



Capacity Transfer Interface

28th March 2018

Agenda

1. Capacity Transfer Interface
2. System Overview
3. Transactions
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Capacity Transfer Interface

A new interface that will be used to facilitate the exchange of capacity trade data and auction results between AEMO and service providers.

New transactions:

AEMO to Service Providers (Outbound data)	Service Providers to AEMO (Inbound data)
<ul style="list-style-type: none">Capacity transfer noticeAuction results	<ul style="list-style-type: none">Contract detailsCapacity transfer statusAuction quantitiesActual auction capacities

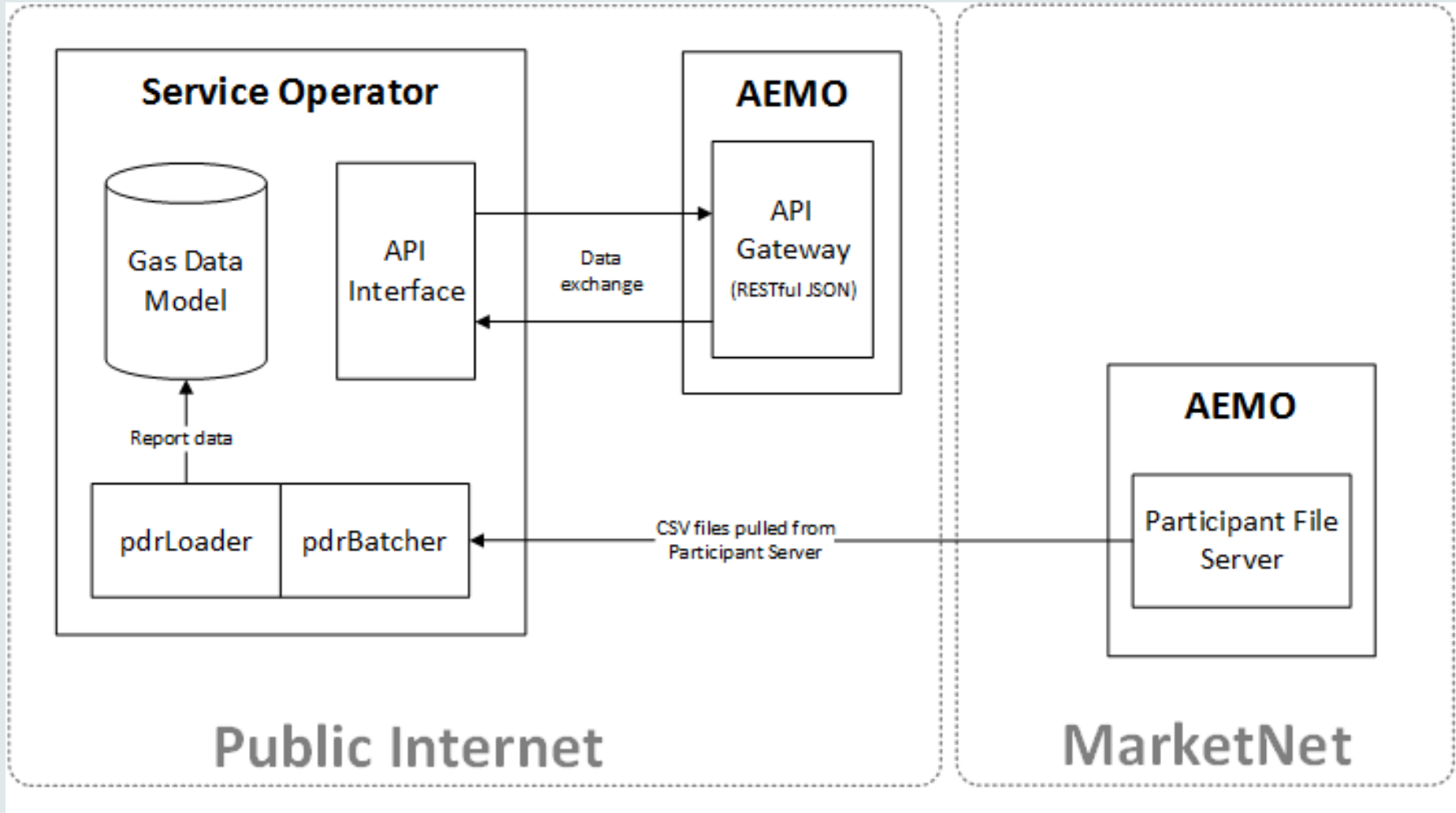
The interface will be delivered via the new Gas Bulletin Board API platform:

- Inbound data – delivered via RESTful API interface (using JSON file format)
- Outbound data - delivered via RESTful API interface (JSON) and [Data Interchange](#)

Refer to Section 5.3 of the BB Data Submission Procedures on the AEMO website for further details on the API submission interface:

https://www.aemo.com.au/-/media/Files/Stakeholder_Consultation/Consultations/Gas_Consultations/2018/GBB/BB-Data-Submission-Procedures.docx

System Overview



Contract Details - Description

Transaction name	CONTRACT_DETAILS
Purpose	Provide a list of valid shipper contracts for a facility.
Submission cut-off time	Ad hoc whenever contract details change.
Submitted by	Service providers
Notes	<ul style="list-style-type: none">• Each submission must contain the full set of shipper contracts that are valid beyond the submission date.• AEMO uses this information to validate that a shipper has a valid contract on a facility at the time of bid or offer submission.

Contract Details - Fields

Data field name	Description	Mandatory	Data type	PK
FacilityID	The unique identifier of the facility.	Yes	int	Yes
ParticipantID	The participant ID used in the Exchange and Day Ahead Auction.	Yes	int	Yes
ServiceReference	The service reference issued by the service provider.	Yes	string	Yes
STTMContractReference	The STTM contract reference number associated with the service reference. Mandatory for STTM facilities.	No	string	
ContractType	Indicates whether a contract can be used for capacity trades, auctions or both. Valid values: <ul style="list-style-type: none"> 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. 	Yes	string	
StartDate	Effective start date of the contract, in ISO 8601 date format (YYYY-MM-DD). Timestamps are ignored.	Yes	datetime	
EndDate	Effective end date of the contract, in ISO 8601 date format (YYYY-MM-DD). Timestamps are ignored.	Yes	datetime	

Contract Details – Validation rules

Field	Validation
FacilityID	The service provider submitting the data must be the owner of the facility at the time of the submission.
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.
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.
EndDate	Must be equal to or greater than StartDate. Must be greater than current date. Must conform to the date format YYYY-MM-DD.

Contract Details – Sample data

FacilityID	ParticipantID	ServiceReference	STTMContractReference	ContractType	StartDate	EndDate
50001	111111	SR00000001	RS0000011	TRADE	2018-01-01	2018-12-31
50001	111111	SR00000002	RS0000012	AUCTION	2018-01-01	2018-12-31
50001	222222	SR00000003	RS0000021	TRADE	2018-01-01	2018-12-31
50001	222222	SR00000004	RS0000022	AUCTION	2018-01-01	2018-12-31
50001	222222	SR00000005	RS0000023	ALL	2018-01-01	2018-12-31

Capacity Transfer Notice - Description

Transaction name	CAPACITY_TRANSFER_NOTICE
Purpose	Provide the capacity quantity adjustment required for a shipper contract.
Generated at	<p>Harmonised times:</p> <p>Between 12:30 pm and 1:00 pm daily for day-ahead products.</p> <p>Between 7:00 pm and 7:30 pm daily for forward traded products.</p> <p><i>Note: These times are extended by one hour when the capacity transfer delay process is initiated by AEMO.</i></p> <p>Non-harmonised times:</p> <p>Between 11:00 am and 11:30 am daily for day-ahead products.</p> <p>Between 7:00 pm and 7:30 pm daily for forward traded products.</p> <p><i>Note: These times are extended by one hour when the capacity transfer delay process is initiated by AEMO.</i></p>
Updated at	<p>The capacity transfer notice will be updated if the capacity cannot be transferred in AEMO systems for STTM and DWGM products:</p> <p>Harmonised times:</p> <p>Between 1:00 pm and 2:30 pm daily for day-ahead products.</p> <p>Between 7:30 pm and 10:00 pm daily for forward traded products.</p> <p><i>Note: These times are extended by one hour when the capacity transfer delay process is initiated by AEMO.</i></p> <p>Non-harmonised times:</p> <p>Between 1:00 pm and 2:30 pm daily for day-ahead products.</p> <p>Between 7:30 pm and 10:00 pm daily for forward traded products.</p> <p><i>Note: These times are extended by one hour when the capacity transfer delay process is initiated by AEMO.</i></p>
Recipient	Service providers
Notes	<ul style="list-style-type: none"> • Service providers use this data to update the capacity quantity on the relevant shipper contracts in their own systems. • Each published version of the data represents the cumulative/overall adjustment quantity for a shipper's contracted capacity quantity for a gas date.

Capacity Transfer Notice – Fields

Data field name	Description	Mandatory	Data type	PK
CapacityTransferID	The unique identifier of the capacity transaction.	Yes	int	Yes
FacilityID	The unique identifier of the facility.	Yes	int	
FacilityName	The descriptive name of the facility.	Yes	string	
ParticipantID	The participant ID used in the ETS.	Yes	int	
ParticipantName	The descriptive name of the participant.	Yes	string	
ServiceReference	The contract reference assigned by service providers.	Yes	string	
STTMContractReference	The contract reference number used in STTM system.	No	string	
DWGMAccreditationReference	The accreditation reference used in DWGM system.	No	string	
ReceiptPointID	The ID of the receipt point.	Yes	int	
ReceiptPointName	The descriptive name of the receipt point.	Yes	string	
DeliveryPointID	The ID of the delivery point.	Yes	int	
DeliveryPointName	The descriptive name of the delivery point.	Yes	string	
ReceiptZoneID	The ID of the receipt zone.	Yes	int	
ReceiptZoneName	The descriptive name of the receipt zone.	Yes	string	
DeliveryZoneID	The ID of the delivery zone.	Yes	int	
DeliveryZoneName	The descriptive name of the delivery zone.	Yes	string	
GasDate	The gas date of the capacity change, in ISO 8601 date format (YYYY-MM-DD).	Yes	date	
CapacityQuantityChange	The overall capacity quantity adjustment (GJ/day) to be applied to the service reference. This is a signed value (+/-).	Yes	number	

Capacity Transfer Notice – Sample data

Capacity Transfer ID	Facility ID	Participant ID	Service Reference	STTM Contract Reference	DWGM Accreditation Reference	Receipt Point ID	Delivery Point ID	Receipt Zone ID	Delivery Zone ID	Gas Date	Capacity Quantity Change
10001	50001	111111	SR00001	RS00011		1001	2001	3001	4001	2018-04-01	100
10002	50001	111111	SR00001	RS00011		1001	2001	3001	4001	2018-04-02	100
10003	50001	222222	SR00002	RS00021		1002	2002	3002	4002	2018-04-01	0
10004	50001	222222	SR00004		MIRN001	1003	2003	3003	4003	2018-04-01	-78
10005	50001	222222	SR00005	RS00022	MIRN002	1004	2004	3004	4004	2018-04-01	-900

Note: example contains a subset of the fields listed on slide 10.

Capacity Transfer Status - Description

Transaction name	CAPACITY_TRANSFER_STATUS
Purpose	Provide a status of capacity transfer for each capacity transfer notice.
Submission cut-off time	<p>Harmonised times:</p> <p>By 2:00 pm daily for day-ahead products.</p> <p>By 9:30 pm daily for forward traded products.</p> <p><i>Note: These times are extended by one hour when the capacity transfer delay process is initiated by AEMO.</i></p> <p>Non-harmonised times:</p> <p>By 12:30 pm daily for day-ahead products (extended by one hour when the capacity transfer delay process is initiated by AEMO).</p> <p>By 9:30 pm daily for forward traded products (extended by two hours when the capacity transfer delay process is initiated by AEMO).</p>
Submitted by	Service providers
Notes	<ul style="list-style-type: none">• Service providers are responsible for pro-rating capacity quantities where applicable i.e. if a shipper short sells.

Capacity Transfer Status - Fields

Data field name	Description	Mandatory	Data type	PK
CapacityTransferID	Unique capacity transaction identifier.	Yes	int	Yes
TransactionStatus	Status of capacity transfer in the service provider system. Valid values are: <ul style="list-style-type: none"> TRANSFERRED PARTIAL REJECTED PENDING (subject to further discussion - refer to slides 16 to 18) 	Yes	string	
ConfirmedCapacityQuantity	The capacity quantity transferred in the service provider system. This field is mandatory when TransactionStatus = PARTIAL.	Conditional	number	
Reason	Reason for rejection or partial transfer. This field is mandatory when TransactionStatus = PARTIAL or REJECTED. Valid values are: <ul style="list-style-type: none"> BUYER_INVALID_CONTRACT (<i>Note: processing of invalid buyer contracts subject to further consultation with participants</i>) SELLER_DELIVERY_FAULT SYSTEM_ISSUE 	Conditional	string	

Capacity Transfer Status – Validation rules

Field	Validation
CapacityTransferID	<p>Must be a valid value in the AEMO system.</p> <p>The service provider submitting the data must be the owner of the facility linked to the CapacityTransferID at the time of this submission.</p>
TransactionStatus	Must be a value from the defined list of valid values.
ConfirmedCapacityQuantity	Mandatory field when TransactionStatus = PARTIAL.
Reason	<p>Mandatory field when TransactionStatus = PARTIAL or REJECTED.</p> <p>Must be a value from the defined list of valid values.</p>

Capacity Transfer Status – Sample data

CapacityTransferID	TransactionStatus	ConfirmedCapacityQuantity	Reason
1001	TRANSFERRED		
1002	PARTIAL	90	SELLER_DELIVERY_FAULT
1003	REJECTED		SELLER_DELIVERY_FAULT
1004	REJECTED		BUYER_INVALID_CONTRACT

Capacity Transfer Processing Delays – initial proposal

At the initial service provider workshop in February, the following *delay processes to manage critical failures* were proposed:

- If there is a critical failure in the CTP, AEMO can initiate a one hour delay, which would also result in a delay in the nomination cut-off time (for secondary trades). The trigger of the delay process would be notified through a public notice by AEMO.
- If there is a critical failure in the DAA, the auction can be delayed by two hours (19:00), with all corresponding processes also pushed back by two hours. The delay would be notified through a public notice.
- If a one hour delay process was initiated in the CTP DA transfer process (which starts at 12:30), the DAA process will automatically be delayed to run at 19:00, with all corresponding auction processes delayed to run two hours later as well.
- Short-selling is not a delay trigger.

Capacity Transfer Processing Delays – feedback

Since the initial workshop, AEMO and GMRG have heard the following **feedback**:

- If there is a systems issue, it will be difficult to resolve and process the information within the additional hour.
- Significant additional costs will be added to be able to process information within the relevant timeframes when there is a systems issue.
- An alternative could be to providing for an additional 24 hours to process non-critical information when there is a systems issue.

With the delivery netting process to kick-off on D-14, there is an opportunity to allow additional time to resolve issues for all trades other than those commencing in the next two days.

Capacity Transfer Processing Delays – suggestion

For capacity transfers more than 2 days from commencement:

- An additional 24 hours could be provided for service providers and/or AEMO to resolve systems issues and confirm the capacity transfer has occurred.
- An additional 24 hours could also be provided where the service provider has identified a short-sell (or buyer delivery issue). In this scenario, the status provided by the service provider could be 'PENDING'.
- Only one additional 24 hour period would be allowed, regardless of the gas date.

This would not apply to CTP DA transfer processes nor any processes associated with the day ahead auction as these are time-critical.

This would also not apply to Forward Trades processed on D-2, instead these would be cancelled, given nominations are to be received by 3pm the following day. Any issues would thus have to be resolved within the timeframes already provided.

- Would there be value in providing additional time for these trades as well, with processing cut-offs in time for shippers to participate in STTM ex-ante schedules?

Please provide your feedback on this in the next two weeks.

Auction Quantities - Description

Transaction name	AUCTION_QUANTITIES
Purpose	Provide the auction quantities available for the day ahead auction.
Submission cut-off time	<p>Harmonised time:</p> <p>By 4:30 pm daily on D-1. The auction for CBU capacity for gas day D is run on gas day D-1.</p> <p><i>Note: This time is extended by two hours when the auction delay process is initiated by AEMO.</i></p> <p>Non-harmonised time:</p> <p>By 5:30 pm daily on D-1. The auction for CBU capacity for gas day D is run on gas day D-1.</p> <p><i>Note: This time is extended by two hours when the auction delay process is initiated by AEMO.</i></p>
Submitted by	Service providers
Notes	

Auction Quantities - Fields

Data field name	Description	Mandatory	Data type	PK
GasDate	The auction date, in ISO 8601 date format (YYYY-MM-DD).	Yes	date	Yes
FacilityID	The unique identifier of the facility.	Yes	int	Yes
LimitID	The unique identifier of the receipt point, delivery point, zone or pipeline segment. <i>Note: AEMO will publish the list of connection point ID's, zone ID's and pipeline segment ID's.</i>	Yes	int	Yes
LimitType	Valid values are: <ul style="list-style-type: none"> RECEIPT_POINT DELIVERY_POINT ZONE PIPELINE_SEGMENT 	Yes	string	
LimitQuantity	The quantity associated with the limit. For zones and pipeline segments, this will be CBU quantity. For receipt and delivery points, this will be physical capacity.	Yes	number	
LimitQuantityType	Valid values are: <ul style="list-style-type: none"> CBU PHYSICAL <p>FOR DISCUSSION: Should service providers submit raw data or processed data?</p>	Yes	string	
FlowDirection	Gas flow direction. This field is mandatory when LimitType = PIPELINE_SEGMENT. Valid values are: <ul style="list-style-type: none"> FORWARD REVERSE <i>Note: Flow direction will be defined in the Procedures or zone register.</i>	Conditional	string	

Auction Quantities – Validation rules

Field	Validation
GasDate	Must conform to the date format YYYY-MM-DD. Must be equal to current date.
FacilityID	The service provider submitting the data must be the owner 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 ID's, zone ID's and pipeline segment ID's published by AEMO.
LimitType	Must be a value from the defined list of valid values.
LimitQuantity	Must be greater than or equal to 0.
LimitQuantityType	Must be a value from the defined list of valid values.
FlowDirection	Mandatory field when LimitType = PIPELINE_SEGMENT. Must be a value from the defined list of valid values.

Auction Quantities – Sample data

GasDate	FacilityID	LimitID	LimitType	LimitQuantity	LimitQuantityType	FlowDirection
2018-04-01	5001	1001	RECEIPT_POINT	400	PHYSICAL	
2018-04-01	5001	1002	RECEIPT_POINT	300	PHYSICAL	
2018-04-01	5001	2003	ZONE	1000	CBU	
2018-04-01	5001	3004	PIPELINE_SEGMENT	800	CBU	FORWARD

Auction Results - Description

Transaction name	AUCTION_RESULTS
Purpose	Provide the capacity quantity won by shippers at auction.
Generated at	<p>Harmonised time: Between 5:00 pm and 5:30 pm daily. <i>Note: These times are extended by two hours when the auction delay process is initiated by AEMO.</i></p> <p>Non-harmonised time: Between 6:00 pm and 6:30 pm daily. <i>Note: These times are extended by two hours when the auction delay process is initiated by AEMO.</i></p>
Updated at	N/A
Recipient	Service providers
Notes	<ul style="list-style-type: none">• Service providers use this data to assign capacity of auction services to shippers.

Auction Results - Fields

Data field name	Description	Mandatory	Data type	PK
AuctionTransactionID	The unique identifier of the auction transaction.	Yes	int	Yes
FacilityID	The unique identifier of the facility.	Yes	int	
FacilityName	The descriptive name of the facility.	Yes	string	
ParticipantID	The participant ID used in the ETS.	Yes	int	
ParticipantName	The descriptive name of the participant.	Yes	string	
ServiceReference	The contract reference selected by the shipper.	Yes	string	
ReceiptPointID	The ID of the receipt point.	Yes	int	
ReceiptPointName	The descriptive name of the receipt point.	Yes	string	
DeliveryPointID	The ID of the delivery point.	Yes	int	
DeliveryPointName	The descriptive name of the delivery point.	Yes	string	
GasDate	The gas date for which capacity is assigned to the shipper, in ISO 8601 date format (YYYY-MM-DD).	Yes	date	
AuctionQuantityWon	The capacity quantity won at auction (GJ/day) by the participant.	Yes	number	
ProductPrice	The price of the auction product won at auction (\$/GJ) by the participant.	Yes	number	

Auction Results – Sample Data

Auction Transaction ID	Facility ID	Participant ID	Service Reference	Receipt Point ID	Delivery Point ID	Gas Date	Auction Quantity Won	Product Price
10001	50001	111111	SR00001	1001	2001	2018-04-01	100	0.23
10002	50001	111111	SR00001	1001	2001	2018-04-01	100	1.50
10003	50001	222222	SR00002	1002	2002	2018-04-01	345	1.90
10004	50001	222222	SR00003	1003	2003	2018-04-01	78	0.40
10005	50001	222222	SR00004	1004	2004	2018-04-01	900	1.20

Note: example contains a subset of the fields listed on slide 24.

Actual Auction Capacities - Description

Transaction name	ACTUAL_AUCTION_CAPACITIES
Purpose	Provide the actual auction quantities and final nominations after the end of each gas day.
Submission cut-off time	By 12:00 pm on gas day D+1. <i>Note: This is the preferred time for submission, however data will be accepted after this time. Please refer to the Procedures for detailed timing arrangements.</i>
Submitted by	Service providers
Notes	<ul style="list-style-type: none">This information is required by AEMO for settlement purposes.

Actual Auction Capacities - Fields

Data field name	Description	Mandatory	Data type	PK
AuctionTransactionID	Unique auction transaction identifier.	Yes	int	Yes
RevisedCapacityQuantity	The minimum revised auction capacity quantity. This is used for settlements.	Yes	number	
Reason	The reason for revised capacity quantity. Valid values are: <ul style="list-style-type: none">PIPELINE_CONSTRAINEDFIRM_SHIPPER_RENOM_UP	Conditional	string	
FinalNominationQuantity	Final nomination quantity against auction quantity by the shipper.	Yes	number	

Actual Auction Capacities – Validation rules

Field	Validation
AuctionTransactionID	<p>Must be a valid value in the AEMO system.</p> <p>The service provider submitting the data must be the owner of the facility linked to the AuctionTransactionID at the time of this submission.</p>
RevisedCapacityQuantity	Must be greater than or equal to 0.
Reason	<p>Mandatory when RevisedCapacityQuantity is different to the AuctionQuantityWon reported in the AUCTION_RESULTS.</p> <p>Must be a value from the defined list of valid values.</p>
FinalNominationQuantity	Must be greater than or equal to 0.

Actual Auction Capacities – Sample data

AuctionTransactionID	RevisedCapacityQuantity	Reason	FinalNominationQuantity
10001	300	PIPELINE_CONSTRAINED	300
10002	100	FIRM_SHIPPER_RENOM_UP	50
10003	345		200
10004	1023	FIRM_SHIPPER_RENOM_UP	1000

Timeline for Development

Timeframe	Activity
End of Mar 2018	Present detailed description of service provider transactions and validations
April 2018	Consult on detailed description of service provider transactions and validations
Early May 2018	Release draft <i>Guide to Capacity and Auction Transactions</i> and draft <i>Guide to Reports</i>
May 2018	Consult on draft <i>Guide to Capacity and Auction Transactions</i> and draft <i>Guide to Reports</i>
Early June 2018	Release <i>Interface Protocol</i> and updated guides
August 2018	Formal consultation of <i>Interface Protocol</i>
Mid to late Sept 2018	AEMO makes the <i>Interface Protocol</i>
Nov 2018 to Jan 2019	Industry testing
Mid Jan to mid Feb 2019	Market Trial

Questions??