



Economic Regulation Authority

# Decision on gas retail market scheme: Procedure change proposal IN008/24

Submitted by the Australian Energy Market Operator

March 2025

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## Decision

On 6 January 2025, the Economic Regulation Authority received a proposal from the Australian Energy Market Operator (AEMO) seeking approval to amend the Western Australian gas retail market scheme as outlined in procedure change proposal IN008/24.

The proposed amendments are to:

- Move details of digital certification technology necessary for market participants to connect to AEMO's Information Technology (IT) systems from the scheme to a separate webpage.
- Remove from the scheme a document setting out the process for achieving technical certification from AEMO to harmonise the WA and east coast gas retail systems and reduce barriers for east coast retailers to enter the WA market.

Under section 11ZOM(b) of the *Energy Coordination Act 1994*, the ERA requires for the proposal to be amended in line with Appendix 3 of this decision paper, to ensure consistency and clarify to market participants how they will be notified of any proposed changes to technical certification process.

The ERA approves the amendments once these changes have been made.

The ERA considers that these amendments will be suitable for the purpose of the scheme by ensuring that the scheme operates in a manner that is open, competitive and efficient. The amendments will reduce administrative costs and improve business processes.

In accordance with clause 386(2) of the Retail Market Procedures (WA), the approved amendments will take effect on 7 April 2025, as specified by the ERA in the *Western Australian Government Gazette*.

# 1. Background

The Western Australian gas retail market scheme covers the gas distribution systems operated by ATCO Gas Australia Pty Ltd and has the following elements:

1. The WA Gas Retail Market Agreement, which is the agreement between AEMO (the retail market operator) and gas market participants.<sup>1,2</sup>
2. The Retail Market Procedures, which govern the requirements and process for gas full retail contestability (FRC) in the distribution systems covered by the scheme.
3. The FRC Hub Operational Terms and Conditions, which is the communication infrastructure operated by AEMO through which market participants can deliver and receive messages using defined protocols and formats.
4. The AEMO Specification Pack, which includes a set of documents that provide the technical specifications for how AEMO and market participants are to implement business processes to transfer information between each other's systems. These include:
  - a. *Specification Pack Usage Guidelines*, which provide an overview of various documents in the AEMO Specification Pack and the purpose of each document.
  - b. *FRC B2M – B2B Hub System Specifications (WA only)*, which provide the configuration and control settings for the transaction and messaging system.
  - c. *Connectivity Testing and Technical Certification (WA only)*, which describes how organisations wishing to participate in the WA gas retail market can achieve technical certification from AEMO.

The ERA must review any proposed amendments to the gas retail market scheme in accordance with Part 2B of the *Energy Coordination Act 1994* and Chapter 9 of the Retail Market Procedures.

The Gas Retail Consultative Forum facilitates consultation on potential amendments to the scheme. The Forum is comprised of AEMO, market participants, pipeline operators, prescribed persons, and interested persons.<sup>3,4</sup> The ERA is an observer at the Forum.

In consultation with the Forum, AEMO consults on proposed amendments to the gas retail market scheme and submits proposals to the ERA for approval.

<sup>1</sup> A retail market scheme for a distribution system must consist of one or more agreements made between gas market participants, a retail market operator, and a set of retail market rules. See *Energy Coordination Act 1994* (WA), section 11ZOF(1), ([online](#)).

<sup>2</sup> Market participants include users (i.e., retailers) and the network operator (currently ATCO Gas in WA). See Retail Market Procedures (WA), 16 September 2024, Clause 2, ([online](#)).

<sup>3</sup> Retail Market Procedures (WA), 16 September 2024, Clause 381(5), ([online](#)).

<sup>4</sup> An interested person is a government representative, the ERA, or any person that the ERA or AEMO considers has a legitimate interest in the matter or should be consulted in relation to the matter. A prescribed person includes a swing service provider, a shipper or a self-contracting retailer. See Retail Market Procedures (WA), 16 September 2024, Clause 2, ([online](#)).

## 1.1 The ERA's obligation

When considering a proposed amendment to the scheme, the ERA may approve it; request that it be changed and approve it in a changed form; or refuse to approve it.<sup>5</sup>

The ERA may approve any amendments to the scheme if it considers that the amendments will:

- Comply with the Act.
- Be suitable for the purpose of the scheme, which is “to ensure that the retail gas market that is supplied through the system is regulated and operates in a manner that is open and competitive; efficient; and fair to gas market participants and their customers.”<sup>6</sup>

The ERA can also consider any other relevant matters to make its decision.<sup>7</sup>

Prior to approving any amendment, the ERA must ensure that:

- Scheme members have consulted with prescribed persons and gas transmission operations whose pipeline is used to transport gas into the system.<sup>8</sup>
- Each person required to be consulted has agreed to the amendment, or if they have not agreed, then they have been given a reasonable opportunity during consultation to provide reasons for not agreeing, and the ERA must consider these reasons.<sup>9</sup>

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<sup>5</sup> *Energy Coordination Act 1994* (WA), section 11ZOM, ([online](#)).

<sup>6</sup> *Ibid*, sections 11ZOB and 11ZOO(a).

<sup>7</sup> *Ibid*, section 11ZOO(b).

<sup>8</sup> *Ibid*, section 11ZOL(3).

<sup>9</sup> *Ibid*, section 11ZOO(2).

## 2. AEMO's proposal IN008/24

In January 2025, AEMO sought the ERA's approval of the proposal to amend the gas retail market scheme.<sup>10</sup> AEMO consulted with Forum members to develop this proposal.

The proposal IN008/24 deletes *Connectivity Testing and Technical Certification (WA only)* from the AEMO Specification Pack and moves details about digital certificate technology for communications between AEMO and market participants' IT systems from AEMO Specification Pack to a separate webpage maintained by AEMO.

AEMO requested the ERA to consider, endorse, and publish its approval of the changes by early March 2025, with an effective commencement date of 7 April 2025. A summary of the proposed timeline is available in Appendix 1.

In its proposal, AEMO submitted that the proposed amendments do not require substantial process or system changes and do not materially alter consumer protection mechanisms under the Procedures.

The proposed changes are summarised below.

### 2.1 Summary of proposed changes

Electricity and gas market participants connect to many of AEMO's IT systems using Transport Layer Security (TLS) certificates. The FRC Hub requires the use of TLS certificates to authenticate through AEMO's network.

In 2023, the ERA approved AEMO's proposal IN001/23W, which included several changes to the IT communication process between AEMO and participants' IT systems.<sup>11</sup> These were:

- Changes to require market participants to ensure currency of their AEMO-issued digital certificates and request AEMO for re-issues and renewals when required.
- Changes to allow for the use of a new digital certification technology (TLS v1.2), in place of the then existing technology (TLS v1.0 and TLS v1.1).
- Creating a new interface to allow participants and network users to self-manage their AEMO-issued digital certificates to access AEMO systems.

AEMO will soon move to next version of the digital certification technology (TLS v1.3) which will require updating the documents in AEMO Specification Pack.

Under this proposal, the technical documents in the scheme will no longer specify digital certification technology required for market participants to connect to AEMO's IT systems and how organisations wishing to participate in the WA gas retail market can achieve technical certification from AEMO. Achieving technical certifications shows that a market participant's and AEMO's IT systems can connect and communicate with each other.

<sup>10</sup> Australian Energy Market Operator, 6 January 2025, *IN008/24 – TLS Changes and TP Changes Consultation*, ([online](#)).

<sup>11</sup> Economic Regulation Authority, May 2023, *Decision on gas retail market scheme: Procedure change proposals IN001/23W, IN003/22W and IN004/21W*, pp. 4- 5, ([online](#)).



Updating the AEMO Specification Pack for each new technology release – and having to go through the procedure change process each time – is not an efficient use of resources. Instead, AEMO is proposing to:

- Move details of the certification technology required to access AEMO's IT systems from clause 5.4 of the *FRC B2M – B2B Hub System Specifications (WA only)* to a separate webpage created by AEMO.
- Update *FRC B2M – B2B Hub System Specifications (WA only)* to refer to this webpage.

Adopting the changes will remove any need for AEMO to consult the Forum and request the ERA's approval for any subsequent updates to the certification technology as the updates will be reflected on AEMO's webpage. AEMO will continue to support the previous version of the certificate until the dates specified on the webpage.<sup>12</sup>

*FRC B2M – B2B Hub System Specifications (WA only)* will further explain that:

- AEMO may amend the protocols by amending information on its webpage and notifying Forum participants of the change.
- The webpage will specify the notification period AEMO will give to GRCF participants.
- Market participants must update their certificates via the self-service certificate management.

Additionally, AEMO is seeking approval to:

- Remove *Connectivity Testing and Technical Certification (WA only)* from the AEMO Specification Pack and therefore the scheme.<sup>13</sup> AEMO advised the proposed change harmonises the technical requirements in its Western Australian IT systems with the IT systems on the east coast.<sup>14</sup>
- Correct a minor typographic/grammatical error in clause 5.3 of the *FRC B2M – B2B Hub System Specifications (WA only)*. The change was proposed by Alinta Energy during one of the earlier rounds of consultation.

AEMO considers the proposed changes would benefit customers through more efficient use of resources and reduced administrative costs as the proposal removes the ongoing need to conduct a formal consultation for each new version of the digital certification technology, which can be rolled out routinely as technology advances.

AEMO expects costs of implementing these changes will be negligible as they do not require substantial process or system changes.

<sup>12</sup> Based on the draft of the webpage in Attachment E of AEMO's application to the ERA: see Australian Energy Market Operator, 6 January 2025, *IN008/24 – TLS Changes and TP Changes Consultation*, ([online](#)).

<sup>13</sup> Specifically, AEMO proposes to remove the document from Specification Pack Usage Guide and related references to AEMO Specification Pack from clause 21A of the Procedures as well as definitions of *FRC Hub certification criteria* and *FRC Hub certification process* contained in the Procedures.

<sup>14</sup> The east coast certification document (Gas FRC B2B Connectivity Testing and System certification (VIC, QLD, SA, and NSW/ACT)) is not included in Gas Interface Protocol, which is equivalent to AEMO Specification Pack.

## 2.2 Consultation process

The Procedures require AEMO to invite market participants to provide feedback to the ERA on the procedure change proposals submitted by AEMO.<sup>15</sup> Prior to approving any amendment, the ERA is required under the Act to ensure that each person required to be consulted has agreed to the amendment.<sup>16</sup>

In September 2024, AEMO provided details about the proposal IN008/24 to the Forum participants and invited members to make submissions. AEMO received submissions from AGL, Alinta, Origin Energy and a few non-Western Australian participants. The submissions generally supported or noted the proposal, though AGL suggested the Procedures should contain the basic notification framework.

On 15 October 2024, AEMO published its Proposed Procedure Change inviting comments from market participants.<sup>17</sup> During the consultation period, Alinta and AGN expressed their support for AEMO's proposal. AGL suggested the Procedures oblige AEMO to notify market participants of any upcoming technology changes.<sup>18</sup> AEMO amended *FRC B2M – B2B Hub System Specifications (WA only)* to clarify that updating the certification technology requires AEMO to amend its webpage and notify the Forum participants.

On 4 November 2024, AEMO published the Impact and Implementation Report for comment. AEMO received submissions from AGL, Alinta, and Red Energy/Lumo Energy. All submissions supported the changes, though Alinta proposed some minor amendments that AEMO accepted and incorporated into proposal IN008/24.

On 6 January 2025, AEMO advised market participants that it had submitted procedure change proposal IN008/24 to the ERA for approval and provided information on how to make a submission to the ERA by 20 January 2025.

The ERA received three submissions from AGL Energy, Alinta Energy and Synergy, which supported AEMO's proposal. Copies of the submissions are provided in Appendix 2.

In the absence of any submissions opposing the amendments, the ERA accepts that each person who is required to agree with the amendments set out in proposal IN008/24. AEMO has completed the consultation process required by the Act and Procedures.

<sup>15</sup> Retail Market Procedures (WA), 16 September 2024, Clause 383(4), ([online](#))

<sup>16</sup> *Energy Coordination Act 1994* (WA), section 11ZOO(2), ([online](#)).

<sup>17</sup> Australian Energy Market Operator, 15 October 2024, *Proposed Procedure Change IN008/24*, ([online](#)).

<sup>18</sup> Australian Energy Market Operator, 4 November 2024, *Impact and Implementation Report – IN008/24*, p. 15, ([online](#)).

### 3. The ERA's assessment

To approve an amendment, the ERA must be satisfied that the retail market scheme will:

- comply with the Act
- be regulated and operate in a manner that is:
  - open, competitive, and efficient
  - fair to gas market participants and their customers.

The ERA is satisfied that the changes will reduce administrative costs, and increase efficiency by promoting consistency across the Australian jurisdictions. These changes will result in improved efficiency by removing the need to undertake a procedure change process for each new version of the certification technology.

The amendments will not impose any additional obligations on customers or remove existing customer protections as they do not remove the requirement to participate in the certification process. The Procedures further set out AEMO's obligations relating to the certification, which will continue to be audited under clause 351 of the Procedures. The changes require AEMO to maintain a table containing information about the supported versions of the certification technology, notify market participants of any changes to them, and to specify notification period on its webpage. Further, achieving technical certification does not imply that the applicants can participate in the Western Australian gas retail market.

The ERA observes that the Procedures do not define what the Connectivity Testing and Technical Certification document is and what it does. However, none of the submissions during AEMO's or the ERA's consultation processes suggested that such definition was necessary. The ERA received a submission from Alinta and AGL supporting the proposal in its current form. Synergy did not object to the changes as proposed. These submissions are provided in Appendix 2.

During AEMO's consultation processes, AGL considered that the Procedures were unclear on how market participants would be notified of the changes and should contain the basic notification framework. Following this feedback, AEMO incorporated some changes to its proposed amendments and observed that AEMO Specification Pack effectively have the same status as the Procedures.

The ERA contacted AEMO observing that under the proposed changes the webpage must specify the notification period but not any mode of notification. AEMO advised it will send an email notification of the proposed change to Forum participants and will discuss the change during Forum meetings. AEMO has amended its proposed webpage text accordingly. As AEMO has proposed to remove the *Connectivity Testing and Technical Certification (WA only)* document from the scheme, AEMO further confirmed that description of *Connectivity Testing and Technical Certification (WA only)* in section 3.6 of Specification Pack Usage Guide should be removed. The ERA approves proposal IN008/24 subject to changes set out in Appendix 3 of this paper to ensure consistency across the scheme documents and clarify to market participants how they will be notified of any proposed changes to AEMO's webpage containing details of the requisite digital certification technology .

The ERA considers that the amendments are fair to market participants as they reduce costs and harmonises the approach to technical documentation with east coast. The amendments will result in the IT system requirements in the Western Australian gas market being harmonised with the east coast gas markets, which will reduce barriers for an existing east

coast retailer to enter the Western Australian market. AEMO considers that the costs of the changes will be negligible.

The ERA is satisfied by AEMO's assessment that the proposed amendments do not contravene any applicable laws, including the Act and the Procedures.

The approved amendments will take effect on 7 April 2025 as specified by the ERA in the *Western Australian Government Gazette*.

Appendix 3 sets out the amendments which have been approved.

## Appendix 1 Timeline of consultation process

The Retail Market Procedures outline the process that AEMO must follow to progress procedure change proposals.<sup>19</sup> The timeline for each procedure change proposal is outlined in Table 1.

**Table 1: Timeline of consultation process**

Action	Date
PPC issued by AEMO to market participants for comment	15 October 2024
Submissions on PPC closed	29 October 2024 3 submissions received
IIR issued by AEMO to market participants for comment	4 November 2024
Submissions on IIR closed	3 December 2024 3 submissions received
AEMO published notice of decision	6 January 2025
Public consultation on AEMO's proposal opens	6 January 2025
Public consultation on AEMO's proposal closes	20 January 2025 3 submissions received
The ERA decides whether to approve the amendments	26 February 2025
Approved amendments will be published in the <i>Western Australian Government Gazette</i>	early March 2025
Approved amendments will take effect (as per the ERA's notice in the <i>Western Australian Government Gazette</i> )	7 April 2025

<sup>19</sup> Retail Market Procedures (WA), 16 September 2024, Chapter 9, ([online](#)).

## Appendix 2 Submissions received

The ERA received three submissions from AGL, Alinta Energy, and Synergy, provided overleaf.

**Consultation:** Amendments to the gas retail market scheme - IN008/24 - Changes to the Transport Layer Security certificates and Technical Protocol Opens in new window

**Are you submitting as an individual or on behalf of an organisation?:** Individual

**Full Name:** [REDACTED]

**Email:** [REDACTED]

**Telephone:** [REDACTED]

Dear Sir/Madam  
Thankyou for the opportunity to comment further on the AEMO proposal for managing the Participant gas Transport layer Security Certificate process. AGL, which participates in all the Australian gas markets – WA and East Coast, has actively participated in the AEMO consultation and supports the proposed changes to enhance cyber security in a consistent manner across the Australian Industry.

**Comments:** If you have any queries, please contact me.

Rgds  
[REDACTED]  
[REDACTED]  
Senior Industry Advisor  
m: [REDACTED]  
e: [REDACTED]

**Document 1:**

**Document 2:**

**Terms of submission:** This submission can be published on the ERA's website.



20 January 2025

Elena Mikhaltsevitch  
Contact Officer  
Economic Regulation Authority

Dear Elena

**Amendments to the gas retail market scheme - IN008/24 – Changes to the transport Layer Security (TLS) certificates and Technical Protocol**

Synergy has no objection to IN008/24 and agrees with AEMO's view that the proposal is consistent with the National Gas Objective (**NGO**) because it will remove costs associated with unnecessary differences in processes and procedures and is in the long-term interests of consumers as it promotes clarity and consistency for gas retail market participants.

Please contact me on [REDACTED] should you have any queries in relation to this submission.

Yours sincerely



**NETWORK REGULATION & COMPLIANCE MANAGER**





16 January 2025

Mr Steve Edwell  
Chair  
Economic Regulation Authority  
PO Box 8469  
PERTH BC WA 6849

Dear Mr Edwell

**Amendment to the Gas Retail Market Scheme  
Procedure Change IN008/24**

Alinta Energy supports AEMO's proposed procedure change IN008/24: Changes to the Transport Layer Security (TLS) certificates and Technical Protocol (TP).


The procedure change proposes to create a webpage that will contain all details about the TLS certificates required by participants to access AEMO's systems. The TP documents will be amended so they are agnostic to the TLS certificate version and instead refer to the webpage. All subsequent updates to the TLS certificates will be reflected on the webpage only, removing the need to conduct a formal consultation.

Alinta Energy has been actively involved in the development of this procedure change and has made written submissions to AEMO at each stage of the consultation process.

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.

Please contact me if you have any questions regarding this submission.

Yours sincerely,

  
Manager WA Retail Regulation  
Alinta Energy

## Appendix 3 Summary of amendments

Green underline text represents additions and ~~red strikethrough text~~ represents deletions. The ERA's initiated changes are highlighted in Yellow.

The following amendments to the Procedures and technical documents have been approved:

### Retail Market Procedures (WA)

#### 2. Definitions

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

#### 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.
- (5) The consequences of AEMO cancelling a *FRC Hub compliance certificate* for the person whose *FRC Hub compliance certificate* has been cancelled are:
  - (a) the person must continue to comply with its obligations under these *procedures*; and
  - (b) the person is not entitled to personally send and receive *notices* under these *procedures* via the *FRC Hub* at any time during the period its *FRC Hub compliance certificate* is cancelled; and

- (c) subject to clauses 22(6) and 22(10), the status of the person's *GBO identification* remains "active".

{Note: As set out in the *FRC Hub Conditions*, the prohibition on a person personally sending *notices* via the *FRC Hub* while the person's *FRC Hub compliance certificate* has been cancelled only relates to aseXML transactions, because only aseXML transactions are sent via the *FRC Hub*.

The person whose *FRC Hub compliance certificate* has been cancelled ("**first person**") could arrange for another person who holds an *FRC Hub compliance certificate* ("**second person**") to send *notices* on the *first person's* behalf, in order for the *first person* to continue complying with their obligations under these *procedures*.

If the *first person* cannot and does not continue to comply with their obligations under these *procedures*, their breach of the *procedures* could be, if it has not been already, referred to AEMO or the *compliance panel* under Chapter 6.}

- (6) AEMO must restore a cancelled *FRC Hub compliance certificate* upon demonstration by the person whose *FRC Hub compliance certificate* has been cancelled, to AEMO's satisfaction as a *reasonable and prudent operator* and having regard to the *FRC Hub certification criteria*, that the person is no longer in breach, or has remedied the breach, of the *procedures* as referred to in clause 21A(4).

### **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 \(aemo.com.au\) Manage-TLS Certificates](https://aemo.com.au/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.

Messages will be signed by the From party private key and be routed to the To party via the FRC Hub.

The hub will verify this signature against the participant's certificate. The hub is the only repository of certificates issued by the associated FBS Certificate Authority (FBS-CA). Individual participants will not need certificates from other participants.

The hub will then re-sign the message with the FRC Hub private key and forward the message to the To party. The To party then verifies the message signature against the FRC Hub certificate

A motivation for using ebXML was for a technology that provided for a signed payload to provide for non-repudiation of receipt. Using the webMethods hub

security services does not change the certainty of non-repudiation of receipt; it simply changes the procedures to be followed in the event of dispute resolution. The FBS Administration will describe these in detail in due course; but in short non-repudiation of receipt will be verifiable as follows:

In the event there is a dispute about an alleged difference in an aseXML payload document both parties will supply their copies of the aseXML payload document in question to the FBS Administration. If these documents do differ:

The sender will be asked to sign and send both documents using the same hash-code algorithm. The hash-codes that are generated will be checked against the hash-code and algorithm reference that is archived at the hub.

The FRC Hub will re-sign both documents against the hash-code algorithm reference that is archived at the hub and compare these hash-codes with the appropriate hash-code reference that is archived at the FRC hub.

The outcome of this process will reveal exactly what content was sent.

The ebXML Message Service Specification provides for multiple signatures on the payload to facilitate the sort of process described here, whilst providing the benefit of leaving the sending signature intact. Vendor tool support for this functionality is not yet present, so this methodology will not be used in the FBS.

## 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 and explains how AEMO will notify GRCF participants.

~~The p~~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.

### **Specification Pack Usage Guidelines**

## **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:

<b>Main Directory</b>	<b>Sub-Directory</b>	<b>Documents</b>	<b>Version</b>
Specification Pack	1. Usage Guidelines	Specification Pack Usage Guidelines	8. <del>8</del> 9
	2. Interface Control Document (ICD)	Interface Control Document	5. <del>3</del> 4
	3. B2B System Interface Definitions	FRC B2B System Interface Definitions	5. <del>2</del> 3
	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. <del>0</del> 1  3.7
	5. CSV File Format	FRC CSV Data Format Specification	3.3
	<del>6. Connectivity and Technical Certification (WA Only)</del>	<del>Connectivity Testing and Technical Certification (WA Only)</del>	<del>3.8</del>
	7. Readiness Criteria (WA Only)	Readiness Criteria (WA Only)	2.3
	8. Service Order Specifications	B2B Service Order Specifications, Part 1 (WA only) and Part 2 (WA only), For SA Participant Build Pack 1 - Table of Transaction, Job Enquiry Code tab, and Elements tab (only the Job Enquiry Code 1, 2 and 3 elements)	2.6 and 3.6
	9. aseXML Schemas	The complete set of aseXML schemas and examples which participants have subscribed to for SA / WA Gas is available from <a href="http://www.aemo.com.au/asexml">www.aemo.com.au/asexml</a>	SA – R40 WA – R40

	10. GasEnumerations.xsd	Enumerations file containing the gas-specific enumerations that can be added to at short notice and can be released outside of the standard aseXML change cycle.	SA – 1.0.0 WA – 1.0.0
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### 3.6. Connectivity Testing and Technical Certification (WA Only)

The Connectivity Testing and Technical Certification document describes the process through which organisations wishing to participate in the WA Gas Retail Markets can achieve technical certification from the relevant Market Operator.

Technical Certification includes most activities that would be termed connectivity testing. However, some interfaces are not covered by Technical Certification. This document therefore also provides an overview of those areas of Connectivity Testing not covered by Technical Certification.

The document is in three parts:

1. The certification process relating to transactions routed via the FRC Hub;
2. The certification process relating to the automated electronic file interface (FTP) between market participants' gateways and the gas retail market system (GRMS) operated by AEMO for the WA Gas Retail Market; and
3. Connectivity Testing for those interfaces not addressed in Technical Certification.