Guide to Publishing Direct APIs

0.01 Draft
November 2020

Provides details about the Publishing Direct APIs

Important Notice

PURPOSE

This Guide to Publishing Direct APIs (Guide), prepared by AEMO, provides guidance for Publishing Direct under the National NER (Rules).

NO RELIANCE OR WARRANTY

This document does not constitute legal or business advice, and should not be relied on as a substitute for obtaining detailed advice about the National Gas or Electricity Law, the Rules or any other applicable laws, procedures or policies. While AEMO has made every effort to ensure the quality of the information in this Guide, neither AEMO, nor any of its employees, agents and consultants make any representation or warranty as to the accuracy, reliability, completeness, currency or suitability for particular purposes of that information.

LIMITATION OF LIABILITY

To the maximum extent permitted by law, AEMO and its advisers, consultants and other contributors to this Guide (or their respective associated companies, businesses, partners, directors, officers or employees) are not liable (whether by reason of negligence or otherwise) for any errors, omissions, defects or misrepresentations in this document, or for any loss or damage suffered by persons who use or rely on the information in it.

TRADEMARK NOTICES

Microsoft is a trademark of Microsoft Corporation in the United States and/or other countries.
Oracle and Java are registered trademarks of Sun Microsystems, Inc. in the U.S. and other countries.

DISTRIBUTION

Available to the public.

DOCUMENT IDENTIFICATION

Business custodian: Team Lead, NEM Settlement, Strategy and Markets
IT custodian: Manager, Settlements
Prepared by: Technology, Technical Writers and 5MS Settlements Team

VERSION HISTORY

Version 0.01. First draft - API release to the 5MS Staging environment..
Last update: Thursday, 12 November 2020 9:52 AM

DOCUMENTS MADE OBSOLETE

The release of this document changes any previous versions of Guide to Publishing Direct APIs.

FEEDBACK

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

Contents

Introduction

Purpose

This guide provides instructions for Registered Participants to user the Publishing Direct APIs in the Energy Market Systems.

Audience

This guide is for Registered Participants who want to use the Publishing Direct APIs or the Settlements Direct web portal.

Participant administrators wanting to know the user rights management (URM) entity to grant for participant users to access Publishing Direct APIs are a secondary audience.

Assumed Knowledge

This guide assumes you have knowledge of:

- JSON basics

- REST API standards

- Web-based technologies

- The operating system you are using

- Connecting to AEMO's Electricity IT Systems

Related resources

Guide to User Rights Management, assists Participant Administrators to manage their Participant User's access to AEMO's systems. It also explains how to set up single user IDs for use with the Set Participant function in AEMO's web portals.

> You can find resources on AEMO's website.

How to use this guide

- This guide is written in plain language for easy reading.

- Where there is a discrepancy between the National Electricity Rules, and information or a term in this document, the National Electricity Rules takes precedence.

- Where there is a discrepancy between the Procedures, and information or a term in this document, the Procedures take precedence.

- **Text in this format** indicates there is a resource on AEMO's website, for details, see References.

- **Text in this format** indicates a link to a related resource.

- Actions to complete in the web portal interface are bold and dark grey.

- Rules terms used throughout this guide are listed on page 1 and defined in the National Electricity Rules.

- Glossary terms are capitalised and have the meanings listed against them (see page 72).

- References to time are Australian Eastern Standard Time (AEST).

What's in this guide

Needing Help on page 1 provides information to assist participants with IT related issues, requesting assistance from AEMO, and using the Set Participant option.

References on page 1 contains a list of resources mentioned throughout this guide.

Glossary on page 72 explains the terms and abbreviations used throughout this guide.

Chapter 1 Need to know

Publishing Direct System

The Publishing Direct system allows Market Participants to access data, subscriptions, message delivery logs and calendars to the EMMS Wholesale Market System. AEMO uses three instances of the Publishing Direct system based on the publishing Business ID. You can access these systems using the AEMO Markets Portal.

The APIs listed in this chapter allow you to access specific details from the Publishing Direct system depending on the request parameters. Settlements Direct is an instance of the Publishing Direct system.

To access the Publishing Direct systems on the Markets Portal, navigate as follows:

- For Settlements Direct: Settlements Direct, MMS Markets Portal > MMS > Settlements > Settlements Direct.

- Publishing Direct for GSH – To access Publishing Direct, MMS Markets Portal > Gas Supply Hub > Publishing Direct.

- Market Direct for Market Info – To access Market Direct, MMS Markets Portal > Market Info > Market Direct.

Settlements Direct Subscriptions for Company ID

Settlements Direct Subscriptions for Company ID

Category

| NEM Statements | ⌄ |

Type

| All Types | ⌃ |

Contact

| All Contacts | ⌄ |

☑ All Types

NEM Preliminary Statement

NEM Final Statement

NEM Makeup Statement

NEM ShortFall Statement

NEM Revision Statement

➕ **Type: NEM Final Statement**   **Secure Delivery Attachment** ☑

➕ **Type: NEM Makeup Statement**   **Secure Delivery Attachment** ☑

➕ **Type: NEM Preliminary Statement**   **Secure Delivery Attachment** ☑

➕ **Type: NEM Revision Statement**   **Secure Delivery Attachment** ☑

➕ **Type: NEM ShortFall Statement**   **Secure Delivery Attachment** ☑

Submit

In the AEMO Markets Portal, Settlements Direct is denoted in the APIs as the publishingBusinessId with the value of Settlements. The publishingCategoryId represents the Category and the publishingTypeId represents the Type. The images below show the possible values of each of these categories.

For more details on all possible combinations of the Business, Category and Type, see Appendix: API Parameter Values.

Before you begin

This section defines some of the query parameters used in the APIs.

Parameter	Description
publishingBusinessId	Describes the system for which the APIs, categories and types are displayed. Possible values are NEM, NEM_SETTLEMENTS, or GSH.
publishingCategoryId	Each publishing business systems is divided into several categories. For details on all available categories, select the Business system and use the dropdown to find all possible categories.
publishingTypeId	Each category is then subdivided into different types. For details on all available types, select the business system and category from the portal and use the dropdown menu to find all possible types.

Parameter	Description
publishingPeriodClassId	Describes the period for which a specific publishingTypeId is valid. Possible values are DAILY_YMD, DAILY, BILLING_WEEK, BILLING_MONTH, CAL_MONTH, QUARTER, CAL_YEAR, or FIN_YEAR.
publishingPeriodInstanceId	Depending on the publishingPeriodClassId, the publishingPeriodInstanceId is an identifier for the period instance. For example, for the publishingPeriodClassId of BILLING_WEEK, the publishingPeriodInstanceId is 2019WK41 or DAILY_YMD is 20191025.
publishingQueueId	Unique identifier that each participant is assigned which tells AEMO which file they want.
deliveryChannelId	The channel through which the participant contacts want to be notified. Possible options are Email, Notify by Email and SMS.
deliveryTime	The time period for delivery. The values are in DATE data type.
fileFormatId	Format of the file returned. Possible options are PDF, Text, CSV,

Chapter 2 About Publishing Direct APIs

The following chapter lists the new and updated Publishing Direct APIs and the request and response structure for the APIs.

Credentials, paths, schemas, validation, and examples

- For individual schemas and API paths, see Appendix: Publishing Direct APIs JSON Schema on page 48.

- For details about AEMO's API standards, SSL certificates, response codes, security, and authentication details, see Guide to AEMO's APIs.

Submission and throttling

Payload size	Object
Submission frequency	250 messages per minute. For any messages sent beyond the limit, there is a denial of service until that one minute is complete.
Throttling limit	Allowed
Throttling limit	1 per submission

API e-Hub addresses

API details, including Swagger files, are available via AEMO's API Portal. For more information about e-Hub APIs, see Guide to AEMO's e-Hub APIs.

The following AEMO API Gateways are available:

Table 1 API Gateway Addresses

Environment	Internet Address	MarketNet Address
5MS Staging	**https://apis.5msstaging.aemo.com.au:9319**	**https://apis.5msstaging.marketnet.net.au:9319**
5MS Staging API portal	**https://dev.preprod.aemo.com.au** You need to register and sign in to access the 5MS APIs in this portal.	**Unavailable until further notice**
Pre-production	**https://apis.preprod.aemo.com.au:9319**	**https://apis.preprod.marketnet.net.au:9319**
Pre-production API portal	**https://dev.preprod.aemo.com.au** You need to register and sign in to access the 5MS APIs in this portal.	**Unavailable until further notice**
Production	**https://apis.prod.aemo.com.au:9319**	**https://apis.prod.marketnet.net.au:9319**
Production API portal	**https://dev.aemo.com.au**	**Unavailable until further notice**

API format

API URLs are in the following format:

```
https://<host>/ws/<business_
function>/<APIversion>/<resource>?querystring parameters
```

For example:

```
https://apis.prod.aemo.com.au:9319/NEMWholesale/PublishingDirect/
v1/getContacts
```

Table 2 API Definition

Parameter	Description
<protocol>	HTTPS
<host>	Names the server hosting the service or an external proxy Internet web service host: apis.prod.aemo.com.au:9319 MarketNet web service host: apis.prod.marketnet.net.au:9319
<Business_function>	API Name - The AEMO system providing the services e.g. GeneratorRecall
<verb><resource>	Entities of a Business Function e.g. /getContacts
?querystring parameters	Query string parameters for GET method

User rights access

The user rights access used in the Prudential APIs, and Prudential web screens use a new URM entity:

- EMMS – Settlements – Settlements Direct – MMS_ SETTLEMENTS_DIRECT
  - MMS_SETTLEMENTS_DIRECT
  - MMS_SETTLEMENTS_DIRECT_PUBLISH
  - MMS_SETTLEMENTS_DIRECT_ SUBSCRIBE

API account passwords are reset every 90 days.Not applicableNoneParticipant specificParticipant specificRREAD

The combination of Entity and Rights you must have to access the different Publishing Direct APIs are as follows:

API Name	Authorisation Mode	Entity	Right
getDeliverChannels	None	Not applicable	Not applicable
getCalendars	None	Not applicable	Not applicable
getPublishingCategories	None	Not applicable	Not applicable
getPublishingPeriodInstances	None	Not applicable	Not applicable
getPublishingTypes	None	Not applicable	Not applicable
getPublishingPeriodClasses	None	Not applicable	Not applicable
getContacts	Participant specific	MMS_SETTLEMENTS_ DIRECT	READ

API Name	Authorisation Mode	Entity	Right
getDeliveryLogEntries	Participant specific	MMS_SETTLEMENTS_ DIRECT	READ
getAvailableFiles	Participant specific	MMS_SETTLEMENTS_ DIRECT	READ
downloadFiles	Participant specific	MMS_SETTLEMENTS_ DIRECT	READ
publishFiles	Participant specific	MMS_SETTLEMENTS_ DIRECT_PUBLISH	CREATE
getUserSubscriptions	Participant specific	MMS_SETTLEMENTS_ DIRECT_SUBSCRIBE	READ
updateUserSubscriptions	Participant specific	MMS_SETTLEMENTS_ DIRECT_SUBSCRIBE	UPDATE

The steps to set up URM rights for API access are:

1. If required, the Participant Administrator (PA) creates a new Participant User in MSATS.

2. The PA assigns the URM entity to the Participant User.

For help with user rights access, see Guide to User Rights Management.

Common header parameters

Parameter	Required	Format
Content-type	Yes	Text/xml or application/zip

Parameter	Required	Format
Accept	Yes	Text/xml or application/zip
Authorization	Yes	Two-way SSL and basic auth - participant user URM username and password
X-initiatingParticipantID	Yes	Participant ID
X-market	Yes	NEM

Common response

Error Code	Description
200	OK
400	Mandaroty HTTP header <Header_Name> missing. No response payload.
401	Unauthorised. No response payload.
404	Resources for the endpoint URI not found. Endpoint URI: {requested URI path suffix}. No reponse payload.
405	Menthod not allowed. Inpit request HTTP method {requested verb} isn ot allowed for this resource. No response payload.
422	Unprocessable entity
429	Too many requests. Number of inbound requests exceed the throttling limits; try again later. No response payload.
500	Internal Server Error. Exception from backend system. No response payload.

Chapter 2 Publishing Direct APIs

This chapter describes the method, URL, request and response content body, and request and response examples for the Publishing Direct APIs.

getContacts

The getContacts API retrieves a list of all contacts for a Registered Participant.

API	getContacts
Method	GET
URL	/NEMWholesale/PublishingDirect/getContacts
Authorisation	Participant specific
Header	Standard request header attributes to include: • Authorization: Basic …. • Content-Encoding: Should be one of [gzip, deflate, compress] • Accept-Encoding: Should be one or more of [gzip, deflate, compress]
Request Content	NA

Success response	Content Body:
| | ```json
{
  "data":
  {
    "contacts":
    [
      {
        "contactId": [string],
        "contactSource": [string],
        "isActive": [boolean],
        "sourceUpdateTime": [datetime],
        "participantId": [string],
        "mobileNumber": [string],
        "emailAddress": [string],
        "title": [string],
        "firstName": [string],
        "lastName": [string]
      }
    ]
  }
}
``` |
| Notes | |
| Validation rules | N/A |

Example request

```
GET /NEMWholesale/PublishingDirect/v1/getContacts
Content-Type: application/json
Accept: application/json
Accept-Encoding: gzip
Content-Length: nnn
Content-Encoding: gzip
Authorisation: Basic dGVzdG1hbnVhbSpOZK1tY28wMw==
X-market: NEM
X-initiatingParticipantID: <PARTICIPANTID>
```

Example response

```
HTTP/1.1 200 OK
```

```
Content-Type: application/json
Content-Length: nnn
Content-Encoding: gzip
{
 "transactionId": "6e000fde-ddf0-0000-a0d0-b0bd0000d00",
 "data": {
  " contacts ": [
   {
    "contactId": "1000",
    "contactSource": "MSATSCONTACT",
    "isActive": "Y",
    "sourceUpdateTime": "2016-10-21T11:29:23",
    "participantId": "PARTICIPANTID1",
    "mobileNumber": "MOBILE_NUMBER",
    "emailAddress": "EMAIL_ADDRESS1",
    "title": "TITLE",
    "firstName": "FIRST_NAME",
    "lastName": "LAST_NAME"
   },
   {
    "contactId": "500",
    "contactSource": "MSATSCONTACT",
    "isActive": "Y",
    "sourceUpdateTime": "2011-04-06T09:56:46",
    "participantId": "PARTICIPANTID2",
    "mobileNumber": null,
    "emailAddress": "EMAIL_ADDRESS2",
    "title": ".",
    "firstName": "FIRST_NAME",
    "lastName": "LAST_NAME"
   }
  ]
 },
 "errors": []
}
```

getCalendars

The getCalendars API retrieves the list of calendars for the business process name which is Settlements Direct in this case.

API	getCalendars
Method	GET

URL	/NEMWholesale/PublishingDirect/getCalendars
Authorisation	None
Header	Standard request header attributes to include: • Authorization: Basic …. • Content-Encoding: Should be one of [gzip, deflate, compress] • Accept-Encoding: Should be one or more of [gzip, deflate, compress]
Request Content	Query Parameters: • publishingBusinessId

Success response	Content Body:
	
	<pre>{
	  "data":
	  {
	    "calendars":
	    [
	      {
	        "url": [string],
	        "description": [string]
	      }
	    ]
	  }
	}</pre>

Notes	
Validation rules	

Example request

```
GET              /NEMWholesale/PublishingDirect/v1/getCalendars?publishingBusinessId=NEM_
SETTLEMENTS
Content-Type: application/json
Accept: application/json
Accept-Encoding: gzip
Content-Length: nnn
```

Content-Encoding: gzip
Authorisation: Basic dGVzdG1hbnVhbSpOZK1tY28wMw==
X-market: NEM
X-initiatingParticipantID: <PARTICIPANTID>

Example response

```
HTTP/1.1 200 OK
Content-Type: application/json
Content-Length: nnn
Content-Encoding: gzip
{
  "transactionId": "4f00000a-0000-0c2d-0c70-1efcca00000a",
  "data": {
   "calendars": [
     {
        "url"   :   "https://www.aemo.com.au/energy- systems/electricity/national- electricity- market-
nem/market-operations/settlements-and-payments/prudentials-and-payments/settlement-calendars",
        "description": "Settlement Calendars"
     },
     {
        "url"   :   "https://www.aemo.com.au/energy- systems/electricity/national- electricity- market-
nem/market- operations/settlements- and- payments/prudentials- and- payments/settlement-
calendars/intervention-settlement-timetables",
        "description": "Intervention Settlements Timetable"
     }
   ]
  },
  "errors": []
}
```

getDeliveryChannels

The getDeliveryChannels API retrieves a list of supported notification channels.

API	getDeliveryChannels
Method	GET

URL	/NEMWholesale/PublishingDirect/getDeliveryChannels
Authorisation	None
Header	Standard request header attributes to include: • Authorization: Basic .... • Content-Encoding: Should be one of [gzip, deflate, compress] • Accept-Encoding: Should be one or more of [gzip, deflate, compress]
Request Content	NA
Success response	Content Body: ```{ "data": { "channelList": [{ "deliveryChannelId": [string], "description": [string], "displayPriority": [integer] }] } }```
Notes	
Validation rules	

Example request

```
GET /NEMWholesale/PublishingDirect/v1/getDeliveryChannels
Content-Type: application/json
Accept: application/json
Accept-Encoding: gzip
Content-Length: nnn
Content-Encoding: gzip
```

Authorisation: Basic dGVzdG1hbnVhbSpOZK1tY28wMw==
X-market: NEM
X-initiatingParticipantID: <PARTICIPANTID>

Example response

```
HTTP/1.1 200 OK
Content-Type: application/json
Content-Length: nnn
Content-Encoding: gzip
{
 "transactionId": "800c6000-70b0-4df0-b0fa-a0dd400000c0",
 "data": {
  "channelList": [
   {
    "channelId": "EMAIL",
    "description": "E-mail",
    "displayPriority": 1
   },
   {
    "channelId": "EMAIL_NOTIFICATION",
    "description": "Notify by E-mail",
    "displayPriority": 3
   }
  ]
 },
 "errors": []
}
```

getPublishingCategories

The getPublishingCategories API retrieves a list of supported publishing categories.

API	getPublishingCategories
Method	GET
URL	/NEMWholesale/PublishingDirect/getPublishingCategories

Authorisation	None
Header	Standard request header attributes to include: • Authorization: Basic .... • Content-Encoding: Should be one of [gzip, deflate, compress] • Accept-Encoding: Should be one or more of [gzip, deflate, compress]
Request Content	Query Parameters: • publishingBusinessId

Success response	Content Body
	
	<pre>{
	 "data":
	 {
	  "categories":
	  [
	   {
	    "publishingCategoryId": [string],
	    "description": [string],
	    "displayPriority": [integer],
	   }
	  ]
	 },
	}</pre>

Notes	
Validation rules	publishingBusinessId must be a valid publishing business identifier.

Example request

```
GET        /NEMWholesale/PublishingDirect/v1/getPublishingCategories?publishingBusinessId=NEM_
SETTLEMENTS
Content-Type: application/json
Accept: application/json
Accept-Encoding: gzip
Content-Length: nnn
Content-Encoding: gzip
Authorisation: Basic dGVzdG1hbnVhbSpOZK1tY28wMw==
```

```
X-market: NEM
X-initiatingParticipantID: <PARTICIPANTID>
```

Example response

```
HTTP/1.1 200 OK
Content-Type: application/json
Content-Length: nnn
Content-Encoding: gzip
{
 "transactionId": "579b7a6a-d205-4e9a-8275-ef9ca10f173d",
 "data": {
  "categories": [
   {
    "publishingCategoryId": "(All)",
    "description": "(All categories)",
    "displayPriority": -1,
   },
   {
    "publishingCategoryId": "NEM_STATEMENTS",
    "description": "NEM Statements",
    "displayPriority": 1

   ]
  },
  "errors": []
 }
```

getDeliveryLogEntries

The getDeliveryLogEntries API retrieves a log of delivered files and notifications.

API	getDeliveryLogEntries
Method	GET
URL	/NEMWholesale/PublishingDirect/getDeliveryLogEntries

Authorisation	Participant specific
Header	Standard request header attributes to include: ● Authorization: Basic .... ● Content-Encoding: Should be one of [gzip, deflate, compress] ● Accept-Encoding: Should be one or more of [gzip, deflate, compress]
Request Content	Query Parameters: ● publishingBusinessId (Mandatory) ● publishingCategoryId (Optional) ● publishingTypeId (Optional) ● publishingPeriodClassId (Semi-mandatory) ● publishingPeriodInstanceIdFrom (Semi-mandatory) ● publishingPeriodInstanceIdTo (Semi-mandatory) ● contactId (Optional) ● deliveryChannelId (Optional) ● deliveryTimeFrom (Semi-mandatory) ● deliveryTimeTo (Semi-mandatory) The semi-mandatory indicate that even if you do not select publishingCategoryId and publishingTypeId , either the deliveryTimeFrom and deliveryTimeTo or the publishingPeriodInstanceIdFrom and publishingPeriodInstanceIdTo fields should be included.

Success response	Content Body

	``json
	{
	  "data": {
	  "logEntries":
	  [
	   {
	     "publishingCategoryId": [string],
	     "publishingTypeId": [string],
	     "publishingPeriodClassId": [string],
	     "publishingPeriodInstanceId": [string],
	     "fileName": [string],
	     "deliveryChannelId":[string],
	     "fileFormatId": [string],
	     "contactId":[string],
	     "documentEncryptionKey": [string],
	     "eventQueueId": [string],
	     "deliveryTime": [datetime],
	     "headerText": [string],
	     "bodyText": [string]
	   }
	  ]
	 }
	``

Notes	

Validation rules	• publishingBusinessId must be a query parameter and must be a valid publishing business identifier
	• publishingCategoryId must be a valid publishing category for the provided publishing business identifier
	• publishingTypeId must be a valid publishing type for the provided publishing business identifier
	• publishingPeriodClassId must be a valid publishing period class
	• deliveryChannelId must be a valid delivery channel identifier
	• If deliveryTimeFrom is specified, then deliveryTimeTo must also be specified, and vice versa
	• If publishingPeriodInstanceIdFrom is specified, then publishingPeriodInstanceIdTo must also be specified, and vice versa
	• Either deliveryTimeFrom/deliveryTimeTo, or publishingPeriodInstanceIdFrom/publishingPeriodInstanceIdTo must be specified
	• If deliveryTimeFrom/deliveryTimeTo are specified, the maximum allowable timespan between the two values is 1 year
	• If publishingPeriodInstanceIdFrom/publishingPeriodInstanceIdTo are specified, the maximum allowable timespan between the two values is 1 year, or where the period instances do not align to day boundaries, as close to 1 year as can be reasonably determined, for example, 2018Wk44 to 2019Wk44 is allowed, but 2018Wk44 to 2018Wk55 is not.

Example request

```
GET          /NEMWholesale/PublishingDirect/v1/getDeliveryLogEntries?publishingBusinessId=NEM_
SETTLEMENTS
Content-Type: application/json
Accept: application/json
Accept-Encoding: gzip
Content-Length: nnn
Content-Encoding: gzip
Authorisation: Basic dGVzdG1hbnVhbSpOZK1tY28wMw==
X-market: NEM
X-initiatingParticipantID: <PARTICIPANTID>
```

Example response

```
HTTP/1.1 200 OK
Content-Type: application/json
```

```
Content-Length: nnn
Content-Encoding: gzip
{
  "transactionId": "c1fdd064-9803-4251-ae45-edfec20eb0e5",
  "data": {
   "logEntries": [
     {
       "publishingCategoryId": "NEM_SUMMARY_DATA",
       "publishingTypeId": "NEM_SUMM_DIRECTIONS_P",
       "publishingperiodInstanceId": "2010WK34",
       "publishingPeriodClassId": "BILLING_WEEK",
       "fileName" :   "PUBLIC_ BILLING_ DIRECT_ FINAL_ RECON_ 2010Week34PRELIMINARY_
20100830100000.zip"
       "deliveryChannelId": "EMAIL",
       "fileFormatId": "CSV",
       "contactId": "500",
       "documentEncryptionKey": null,
       "publishingQueueId": "0000000312184000",
       "deliveryTIME": "2010-08-30T11:27:48",
       "headerText": "AEMO Settlements Direct: NEM Direction Correspondence 2010WK34",
       "bodyText": null
     }
   ]
  },
  "errors": []
}
```

getAvailableFiles

The getAvailableFiles retrieves a list of files available for publishing.

API	getAvailableFiles
Method	GET
URL	/NEMWholesale/PublishingDirect/getAvailableFiles
Authorisation	Participant specific

Header	Standard request header attributes to include:
	• Authorization: Basic ….
	• Content-Encoding: Should be one of [gzip, deflate, compress]
	• Accept-Encoding: Should be one or more of [gzip, deflate, compress]
Request Content	Query Parameters:
	• publishingBusinessId (Mandatory)
	• publishingCategoryId (Optional)
	• publishingTypeId (Optional)
	• publishingPeriodClassId (Optional)
	• publishingPeriodInstanceIdFrom (Optional)
	• publishingPeriodInstanceIdTo (Optional)
	• deliveryTimeFrom (Optional)
	• deliveryTimeTo (Optional)
Success response	Content Body
	```{ "data": { "files": [{ "publishingCategoryId": [string], "publishingTypeId": [string], "publishingPeriodClassId": [string], "publishingPeriodInstanceId": [string], "publishingQueueId": [string], "fileName": [string], "fileFormatId": [string], "documentEncryptionKey": [string], "deliveryTime": [datetime], "iLinkDescription": [string], "iLinkAddress": [string] }] } }```
Notes	
Validation rules	

Example request

```
GET                /NEMWholesale/PublishingDirect/v1/getAvailableFiles?publishingBusinessId=NEM_
SETTLEMENTS
Content-Type: application/json
Accept: application/json
Accept-Encoding: gzip
Content-Length: nnn
Content-Encoding: gzip
Authorisation: Basic dGVzdG1hbnVhbSpOZK1tY28wMw==
X-market: NEM
X-initiatingParticipantID: <PARTICIPANTID>
```

Example response

```
HTTP/1.1 200 OK
Content-Type: application/json
Content-Length: nnn
Content-Encoding: gzip
{
  "transactionId": "c1fdd064-9803-4251-ae45-edfec20eb0e5",
  "data": {
   "files": [
     {
       "publishingCategoryId": "NEM_SUMMARY_DATA",
       "publishingTypeId": "NEM_SUMM_DIRECTIONS_P",
       "publishingperiodInstanceId": "2019WK34",
       "publishingPeriodClassId": "BILLING_WEEK",
       "publishingQueueId": "0000000312184277",
        "fileName"  :   "PUBLIC_  BILLING_  DIRECT_  FINAL_  RECON_  2019Week34PRELIM_
20190830112624.zip"
       "fileFormatId": "CSV",
       "documentEncryptionKey": null,
       "deliveryTime": "2019-08-30T11:27:48",
       "iLinkDescription": "Settlement Statements and Invoices in PDF format",
       "iLinkAddress": "http://aemo.com.au/-/media/Files/PDF/0500-0009-pdf.pdf"
     }
   ]
  },
  "errors": []
}
```

getPublishingPeriodClasses

The getPublishingPeriodClasses API retrieves a list of supported publishing period classes.

API	getPublishingPeriodClasses
Method	GET
URL	/NEMWholesale/PublishingDirect/getPublishingPeriodClasses
Authorisation	None
Header	Standard request header attributes to include: • Authorization: Basic …. • Content-Encoding: Should be one of [gzip, deflate, compress] • Accept-Encoding: Should be one or more of [gzip, deflate, compress]
Request Content	Query Parameters: • publishingBusinessId • publishingTypeId
| Success response | Content Body<br><br>```json
{
 "data": {
 "periodClasses":
 [
   {
    "publishingPeriodClassId": [string]
   }
 ]
}
``` |
| Notes | |
| Validation rules | • publishingBusinessId must be a valid publishing business identifier
• publishingTypeId must be a valid publishing type |

Example request

```
GET    /NEMWholesale/PublishingDirect/v1/getPublishingPeriodClass?publishingBusinessId=NEM_
SETTLEMENTS&publishingTypeId=NEM_REPORT_REGION_SUMMARY
```

```
Content-Type: application/json
Accept: application/json
Accept-Encoding: gzip
Content-Length: nnn
Content-Encoding: gzip
Authorisation: Basic dGVzdG1hbnVhbHpppOZK1tY28wMw==
X-market: NEM
X-initiatingParticipantID: <PARTICIPANTID>
```

Example response

```
HTTP/1.1 200 OK
Content-Type: application/json
Content-Length: nnn
Content-Encoding: gzip
{
 "transactionId": "c1fdd000-0000-0000-ae00-edfec00eb0e0",
 "data": {
  "periodClasses": [
   {
    "publishingPeriodClassId": "BILLING_WEEK",
   }
  ]
 },
 "errors": []
}
```

getPublishingPeriodInstances

The getPublishingPeriodInstances API retrieves a list of period instances for the supplied publishing type and period class.

API	getPublishingPeriodInstances
Method	GET
URL	/NEMWholesale/PublishingDirect/getPublishingPeriodInstances
Authorisation	None

Header	Standard request header attributes to include:
	• Authorization: Basic ….
	• Content-Encoding: Should be one of [gzip, deflate, compress]
	• Accept-Encoding: Should be one or more of [gzip, deflate, compress]
Request Content	Query Parameters:
	• publishingBusinessId
	• publishingTypeId
	• publishingPeriodClassId
Success response	Content Body

	<pre>{
	  "data": {
	  "periodInstances":
	 [
	   {
	     "publishingPeriodInstanceId": [string]
	   }
	]
	 }</pre>

Notes	
Validation rules	• publishingBusinessId must be a valid publishing business identifier
	• publishingTypeId must be a valid publishing type
	• publishingPeriodClassId must be a valid publishing period class

Example request

```
GET
/NEMWholesale/PublishingDirect/v1/getPublishingPeriodInstances?publishingBusinessId=NEM_
SETTLEMENTS&publishingTypeId=NEM_         REPORT_        REGION_        SUMMARY
&publishingPeriodClassId=BILLING_WEEK
Content-Type: application/json
Accept: application/json
Accept-Encoding: gzip
Content-Length: nnn
Content-Encoding: gzip
Authorisation: Basic dGVzdG1hbnVhbSpOZK1tY28wMw==
```

X-market: NEM
X-initiatingParticipantID: <PARTICIPANTID>

Example response

```
HTTP/1.1 200 OK
Content-Type: application/json
Content-Length: nnn
Content-Encoding: gzip
{
  "transactionId": "072f0ef5-57f7-426e-ad78-a0661f88e4ad",
  "data": {
    "periodInstances": [
      {
        "publishingPeriodInstanceId": "2009WK47"
      },
      {
        "publishingPeriodInstanceId": "2009WK48"
      },
      {
        "publishingPeriodInstanceId": "2009WK49"
      }
    ]
  },
  "errors": [],
  "warnings": []
}
```

getUserSubscriptions

The getUserSubscriptions API retrieves a list of current user subscriptions.

API	getUserSubscriptions
Method	GET
URL	/NEMWholesale/PublishingDirect/getUserSubscriptions
Authorisation	Participant specific

Header	Standard request header attributes to include: • Authorization: Basic .... • Content-Encoding: Should be one of [gzip, deflate, compress] • Accept-Encoding: Should be one or more of [gzip, deflate, compress]
Request Content	Query Parameters: • publishingBusinessId

Success response	Content Body
	
	<pre>{
	  "data":
	  {
	    "subscriptions":
	    [
	      {
	        "publishingCategoryId": [string],
	        "publishingTypeId": [string],
	        "isPlainTextRequested": [boolean],
	        "contacts":
	        [
	          {
	            "contactId":"string",
	            "deliveryChannels":
	            [
	              {
	                "deliveryChannelId": [string],
	                "isSubscribed": [boolean]
	              }
	            ]
	          }
	        ]
	      }
	    ]
	  }
	}</pre>

Notes	
Validation rules	publishingBusinessId must be a valid publishing business identifier

Example request

```
GET        /NEMWholesale/PublishingDirect/v1/getUserSubscriptions?publishingBusinessId=NEM_
SETTLEMENTS
Content-Type: application/json
Accept: application/json
Accept-Encoding: gzip
Content-Length: nnn
Content-Encoding: gzip
Authorisation: Basic dGVzdG1hbnVhbSpOZK1tY28wMw==
X-market: NEM
X-initiatingParticipantID: <PARTICIPANTID>
```

Example response

```
HTTP/1.1 200 OK
Content-Type: application/json
Content-Length: nnn
Content-Encoding: gzip
{
 "transactionId": "10000d00-0000-000d-00f0-0aa00f00c0cf",
 "data": {
  "subscriptions": [
   {
     "publishingCategoryId": "NEM_SUMMARY_DATA",
     "publishingTypeId": "NEM_SUMM_DIRECTIONS_P",
     "isPlainTextRequested": "N",
      "contacts": [
        {
         "contactId": "500",
         "deliveryChannels": [
          {
            "channelId": "EMAIL",
            "channelDescription": "E-mail",
            "isSelected": false,
            "isReadOnly": false
          }
         ]
        }
      ]
   },
   "errors": []
}
```

getPublishingTypes

The getPublishingTypes API retrieves a list of supported publishing types.

API	getPublishingTypes
Method	GET
URL	/NEMWholesale/PublishingDirect/getPublishingTypes
Authorisation	None
Header	Standard request header attributes to include: • Authorization: Basic .... • Content-Encoding: Should be one of [gzip, deflate, compress] • Accept-Encoding: Should be one or more of [gzip, deflate, compress]
Request Content	Query Parameters: • publishingBusinessId • publishingCategoryId

Success response	Content Body
	
	``json
	{
	  "data":
	  {
	    "publishingTypes":
	    [
	      {
	        "publishingTypeId": [string],
	        "displayPriority": [integer],
	        "description": [string],
	      }
	    ]
	  }
	}
	``

Notes	

Validation rules	• publishingBusinessId must be a valid publishing business identifier
	• publishingTypeId must be a valid publishing type
	• publishingPeriodClassId must be a valid publishing period class

Example request

```
GET          /NEMWholesale/PublishingDirect/v1/getPublishingTypes?publishingBusinessId=NEM_
SETTLEMENTS&publishingCategoryId=NEM_SUMMARY_DATA
Content-Type: application/json
Accept: application/json
Accept-Encoding: gzip
Content-Length: nnn
Content-Encoding: gzip
Authorisation: Basic dGVzdG1hbnVhbSpOZK1tY28wMw==
X-market: NEM
X-initiatingParticipantID: <PARTICIPANTID>
```

Example response

```
HTTP/1.1 200 OK
Content-Type: application/json
Content-Length: nnn
Content-Encoding: gzip
{
  "transactionId": "30e00e00-00f8-009d-b000-fe0000e00000",
  "data": {
    "publishingTypes": [
      {
        "publishingTypeId": "NEM_SUMM_DIRECTIONS_P",
        "displayPriority": 20,
        "description": "NEM Directions Recovery Reconciliation"
      }
    ]
  },
  "errors": []
}
```

downloadFiles

The downloadFiles API directly downloads a set of requested files.

API	downloadFiles
Method	POST
URL	/NEMWholesale/PublishingDirect/downloadFiles
Authorisation	Participant specific
Header	Standard request header attributes to include: • Authorization: Basic …. • Content-Encoding: Should be one of [gzip, deflate, compress] • Accept-Encoding: Should be one or more of [gzip, deflate, compress]

Request Content	Content Body
	
	``
	{
	  "files":
	  [
	    [string],
	    [string],
	    [string]
	  ]
	}
	``

Success response	A zip file containing requested files
Notes	'files' is an array of strings containing a set of publishingQueueId values retrieved through the getAvailableFiles API. A maximum of 10 files can be requested in a single API call.
Validation rules	The publishing queue ID's in the 'files' array must be: • Valid publishing event queue ID's that have not been archived • Associated with the requesting participant, either directly or through a data sharing arrangement A validation failure for any element in the array causes the request as a whole to fail.

Example request

```
POST /NEMWholesale/PublishingDirect/v1/downloadFiles
Content-Type: application/json
Accept: application/json
Accept-Encoding: gzip
Content-Length: nnn
Content-Encoding: gzip
Authorisation: Basic dGVzdG1hbnVhbSpOZK1tY28wMw==
X-market: NEM
X-initiatingParticipantID: <PARTICIPANTID>
{
 "files":
 [
   "0000000312184277",
   "0000000312184278"
 ]
  "optionalEncryptionKey":"test"
}
```

Example response

```
HTTP/1.1 200 OK
Content-Type: application/Octet-stream
Content-Length: nnn
Content-Encoding: gzip
{}
```

Following the success response, a zip of the downloaded files is available in the participant file share.

publishFiles

The publishFiles API publishes a set of requested files using the chosen publication method.

API	publishFiles
Method	POST

URL	/NEMWholesale/PublishingDirect/publishFiles
Authorisation	Participant specific
Header	Standard request header attributes to include: • Authorization: Basic .... • Content-Encoding: Should be one of [gzip, deflate, compress] • Accept-Encoding: Should be one or more of [gzip, deflate, compress]

Request Content	Content Body
	
	``
	{
	  publicationMethod: [string],
	  "files":
	  [
	    [string],
	    [string],
	    [string]
	  ]
	}
	``

Success response	Content Body
	
	``
	{
	  "data":
	  {
	  }
	}
	``

Notes	publicationMethod can be one of the following values: • EMAIL_TO_ME: Send the files to the email address associated with the logged-in user • RESEND_PUBLISHING: Re-send the files through the Settlements Direct delivery system • RESEND_FILESERVER: Re-post the files to the participant file share 'files' is an array of strings containing a set of publishingQueueId values retrieved through the getAvailableFiles API.

A maximum of 10 files can be requested in a single API call.

Validation rules	The publishing queue ID's in the 'files' array must be:

- Valid publishing event queue ID's that have not been archived
- Associated with the requesting participant, either directly or through a data sharing arrangement

A validation failure for any element in the array causes the request as a whole to fail.

Example request

```
POST /NEMWholesale/PublishingDirect/v1/publishFiles
Content-Type: application/json
Accept: application/json
Accept-Encoding: gzip
Content-Length: nnn
Content-Encoding: gzip
Authorisation: Basic dGVzdG1hbnVhbSpOZK1tY28wMw==
X-market: NEM
X-initiatingParticipantID: <PARTICIPANTID>
{
 "publicationMethod": "RESEND_FILESERVER"
 "files":
 [
   "0000000312184277",
   "0000000312184278"
 ]
}
```

Example response

```
HTTP/1.1 200 OK
Content-Type: application/json
Content-Length: nnn
Content-Encoding: gzip
{
   "transactionId": "20110c6b-a048-4501-9016-a030b4bb1f59",
   "data": {},
   "errors": [
   ],
   "warnings": []
}
```

Following the success response, a zip of the published files is available in the participant file share.

updateUserSubscriptions

The updateUserSubscriptions API updates the subscriptions for one or more users.

API	publishFiles
Method	POST
URL	/NEMWholesale/PublishingDirect/updateUserSubscriptions
Authorisation	Participant specific
Header	Standard request header attributes to include: • Authorization: Basic .... • Content-Encoding: Should be one of [gzip, deflate, compress] • Accept-Encoding: Should be one or more of [gzip, deflate, compress]
Request Content	Content Body

```
{
 "subscriptions":
 [
  {
   "publishingCategoryId": [string],
   "publishingTypeId": [string],
   "isPlainTextRequested": [boolean],
   "contacts":
   [
    {
     "contactId":"string",
     "deliveryChannels":
     [
      {
       "deliveryChannelId": [string],
       "isSubscribed": [boolean]
      }
     ]
    }
   ]
  }
 ]
```

Success response	Content Body

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

Notes	
Validation rules	• Each deliveryChannelId specified must be a valid delivery channel • Each contactId specified must be a valid contact directly associated with the requesting participant

Example request

```
POST /NEMWholesale/PublishingDirect/v1/updateUserSubscriptions
Content-Type: application/json
```

```json
Accept: application/json
Accept-Encoding: gzip
Content-Length: nnn
Content-Encoding: gzip
Authorisation: Basic dGVzdG1hbnVhbSpOZK1tY28wMw==
X-market: NEM
X-initiatingParticipantID: <PARTICIPANTID>
{
  "transactionId": "10915d48-5700-430d-95f8-7aa49f56c3cf",
  "data": {
   "subscriptions": [
     {
       "publishingCategoryId": "NEM_SUMMARY_DATA",
       "publishingTypeId": "NEM_SUMM_DIRECTIONS_P",
       "isPlainTextRequested": "N",
        "contacts": [
          {
           "contactId": "500",
           "deliveryChannels": [
             {
               "channelId": "EMAIL",
               "isSubscribed": false
             }
           ]
          }
        ]
     },
     "errors": []
  }
}
```

Example response

```json
HTTP/1.1 200 OK
Content-Type: application/json
Content-Length: nnn
Content-Encoding: gzip
{
  "transactionId": "76f4db27-0de3-4d5b-9e4f-81059190614c",
  "data": {
   "successful": true or false
  },
  "errors": []
}
```

Appendix: Publishing Direct APIs JSON Schema

This section provides the JSON schema for the Publishing Direct APIs.

downloadFiles schema

```
{
  "$schema": "http://json-schema.org/draft-07/schema",
  "type": "object",
  "description": "Schema of download file request",
  "additionalProperties": false,
  "properties": {
   "files": {
    "type": "array",
    "items": [
      {
        "type": "string",
        "minLength": 1,
        "maxLength": 30
      }
    ]
   },
   "optionalEncryptionKey": {
    "$id": "#/properties/optionalEncryptionKey",
    "type": "string",
    "description": "Optional Encryption Key of the request of the request"
   }
  },
  "required": [
   "files"
  ]
}
```

publishFiles schema

```
{
  "$schema": "http://json-schema.org/draft-07/schema",
  "type": "object",
  "description": "Schema of publish file request",
  "additionalProperties": false,
```

```
 "properties": {
  "files": {
   "type": "array",
   "items": [
     {
      "type": "string",
      "minLength": 1,
      "maxLength": 30
     }
   ]
  },
  "optionalEncryptionKey": {
   "$id": "#/properties/optionalEncryptionKey",
   "type": "string",
   "description": "Optional Encryption Key of the request of the request"
  },
  "publicationMethod": {
   "type": "string",
   "enum": [ "EMAIL_TO_ME", "RESEND_PUBLISHING", "RESEND_FILESERVER" ]
  }
 },
 "required": [
  "files",
  "publicationMethod"
 ]
}
```

updateUserSubscription schema

```
{
 "$schema": "http://json-schema.org/draft-07/schema",
 "type": "object",
 "title": "Schema validation for update subscriptions.",
 "description": "Schema validation for update subscriptions.",
 "additionalProperties": false,
 "required": [
  "subscriptions"
 ],
 "properties": {
  "subscriptions": {
   "$id": "#/properties/subscriptions",
   "type": "array",
   "title": "The Subscriptions Schema",
   "description": "Subscription List",
   "additionalItems": false,
   "items": {
    "$id": "#/properties/subscriptions/items",
    "type": "object",
    "title": "The Items Schema",
    "description": "An explanation about the purpose of this instance.",
```

```
      "additionalProperties": false,
      "required": [
       "publishingCategoryId",
       "publishingTypeId",
       "isPlainTextRequested",
       "contacts"
      ],
      "properties": {
       "publishingCategoryId": {
        "$id": "#/properties/subscriptions/items/properties/publishingCategoryId",
        "type": "string",
        "title": "The Publishingcategoryid Schema",
        "description": "The publishing Category Id",
        "minLength": 1,
        "maxLength": 30
       },
       "publishingTypeId": {
        "$id": "#/properties/subscriptions/items/properties/publishingTypeId",
        "type": "string",
        "title": "The Publishingtypeid Schema",
        "description": "The Publishingtypeid Schema",
        "minLength": 1,
        "maxLength": 30
       },
       "isPlainTextRequested": {
        "$id": "#/properties/subscriptions/items/properties/isPlainTextRequested",
        "type": "boolean",
        "title": "The Isplaintextrequested Schema",
        "description": "The Isplaintextrequested Schema",
        "minLength": 1,
        "maxLength": 30
       },
       "contacts": {
        "$id": "#/properties/subscriptions/items/properties/contacts",
        "type": "array",
        "title": "The Contacts Schema",
        "description": "The Contacts Schema",
        "additionalItems": false,
        "items": {
         "$id": "#/properties/subscriptions/items/properties/contacts/items",
         "type": "object",
         "title": "The Items Schema",
         "description": "An explanation about the purpose of this instance.",
         "additionalProperties": false,
         "required": [
          "contactId",
          "deliveryChannels"
         ],
         "properties": {
          "contactId": {
           "$id": "#/properties/subscriptions/items/properties/contacts/items/properties/contactId",
           "type": "string",
           "title": "The Contactid Schema",
           "description": "The Contactid Schema",
```

```
        "minLength": 1,
        "maxLength": 30
      },
      "deliveryChannels": {
                                                      "$id"                                    :
"#/properties/subscriptions/items/properties/contacts/items/properties/deliveryChannels",
        "type": "array",
        "title": "The Deliverychannels Schema",
        "description": "The Deliverychannels Schema",
        "additionalItems": false,
        "items": {
                                                      "$id"                                    :
"#/properties/subscriptions/items/properties/contacts/items/properties/deliveryChannels/items",
        "type": "object",
        "title": "The Items Schema",
        "description": "An explanation about the purpose of this instance.",
        "additionalProperties": false,
        "required": [
          "deliveryChannelId",
          "isSubscribed"
        ],
        "properties": {
          "deliveryChannelId": {
                                                      "$id"                                    :
"#/properties/subscriptions/items/properties/contacts/items/properties/deliveryChannels/items/properti
es/deliveryChannelId",
            "type": "string",
            "title": "The Deliverychannelid Schema",
            "description": "The Deliverychannelid Schema",
            "minLength": 1,
            "maxLength": 30
          },
          "isSubscribed": {
                                                      "$id"                                    :
"#/properties/subscriptions/items/properties/contacts/items/properties/deliveryChannels/items/properti
es/isSubscribed",
            "type": "boolean",
            "title": "The Issubscribed Schema",
            "description": "The Issubscribed Schema"
          }
        }
      }
    }
   }
  }
 }
}
}
}
}
}
}
```

Appendix: API Parameter Values

This appendix lists all possible Category and Type IDs for the different publishing Business IDs with their description and display priorities.

Publishing Businesses

PUBLISHINGBUSINESSID	Description
NEM_SETTLEMENTS	NEM Settlements
NEM	National Electricity Market
GSH	Gas Supply Hub

Publishing Categories

PUBLISHINGCATEGORYID	Description
PUBLISHINGBUSINESSID: GSH	
GSH_SETTLEMENTS_AND_BILLING	GSH Settlements and Billing
GSH_REGISTRATION_AND_CONTACTS	GSH Registration and Contacts
GSH_PRUDENTIAL_MANAGEMENT	GSH Prudential Management
GSH_TRADING	GSH Trading

PUBLISHINGCATEGORYID	Description
GSH_CORRESPONDENCE	GSH Correspondence
GSH_DAY_AHEAD_AUCTION	GSH Day Ahead Auction
GSH_CAPACITY_TRADING	GSH Capacity Trading
PUBLISHINGBUSINESSID: NEM	
NETWORK_OPERATIONS	Network Operations
MARKET_NEM_ALERTS	Notifications and warnings
PUBLISHINGBUSINESSID: NEM_SETTLEMENTS	
NEM_STATEMENTS	NEM Statements
NEM_CORRESPONDENCE	NEM Correspondence
NEM_SUMMARY_DATA	NEM Summary Data
NEM_MMS_DATA	NEM MMS Data
NEM_MARKET_REPORTS	NEM Market Reports
NEM_THIRD_PARTY_DATA	NEM Third Party Data
MISCELLANEOUS	Miscellaneous
SRA_STATEMENTS	SRA Statements
QLDGAS_STATEMENTS	QldGas Statements
SRA_CORRESPONDENCE	SRA Correspondence

PUBLISHINGCATEGORYID	Description
NEM_EXT_ALERTS	NEM Alerts, Reminders and Notifications
QLDGAS_CORRESPONDENCE	QldGas Correspondence
STTM_STATEMENTS	STTM Statements
VICGAS_STATEMENTS	VicGas Statements
NEM_ALERTS	NEM Alerts
STTM_CORRESPONDENCE	STTM Correspondence
VICGAS_CORRESPONDENCE	VicGas Correspondence
AEMC_MARKET_DATA	AEMC Market Data Reports
ASX_REPORTS	ASX Reports
PRICE_REPORTS	Price Reports

Publishing Types

PUBLISHINGTYPEID	Description	PERIODCLASSID
PUBLISHINGBUSINESSID: GSH PUBLISHINGCATEGORYID: GSH_CAPACITY_TRADING		
GSH_CONTRACT_DETAILS_C	Contract Details	DAILY_YMD

PUBLISHINGTYPEID	Description	PERIODCLASSID
GSH_RCPT_DELIV_POINT_PREFS_PT	CTP Receipt and Delivery Point Preferences	DAILY_YMD
GSH_CONTRACT_REFERENCES_PT	Contract References	DAILY_YMD
GSH_SHIPPER_CAP_XFR_NT_GRP_C	Shipper Capacity Transfer Notification Group	DAILY_YMD
GSH_CONTRACT_DETAILS_TRK_C	Contract Details	DAILY_YMD
GSH_SHIPPER_CAP_XFR_NOTICE_C	Shipper Capacity Transfer Notification	DAILY_YMD
GSH_ZONE_CURTAIL_INFORMATION_P	Zone Curtailment Information	DAILY_YMD
GSH_CONTRACT_REFERENCES_C	Contract References	DAILY_YMD
GSH_CAPACITY_TRANSFER_NOTICE_C	Capacity Transfer Notice	DAILY_YMD
GSH_RCPT_DELIV_POINT_PREFS_C	CTP Receipt and Delivery Point Preferences	DAILY_YMD
PUBLISHINGBUSINESSID: GSH **PUBLISHINGCATEGORYID: GSH_CORRESPONDENCE**		

PUBLISHINGTYPEID	Description	PERIODCLASSID
GSH_MARKET_NOTICE_P	GSH Market Event Notice	CAL_MONTH
GSH_CAPACITY_XFR_AUCTION_NT_P	Capacity Transfer and Auction Notice	DAILY_YMD
PUBLISHINGBUSINESSID: GSH **PUBLISHINGCATEGORYID: GSH_DAY_AHEAD_AUCTION**		
GSH_AUCTION_QUANTITIES_P	Auction Quantities	DAILY_YMD
GSH_AUCTION_PRICE_VOLUME_P	Auction Product Price and Volume	DAILY_YMD
GSH_AUCTION_BID_CONFIRMATION_C	Auction Bid Confirmation	DAILY_YMD
GSH_AUCTION_RESULTS_C	Auction Results	DAILY_YMD
GSH_REVISED_AUCT_QUANTITIES_P	Revised Auction Quantities	DAILY_YMD
GSH_AUCTION_CURTAIL_NOTICE	GASBB Auction Curtailment Notice	DAILY_YMD
PUBLISHINGBUSINESSID: GSH **PUBLISHINGCATEGORYID: GSH_PRUDENTIAL_MANAGEMENT**		

PUBLISHINGTYPEID	Description	PERIODCLASSID
GSH_REALLOCATION	Reallocation Confirmation	DAILY_YMD
GSH_PRUDENTIAL_ EXPOSURE	Prudential Exposure	DAILY_YMD
PUBLISHINGBUSINESSID: GSH **PUBLISHINGCATEGORYID: GSH_REGISTRATION_AND_CONTACTS**		
GSH_CONTACTS_ DETAILS	Contacts Details	DAILY_YMD
GSH_REGISTERED_ PARTICIPANTS	Registered Participants	DAILY_YMD
GSH_TRADING_ DELIVERY_CONTACTS	Trading and Delivery Contact Details	DAILY_YMD
GSH_REGISTERED_ FACILITIES_P	Transportation Facility Register	DAILY_YMD
GSH_REGISTERED_ SERVICE_PT_P	Transportation Service Point Register	DAILY_YMD
PUBLISHINGBUSINESSID: GSH **PUBLISHINGCATEGORYID: GSH_ SETTLEMENTS_AND_BILLING**		
GSH_SETT_ SUPPORTING_DATA	Settlements Supporting Data	DAILY_YMD
PUBLISHINGBUSINESSID: GSH		

PUBLISHINGTYPEID	Description	PERIODCLASSID
PUBLISHINGCATEGORYID: GSH_TRADING		
GSH_DELIVERY_NETT_PREFS	Delivery Netting Preferences	DAILY_YMD
GSH_ORDER_CONFIRMATION	Order Confirmation	DAILY_YMD
GSH_DELIVERY_OBLIGATIONS	Delivery Obligations	DAILY_YMD
GSH_TRADE_EXECUTION	Trade Execution	DAILY_YMD
GSH_HISTORICAL_TRANS_SUMMARY	Historical Transaction Summary	DAILY_YMD
GSH_DAILY_TRANS_SUMMARY	Daily Transaction Summary	DAILY_YMD
GSH_DELIVERED_QUANTITY	Delivered Quantity	DAILY_YMD
GSH_BENCHMARK_PRICE	GSH Benchmark Price	DAILY_YMD
PUBLISHINGBUSINESSID: NEM PUBLISHINGCATEGORYID: MARKET_NEM_ALERTS		

PUBLISHINGTYPEID	Description	PERIODCLASSID
NEM_SD_CAPS_C	Semi-dispatch Cap Applied	DAILY_YMD
VPP_INTERNAL_ NOTIFICATION	VPP Internal notifications	DAILY_YMD
VPP_MAX_AGG_CAP_ NOTIFICATION	VPP Notification for when aggregated capacity falls below registered capacity	DAILY_YMD
PUBLISHINGBUSINESSID: NEM PUBLISHINGCATEGORYID: NETWORK_OPERATIONS		
NOS	Network Outage Schedule (NOS)	DAILY_YMD
PUBLISHINGBUSINESSID: NEM_SETTLEMENTS PUBLISHINGCATEGORYID: AEMC_MARKET_DATA		
AEMC_GAS_INT330_ TOTALMIRNS_C	Gas Total Number of MIRNs (INT330)	CAL_MONTH
AEMC_GAS_INT331_ MONTHLYCHURN_C	Gas Monthly Churn Activity (INT331)	CAL_MONTH
AEMC_GAS_INT332_ COMDECOM_C	Gas Commission/Decommission Activity (INT332)	CAL_MONTH
AEMC_GAS_INT333_ AGGCONSUMPTN_C	Gas Aggregated Consumption Activity (INT333)	CAL_MONTH

PUBLISHINGTYPEID	Description	PERIODCLASSID
AEMC_ELECRETAIL_STATS_C	Elec Retail Stats	CAL_MONTH
AEMC_ELECWHLSALE_MTHLYENERGY_C	Elec Wholesale Monthly Energy	CAL_MONTH
PUBLISHINGBUSINESSID: NEM_SETTLEMENTS PUBLISHINGCATEGORYID: MISCELLANEOUS		
NEM_ENERGYDATA_C	NEM Energy	DAILY_YMD
NEM_ENERGYDATA_P	NEM Public Energy	DAILY_YMD
NEM_MISC_C	Miscellaneous	DAILY_YMD
NEM_MISC_P	Public Miscellaneous	DAILY_YMD
PUBLISHINGBUSINESSID: NEM_SETTLEMENTS PUBLISHINGCATEGORYID: NEM_CORRESPONDENCE		
NEM_GUARANTEE_EXPIRY_C	NEM Guarantee Expiry	DAILY_YMD
NEM_MCL_REVIEW_C	NEM MCL Review	QUARTER
NEM_PART_FEES_C	NEM Participant Fees	FIN_YEAR
NEM_SETT_UPDATE	NEM Settlement Update	NEM_SETT_UPDATE_ID

PUBLISHINGTYPEID	Description	PERIODCLASSID
NEM_OTHER_C	NEM Other	DAILY_YMD
PUBLISHINGBUSINESSID: NEM_SETTLEMENTS PUBLISHINGCATEGORYID: NEM_EXT_ALERTS		
NEM_PCO_FORECAST_ EXT_ALERT	Notification: Daily Forecasted Prudential Position (Afternoon)	DAILY_YMD
NEM_ALERT_EXT_ RERT_ITT	NEM RERT ITT Alert	DAILY_YMD
NEM_PCO_POSITION_ EXT_ALERT	Notification: Daily Prudential Position Actual (Morning)	DAILY_YMD
NEM_PRUD_TRAD_ MARGIN_EXT_ALERT	Alert: Trading Limit Breach	DAILY_YMD
NEM_EARLY_PAY_FAIL_ EXT_ALERT	Alert: Unsuccessful Early Payment	DAILY_YMD
NEM_EARLY_PAY_ TODAY_EXT_ALERT	Reminder: Early Payment Due Today	DAILY_YMD
NEM_PAYER_EXT_ ALERT	Reminder: Regular Settlement Receiver, Pays Next Settlement Day	DAILY_YMD
NEM_GUAR_EXP_11_ EXT_ALERT	Alert: Bank Guarantee Due 1 Day (Expiry in 11 days)	DAILY_YMD

PUBLISHINGTYPEID	Description	PERIODCLASSID
NEM_GUAR_EXP_20_EXT_ALERT	Reminder: Bank Guarantee Due 10 Business Days (Expiry in 20 days)	DAILY_YMD
NEM_INSUFF_CRE_SUPP_EXT_ALERT	Alert: Insufficient Credit Support in 5 Business Days	DAILY_YMD
NEM_BUSALERT_EXT_RERT_CANCEL	NEM RERT Cancellation Alert	DAILY_YMD
NEM_BUSALERT_EXT_RERT_ACT	NEM RERT Activation Alert	DAILY_YMD
NEM_BUSALERT_EXT_RERT_PREACT	NEM RERT PreActivation Alert	DAILY_YMD
NEM_ALERT_EXT_RERT_DACT	NEM RERT End of Activation Alert	DAILY_YMD
NEM_BUSALERT_EXT_RERT_ADJUST	NEM RERT Amendment Alert	DAILY_YMD
PUBLISHINGBUSINESSID: NEM_SETTLEMENTS **PUBLISHINGCATEGORYID: NEM_MARKET_REPORTS**		
NEM_REPORT_MARKET_SUMM	NEM Market Summary Report	BILLING_WEEK
NEM_REPORT_REGION_INTER	NEM Regional Interconnector Report	BILLING_WEEK

PUBLISHINGTYPEID	Description	PERIODCLASSID
NEM_REPORT_ REGION_SUMMARY	NEM Regional Summary Report	BILLING_ WEEK
PUBLISHINGBUSINESSID: NEM_SETTLEMENTS **PUBLISHINGCATEGORYID: NEM_MMS_DATA**		
NEM_MMS_SETT_C	NEM Confidential Settlements	BILLING_ WEEK
NEM_MMS_BILLING_C	NEM Confidential Billing	BILLING_ WEEK
NEM_MMS_ PRUDENTIAL_C	NEM Confidential Prudential	DAILY
NEM_MMS_METER_C	NEM Confidential Meter	BILLING_ WEEK
NEM_MMS_SETT_P	NEM Public Settlements	BILLING_ WEEK
NEM_MMS_BILLING_P	NEM Public Billing	BILLING_ WEEK
NEM_MMS_METER_ INTER	NEM Public Interconnector Meter	BILLING_ WEEK
NEM_BILLING_AER_C	Billing AER EnergyLoad	BILLING_ WEEK

PUBLISHINGTYPEID	Description	PERIODCLASSID
PUBLISHINGBUSINESSID: NEM_SETTLEMENTS PUBLISHINGCATEGORYID: NEM_STATEMENTS		
NEM_STMT_ PRELIMINARY	NEM Preliminaryinary Statement	BILLING_ WEEK
NEM_STMT_FINAL	NEM Final Statement	BILLING_ WEEK
NEM_STMT_MAKEUP	NEM Makeup Statement	BILLING_ WEEK
NEM_STMT_ SHORTFALL	NEM ShortFall Statement	BILLING_ WEEK
NEM_STMT_REVISION	NEM Revision Statement	BILLING_ WEEK
PUBLISHINGBUSINESSID: NEM_SETTLEMENTS PUBLISHINGCATEGORYID:NEM_SUMMARY_DATA		
NEM_SUMM_ DIRECTIONS_P	NEM Directions Recovery Reconciliation	BILLING_ WEEK
NEM_SUMM_NMAS_P	NEM NMAS Recovery Reconciliation	BILLING_ WEEK
NEM_SUMM_DAILY_ ENERGY_C	NEM Confidential Daily Energy Summary	BILLING_ WEEK

PUBLISHINGTYPEID	Description	PERIODCLASSID
NEM_SUMM_DAILY_ ENERGY_P	NEM Public Daily Energy Summary	BILLING_ WEEK
NEM_CO2E_INDEX_P	CDEII Summary Report	BILLING_ WEEK
PUBLISHINGBUSINESSID: NEM_SETTLEMENTS PUBLISHINGCATEGORYID: NEM_THIRD_PARTY_DATA		
NEM_THIRDP_ASX	NEM ASX	QUARTER
NEM_THIRDP_ESC_C	NEM ESC	CAL_YEAR
NEM_THIRDP_ICRC_C	NEM ICRC	CAL_YEAR
NEM_THIRDP_IPART_C	NEM IPART	CAL_YEAR
NEM_THIRDP_ORER_C	NEM ORER	CAL_YEAR
NEM_THIRDP_QCA_C	NEM QCA	CAL_YEAR
NEM_THIRDP_SFE	NEM SFE	QUARTER
NEM_THIRDP_ ASXMONTHLYINTERIM	NEM ASX Monthly Data (interim)	CAL_MONTH
NEM_THIRDP_AER	NEM AER	DAILY_YMD
PUBLISHINGBUSINESSID: NEM_SETTLEMENTS PUBLISHINGCATEGORYID: PRICE_REPORTS		

PUBLISHINGTYPEID	Description	PERIODCLASSID
PRICE_REPORT_ELEC_ MONTHLY_C	Price Monthly Report	CAL_MONTH
PRICE_REPORT_ELEC_ QUARTERLY_C	Price Quarterly Report	CAL_MONTH
PRICE_REPORT_GAS_ QUARTERLY_C	Price Gas Quarterly Report	CAL_MONTH
PRICE_REPORT_GSH_ MONTHLY_C	Price GSH Monthly Report	CAL_MONTH
PRICE_REPORT_GSH_ QUARTERLY_C	Price GSH Quarterly Report	CAL_MONTH
PUBLISHINGBUSINESSID: NEM_SETTLEMENTS PUBLISHINGCATEGORYID: QLDGAS_CORRESPONDENCE		
QLDGAS_OTHER_C	QldGas Other	DAILY_YMD
PUBLISHINGBUSINESSID: NEM_SETTLEMENTS PUBLISHINGCATEGORYID: QLDGAS_STATEMENTS		
QLDGAS_STMT_ PRELIMINARY	QldGas Preliminaryinary Statement	BILLING_ MONTH
QLDGAS_STMT_FINAL	QldGas Final Statement	BILLING_ MONTH

PUBLISHINGTYPEID	Description	PERIODCLASSID
QLDGAS_STMT_REVISION	QldGas Revision Statement	BILLING_MONTH
PUBLISHINGBUSINESSID: NEM_SETTLEMENTS **PUBLISHINGCATEGORYID: SRA_CORRESPONDENCE**		
SRA_OTHER_C	SRA Other	DAILY_YMD
PUBLISHINGBUSINESSID: NEM_SETTLEMENTS **PUBLISHINGCATEGORYID: SRA_STATEMENTS**		
SRA_STATEMENT_PURCHASE	SRA Final Purchase	QUARTER
SRA_STATEMENT_PROCEEDS	SRA Final Proceeds	QUARTER
SRA_STATEMENT_RECON	SRA Reconciliation	QUARTER
SRA_STATEMENT_PUR_PRELIMINARY	SRA Preliminary Purchase	QUARTER
SRA_STATEMENT_PRO_PRELIMINARY	SRA Preliminary Proceeds	QUARTER
PUBLISHINGBUSINESSID: NEM_SETTLEMENTS **PUBLISHINGCATEGORYID: STTM_CORRESPONDENCE**		

PUBLISHINGTYPEID	Description	PERIODCLASSID
STTM_MEL_C	STTM Minimum Exposure Letter	FIN_YEAR
STTM_OTHER_C	STTM Other	DAILY_YMD
PUBLISHINGBUSINESSID: NEM_SETTLEMENTS **PUBLISHINGCATEGORYID: STTM_STATEMENTS**		
STTM_STMT_PRELIMINARY	STTM Preliminaryinary Statement	BILLING_MONTH
STTM_STMT_FINAL	STTM Final Statement	BILLING_MONTH
STTM_STMT_REVISION	STTM Revision Statement	BILLING_MONTH
PUBLISHINGBUSINESSID: NEM_SETTLEMENTS **PUBLISHINGCATEGORYID: VICGAS_CORRESPONDENCE**		
VICGAS_MEL_C	VicGas Minimum Exposure Letter	FIN_YEAR
VICGAS_UAFG_PRICE	VicGas UAFG Initial Pricing	CAL_MONTH
VICGAS_UAFG_DRAFT	VicGas UAFG Draft Statement	CAL_MONTH
VICGAS_UAFG_FINAL	VicGas UAFG Final Statement	CAL_MONTH
VICGAS_OTHER_C	VicGas Other	DAILY_YMD
PUBLISHINGBUSINESSID: NEM_SETTLEMENTS **PUBLISHINGCATEGORYID: VICGAS_STATEMENTS**		

PUBLISHINGTYPEID	Description	PERIODCLASSID
VICGAS_STMT_PRELIMINARY	VicGas Preliminaryinary Statement	BILLING_MONTH
VICGAS_STMT_FINAL	VicGas Final Statement	BILLING_MONTH
VICGAS_STMT_REVISION	VicGas Revision Statement	BILLING_MONTH

Related rules and procedures

The following rules and procedures relate to e-Hub APIs:

Name	Purpose
MNSP Convexity Rule	AEMC website > NER Clause 3.8.6A (e)
Introduction to Market Rules	AEMC website > NER Chapter 3
Market Floor Price	AEMC website > NER 3.9.6
Market Price Cap	AEMC website > NER 3.9.4
Operating Procedure: Mandatory Restriction Offers	AEMO website > Security and Reliability > Power System Operating Procedures
Rebidding and Technical Parameters Guideline	**https://www.aer.gov.au/wholesale-markets/market-guidelines-reviews/rebidding-and-technical-parameters-guideline-amendments-for-5-minute-settlement-2019**

Glossary

30-min period
New rules term replacing Trading Interval, where the period remains as 30 minutes

AEMO API Gateway
The gateway on AEMO's side providing participant communication options, accessible over the internet or MarketNet. It uses resources and methods to push messages to Participants' API Gateways .

AEST
Australian Eastern Standard Time

API
Application Programming Interface. A set of clearly defined methods of communication between various software components.

API Portal
Where you can view available APIs, manage your API Keys, and obtain OAS files.

API Protocol
An e-Hub delivery method.

aseXML
A standard developed by Australian energy industries to facilitate the exchange of information between energy industry participants using XML.

Bid
A Bid/Offer for a specific Trading Day, DUIDs/LinkID, and Service Type

Bid/Offer
The term Bid relates to the following Dispatch Bids: 1. Energy (Scheduled Loads) The term Offer relates to the following Dispatch Offers: 1. Energy (Generation Dispatch Offer) 2. Frequency Control Ancillary Service (FCAS) 3. Market Network Service Provider (MNSP - Network Dispatch Offer)

CSR

Certificate Signing Request is a block of encoded text given to a Certificate Authority when applying for an SSL Certificate. It also contains the Public Key to include in the certificate. Usually, a Private Key is created at the same time, making a Key Pair.

csv

Comma-separated values; a file format for exchanging data.

Curl

A command line utility used to interact with REST API endpoints.

Data Model

The definition of the interface to participants of data published by AEMO for gas or electricity. A database conforming to the Data Model can contain a local copy of all current participant-specific data recorded in the main database. The Data Model includes database tables, indexes, and primary keys

DUID

Dispatch unit ID or Interconnector ID

e-Hub

Consists of the API Portal and the API Gateway for both electricity and gas.

EDM

Electricity Data Model

EMMS

Wholesale Electricity Market Management System; software, hardware, network and related processes to implement the energy market.

Endpoint

Where the API request is sent and where the response comes from.

FCAS

Frequency Control Ancillary Services

Fixed Load

Optional MW, not greater than the max. availability

FTP

File transfer protocol; a standard network protocol used for the transfer of computer files between a client and server on a computer network.

Header Parameters

Parameters included in the request header.

JSON

Java Standard Object Notation. An agreed format for text files and data exchange. This is now used by AEMO to receive Bids and Offers and provide responses

Key Pair

SSL uses a technique called public-key cryptography, based on the concept of a Key Pair. The Key Pair consists of encrypted Public and Private Key data. It is only possible to decrypt the Public Key with the corresponding Private Key.

LinkID

Identifies the MNSP interconnector link in AEMO's systems. A property in the MNSPBidLink object in the JSON bidding schema

MACK

Message Acknowledgement

MarketNet

AEMO's private network available to participants having a participant ID

Markets Portal

Web portal for access to AEMO's wholesale web-based applications.

Method

The allowed operation for a resource, e.g. GET, POST, PUT, DELETE, and so on. These operations determine whether you're reading information, creating new information, updating existing information, or deleting information.

MNSP

Market Network Service Provider

MSATS

Retail Market Settlement and Transfer Solution

MSATS Web Portal

MSATS web-based interactive interface

MW

Megawatt

NACK

Negative Acknowledgement (Rejection)

NER

National Electricity Rules

OAS

OpenAPI specification

OpenAPI specification document

The file, either in YAML or JSON, describing your REST API. Follows the OpenAPI specification format.

PA

Participant Administrator who manages participant company's user access and security. The initial PA is set up by the AEMO system administrator as part of the registration process.

Parameters

Parameters are options you pass with the endpoint (such as specifying the response format or the amount returned). There are four types of parameters: header parameters, path parameters, query string parameters, and request body parameters. The different types of parameters are often documented in separate groups on the same page. Not all endpoints contain each type of parameter. See Parameters for more details.

Participant API Gateway

The interface implemented by participants where AEMO pushes messages.

Participant File Server

The publishing point from AEMO systems to participant systems. Each participant is allocated an account and access to private and public areas. Participants are responsible for interfacing with the Participant File Server. If uncollected, files are moved to the archive folder after a couple of days. If your Data Interchange environment is configured properly it automatically retrieves the missing files from the archive. Files are kept in the archive for approximately six months. AEMO's production and pre-production environments are independently operated, so each environment has its own IP address for its Participant File Server. For help, see Connection to AEMO's IT Systems.

Participant ID

Registered participant identifier

Participant User ID

The user ID you used to login to the system.

Participant Users

Set up by the company's Participant Administrator.

Path parameters

Parameters in the path of the endpoint, before the query string (?). Path parameters are usually set off within curly braces.

Payload

The data sent by a POST request. The Payload section sits after the header.

PID

Participant ID

Pre-production

AEMO's test system available to participants

Private Key

The secret Private Key is a text file used initially to enerate a Certificate Signing Request (CSR), and later to secure and verify connections.

Production

AEMO's live system

Public Key

The Public Key is included as part of your SSL certificate, and works together with your Private Key to make sure your data is encrypt Key (i.e. the certificate) can verify the digital signature is authentic without having to know the secret Private Key.

Query String Parameters

Parameters in the query string of the endpoint, after the ?.

Request

The way information is returned from an API. In a request, the client provides a resource URL with the proper authorization to an API server. The API returns a response with the information requested.

Request Body Parameters

Parameters in the request body. Usually submitted as JSON.

Response

The information returned by an API after a request is made. Responses are usually in JSON or XML format.

Response Example

The response example shows a sample response from the request example; the response schema defines all possible elements in the response. The response example is not comprehensive of all parameter configurations or operations, but it should correspond with the parameters passed in the request example. The response lets developers know if the resource contains the information they want, the format, and how that information is structured and labeled. The description of the response is known as the response schema. The response schema documents the response in a more comprehensive, general way, listing each property that could possibly be returned, what each property contains, the data format of the values, the structure, and other details.

REST

The Representational State Transfer API architecture

Service Type

Energy, FCAS, or MNSP

SSL

Secure Sockets Layer, cryptographic protocol providing API communication security

Submission

A Bid/Offer submission can have: 1. Multiple Trading Days 2. Multiple DUIDs/LinkIDs 3. All Service Types in the same Submission

Swagger file

Refers to the OpenAPI specification

TACK

Transaction Acknowledgement

TLS

Transport Layer Security, cryptographic protocol providing API communication security

URM

User Rights Management; see the Guide to URM on AEMO's website

zip

The file compression format used for exchanging data with AEMO.

Index