

# GSH - Technical Specification - July 2022

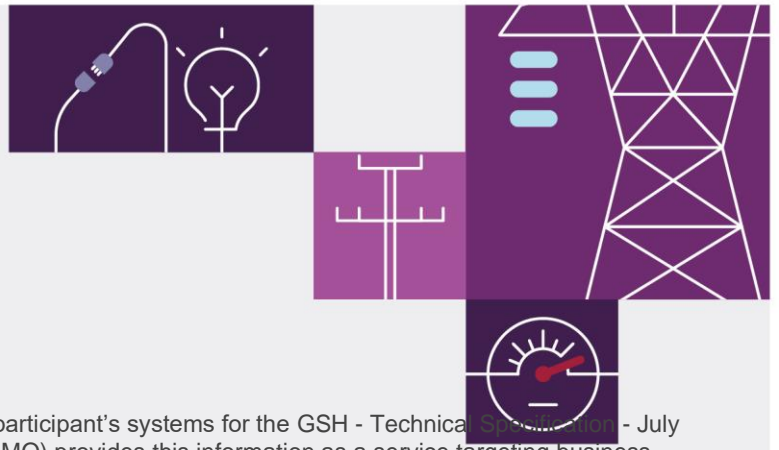
1.00 March 2022

Pre-production: May 2022 (TBC)

Production: July 2022 (TBC)

Release series: GSHJUL2022





# Important notice

## Purpose & audience

This document describes the technical changes required to participant's systems for the GSH - Technical Specification - July 2022 (Release). The Australian Energy Market Operator (AEMO) provides this information as a service targeting business analysts and IT staff in participant organisations. It provides guidance about the changes to their market systems under the National Gas Rules (Rules), as at the date of publication.

## How to use this document

- If you have questions about the business aspects of these changes, please see Consultations on AEMO's website.
- The references listed throughout this document are primary resources and take precedence over this document.
- Unless otherwise stated, you can find resources mentioned in this guide on AEMO's website.
- **Text in this format** is a link to related information.
- **Text in this format**, indicates a reference to a document on AEMO's website.
- **Text in this format** is an action to perform in the Markets Portal.
- 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 the Glossary.
- Rules Terms have the meaning listed against them in the **National Gas Rules** (Rules).

## Privacy and legal notices

The material in this publication may be used in accordance with the [privacy and legal notices](#) on AEMO's website.

## Trademark notices

Microsoft, Windows, and SQL Server are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

Oracle and Java are registered trademarks of Oracle and/or its affiliates.

UNIX is a registered trademark of The Open Group in the US and other countries.

© 2015 Google Inc, used with permission. Google and the Google logo are registered trademarks of Google Inc.

## Distribution

Available to the public.

## Document identification

Prepared by: AEMO Digital

Last update: Tuesday, 1 March 2022 2:39 PM

## Version History

1.00 Initial version

## Documents made obsolete

The release of this document changes only the version of GSH - Technical Specification - July 2022.

## Support hub

To contact AEMO's Support Hub use Contact Us on AEMO's website or for urgent matters phone: 1300 AEMO 00 (1300 236 600).

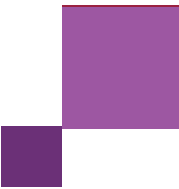
# Contents

<b>1</b>	<b>Introduction.....</b>	<b>6</b>
1.1	Audience .....	6
1.2	Objective .....	6
1.3	Status.....	6
1.4	Release dates .....	6
1.5	Version numbers.....	7
1.6	Changes in this version.....	7
1.7	Procedure and agreement changes .....	7
1.8	Related technical specifications .....	7
1.9	Related resources .....	7
1.10	Approval to change.....	8
1.11	Gas supply hub reference group.....	8
1.12	Market systems user group meetings.....	9
1.13	Projects.....	9
<b>2</b>	<b>Proposed Timeline .....</b>	<b>10</b>
<b>3</b>	<b>Participant Impact .....</b>	<b>12</b>
3.1	Data Model Reports .....	12
<b>4</b>	<b>ASX Wallumbilla Gas Futures Trade .....</b>	<b>17</b>
4.1	Goal.....	17
4.2	High-level changes .....	17
4.3	Agreement.....	17
4.4	ASX futures trading .....	17
4.5	Gas future ID .....	18
4.6	GSH role.....	18
4.7	Clearing parties and agreement.....	19
4.8	Trading participants .....	19
4.9	Futures transfer .....	20
4.10	Gas delivery period.....	20
4.11	Prudential calculation.....	20
4.12	Forward exposure .....	21
4.13	Settlement.....	21

<b>5</b>	<b>Futures Transfer Process</b>	<b>22</b>
5.1	End-to-end process	22
5.2	Validations	23
5.3	Create GSH trade positions	24
<b>6</b>	<b>Futures Transfer Submission</b>	<b>25</b>
6.1	Futures transfer information	25
6.2	User rights access (URM)	25
6.3	Submission period (futures transfer window)	26
6.4	Submission format	27
6.5	Submission interfaces	28
6.6	Submission csv payload	28
6.7	Submission status (TBC)	29
6.8	Submission rules	30
6.9	Validation	31
6.10	Changing a pending trade	32
<b>7</b>	<b>GSH Markets Portal</b>	<b>33</b>
7.1	Markets portal menu	33
7.2	ASX future interface	33
7.3	Create interface	35
7.4	Upload csv payload	35
7.5	Confirmation	36
<b>8</b>	<b>API Endpoint</b>	<b>37</b>
8.1	GasFutureUploadRequest	37
8.2	GasFutureRequest	39
<b>9</b>	<b>Reports</b>	<b>40</b>
9.1	Trade execution report (existing)	40
9.2	GSH transfer information report (new)	41
<b>10</b>	<b>Gas Data Model</b>	<b>43</b>
10.1	Modified packages and tables summary	43
10.2	Package: GSH	43
<b>11</b>	<b>FAQs</b>	<b>48</b>
11.1	What is the format of the Gas Future ID?	48
11.2	What is the length of the Gas Future ID?	48
11.3	Is the Gas Future ID sequential or random e.g. can it be easily guessed?	48



11.4	Is the end date required? ASX provide month and AEMO provide end date? .....	48
11.5	Can another trader see a trade I submitted? .....	48
11.6	How do I submit a trade? .....	48
11.7	How do I change a pending trade? .....	48
11.8	Are futures trades part of the Wallumbilla netted monthly product? .....	49
11.9	Is there a preferred date format? .....	49
11.10	Is it a date/time or just a date? .....	49
11.11	How do you access the reports? .....	49
11.12	When is a transfer created? .....	49
<b>12</b>	<b>Implementation .....</b>	<b>50</b>
12.1	Transition .....	50
12.2	Upgrading .....	50
12.3	Implications .....	50
12.4	Risks .....	50
<b>13</b>	<b>Terms .....</b>	<b>51</b>
13.1	Rule, agreement, and ASX terms .....	51
13.2	Glossary .....	52
<b>14</b>	<b>References .....</b>	<b>54</b>
14.1	GSH .....	54
14.2	Prudentials .....	54
14.3	Data interchange and data model resources .....	54
<b>15</b>	<b>Index .....</b>	<b>56</b>



# 1 Introduction

## 1.1 Audience

The primary audience is Registered Participant:

- Business analysts and IT teams.
- GSH Trading Participants.
- ASX

## 1.2 Objective

The GSH - Technical Specification - July 2022 (Release) describes the projects planned by AEMO from a participant perspective and includes any related system changes for participants.

## 1.3 Status

Version	Status
1.00	This technical specification is for participant information only. The design is in progress and may change as the technical requirements are streamlined. Please provide feedback to the Gas Supply Hub Reference Group: <a href="mailto:Gas_SupplyHub@aemo.com.au">Gas_SupplyHub@aemo.com.au</a>

## 1.4 Release dates

Scheduled for implementation in:

- Pre-production: May 2022 (TBC)
- Production: July 2022 (TBC)

## 1.5 Version numbers

**AEMO releases new versions of this document as the technical requirements are streamlined.**

Incremental version numbers such as 1.01, 2.01 and so on mean there is a minor change to the technical specification.

Major version numbers such as 1.00, 2.00 means there are substantial changes to the technical specification. Participants must carefully review these changes, detailed below.

## 1.6 Changes in this version

No changes, this is the initial version.

## 1.7 Procedure and agreement changes

Name	Description	Type
<a href="#">Gas Supply Hub Exchange Agreement</a>	Provides the terms of participation in the Exchange and transactions entered into through the Exchange	Agreement
<a href="#">Settlements and Prudential Methodology</a>	The methodology established under rule 536(3) of the National Gas Rules (NGR) and clause 17 of the Exchange Agreement (EA) determining the amounts payable by, or to, Market Participants in the GSH	Procedure

## 1.8 Related technical specifications

No related technical specifications.

## 1.9 Related resources

**Once published, these resources take precedence over this technical specification.**

These guides and resources are updated according to this technical specification and published for the pre-production Release Date.

Title	Description	Status
<a href="#">Markets Portal Help - GSH Prudential Dashboard</a>	Provides information about viewing your accrued financial position	In progress
<a href="#">Markets Portal Help - GSH Point Preferences</a>	Help updating your preferred delivery location prior to netting and delivery	In progress
<a href="#">ASX Future Submission interface help</a>	Help using the new Markets Portal Clearing Party interface	In progress
<a href="#">Guide to User Rights Management</a>	Details the user rights management (URM) functions in AEMO's Market Systems. It is relevant to Participant Administrators maintaining user rights for their company's Participant Users.	In progress
<a href="#">CapacityAuction</a>	Detailed endpoint spec and context for API development	In progress

## 1.10 Approval to change

There is no approval or agreement to change required from participant change controllers for this Release. Design agreement is sought during the [Gas Supply Hub Reference Group \(GSHRG\)](#).

## 1.11 Gas supply hub reference group

The Gas Supply Hub Reference Group (GSHRG) meets on an ad hoc basis to discuss changes to the GSH.

GSHRG meetings are open to GSH Registered Participants with invitations sent to all included on the distribution list. If you want to attend the meetings send an email to [Gas\\_SupplyHub@aemo.com.au](mailto:Gas_SupplyHub@aemo.com.au) asking to be put on the distribution list.





## 1.12 Market systems user group meetings

The Market Systems User Group (MSUG) is an industry user group established to discuss wholesale and retail IT systems releases. Its purpose is to facilitate the continuing improvement of AEMO's IT systems by seeking feedback and collaboration from participants.

MSUG meetings are open to all interested parties, with invitations sent to all included on the distribution list. If you have a technical question for a project and want to attend the MSUG ask your company's support team to include your email address in their **AEMO Help Desk Bulletin (CRM)** distribution list.

## 1.13 Projects

Projects in this Release include:

1. **ASX Wallumbilla Gas Futures**

## 2 Proposed Timeline

The dates for the Market System User Group Meetings (MSUG) are tentative. We will provide an invitation one week prior to the meeting.

Milestone	Date	Description
Approval required	No approval required	Final date for participant approval of this Release
Revised Technical Specification	February 2022	<p>AEMO releases new versions of this document as the technical requirements are streamlined. During the project this document is the source of truth.</p> <p>From the pre-production release, the technical specification is no longer updated, the guides and related documents become the source of truth, see Related resources on page 7.</p> <p><a href="#">Release schedules and technical specifications</a></p>
MSUG pre-release review	Wednesday 16 March 2022	Market systems user group meeting to discuss this technical specification
Related documents publication	May 2022 (TBC)	See Related resources on page 7
MSUG meeting: pre-production review	Wednesday 13 April 2022	Market systems user group meeting to discuss the pre-production release
Pre-production refresh	March 2022 (TBC)	Refresh of the pre-production system with data refreshed from the production system. An outage of up to five days can occur to the pre-production environment during this period. Participant access is not restricted, however, AEMO do not guarantee the pre-production data content or system availability. During the refresh, access to other AEMO systems such as AWEFS, EMMS, OPDMS, and STTM may be intermittently affected
Pre-production implementation	May 2022 (TBC)	<p>AEMO implements components of the Release to pre-production for participant testing</p> <p>AEMO has full access to the system during this period</p> <p>Participant access is not restricted; however, the data content or system availability is not guaranteed</p>
Pre-production Data Model file subscription change	May 2022 (TBC)	<p>There is no auto-subscription for existing files. AEMO moves participants to the Legacy version of files. Participants must subscribe to the new version.</p> <p>For more details, see <a href="#">Participant Impact</a></p>

Milestone	Date	Description
Pre-production pdrConfig release	May 2022 (TBC)	We will not release a new Data Model for the ASX Wallumbilla Project. Only the NEM reports with the <b>pdrConfig</b> are released. The pdrConfig contains the latest report versions to load into your DI environments  For more details, see <a href="#">Participant Impact</a>
Pre-production available	May 2022 (TBC)	Testing period begins for participants
Participant testing	May 2022 (TBC) – July 2022 (TBC)	Unstructured/bilateral participant testing in the pre-production environment
MSUG meeting: post pre-production review	Wednesday 13 April 2022	Market systems user group meeting to review the implementation of this pre-production release
Production implementation	July 2022 (TBC)	AEMO implements the release to production
Production Data Model file subscription change	July 2022 (TBC)	There is no auto-subscription for existing files. AEMO moves participants to the Legacy version of files. Participants must subscribe to the new version  For more details, see <a href="#">Participant Impact</a>
Production pdrConfig release	July 2022 (TBC)	We will not release a new Data Model for the ASX Wallumbilla Project. Only the NEM reports with the <b>pdrConfig</b> are released. The pdrConfig contains the latest report versions to load into your DI environments.  For more details, see <a href="#">Participant Impact</a>
Production systems available	July 2022 (TBC)	Production systems available to participants
MSUG: post-production review	Wednesday 18 May 2022	Market systems user group meeting to review the implementation of the production release

## 3 Participant Impact

This Release includes Future Trade submission reports only. It does not contain a new Gas Data Model version. Later this year, we will release a new version of the Gas Data Model with the changes described in Gas Data Model on page 43.

### 3.1 Data Model Reports

Only the associated NEM reports with the **pdrConfig** are released. There is no new Gas Data Model release for the ASX Wallumbilla Project. The pdrConfig contains the latest report versions to load into your DI environments.

#### 3.1.1 Data Subscription

##### New report versions

So you can retrieve the reports using one of the [report delivery methods](#), subscribe in the **EMMS Markets Portal > Data Subscription** interface to your required report:

- GSH\_TRADE\_SINGLE
- GSH\_TRADE\_RANGE
- GSH\_TRADE\_ASX
- GSH.TRADES\_STAGING (TBC)

When you receive the first new report, unsubscribe from the Legacy version.

[Home](#)

**EMMS** -

Market Info +

Settlements +

Offers & Submissions +

SRA +

Intermittent Generation +

Data Interchange -

Data Subscription -

Data Model Changes

Subscribe to Files

Unsubscribe Files

**View Catalogue**

### Files Supplied by MMS

**Filter by keywords and/or status**

Click "Refresh" after changing the filter options

Keywords:  Status: Any

NOTE: Data Model files identifiers match the "Identifier" unless indicated otherwise.

Please select the files you wish to view, and click "View Detail".

<input type="checkbox"/>	Data Model	Identifier	Status	Description	Type
<input type="checkbox"/>	Yes	GASBB3_SEC_CAP_TRADES_TRK	Assignable	(DM:GAS_BB) Gas Bulletin Board : Rule Changes 2018	Csv
<input type="checkbox"/>	Yes	GASBB_SEC_PIPE_CAPACITY_TRADES	Assignable	(DM:GAS_BB) Gas Bulletin Board Phase 3 : Trades of secondary pipeline capacity	Csv
<input type="checkbox"/>	Yes	GSH_CAPACITY_TRANSACTION	Assignable	(DM:GSH) Provides a consolidated list of all secondary capacity trades which includes GSH trades AND Bilateral trades submitted into the GBB	Csv
<input type="checkbox"/>	Yes	GSH_DELIVERY_OBLIGATION_SINGLE	Assignable	(DM:GSH) Gas Supply Hub Delivery Obligations Report for a single non netted trade	Csv
<input type="checkbox"/>	Yes	GSH_EXCHANGE_TRADE	Assignable	(DM:GSH) Gas Supply Hub Trade Execution Report	Csv
<input checked="" type="checkbox"/>	Yes	GSH_TRADE_RANGE	Assignable	(DM:GSH) Gas Supply Hub Trade Confirmation Report for a date range	Csv
<input type="checkbox"/>	Yes	GSH_TRADE_RANGE_LEGACY	Assignable	(DM:GSH) Gas Supply Hub Trade Confirmation Report for a date range	Csv
<input checked="" type="checkbox"/>	Yes	GSH_TRADE_SINGLE	Assignable	(DM:GSH) Gas Supply Hub Trade Confirmation Report for a single Trade	Csv
<input type="checkbox"/>	Yes	GSH_TRADE_SINGLE_LEGACY	Assignable	(DM:GSH) Gas Supply Hub Trade Confirmation Report for a single Trade	Csv

For details about changes to file versions, see [Participant interfaces changes](#).

- For help, see:
- [Unsubscribe from files](#)
  - [Subscribing to new Gas Data Model files](#)

### Legacy reports

So they continue to receive the same data until they manually subscribe to the new version, AEMO moves participants to the Legacy version of reports.

**Files Supplied by MMS**

Filter by keywords and/or status  
 Click "Refresh" after changing the filter options  
 Keywords:  Status:    
 NOTE: Data Model files identifiers match the "identifier" unless indicated otherwise.

Please select the files you wish to view, and click "View Detail".

<input type="checkbox"/>	Data Model	Identifier	Status	Description	Type
<input type="checkbox"/>	Yes	GASBB3_SEC_CAP_TRADES_TRK	Assignable	(DM:GAS_BB) Gas Bulletin Board : Rule Changes 2018	Csv
<input type="checkbox"/>	Yes	GASBB_SEC_PIPE_CAPACITY_TRADES	Assignable	(DM:GAS_BB) Gas Bulletin Board Phase 3 : Trades of secondary pipeline capacity	Csv
<input type="checkbox"/>	Yes	GSH_CAPACITY_TRANSACTION	Assignable	(DM:GSH) Provides a consolidated list of all secondary capacity trades which includes GSH trades AND Bilateral trades submitted into the GBB	Csv
<input type="checkbox"/>	Yes	GSH_DELIVERY_OBLIGATION_SINGLE	Assignable	(DM:GSH) Gas Supply Hub Delivery Obligations Report for a single non netted trade	Csv
<input type="checkbox"/>	Yes	GSH_EXCHANGE_TRADE	Assignable	(DM:GSH) Gas Supply Hub Trade Execution Report	Csv
<input type="checkbox"/>	Yes	GSH_TRADE_RANGE	Assignable	(DM:GSH) Gas Supply Hub Trade Confirmation Report for a date range	Csv
<input checked="" type="checkbox"/>	Yes	GSH_TRADE_RANGE_LEGACY	Assignable	(DM:GSH) Gas Supply Hub Trade Confirmation Report for a date range	Csv
<input type="checkbox"/>	Yes	GSH_TRADE_SINGLE	Assignable	(DM:GSH) Gas Supply Hub Trade Confirmation Report for a single Trade	Csv
<input checked="" type="checkbox"/>	Yes	GSH_TRADE_SINGLE_LEGACY	Assignable	(DM:GSH) Gas Supply Hub Trade Confirmation Report for a single Trade	Csv

**Auto-subscription**

**Existing GSH data model participants**

- Are auto subscribed to **new** files.
- Are **not** auto subscribed to **existing** files.

**New GSH Data Model participants**

- New participants are auto subscribed to **all** files.

**3.1.2 I don't want to receive the new reports**

There is no impact to you. You can remain on the **Legacy reports**.

**3.1.3 I want to receive the new reports**

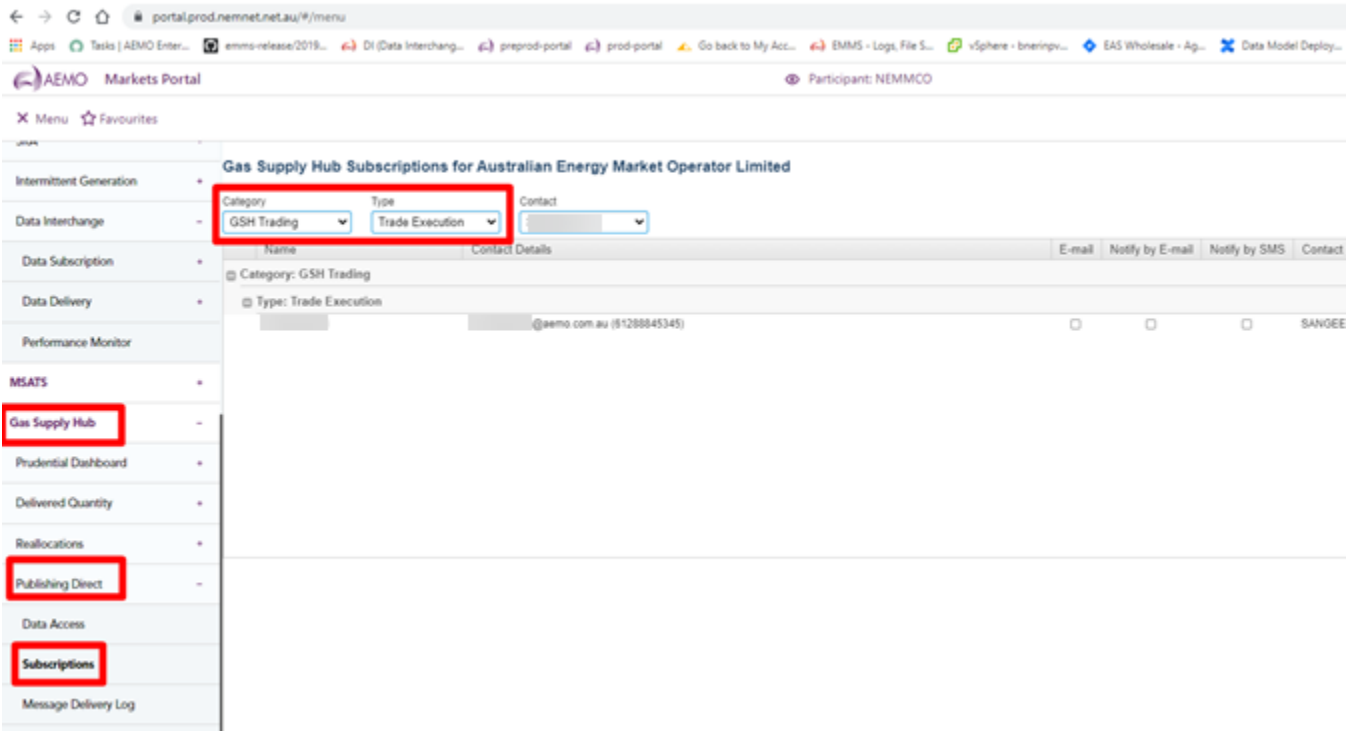
**In GSH publishing direct**

**I'm already subscribed to the previous version**

If you are currently subscribed to the **GSH Trading > Trade Execution** file and have alerts set up, you receive an alert advising the file has changed. You don't need to do anything.

### I'm not subscribed to the previous version

1. Subscribe to the **new report versions** in Data Subscription.
2. Login to **GSH Publishing Direct** and subscribe to the **GSH Trading > Trade Execution** file.
3. If required, add alerts.



For GSH Publishing Direct access and subscription details, see [Guide to GSH Publishing Direct](#).

### From the participant file server

1. Subscribe to the **new report versions** in Data Subscription.
2. Retrieve the reports from your **Participant ID folder** on the **Participant File Server**.
3. Unsubscribe from the **Legacy reports**.

You can automate the retrieving of reports without setting up a Data Interchange environment using the [Participant Data Replication Batcher](#).



### In my data interchange environment

1. Subscribe to the **new report versions** in Data Subscription.
2. **Apply the pdrConfig** containing the **latest report versions** to load them into your Data Interchange I environments (**details to be confirmed**).
3. Unsubscribe from the **Legacy reports**.



## 4 ASX Wallumbilla Gas Futures Trade

### 4.1 Goal

This project amends the structure of the Wallumbilla Gas Futures to a physically delivered gas futures product. Physical delivery is facilitated through AEMO's Gas Supply Hub (GSH) market.

### 4.2 High-level changes

Function	Description	Reference
APIs	Detailed specifications and context for API development	<a href="#">APIs</a>
Gas Data Model v2.2	New data table/s established to record information provided to AEMO containing gas futures positions should include a field for futures exchange populated with ASX.	<a href="#">Gas Data Model</a>
GSH Forward Exposure	Gas Futures Transfers information is included in the Forward Exposure calculation	<a href="#">Forward exposure</a>
GSH Markets Portal	Trading Participants can enter Futures Transfer Information directly in the Markets Portal web interface	<a href="#">GSH Markets Portal</a>
GSH Prudential Calculation	Indicative gas futures positions are incorporated into the GSH forward Prudential Calculation	<a href="#">Prudential calculation</a>
Reports	A new <b>GSH Transfer Information</b> report and changes to the existing <b>Trade Confirmation</b> report	<a href="#">Reports</a>

### 4.3 Agreement

ASX and AEMO have an agreement outlining responsibilities to support and manage change to the gas futures product.

### 4.4 ASX futures trading

Trading of the ASX gas futures product occurs on the ASX futures trading platform with a Trading Window of up to 36 months and closes 5 Business Days prior to the first Gas Day of the contract month.

Futures trading arrangements are consistent with current arrangements for the ASX electricity and gas futures products with the determination of Daily Settlement Price and margining of positions (through the ASX clearing house).

## 4.5 Gas future ID

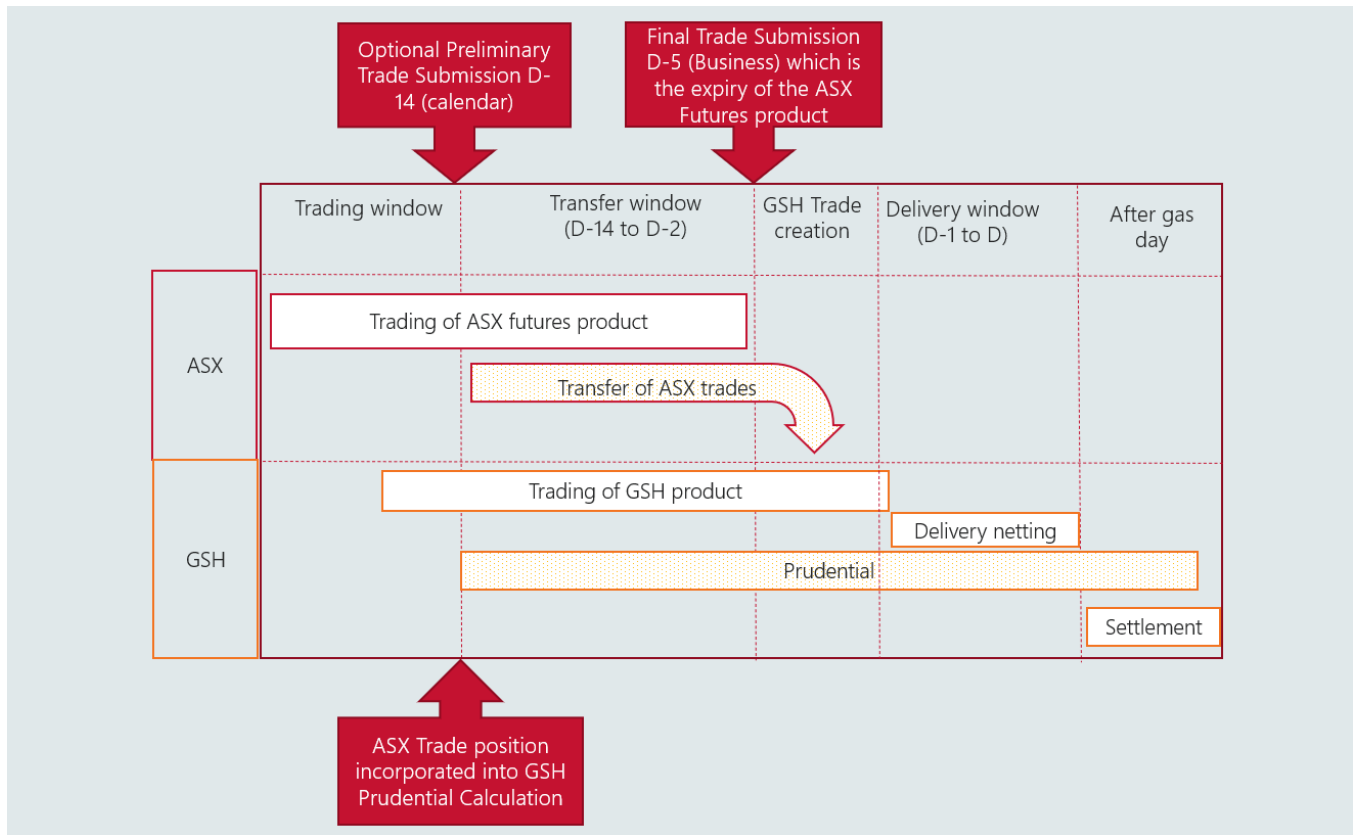
The Gas Future ID is the ASX provided identifier for the Final Transfer. Following the expiry of a futures contract, Trading Participants submit the Final Transfer information to AEMO including the required Gas Future ID. The Gas Future ID has the following format:

Format	Length	Visibility
ASX-AEMO-NNNN	20 Alphanumeric characters	Private. Only Participant Users of the Participant ID can see it.

## 4.6 GSH role

At expiry of the gas futures product, Open Interest is transferred into GSH Wallumbilla Monthly Transactions. Once transferred, the trades are treated like all other GSH Wallumbilla trades for the purpose of gas delivery, Settlement (including fees), and Prudential Requirements.

Figure 1 Overview of the end-to-end trading process



#### 4.7 Clearing parties and agreement

There are no AEMO system requirements for Clearing Parties. A Clearing Party is financially responsible to the clearing house for transactions so all Trading Participants must have a clearing agreement with a Clearing Party to participate.

#### 4.8 Trading participants

There are no registration or process changes. Existing GSH registered Trading Participants are responsible for communicating futures transfer information to AEMO.



## 4.9 Futures transfer

### 4.9.1 Preliminary transfer

Prior to the expiry of a futures contract, Trading Participants provide AEMO with Preliminary Transfer information any time before the Final Transfer, allowing time to check registration and credit status.

The Preliminary Trade Transfer allows Trading Participants to receive information for their clearing brokers regarding their GSH validation, to provide a deadline to close out their open position or take steps to ensure the position is deliverable.

AEMO uses the Preliminary Transfer information in Prudential Calculations:

- Unless it is rejected by a Trading Participant.
- Providing there are no records for the delivery period with a Gas Future ID.

### 4.9.2 Final transfer

Following the expiry of a futures contract, Trading Participants submit the Final Transfer information to AEMO with the Gas Future ID. The Final Transfer window starts after the expiry of a futures contract on Business Day minus 5 Gas Days.

## 4.10 Gas delivery period

There is no change to the Delivery Netting process or systems. For the purpose of gas delivery, once transferred into the GSH, gas futures positions are treated like all other GSH trades. A Trading Participant can adjust or trade out of a position in the GSH ahead of the daily Delivery Netting run.

## 4.11 Prudential calculation

The GSH Prudential Calculation determines the potential credit exposure associated with the settlement of a Trading Participant's transactions in the GSH. This calculation is amended to incorporate ASX positions, allowing:

- A credit validation to occur when the Clearing Party transfers Open Interest information to AEMO.

- Incorporation of likely exposures associated with ASX futures positions during the Futures Transfer Window, so a Trading Participant does not use up spare Trading Margin required for those trades.
- A Trading Participant with offsetting buy and sell trades, like a Market Maker, to avoid unnecessary collateral requirements.

Inputs into the Prudential Calculation for Gas Futures Transfers are:

1. Transaction price and volumes
2. Order price and volumes
3. Futures trade price and volumes

## 4.12 Forward exposure

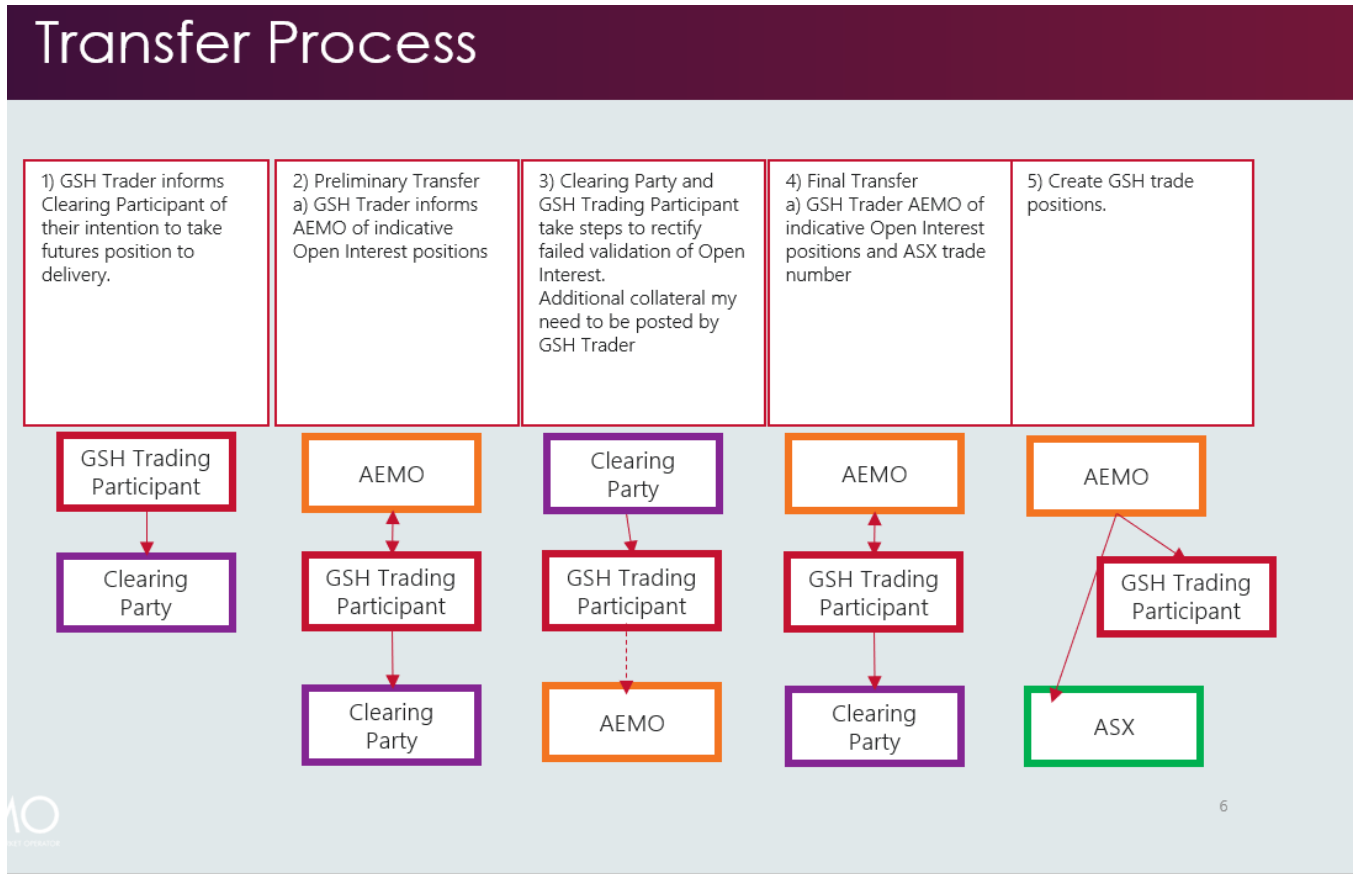
Gas Futures Transfers information is included in the Forward Exposure calculation between the Preliminary Transfer Window Start and End Dates.

## 4.13 Settlement

There is no change to the Settlement process or systems for this Release.

Financial settlement of positions transferred from the ASX is in accordance with the regular settlement arrangements for Monthly Products where the final Settlement Price determined by the ASX is used as the trade price. This means there is no risk of Settlements prices becoming misaligned between the ASX and AEMO.

# 5 Futures Transfer Process



## 5.1 End-to-end process

Step	Action	State	Who	Where	When
1.	Inform the Clearing Party of intent to make a Physical Delivery	Required	Trading Participants	Participant systems	Prior to the <b>Preliminary Transfer Window</b>
2.	Submit Preliminary Transfer Information ( <b>without</b> Gas Future ID)	Optional	Trading Participants	One of the <b>submission interfaces</b>	During the <b>Preliminary Transfer Window</b>
3.	<b>Validate Preliminary Futures Trade information</b>	Required	AEMO	AEMO systems	

Step	Action	State	Who	Where	When
4.	Rectify any failed validation	If submission rejected	Trading Participants	Participant systems	
5.	Send <b>reports</b>	Valid submission	AEMO	For details, see <b>reports</b>	
6.	Utilise the Preliminary Transfer Information	If validated	AEMO	Prudential Calculations	
7.	Rectify any breaches	Close out unrectified positions	Trading Participants	Participant systems	
8.	Submit Final Transfer Information <b>with</b> Gas Future ID	Required	Trading Participants	One of the <b>submission interfaces</b>	During the <b>Final Transfer Window</b>
9.	<b>Validate Final Futures Trade information</b>	Required	AEMO	AEMO systems	
10.	<b>Create GSH trade position</b>	If validated	AEMO	AEMO systems	
11.	Send <b>reports</b>	GSH trade created	Trading Participants	For details, see <b>reports</b>	

## 5.2 Validations

Once the data transaction is processed, AEMO responds with a message to the ASX identifying any records failing validation. The Preliminary Transfer information is used by the ASX and clearing brokers to ensure Open Interest is transferred successfully at expiry.

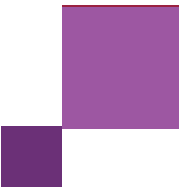
Unregistered GSH Trading Participants or those without sufficient Trading Margin in the GSH cannot transfer Open Interest into GSH trading positions.



### 5.3 Create GSH trade positions

Following the Final Transfer, AEMO generates trade records, enabling incorporation of futures trade positions into the Delivery Netting and Settlement processes.





## 6 Futures Transfer Submission

### 6.1 Futures transfer information

#### 6.1.1 Preliminary transfer

Information required from Trading Participants for a Preliminary Transfer:

- Open Interest position (volume)
- Quantity and price
- Trade type (buy or sell)
- Product month

#### 6.1.2 Final transfer

Information required from Trading Participants for a Final Transfer:

- Same as the Preliminary Transfer plus the Gas Future ID (trade ID provided by the ASX)

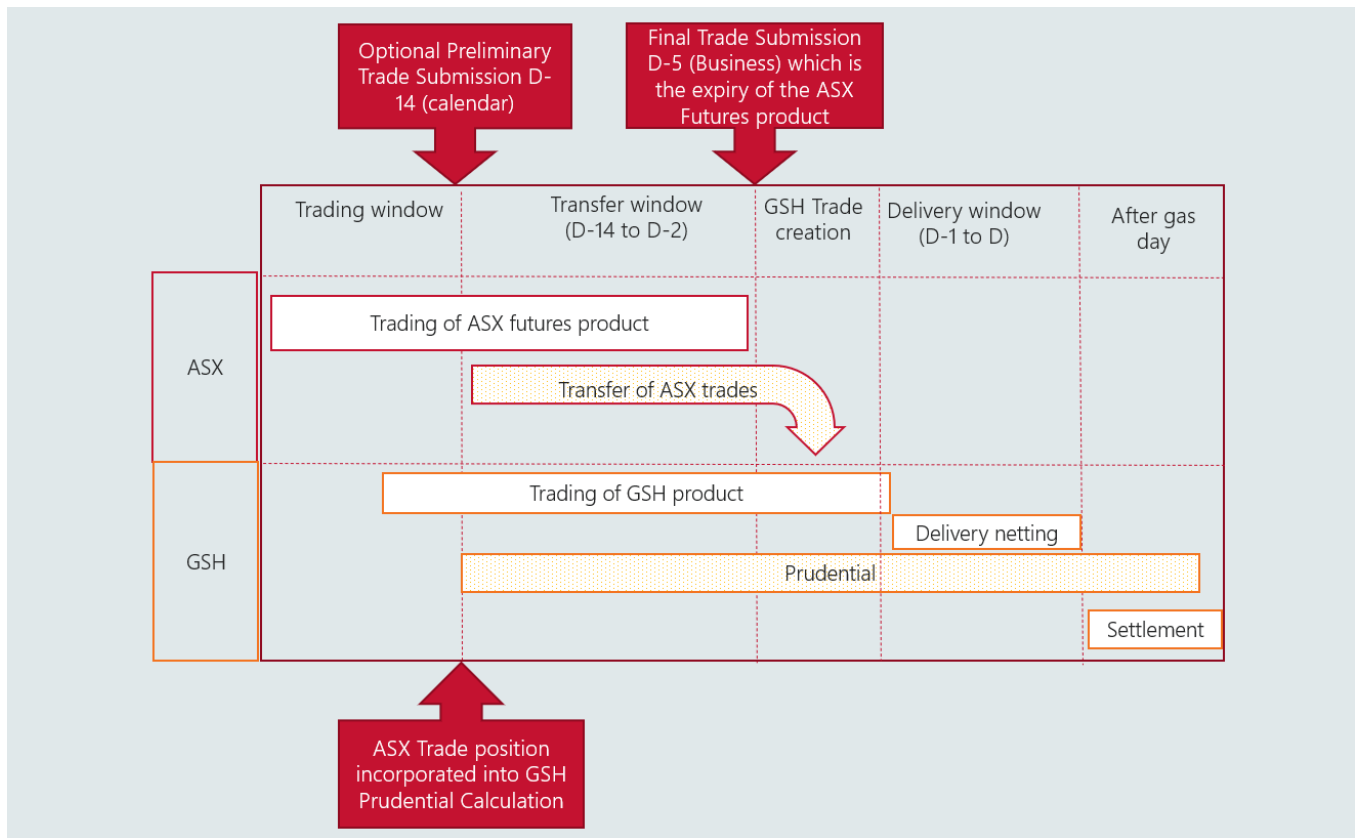
### 6.2 User rights access (URM)

AEMO's security model prevents others seeing your trades. Only Participant Users of the Participant ID who have access rights can see the Future Trades.

For access to submit and view trades, Participant Administrators provide the following entity for their Participant Users access to submit Future Trades information:

- **To be confirmed.**

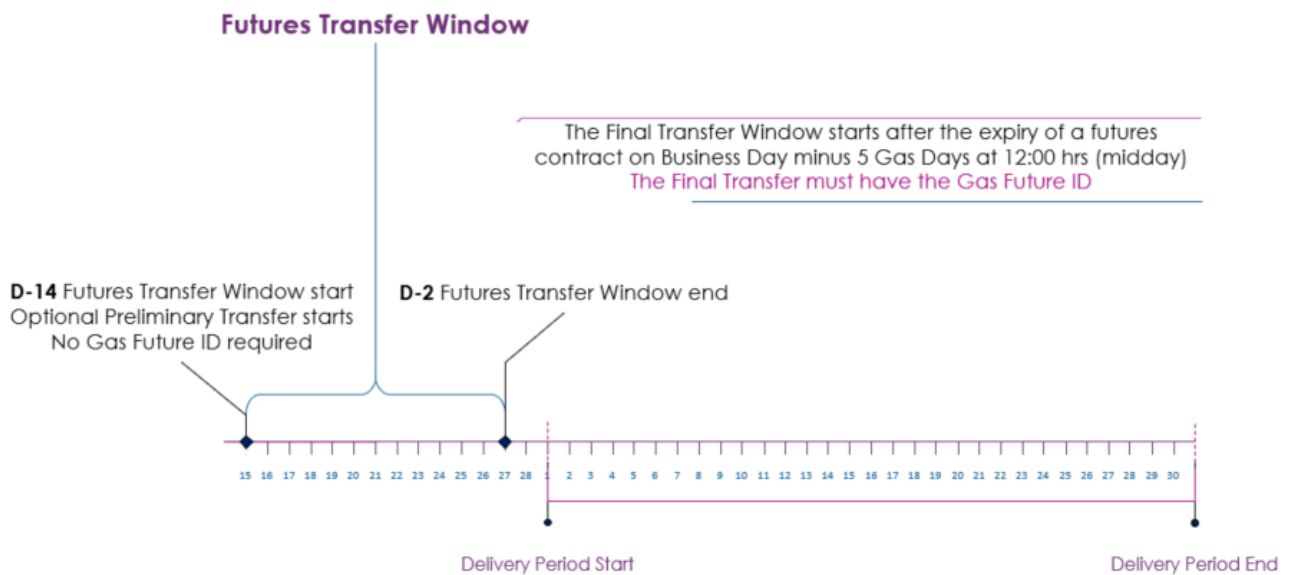
### 6.3 Submission period (futures transfer window)



The submission interfaces are only available during the Futures Transfer Window.

Trading Participants can submit Futures Trade information to AEMO during the Futures Transfer Window only:

- Start Date: Gas Day minus 14 Calendar Days
- End Date: Gas Day minus 2 Calendar Days



## 6.4 Submission format

Participants can use the following formats to submit Future Trades information:

1. Upload a csv payload to the Markets Portal > [ASX Future Submission interface](#).
2. Submit a **JSON schema with Payload** to AEMO's API Gateway.

## 6.5 Submission interfaces

To submit Futures Transfer information to AEMO, GSH Trading Participants can use the following interfaces:

1. **GSH Markets Portal > ASX Future Submission:** Enter information directly in the web interface. For examples, see GSH Markets Portal on page 33. Recommended for **small** data submissions.
2. **GSH Markets Portal > ASX Future Submission > Upload File:** Allows automated transfer. Recommended for **larger** data submissions. For examples, see GSH Markets Portal on page 33.
3. **API submission:** Allows automated transfer from participants API Gateway to AEMO's API gateway. Details provided in Postman as the design progresses. Recommended for **larger** data submissions.

## 6.6 Submission csv payload

### 6.6.1 Payload parameters

Field	Description	Required	Data type	Format
GasFutureId	ASX provided identifier for the Final Transfer	Optional for Preliminary Transfer Mandatory for Final Transfer	20 ALPHANUMERIC CHARACTERS	UPPERCASE ASX-AEMO-NNNN
StartDate	Start of Delivery Period	Mandatory	DATE	YYYY/MM/DD Include leading zeros in dates, e.g.: - 2021/09/03 - 04:43:09
EndDate	End of Delivery Period	Mandatory	DATE	YYYY/MM/DD
TradeType	Buy or sell	Mandatory	VARCHAR	UPPERCASE BUY SELL

Field	Description	Required	Data type	Format
Price	Trade price	Mandatory	NUMBER	Currencies do not have a \$ sign, e.g.117.05 or 180  Currency is in Australian dollars
Volume	Open Interest Trade quantities measured in GJ	Mandatory	NUMBER	Gigajoules (GJ)
ProductLocation	TBC			
ProductType	TBC			
DeliveryPoint	TBC			
CounterpartyClearer	TBC			

For formatting details, see [AEMO CSV Data Format Standard](#).

### 6.6.2 Payload example

	A	B	C	D	E	F
1	GasFutureId	StartDate	EndDate	TradeType	Price	Volume
2	ASX-AEMO-0012	1/03/2022	31/03/2022	BUY	12.34	234
3	ASX-AEMO-0013	1/03/2022	31/03/2022	SELL	66.66	777
4		1/03/2022	31/03/2022	SELL	22	33
5						

### 6.7 Submission status (TBC)

Status	Description
Matched	The GSH trade position is created The Futures Transfer is no longer included in the Forward Exposure Prudential calculation
Override	A recent trade replaced this trade

Status	Description
Rejected	The submission did not pass <b>validation</b> , you must resubmit it
Submitted	The Preliminary Transfer passed validation and is included in the Forward Exposure Prudential calculation

## 6.8 Submission rules

The following submission rules apply:

- One Submission Payload can have many Futures Transfer records.
- Each row in a submission Payload is an individual Futures Transfer record.
- Each record is processed separately:
  - Records passing validation are matched.
  - Records not passing validation are rejected.
  - Every row in the Payload is validated.
- The failure to pass validation of one record does not result in the rejection of all records (the entire Payload).
- AEMO informs Trading Participants of the validation status.
- Records not passing validation are not effective and must be resubmitted.
- The latest Pending record is the effective record.
- If there are multiple records with the same Gas Future ID, AEMO uses the most recent record.
- The maximum submission Payload size is **to be confirmed**.
- The **reports** are triggered on a valid record.

## 6.9 Validation

To be confirmed.

### 6.9.1 Validation rules

The following rules apply for all **submission interfaces**. Once a Futures Transfer is processed, AEMO responds to the Trading Participant identifying any records failing validation.

- Trading Participants must be registered in the GSH to submit Futures Transfers.
- You must have sufficient trading margin to submit a Futures Transfer.
- A Final Transfer **must have** a Gas Future ID.
- Once a Futures Trade for the delivery period is Matched, AEMO rejects any subsequent submissions with the same Gas Future ID.

### 6.9.2 Preliminary transfer payload validation

AEMO validates the following payload fields on submission:

Validation	Description	Required	Accept	Reject
Participant ID	Trading Participants must be registered in the GSH	Mandatory	Preliminary Transfer accepted	Submission rejected because the <Trading Participant> is not registered in the GSH
Prudential	Highlights Trading Participants without sufficient Trading Margin in the GSH	Mandatory	Preliminary Transfer accepted	Submission rejected because the <Trading Participant> does not have sufficient Trading Margin
Gas Future ID	The Gas Future ID is previously matched	Optional	n/a	Submission rejected because this Gas Future ID is previously matched
Gas Future ID	If you previously submitted a Transfer for this Delivery Period with an optional Gas Future ID, you must include it in any subsequent Transfers	Optional	n/a	Submission rejected because you previously submitted a Transfer for this delivery period with a Gas Future ID. Please add it and resubmit this Transfer

### 6.9.3 Final transfer payload validation

For a trade to move to Matched status, the following fields must match the initial submission:

Validation	Description	Required	Accept	Reject
Gas Future ID	If you provided an optional Gas Future ID in your Preliminary Transfer, it must match the Final Transfer	Mandatory	Preliminary Transfer matched	n/a
Contract Period	The contract start and end date must match the Preliminary Transfer	Mandatory	n/a	Submission rejected because the contract start and end date must match the Preliminary Transfer
Price	The Final Transfer Price must match the Preliminary Transfer Price	Mandatory	n/a	Submission rejected because the Final Transfer Price must match the Preliminary Transfer Price
Volume	According to GSH convention, the volume is measured in Gigajoules (GJ)	Mandatory	n/a	Submission rejected because the volume must be measured in Gigajoules (GJ)
Trade Type	The Trade Type must be the same as the Preliminary Transfer	Mandatory	n/a	Submission rejected because the Trade Type must be the same as in the Preliminary Transfer
ProductLocation	TBC			
ProductType	TBC			
DeliveryPoint	TBC			
CounterpartyClearer	TBC			

## 6.10 Changing a pending trade

To change the details of a pending Futures Trade Submission:

- **GSH Markets Portal > ASX Future Submission:** Change the Trade directly in the web interface.
- **GSH Markets Portal > ASX Future Submission > Upload File:** Upload a new payload for this same Trade with the changed details.
- **API submission:** Submit a new payload for this same Trade with the changed details.

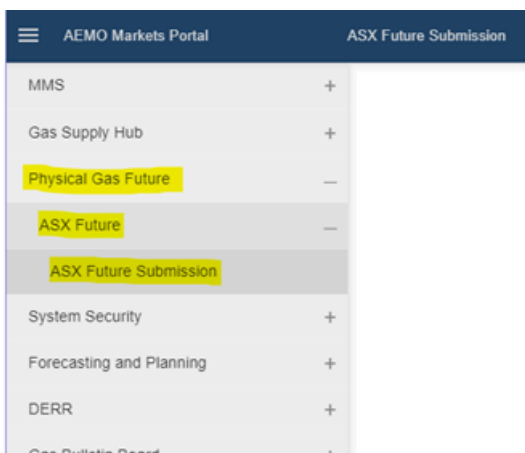


# 7 GSH Markets Portal

Trading Participants can enter Futures Transfer Information directly in the Markets Portal web interface.

These are early interface designs and may change slightly from the production interfaces.

## 7.1 Markets portal menu



## 7.2 ASX future interface

### Submit Physical Gas Future CSV File

↓ Select submission CSV File Create

Submitted Data

Record ID	Gas future ID	Start date	End date	Trade type	Volume	Price	Status	Submitted time	Message
29419	ASX-AEMO-0012	01 Mar 2022	31 Mar 2022		234	12.34	FAIL	2022-03-23T13:29:46	Trade Type must be BUY or SELL
29418	ASX-AEMO-0012	01 Mar 2022	31 Mar 2022	SELL	234	12.34	MATCH	2022-03-23T10:57:28	
29415	ASX-AEMO-0012	01 Mar 2022	31 Mar 2022	Buying	234	12.34	FAIL	2022-03-23T10:44:21	Trade Type must be BUY or SELL
29414	ASX-AEMO-0012	01 Mar 2022	31 Mar 2022	Buying	234	12.34	FAIL	2022-03-23T10:44:03	Trade Type must be BUY or SELL
29413	ASX-AEMO-0012	01 Mar 2022	30 Mar 2022	SELL	234	12.34	FAIL	2022-03-23T10:43:43	End Date must be - 2022/03/31
29400	ASX-AEMO-0012	01 Mar 2022	31 Mar 2021	SELL	234	12.34	FAIL	2022-02-22T09:53:53	Start Date must be <= End Date
29393	ASX-AEMO-0014	01 Mar 2022	31 Mar 2022	SELL	234	12.34	FAIL	2022-02-21T16:19:15	GSH Transfer ID has been matched previously
29392	ASX-AEMO-0014	01 Mar 2022	31 Mar 2022	SELL	234	12.34	FAIL	2022-02-21T16:12:56	GSH Transfer ID has been matched previously
29387	ASX-AEMO-0014	01 Mar 2022	31 Mar 2022	SELL	234	12.34	MATCH	2022-02-21T15:53:43	
29385	ASX-AEMO-0012	01 Mar 2022	28 Jan 2021	SELL	234	12.34	FAIL	2022-02-21T15:50:49	Start Date must be <= End Date
29384	ASX-AEMO-0012	01 Mar 2022	31 Mar 2022	Buy	234	12.34	FAIL	2022-02-21T15:40:07	Trade Type must be BUY or SELL
29383		01 Mar 2022	31 Mar 2022	SELL	33	22	PENDING	2022-02-21T15:10:46	
29382	ASX-AEMO-0013	01 Mar 2022	31 Mar 2022	SELL	777	66.66	PENDING	2022-02-21T15:10:44	
29380		01 Feb 2021	28 Feb 2021	SELL	33	22	OVERRIDE	2022-02-21T10:27:53	
29379	ASX-AEMO-0013	01 Feb 2021	28 Feb 2021	SELL	777	66.66	OVERRIDE	2022-02-21T10:27:52	
29377		01 Feb 2021	28 Feb 2021	SELL	33	22	OVERRIDE	2022-02-21T10:27:31	
29376		01 Feb 2021	28 Feb 2021	SELL	777	66.66	OVERRIDE	2022-02-21T10:27:24	
29375		01 Mar 2022	31 Mar 2022	BUY	234	12.34	PENDING	2022-02-21T10:23:59	
29374		01 Feb 2021	28 Feb 2021	SELL	33	22	OVERRIDE	2022-02-21T10:21:58	
29373		01 Feb 2021	28 Feb 2021	SELL	777	66.66	OVERRIDE	2022-02-21T10:21:57	

## 7.2.1 Interface description

Item	Description
Record ID	Futures submission reference
Gas Future ID	The ASX provided identifier for the Final Transfer. If the Gas Future ID is: <ul style="list-style-type: none"><li>- <b>Empty</b>: The submission is a Preliminary Transfer</li><li>- <b>Populated</b>: The submission is a Final Transfer</li></ul>
Start date	The date the Futures Trade Contract starts
End date	The date the Futures Trade Contract ends
Trade type	Buy or Sell
Price	Futures Trade price up to 2 decimals
Volume	Futures Trade volume in Gigajoules (GJ)
Status	Matched, Override, Rejected, Submitted (TBC)
Submitted time	The date and time the Futures Trade was submitted
Message	Validation message

## 7.3 Create interface

### To Create one Future Record



Gas future ID	<input type="text"/>
Start Date	<input type="text" value="2022/03/01"/>
End Date	<input type="text" value="2022/03/31"/>
Trade Type	<input type="text" value=""/>
Volume	<input type="text"/>
Price	<input type="text"/>

## 7.4 Upload csv payload

If the Gas Future ID is blank, the submission is a Preliminary Transfer.

To upload a csv Payload:

1. Create your **csv payload**.
2. On the interface, click **Upload**.
3. Find and select the payload created in step 1. The web interface populates with the data in your payload.
4. If required, edit any relevant fields, and click **Submit**.
5. AEMO **validates the data and confirms successful submission or rejection** on the interface and in the **GSH Transfer Information report**.  
If required, fix any rejection messages, and resubmit your payload.



## 7.5 Confirmation

Confirmation displays on the interface.

## 8 API Endpoint

Detailed context and specifications for API development are to be confirmed.

To submit and receive Futures Trade information via API, there are new endpoints in the **Capacity Auction API** (TBC).

### To be confirmed

ProductLocation

ProductType

DeliveryPoint

CounterpartyClearer

### 8.1 GasFutureUploadRequest

Submit Futures Trade information via API.

#### 8.1.1 Payload

```
{
  "participantId": "",
  "itemList": [
    {"gasFutureId": "ASX-AEMO-0012",
     "startDate": "2021-02-01",
     "endDate": "2021-02-28",
     "tradeType": "BUY",
     "price": "12.34",
     "volume": "234",
     "Status": "PENDING",
     "validationMsg": ""},
    {"gasFutureId": "ASX-AEMO-0013",
     "startDate": "2021-02-01",
     "endDate": "2021-02-28",
     "tradeType": "SELL",
     "price": "66.66",
     "volume": "777",
     "status": "PENDING",
     "validationMsg": ""},
    {"gasFutureId": "",
```

```

"startDate": "2021-02-01",
"endDate": "2021-02-28",
"tradeType": "SELL",
"price": "22",
"volume": "33",
"status": "PENDING",
"validationMsg": ""
]
}

```

## 8.1.2 Response

```

{
  "transactionId": "a9e83c6a-041f-467c-85ea-429f2c0514c5",
  "data": {
    "callSuccessful": true,
    "callResponseMessage": "",
    "itemList": [
      {
        "recordId": 29371,
        "participant_Id": "2006",
        "gasFutureId": null,
        "startDate": "2021-02-01T00:00:00",
        "endDate": "2021-02-28T00:00:00",
        "tradeType": "SELL",
        "price": 22.0,
        "volume": 33.0,
        "status": "PENDING",
        "validationMsg": null,
        "submittedTime": "2022-02-21T10:16:44"
      },
      {
        "recordId": 29370,
        "participantId": "2006",
        "gasFutureId": null,
        "startDate": "2021-02-01T00:00:00",
        "endDate": "2021-02-28T00:00:00",
        "tradeType": "SELL",
        "price": 66.66,
        "volume": 777.0,
        "status": "PENDING",
        "validationMsg": null,
        "submittedTime": "2022-02-21T10:16:41"
      }
    ]
  },
  "errors": []
}

```

## 8.2 GasFutureRequest

Receive Futures Trade submissions via API.

### 8.2.1 Payload

```
{participantId: "2006"}
```

### 8.2.2 Response

```
{
  "transactionId": "f07dcc68-3af4-43e7-b9e6-4355ed915ce5",
  "data": {
    "callSuccessful": true,
    "callResponseMessage": "",
    "ItemList": [
      {
        "recordId": 29368,
        "participantId": "2006",
        "gasFutureId": null,
        "startDate": "2021-02-01T00:00:00",
        "endDate": "2021-02-28T00:00:00",
        "tradeType": "SELL",
        "price": 22.0,
        "volume": 33.0,
        "status": "PENDING",
        "validationMsg": null,
        "submittedTime": "2022-02-18T11:34:08"
      },
      {
        "recordId": 29367,
        "participantId": "2006",
        "gasFutureId": null,
        "startDate": "2021-02-01T00:00:00",
        "endDate": "2021-02-28T00:00:00",
        "tradeType": "SELL",
        "price": 66.66,
        "volume": 777.0,
        "status": "PENDING",
        "validationMsg": null,
        "submittedTime": "2022-02-18T11:34:07"
      }
    ]
  },
  "errors": []
}
```

# 9 Reports

Report changes to be confirmed.

## 9.1 Trade execution report (existing)

### 9.1.1 Purpose

Provide the participant buyers and sellers with a confirmation whenever a trade is executed and daily after the end of trades for the current Gas Day.

### 9.1.2 Report recipients and contents

- Relevant Trading Participants: Private Future Trade submissions.
- ASX: All Future Trade submissions.

### 9.1.3 Report trigger

The report is sent:

- Each time there is a Futures Transfer a matched trade and a trade creation.
- At the end of each Business Day.

### 9.1.4 Report format

The report is in **csv file format**.

### 9.1.5 Report delivery

You can retrieve the reports using the following methods:

- **GSH Publishing Direct**
- **Participant File Server**
- **Data Interchange**





### 9.1.6 Report changes

New field	Description
Gas Transfer ID	ASX identifier for the transaction

For existing report details, see [GSH\\_TRADES](#)

## 9.2 GSH transfer information report (new)

### 9.2.1 Purpose

Reporting Futures Trade information to the ASX and Trading Participants.

### 9.2.2 Report recipients and contents

#### Relevant trading participants

Contains all relevant records with an end date in the future, confirming Future Trade submissions. This report is sent to each relevant Trading Participant with their submissions only.

#### ASX

Contains all records for all relevant Trading Participant Future Trade submissions.

### 9.2.3 Report trigger

The report is sent:

1. Each time there is a Futures Transfer valid submission, match, and trade creation.
2. At the end of each Business Day at 7.05 PM AEST after the end of the trades for the current trading day.

#### 9.2.4 Report format

The report is in csv file format.

#### 9.2.5 Report delivery

You can retrieve the report using the following methods:

- **GSH Publishing Direct**
- **Participant File Server**
- **Data Model/Data Interchange**

#### 9.2.6 Report details

For in progress design details, see **New table: GSH.TRADES\_STAGING**.

#### 9.2.7 Report example

To be confirmed.



# 10 Gas Data Model

This Release includes Future Trade submission reports only. It does not contain a new Gas Data Model version. Later this year, we will release a new version of the Gas Data Model with the following changes to packages, tables, files, reports, and interfaces.

## 10.1 Modified packages and tables summary

Package	Table name	Change	Details
GAS_SUPPLY_HUB	GSH.TRADES_STAGING	New	Gas futures staging data from traders
	GSH.TRADES_STAGING	Modified	Provide participants (buyer and seller) a confirmation whenever a trade is executed through auto matching of bids and offers or by off-Market trades. The report also provides participants a list of all their future trades when triggered daily after the end of the trades for the current day

## 10.2 Package: GSH

### 10.2.1 New table: GSH.TRADES\_STAGING

<b>Comment</b>	Gas futures staging data from traders
<b>Visibility</b>	Private



<b>Trigger</b>	Participant submission
<b>Participant file share location</b>	<#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports
<b>Primary key (in order)</b>	RECORD_ID

**New columns**

Field Name	Data type	PK	Comment
RECORD_ID	VARCHAR2(20) (TBC)	Y	The unique identifier of the record
PARTICIPANT_ID	VARCHAR2(20)	N	The unique identifier of the participant
GAS_FUTURE_ID	VARCHAR2(20)	N	The ASX provided transfer ID for matching trades
START_DATE	DATE	N	The gas start day for the gas future trade period
END_DATE	DATE	N	The gas end day for the gas future trade period
TRADE_TYPE	VARCHAR2(10)	N	Buy or Sell
VOLUME	NUMBER(18,8)	N	Trade quantities measured in GJ
PRICE	NUMBER(18,8)	N	Trade price
STATUS	VARCHAR2(20)	N	Submission Status: PENDING, FAIL, MATCH, OVERRIDE
VALIDATION_MSG	VARCHAR2(255)	N	Submission validation message
SUBMISSION_TIME	DATE	N	Data submission time
LASTCHANGED	DATE	N	The date and time the report is generated



### 10.2.2 Existing table: GSH\_TRADES

Comment	Provide participants (buyer and seller) a confirmation whenever a trade is executed through auto matching of bids and offers or by off-Market trades. The report also provides participants a list of all their future trades when triggered daily after the end of the trades for the current day
Visibility	Private
Trigger	Each time there is a Futures Transfer valid submission, match, and trade creation. At the end of each Business Day
Participant file share location	<#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports
Primary key (in order)	MARKET_ID, TRADE_ID

### Modified columns

Field Name	Data type	PK	Comment
GAS_FUTURE_ID	VARCHAR2(20)	N	The ASX provided transfer ID for matching trades

### 10.2.3 File interface changes

Package ID	File ID	Description	Batcher file masks	Frequency	Change	Auto-subscription
GAS_SUPPLY_HUB	GSH_TRADE_AER	Contains all records for Future Trade submissions	*_TRADEEXECUTION_*	On futures trade submission	Modified	No

Package ID	File ID	Description	Batcher file masks	Frequency	Change	Auto-subscription
	GSH_TRADE_SINGLE	Visibility: private Provides a confirmation to participants (buyer and seller) when a trade is executed through auto matching of bids and offers or by off-Market trades	*_TRADEEXECUTION_*	On futures trade submission	Modified	No
	GSH_TRADE_RANGE	Visibility: private Triggered daily at the end of the trades, providing participants with a list of all their future trades	*_TRADEEXECUTION_*	Daily	Modified	No
	GSH.TRADES_STAGING	Visibility: private Contains all relevant records with an end date in the future, confirming Future Trade submissions. This report is sent to each relevant Trading Participant with their submissions only	*_TRADEEXECUTION_*	On futures trade submission	New	Yes

### 10.2.4 Participant interfaces changes

Package Name	Gas Data Model table	File ID	CSV report type	Change
GAS_SUPPLY_HUB	GSH.TRADES_STAGING	GSH_TRADE_STAGING	GSH,GSH_TRADE_STAGING,TRADES_STAGING,1	New
	GSH_TRADES	GSH_TRADE_AER	GSH,GSH_TRADES,TRADES,3	Modified
	GSH_TRADES	GSH_TRADE_SINGLE	GSH,GSH_TRADES,TRADES,4	Modified
	GSH_TRADES	GSH_TRADE_RANGE	GSH,GSH_TRADES,TRADES,4	Modified

### 10.2.5 Discontinued reports

Gas Data Model table	File ID	CSV report type	Replaced by
GSH_TRADES	GSH_TRADE_AER	GSH,GSH_TRADES,TRADES,2	GSH,GSH_TRADES,TRADES,3
GSH_TRADES	GSH_TRADE_SINGLE	GSH,GSH_TRADES,TRADES,3	GSH,GSH_TRADES,TRADES,4
GSH_TRADES	GSH_TRADE_RANGE	GSH,GSH_TRADES,TRADES,3	GSH,GSH_TRADES,TRADES,4

### 10.2.6 Non-functional changes

- Gas Data Model Report v2.2
- Gas Data Model Upgrade Report v2.2
- Gas Table to File to Report v2.2
- Market Data NEMweb
- Data Subscription
- Data Interchange Online Help



# 11 FAQs

## 11.1 What is the format of the Gas Future ID?

ASX-AEMO-NNNN

## 11.2 What is the length of the Gas Future ID?

20 Alphanumeric characters.

## 11.3 Is the Gas Future ID sequential or random e.g. can it be easily guessed?

The Gas Future ID is private. Only Participant Users of the Participant ID with access rights can see it.

## 11.4 Is the end date required? ASX provide month and AEMO provide end date?

Yes, a start and end date are required.

## 11.5 Can another trader see a trade I submitted?

No AEMO's security model prevents others seeing your trades. Only Participant Users of the Participant ID with access rights can see your Futures Trades.

## 11.6 How do I submit a trade?

You can submit an API, upload a csv Payload to the Markets Portal, or enter the Futures Trade manually in the Markets Portal interface. For more details, see [Futures Transfer Submission](#).

## 11.7 How do I change a pending trade?

See [Changing a pending trade](#) on page 32.





### **11.8 Are futures trades part of the Wallumbilla netted monthly product?**

Yes.

### **11.9 Is there a preferred date format?**

Yes, it follows the [AEMO CSV Data Format Standard](#): YYYY/MM/DD.

### **11.10 Is it a date/time or just a date?**

Just a date YYYY/MM/DD.

### **11.11 How do you access the reports?**

From GSH Publishing Direct in the Markets Portal. For details, see [Report delivery](#).

### **11.12 When is a transfer created?**

When the buy and sell both Transfers are submitted and the Gas Transfer IDs match.



# 12 Implementation

## 12.1 Transition

For details, see [Participant Impact](#).

## 12.2 Upgrading

You can upgrade your pre-production or production Data Model environments once you receive the Data Model scripts. Applying the scripts sets up the new Data Model structure on your local database. You receive the same data until the new versions of fields, files, and reports are released into pre-production or production and you update your subscriptions.

For help, see:

- [Upgrading your DI environments](#)
- [Updating your subscriptions](#)

## 12.3 Implications

To maintain systems in-line with AEMO's market systems, participants need to:

- Review and assess the impact on their market systems with respect to the changes implemented as part of this Release.
- Change their systems prior to the implementation of this Release.
- Schedule staff and resources to upgrade their market systems for the production implementation of this Release.

## 12.4 Risks

- No risks identified.



# 13 Terms

## 13.1 Rule, agreement, and ASX terms

You can find the following terms defined in the [National Gas Rules \(NER\)](#) and the [Exchange Agreement and Guides](#):

Term	Term
AEMO	Trading Margin
Business Day	Trading Participant
Delivery Netting	Trading Window
Delivery Period	Transactions
D-n	Wallumbilla
Exchange	
Exchange Agreement	
Gas Day	
Market Participants	
Monthly	
Monthly product	
Open Interest (ASX)	
Physical Delivery	
Product	
Prudential Requirements	
Reallocation	
Registered Participant	
Settlements	
Trader	

## 13.2 Glossary

Abbreviation/Term	Explanation
AEST	Australian Eastern Standard Time
ASX	Australian Securities Exchange
Clearing Parties	Financially responsible to the clearing house for transactions made by its traders
Data Interchange	A set of cooperating applications used to replicate data between AEMO's energy market systems and a participant's DBMS conforming to the Data Model.
Data Model	The definition of the interface to participants for data published by AEMO.
Final Transfer	Information provided to AEMO by Trading Participants during the Transfer Window that <b>includes</b> the Gas Future ID Providing the information passes validation, AEMO uses it in Prudential Calculations
Futures Transfer Submission	Information provided to AEMO by Trading Participants stored in the GSH database for matching and audit purposes
Futures Transfer Window	Start Date: First Gas Day of the Delivery Period minus 14 Calendar Days End Date: First Gas Day of the Delivery Period minus 2 Calendar Days
Gas Futures	Wallumbilla Gas Futures
Gas Supply Hub	Gas trading exchange
GD	Gas Day
GSH	Gas Supply Hub
Gas Future ID	The ASX provided trade identifier required for a Final Transfer
Legacy File	AEMO market system software releases support the Latest (n) and Legacy (n-1) integrations to AEMO's market systems, allowing maintenance of participant interfaces across the system implementation at the AEMO end AEMO refers to the previous version as the Legacy version, for example NETWORK_OUTAGE_LEGACY AEMO expects participants to complete the corresponding release implementation at their end, moving from Legacy to Latest. Once participants upgrade their systems to the latest release, there is no requirement to maintain the Legacy report subscriptions
Markets Portal	Software, hardware, network, and related processes to implement the Energy market for Registered Participants. Requires access to MarketNet.
OI	Open Interest
Participant ID	Registered participant identifier

Abbreviation/Term	Explanation
<b>Payload</b>	The csv file
<b>Preliminary Transfer</b>	Optional information provided to AEMO by Trading Participants prior to the expiry of a futures contract, containing the Preliminary Transfer position and price (does not have a Gas Future ID) Providing the information passes validation, AEMO uses it in Prudential Calculations
<b>Prudential Calculation</b>	GSH Settlements and Prudential Methodology
<b>Release</b>	GSH - Technical Specification - July 2022
<b>Release Dates</b>	Pre-production: May 2022 (TBC)? Production: July 2022 (TBC)
<b>TBC</b>	To be confirmed
<b>Trade</b>	Futures Transfer Submission
<b>Transfer</b>	Futures Transfer Submission



# 14 References

**Guide to AEMO's e-Hub APIs:** Provides details about using AEMO's e-Hub as an interface to communicate information with AEMO. It assists Wholesale electricity and gas participants developing their own APIs.

**Guide to User Rights Management:** Assists participant administrators (PAs) to use the user rights management functions in the Markets Portal.

**Guide to Information Systems:** Information about AEMO's Market Systems.

## 14.1 GSH

**Exchange Agreement and Guides:** Guides, forms, and agreements relating to the operation of the Gas Supply Hub (GSH).

## 14.2 Prudentials

**Information about GSH prudential support.**

## 14.3 Data interchange and data model resources

### 14.3.1 About

Information about setting up a Data Interchange environment: Data Interchange Help > [About Data Interchange](#).

### 14.3.2 Help

- [Data interchange online help](#)

### 14.3.3 Software

You can find Data Interchange software in the following locations:

- Data Interchange Help > [Software Releases](#).

## References

- Releases directory on the participant file share: FTP to 146.178.211.2 > Data Interchange, pdrBatcher, pdrLoader, or pdrMonitor.

### 14.3.4 Reports

- Data Interchange Help > [Data Model Reports](#).

### 14.3.5 Releases

- Data Interchange Help > [Release Documents](#).



# 15 Index

## A

Auto-subscription, 14

## C

continuing improvement of AEMO's IT systems, 9

## D

data interchange environment, 16

Data Interchange software, 54

Data Subscription, 12

## E

Existing GSH data model participants, 14

## F

Final transfer, 20, 25

Final transfer payload validation, 32

Futures Transfer Window, 27

## G

Gas Supply Hub Reference Group, 8

GSH publishing direct, 14

GSH transfer information report, 41

GSHRG, 8

Guide to GSH Publishing Direct, 15

## I

I don't want to receive the new reports, 14

I want to receive the new reports, 14

I'm already subscribed to the previous version, 14

I'm not subscribed to the previous version, 15

industry user group, 9

## L

Legacy reports, 13

## M

Market Systems User Group, 9

Markets Portal ASX Future Trade interface, 27

MSUG, 9

## N

New GSH Data Model participants, 14

New report versions, 12

## P

participant file server, 15

Payload example, 29

Payload parameters, 28

Preliminary transfer, 20, 25

Preliminary transfer payload validation, 31

## R

Report delivery, 40

Report format, 40

## T

Trade execution report, 40

## U

Updating your subscriptions, 50

Upgrading your DI environments, 50

User rights access (URM), 25

## V

Validation rules, 31