GET
Notes	

7.6.2 Data fields

Object Name	Facilities
--------------------	------------

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
FacilityId	The unique AEMO defined Facility identifier.	Yes	int	Yes	530001
FacilityName	The name of the Facility.	Yes	String (100)	No	MAPS
FacilityDescription	The descriptive name of the Facility.	Yes	String (400)	No	Moomba to Adelaide Pipeline System
FacilityType	The type of facility, for example pipe or compressor.	Yes	String (20)	No	Pipeline
OperatorId	The unique identifier of the Facility Operator that operates the facility.	Yes	String (20)	No	584
OperatorName	The descriptive name of the participant.	Yes		No	Epic
EffectiveDate	The effective date of the facility, in ISO 8601 datetime format (yyyy-mm-ddThh:mm:ss±hh:mm).	Yes	datetime	No	2018-03-01T00:00:00+10:00
VersionDatetime	The version timestamp of the record, in ISO 8601 datetime format (yyyy-mm-ddThh:mm:ss±hh:mm).	Yes	datetime	No	2018-02-01T06:20:34+10:00
LastChanged	Date and time record was last modified, in ISO 8601 datetime format (yyyy-mm-ddThh:mm:ss±hh:mm).	Yes	datetime	No	2018-02-02T08:20:00+10:00

7.6.3 Filters

This report can be filtered by:

- FacilityIds (multiple values may be specified)
- OperatorIds (multiple values may be specified)

7.6.4 Report example

The JSON format example only illustrates information relating to the report data and does not include header information.

Figure 15 JSON message format

```
{
  "transactionId": "c631b30e-2ce1-4647-946f-be2d04291107",
  "data":
    {"Facilities": [
      {
        "FacilityId": 530001,
        "FacilityName": "MAPS",
        "FacilityDescription": "Moomba to Adelaide Pipeline System",
        "FacilityType": "Pipeline",
        "OperatorId": "584",
        "OperatorName": "Epic Energy",
        "EffectiveDate": "2018-03-01T00:00:00+10:00",
        "VersionDatetime": "2018-02-01T12:23:45+10:00",
        "LastChanged": "2018-02-02T12:23:45+10:00"
      },
      {
        "FacilityId": 540001,
        "FacilityName": "MSP",
        "FacilityDescription": "Moomba to Sydney Pipeline",
        "FacilityType": "Pipeline",
        "OperatorId": "590",
        "OperatorName": "APA",
        "EffectiveDate": "2018-03-01T00:00:00+10:00",
        "VersionDatetime": "2018-02-01T12:23:45+10:00",
        "LastChanged": "2018-02-02T12:23:45+10:00"
      }
    ]
  },
  "errors": null
}
```

7.7 Transportation Service Point Register

7.7.1 Description

Purpose	The report contains list of all the service points (receipt and delivery points), zones and pipeline segments currently registered under Part 24 of the Rules, for the capacity transfer and day ahead auction.
Visibility	Public
Recipients	All
Generated at	<ol style="list-style-type: none"> 1. On creating or updating details of a service point in the CTP and DAA markets 2. Monthly at the beginning of each month
Updated at	N/A
URL	https://<environment>/ws/gsh/capacity/v1/reportTransportationServicePointRegister
Method	GET
Notes	

7.7.2 Data fields

7.7.2.1 Zones

Object Name	Zones
--------------------	-------

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
ZoneId	The unique identifier of the zone. This is referred to as a Limit Id in the <i>Auction Quantities</i> data submission transaction.	Yes	int	Yes	123
ZoneName	The descriptive name of the zone.	Yes	String (100)	No	Zone 1
ZoneType	The type of zone, for example pipeline receipt, pipeline delivery, compression receipt or compression delivery.	Yes	String (20)	No	Pipeline Receipt
ZoneDescription	The description of the zone.	Yes	String (255)	No	
ForAuctionPublication	Flag to indicate if the product component can be published in the public auction reports, for example yes or no.	Yes	String (3)	No	Yes
EffectiveDate	The effective date of the zone, in ISO 8601 datetime format (yyyy-mm-ddThh:mm:ss±hh:mm).	Yes	datetime	No	2018-03-01T00:00:00+10:00
VersionDatetime	The version timestamp of the record, in ISO 8601 datetime format (yyyy-mm-ddThh:mm:ss±hh:mm).	Yes	datetime	No	2018-02-01T06:20:34+10:00
LastChanged	Date and time record was last modified, in ISO 8601 datetime format (yyyy-mm-ddThh:mm:ss±hh:mm).	Yes	datetime	No	2018-05-01T12:23:45+10:00

7.7.2.2 Segments

Object Name Segments

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
FacilityId	The unique AEMO defined parent Facility identifier.	Yes	int	No	530001
FacilityName	The descriptive name of the parent Facility.	Yes	String (100)	No	VIC Pipeline
SegmentId	The unique identifier of the pipeline segment or compression service. This is referred to as a Limit Id in the Auction Quantities data submission transaction.	Yes	int	Yes	123
SegmentName	The descriptive name of the pipeline segment or compression service.	Yes	String (100)	No	Segment 1
SegmentType	The segment type, for example Forward Haul, Backhaul or Compression Service.	Yes	String (20)	No	Forward Haul
FromId	The unique identifier of the zone for forward haul pipeline segments and	Yes	int	Yes	20001

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
	compression services or the service point for backhaul pipeline segments.				
FromName	The descriptive name of the zone or service point.	Yes	String (100)	No	Zone 1
Told	The unique identifier of the zone for forward haul pipeline segments and compression services or the service point for backhaul pipeline segments.	Yes	int	Yes	30001
ToName	The descriptive name of the zone or service point.	Yes	String (100)	No	Zone 2
ForAuctionPublication	Flag to indicate if the product component can be published in the public auction reports, for example yes or no.	Yes	String (3)	No	Yes
EffectiveDate	The effective date of the segment, in ISO 8601 datetime format (yyyy-mm-ddThh:mm:ss±hh:mm).	Yes	datetime	No	2018-03-01T00:00:00+10:00
VersionDatetime	The version timestamp of the record, in ISO 8601 datetime format (yyyy-mm-ddThh:mm:ss±hh:mm).	Yes	datetime	No	2018-02-01T06:20:34+10:00
LastChanged	Date and time record was last modified, in ISO 8601 datetime format (yyyy-mm-ddThh:mm:ss±hh:mm).	Yes	datetime	No	2018-05-01T12:23:45+10:00

7.7.2.3 Service Points

Object Name ServicePoints

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
FacilityId	The unique identifier of the parent facility.	Yes	int	Yes	100001
FacilityName	The descriptive name of the parent facility.	Yes	String (100)	No	Moomba to Adelaide Pipeline System
ServicePointId	The unique identifier of the service point. This is referred to as a Limit Id in the Auction Quantities data submission transaction.	Yes	int	Yes	500001
ServicePointName	The descriptive name of the service point.	Yes	String (100)	No	SP 1
ServicePointType	The type of service point, for example forward haul receipt point, forward haul delivery point, backhaul receipt point, backhaul delivery point, compression	Yes	String (100)	No	FORWARD_HAUL_RECEIPT_POINT

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
	receipt point or compression delivery point.				
ServicePointDescription	The description of the service point.	Yes	String (255)	No	
NotionalPoint	Flag to indicate if the service point is a notional point, for example Yes or No.	Yes	String (3)	No	Yes
Zoneld	The unique identifier of the zone in which the service point is located.	Yes	int	Yes	20001
ZoneName	The descriptive name of the zone.	Yes	String (100)	No	Zone 1
GBBConnectionPointId	The corresponding GBB connection point identifier.	No	int	No	150001
GBBConnectionPointName	The descriptive name of the corresponding GBB connection point.	No	String (100)	No	Moomba Gas Plant
ForAuctionPublication	Flag to indicate if the product component can be published in the public auction reports, for example yes or no.	Yes	String (3)	No	Yes
EffectiveDate	The effective date of the service point, in ISO 8601 datetime format (yyyy-mm-ddThh:mm:ss±hh:mm).	Yes	datetime	No	2018-03-01T00:00:00+10:00
VersionDatetime	The version timestamp of the record, in ISO 8601 datetime format (yyyy-mm-ddThh:mm:ss±hh:mm).	Yes	datetime	No	2018-02-01T06:20:34+10:00
LastChanged	Date and time record was last modified, in ISO 8601 datetime format (yyyy-mm-ddThh:mm:ss±hh:mm).	Yes	datetime	No	2018-05-01T12:23:45+10:00

7.7.2.4 Notional Points

Object Name NotionalPoints

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
ServicePointId	The unique identifier of the service point (notional point).	Yes	int	Yes	500001
ServicePointName	The descriptive name of the service point (notional point).	Yes	String (100)	No	SP 1
PhysicalPointName	The descriptive name of the physical point associated with the notional point.	Yes	String (100)	No	SP 2
GBBConnectionPointId	The corresponding GBB connection point identifier.	No	int	No	150001

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
EffectiveDate	The effective date of the notional point, in ISO 8601 datetime format (yyyy-mm-ddThh:mm:ss±hh:mm).	Yes	datetime	No	2018-03-01T00:00:00+10:00
VersionDatetime	The version timestamp of the record, in ISO 8601 datetime format (yyyy-mm-ddThh:mm:ss±hh:mm).	Yes	datetime	No	2018-02-01T06:20:34+10:00
LastChanged	Date and time record was last modified, in ISO 8601 datetime format (yyyy-mm-ddThh:mm:ss±hh:mm).	Yes	datetime	No	2018-05-01T12:23:45+10:00

7.7.2.5 Park Services

Object Name ParkServices

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
ParkProductName	The descriptive name of the park product.	Yes	String (100)	No	Park Service 1
ParkServicePointId	The unique identifier of the service point at which transportation capacity is required to use this park service.	Yes	int	No	500001
ParkServicePointName	The descriptive name of the park service point.	Yes	String (100)	No	SP 1
EffectiveDate	The effective date of the notional point, in ISO 8601 datetime format (yyyy-mm-ddThh:mm:ss±hh:mm).	Yes	datetime	No	2018-03-01T00:00:00+10:00
VersionDatetime	The version timestamp of the record, in ISO 8601 datetime format (yyyy-mm-ddThh:mm:ss±hh:mm).	Yes	datetime	No	2018-02-01T06:20:34+10:00
LastChanged	Date and time record was last modified, in ISO 8601 datetime format (yyyy-mm-ddThh:mm:ss±hh:mm).	Yes	datetime	No	2018-05-01T12:23:45+10:00

7.7.3 Filters

This report can be filtered by:

- Component type (Zone, Segment, Service Point, Notional Point, Park Service)

7.7.4 Report example

The JSON format example only illustrates information relating to the report data and does not include header information.

Figure 16 JSON message format

```
{
  "transactionId": "27d225a6-6c9a-4081-81dc-eb643fdd2a6e",
  "data":
  {
    "Zones":
    [
      {
        "ZoneId": 20001,
        "ZoneName": "Zone 1",
        "ZoneType": "Pipeline Receipt",
        "ZoneDescription": "Some sort of description",
        "ForAuctionPublication": "Yes",
        "EffectiveDate": "2018-03-01T00:00:00+10:00",
        "VersionDatetime": "2018-02-01T12:23:45+10:00",
        "LastChanged": "2018-05-01T12:23:45+10:00"
      },
      {
        "ZoneId": 20002,
        "ZoneName": "Zone 2",
        "ZoneType": "Pipeline Delivery",
        "ZoneDescription": "Some sort of description",
        "ForAuctionPublication": "Yes",
        "EffectiveDate": "2018-03-01T00:00:00+10:00",
        "VersionDatetime": "2018-02-01T12:23:45+10:00",
        "LastChanged": "2018-05-01T12:23:45+10:00"
      }
    ],
    "Segments": [
      {
        "FacilityId": 100001,
        "FacilityName": "Moomba to Adelaide Pipeline System",
        "SegmentId": 30001,
        "SegmentName": "Segment 1",
        "SegmentType": "Forward Haul",
        "FromId": 20001,
        "FromName": "Zone 1",
        "ToId": 30001,
        "ToName": "Zone 2",
        "ForAuctionPublication": "Yes",
        "EffectiveDate": "2018-03-01T00:00:00+10:00",
        "VersionDatetime": "2018-02-01T12:23:45+10:00",
        "LastChanged": "2018-05-01T12:23:45+10:00"
      },
      {
        "FacilityId": 100001,
        "FacilityName": "Moomba to Adelaide Pipeline System",
        "SegmentId": 30001,
        "SegmentName": "Segment 1",
        "SegmentType": "Forward Haul",
        "FromId": 20002,
        "FromName": "Zone 2",
        "ToId": 30002,
        "ToName": "Zone 3",
        "ForAuctionPublication": "Yes",
        "EffectiveDate": "2018-03-01T00:00:00+10:00",
        "VersionDatetime": "2018-02-01T12:23:45+10:00",
        "LastChanged": "2018-05-01T12:23:45+10:00"
      }
    ],
    "ServicePoints": [
      {
        "FacilityId": 100001,
        "FacilityName": "Moomba to Adelaide Pipeline System",
        "ServicePointId": 50001,
        "ServicePointName": "SP 1",
        "ServicePointType": "Forward Haul Receipt Point",
```

```

    "ServicePointDescription": "Some description",
    "NotionalPoint": "Yes",
    "ZoneId": 20002,
    "ZoneName": "Zone 2",
    "GBBConnectionPointId": 150001,
    "GBBConnectionPointName": "Moomba Gas Plant",
    "ForAuctionPublication": "Yes",
    "EffectiveDate": "2018-03-01T00:00:00+10:00",
    "VersionDatettime": "2018-02-01T12:23:45+10:00",
    "LastChanged": "2018-05-01T12:23:45+10:00"
  },
  {
    "FacilityId": 100001,
    "FacilityName": "Moomba to Adelaide Pipeline System",
    "ServicePointId": 50001,
    "ServicePointName": "SP 1",
    "ServicePointType": "Forward Haul Receipt Point",
    "ServicePointDescription": "Some description",
    "NotionalPoint": "Yes",
    "ZoneId": 20002,
    "ZoneName": "Zone 2",
    "GBBConnectionPointId": 150001,
    "GBBConnectionPointName": "Moomba Gas Plant",
    "ForAuctionPublication": "Yes",
    "EffectiveDate": "2018-03-01T00:00:00+10:00",
    "VersionDatettime": "2018-02-01T12:23:45+10:00",
    "LastChanged": "2018-05-01T12:23:45+10:00"
  }
],
"NotionalPoints": [
  {
    "ServicePointId": 500001,
    "ServicePointName": "SP 1",
    "PhysicalPointName": "SP 2",
    "GBBConnectionPointId": "150001",
    "EffectiveDate": "2018-03-01T00:00:00+10:00",
    "VersionDatettime": "2018-02-01T12:23:45+10:00",
    "LastChanged": "2018-05-01T12:23:45+10:00"
  },
  {
    "ServicePointId": 500001,
    "ServicePointName": "SP 1",
    "PhysicalPointName": "SP 3",
    "GBBConnectionPointId": "150002",
    "EffectiveDate": "2018-03-01T00:00:00+10:00",
    "VersionDatettime": "2018-02-01T12:23:45+10:00",
    "LastChanged": "2018-05-01T12:23:45+10:00"
  }
],
"ParkServices": [
  {
    "ParkProductName": "Park Service 1",
    "ParkServicePointId": 500001,
    "ParkServicePointName": "SP 1",
    "EffectiveDate": "2018-03-01T00:00:00+10:00",
    "VersionDatettime": "2018-02-01T12:23:45+10:00",
    "LastChanged": "2018-05-01T12:23:45+10:00"
  },
  {
    "ParkProductName": "Park Service 23",
    "ParkServicePointId": 500022,
    "ParkServicePointName": "SP 22",
    "EffectiveDate": "2018-03-01T00:00:00+10:00",
    "VersionDatettime": "2018-02-01T12:23:45+10:00",
    "LastChanged": "2018-05-01T12:23:45+10:00"
  }
]
},

```

```

"errors": null
}

```

7.8 Auction Bid Profile

7.8.1 Description

Purpose	Allows auction participants to retrieve a specific bid profile for a given gas date.
Visibility	Private
Recipients	Auction Participants
Generated at	N/A
Updated at	N/A
URL	https://<environment>/ws/gsh/capacityAuction/v1/bidProfile
Method	POST
Notes	

7.8.2 Data fields

Object Name	BidProfileList				
Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
GasDate	The gas date of the bid profile, in ISO 8601 datetime format (YYYY-MM-DDThh:mm:ss±hh:mm).	Yes	datetime	Yes	2018-03-01T00:00:00+10:00
SubmittedAt	The datetime stamp of the bid profile submission, in ISO 8601 datetime format (YYYY-MM-DDThh:mm:ss±hh:mm).	Yes	datetime	Yes	2018-02-23T12:34:45+10:00
Bids	One or more bids may be contained within a bid profile. A bid is comprised of the following: <ul style="list-style-type: none"> • Bid Id • Products (one or more) • Steps (up to ten) 		JSON Object		

7.8.2.1 Bids

Object Name	Bids
--------------------	------

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
BidId	The unique AEMO defined bid identifier.	Yes	int	Yes	1
Products	One or more products may be contained within a bid.		JSON Object		
Steps	Up to ten steps may be contained within a bid.		JSON Object		

7.8.2.2 Products

Object Name Products

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
FacilityId	The unique AEMO defined Facility identifier.	Yes	int	Yes	530001
FacilityName	The name of the Facility.	Yes	String (100)	No	MAPS
FacilityDescription	The descriptive name of the Facility.	Yes	String (400)	No	Moomba to Adelaide Pipeline System
AuctionProductTypeId	The product type, for example Forward haul, Backhaul or Compression.	Yes	String (20)	No	BACKHAUL
ReceiptPointId	The unique AEMO defined Receipt Point identifier. This is the point where gas is injected into the pipeline.	Yes	int	Yes	123
ReceiptPointName	The descriptive name of the receipt point.	Yes	String (100)	No	RP 1
ReceiptPointDWGMCompanyIdReference	The DWGM MP Company ID associated with the accreditation for a DWGM integrated Receipt Point.	No	int	No	123
ReceiptPointDWGMCompanyNameReference	The DWGM MP Company name associated with the accreditation for a DWGM integrated Receipt Point.	No	String (40)	No	ABC Trading Pty Ltd
ReceiptPointDWGM MIRN Reference	The DWGM MIRN associated with the accreditation for a DWGM integrated Receipt Point.	No	String (20)	No	200001PC
ReceiptPointDWGM Description Reference	The description of the receipt point.	No	String (100)	No	Connection between A and B
DeliveryPointId	The unique AEMO defined Delivery Point identifier. This is the point where gas is withdrawn from the pipeline.	Yes	int	Yes	30002

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
DeliveryPointName	The descriptive name of the delivery point.	Yes	String (100)	No	DP 1
DeliveryPointDWGMCompanyIDReference	The DWGM MP Company ID associated with the accreditation for a DWGM integrated Delivery Point.	No	int	No	245
DeliveryPointDWGMCompanyNameReference	The DWGM MP Company name associated with the accreditation for a DWGM integrated Delivery Point.	No	String (40)	No	Clean Energy Pty Ltd
DeliveryPointDWGM MIRN Reference	The DWGM MIRN associated with the accreditation for a DWGM integrated Delivery Point.	No	String (20)	No	200002PC
DeliveryPointDWGM Description Reference	The description of the delivery point.	No	String (100)	No	Connection between X and Y
ServiceReference	The service reference issued by the facility operator for the Facility that the Receipt and Delivery Points are related to.	Yes	String (255)	No	SR000001

7.8.2.3 Steps

Object Name Steps

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
CumulativeStepQuantity	The cumulative bid step quantity.	Yes	int	Yes	123
StepPrice	The bid price.	Yes	Number	Yes	4.2032

7.8.3 Filters

This report can be filtered by:

- GasDate (Mandatory)
- SubmittedAt (Optional) - If not supplied, then the latest successful bid submission for each gas date in a specified range is returned.

7.8.4 Report example

The JSON format example only illustrates information relating to the report data and does not include header information.

Figure 17 JSON message format

```

{
  "transactionId": "27d225a6-6c9a-4081-81dc-eb643fdd2a8f",
  "data":
  {
    "BidProfileList": [
      {
        "GasDate": "2018-05-01T00:00:00+10:00",
        "SubmittedAt": "2018-04-23T12:23:34+10:00",
        "Bids":
        [
          {
            "BidId": 1,
            "Products":
            [
              {
                "FacilityId": 530001,
                "FacilityName": "MAPS",
                "FacilityDescription": "Moomba to Adelaide Pipeline System",
                "AuctionProductId": "BACKHAUL",
                "ReceiptPointId": 3001,
                "ReceiptPointName": "RP1",
                "ReceiptPointDWGMCompanyIdReference": 123,
                "ReceiptPointDWGMCompanyNameReference": "ABC Trading Pty Ltd",
                "ReceiptPointDWGMMIRNReference": "200001PC",
                "ReceiptPointDWGMDescriptionReference": "Connects A to B",
                "DeliveryPointId": 3002,
                "DeliveryPointName": "DP1",
                "DeliveryPointDWGMCompanyIdReference": null,
                "DeliveryPointDWGMCompanyNameReference": null,
                "DeliveryPointDWGMMIRNReference": null,
                "DeliveryPointDWGMDescriptionReference": null,
                "ServiceReference": "SR00001"
              },
              {
                "FacilityId": 540222,
                "FacilityName": "MSP",
                "FacilityDescription": "Moomba to Sydney Pipeline",
                "AuctionProductId": "FORWARD_HAUL",
                "ReceiptPointId": 3003,
                "ReceiptPointName": "RP2",
                "ReceiptPointDWGMCompanyIdReference": null,
                "ReceiptPointDWGMCompanyNameReference": null,
                "ReceiptPointDWGMMIRNReference": null,
                "ReceiptPointDWGMDescriptionReference": null,
                "DeliveryPointId": 3004,
                "DeliveryPointName": "DP2",
                "DeliveryPointDWGMCompanyIdReference": 145,
                "DeliveryPointDWGMCompanyNameReference": "Clean Energy Pty Ltd",
                "DeliveryPointDWGMMIRNReference": "500001PC",
                "DeliveryPointDWGMDescriptionReference": "Connects X to Z",
                "ServiceReference": "SR00022"
              }
            ]
          },
          {
            "StepPrice": "5.33",
            "CumulativeStepQuantity": 100
          },
          {
            "StepPrice": "4.33",
            "CumulativeStepQuantity": 150
          },
          {
            "StepPrice": "3.33",
            "CumulativeStepQuantity": 200
          }
        ]
      }
    ]
  }
}

```

```

    {
      "StepPrice": "2.33",
      "CumulativeStepQuantity": 250
    }
  ]
}
]
}
}],
"errors": null
}

```

7.9 Auction Bid History

7.9.1 Description

Purpose	Allows auction participants to retrieve metadata for all successful bid submissions for a given gas date range.
Visibility	Private
Recipients	Auction Participants
Generated at	N/A
Updated at	N/A
URL	https://<environment>/ws/gsh/capacityAuction/v1/bidSubmissionHistory
Method	POST
Notes	

7.9.2 Data fields

7.9.2.1 Bid Submission History

Object Name BidSubmissionHistory

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
GasDays	List of gas days.	No	JSON Object	Yes	

7.9.2.2 Gas Days

Object Name GasDays

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
GasDate	The gas date, in ISO 8601 datetime format (YYYY-MM-DDThh:mm:ss±hh:mm).	Yes	datetime	Yes	2018-05-01T00:00:00+10:00
Submissions	The list of submissions for a given gas day.	Yes	JSON Object	No	

7.9.2.3 Submissions

Object Name Submissions

Data field name	Description	Mandatory	Data type	Primary Key	Example / Allowed values
SubmissionTime	The datetime stamp of the bid profile submission, in ISO 8601 datetime format (YYYY-MM-DDThh:mm:ss±hh:mm).	Yes	datetime	Yes	2018-02-23T12:34:45+10:00
SubmittingUserId	The unique identifier of the user who submitted the bid profile.	Yes	String (20)	Yes	jsmith

7.9.3 Filters

This report can be filtered by:

- FromGasDate (Mandatory)
- ToGasDate (Mandatory)

7.9.4 Report example

The JSON format example only illustrates information relating to the report data and does not include header information.

Figure 18 JSON message format

```
{
  "transactionId": "27d225a6-6c9a-4081-81dc-eb643fdd2a9h",
  "data":
  {
    "BidSubmissionHistory":
    [
      {
        "GasDays":
        [
          {
            "GasDate": "2018-05-10T00:00:00+10:00",
            "Submissions":
            [
              {
                "SubmissionTime": "2018-05-01T12:34:22+10:00",
                "SubmittingUserId": "jsmith"
              },
              {
                "SubmissionTime": "2018-05-02T10:34:22+10:00",
                "SubmittingUserId": "pjones"
              }
            ]
          }
        ]
      }
    ]
  },
  "errors": null
}
```

8. Glossary

8.1 Abbreviations

Abbreviation	Explanation
AEMO	Australian Energy Market Operator.
API	Application Programming Interface.
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.
CTI	Capacity transfer interface
CTP	Capacity transfer platform
DAA	Day-ahead auction
HTTPS	Hypertext Transfer Protocol over SSL.
JSON	JavaScript Object Notation.
REST	Representational State Transfer.
URL	Uniform Resource Locator.

Abbreviation	Explanation
URM	User Rights Management.

8.2 Terms

Term	Definition
Connection Point	A receipt point or delivery point.
e-Hub	API Web Portal and the API Gateway for both electricity and gas.
Rules	The National Gas Rules.
Facility operator	An operator of a pipeline or compression facility.

9. Needing help

9.1 Requesting AEMO assistance

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.

9.2 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

Appendix A.

Validation error codes

The following table shows the validation error codes for all transaction types.

Error code	Error message
0	Something went wrong during processing a request
1	Unexpected error processing request. Please try again in a few moments.
2	Empty request submitted
20	{0} is mandatory field. Please correct and retry.
21	{0} is not required
40	{0} must be > Current Date
41	End Date must be >= Start Date
42	Start Date must be <= End Date
43	Gas Date must be one day in front of Auction Date
44	Auction Date must be Today's Date
45	To Gas Date must be >= From Gas Date. Please correct and retry.
46	{0} must be in between {1} and {2}. Please correct and retry.
47	Invalid Filter. {0} must be {1} before {2}
48	Invalid Filter. If Filter date specified, both From Date and To Date must be specified
49	{0} must be > Current Time
50	{0} must be greater than or equal to Current Date
60	{0} {1} not found. Please correct and retry
61	{0} value {1} is invalid. Must be a positive whole number. Please correct and retry.
62	ParticipantID {0} is not a service provider for {1} ID {2}
63	ContractType must be one of TRADE, AUCTION or ALL
64	LimitType must be one of FORWARD_HAUL_PIPELINE_SEGMENT, BACKHAUL_PIPELINE_SEGMENT, PIPELINE_RECEIPT_ZONE, PIPELINE_DELIVERY_ZONE, COMPRESSION_RECEIPT_ZONE, COMPRESSION_DELIVERY_ZONE, FORWARD_HAUL_RECEIPT_POINT, FORWARD_HAUL_DELIVERY_POINT, BACKHAUL_RECEIPT_POINT, BACKHAUL_DELIVERY_POINT, COMPRESSION_RECEIPT_POINT, COMPRESSION_DELIVERY_POINT
65	{0} must be one of YES, NO
66	{0} length is more then {1} characters

Error code	Error message
67	{0} must be between {1} and {2}. Please correct and retry.
68	{0} must be an {1}
70	AuctionService must be one of FORWARD_HAUL, BACKHAUL or COMPRESSION
71	TransactionStatus must be one of TRANSFERRED, PARTIAL, REJECTED or PENDING
72	Reason must be one of {0}
74	{0} cannot be less than {1}
75	The {0} count limit is {1}. Please correct and retry.
76	The step quantity must be greater than the quantity from the previous step in the same bid. Please correct and retry.
77	The step price must be less than the price from the previous step in the same bid. Please correct and retry.
78	Facility ID: {0}, is not available in the Auction for every day in the selected date range. Please correct and retry.
79	Facility Component Type must be either ZONE,SEGMENT,SERVICE_POINT,NOTIONAL_POINT or PARK_SERVICE
80	Valid Product Path does not exist between the supplied service points. Please correct and retry.
81	Market must be 'Gas Supply Hub' or 'Gas Capacity Auction
82	Market must be 'CTP' or 'DAA'
83	Limit ID {0} is not valid
84	Participant {0} is not registered for the Auction
85	Missing Auction Quantity for {0} Limit Id {1} in facility {2}
86	STTM Contract Reference {0} is not valid
87	Contract Validation failed: {0}
88	Facility ID: {0} used in Bid: {1} is not available in the Auction for every day in the selected date range. Please correct and retry.
90	{0} must be unique in submission
91	Combination of {0}, {1} must be unique in submission
92	Combination of {0}, {1}, {2} must be unique in submission
93	Combination of {0}, {1}, {2}, {3} must be unique in submission
94	{0} has already been submitted
95	Combination of {0}, {1} has already been submitted
96	Combination of {0}, {1}, {2} has already been submitted
97	Combination of {0}, {1}, {2}, {3} has already been submitted
98	Trading Margin exceeded, all bid profile(s) have been rejected
99	{0} - all bidprofiles have been rejected
100	Service Point {0} is Invalid. Please correct and retry.

Error code	Error message
101	Bid {0} contains no products. Please correct and retry.
102	Service Point with ID: {0} does not belong to Facility with ID: {1}
103	Bid has more products - {0}, than the configured limit - {1}
104	AuctionTransactionId {0} not found in Auction Results
105	Reason required for AuctionTransactionId {0} as QuantityWon {1} not equal to RevisedCapacityQuantity {2}
106	ParticipantId {0} is not owner of FacilityId {1} that AuctionTransactionId {2} pertains to
107	A simultaneous activity detected. Please try again in a few moments.
108	Service Point with ID: {0} has Invalid Service Type of {1}
109	Bid Profile Submissions for tomorrows GasDate must be submitted by {0}, The current Time is {1}
110	Cannot change status from {1} to {2} for Capacity Transfer ID {0} as transaction is marked as completed
111	Invalid Quantity cannot be zero for incomplete capacity transfer reason of {0}

Where:

Label	Description
{0}	The invalid data provided for a field in the data submission.
{1}	The data type for a field in the data submission.
{2}	The field name in the data submission.