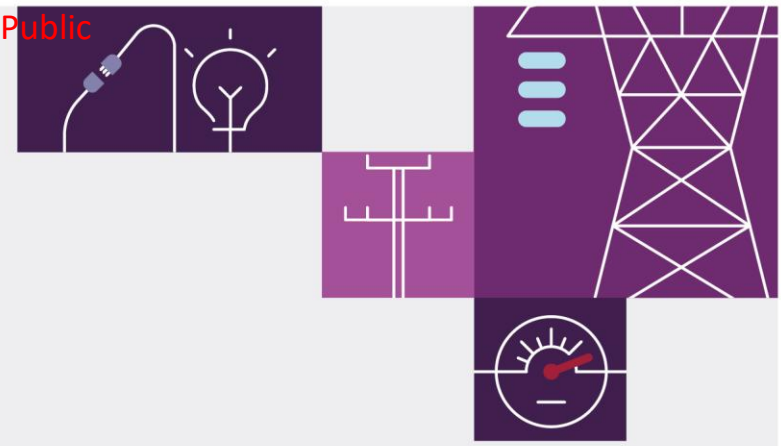
MSR-BPQD-IDX Release July 2026

May 2026

Frequently Asked Questions

Public



Important notice

Purpose

This document has been developed to support Participant's with their preparations for participation in Industry Testing and go-live of the Metering Services Review - Basic Power Quality Data initiative (1 July 2026).

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Version control

Version	Release date	Changes
0.1	2 May 2026	Initial

AEMO acknowledges the Traditional Owners of country throughout Australia and recognises their continuing connection to land, waters, and culture. We pay respect to Elders past and present.

Contents

Tables

AEMO acknowledges the Traditional Owners of country throughout Australia and recognises their continuing connection to land, waters, and culture. We pay respect to Elders past and present.

1. Industry testing and timing

Q: When will industry testing start?

- Delayed by 1 week → now starts 25 May (pre-prod readiness required)

Q: Will full functionality be available from day one (25 May 2026)?

- **No**:
    - Core APIs available from 25 May 2026
    - Web UI from ~1 June 2026 at the earliest

2. Gateway software

Q: When will the gateway software be available?

- Releases before testing Friday 18 May. Though participants would only be able to progress setup to the point of connecting to the business function APIs until the hub itself is available on 25 May

Q: What does the gateway do?

- Acts as an integration layer between participant systems and IDX
- Handles API calls, payload signing, and message handling

Q: Can it support HA / multiple instances?

- **Yes** (stateless design)
- Active-active possible, but may result in duplicate processing risk. Participants should implement idempotency.

Q: When does delete occur (for messages)?

- Only after successful delivery to destination → ensures *at-least-once delivery*

Q: How are inbound transaction files named in the gateway software? Can that be changed?

- By default, files are named using the message context ID, but this can be configured.

Q: Can the AEMO gateway call another API on exceptions (for alerting)?

- Not directly, but since it uses Log4j, alerting can be implemented via appenders (e.g., event log, email, or potentially other integrations).

Q: Can the gateway run in HA (high availability)?

- **Yes.** It is stateless and can run in active-active, though duplicates may occur because there is no distributed coordination between instances.

Q: Can the gateway deliver the same file to multiple locations?

- **Yes,** this can be configured

Q: Is there a list of URLs/hosts the gateway needs access to for firewall/proxy allowlisting?

- **Yes.** The required base URL is defined in the configuration/properties file, and all resource endpoints are built from it.

Q: How is the 90-day password reset handled in the gateway software?

- The base install stores the client secret encrypted in the config file, but best practice is to use a secrets manager such as Azure Key Vault, AWS Secrets Manager, or similar.

Q: Can the gateway use LDAP instead of only local users?

- **Yes.** LDAP is supported, though the default setup uses local users.

Q: Is the monitor dashboard specific to each user?

- **Yes.** Dashboards are user-specific and follow the user across devices.

Q: Is the gateway already set up for consuming BPQD out of the box?

- **Yes.** The installation process shown would create a working setup for sending and receiving BPQD into the inbox/outbox folders.

Q: At what point does the gateway delete a message from the IDEX hub?

- The delete is the last step, after the message has been successfully delivered to the target, ensuring at-least-once delivery semantics.

Q: Can certificates be stored and referenced from a key vault?

- The default setup expects certificates in a keystore file, but other models are supported if preferred, including using host-level certificate stores.

3. APIs & architecture (IDX/BPQD)

Q: What is the message pattern?

- "Fire and forget" REST API
- No acknowledgements are required. Receiving Participants will need to delete messages from their queue to complete the end-to-end message delivery process.
- Initiating Participant BPQD message delivery is considered successful after receiving a 201 response.

Q: How do participants know messages are available?

Three options:

1. Poll the queue, via the metadata endpoint (available now)
2. Event notifications for message delivery, via WebSockets (future – Q3)

Q: How often can Participants poll the queue?

- Max 50 requests per minute per endpoint per participant. In practice, polling is expected to be less frequent than that. Participants will receive a 429 error if sending more than 50 requests per minute, whereby they should stop sending requests through to that endpoint and reduce their throughput to within the quota limit.

4. Queue, polling & archive

Q: When will the archive be available?

- Archive API: available from 25 May
- Archive UI: expected in Q3 2026

Q: What is the outbound queue retention period or message time-to-live?

- Queue TTL: 10 days (not 5 days). After that, messages are deleted from the queue and moved to the archive.
- Archive TTL: 30 days. After that, messages are purged from the IDX hub.

Q: Can we bulk download archive data?

- Not in release one. Only one message at a time can be retrieved from the archive. A replay-style bulk feature is planned for release two.

Q: Is IDX responsible for long-term storage?

- No, participants are responsible for long-term retention of messages.

5. Flow control & limits

Q: Are the flow control limits based on business discussion or platform constraints?

- They were based on discussions with participants and business owners, not platform constraints, and may be adjusted based on pre-production feedback

Q: What are the queue limits?

- High watermark: 200 messages → STOP
- Warning: 120 messages
- Low watermark: 60 messages → resume flow

Q: Should senders stop sending if receiver is stopped?

- No
- Continue sending → failed attempt (503) still meets procedural obligations

Q: How are participants notified of flow control issues?

- Immediate: API errors (e.g., 503)

- Manual: Poll flow control API
- Future: Real-time notifications (Q3)

Q: How are participants notified if flow is stopped?

- **Four ways are available.**
    - Initiators get a 503 error response when sending to a stopped participant.
    - **Participants themselves can poll the flow control endpoint** to know if they are stopped.
    - Participants can check other participant's status to see who is in breach (warn or stopped).
    - In **Q3 2026**, a **websocket-based event notification service** is planned for real-time notification

Q: Does polling the flow-control endpoint count toward the 50 requests-per-minute BPQD polling limit?

- **No**. It is a separate API and does not count toward that limit

6. Security & authentication

Q: What authentication model is used?

- OAuth2 (client credentials) using URM username/password as the client-id/client-secret.

Q: Do URM passwords still expire every 90 days for OAuth client credentials?

- **Yes**, since release one uses URM username/password as the client ID/client secret, the 90-day password expiry still applies

Q: Are TLS certificates required?

- **Yes** – for:
    - mTLS connectivity
    - Payload signing (non-repudiation)

Q: Can certificates be automated (key vault)?

- Secrets can be externalised
- Certificates typically handled via keystore or OS mechanisms

Q: Where do you submit CSRs for TLS certificates?

- Through the TLS certificate management application on the Markets Portal, using the reissue function.

Q: Can the password renewal process be automated?

- There is an existing MSATS API/password reset API that can be used to reset your URM passwords.

Q: Is the URM password visible to admins after being set?

- **No.** It is not recoverable; it would need to be reset if lost

7. Message handling & structure

Q: How are messages identified?

- Via Message Context ID (primary tracking key across APIs)

Q: How are inbound messages validated?

- Inbound messages must be signed, and will be non-repudiation validated on the IDX Hub:
    - Payloads are signed using your unique private key,
    - Signature is Base64 encoded
    - Base64 encoded signature is attached in the x-signature request header

Q: If you retrieve a message using "get first," do you still get the message context ID?

- **Yes.** The message context ID is returned in the response headers, along with other metadata such as schema version and traceability ID.

Q: Are messages delivered in order?

- Yes, for BPQD messages are delivered to a participant's queue as first-in-first-out.

Q: Should initiators stop sending when a recipient is in flow-control stop state?

- **No.** They should still attempt to send. If they receive a 503, that still counts as meeting their procedural obligation.

Q: Can duplicate messages occur?

- Yes, participants MUST implement idempotent processing using the Message Context ID. We recommend that initiating partiicpants always use unique Message Context IDs for each message sent into the IDX Hub.

8. Monitoring & UX

Q: What UI capabilities are available?

- Transaction log (available early)
- Flow control + participant status
- Archive UI (later release)

Q: Can participants monitor performance?

- **Yes** via:
    - APIs

- Portal dashboards
- Gateway monitor (optional tool)

9. Testing readiness / onboarding

Q: What's required to participate in testing?

- Submit registration form
- Have:
  - MarketNet connectivity
  - TLS certificates
  - URM roles configured
- Coordinate peer testing (sender + receiver)

10. Reference documents

Table 1 BPQD-IDX Release reference documents and web sites

#	Document name
1	2025 Metering Services Review Package 3 (BPQD) final report
2	AEMO | Market Interface Technology Enhancements initiative site
3	AEMO Metering Services Review - Accelerating Smart Meter Deployment Initiative Site
4	MSR High Level Implementation Assessment Final
5	IEC BPQD Consultation
6	BPQD Procedure Expedited Consultation
7	Technical Specification - Industry Data Exchange - Basic Power Quality Data - June 2026
8	Technical Specification - Industry Data Exchange - Industry Data Exchange Platform - June 2026
9	Portal Consolidation- Release 1A UI Changes
10	Industry Data Exchange – AEMO Gateway Software – May 2026

Glossary

Term	Definition
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
API	Application Programming Interface
BAU	Business As Usual
BPQD	Basic Power Quality Data
Cutover	System or process implementation event
DNSP	Distribution Network Service Provider
IDX	Industry Data Exchange
IF	Implementation Forum
Industry testing	Informal, uncoordinated testing by participants in AEMO's IT environments. Self-testing of functionality such as connectivity, and/or coordinated multi-party testing of functional scenarios.
ITWG	Industry Testing Working Group
MC	Metering Coordinator
MSR	Metering Services Review
NEM	National Electricity Market
NER	National Electricity Rules
OAuth	Open Authorisation
PC	Portal Consolidation
Q&A	Question and Answer
SME	Subject Matter Expert
UI	User Interface