



DWGM Heating Value and Gas Composition Data Sources

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Current version release details

Version	Effective date	Summary of changes
2.0	1 May 2024	Updated to for implementation of the hydrogen and DCF rule changes.

Note: There is a full version history at the end of this document.

1. Introduction

1.1. Purpose and scope

This document outlines the heating value and gas composition data sources within the declared transmission system (DTS).

This is a Technical Document supporting the Wholesale Market Gas Quality Monitoring Procedure.

1.2. Definitions and interpretation

1.2.1. Glossary

Terms defined in the National Gas Law and the NGR have the same meanings in this document unless otherwise specified in this clause.

Defined terms/Terms defined in the NGR are intended to be identified in this document by italicising them, but failure to italicise a defined term does not affect its meaning.

Table 1 Defined terms

Term	Definition
C6	The "C6" type gas chromatographs measure gas composition up to the C6+ (Hexanes plus) component.
C9	The "C9" type gas chromatographs measure gas composition up to the C9+ (Nonanes plus) component and are usually associated with hydrocarbon dewpoint measurements at injection points.
CTM	Custody Transfer Metering facility (CTM) is defined in the Wholesale Market Metering Procedures.
Gas chromatograph	Instrument used for measuring gas composition and calculating gas heating value. The gas chromatograph is part of a <i>gas quality monitoring system</i> .
gas composition data or GCD	Gas composition data (GCD) represents the measurement of <i>gas</i> for each <i>gas quality specifications</i> parameters at each <i>gas quality monitoring system</i> . The heating value and gas composition data is an input to the <i>heating value allocation model</i> .

1.2.2. Interpretation

The following principles of interpretation apply to these Procedures unless otherwise expressly indicated:

- (a) This document is subject to the principles of interpretation set out in Schedule 2 of the National Gas Law.
- (b) This is a Technical Document supporting the operation of the Wholesale Market Gas Quality Monitoring Procedures and should be interpreted in the context of this Procedure.

1.3. Related documents

The following documents support this Procedure.

Reference	Title	Location
Gas Quality Procedures	Wholesale Market Gas Quality Monitoring Procedures (Victoria)	AEMO website
Metering Procedures	Wholesale Market Metering Procedures (Victoria)	AEMO website
CTM Data Requirements	Gas Metering - CTM Data Requirements	AEMO website

1.4. Document Change Process

AEMO may change the Heating Value and Gas Composition Data Sources upon the implementation of a new *gas quality monitoring system*.

The *responsible gas quality monitoring provider* must inform AEMO at least 20 business days prior to the effective date of changing a *gas quality monitoring system*.

AEMO will review this document by 1 June each year and publish an update if a *gas quality monitoring system* has been added to the Market. For the avoidance of doubt, AEMO may publish this document, if in AEMO’s reasonable opinion, an update is appropriate.

The effective date of the document will be 10 business days after the document’s publication date.

Note: A temporary outage to a *gas quality monitoring system* (e.g. for maintenance purposes) does not require this document to be updated by AEMO.

2. Heating Value and Gas Composition Data Sources

The following table details the gas composition data sources in the Victorian DTS.

Please note:

- (a) Not all the listed gas quality monitoring systems are used for heating value and gas composition data allocation to other meters.
- (b) Not all the listed gas quality monitoring systems are necessarily operational at any given time.
- (c) Some of the gas quality monitoring systems are configured to measure two or three different streams in turn and for those instruments the stream numbers are indicated.

Table 2 Heating Value and Gas Composition Data Sources

Mirn	meter no.	location	Type	Stream No.	Description
20000001PG	M126	Culcairn GC - CTM	C6	-	At Culcairn CTM connection with (T119) pipeline from Wollert to Culcairn.
30000001PG	M001	Longford Metering Station GC	C6	-	Longford Metering Station from Longford gas production facility to DTS (C6 and C9 measurement are reported at point)
30000004PG	M002	Dandenong DTS – Peninsula GC	C6	2	Dandenong Terminal Station to Mornington Peninsula
30000005PG	M005	Dandenong DTS – Lurgi GC	C6	1	Dandenong Terminal Station from Lurgi pipeline to Inner Ring Main
30000006PG	M109	Dandenong DCG - 7,000 kPa GC	C6	1	Dandenong City Gate (7,000 kPa line) from Longford Melbourne Pipeline to BOC and LNG storage facility.
30000007PG	M108	Dandenong DCG - 2,750 kPa GC	C6	3	Dandenong City Gate (2,750 kPa line) injection from BOC and LNG storage facility to Inner Ring Main.
30000008PG	M006	Dandenong DCG - 700 kPa GC	C6	2	Dandenong City Gate (700 kPa letdown line) from BOC and LNG storage facility to Inner Ring Main
30000009PG	M091	Wodonga GC - CTM	C6	-	Wodonga City Gate CTM measuring gas quality in the Northern withdrawal zone.
30000010PG	M122	Wollert – Wodonga GC	C6	-	Gas from Wollert Compressor Station A flowing north on T74 pipeline to Wodonga.
30000011PG	M101	Iona Underground Gas Storage – CTM	C9	-	At CTM connection with Iona Underground Gas Storage Facility at Port Campbell - C9
30000013PG	M137	Longford - VicHub - Mix	C6	2	Longford - VicHub mixed gas in south Longford to Gooding pipeline - C6
30000014PG	M137	Longford - VicHub - CTM	C6	1	At VicHub CTM connection between DTS and Eastern Gas Pipeline - C6
30000015PG	M097	Allansford GC - CTM	C6	-	Allansford City Gate CTM measuring gas quality in the Western Transmission System.
30000016PG	M101	Iona Underground Gas Storage - CTM	C9	-	At CTM connection with Iona Underground Gas Storage Facility at Port Campbell - C9
30000017PG	M139	Iona – SEA Gas - CTM	C9	-	At CTM connection with SEA Gas pipeline from Athena gas production facility.

Mirn	meter no.	location	Type	Stream No.	Description
30000018PG	M139	Iona – SEA Gas Mix – East	C6	2	At SEA Gas connection at Port Campbell - east flowing mixed gas to DTS towards Lara.
30000019PG	M139	Iona – SEA Gas Mix – West	C6	1	At SEA Gas connection at Port Campbell – west flowing mixed gas to DTS towards Portland.
30000020PG	M065	Corio (Geelong) GC	C6	-	Brooklyn - Corio Pipeline measurement of gas quality at the Corio (Geelong) City Gate CTM
30000021PG	M008	Brooklyn – Melbourne GC	C6	1	Brooklyn - CTM to 2,800 kPa to Inner Ring Main.
30000022PG	M008	Brooklyn – Ballarat pipeline GC	C6	2	Brooklyn - Ballarat Pipeline measuring gas quality at the Brooklyn CTM.
30000023PG	M008	Brooklyn – Corio pipeline GC	C6	3	Brooklyn - Corio Pipeline measurement of gas quality at the Brooklyn CTM.
30000024PG	M138	Pakenham - BassGas - CTM	C6	1	Pakenham CTM connection with BassGas pipeline.
30000025PG	M138	Pakenham - BassGas Mix - West	C6	2	Longford to Melbourne pipeline at BassGas connection at Pakenham flowing (west) mixed gas to Dandenong
30000026PG	M138	Pakenham - BassGas Mix - North	C6	3	Longford to Melbourne pipeline at BassGas connection at Pakenham flowing (north) mixed gas to Wollert
30000027PG	MR04	Lang Lang - BassGas Injection - C9	C9	-	At Lang Lang gas production facility injecting into BassGas pipeline.
30000028PG	M137	Longford - VicHub - CTM - C9	C9	1	At VicHub CTM connection between DTS and Eastern Gas Pipeline - C9
30000029PG	M137	Longford - VicHub - Mix - C9	C9	2	Longford - VicHub mixed gas in south Longford to Gooding pipeline - C9
30000031PG	M153	Otway Injection GC - CTM	C9	-	At CTM connection with DTS from Otway gas production facility.
30000033PG	MR06	SEA Gas Mortlake Injection GC - CTM	C6	-	At SEA Gas Mortlake connection at Port Campbell flowing (east) mixed gas to DTS towards Lara
30000034PG	M172	TasHub Injection GC - CTM	C9	-	At TasHub CTM connection to the Longford to Gooding pipeline – C9

The following gas composition is provided for the non-DTS connected DDS.

Table 3 Non-DTS Heating Value and Gas Composition Data Sources

mirn	meter no.	location	Type	Stream No.	Description
30000030PG	MR03	Bairnsdale (Non-DTS)	C6	-	At Bairnsdale CTM - data sent from Eastern Gas Pipeline compressor station at Longford (Non-DTS)
30000032PG	MR05	South Gippsland Pipeline (Non-DTS) - CTM	C6	-	At CTM connection with South Gippsland Pipeline from Lang Lang gas production facility (Non-DTS)

Version release history

Version	Effective Date	Summary of Changes
2.0	1 May 2024	Updated to for implementation of the hydrogen and DCF rule changes.
1.0	8 Sept 2009	First issue under the NGR.