

6 January 2025

## Notice of AEMO decision

This Notice is to advise Participants on AEMO's decision to approve amendments to the:

- Participant Build Pack 3 – System Specification
- Gas FRC B2B Connectivity Testing and Sys Certification
- Gas Interface Protocol (Victoria)
- Gas Interface Protocol (Queensland)
- Gas Interface Protocol (NSW-ACT)

This Notice advises Gas Market Registered Participants that consultation under the ordinary Procedure Change Consultative Process prescribed under Rule 135EE of the NGR concluded on 3 December 2024 for:

- IN008/24 – Transport Layer Security (TLS) Certificate Update and Technical Protocol (TP) Updates

As required under Rule 135EE of the NGR, Gas Market Registered Participants and other interested parties were invited to submit comments to AEMO on the Impact and Implementation Report (IIR) for this proposal. AEMO received submissions from AGL, Alinta and Red / Lumo all indicating that they supported the proposed changes. Alinta's response included a typographic/grammatical change to the Participant Build Pack 3 – System Specification document. AEMO has included this change as it adds further clarity.

Attachment B of this Notice sets out the consolidated feedback<sup>1</sup> relating to the proposed amendments that AEMO received during this consultation phase. This attachment includes stakeholder comments, AEMO responses and, based on those responses AEMO has made further amendments related to consistency. Document extracts in Attachment A identify these changes.

Having considered the feedback provided by each respondent, AEMO has approved the proposed amendments (Attachments A) of this Notice. The date on which these changes will take effect will be published in a separate notice (Notice of Effective Date). AEMO proposes to issue that notice by mid March 2025.

Updated versions of the documents mentioned in Attachment A will be published on the AEMO website prior to the effective date.

Should you require any further information please contact Nandu Datar on [grcf@aemo.com.au](mailto:grcf@aemo.com.au).

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<sup>1</sup> Includes feedback on Western Australian artefacts.

## Attachment A. Document Changes

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 strikeout~~ means delete. **Green** shaded refers to changes following GMI consultation and **Yellow** shaded refers to changes following IIR consultation.

### A.1 Retail Market Procedures – Western Australia

#### Definitions

*FRC Hub certification criteria* means the criteria specified in the Connectivity Testing and Technical Certification document ~~within the AEMO Specification Pack~~.<sup>α</sup>

*FRC Hub certification process* means the testing process set out in the Connectivity Testing and Technical Certification document ~~within the AEMO Specification Pack~~ to ensure that a person's information system complies with the requirements of the *FRC Hub Operational Terms and Conditions*.<sup>α</sup>

#### 21A. FRC Hub certification¶

- (1) → Each person required, or who has agreed, to comply with some or all of these procedures (as applicable), must participate in the *FRC Hub certification process* and must satisfy the *FRC Hub certification criteria* prior to the date they are required to comply with these procedures.¶
- (2) → Prior to AEMO issuing a *GBO identification* under clause 22(2), AEMO must determine as a *reasonable and prudent operator* whether a person referred to under clause 21A(1) has satisfied the *FRC Hub certification criteria*.¶
- (3) → Upon satisfaction of the *FRC Hub certification criteria* under clause 21A(2), AEMO must issue a *FRC Hub compliance certificate* to the person.¶
- (4) → AEMO may immediately cancel a *FRC Hub compliance certificate* if, in AEMO's opinion as a *reasonable and prudent person* and having regard to the *FRC Hub certification criteria*, the holder of the *FRC Hub compliance certificate* breaches its obligations under the *FRC Hub Conditions* and/or the Connectivity Testing and Technical Certification document ~~within the AEMO Specification Pack~~ in such a manner that the integrity of the *FRC Hub* is jeopardised.¶

## A.2 Participant Build Pack 3 – System Specification

### ▪ 5.2. → Obtaining certificates¶

▪ ¶

[Obtaining X509 certificates for use with TLS and digital signatures in the FBS is achieved by following the TLSCertificateManagement \(aemo.com.au\) online instruction.](#)¶

### ▪ 5.3. → ~~Obtaining X509 certificates for use with TLS and digital signatures in the FBS is achieved by following the TLSCertificateManagement (aemo.com.au) online instruction~~ · {Placeholder TBA} · FRC Hub Security Services¶

In order to solve the “many-to-many” problem with regard to certificate distribution and revocation, for participants in the FBS, the hub will provide security services. For each environment – Pre-Production and production – participants will only need one certificate – that of the applicable FRC Hub for TLS and digital signature services.¶

### ▪ 5.4. → TLS¶

▪ ¶

The FRC Hub is capable of [TLS Certificates required for connection to AEMO Systems](#). ~~TLS connectivity in compliance with TLSv1.2. TLS v1.2 is based on RFC5296.~~¶

<https://www.ietf.org/rfc/rfc5246.txt>¶

[A table containing the supported protocols enabling connection to AEMO Systems can be found under the section ‘Digital Certificate for connecting to FRC HUB’ on AEMO webpage TLSCertificateManagement \(aemo.com.au\).](#) ~~AEMO may amend the protocols (including amending version numbers, effective date and expiry date and introducing a new protocol) by amending the table on the AEMO webpage and notifying GRCF participants of the change. This webpage also contains information about the notification period AEMO is required to give to GRCF participants when AEMO intends to introduce amend a new protocol.~~¶

~~The p~~Participants ~~will must~~ update their certificates via the self-service certificate management.¶

The certificates used in the FBS will not employ any extensions. Sometimes these certificates extensions are referred to as server certificates by certain vendors. Certificates without extensions are sometimes referred to as client certificates by certain vendors.¶

### A.3 FRC B2M – B2B Hub System Specifications

#### ▪ 5.2. → Obtaining certificates ¶

▪ ¶

Obtaining X509 certificates for use with TLS and digital signatures in the FBS is achieved by following the [TLSCertificateManagement \(aemo.com.au\)](https://aemo.com.au/TLSCertificateManagement) [Manage TLS Certificates](#) online instruction [{Placeholder-TBA}](#). ¶

#### ▪ 5.3. → FRC Hub Security Services ¶

▪ ¶

In order to solve the “many to many” problem with regard to certificate distribution and revocation, [for](#) participants in the FBS, the hub will provide security services. Participants will only need one certificate – that of the FRC Hub for TLS and digital signature services. ¶

#### ▪ 5.4. → TLS ¶

▪ ¶

The FRC Hub is capable of [TLS Certificates required for connection to AEMO Systems](#), [TLS connectivity in compliance with TLS-TLSv1.2-TLS is based on RFC5246](#). ¶

[A table containing the supported protocols enabling connection to AEMO Systems can be found under the section ‘Digital Certificate for connecting to FRC HUB’ on AEMO webpage TLSCertificateManagement \(aemo.com.au\)](#); [AEMO may amend the protocols \(including amending version numbers, effective date and expiry date and introducing a new protocol\) by amending the table on the AEMO webpage and notifying GRCF participants of the change](#); This webpage also contains information about the notification period AEMO is required to give to GRCF participants when AEMO intends to [introduce](#) [amend](#) a protocol. ¶

[The participants will](#) [must](#) update their certificates via the self-service certificate management. ¶

<https://www.ietf.org/rfc/rfc5246.txt> The certificates used in the FBS will not employ any extensions. Sometimes these certificates extensions are referred to as server certificates by certain vendors. Certificates without extensions are sometimes referred to as client certificates by certain vendors. ¶

### A.4 Gas FRC B2B Connectivity Testing and Sys Certification

#### ▪ Appendix E – Form of AEMO Certification Checklist ¶

Checklist attached can be accessed: ¶

[http://www.aemo.com.au/Gas/-](http://www.aemo.com.au/Gas/-/media/F51E518A3AE146B89A529CA68822FFAC.ashx)

[/media/F51E518A3AE146B89A529CA68822FFAC.ashx](http://www.aemo.com.au/Gas/-/media/F51E518A3AE146B89A529CA68822FFAC.ashx) ¶

[https://aemo.com.au/-/media/files/gas/it\\_systems/gas-frc-certification-checklist.docx?la=en](https://aemo.com.au/-/media/files/gas/it_systems/gas-frc-certification-checklist.docx?la=en) ¶

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## A.5 Gas Interface Protocol (Victoria)

### Gas Interface Protocol artefacts to take effect as of

~~1 May 2024~~ TBA.

REQUIREMENT	DOCUMENTS	VERSION
Retail Market Procedures	Retail Market Procedures (Victoria)	18.0 (authorised under the NGL and NGR effective)
Participant Build Pack 1	Process Flow Table of Transactions This contains: - Table of Transactions, Table of Elements, List of Job Enquiry Codes, Address Elements and MIRN and Meter states.	4.0
	Process Flow Diagrams	3.9
	CSV Data Format Specification	3.8
Participant Build Pack 2	Participant Build Pack 2 Interface Definitions	3.6
	Participant Build Pack 2 Usage Guide	3.1
	Participant Build Pack 2 Glossary	3.1
Participant Build Pack 3	Participant Build Pack 3 FRC B2B System Specification	3.2
	Participant Build Pack 3 FRC B2B System Architecture	3.3
	Participant Build Pack 3 Interface Definitions	4.0 TBA
<b>Guidelines for Development of A Standard for Energy Transactions in XML (aseXML)</b>	<del>The Guidelines for Development of A Standard for Energy Transactions in XML (aseXML) which participants have subscribed to for Victorian Gas is available from <a href="http://www.aemo.com.au/asexml">www.aemo.com.au/asexml</a></del>	4.1

## A.6 Gas Interface Protocol (Queensland)

Gas Interface Protocol artefacts to take effect as of

~~1 May 2024~~ TBA

GIP Item #	Category	Documents	Version
1	Retail Market Procedures (Queensland)	Queensland Retail Market Procedures	212.0
2	Participants Build Pack 4	The Queensland Specific Participant Build Pack 4	112.0
3	Deleted		
4	Participant Build Pack 1	AEMO Process Flow Table of Transactions. This contains: - Table of Transactions, Table of Elements, List of Job Enquiry Codes, Address Elements and MIRN and Meter states.	4.0
5	Participant Build Pack 1	Process Flow Diagrams	3.9
6	Participant Build Pack 1	CSV Data Format Specification	3.8
7	Participant Build Pack 2	Participant Build Pack 2 Interface Definitions	3.6
8	Participant Build Pack 2	Participant Build Pack 2 Usage Guide	3.1
9	Participant Build Pack 2	Participant Build Pack 2 Glossary	3.1
10	Participant Build Pack 3	FRC B2B System Specification	3.2
11	Participant Build Pack 3	FRC B2B System Architecture	3.3
12	Participant Build Pack 3	Interface Definitions	4.0
13	Guidelines for Development of A Standard for Energy Transactions in XML (aseXML)	The Guidelines for Development of A Standard for Energy Transactions in XML (aseXML) which participants have subscribed to for Victorian Gas is available from <a href="http://www.aemo.com.au/asexml/">http://www.aemo.com.au/asexml/</a>	4.1

## A.7 Gas Interface Protocol (NSW-ACT)

Gas Interface Protocol artefacts to take effect as of

~~31 March 2023~~ TBA

GIP Item #	Category	Documents	Version
1	Retail Market Procedures (NSW/ACT)	NSW/ACT Retail Market Procedures	2930.0
2	Participants Build Pack 5	The NSW/ACT specific Participant Build Pack 5	98.0
3	Participants Build Pack 6	The NSW/ACT Wagga Wagga <sup>1</sup> and Tamworth specific Participant Build Pack 6	76.0
4	Guidelines for Development of A Standard for Energy Transactions in XML (aseXML)	The Guidelines for Development of A Standard for Energy Transactions in XML (aseXML) which participants have subscribed to for NSW/ACT Gas is available from <a href="http://www.aemo.com.au/About-the-Industry/Information-Systems/aseXML-Standards/aseXML-Guidelines">http://www.aemo.com.au/About-the-Industry/Information-Systems/aseXML-Standards/aseXML-Guidelines</a>	4.1

## A.8 Specification Pack Usage Guide

### 2. Overview of the AEMO Specification Pack



The following table provides an overview of the AEMO Specification Pack. The documents are provided in a directory structure as follows:



Main Directory	Sub-Directory	Documents	Version
Specification Pack	1. Usage Guidelines	Specification Pack Usage Guidelines	8.89
	2. Interface Control Document (ICD)	Interface Control Document	5.34
	3. B2B System Interface Definitions	FRC B2B System Interface Definitions	5.23
	4. Transport Layer	FRC B2M-B2B Hub System Specifications (WA only) FRC B2M-B2B Hub System Architecture (WA only) For SA see Participant Build Pack 3 – FRC B2B System Specification For SA see Participant Build Pack 3 – FRC B2B System Architecture	4.01 3.7
	5. CSV File Format	FRC CSV Data Format Specification	3.3
	6. Connectivity and Technical Certification (WA Only)	Connectivity Testing and Technical Certification (WA Only)	3.8

## A.9 Digital Certificate Webpage<sup>2</sup>

Create a new sub webpage “TLS Certificate for connecting to FRC HUB” on the webpage [TLSCertificateManagement \(aemo.com.au\)](https://aemo.com.au) after the sub webpage titled “CSR Requirements”  
 The following is the new sub heading and text,

++++++

### **TLS Certificate for connecting to FRC HUB**

As described in section 5.4 of the Participant Build Pack 3 - FRC B2B System Specifications document and section 5.4 of the FRC B2M-B2B Hub System Specifications for the WA Gas Retail Market document the FRC HUB requires digital certificate connectivity. The following table contains a list of protocols including their version number, effective date and expiry date (if applicable).

Table 1.

<b>Protocol</b>	<b>Version No</b>	<b>Effective Date</b>	<b>Expiry Date</b>
Transport Layer Security (TLS)	1.3	Early March 2025	
TLS	1.2	1 Apr 2023	
TLS	1.1		Early March 2025
TLS	1.0		Early March 2025
Secured Socket Layer (SSL)			Expired

Participants are required to ensure currency of their TLS certificates needed to connect to AEMO Systems.

At least 90 business days prior to making any amendment to table 1, AEMO will inform the Gas Retail Consultative Forum (GRCF) or its successor of the proposed change to table 1. Any update to the expiry date will be at least 90 business days from the date that GRCF were informed of the expiry.

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<sup>2</sup> For the avoidance of doubt the Digital Certificate Webpage is included for contextual purposes only. Future changes to this web page will not be subject to the NGR consultation process or in the case of WA, the consultation process described in chapter 9 of the WA Retail Market Procedures.

## Attachment B. Summary of IIR submissions and AEMO’s responses

Section 1 - General Comments on the Impact and Implementation Report

Sections 1 to 9 of the IIR sets out AEMOs critical examination of the proposal.

Does your organisation support AEMO’s examination of the proposal?

If no, please specify areas in which your organisation disputes AEMO examination proposal and include information that supports your organisation rational why you do not support AEMO examination.

Ref #	Company	Response	AEMO Response
1	AGL	AGL supports AEMO’s assessment.	AEMO notes AGL’s support for the changes.
2	Alinta Energy	Alinta Energy supports the proposal to (i) create a webpage that will contain all details about Transport Layer Security (TLS) certificates required by participants to access AEMO’s systems and (ii) amend the Technical Protocol (TP) documents so they are agnostic to the TLS certificate version.  We agree with AEMO’s assessment that implementation costs for participants and AEMO will be negligible and that the proposal will result in improved efficiencies from removing the requirement for formal consultation for future TLS certificate updates.	AEMO notes Alinta Energy’s support for the changes.
3	Red/Lumo	Red Energy and Lumo Energy (Red and Lumo) support AEMO’s assessment of the proposal.	AEMO notes Red/Lumo’s support for the changes.

Sections 10 and 11 of the IIR sets out *AEMOs recommendation and timeframes*.

Does your organisation support AEMO’s position to recommend the procedures changes and the timeline for those procedures change to take effective?

Ref #	Company	Response	AEMO Response
4	AGL	AGL supports AEMOs proposed recommendation and timeline.	AEMO notes AGL’s support for the changes.
5	Alinta Energy	We agree with AEMO’s proposed recommendations and timeframes, with one minor amendment proposed in Section 2 below to improve clarity (note that we made this proposal in our PPC response template, however it does not appear to have been reviewed by AEMO).	AEMO notes AGL’s support for the changes. AEMO has incorporated the change suggested by Alinta as it adds further clarity.
6	Red/Lumo	Red and Lumo support AEMO’s timeframe.	AEMO notes Red and Lumo’s support for the timeframe.

## Section 2 - Feedback on the documentation changes.

<b>Retail Market Procedures (WA)</b>					
<b>Ref #</b>	<b>Clause #</b>	<b>Organisation</b>	<b>Issue / Comment</b>	<b>Proposed text</b> Red <del>strikeout</del> means delete and blue <u>underline</u> means insert	<b>AEMO Response (AEMO only)</b>
7		AGL	No Comment		
<b>Participant Build Pack 3 - System Specifications</b>					
<b>Ref #</b>	<b>Clause #</b>	<b>Organisation</b>	<b>Issue / Comment</b>	<b>Proposed text</b> Red <del>strikeout</del> means delete and blue <u>underline</u> means insert	<b>AEMO Response (AEMO only)</b>
8		AGL	No Comment		
0	5.3	Alinta Energy	Amend opening sentence of this clause for clarity.	In order to solve the “many to many” problem with regard to certificate distribution and revocation, <del>for</del> participants in the FBS, the hub will provide security services.	AEMO agrees with Alinta’s suggestion and has made the change as it provides further clarity.
<b>FRC B2M – B2B Hub System Specifications</b>					
<b>Ref #</b>	<b>Clause #</b>	<b>Organisation</b>	<b>Issue / Comment</b>	<b>Proposed text</b> Red <del>strikeout</del> means delete and blue <u>underline</u> means insert	<b>AEMO Response (AEMO only)</b>
10		AGL	No Comment		
11	5.3	Alinta Energy	Amend opening sentence of this clause for clarity.	In order to solve the “many to many” problem with regard to certificate distribution and revocation, <del>for</del> participants in the FBS, the hub will provide security services.	AEMO agrees with Alinta’s suggestion and has made the change as it provides further clarity.
<b>Gas FRC B2B Connectivity Testing and Sys Certification</b>					

Ref #	Clause #	Organisation	Issue / Comment	Proposed text <del>Red-strikeout</del> means delete and <u>blue underline</u> means insert	AEMO Response (AEMO only)
12		AGL	No Comment		
<b>Gas Interface Protocol (Victoria)</b>					
Ref #	Clause #	Organisation	Issue / Comment	Proposed text <del>Red-strikeout</del> means delete and <u>blue underline</u> means insert	AEMO Response (AEMO only)
13		AGL	No Comment		
<b>Gas Interface Protocol (Victoria)</b>					
Ref #	Clause #	Organisation	Issue / Comment	Proposed text <del>Red-strikeout</del> means delete and <u>blue underline</u> means insert	AEMO Response (AEMO only)
14		AGL	No Comment		
<b>Gas Interface Protocol (Queensland)</b>					
Ref #	Clause #	Organisation	Issue / Comment	Proposed text <del>Red-strikeout</del> means delete and <u>blue underline</u> means insert	AEMO Response (AEMO only)
15		AGL	No Comment		
<b>Gas Interface Protocol (NSW-ACT)</b>					
Ref #	Clause #	Organisation	Issue / Comment	Proposed text <del>Red-strikeout</del> means delete and <u>blue underline</u> means insert	AEMO Response (AEMO only)
16		AGL	No Comment		
<b>Specification Pack Usage Guide</b>					
Ref #	Clause #	Organisation	Issue / Comment	Proposed text <del>Red-strikeout</del> means delete and <u>blue underline</u> means insert	AEMO Response (AEMO only)

17		AGL	No Comment		
<b>Digital Certificate Webpage</b>					
<b>Ref #</b>	<b>Clause #</b>	<b>Organisation</b>	<b>Issue / Comment</b>	<b>Proposed text</b> Red <del>strikeout</del> means delete and blue <u>underline</u> means insert	<b>AEMO Response (AEMO only)</b>
18		AGL	No Comment		