

# DWGM Technical Specification - May 2024

0.03 November 2023

Pre-production 1: Monday 16 October 2024

Pre-production 2: Wednesday 3 April 2024

Production: Wednesday 1 May 2024

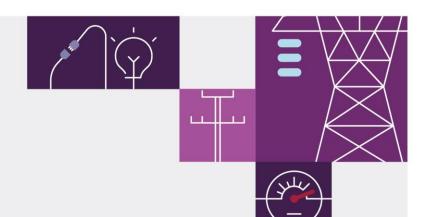
Procedures/Rules











# Important notice

### Purpose & audience

This document describes the technical changes required to participant's systems for the System Name 00.00.0 Technical Specification - Month Year (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, 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. Some links require access to MarketNet.
- 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.
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- 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.

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#### **Distribution**

Available to the public.

#### **Document Identification**

Prepared by: AEMO Digital

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## **Version History**

0.03 Initial creation

#### Documents made obsolete

The release of this document changes only the version of DWGM Technical Specification - May 2024.

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#### Introduction

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# 1 Introduction

#### 1.1 Audience

AEMO provides this information as a service targeting business analysts and IT staff in Registered Participant companies.

### 1.2 Objective

The DWGM Technical Specification - May 2024 (Release) describes the projects planned by AEMO from a participant perspective and includes any system related changes for participants.

#### 1.3 Status

| Version | Status  |
|---------|---|
| 0.03    | Revise triggers for INT139a – Daily Zonal Heating Value and INT188 – CTM to Heating Value Zone Mapping and decommission date for INT139 Declared Daily State Heating Value and INT439 Published Daily Heating Value Non-PTS |

#### 1.4 Release dates

Scheduled for implementation in:

- Pre-production 1: Monday 16 October 2024 for INT139A, INT188, INT140 and INT176 reports
- Pre-production 2: Wednesday 3 April 2024 for INT 240 and INT241 reports
- Production: Wednesday 1 May 2024

# 1.5 Projects and enhancements

Changes and enhancements for this Release include:

| No. | Functionality                       | Change                                | Affected interface | Reference                     |
|-----|-------------------------------------|---------------------------------------|--------------------|-------------------------------|
| 1   | Additional and revised MIBB reports | See DWGM Hydrogen and Renewable Gases | n/a                | User Guide to MIBB<br>Reports |
| 2   | Demand Forecasts MIBB reports       | See Demand Forecasts                  | n/a                | User Guide to MIBB<br>Reports |

# 1.6 Rule and procedure changes

| Title   | Project                                       | Version/status | Effective  |
|---|---|----------------|------------|
| AEMC Review into extending the regulatory frameworks to hydrogen and renewable gases            | DWGM<br>Hydrogen<br>and<br>Renewable<br>Gases | Final          | 1 May 2024 |
| AEMC DWGM distribution connected facilities   | DWGM<br>Hydrogen<br>and<br>Renewable<br>Gases | Final          | 1 May 2024 |
| Amendments to Victorian Declared Wholesale Gas<br>Market and Retail Market – 1 May 2024 release | DWGM<br>Hydrogen<br>and<br>Renewable<br>Gases | IIR            | 1 May 2024 |

#### 1.7 Related documents

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  |
|----------------------------|---|---------|
| User Guide to MIBB Reports | The User Guide to MIBB Report details the content of reports for the DWGM and Gas Retail Markets in Victoria, Queensland and South Australia. | Updated |

# 1.8 Approval to change

No approval or agreement to change required. MIBB reports changes is implemented as a result of the **Hydrogen rule change** and the **Distribution Connected Facility rule change**.

#### 1.9 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.

## 1.10 Changes in this version

- Revises triggers for INT139a Daily Zonal Heating Value and INT188 CTM to Heating Value Zone Mapping.
- Revises output file name for INT139a Daily Zonal Heating Value and INT188 CTM to Heating Value Zone Mapping.
- Revises decommission date for INT139 Declared Daily State Heating report.
- Adds decommission date for INT439 Published Daily Heating Value Non-PTS report.
- Removes production release scheduled for 1 February 2024. See High-level changes and Proposed Timeline for details. There is one production release on 1 May 2024.
- Amends MIRN data type for INT140 Gas Quality and INT240 Disaggregated Demand Forecasts.

# 2 Proposed Timeline

| Milestone                       | Date                                  | Description  |
|---------------------------------|---------------------------------------|--|
| Revised Technical Specification | September 2023                        | AEMO releases new versions of this document as the technical requirements are streamlined. During the project this document is the source of truth   |
|                                 |                                       | From the pre-production release, the technical specification is no longer updated, the <b>related documents</b> become the source of truth   |
|                                 |                                       | Release schedules and technical specifications   |
| Related Documents publication   | Monday 16 October 2023                | Release of guides and resources mentioned in Related on page 2   |
| Pre-production 1 implementation | Monday 16 October 2023                | AEMO implements INT139A, INT188, INT140 and INT176 reports to preproduction for participant testing  |
|                                 |                                       | AEMO has full access to the system during this period  |
|                                 |                                       | Participant access is not restricted; however, the data content or system availability is not guaranteed   |
| Pre-production 1 available      | Monday 16 October 2023                | Testing period begins for participants   |
|                                 |                                       | Data changes (e.g. new Heating Value Zones) are applied on 1 November 2023. New heating zone values are incorporated in MIBB reports published from 2 November 2023 (for gas day 1 November 2023 onwards). |
| Participant/Industry Testing 1  | 17 October 2023 – 21<br>November 2023 | Unstructured participant testing in the pre-production environment   |
| Pre-production 2 implementation | 2 April 2024                          | AEMO implements INT 240 and INT241 reports to pre-production for participant testing.  |
|                                 |                                       | AEMO has full access to the system during this period  |
|                                 |                                       | Participant access is not restricted; however, the data content or system availability is not guaranteed.  |
| Pre-production 2 available      | Wednesday 3 April 2024                | Testing period begins for participants   |

| Milestone                              | Date                 | Description  |
|--|----------------------|--|
| GWCF meeting                           | 20 September 2023    | GWCF meeting to review the implementation of this pre-production release   |
| ITDF meeting                           | 28 August 2023       | IT developer forum to review the implementation of this pre-production release   |
| Production implementation              | 30 April 2024        | AEMO implements the release to production  |
| Production reports available           | Wednesday 1 May 2024 | New and updated reports available to participants.   |
|  |                      | Data changes (e.g. new Heating Value Zones) are applied on 1 May 2024. New heating zone values are published in MIBB reports from 2 May 2024 (for gas day 1 May 2024 onwards). |
| Cutover to new Zonal Heating<br>Values | 1 May 2024           | Participants to use new Zonal Heating Values in energy content calculations  |

# 3 DWGM Hydrogen and Renewable Gases

#### 3.1 Goal

The **AEMC's review** documented legislation changes into extending the regulatory frameworks to allow Distribution Connected Facilities, hydrogen and other renewable gases for blending into the DWGM.

AEMO is implementing zonal heating values (HVs) for Tariff V consumers to facilitate renewable hydrogen gas blending in Victoria.

Currently, the Victorian Gas Retail Market uses state-wide heating values (HV) to bill Tariff V customers for their gas use. The Victorian government has requested the move to zonal heating values.

AEMO is adding and updating MIBB reports to include these changes.

## 3.2 High-level changes

| Function     | Description                   | Reference  |
|--------------|-------------------------------|--|
| MIBB reports | New and updated MIBB reports* | Pre-production: vicgas.preprod.marketnet.net.au - /Public_Dir/ Production: vicgas.prod.marketnet.net.au - /Public_Dir/ |

<sup>\*</sup>AEMO's public MIBB reports from Production are replicated to AEMO's website via NEMWEB. See https://nemweb.com.au/Reports/Current/VicGas/.

AEMO originally planned a production release of the new MIBB reports INT188 and INT139a for 1 February 2024. This release is cancelled as these reports would produce data for the existing ~40 heating value zones, but NULL value data for the new ~140 heating value zones. The new heating value zones will be implemented on 1 May 2024.

Participants should use the INT188 and INT139a reports produced in pre-production (available from 1 November 2023) for the purpose of system change and development. Note, these reports are subject to the DWGM Procedure change consultation which can result in changes.

# 3.3 INT139a Daily Zonal Heating Value

| Trigger<br>Type        | Event triggered   |
|------------------------|---|
| Publish<br>ed          | Completion of daily zonal heating value calculations        |
| Audien<br>ce           | Public  |
| Output<br>file<br>name | int139a_v[n]_daily_zonal_heating_value_1~yyyymmddhhmmss.csv |

A report providing the heating value for each heating value zone used to determine the energy content of gas consumed within Victoria. This is consistent with the Energy Calculation Procedures.

Section 2.6.1 of the Retail Market Procedures (Victoria) provided details on how heating value zones for the basic meter that changes during the measurement period are to be applied.

The daily zonal heating value calculation is expected to be triggered at approximately 9:30AM each day.

#### 3.3.1 Audience notes

The reported values are the volume-weighted average HVs of each of Victoria's heating value zones.

The values in this report may be subject to revision by AEMO.

This report contains heating values zones for DTS connected DDS and non-DTS connected DDS (i.e. Non-DTS Bairnsdale, South Gippsland and Grampians regions).

#### 3.3.2 Content notes

This report is generated daily. Each report displays the daily volume weighted average HV for each heating value zone in Victoria over the previous 90 gas days (not including the current gas day).

Each row in the report provides the heating values for a:

- Heating value zone.
- Specific gas date.

Since the heating value (HV) is calculated based on hourly HV readings, the latest HV available is for the previous full gas day. Therefore, the HV is always published one day in arrears.

In the event an hourly HV wasn't available or deemed invalid, it would be substituted according to the set substitution rules. Unresolved substitutions are reviewed at the end of each month.

#### 3.3.3 Data content

| Name             | Data type    | No<br>nulls | Primary<br>key | Cq | Comments   |
|------------------|--------------|-------------|----------------|----|--|
| gas_date         | Varchar(20)  | True        | True           | N  | Starting hour of gas day being reported, example:. 30 Jun 2007                               |
| hv_zone          | Integer      | True        | True           | N  | Heating value zone id number   |
| hv_zone_desc     | Varchar(40)  | False       | False          |    | Heating value zone name  |
| heating_value    | Numeric(5,2) | True        | False          | Υ  | Daily volume flow weighted average heating value (GJ/1000 m(3)) rounded to 2 decimal places. |
| current_datetime | Varchar(20)  | True        | False          | N  | Date and time report is produced. E.g., 30 Jun 2007 06:00:00.                                |

#### Example:

```
gas_date,hv_zone,hv_zone_desc,heating_value,current_date
28 Aug 2023,21,On Site Hv,38.49,29 Aug 2023 14:32:40
28 Aug 2023,29,Iona,37.91,29 Aug 2023 14:32:40
28 Aug 2023,402,VIC DTS (Peninsula),38.28,29 Aug 2023 14:32:40
28 Aug 2023,403,VIC Dandenong North,38.31,29 Aug 2023 14:32:40
28 Aug 2023,404,VIC Murrumbeena,38.29,29 Aug 2023 14:32:40
28 Aug 2023,405,VIC DTS (Lurgi),38.26,29 Aug 2023 14:32:40
28 Aug 2023,408,VIC Brooklyn,38.22,29 Aug 2023 14:32:40
28 Aug 2023,409,VIC W.Melbourne (Footscray),38.29,29 Aug 2023 14:32:40
28 Aug 2023,411,VIC Melbourne (QWR),38.27,29 Aug 2023 14:32:40
28 Aug 2023,412,VIC St Kilda,38.27,29 Aug 2023 14:32:40
```

# 3.4 INT188 CTM to Heating Value Zone Mapping

| Trigger<br>Type | Time triggered   |
|-----------------|------------------|
| Publish<br>ed   | Daily at 3:30 am |

| Audien<br>ce           | Public  |
|------------------------|---|
| Output<br>file<br>name | int188_v[n]_ctm_to_hv_zone_mapping_[p]~yyyymmddhhmmss.csv |

#### 3.4.1 Report purpose

A report containing the DWGM's Custody Transfer Meter (CTM) to Heating Value Zone mapping.

#### 3.4.2 Audience notes

The report provides the mapping of active DTS CTMs to the Heating Value Zones. The mapping of non-DTS CTM to heating value zone mapping for South Gippsland, Bairnsdale and Gippsland regions are also provided.

#### 3.4.3 Data content

| Name           | Data type    | No<br>nulls | Primary<br>key | Cq | Comments  |
|----------------|--------------|-------------|----------------|----|---|
| mirn           | Varchar(10)  | True        | True           | N  | CTM meter   |
| site_company   | Varchar(100) | True        | False          | N  | CTM name  |
| hv_zone        | Integer      | True        | False          | N  | The heating value zone number   |
| hv_zone_desc   | Varchar(40)  | True        | False          | N  | The heating value zone name   |
| effective_from | Varchar(12)  | True        | False          | N  | Date when the HV zone is effective for the MIRN, Example: 01 Aug 2023 |
| current_date   | Varchar(20)  | True        | False          | N  | Time report produced, e.g., 30 Jun 2007 06:00:00)                     |

Example:

```
mirn, site company, hv zone, hv zone desc, effective from, current date
20000001PC, Culcairn Injection, 21, On Site HV (21), 09 Nov 2000, 25 Aug
2023 15:47:00
20000002PC, Culcairn Withdrawal, 21, On Site HV (21), 09 Nov 2000, 25 Aug
2023 15:47:00
20000003PC, Walla Walla, 530, VIC Walla Walla, 01 Aug 2023, 25 Aug 2023
30000001PC, Longford, 21, On Site HV (21), 01 May 1998, 25 Aug 2023
15:47:00
30000002PC, DTS (Peninsula), 402, VIC DTS (Peninsula), 01 Aug 2023, 25 Aug
2023 15:47:00
30000003PC, Dandenong North, 403, VIC Dandenong North, 01 Aug 2023, 25 Aug
2023 15:47:00
30000004PC, Dandenong North, 405, VIC DTS (Lurgi), 01 Aug 2023, 25 Aug 2023
15:47:00
30000005PC, Murrumbeena, 404, VIC Murrumbeena, 01 Aug 2023, 25 Aug 2023
15:47:00
30000006PC, Murrumbeena, 404, VIC Murrumbeena, 01 Aug 2023, 25 Aug 2023
15:47:00
30000007PC, DTS (Lurgi), 405, VIC DTS (Lurgi), 01 Aug 2023, 25 Aug 2023
30000009PC, DTS (Edithvale), 21, On Site HV (21), 01 May 1998, 25 Aug 2023
15:47:00
30000010PC, Brooklyn, 408, VIC Brooklyn, 01 Aug 2023, 25 Aug 2023 15:47:00
```

# 3.5 INT140 Gas Quality

| Trigger type     | Time triggered                                      |
|------------------|---|
| Published        | Hourly  |
| Audience         | Public  |
| Output file name | int140_v[n]_gas_quality_data_[p]~yyyymmddhhmmss.csv |

This report provides a measure of gas quality and composition at injection points as outlined in Division 3/ Subdivision 3 Gas Quality of the NGR. This report is important for the Distribution network operators as they have the right to refuse the injection of out of specification gas into their distribution networks.

#### 3.5.1 Audience notes

Most of the data provided are hourly average values, although some are spot (instantaneous) readings.

It should be noted that not all gas quality measures will be provided for each injection point. The data provided for a particular injection point will differ by the gas source for and monitoring equipment at the point.

#### 3.5.2 Content notes

This report is generated each hour. Each report displays gas quality and composition details for the previous 3 hours at least. For example, the report published at 1:00 PM contains details for:

- 12:00 (ti=7)
- 11:00 (ti=6)
- 10:00 (ti=5).

Time interval which shows each hour in the gas day, where 1 = 6:00 AM to 7:00 AM, 2 = 7:00 AM to 8:00 AM, until the 24th hour.

#### 3.5.3 Data content

| Name     | Data type   | No<br>nulls | Primary<br>key | Cq | Comments   |
|----------|-------------|-------------|----------------|----|--|
| mirn     | Varchar(10) | True        | True           | N  | Meter Installation Registration Number.  |
|          |             |             |                |    | Note: Data type amended to what is described in v16.0 User Guide to MIBB Reports |
| gas_date | Varchar(20) | True        | True           | N  | Gas day being reported, e.g. 30 June 2007  |
| ti       | Integer     | True        | True           | N  | Time interval of the gas day (1-24)  |

| Name         | Data type     | No<br>nulls | Primary<br>key | Cq | Comments   |
|--------------|---------------|-------------|----------------|----|--|
| quality_type | Varchar(20)   | True        | True           | N  | Types including:   |
|              |               |             |                |    | Gas quality  |
|              |               |             |                |    |  |
|              |               |             |                |    | Wobbe index  |
|              |               |             |                |    | Hydrogen Sulphide  |
|              |               |             |                |    | Total sulphur  |
|              |               |             |                |    | Temperature  |
|              |               |             |                |    | Heating value  |
|              |               |             |                |    | Relative Density   |
|              |               |             |                |    | Odorisation  |
|              |               |             |                |    | Gas Composition  |
|              |               |             |                |    |  |
|              |               |             |                |    | Methane  |
|              |               |             |                |    | Ethane   |
|              |               |             |                |    | Propane  |
|              |               |             |                |    | N-Butane   |
|              |               |             |                |    | I-Butane   |
|              |               |             |                |    | N-Pentane  |
|              |               |             |                |    | I-Pentane  |
|              |               |             |                |    | Neo-Pentane  |
|              |               |             |                |    | Hexanes  |
|              |               |             |                |    | Nitrogen   |
|              |               |             |                |    | Carbon Dioxide   |
|              |               |             |                |    | Hydrogen   |
| unit         | Varchar(9)    | False       | False          | N  |  |
| quantity     | Numeric(18,3) | False       | False          | Y  | Some values are averaged instantaneous values for the hour   |
| meter_no     | varchar(10)   | False       | False          | Ν  | CTM meter number   |
| site_company | varchar(100)  | True        | False          | N  | Company name   |
| current_date | varchar(20)   | True        | False          |    | Date and time report is produced (e.g. 30 Jun 2007 06:00.00) |

The gas quality data provided for a particular injection point differs by the gas source and monitoring equipment at the point.

# Example:

```
mirn, qas date, ti, quality type, unit, quantity, meter no, site company, curr
ent date
20000001PC, 18 Aug 2023, 4, Carbon Dioxide, MOLE%, 0.550, M126, Culcairn
Injection, 18 Aug 2023 12:05:10
20000001PC,18 Aug 2023,5,Carbon Dioxide,MOLE%,0.403,M126,Culcairn
Injection, 18 Aug 2023 12:05:10
20000001PC,18 Aug 2023,6,Carbon Dioxide,MOLE%,0.376,M126,Culcairn
Injection, 18 Aug 2023 12:05:10
20000001PC,18 Aug 2023,6,Ethane,MOLE%,2.683,M126,Culcairn Injection,18
Aug 2023 12:05:10
20000001PC,18 Aug 2023,5,Ethane,MOLE%,2.691,M126,Culcairn Injection,18
Aug 2023 12:05:10
20000001PC,18 Aug 2023,4,Ethane,MOLE%,2.866,M126,Culcairn Injection,18
Aug 2023 12:05:10
20000001PC,18 Aug 2023,4, Heating Value, MJ/m3,38.085, M126, Culcairn
Injection, 18 Aug 2023 12:05:10
20000001PC,18 Aug 2023,6,Heating Value,MJ/m3,38.101,M126,Culcairn
Injection, 18 Aug 2023 12:05:10
20000001PC,18 Aug 2023,5, Heating Value, MJ/m3,38.105,M126,Culcairn
Injection, 18 Aug 2023 12:05:10
20000001PC,18 Aug 2023,6,Hexanes,MOLE%,0.000,M126,Culcairn
Injection, 18 Aug 2023 12:05:10
20000001PC,18 Aug 2023,5, Hexanes, MOLE%, 0.000, M126, Culcairn
Injection, 18 Aug 2023 12:05:10
20000001PC,18 Aug 2023,4, Hexanes, MOLE%, 0.000, M126, Culcairn
Injection, 18 Aug 2023 12:05:10
```

## 3.6 INT176 Gas Composition Data

| Trigger type     | Time triggered  |
|------------------|---|
| Published        | Sunday at 10:47   |
| Audience         | Public  |
| Output file name | int176_v[n]_gas_composition_data_[p]~yyyymmddhhmmss.csv |

This public report provides the gas composition daily average corresponding to the heating value zone.

The INT176 Gas Composition Data report includes a new hydrogen column (highlighted).

#### 3.6.1 Audience notes

The gas composition daily average in the report has considered the total delay hours from the injection source to the heating value zone.

The data in this report applies to the VIC wholesale gas market.

#### 3.6.2 Content notes

All gas composition values used in the daily average calculation are taken as at top of hour.

This report contains data for the past 60 gas days (such as, 60 gas days less than report date).

Only the Victorian heating value zones are included in this report.

Gas composition values are in molecule percentage units, except for Specific Gravity (which does not have a unit).

Gas composition data will be reported to 5 decimal places.

The gas composition daily average is calculated using the following formula:

- SUM (hourly gas composition values) / COUNT (hours)
- Where hours is the number of hours used to calculate the total gas composition for the day
- Where no value is available for an hour, the report skips the hour in the calculation and continues on to the next hour. If no hourly values are available for the entire day, a NULL is displayed.

#### 3.6.3 Data content

| Name         | Data type    | No<br>nulls | Primary<br>key | Cq | Comments                        |
|--------------|--------------|-------------|----------------|----|---------------------------------|
| hv_zone      | Integer      | True        | True           | N  | The heating value zone number   |
| hv_zone_desc | Varchar(100) | True        | False          | N  | The heating value zone          |
| gas_date     | Varchar(20)  | True        | True           | N  | The gas date (e.g. 30 Jun 2011) |
| methane      | Numeric(9,5) | False       | False          | Υ  | The daily average of methane    |

| Name           | Data type    | No<br>nulls | Primary<br>key | Cq | Comments  |
|----------------|--------------|-------------|----------------|----|---|
| ethane         | Numeric(9,5) | False       | False          | Υ  | The daily average of ethane   |
| propane        | Numeric(9,5) | False       | False          | Υ  | The daily average of propane  |
| butane_i       | Numeric(9,5) | False       | False          | Υ  | The daily average of butane   |
| butane_n       | Numeric(9,5) | False       | False          | Υ  | The daily average of butane (N)   |
| pentane_i      | Numeric(9,5) | False       | False          | Υ  | The daily average of pentane  |
| pentane_n      | Numeric(9,5) | False       | False          | Υ  | The daily average of pentane (N)  |
| pentane_neo    | Numeric(9,5) | False       | False          | Υ  | The daily average of pentane (Neo)  |
| hexane         | Numeric(9,5) | False       | False          | Υ  | The daily average of hexane   |
| nitrogen       | Numeric(9,5) | False       | False          | Υ  | The daily average of nitrogen   |
| carbon_dioxide | Numeric(9,5) | False       | False          | Υ  | The daily average of carbon dioxide   |
| hydrogen       | Numeric(9,5) | False       | False          | Y  | The daily average of hydrogen. If no hourly values are available for the entire day, NULL is displayed. |
| spec_gravity   | Numeric(9,5) | False       | False          | Υ  | The daily average of specific gravity   |
| current_date   | Varchar(20)  | True        | False          | N  | The date and time the report is produced (e.g. 29 Jun 2012 01:23:45)                                    |

#### Example:

```
hv zone, hv zone desc, gas date, methane, ethane, propane, butane i, butane n
, pentane i, pentane n, pentane neo, hexane, nitrogen, carbon dioxide, hydrog
en, spec gravity, current date
1, LaTrobe A, 17 Jun
2023,92.45252,4.25400,0.27193,0.01094,0.01806,0.01198,0.01112,0.00002,
0.01821, 0.74247, 2.20402, , 0.60395, 16 Aug 2023 10:59:14
1, LaTrobe A, 18 Jun
2023,93.16266,4.34071,0.28060,0.01262,0.02150,0.01252,0.01019,0.00002,
0.02122, 0.80746, 1.32573, , 0.59637, 16 Aug 2023 10:59:14
1, LaTrobe A, 19 Jun
2023,85.08741,3.98389,0.28241,0.00847,0.01725,0.01017,0.00837,0.00001,
0.01964, 0.73223, 1.51244, , 0.54966, 16 Aug 2023 10:59:14
1, LaTrobe A, 20 Jun
2023,92.15079,4.38156,0.42769,0.01187,0.01895,0.01070,0.01110,0.00001,
0.02053, 0.78841, 2.17354, , 0.60605, 16 Aug 2023 10:59:14
1, LaTrobe A, 21 Jun
2023,92.37367,4.41529,0.51009,0.03061,0.03858,0.01720,0.02149,0.00003,
0.02796,0.80122,1.75902,,0.60416,16 Aug 2023 10:59:14
1, LaTrobe A, 22 Jun
2023,92.21416,4.42200,0.43186,0.01240,0.01754,0.01516,0.01703,0.00000,
0.02588, 0.79013, 2.04899, , 0.60543, 16 Aug 2023 10:59:14
1, LaTrobe A, 23 Jun
2023,91.66302,4.68025,0.65655,0.02094,0.02036,0.01963,0.02772,0.00000,
0.03322,0.81819,2.05527,,0.60972,16 Aug 2023 10:59:14
1, LaTrobe A, 24 Jun
2023,92.32129,4.32538,0.39589,0.00844,0.01645,0.01308,0.01513,0.00000,
0.02222, 0.83637, 2.04096, , 0.60446, 16 Aug 2023 10:59:14
1, LaTrobe A, 25 Jun
2023,92.15509,4.36688,0.47023,0.01128,0.01662,0.01484,0.01804,0.00000,
0.02699, 0.82309, 2.09207, , 0.60610, 16 Aug 2023 10:59:14
```

# 3.7 Discontinued MIBB reports

- On 1 May 2024, INT139 Declared Daily State Heating Value and INT439 Published Daily Heating Value Non-PTS report is superseded by INT139A Daily Zonal Heating.
- INT139 Declared Daily State Heating report and INT439 Published Daily Heating Value Non-PTS report produces data up to 1 May 2024 and will be decommissioned in December 2024.

# 4 Demand Forecasts

#### 4.1 Goal

The information provided by AEMO to Distributors under the Wholesale Market Distribution Operation Procedures includes demand forecasts at each CTM, or group of CTMs that is defined as demand node in the NGR.

# 4.2 High-level changes

| Function     | Description      | Reference      |
|--------------|------------------|----------------|
| MIBB reports | New MIBB reports | In development |

# 4.3 INT240 Disaggregated Demand Forecasts

| Trigger type     | Time triggered  |
|------------------|---|
| Published        | 10 minutes past the hour  |
| Audience         | Distributors  |
| Output file name | int240_v[n]_disaggregated_demand_forecasts_[p]~yyyymmddhhmmss.csv |

This report is created at 10 minutes past the hour. The report provides an hourly demand forecast by CTM or CTM group, as required under the Wholesale Market Distribution Operational Coordination Procedures. For information about Disaggregated Demand Forecast CTM Groups, see INT241 Disaggregated Demand Forecasts CTM Groups.

A Distributor uses the demand forecasts in the DDS constraints methodology to determine a distribution supply and demand point constraints for a distribution connected facility.

#### 4.3.1 Audience notes

This demand forecast is a separate forecast to INT153 Demand Forecast.

#### 4.3.2 Content notes

The report provides details of all the demand forecasts created up to the report generation time on the current gas day.

A report contains demand forecasts for:

- The current day.
- 1-day ahead.
- 2-days ahead.

A distributor can only view their relevant disaggregated demand forecasts.

#### 4.3.3 Data content

| Name               | Data type   | No<br>nulls | Primary<br>key | Cq | Comments   |
|--------------------|-------------|-------------|----------------|----|--|
| forecast_date      | Varchar(20) | True        | True           | N  | Gas date of forecast e.g. 30 June 2007   |
| mirn               | Varchar(10) | True        | True           | N  | CTM meter or ctm_group   |
|                    |             |             |                |    | Note: Data type amended to what is described in v16.0 User Guide to MIBB Reports |
| ti                 | Integer     | True        | True           | N  | Time interval (1-24)   |
| forecast_demand_gj | Integer     | False       | False          | Υ  | forecast total hourly demand (in GJ/hour)  |
| current_date       | Varchar(20) | True        | False          | N  | Date and time report produced  |

# 4.4 INT241 Disaggregated Demand Forecasts CTM Groups

| Trigger type     | Event triggered  |
|------------------|--|
| Published        | Update to CTM groups                                       |
| Audience         | Distributors   |
| Output file name | int241_v[n]_disaggregated_ctm_group_[p]~yyyymmddhhmmss.csv |

Multiple meters feeding a single distribution network are forecast as a group. This report identifies the CTMs used in each of the forecasting CTM groups. This report is updated when there is a change to the CTMs in the forecasting groups. The report provides mapping of individual CTMs to CTM group.

#### 4.4.1 Audience notes

CTM groups are only used in the demand forecasts provided in INT153a Disaggregated Demand Forecasts. They are not used in INT153 Demand Forecast.

#### 4.4.2 Content notes

This report is generated when AEMO updates the group mapping used to produce disaggregated demand forecasts.

A distributor can only view their relevant CTMs.

# 4.4.3 Data content

| Name           | Data type   | No nulls | Primary key | Cq | Comments  |
|----------------|-------------|----------|-------------|----|---|
| ctm_group      | Varchar(20) | True     | True        | N  | ctm_group name used in INT153a                                  |
| mirn           | Varchar(10) | True     | True        | N  | CTM meter   |
| effective_from | Varchar(20) | True     | False       | N  | Date last changed   |
| current_date   | Varchar(20) | True     | False       | N  | Date and Time report generated For example 30 Jun 2007 06:00:00 |

# 5 Implementation

You can use the pdrBatcher and pdrLoader to load INT reports into your Data Interchange instance. For help, see **Data Interchange Online Help**.

#### 5.1 Transition

MIBB reports changes described in DWGM and Hydrogen Renewable Gases are available in production on 1 May 2024.

Demand Forecasts MIBB reports are available in production on 1 May 2024.

The cutover to new zonal heating values is on 1 May 2024.

Energy calculations prior to 1 May 2024 must use Statewide Heating Value. From 1 May 2024, Zonal Heating Value must be used.

# 6 Glossary

# You can find a full list of AEMO glossary terms in Industry Terminology on AEMO

| Abbreviation/Term | Explanation   |  |  |
|-------------------|---|--|--|
| AEST              | Australian Eastern Standard Time  |  |  |
| СТМ               | Custody Transfer Meter  |  |  |
| G1                | gigajoule   |  |  |
| GWCF              | Gas Wholesale Consultative Forum  |  |  |
| ITDF              | IT Development Forum  |  |  |
| Heating value     | The amount of heat released through burning a quantity of supplied gas. |  |  |
| MIBB              | Market Information Bulletin Board                                       |  |  |
| MIRN              | Meter Installation Registration Number                                  |  |  |
| W1                | megajoule   |  |  |
| NGR               | National Gas Rules  |  |  |
| Release           | DWGM Technical Specification - May 2024                                 |  |  |
| Release Dates     | Pre-production: Monday 16 October 2023                                  |  |  |
|                   | Production: Thursday 1 February 2024                                    |  |  |
| TBC               | To be confirmed   |  |  |

# A1. Version history

#### V0.02

- Add INT240 Disaggregated Demand Forecasts report.
- Add INT241 Disaggregated Demand Forecasts MIRN Groups.
- Update INT188 CTM to Heating Value Zone Mapping with an effective from date field.
- Revise trigger type for INT139a Daily Zonal Heating Value and INT188 CTM to Heating Value Zone Mapping

V0.01

Initial draft release.