Department of **Energy, Mines, Industry Regulation and Safety**
Energy Policy WA

GOVERNMENT OF WESTERN AUSTRALIA

TDOWG Meeting 51

18 July 2024

Working together for a **brighter** energy future.

Agenda

9.30am	Welcome and overview
9.35am	FCESS Costs Solutions – Addressing WEM Rules problems / deficiencies
10.30am	FCESS Costs Solutions – Reinforcing Participants obligations
11.15am	Other Proposed Amendments
11.25am	Next Steps

Welcome

Please place your microphone on mute, unless you are asking a question or making a comment.

- **Please keep questions relevant to the agenda item being discussed.**
- **If there is no break in discussion and you would like to say something, you can 'raise your hand' by typing 'question' or 'comment' in the meeting chat. Questions and comments can also be emailed to energymarkets@dmirs.wa.gov.au after the meeting.**
- **If you are having connection/bandwidth issues, you may want to disable the incoming and/or outgoing video.**

EPWA, AEMO and the ERA - Long list of issues

Description
The FCESS tie-break method used can dispatch more facilities for an FCESS than are needed, which will lead to higher FCESS Uplift costs than necessary.
Energy Market Clearing Prices reaching the cap due to the prices in submissions rather than real-time shortfalls.
Market Participants failing to convert Available Capacity to In-Service Capacity when Market Schedules indicate that a Facility will be dispatched for a Market Service
Notice periods for Available Capacity in submissions appear to be longer than necessary in some cases.
Minimum enablement quantities for some FCESS appear to be higher than would seem necessary.
"Facilities stuck in Trapezium" in the reference scenario due to a minimum enablement constraint, but this does not occur in the in-Service-Capacity-Only scenario (or in the actual primary dispatch run).
Large variations (reductions) in Forecast Unscheduled Operational Demand over the period leading up to a Dispatch Interval during which MPs make their commitment decisions.
Use of persistence forecasts for all Dispatch Intervals in a Dispatch Schedule when intermittent output is reducing.
The Dispatch Engine will tend to dispatch all the available RoCoF, because it is being priced at $0/MWs/hour, and dispach is not currently taking into account the effect of this dispatch on FCESS Uplift Payments.
The rules relating to intervention events and intervention pricing fit for purpose or could lead to inefficient market outcomes
There may be Dispatch Intervals where the FCESS requirements are higher than necessary
FCESS Clearing Price Ceilings may be set too high. The current formula is Energy Offer Price Ceiling - Energy Offer Price Floor + the relevant FCESS Offer Price Ceiling.

Shortlisted Issues / Solutions

	Description	Potential Impact / Materiality	Proposed Solution
Rules/Design issues	The FCESS tiebreak method used can dispatch more Facilities for an FCESS than are needed	Inefficient dispatch with higher FCESS Uplift Payments than necessary.	Change the tiebreak method
	WEMDE dispatches all the available RoCoF Control Service, as it is being priced at $0/MWs/hour, not taking into account the effect of this on FCESS Uplift Payments.	Inefficient dispatch with higher FCESS Uplift Payments than necessary. NOTE: We will continue to work on the design of the RoCoF market.	Remove FCESS Uplift Payments for RoCoF Control Service, but provide Energy Uplift Payments for Facilities that are constrained on specifically to provide RoCoF Control Service
	Overcompensation through the combination of FCESS payments and FCESS Uplift Payments	Increased FCESS costs overall.	Change the formulation to make sure that no one is “overcompensated” for the provision of FCESS
Participants behaviour	Market Participants failing to convert Available Capacity to In-Service Capacity when Market Schedules indicate that a Facility will be dispatched for a Market Service.	Real-time shortfalls and unnecessarily high Market Clearing Prices.	Include an obligation on Market Participants to move their capacity to “In-Service” if AEMO projects a “shortfall” in energy, Contingency Reserve Raise or Regulation Raise
	Notice periods for Available Capacity in submissions appear to be longer than necessary in some cases.	Capacity shortfalls and/or the dispatch of more expensive plant when less expensive plant should have been dispatched instead.	Change the definition of Start Decision Cutoff to reflect the actual state of the Facility.
	Energy Market Clearing Prices reaching the cap due to the prices in submissions rather than real-time shortfalls.	Unnecessarily high Market Clearing Prices	Revisit some of the Market Power Mitigation Strategy changes to ensure bids reflect costs, and correct the rules for setting the Energy Offer Price Ceiling

Addressing WEM Rules problems / deficiencies

Jenny Laidlaw

The FCESS tiebreak method can dispatch more Facilities than are needed (1)

The problem:

- **Tied FCESS offer tranches are dispatched on a pro-rata basis (i.e. in proportion to tranche size)**
- Dispatches the maximum number of Facilities – potential increase in FCESS Uplift Payments
- Increases likelihood of dispatching Facilities for negligible Enablement Quantities

Proposed changes:

- **New tiebreak method for FCESS to**
- Reduce where possible the number of Facilities dispatched for a given FCESS
- Prioritise the dispatch of Facilities that are more likely to have lower FCESS Uplift Payments
- **New method requires AEMO to determine a unique random number (Facility Tiebreak Number) for each Facility for each Trading Day according to a WEM Procedure**

The FCESS tiebreak method can dispatch more Facilities than are needed (2)

Proposed FCESS tiebreak order

- **Quantities from Interruptible Loads, in ascending order of Facility Tiebreak Number; then**
- **Quantities from Scheduled Facilities and Semi-Scheduled Facilities with Enablement Minimum <= 0, in ascending order of Facility Tiebreak Number; then**
- **Quantities from Scheduled Facilities and Semi-Scheduled Facilities with Enablement Minimum > 0, in ascending order of**
- Estimated energy dispatch cost based on RTMS (sum of Quantity x LFAOP for tranches up to adjusted Enablement Minimum), then
- Facility Tiebreak Number

Also proposing to change energy tiebreak method (to use ascending Facility Tiebreak Number)

- **reduce likelihood of dispatching infeasible energy quantities**

WEMDE dispatches all the available RoCoF Control Service, not taking into account the effect on FCESS Uplift Payments (1)

The problem:

- **WEMDE/DFCM dispatches all available RoCoF Control Service because assumed to be zero cost**
- **Can lead to unnecessary FCESS Uplift Payments if the inertia provided by additional synchronised Facilities is not needed**

Currently all RoCoF Control Service providers are thermal generators – provide inertia as part of normal operation

Seeking a short-term solution pending a broader review of RoCoF Control Service procurement and compensation

WEMDE dispatches all the available RoCoF Control Service, not taking into account the effect on FCESS Uplift Payments (2)

Proposed changes:

- **Restore mandatory requirement for accredited Facilities to make Real-Time Market Submissions for RoCoF Control Service and offer their full accredited capacity (subject to usual caveats for outages, etc)**
- **Remove FCESS Uplift Payments for RoCoF Control Service provision**
- **AEMO will constrain a Facility on to specifically provide RoCoF Control Service if necessary to maintain Power System Security**
- **A Facility constrained on to provide RoCoF Control Service will be eligible for Energy Uplift Payments**

Overcompensation through the combination of FCESS payments and FCESS Uplift Payment (1)

The problem:

- **FCESS Uplift Payments intended to keep Market Participants whole when they provide one or more FCESS in a Dispatch Interval**
- **Current calculation covers losses on Enablement Minimum when energy offer price > energy Market Clearing Price (enablement losses)**
- **FCESS Market Clearing Prices can be high enough to cover all or part of a Market Participant's enablement losses – no need for all the current FCESS Uplift Payment**

Overcompensation through the combination of FCESS payments and FCESS Uplift Payment (2)

Revised FCESS Uplift Payment calculation:

- **Estimate Facility dispatch cost to provide cleared Market Services (offer price x quantity for each cleared offer tranche)**
- **Estimate Facility Real-Time Market base compensation "payment" for the cleared Market Services (Reference Trading Price or Market Clearing Price (as applicable) for the cleared quantities)**
- **FCESS Uplift Payment = max(0, Estimated dispatch cost – RTM base compensation)**

A Facility is eligible for an FCESS Uplift Payment if

- **Scheduled Facility or Semi-Scheduled Facility issued a Dispatch Target > 0**
- **Enabled for Contingency Reserve Raise, Contingency Reserve Lower, Regulation Raise or Regulation Lower**
- **Not eligible for an Energy Uplift Payment**

Also proposing the removal of Estimated FCESS Uplift Payments to reduce cost/ implementation time

Clarifying Participants' obligations

Dora Guzeleva

Market Participants are failing to convert Available Capacity to In-Service Capacity (1)

This leads to real-time shortfalls and unnecessarily high Market Clearing Prices.

Proposal: Include an obligation on Market Participants to move their capacity to “In-Service” if AEMO projects a shortfall in energy, Contingency Reserve Raise or Regulation Raise.

Market Participants must, as soon as practicable, update their Real-Time Market Submissions to convert the Available Capacity to In-Service Capacity to alleviate the predicted shortfall, if the Reference Scenario* in the Pre-Dispatch Schedule or Dispatch Schedule predicts a real-time shortfall in energy, Contingency Reserve Raise or Regulation Raise

- we intend to make the current InServiceCapacityOnly Scenario the Reference Scenario, and make the current Reference Scenario the “Available Capacity Scenario”
- see next slide for related exceptions and compensation mechanisms

Market Participants are failing to convert Available Capacity to In-Service Capacity (2)

This leads to real-time shortfalls and unnecessarily high Market Clearing Prices.

Proposal: Include an obligation on Market Participants to move their capacity to “In-Service” if AEMO projects a shortfall in energy, Contingency Reserve Raise or Regulation Raise.

Market Participants are not required to convert Available Capacity in excess of the quantity required to resolve the predicted shortfall or Available Capacity that is not subject to Reserve Capacity Obligations.

Market Participants can offer as In-Service Capacity with Fast Start Inflexibility Profiles to both meet this obligation and ensure dispatch profiles adhere to physical limitation of their Facilities

A compensation mechanism (an “uplift”) is being considered for situations in which:

1. AEMO has issued a Low Reserve Conditions declaration.
2. A participant has:
    a. met all submission obligations (including new obligation),
    b. been constrained on by AEMO, and
    c. an offer price greater than the Market Clearing Price.

Notice periods in some submissions appear to be longer than necessary

This leads to capacity shortfalls and/or the dispatch of more expensive plant when less expensive plant should have been dispatched instead.

Proposal: Change the definition of the “Start Decision Cutoff” to reflect the actual state of the Facility.

> **Market Participants must specify notice periods that are commensurate with the time needed to carry out the necessary activities to make the capacity ready for dispatch.**
>
> **This must be based on the Market Participant’s reasonable expectation of the state of the Facility at the time those activities would commence.**

Energy Market Clearing Prices reaching the cap due to the prices in submissions

This behaviour has led to unnecessarily high Market Clearing Prices

Proposal: Revise some of the Market Power Mitigation Strategy changes made in 2023 to ensure offers reflect costs

Market Participants may have market power or transitory market power and can potentially be unaware of their potential to influence market prices with their offer.

It is proposed to align the rules with ERA's Offer Construction Guideline – i.e. that Market Participants' offers must not exceed the sum of all of their efficient variable costs.

The proposed changes will remove the need to demonstrate that a Market Participant had market power when formulating its offers.

This removes an element of uncertainty from preparing market offers and seeks to limit the practice of withdrawing capacity from the market by pricing at the market cap.

The intention is not to reverse the policy decision to allow market participants to bid their efficient variable costs, including the costs incurred under long-term take-or-pay fuel contracts. This will continue to be allowed under the Offer Construction Guidelines.

Energy Offer Price Ceiling

Energy Offer Price Ceiling

The ERA has identified an issue with the current rules for setting the Energy Offer Price Ceiling that has led to concerns from Market Participants

Proposal: Amend the definition of Heat Rate in the rules for setting the Energy Offer Price Ceiling

> **Define Heat Rate as the mean heat rate at the minimum stable loading level, based on the best information available to the Economic Regulation Authority, for the highest cost Facility in the SWIS**

Next Steps

Step	Completed By
TDOWG brief	18/07/2024
Rules completed and published for consultation	22/08/2024
Rules consulted	22/08/2024 - 20/09/2024
Rules Made and Gazetted	18/10/2024
Systems implemented	20/11/2024
Commencement of Rules and System Changes, FCESS administered price ends	20-Nov

NOTE: This will complete Stage 1 of our investigation in the FCESS market, we will continue to investigate some of the above issues and those in our Long List of Issues through Stage 2 and our FCESS Requirements and SESSM Review