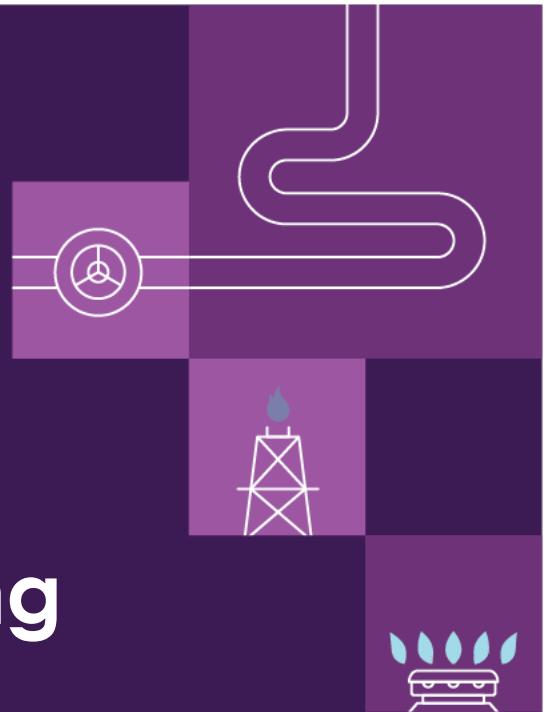


Retail Proposed Procedure Change (PPC) – Zonal Heating Value



Ref# (if applicable)	Package 3A IN007-22.		
Impacted jurisdiction(s)	Victoria		
Proponent	Danny McGowan	Company	AEMO
Proponent email	grcf@aemo.com.au		
Affected Gas Market(s)	Victorian Retail Market and Declared Wholesale Gas Market (DWGM)		
Date proposal published by AEMO	15 September 2023	Date proposal sent to AEMO	1 March 2022
Short issue title	Modifications to the way AEMO determines Victorian heating value zones and the heating value information that AEMO will make available for basic metering energy calculation.		
Procedure(s) or Documentation impacted	Retail Market Procedures (Victoria)		
Other key contact information			

Version #	Presented to	Date
1.0	GRCF	15 September 2023

Proposed Procedure Change (PPC) – Detailed Report Section

Critical Examination of Proposal

1. Description of issue

1.1. Background.

AEMO received a letter from Victorian Minister Hon Lily D'Ambrosio (the Minister) requesting the Victorian Retail Market Procedures (RMP) be amended to implement zonal heating values (ZHV) for tariff V¹ Victorian consumers and that these changes need to take effect before the Hydrogen Park Murray Valley project commences injecting Hydrogen into that network². The Minister's letter is available [here](#).

Tariff V consumers (basic meter non-daily read sites) currently have a single state-wide Heating Value (HV) applied to the energy calculation formula.

1.1.1. Existing regulatory arrangements and system processes.

The following summarises the existing regulatory arrangements and system processes.

The current regulatory arrangements are:

- In relation to the Essential Services Commission (ESC) Gas Distribution System Code of Practice³, this code currently determines the application of a single daily state-wide heating value to all non-daily metered (small and residential) customers;
- In relation to AEMO's Wholesale Market Metering Procedure⁴, this procedure provides details about energy calculations and includes any derogations from Part D (Heating Value) of the code in relation to basic meters; and
- In relation to AEMO's Retail Market Procedure (Victoria)⁵, this procedure requires Distribution businesses (DBs) to convert basic meter volumes to consumed energy in accordance with the Wholesale Market Metering Procedure.

The current process of applying the state-wide (HV) involves:

- AEMO calculating a state-wide HV and generating a report known as INT139 (Declared Daily State Heating Value). This daily report is published on the AEMO website. This report is available [here](#). The User Guide to Market Information Bulletin Board (MIBB) reports available [here](#) provides further details about the INT139 report; and

¹ Tariff V - sites consuming less than 10,000GJ per annum. Distribution Businesses are the responsible party convert the measured volume into an energy reading (consumed energy) for these sites. These are basic metered distribution supply points.

² AGIG's website, on 11 September 2023, stated that Production from the Hydrogen Park Murray Valley Facility is expected to commence in early 2025. See <https://www.agig.com.au/hydrogen-park-murray-valley>

³ See Part D (Heating Value) of the ESC's of the Gas Distribution System Code of Practice. Click [here](#) to view.

⁴ See Chapter 3 (Energy Calculation Procedures) of AEMO's Wholesale Market Metering Procedure. Click [here](#) to view.

⁵ See Section 2.6 (Calculation and Provision of Energy Data) of AEMO's Retail Market Procedures (Victoria). Click [here](#) to view.

- DBs using the information in the INT139 report to convert basic meter volumes to consumed energy. The conversion of volume to energy for basic meters is based on the average of a daily declared state-wide flow weighted heating value calculated for the relevant 'ReadFrom' and 'ReadTo' dates. DBs take the average of the set of the daily declared state-wide flow weighted heating values that encompass the consumption reading period of the basic meter and uses this average to convert the measured volume into an energy reading (consumed energy) for retail billing and wholesale settlement purposes.

In relation to ZHV, AEMO already has in place a Heating Value Allocation Model (HVAM) that calculates a ZHV for tariff D⁶ for all consumers in Victoria at ~140 custody transfer meters (CTM) (which is then aggregated to the existing 34 heating value zones (and also used to calculate the current state-wide heating value)). AEMO is the responsible party to calculate consumed energy for tariff D consumers.

AEMO currently uses a “postcode to heating value zone” based approach to define areas of common gas flow for the state of Victoria and hence common heating value based on pipeline flow dynamics and an understanding of the likely postcodes supplied by each CTM determined in consultation with the DBs. These areas have been assigned to a unique Heating Value Zone (HVZ). The RMPs requires DBs to assign a HVZ number to all distribution supply points (eg ie Meter Installation Registration Number (MIRN)) and store this information in their database.

1.2. Zonal Heating Value (ZHV) Proposal.

Having considered the request to implement ZHV for tariff V consumers, AEMO is of the view that the above postcode-based approach is not an exact method to assign heating values to distribution supply points namely because postcodes are independent of gas flow boundaries in a distribution network.

In late 2022 AEMO hosted three ZHV workshops with DBs. The purpose of these workshops was to discuss the proposal to move from the state-wide heating value to the zonal heating value. At those workshops AEMO put forward a view that the current number of existing 34 heating value zones may not be appropriate, if a large number of Distribution Connected Facilities (DCFs) become operational. The reason for this change is that new DCFs may connect behind any Declared Transmission System (DTS) CTM, with each DCF potentially requiring both the supply CTM and the DCF CTM to have a separate heating value zone. AEMO expects that the existing 34 heating value zone would need to be disaggregated overtime as DCF become operational.

AEMO considered that the best outcome would be to move from the existing 34 heating value zones to use approximately 140 heating value zones (representing the 140 CTMs in the DTS). The only exception from the existing heating value zone is the non-DTS distribution systems for Bairnsdale (zone #50) which will need to be retained. The move to the 140 CTMs will ensure the heating value zones process can more easily accommodate new DCFs, as new heating value zones would only need to be established to represent the blended heating value zones applied for the new DCFs. The attributes of this proposal also meant that the DBs would have sufficient information to determine the primary supply when determining which heating value zone to assign to each distribution supply point. In early 2023, DBs indicated their support for the above proposal.

⁶ Tariff D – sites consuming 10,000GJ or more per annum. AEMO is the responsible party convert the measured volume into an energy reading (consumed energy). These are interval metered distribution supply points.

1.3. Pre-consultation outcomes regarding ZHV proposal.

On the 5 May 2023, a Gas Market Issue (GMI V2.0) that described the proposal was provided to GRCF participants for review and feedback.

Submissions on this GMI closed on the 26 May 2023. AGL, AGN, Multinet, Origin and Red/Lumo submitted feedback to the GMI broadly supporting the proposal. Participants provided further comments about the GMI and proposed changes. Please refer to Attachment J for details about the participant feedback and AEMO's response to the feedback that was received.

In relation to the feedback, there were some concerns raised in relation to the proposed drafting of the RMP clause 2.6.1 (vi). The proposed drafting in GMI V2.0 specified that if a heating value zone change occurred during the reading period, the average heating value for the heating value zone that applied at the date of the base reading would apply for the entire reading period. Having considered the feedback in relation to this clause, AEMO has decided to amend this drafting so that if a heating value zone change occurred during reading period, the heating values for each of the zones will be tallied together to determine the average HV for the reading period. Example, when Zone "A" HV is applicable and when zone "B" HV is applicable. This application will apply when state-wide HV ends (30 April 2024) and the ZHV approach takes effective (1 May 2024).

1.4. How to make a submission

Anyone wanting to make a submission for this first consultation stage (Retail Proposed Procedure Change (PPC)) are requested to use the response template provided in Attachment I.

Submissions are due **COB 16 October 2023** and should be e-mailed to grcf@aemo.com.au.

IMPORTANT NOTE-1: Some RMP changes overlap with Wholesale Market Procedure changes. Details about the Wholesale Market Procedure changes are described PPC – DWGM Procedure changes for Hydrogen and DCF. Two documents that overlap are the Wholesale Market Metering Procedures (Victoria) and the DWGM Technical Specification. Details about the changes to these documents are described section 3.7 and Appendix D. PPC – DWGM Procedure changes for Hydrogen and DCF which can be found [here](#). Any feedback on the proposed amendments to the Wholesale Market Procedure changes, please use the DWGM – PPC response template⁷ which can be [here](#).

IMPORTANT NOTE-2: The scope of works is limited to the initiatives described in this PPC. The scope maybe expanded to pick up other minor typographical errors that are identified. A more thorough review of the other sections of the Procedures or the Technical Protocols is out of scope for this consultation.

2. Reference documentation

The following Procedures and Technical Protocols, provided in Attachment A and H, are being consulted on as part of this Procedure change process.

AEMO will only republish documents that change at each stage of the Procedure consultation.

AEMO is also updating the User Guide to MIBB Reports as part of the PPC – DWGM Procedure changes for Hydrogen and DCF consultation. As noted in that PPC, AEMO will communicate

⁷ Submissions close **COB 16 October 2023** and should be e-mailed to GWCF_Correspondence@aemo.com.au
aemo.com.au

additional MIBB report changes via the DWGM Technical Specification, as may be updated via the process outlined in the electronic communication procedures. Please refer to the Attachment C of the PPC – DWGM Procedure changes for Hydrogen and DCF for further information.

Title	Legal Requirement
Wholesale Market Metering Procedures (Victoria) Ver 1.0. Click here to view. (Chapter 3)	Energy Calculation Procedures (Victoria) made under rule 303(6) of the NGR.
Retail Market Procedures (Victoria) Ver 17.0. Click here to view	Retail Market Procedures (Victoria) required by rule 135EA (1) of the NGR.
Participant Build Pack 2 System Interface Definitions Ver 3.5. Click here to view.	Required by rule 135EA (1) of the NGR. Clause 1.2.2 of the RMP notes that the consultative process in Part 15B of the NGR applies when considering amendments to this document.
Participant Build Pack 3 System Interface Definitions Ver 3.9 Click here to view	Required by rule 135EA (1) of the NGR. Clause 1.2.2 of the RMP notes that the consultative process in Part 15B of the NGR applies when considering amendments to this document.
Participant Build Pack 1. Table of transactions Ver 3.9 Click here to view.	Required by rule 135EA (1) of the NGR. Clause 1.2.2 of the RMP notes that the consultative process in Part 15B of the NGR applies when considering amendments to this document.
Participant Build Pack 1. Process flow diagrams Ver 3.8 Click here to view.	Required by rule 135EA (1) of the NGR. Clause 1.2.2 of the RMP notes that the consultative process in Part 15B of the NGR applies when considering amendments to this document.

As noted in section 1.4 of this PPC, some RMP changes overlap with Wholesale Market Procedure changes. Details about the Wholesale Market Procedure changes are described PPC – DWGM Procedure changes for Hydrogen and DCF which can be found [here](#).

3. Overview of changes

This proposal involves replacing the “state declared” HV method with the CTM based HV method. For this to occur AEMO and DBs will need to make systems changes which are summarised in section 3.1. AEMO will need to make amendments to various procedures and technical protocols which are summarised in section 3.2. Prior to the above changes taking effect, there will be a need for all DBs and AEMO to update their respective databases which will involve replacing the current postcode heating values zone numbers (34 zones) with the new CTM heating values zone numbers (approx. 140 zones). Section 3.3 provides further information about the update process.

3.1. Key ongoing processing steps

The following is an overview of what the key ongoing processing steps that need to change for the proposed HV approach.

For AEMO, the following is a summary of key ongoing process changes.

1. Publish a new report INT188 (CTM to Heating Value Zone Mapping) which will detail the heating value zone to CTM mapping. This report will provide a location description for each CTM and its equivalent heating value zone to inform the distributors mapping of distribution supply points to HVZ. There will be approximately 140 heating value zones listed in this report. This will replace the Postcode to Heating Value Zone Table Guideline which listed 34 heating value zones.

2. Replace the existing MIBB INT139 (Declared Daily State Heating Value) which is used in the process to calculate energy for basic meters with a new MIBB report INT139a (Daily Zonal Heating Value). The source data involved in generating INT139a is the same as the data used for INT139 and INT047 and the process used to generate each report is very similar. This process is to gather data via CTMs, via the Heating Value Allocation Model (HVAM) which is then aggregated and sent into the MIBB. This report will be published at 13:00 and contain 90 consecutive gas days' worth of HV for each zone.

For DBs, the following is a summary of the key ongoing process changes.

1. For any newly created distribution supply points, assign the applicable zonal heating value number using the INT188 (CTM to Heating Value Zone Mapping) report which replaces the Postcode to Heating Value Zone Table Guideline.
2. In relation to consumed energy at a basic meter distribution supply point, using the new report INT139a (Daily Zonal Heating Value), the DB is to apply the applicable HV for the zone assigned to that site to convert the measured volume into consumed energy for basic meters. This includes DB applying the applicable HV instances whereby the HVZ changed⁸ during the reading period.

3.2. Summary of documentation changes.

The marked-up Procedure and Technical changes are provided in Attachments of this document. AEMO has provided the Attachment I Package 3A PPC Retail procedure response template for participants to make their submissions in response to this consultation.

The following is a summary of the procedures and technical protocol that AEMO has identified that need to be amended to underpin the basic metering system and process changes to support changes described in 3.1.

Wholesale Market Metering Procedures (Victoria)

- Clause 1.4 – Addition and modification to some of the terms such as heating value zone. The terms are referenced in the Retail Market Procedures.
- Clause 3.4 – Add this new Heating Value section that describes how AEMO determines Heating Value Zones and Heating Values. This section also describes how Heating Value Zone will be assigned.
- Clause 3.6.3 – Modify this section (Basic Meter energy calculation) by including details about applying daily average zonal heating value rather than the current declared state-wide heating value.

See Attachment A for further information.

Retail Market Procedures (Victoria)

- Clause 1.1.1 - Add new definition called daily ZHV.
- Clause 1.1.1 – Modify existing heating value zone definition to reference the Wholesale Market Metering Procedure.

⁸ This includes the 1 May 2024 change whereby the state-wide HV changeover to ZHV.

- Clause 1.1.1 – Add new definition called Wholesale Market Metering Procedure.
- Clause 1.1.2 (b) – Modify clause to include a reference the new definition daily ZHV
- Clause 2.6.1 – Modify this clause so that zonal heating values apply which include details about how HV are to be applied when a zone change occurs during a reading period.

See Attachment B for further information.

[New reports required for the process described in section 3.1.](#)

New, updated, and discontinued MIBB reports will be required in relation to ZHV for Tariff V.

- New report INT139A (Daily Zonal Heating Value) providing the heating value for each heating value zone used to determine the energy content of gas consumed within Victoria.
- Discontinue report INT139 since it is superseded by the new report INT139A.
- New report INT188 (CTM to Heating Value Zone Mapping) containing the DWGM's Custody Transfer Meter (CTM) to Heating Value Zone mapping.

See Attachment C for further information.

[Retail Market Technical Protocols \(TP\)](#)

Minor amendments to the following documents:

- Participant Build Pack 2 System Interface Definitions. Modify section A.2 CSV Data Elements.
- Participant Build Pack 3 System Interface Definitions. Modify section A.2 CSV Data Elements.
- Participant Build Pack 1. Table of transactions. Modify the table of transaction tab to recognises the new INT139a MIBB report.
- Participant Build Pack 1. Process flow diagrams. Modify process flow diagrams 2.0 and 2.7 so that they recognise zonal heating values as an attribute to the basic meter consumed energy calculation.

See Attachment D to G for further information.

[Guides](#)

- Remove the Postcode to Heating Value Zone Table Guideline from AEMO.

See Attachment H for further information.

3.3. AEMO and DB transition plan

Prior to the implementation of the key ongoing process changes that are described in section 3.1, AEMO in consultation with participants will develop a transition plan that details the process steps and timing to replace the current postcode based heating values zone numbers (34 zones) with the new heating values zone numbers described in the INT188 (CTM to Heating Value Zone Mapping) report (approximately 140 zones). AEMO is targeting to issue an initial draft of the industry transition plan in mid-November 2023.

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4. Likely implementation requirements and effects

A precursor to the implementation requirements, is a requirement that AEMO and the DBs replace the current postcode based heating values zone to the with the new heating values zone numbers within their respective databases. AEMO in consultation with participants will develop a transition plan that details the process steps and timing. As noted in section 3.3, AEMO is targeting to issue an initial draft of the industry transition plan in mid-November 2023.

As described in section 3.1 of this PPC, AEMO change involves creating two new MIBB reports so that the DBs can fulfill their RMP obligation in relation to calculating consumed energy to sites with basic meters.

As described in section 3.1 of this PPC, DBs change involves modifying systems to use the new MIBB reports to calculate consumed energy to sites with basic meters. The value for the consumed energy along with the attributes that have been used to calculate the consumed energy are then sent to the Retailer and AEMO via the MeterDataNotification (MDN)⁹.

5. Impact of issue not proceeding

If ZHV changes do not proceed, any potential inequities between the current state declared HVs and ZHVs are likely to grow with the emergence of hydrogen blending facilities.

The change in heating value zones will support the future changes required to meet the AEMC's distribution connected facilities, and hydrogen and renewable gases review rule changes. Additional Procedures changes will be undertaken to implement these new Rule requirements. As described in the DWGM Procedures for Hydrogen and DCF PPC, these changes are to be made on the basis that the draft National Energy Laws Amendment (Other Gases) Bill 2022 and the AEMC's recommended Rules for extending the regulatory frameworks to hydrogen and renewable gases will be made as published. The consequence for not making the proposed changes will result in the Wholesale and Retail Market Procedures to be misaligned with the new Law and Rules.

6. Overall cost, benefits and magnitude of the changes

Given that the proposed ZHV change is a request from the Victorian Minister, and that ZHV is prerequisite to accommodate hydrogen, biomethane and other renewable gases which is part of the AEMC's review¹⁰ which provided an assessment of cost and benefits of the rule changes, AEMO view is an assessment of the costs for the ZHV changes is not warranted in this instance.

In relation to benefits, AEMO has identified the following:

Effective use of existing processes that are operative today for some segments of the gas market (tariff D).

⁹ In relation to the Retailer MDN see Participant Build Pack 3: B2S System Interface Definitions. In relation to the AEMO MDN see Participant Build Pack 2 – Interface Definitions

¹⁰ AEMC review entitled [review into extending the regulatory frameworks to hydrogen and renewable gases and DWGM distribution connected facilities](#)

- The limited scope of this proposal leverages off existing processes, procedures and IT systems and this should present a cost-effective solution.
- A more complex HV methodology process could also be proposed but that's likely to add substantial costs and may not meet the desirable timeframe to allow DB's to implement such changes.

Harmonising both tariff V and D processes.

- This proposal promotes alignment of tariff V process with the existing tariff D process.

Future proofing the solution.

- In future, as new distribution connected facilities are added, AEMO will need to add new heating value zones to represent these facilities and the blending of gas between these different sources. There will be limited impact on other existing MIRNs as a result of moving to the CTM to heating value zone approach.

7. Consistency with the National Gas Rules (NGR) and National Gas Objective (NGO)

Regarding these changes, AEMO's preliminary assessment of the proposal's consistency with the NGR and NGO is:

Requirement	AEMO's Preliminary Assessment
Consistency with National Gas Law (NGL) and NGR	As these ZHV changes are a precondition to Victorian hydrogen integration reform, AEMO's assessment is the same as those put forward in the PPC – DWGM Procedure changes for Hydrogen and DCF and the Package 3A Retail Market PPC. The views specified in those PPC noted that the that the proposed procedure change is consistent with the NGL as required by the Energy Ministers and NGR as amended in the AEMC's rule changes.
National Gas Objective (NGO)	As these ZHV changes are a precondition to Victorian hydrogen integration reform, AEMO's assessment is the same as those put forward in the PPC – DWGM Procedure changes for Hydrogen and DCF and the Package 3A Retail Market PPC. The views specified in those PPC noted that the changes are expected to contribute to the achievement of the NGO by promoting efficient investment in the safe and efficient operation and use of covered gas services for the long term interests of consumers.
Any applicable access arrangements	No Distributor raised concerns in relation to their Access Arrangement during AEMOs pre regulatory (Gas Market Issue v2.0) consultation on potential changes that will be required. On that basis it is AEMO's view is that the proposed change is not in conflict with existing Access Arrangements.

If any participant believes that any of the above AEMO views are contentious, this feedback needs to be included in the Attachment I (Package 3B PPC Retail procedure response template).

8. Supporting Documentation

Attachment A and H contains the proposed changes to Procedures and Technical Protocols.

9. Proposed timelines

The AEMC's rule change requires AEMO to have published the Wholesale Market to take into account the amending rule by no later than 1 February 2024.¹¹ The Procedure consultation process is as follows:

- PPC published: 15 September 2023
- PPC consultation submissions due: 16 October 2023
- Expected IIR publication date: 30 October 2023
- Expected IIR consultation submissions due: 28 November 2023
- Expected Decision published: 15 December 2023
- Effective Date of Procedures: 1 May 2024

¹¹ AEMC Final Rules Report, 24 November 2022, pg. 148

Attachment A – Wholesale Market Metering Procedure changes

Please refer to the Wholesale Market PPC which can be found [here](#) . Section 3.7 describes the Wholesale Market Metering Procedures (Victoria). Clauses 1.4, 3.4 and 3.6.3 have retail market impacts.

In relation to feedback on the proposed amendments to the Wholesale Market Procedure changes, please use the DWGM – PPC response' template¹². which can be [here](#) .

¹² Submissions close **COB 16 October 2023** and should be e-mailed to GWCF_Correspondence@aemo.com.au
aemo.com.au

Attachment B – Retail Market Procedures (Victoria).

Draft versions of the Procedure (extract) showing tracked changes between the current version and the proposed changes are shown below. Blue underline means addition and ~~red strikethrough~~ means delete.

*** Extract***

1.1.1 Definitions

....

daily ZHV means the daily zonal heating value (ZHV) information provided by AEMO under clause 1.1.2 (b).

Note: For the avoidance of doubt the meaning of this definition also applies to areas that form part of Non-DTS distribution systems.

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....

heating value zone, in relation to a supply point, means the heating value zone ~~(if any) which is determined by AEMO as the heating value zone assigned to for that supply point~~ in accordance with clause 3.4.3 of the Wholesale Market Metering Procedure (Victoria).

Note: For the avoidance of doubt the meaning of this definition also applies to areas that form part of Non-DTS distribution systems.

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changes
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....

Wholesale Market Metering Procedures means the Wholesale Market Metering Procedures published on AEMO's website which comprise amongst other things, the metering register procedures and the energy calculation procedures.

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changes
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1.1.2 Interpretation

....

(b) AEMO publishes, on the market information bulletin board, a ~~daily flow weighted heating value~~ daily ZHV for each heating value zone by 5pm on the gas day following the gas day to which ~~the daily flow weighted heating value~~ daily ZHV value relates. The average of these values over a billing period is used by the Distributors in the conversion of volume values to energy. Index reads are deemed to have occurred at 6:00 am on each gas day and therefore bounds the energy consumed to the end of the previous gas day. Hence the average ~~daily flow weighted heating value~~ of the daily ZHV for each heating value zone published by AEMO on the day of the index read, represents the final average ~~daily flow weighted heating value~~ daily ZHV in the set of average ~~daily flow weighted heating values~~ daily ZHV used by the Distributor in calculating the average heating value over the billing period.

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changes
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2.6.1 Calculation of Energy Data

(a) Where a *Distributor* has obtained or made a *validated meter reading* (the *reference reading*), the *Distributor* must calculate the *consumed energy* in relation to that *meter* during the period (the *reading period*) commencing on the date of the immediately preceding *validated meter reading* which is included in its *meter data database* in respect of that *meter* (the *base reading*) and expiring on the date of the *reference reading* as follows:

- (i) the *Distributor* must calculate the *flow* during that *reading period* on the basis of the *reference reading* and the *base reading*;
- (ii) where the *meter* is calibrated in imperial units the *Distributor* must convert the *flow* to metric units;
- (iii) the *Distributor* must apply the applicable *pressure correction factor* to that *flow*; ~~and~~

(iv) ~~the~~ *Distributor* must apply the *average heating value* for the *reading period* in (b) to the *pressure corrected flow* so as to obtain the energy deemed to be consumed (*consumed energy*) in relation to that *meter* during that *reading period*:-

(v) subject to paragraph (vi), the *average heating value* must be the *average daily ZHV* for the *heating value zone* for the *distribution supply point* applicable to that *meter* is located; and

(vi) if the relevant *heating value zone* assigned to that *distribution supply point* changes during the *reading period*, the *Distributor* must:

(A) using the *daily ZHV* information in (b), calculate the total of all the *daily ZHV* values for the *heating value zone* for each *gas day* for the period for which each *heating value zone* applied during the *reading period*; and

(B) divided the total of all the *daily ZHV* values under (A) by the total number of days for the *reading period* and apply that average (*average heating value*) to obtain the energy to be consumed under (iv) above.

~~Note: The application of *heating value zones* came into effect on 1 May 2024. Prior to that, a *daily flow weighted heating value* for the state applied. In relation to paragraph (vi) this clause also applies when the *daily flow weighted heating value* for the state changed to~~

(b) The *average heating value* for a *reading period* is to be calculated by the *Distributor* as the average, over the *reading period*, of the average ~~daily-flow weighted heating values~~ *daily ZHV values* published by AEMO on the *market information bulletin board*. Where the ~~average daily-flow weighted heating value~~ *daily ZHV information for heating value zone* for a day is not available, the *Distributor* must use the average *daily ZHV information heating value zone* ~~daily flow weighted heating value~~ for the previous day.

(c) The *consumed energy* at *meters* and *metering installations* ~~shall~~ must be calculated according to the energy calculation procedures made by AEMO pursuant to Part 19 of the Rules.

Note: Made under NGR 303 (6). See Chapter 3 (Energy Calculation Procedures) of the *Wholesale Market Metering Procedure* (Victoria) for information about calculating *consumed energy* for *basic meters*. For the avoidance of doubt, these calculation procedures, apply to *Non-DTS Distribution Systems*.

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Attachment C – DWGM Technical Specifications

Please refer to the Wholesale Market PPC which can be found [here](#) . Section 4 (a) (ii) (A) and (B) and Attachment C for detail about the DWGM Technical Specifications. This document provides details about the new MIBB reports INT139a (Daily Zonal Heating Value) and INT188 (CTM to Heating Value Zone Mapping) relate to retail market processes and systems.

In relation to feedback on the DWGM Technical Specifications please use the DWGM – PPC response' template¹³ which can be [here](#)

¹³ Submissions close **COB 16 October 2023** and should be e-mailed to GWCF_Correspondence@aemo.com.au

Attachment D – Participant Build Pack 2 System Interface Definitions.

Draft versions of the Technical Protocol (extract) showing tracked changes between the current version and the proposed changes are shown below. Blue underline means addition and ~~red strikethrough~~ means delete.

*** Extract***

A.2 → CSV-Data-Elements¶

The table below specifies the column designators for CSV data elements to be carried inside of some of aseXML transactions. Note, the order of CSV column designators is fixed and is as per definition of CSV files given by this document. All CSV data elements that convey time stamps represent them as Market Time, i.e. EST; no time zone information is required.¶

CSV-DESIGNATOR¶	COLUMN	TABLE-TRANSACTIONS-ELEMENT-NAME¶	OF	DESCRIPTION¶	ATTRIBUTES/FORMAT¶	LENGTH/¶ DECIMAL PLACES¶	ALLOWED-VALUES¶
Adjustment_Reason_Code¶		Adjustment-Reason-code¶		A code that the Distributor provides to the retailer which identifies the reason for the revised reading¶	String¶	2¶	"UR" = Under-Read¶ "OR" = Over-Read¶ "UE" = Under- <u>Estimated</u> ¶ "OE" = Over- <u>Estimated</u> ¶ "NC" = No-Change¶
Average_Heating_Value¶		Average-Heating-Value¶		Is the sum of the <u>daily average heating value for each heating value zone</u> Daily Weighted Flow-Heating-Value for the applicable heating value zone assigned to the distribution supply point divided by the number of days for the reading/billing...¶	Numeric¶	4,2¶	¶
Base_Load¶		Base-Load¶		Non-weather sensitive Gas usage per day (MJ)¶	Numeric¶	9,1¶	¶

Attachment E – Participant Build Pack 3 System Interface Definitions.

Draft versions of the Technical Protocol (extract) showing tracked changes between the current version and the proposed changes are shown below. Blue underline means addition and ~~red strikethrough~~ means delete.

*** Extract***

A.2 → → CSV-Data-Elements³

The table below specifies the column designators for CSV data elements that are carried inside of some of a XML transactions. Note, the order of CSV column designators is fixed and is as per definition of CSV files given by this document. All CSV data elements that convey time stamps represent them as Market Time, i.e. EST; no time zone information is required.

CSV-ELEMENT-NAME ^α	ELEMENT-NAME ^α	DESCRIPTION ^α	ATTRIBUTES/FORM AT ^α	LENGTH/ [¶] DECIMAL-PLACES ^α	ALLOWED-VALUES ^α
Average_Heating_Value ^α	Average-Heating-Value ^α	Is the sum of the Daily-Weighted-Flow-Heating-Value <u>daily average heating value for each heating value zone for the applicable heating value zone assigned to the distribution supply point</u> divided by the number of days for the reading/billing. ^α	Numeric ^α	4,2 ^α	^α
Billing_Days ^α	Billing-Days ^α	In relation to tariff "V" DUoS [¶] charges, the number of days [¶] in the bill period — calculated [¶] as the difference between [¶]	Numeric ^α	3,0 ^α	^α

Attachment F – Participant Build Pack 1. Table of Transactions changes.

Draft versions of the Technical Protocol (extract) showing tracked changes between the current version and the proposed changes are shown below. [Blue underline](#) means addition and ~~red strikeout~~ means delete.

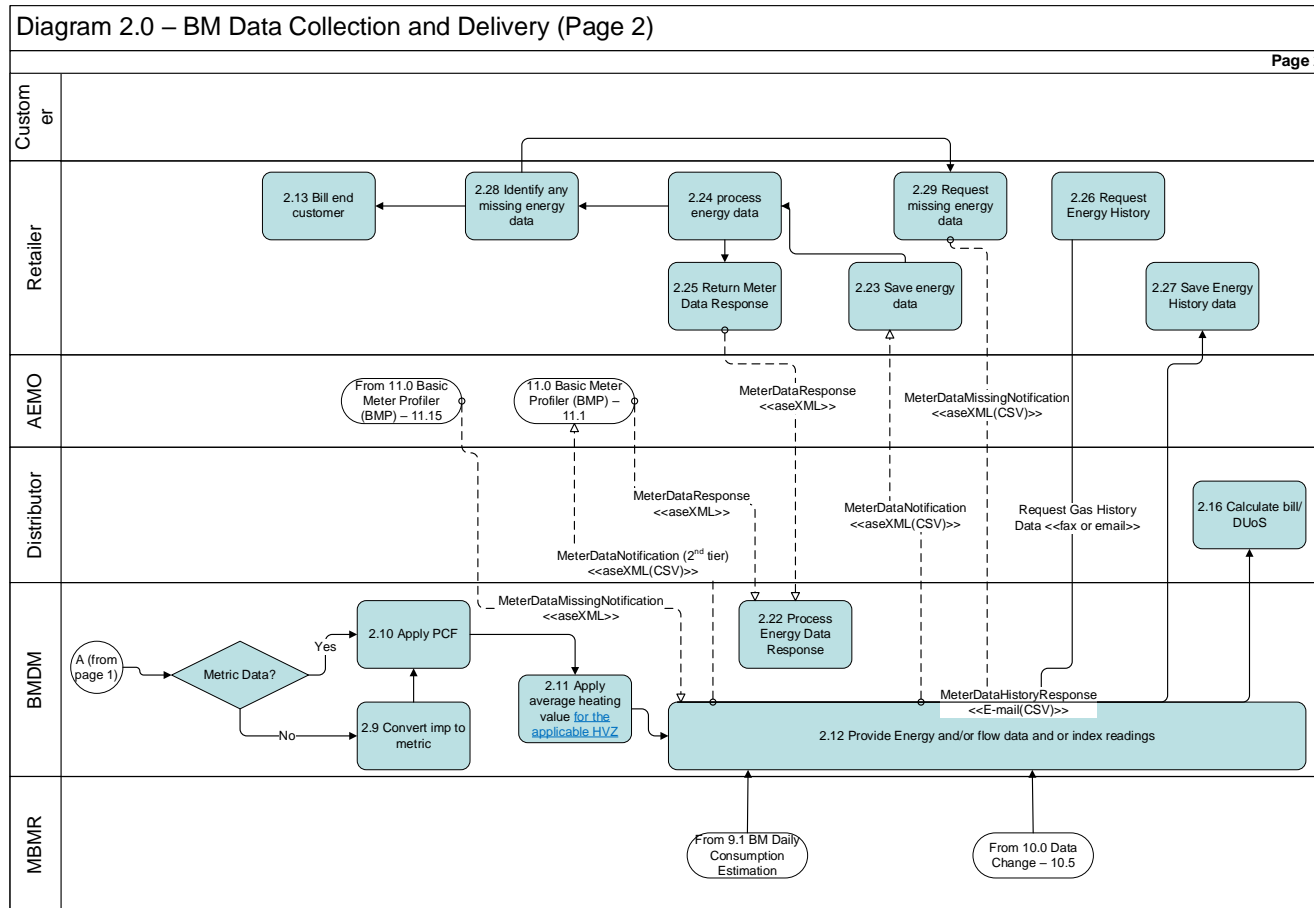
*** Extract***

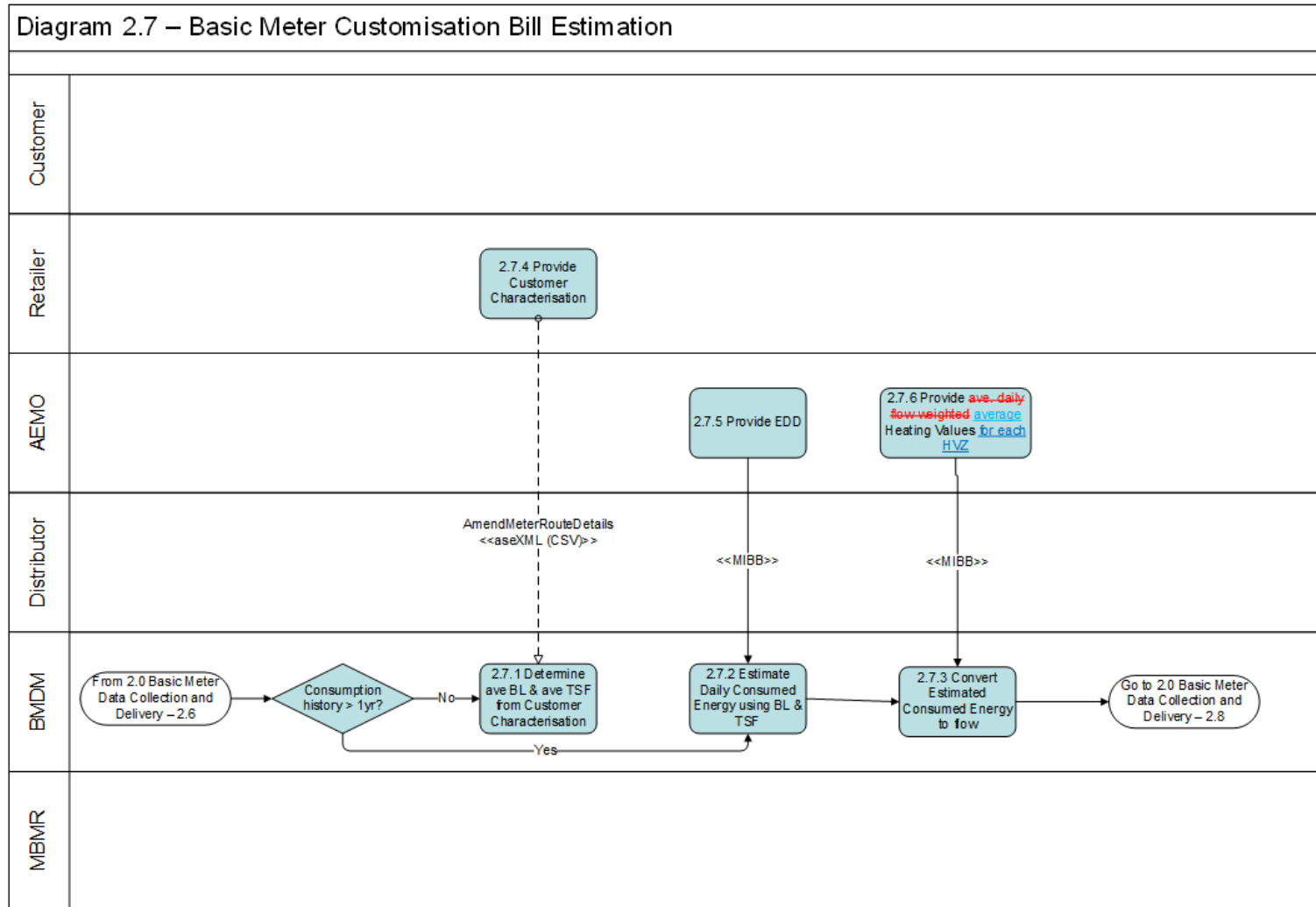
VERSION #3.9 Effective 10 October 2022																					
Ref No	X Ref	Basic, Interval or Both	GIP NON-GIP	Category	Procedure Ref	Comment in ref to procedure	Process Map ID	PBP2&3 Inter Defin ref	Trans Type	Trigger	From	To	Purpose	Type	Method	Data Elements - Received (MIRN/NMI Interchangeable)	Data Elements - Sent back	Timing	Volume /Freq	Priority - H, M, L	Comments
39	57	Basic	GIP	2. Basic Meter Data Collection and Delivery	2.6.1(a) (iv) 2.6.1(b) Calculation of Energy Data		2.7.6-2.7.3		Heating Value for the day		Market Operator	Distributor	BMDM Accesses Heating Value from AEMO	M2B	MIBB-INT139 MIBB-INT139a	gas_date declared_heating_value lv_zone lv_zone_desc heating_value current_date		Before end of day processing	1000 Over 10,000	H	Existing Transaction as per MIBB
57	39	Basic	GIP	2.7 Estimation/Substitution	2.6.1(a) (iv) 2.6.1(b) Calculation of Energy Data		2.7.6-2.7.3		Heating Value for the day		Market Operator	Distributor	BMDM Accesses Heating Value from AEMO	M2B	MIBB-INT139 MIBB-INT139a	gas_date declared_heating_value lv_zone lv_zone_desc heating_value current_date		Before end of day processing	1000 Over 10,000	H	Existing Transaction as per MIBB

Attachment G – Participant Build Pack 1. Process Flow Diagram changes.

Draft versions of the Technical Protocol (extract) showing tracked changes between the current version and the proposed changes are shown below. Blue underline means addition and ~~red strikethrough~~ means delete.

*** Extract***






Attachment H – Postcode to Heating Value Zone Table Guide.

Draft versions of the Guide (extract) showing tracked changes between the current version and the proposed changes are shown below. ~~Red-strikeout~~ means delete.

Note - This guide is replaced by new MIBB report INT188 CTM to Heating Value Zone Mapping. See Attachment C for further details.



~~POSTCODE TO HEATING VALUE ZONE TABLE (VIC) GUIDELINE~~

~~PREPARED BY: AEMO Strategy & Markets~~
~~DOCUMENT REF: RETAILMARKET-12-30304~~
~~VERSION: 6.0~~
~~EFFECTIVE DATE: Apr 2020~~
~~STATUS: FINAL~~

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Attachment I – Package 3A PPC Retail Procedure Response Template.

The Package 3A PPC Retail procedure response template has been attached separately to this document. There are two sections in the template:

Section 1 seeks general feedback on AEMO's examination of the proposal in sections 1–9 of this PPC.

Section 2 seeks feedback on the proposed changes listed in attachment A and B

Anyone wanting to make a submission for this first consultation stage (Retail Proposed Procedure Change (PPC)) are requested to use the response template provided in Attachment I.

Submissions are due **COB 16 October 2023** and should be e-mailed to grcf@aemo.com.au

Some RMP changes may overlap with Wholesale Market Procedure changes such as Wholesale Market Metering Procedures (Victoria) (Attachment A in this PPC) and the DWGM - Technical Specification (Attachment C in this PPC). Details about the Wholesale Market Procedure changes are described PPC – DWGM Procedure changes for Hydrogen and DCF. In relation to feedback on the proposed amendments to the Wholesale Market Procedure changes, please use the DWGM – PPC response' template. which can be [here](#) . Submissions are due **COB 16 October 2023** and should be emailed to GWCF_Correspondence@aemo.com.au.

Attachment J – Gas Market Issue (GMI- 2.0) collated responses for IN007/22.

IN007/22 initiative entails modifications to the way AEMO determines heating value zones and the heating value information that AEMO will make available for energy calculation purposes.

Part A - General Comments on the proposal

*****Internal business team are to provide feedback on the following questions*****

Question	Ref #	Respondent	Participant Response	AEMO Response
1. In terms of the specific proposal and impacts of change (see section 4 and 5 of the GMI – e.g., replace the “state declared” HV method with the CTM based heating value method), does your organisation support the proposal as it is described in the GMI? If not, what changes need to be made?	1.	AGN	AGN supports the proposal, but with the suggested changes detailed below.	AEMO notes AGN's support for the proposal.
	2.	MGN	MGN supports the proposal with provision to the below concerns mentioned	AEMO notes MGN's support for the proposal.
	3.	AGL	The alignment to CTMs should be more accurate than alignment to postcodes and should enable substantially improved billing for consumers.	AEMO notes AGL's support for the proposal.
	4.	Origin Energy	The GMI clearly articulates the benefits to move from the original proposal of Postcode to Heating value zone to the new proposal: CTM to Heating value zone, providing improved level of accuracy utilising the 140 CTMS in the DTS.	AEMO notes Origin Energy's support for the proposal.
	5.	Red/Lumo	Red Energy and Lumo Energy (Red and Lumo) support the proposal to replace the declared daily statewide heating value with zonal heating values that relate each Tariff V MIRN to a primary (upstream) supply CTM.	AEMO notes Red/Lumo's support for the proposal.
2. If your organisation has identified a need to make IT systems changes, please provide a summary of those changes, including details whether	6.	AGN	Multiple application and integration system changes will need to be implemented.	AEMO notes AGN's comment. AEMO has published a draft tech spec in August 2023 to assist with draft technical

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Internal business team are to provide feedback on the following questions				
Question	Ref #	Respondent	Participant Response	AEMO Response
those changes can be implemented noting the timeline mentioned in section 3 of the GMI, in particular the effective date of 1 May 2024.			In relation to the GMI timeline, having approximately 7 months (realistically 5 months due to reduced resource availability during the Dec/Jan months) between the final AEMO decision in Sept 2023 and implementation date (1/5/24) increases implementation complexity, risks, and costs. The timing of our other priorities including critical systems upgrades that ensure compliance to our access arrangements commitments, system integrity and security may be impacted.	implementation (including preproduction and production release dates) which is available here .
	7.	MGN	<p>MGN must make IT changes within our database to hold new information that did not previously exist, this is the CTM values. We currently have the heating value zone stored but not the CTM. This information is now pivotal in the new process, and we need to match the CTM to the heating value zone as advised by AEMO that will now be allocated to each MIRN.</p> <p>MGN must also bulk update all MIRNS within our database to allocate the new heating values zone (database currently has old heating values zones) with this change.</p> <p>We must add additional changes to our IT process so that we now retrieve the new reports INT139a from the MIBB for each heating value zones and make sure these files are used for the correct MIRN/CTM.</p> <p>MGN is also creating a program that will enable the updating of the CTM allocation at MIRN level so that should a DCF be connected we can change specific MIRNS to be connected to that CTM.</p> <p>I have programed this IT change to come into effect 1st May 2024</p>	<p>AEMO notes MGN's comment.</p> <p>AEMO has published a draft tech spec in August 2023 to assist with draft technical implementation (including preproduction and production release dates) which is available here.</p>
	8.	AGL	<p>The changes which will be required include:</p> <ul style="list-style-type: none"> New data tables for HV Heating Value by Zones 	<p>AEMO notes AGL's comment.</p> <p>AEMO has published a draft tech spec in August 2023 to assist with draft technical</p>

Internal business team are to provide feedback on the following questions				
Question	Ref #	Respondent	Participant Response	AEMO Response
			<ul style="list-style-type: none"> Changes to billing systems to undertake the correct calculations Updating the HV zone of the current basic MIRNS to the new HV Zone Update the AGL forecasting systems Update the AGL quoting and pricing systems Managing the transition of billing from different HV zones across the billing period. 	implementation (including preproduction and production release dates) which is available here .
	9.	Origin Energy	<p>Origin will require to enhance a system that references the HV Zone table to utilise the new MIBB tables proposed in the GMI.</p> <p>Origin do have tariff D customers who ask for HV data quite regularly and we anticipate communication on the transition to new HV zones.</p> <p>The effective date of 1 May 2024 is acceptable.</p>	<p>AEMO notes Origin Energy's comment.</p> <p>AEMO has published a draft tech spec in August 2023 to assist with draft technical implementation (including preproduction and production release dates) which is available here.</p>
	10.	Red/Lumo	<p>Red and Lumo will incur system changes to reconcile gas data and charging as well as a review of billing systems and consumed energy calculations.</p> <p>Given we are already incorporating the expected changes into our schedule of work, we expect to be able to complete these changes in time for 1 May 2024.</p>	<p>AEMO notes Red/Lumo's comment.</p> <p>AEMO has published a draft tech spec in August 2023 to assist with draft technical implementation (including preproduction and production release dates) which is available here.</p>
3. Noting the procedures and guidelines listed in section 4 of the GMI, are there	11.	MGN	Refer below, Attachment B	

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Internal business team are to provide feedback on the following questions				
Question	Ref #	Respondent	Participant Response	AEMO Response
any other procedures or guidelines that you think also need to be amended? If so, please provide further details.	12.	AGL	<p>While the existing procedures seem to be adequately covered by this GMI, AGL would seek a greater understanding of the HV in a subnetwork is to be calculated when gas is mixed with a CTM injection point and a Distribution connected facility connected at another point on the Distribution network. This may require a new procedure or guide document.</p> <p>The Wholesale Market Metering Procedures may need to be renamed (or new procedures created) to deal with gas injections at a Distribution level, as these will not be wholesale injections, but rather retail injections.</p> <p>AGL suggests that this is an area which requires further consideration.</p>	<p>AEMO notes AGL's comment</p> <p>AEMO expects the Energy Calculations Procedures, which are part of the Wholesale Market Metering Procedures, will incorporate the relevant obligations for the development of Heating Value Zones which are used by AEMO's Heating Value Allocation Model to determine Heating Values for each heating.</p>
	13.	Red/Lumo	<p>At this time we have identified no additional reference or impact of Zonal Heating Values on the procedures or guidelines.</p> <p>We look forward to the GMI for Package 3B 2023 (Includes IN017/22) to consider the impact of the Distribution Connected Facilities Rule change and how new CTM and new Heating Zones will be implemented.</p>	<p>AEMO notes Red/Lumo's comment.</p> <p>In relation to the retail market consultation Package 3B, because AEMO has previously published report finds to the AEMC rule changes for Hydrogen reform changes, a pre regulatory (GMI) is not warranted. AEMO expects a PPC will be published in the near future.</p>
4. Do you have any further comments on any other sections of the GMI you wish to raise? If so please provide further details.	14.	AGN	<p>1. The Distributor is responsible for assigning the MIRN (Tariff V & D) to a Heating Value Zone for Tariff V & D based on the new INTXXX MIBB report. How will this be provided, in what format & when will this information need to be provided to AEMO &/or the Retailers assuming this information is needed prior to or at go-live?</p>	<p>AEMO published the AEMO Help Desk Bulletin No. 3010 - DWGM - Technical Specification – February 2024 detailing the reports on 11 August 2023.</p> <p>Participant may provide feedback on the published Technical Specifications.</p> <p>There will need to be an agreed method of DB's providing synchronisation information.</p>

Internal business team are to provide feedback on the following questions				
Question	Ref #	Respondent	Participant Response	AEMO Response
			2. Will a once off and ongoing process for MIRN and HVZ reconciliation be required between DB, AEMO & Retailers? 3. When will some further key dates be provided relating to the lead up and implementation of the changes for example: <ul style="list-style-type: none"> • When will new reports (INTXXX, INT139a) be available in pre-prod environments for testing • When will further workshops/meetings for general discussions and issues be held • When will cutover plan/outage windows dates be advised. 	This will likely be a one-off data file to cover the initial transition and then via MIRN standing data requests There have been subsequent meetings with the DB's to cover the AEMO position on these questions
	15.	MGN	No comment	
	16.	AGL	Noting the various changes required by both Distributors and Retailers to move to a CTM Zonal outcome, AGL believes that it would be worthwhile to discuss the transition plan before the various procedure changes are finalised, as it may be more efficient / lower risk to make step changes I the lead up to May 2024.	AEMO will discuss the transition plan in the appropriate consultative and development forums. AEMO will provide a broad timetable to these forums. See Ref # 19 further details about timings.
	17.	Origin Energy	Section 4 Specific proposal The new INT139a report is planned to be implemented by 1 February 2024	AEMO published the AEMO Help Desk Bulletin No. 3010 - DWGM - Technical Specification – February 2024 detailing the reports on 11 August 2023. AEMO has published a draft tech spec in August 2023 to assist with draft technical

Internal business team are to provide feedback on the following questions

Question	Ref #	Respondent	Participant Response	AEMO Response																														
			<p>In preparation for the transition of Interval metered customers, Origin requests that the INT047 report is published with all the HVZ as early as possible, but no later than 1 February 2024.</p> <p>Attachment C INTXXX – CTM to HV Zone</p> <p>This report is generated upon a change to a CTM or HV zone.</p> <p>Given there will be approximately 140 CTMS/HVZ, it is recommended to add a modified date field to aid the identification of change in record.</p> <p>In the example below, the last record is the new record updated, indicated by the modified date.</p> <table border="1" data-bbox="871 740 1565 1276"> <thead> <tr> <th>Meter No.</th> <th>Meter Desc</th> <th>HV Zone</th> <th>HV zone Desc</th> <th>Current_datetime</th> <th>Modified Datetime</th> </tr> </thead> <tbody> <tr> <td>CTM_1</td> <td>ctm1</td> <td>4</td> <td>Melb</td> <td>1/8/24 hh:mm</td> <td>1/2/24 hh:mm</td> </tr> <tr> <td>CTM_2</td> <td>ctm2</td> <td>28</td> <td>Colac</td> <td>1/8/24 hh:mm</td> <td>1/2/24 hh:mm</td> </tr> <tr> <td>CTM_3</td> <td>ctm3</td> <td>26</td> <td>Geelong</td> <td>1/8/24 hh:mm</td> <td>1/2/24 hh:mm</td> </tr> <tr> <td>CTM_4</td> <td>ctm4</td> <td>141</td> <td>Newzone</td> <td>1/8/24 hh:mm</td> <td>1/8/24 hh:mm</td> </tr> </tbody> </table>	Meter No.	Meter Desc	HV Zone	HV zone Desc	Current_datetime	Modified Datetime	CTM_1	ctm1	4	Melb	1/8/24 hh:mm	1/2/24 hh:mm	CTM_2	ctm2	28	Colac	1/8/24 hh:mm	1/2/24 hh:mm	CTM_3	ctm3	26	Geelong	1/8/24 hh:mm	1/2/24 hh:mm	CTM_4	ctm4	141	Newzone	1/8/24 hh:mm	1/8/24 hh:mm	<p>implementation (including preproduction and production release dates) which is available here.</p> <p>Participants may provide feedback on the published Technical Specifications.</p>
Meter No.	Meter Desc	HV Zone	HV zone Desc	Current_datetime	Modified Datetime																													
CTM_1	ctm1	4	Melb	1/8/24 hh:mm	1/2/24 hh:mm																													
CTM_2	ctm2	28	Colac	1/8/24 hh:mm	1/2/24 hh:mm																													
CTM_3	ctm3	26	Geelong	1/8/24 hh:mm	1/2/24 hh:mm																													
CTM_4	ctm4	141	Newzone	1/8/24 hh:mm	1/8/24 hh:mm																													

Internal business team are to provide feedback on the following questions				
Question	Ref #	Respondent	Participant Response	AEMO Response
5. Do you have any further comments you wish to raise regarding the proposal to replace the “state declared” HV method with the CTM to heating value method for tariff V?	18.	MGN	MGN believes there is no process to cover updating the retailers with the new heating value zones allocated to each MIRN after this change, all Gas Distributors would have advised the retailers previously through the market NMI standing data response transaction the current heating value zone allocated prior to this change and, in the market, there is no process that allows for a Gas Distributor to send a new value in an ad hoc way to the market advising of the update to this value	AEMO notes MGN’s comment. There will be an initial synchronisation process where DBs will provide the mapping of MIRN to HVZ prior to 1 May 2024. Any additional notifications would require a new B2B transaction and Schema upgrade which is not in scope for this project.
	19.	AGL	<p>AGL notes that per this GMI that AEMO conducted ‘three Zonal Heating Value workshop with distributors.’ While AGL considers that the distributors have a key role to play in this change, there was no retail representation or notes provided to retailers to help understand the changes being considered or consider any impacts on Retail businesses. AGL considers that going further, workshops should not be single sided, but should include representation from others participant groups.</p> <p>1. There are various transitional processes that will need to be worked through and the timing and management of these are important so that network and customer bills are not incorrectly generated, and appropriate market allocations are made.</p> <p>2. Further, AGL would also like time to analyse the resulting changes to adapt its forecasting systems and provide communications to its larger customers about potential changes to energy allocations.</p>	<p>1. In relation to transitional processes, AEMO’s project team is currently developing an initial draft plan that involves the transitioning of the existing zones numbers to the new Custody Transfer Meter (CTM) to Heating Value Zone configurations zone numbers that need to take effect on 1 May 2024. AEMO is targeting mid November 2023 to issue this initial draft plan to the gas forums for review and feedback. It is envisaged that the initial draft plan will address each of the points to do with customer bills and appropriate market allocations.</p> <p>2. in relation to AGL analytical analysis, that effort is entirely up to AGL including the duration of time spent on this effort. AEMO will not be providing any additional reports to support any analytical effort nor any timing consideration for such an effort.</p> <p>3. In relation to a UAFG Zones, AEMO is unclear as to what needs to be addressed</p>

Internal business team are to provide feedback on the following questions				
Question	Ref #	Respondent	Participant Response	AEMO Response
			<p>3.UAFG Zonal review. As this change to HV allocations (as well as the introduction of Distribution connected facilities) will also change UAFG, should the UAFG zones be reviewed to ensure the most efficient allocation.</p> <p>4. Given that the existing HV zones are being amended as part of this process, AGL considers that some thought should be given to whether the new CTM HV zones should have completely new zone numbers and not re-use any of the existing HV Post Code zone numbers, to ensure that the new zonal numbers cannot be used against old data. Eg start the new zones IDs from 50 or 100.</p>	<p>here namely because there is no such concept as a UAFG Zones. If AGL is refereeing to section 1.1 of Attachment 6 (Net System profile methodology) of the Retail Market Procedures, there is a refence to <i>distribution area</i>¹⁴ (UAFG). That said AEMO as has no plans undertake a review on the effectiveness of any allocation as this stage pertaining to distribution area (UAFG). However, if a participant was to provide some quantitative facts justifying reasons why such an analysis would be beneficial AEMO would revisit the decision not to undertake a review.</p> <p>4. AEMO supports AGL suggestion not to re-use existing zone numbers. The new heating zone IDs will commence at 400.</p>
	20.	Origin Energy	<p>For a Retailer to independently derive a MIRN's Heating value, knowledge of the Heating value zone (HVZ) for that MIRN is required.</p> <p>For interval metered MIRNS, the HVZ is mapped to the INT055 MIBB report. For basic metered sites there is no mapped MIRN to HVZ or MIRN to CTM MIBB report. Whilst this mapping may not be warranted in a MIBB report, it is envisaged that MIRN standing data requests to Distributors may increase in volume (for some scenarios) to ascertain the HVZ.</p>	<p>AEMO will discuss the transition plan in the appropriate consultative and development forums.</p> <p>AEMO published the AEMO Help Desk Bulletin No. 3010 - DWGM - Technical Specification – February 2024 detailing the reports on 11 August 2023.</p> <p>Participant may provide feedback on the published Technical Specifications.</p>

¹⁴ RMP meaning is - has the meaning given to it in the Distributor's applicable access arrangement.

Part B – Drafting suggestions

Attachment A – Wholesale Market Metering Procedures (Victoria)					
Ref #	Clause / Section #	Respondent	Issue / Comment	Proposed text <small>Red strikeout means delete and <u>blue underline</u> means insert</small>	AEMO Response
21.	3.7	AGN	<p>Heating Value Zone assignment</p> <p>The wording in the last paragraph is slightly unclear but it appears to specify that for energy calculation purposes, the Heating Value for a MIRN is assumed to only change on the date that the meter is read, rather than on the date when the HVZ change actually happens.</p> <p>Suggest deleting this paragraph – refer to reasons at Attachment B (RMP(Vic) clause 2.6.1) below.</p>	<u>A HVZ can be changed for a MIRN from the date of the MIRN read.</u>	AEMO notes that the Procedure has been further amended to account for the AEMC's Hydrogen rule change and Distribution Connected Facility rule change. For basic meters the requirement has been amended to 'Clause 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'.
22.		AGL	<p>The current usage of Daily Meters refers to > 10 TJ consumption with hourly usage. The implementation of digital basic meters could see basic meter data captured at a frequency of less than 60 days (eg daily, 12 hourly, 6 hourly, hourly). It may be prudent to consider how these meters may be described and the various obligations associated with them.</p>		AEMO notes AGL's comment and considers that it is not in the scope of Package 3A.

Attachment B – Retail Market Procedures (Victoria)					
Ref #	Clause / Section #	Respondent	Issue / Comment	Proposed text <small>Red strikeout means delete and <u>blue underline</u> means insert</small>	AEMO Response
23.	2.6.1	AGN	<p>Suggest deleting paragraph 2.6.1(a)(vi). There is no need to specify this here.</p> <p>Paragraph 2.6.1(b), as currently drafted, provides the requirements for how the heating value should apply in all situations, including when a heating value zone changes (either on transition around 1 May 2024, or for any future heating value zone changes). It allows for flexibility in how this is achieved by the Distributor.</p> <p>AGN's billing system is already well placed for the automatic calculation of an average hybrid zonal HV across the whole billing period, both for the transitional period and in future, as the daily SWA HVs are already effectively stored as zonal values.</p> <p>The average HV supplied in the MDN would be a mixture of the SWA HV and zonal HV to be used for basic meter reads taken in the transitional period around the 1/5/24 implementation date, and it would be mixture of the old zonal HV and new zonal HV for basic meter reads taken following the future implementation of a new HV zone. The average HV is calculated by tallying all the HVs (for when Zone A is applicable and when B is applicable)</p>	<p>2.6 Calculation and Provision of Energy Data</p> <p>2.6.1 Calculation of Energy Data</p> <p>(v) subject to paragraph (vi), the average heating value in paragraph (iv) must be <u>the</u> average heating value for the heating value zone for <u>where</u> the distribution supply point applicable to that meter is located. and</p> <p>(vi) if the heating value zone in relation to a meter changes during the reading period, the average heating value in paragraph (iv) must be average heating value for the heating value zone that applies as at the date of the base reading for that reading period.</p> <p>Note: Average heating value for heating value zones came into effect on 1 May 2023. Prior to that, a daily flow weighted heating value for the state applied. In relation to paragraph (vi) this clause also applies when the daily flow weighted heating value for the state changed to zonal heating values.</p> <p>(b) The average heating value for a reading period is to be calculated by the Distributor as the average, over the reading period, of the daily average heating values published by AEMO on the market information bulletin board. Where the average daily average heating value for a day is not available, the Distributor must use the daily average heating value for the previous day.</p>	<p>AEMO notes AGN feedback regarding accuracy outcomes of the base reading provision described in clause 2.6.1.</p> <p>AEMO also notes AGN comment that the base reading proposal in the RMP drafting for GMI 2.0 could add complexity and cost.</p> <p>Similar views were put forward by MGN. Having considered the above, AEMO has amended the RMPs to reflect that the average heating value to be applied for the reading period is to be calculated by tallying all the HVs (for when Zone A is applicable and when B is applicable) and dividing by the total number of days in the reading.</p> <p>AEMO has also considered AGN suggestion about flexibility in how heating values should be applied. AEMO decided to not support this proposal as it may resulted in different calculation outcomes for customers across the three distributions area</p>

			<p>and dividing by the total number of days in the billing period.</p> <p>Note that this was the basis for our earlier assessment of the work effort, cost and timeframe required to implement zonal HVs in Victoria.</p> <p>If AGN was to be compelled by the Market Procedures to use the heating value which applied at the time of the base reading, not only would it generate a less accurate result, it would also add complexity and cost to the implementation, and potentially put at risk meeting the 1/5/24 deadline.</p>		
24.		MGN	<p>Suggest deleting paragraph 2.6.1(a)(vi).</p> <p>Paragraph 2.6.1(b), as currently drafted, provides the requirements for how the heating value should apply in all situations, including when a heating value zone changes (either on transition around 1 May 2024, or for any future heating value zone changes). It allows for flexibility in how this is achieved by the Distributor.</p> <p>MGN's billing system is already programed for the automatic calculation of an average HV across the whole billing period, using both the statewide average and Zonal values combined to determine the average across the reading period.</p> <p>The average Heating Value supplied in the MDN would be a mixture of the Statewide Average HV and zonal HV to be used for basic meter reads</p>	<p>2.6 Calculation and Provision of Energy Data</p> <p>2.6.1 Calculation of Energy Data</p> <p>(v) subject to paragraph (vi), the average heating value in paragraph (iv) must be <u>the</u> average heating value for the heating value zone for <u>where</u> the distribution supply point applicable to that meter is located.; and</p> <p>(vi) if the heating value zone in relation to a meter changes during the reading period, the average heating value in paragraph (iv) must be average heating value for the heating value zone that applies as at the date of the base reading for that reading period.</p> <p>Note: Average heating value for heating value zones came into effect on 1 May 2023. Prior to that, a daily flow weighted heating value for the state applied. In relation to paragraph (vi) this clause also applies when the daily flow weighted heating value for the state changed to zonal heating values.</p>	See AEMO response in Ref #23.

			<p>taken in the transitional period around the 1/5/24 implementation date, and it would be mixture of the old Statewide Average HV and new zonal HV for basic meter reads taken following the future implementation of a new HV zone. The average HV is calculated by tallying all the HVs and dividing by the total number of days in the billing period.</p> <p>Note that this was the basis for our earlier assessment of the work effort, cost and timeframe required to implement zonal HVs in Victoria.</p> <p>If MGN was to be compelled by the Market Procedures to use the heating value which applied at the time of the base reading, this will add complexity and cost to the implementation, and potentially put at risk meeting the 01/05/2024 deadline.</p>	<p>(b) The average heating value for a reading period is to be calculated by the Distributor as the average, over the reading period, of the daily average heating values published by AEMO on the market information bulletin board. Where the average daily average heating value for a day is not available, the Distributor must use the daily average heating value for the previous day.</p>	
25.	Definition	AGL	Amend Average Heating Value to show units of measure	average heating value , in relation to a reading period , has the meaning (in GJ/1000 m³) given to that term in clause 2.6.1(b).	AEMO does not support AGL's proposal as the suggestion doesn't add any material benefit.
26.	2.6.1(b)	AGL	<p>Amend Average Heating Value to show units of measure</p> <p>Also, the average daily HV should now be calculated from the available hourly HVs available and interpolated for any missing hourly HVs</p> <p>This needs to be described correctly and potentially needs a new sub-clause</p>	<p>(b) The average heating value for a reading period is to be calculated by the Distributor as the average, over the reading period, of the average daily flow weighted heating values (in GJ/1000 m³) as published by AEMO on the market information bulletin board.</p> <p>Where the average daily flow weighted heating value for a day is not available, the Distributor must use the</p>	See AEMO responses in Ref # 25

				average daily flow weighted heating value for the previous day.	
27.	2.6.1(d)	AGL	<p>Calculation of energy data</p> <p>Clauses assume that only an average HV can be used. With Distribution connected facilities and smart gas meters, energy may be calculated on a less than 1 day cycle and not use an average HV.</p>		AEMO notes AGLs comments about considering smart gas metering characteristic. AEMO has deemed that the characteristic of smart gas metering technology is out of scope of this program of work as AEMO has deemed this type of technology is not sufficiently advanced in terms of plans to mass market these type metering.
Attachment C – User Guide to MIBB Reports					
Ref #	Clause / Section #	Respondent	Issue / Comment	Proposed text Red strikeout means delete and <u>blue underline</u> means insert	AEMO Response
28.	INT139a Content Notes Point 2.	AGN	Spelling error	2. Each row in the report provides the heating values: - for a particular heat <u>high ng</u> heating value zone	AEMO agrees with AGN's suggested change.
29.	INT139a Data Content Table	AGN	<p>Heating Value Calculation.</p> <p>In the current INT139 report the Heating Value element in the data content table includes a calculation description for the HV. Should this also be included in the new report?</p>		AEMO notes AGN's comment about including the calculation description in the new report. AEMO does not support this proposal as the calculation description is described in Chapter 3 of the Wholesale Market Metering Procedures. Including the same description in the guide is therefore a duplication and isn't warranted.

30.	INTXXX (CTM to Heating Value Zone) Data Content Table	AGL	'No Nulls' column in data content table shows all elements as 'False' except for the 'current datetime'. Should all elements show 'No Nulls' column as 'True'?' Also, should there be a 'Primary key' showing as 'True' for any of the csv file elements?		Post the closure of the GMI 2.0 feedback, AEMO has published a DWGM - Technical Specification on 11 August 2023 which provides additional information about this report. Click here to view.
31.	5.2.3	AGL	INT047 - Heating Values	Typos: current_heating_value Numeric(5,2) True False N Heating value <u>value</u> (GJ/1000m(3)) rounded f to 2 decimal places	AEMO agrees with AGL's suggested change.
32.		AGL	Should the new CTM HV zone report have a 'modified date' included against each CTM Zone, so that changes to individual zones can be identified?		AEMO notes AGL suggestion about adding a modified date indicator. This suggestion has been forward to the AEMO project team for further consideration.
Attachment D – Participant Build Pack 2 - System Interface Definitions					
Ref #	Clause / Section #	Respondent	Issue / Comment	Proposed text Red strikethrough means delete and <u>blue underline</u> means insert	AEMO Response
33.	General	AGL	Amend Average Heating Value and Heating Value to show units of measure – see Base Load for example.		See AEMO responses in Ref # 25
Attachment E – Participant build pack 3. System Interface Definitions					

Ref #	Clause / Section #	Respondent	Issue / Comment	Proposed text Red strikethrough means delete and <u>blue underline</u> means insert	AEMO Response
34.	Event codes	AGL	Amend description	event code 3650 – Incorrect Average Heating Value event code 3650 – Incorrect <u>Zonal Average</u> -Heating Value	AEMO does not support AGL’s proposal. In the context of a MeterDataNotification, the current terminology of “Incorrect Average Heating Value” is fit for purpose.
Attachment F – Participant build pack 1. Table of transactions					
Ref #	Clause / Section #	Respondent	Issue / Comment	Proposed text Red strikethrough means delete and <u>blue underline</u> means insert	AEMO Response
Attachment G – Participant build pack 1. Process flow diagrams					
Ref #	Clause / Section #	Respondent	Issue / Comment	Proposed text Red strikethrough means delete and <u>blue underline</u> means insert	AEMO Response
35.	Diagram 2.7 2.7.6	AGN	In Diagram 2.7 (Basic Meter Customisation Bill Estimation), activity 2.7.6, contains the words ‘flow weighted’ in the description. Should these words be removed from description to be consistent with diagram 2.0 (BM Data Collection and Delivery) activity 2.11.?	“2.7.6 Provide ave. daily flow weighted <u>Average</u> Heating Values for each HVZ”	AEMO supports AGL proposal to delete the words “daily flow weighted”.
36.	Diagram 2	AGL	Update box 2.11.text		AEMO view is the proposed text as described in GMI 2.0 for process flow 2.11 does not need any further updates.