



Government of Western Australia
Energy Policy WA

TDOWG Meeting 42

23 June 2022

Working together for a
brighter energy future.

TDOWG Agenda

9.30am **ESR Obligation Intervals**

9.35am **Market Information**

10.05am **Regulation Changes – Civil Penalty Framework**

10.30am **Market Power Mitigation Strategy**

Ground rules

- 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@energy.wa.gov.au after the meeting.
- If you are having connection/bandwidth issues, you may want to disable the incoming and/or outgoing video.

ESR Obligation Intervals

Publication of changes to the ESR Obligation Intervals

- **Tranche 3 (as proposed to be amended by Exposure Draft 1) - clauses 6.3.1 and 6.3A.2 require AEMO to determine and make available to each Market Participant the ESR Obligation Intervals for a Trading Day by 8:00am on the Scheduling Day**
- **Three Market Participants have raised concerns about this deadline and proposed an earlier deadline**
- Two suggested the day before the Scheduling Day
- One suggested 6:20am on the Scheduling Day
- **AEMO has recommended making the deadline 7:50am on the Scheduling Day (one hour before Bilateral Submission Cutoff)**
- **Propose to shift the deadline to 6:50am on the Scheduling Day (two hours before Bilateral Submission Cutoff)**

Market Information

Proposed clarifications to the framework

Current framework for managing market information

While information requirements to operate the WEM are captured under various chapters of the WEM Rules, Chapter 10 describes how this information must be managed by AEMO.

There are six classes of confidentiality status that govern the disclosure of market information to particular entities in the WEM.

AEMO sets the confidentiality status of all information produced or exchanged in accordance with the WEM Rules and WEM Procedures as one of the six classes.

The rules prescribe 13 principles AEMO must have regard to when setting the confidentiality status of market information and the conditions under which information should be disclosed publicly or to specific persons.

AEMO is required to publish a Confidentiality List of all market information produced and exchanged under the WEM Rules and WEM Procedures, identifying the confidentiality status of each type of market information

AEMO is required to document in a WEM Procedure the process it follows in setting and publishing the confidentiality status of market information.

Issues with the current framework

Six classes of confidentiality status with fixed classifications

Limited flexibility to differentiate status of different bits of information within a document or provided under a certain rule

Administratively burdensome for AEMO

Responsibilities for classification not aligned with roles in the market

Limited guidance on criteria for classification

Reform objectives

A well functioning market where participants have access to information that is complete, timely and symmetric as possible to support economically rational decisions.

Availability of information to support short term market efficiency and enable participants to make more efficient longer term investment and divestment decisions.

A framework that balances the benefit of transparency to the market against the benefit of confidentiality to market participants.

Previous Taskforce decisions

Remaining the same

New framework design principles

Scope – market information only

Reduce six classes of confidentiality to two (public and confidential)

Information providers must limit their submissions of data and information

Responsibilities for recipients of disclosed information

Amended/clarified (proposed)

Classification of information

Some roles and responsibilities

Definition of Information Manager

Principles for disclosure of confidential information

Treatment of historically provided information

Classification of Market Information

Principles

Information that is publishable will be defined as such in the Rules (and therefore set by the Coordinator).

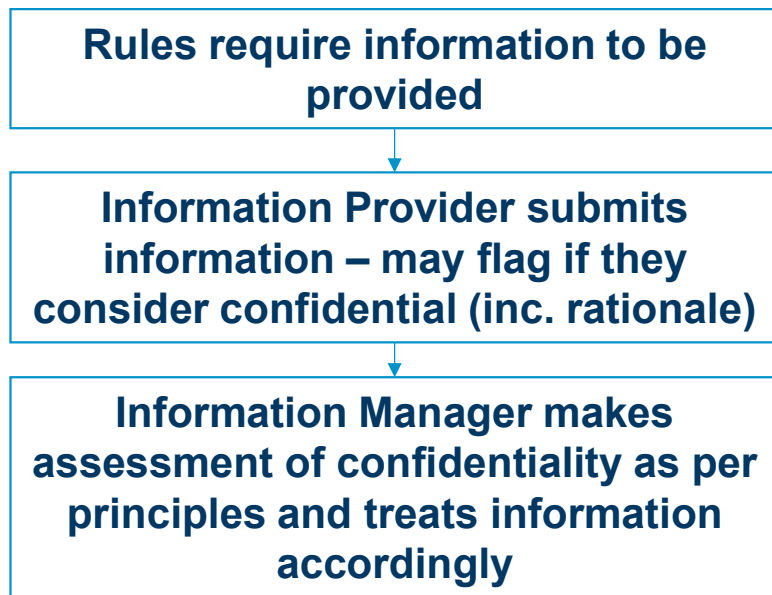
Other information will not be assigned a status in the Rules themselves, or be automatically deemed to be public or confidential.

Rather, the classification will be based on a set of principles. It is proposed that the following types of information will be deemed to be confidential:

- Information contained within bilateral contracts;
- Information, that, if released, would risk power system security and/or reliability;
- Information relating to individual generator performance standards or technical parameters of facilities (that is not already in the public domain);
- Information otherwise specified in the Rules as confidential information;
- Information that reveals personal details about an individual; or
- Information that could cause commercial detriment to a Rule Participant if released.

Roles and responsibilities

Responsibility to determine status



Defining the Information Manager

Parties that manage information under the WEM Rules include AEMO, Western Power, the Coordinator of Energy and the ERA.

Within these boundaries, the Information Manager will be defined as:

- The party that receives Market Information under the WEM Rules; or
- If no party receives the information, then the party that produces Market Information under the WEM Rules; or
- If neither of the above apply/or are clear, then the Coordinator of Energy.

Release of public information

Process

Information Manager will release Public Information to any party upon application

Information Manager may consult with Coordinator of Energy regarding the classification of information

Coordinator may release guidelines to assist with the classification of Information

Consultation requirements where Information has been submitted as confidential and the Information Manager has deemed it Public

Decision about confidentiality may apply to a whole document or bits of information within the document.

Disclosure of confidential information

Principles

- Confidential information may need to be disclosed to other parties from time to time.
- It is proposed that confidential information be releasable where:
 - The Information Manager has written consent of the Information Provider
 - It is required or permitted under law
 - It is required for court, tribunal or ERB proceedings
 - It is required by the Coordinator or ERA
 - It is required by a AEMO or a Network Operator in order for them to carry out their functions under the Rules.
 - It can be released in aggregated form such that it does not reveal confidential aspects
 - It is necessary for the safety of personnel, equipment or the power system
 - The information (or information of the same nature) is already in the public domain (other than by reason of a breach)
 - The commercial detriment of the release does not outweigh the benefit to electricity consumers.
- The Information Manager will be responsible for deciding if confidential information can be disclosed. The Information Manager may consult with Coordinator of Energy in making this decision.

Under consideration – dispute framework

- There may be benefit in allowing disputes about the classification of information, or the disclosure of confidential information, to be determined by the Coordinator of Energy
- If implemented:
 - Disputes could be raised by the Information Provider or the person requesting the information.
 - Framework would include some consultation requirements, and require information about disputes to be published.
 - Disputes may be limited to instances where the Information Manager has to exercise judgement (i.e. weighing up public benefit and commercial detriment) and not permitted in circumstances such as where information is required by other laws to be provided.

Treatment of historically provided information

- In general, information treated as it was at the time it was submitted – either confidential (in some form) or public.
- Information Managers will still have the ability to release confidential information in accordance with the principles outlined in previous slides.
- If necessary, exceptions could be dealt with explicitly in the Rules if there a strong case for making particular historical information publicly available.

Protected Provisions



Protected Provisions

Proposed Principles and Criteria

Principles

The Coordinator of Energy is responsible for the administration and rule-making functions of the Wholesale Electricity Market (WEM) Rules.

- The purpose of Protected Provisions is to prevent real or perceived conflicts of interest in the Coordinator of Energy's role of approving changes to the Market Rules.

The list of protected provisions will be revised to only include Rules that:

- Specify a function of the Coordinator or Minister for Energy; or
- Relate to the role of the Coordinator or Minister for Energy.

Rule Changes that are proposed by the Coordinator of Energy will also require Ministerial approval

Tranche 6 Regulation Changes

Tranche 6 Regulation Changes

Overview of Project Scope

- **Compliance Framework**
 - **Civil Penalty Framework**
 - Assess options and implement changes to the framework for applying civil penalties
 - Review and update the list of civil penalty provisions in Schedule 1 of the WEM Regulations
 - **Functions of the ERA**
 - Amend functions to include issuing Category B and C civil penalties
 - Define what new orders and infringement notices may be issued
 - **Reviewable and Procedural decisions**
 - Review and implement changes to Schedule 2
 - Review head of power
- **Aligning heads of power**
- **Other minor amendments**

Civil Penalty Framework

Current Civil Penalty Framework

- **Electricity Industry Act 2004**

- Empower the WEM Regulations to prescribe the civil penalty framework, and provide for orders and other sanctions
- Limits the maximum amount the regulations can prescribe for a contravention to \$100,000 plus a daily amount of \$20,000

- **Current WEM Regulations**

- ERA may issue Category A civil penalties and apply to the Electricity Review Board (Board) to make certain orders
- ERA may apply to the Board to issue Category B and C civil penalties
- The Board may make certain orders
- Schedule 1 lists civil penalty clauses and assigns them a category
 - includes a maximum amount for first and subsequent contraventions and a maximum daily amount

Current Civil Penalty Categories

Category A	Category B	Category C
Maximum civil penalty amounts	Maximum civil penalty amounts	Maximum civil penalty amounts
First contravention \$10,000 Subsequent contraventions	First contravention: \$15,000 plus a daily amount of \$1,000 Subsequent contraventions \$30,000 plus a daily amount of \$500	First contravention \$50,000 Subsequent contraventions \$100,000
First contravention \$5,000 Subsequent contravention: \$10,000	First contravention: \$15,000 plus a daily amount of \$500 Subsequent contraventions: \$30,000 plus a daily amount of \$1000	First contravention \$40,000 plus a daily amount of \$5,000 Subsequent contraventions \$80,000 plus a daily amount of \$15,000
	First contravention: \$15,000 Subsequent contraventions \$30,000	First contravention \$45,000 plus a daily amount of \$10,000 Subsequent contraventions \$90,000 plus a daily amount of \$15,000
	First contravention: \$25,000 plus a daily amount of \$5,000 Subsequent contraventions \$50,000 plus a daily amount of \$10,000	First contravention: \$40,000 Subsequent contraventions: \$80,000
	First contravention: \$25,000 Subsequent contraventions: \$50,000	First contravention: \$45,000 Subsequent contraventions: \$90,000
	First contraventions: \$20,000 plus a daily amount of \$5,000 Subsequent contraventions: \$40,000 plus a daily amount of \$5,000	First contravention: \$50,000 Subsequent contraventions: \$100,000
	First contravention: \$40,000 Subsequent contraventions: \$80,000	First contravention: \$50,000 plus a daily amount of \$10,000 Subsequent contraventions: \$100,000 plus a daily amount of \$20,000
	First contravention \$20,000 Subsequent contraventions \$40,000	First contravention: \$100,000 Subsequent contraventions: \$100,000
		First contraventions: \$35,000 Subsequent contraventions: \$70,000

Issues and Proposed Amendments

- **Identified Issues**

- Maximum civil penalty amounts may no longer be fit for purpose
- No guidance as to how civil penalty provisions were assigned a category
- Variation between maximum amounts within the three categories with no clear rationale

- **Proposed amendments (including those recommended by the Taskforce)**

- ERA to issue Category B and C civil penalties
- New enforcement options for the ERA – including orders and infringement notices (need to be defined)
- Schedule 1 to be updated to reflect new WEM Rules
- Review and implement changes to the categories of civil penalties

Other Jurisdictions

- **Australian Energy Regulator (AER)**
 - New three tier framework for civil penalties
 - AER has expanded range of enforcement actions (e.g. requiring witnesses to attend oral examination, seeking court orders)
 - Guidance for categorising into tiers
- **OFGEM (UK)**
 - May impose or issue:
 - ✓ Financial penalties of up to 10% annual turnover
 - ✓ Consumer redress orders
 - ✓ Provisional or final orders
 - Publish compliance investigations and their status from the time the action is initiated

Table 1: Infringement/Civil Penalty Maximum amounts by Tier

Tier	Infringement		Civil Proceedings	
	Corporation	Individual	Corporation	Individual
1	Lesser of: <ul style="list-style-type: none"> • \$67.8k • prescribed amount* 	Lesser of: <ul style="list-style-type: none"> • \$13.6k • prescribed amount* 	Greater of: <ul style="list-style-type: none"> • \$10M • 3 x benefit • 10% annual turnover 	\$500k
2			\$1.435M plus \$71.8k/day	\$287k plus \$14.4k/day
3	<i>AER determination:</i> Lesser of: <ul style="list-style-type: none"> • \$6.79k • prescribed amount* <i>Other:</i> Lesser of: <ul style="list-style-type: none"> • \$33.9k • prescribed amount* 	Lesser of: <ul style="list-style-type: none"> • \$6.79k • prescribed amount* 	\$170k plus \$17k/day	\$33.9k plus \$3.39k/day

*As prescribed by the Regulations in relation to the civil penalty provision

Options Considered for Amending Framework

Option 1 Retain Current Framework

- Retain the current framework outlined in the regulations

Option 2 Redefine Civil Penalty categories

- Retain the three categories but allocate consistent amounts within them (i.e. one amount for first and subsequent contraventions and the daily amount)
- EPWA to develop criteria to be followed when determining civil penalty provisions and assigning them as Category A, B or C

Option 3 Remove categories

- Remove the three categories and provide the ERA/Board with the discretion to apply a penalty up to the maximum amount for any civil penalty
- When applying a daily amount certain factors may be considered (e.g. must not exceed a % of annual turnover)

Option 4 Combined Approach

- Remove the categories assigned to civil penalty provisions in Schedule 1
- Define categories with examples in external guidance (e.g. in the ERA's monitoring protocol)
- Same factors to consider when applying a daily amount

Recommendation: Option 2 (refining categories and amounts)

Note: the contravention and daily amounts are TBC (seeking MP feedback)

Type	Category A		Category B		Category C	
	Corporation	Individual	Corporation	Individual	Corporation	Individual
First Contravention	up to \$10,000	% amount TBD	up to \$50,000	% amount TBD	up to \$100,000	% amount TBD
Subsequent Contravention	up to \$20,000	% amount TBD	up to \$60,000	% amount TBD	up to \$100,000	% amount TBD
Daily amount (where applicable)	up to \$5,000	% amount TBD	up to \$15,000	% amount TBD	up to \$20,000	% amount TBD

Regulations will prescribe factors the ERA or the Board must consider when applying a daily amount, including but not limited to:

- an amount not exceeding % of annual turnover of participant (e.g. 10%)
- the value of the benefit obtained from the breach

EPWA proposes to follow a set of criteria agreed upon with the ERA when classifying civil penalty provisions

Proposed Classification Criteria

To aid in the classification of civil penalty provisions as Category A, B or C

Civil Penalty	Types of Provisions	Impact of non-compliance
Category A	<ul style="list-style-type: none"> Market administration (e.g. maintaining communication systems, submitting plans to AEMO, adhering to classification systems) 	<ul style="list-style-type: none"> Administrative difficulties and inefficiencies Non-compliance can likely be remedied without causing harm to the market
Category B	<ul style="list-style-type: none"> Effective operation of the system Certain classes of MP obligations 	<ul style="list-style-type: none"> May interfere with achieving the WEM objectives Non-compliance may be difficult to detect
Category C	<ul style="list-style-type: none"> Power System Security and Reliability Ability of AEMO to plan and operate the system effectively Unacceptable MP behaviour 	<ul style="list-style-type: none"> May distort the market or amount to an abuse of market power May cause financial harm to other MP May result in financial gain to the contravener

NOTE: these are examples of the types of breaches that may be classed as civil penalty provisions – the final criteria will have a more extensive list of types of provisions and potential impact of non-compliance

ERA orders and infringement notices

New orders to be prescribed

- Impacted party – redress orders
- Order for witness to attend oral examination
- Interim order – e.g. to cease certain conduct before investigation commences
- Order to do or refrain from doing an action that is in breach of a provision of the WEM Rules
- Some orders currently available to the ERB – e.g. that the participant cease an act or omission

Infringement notices

- The WEM Rules allow the ERA to issue infringement notices in accordance with the regs
- Not currently defined anywhere (a prior TDOWG proposed it to be 20% of max civil penalty amount for respective category)
- EPWA proposes to remove this as an enforcement action from the WEM Rules

Court enforceable undertakings (TBC)

- Undertakings given by a participant (voluntary and published)
- Alternative to civil action
- Currently seeking legal advice

ERA publication of compliance action

Current WEM Rules

- Under the WEM Rules the ERA must maintain a public register of breaches where it has issued an infringement notice or civil penalty notice

Proposed Change

- EPWA proposes to amend the WEM Rules to require the ERA to publish when it initiates an investigation (and its ongoing status)
 - This may be on an aggregated or anonymous basis
 - The ERA may be given discretion to publish the details of an open investigation where there is reason to do so (case by case basis)
 - Details still to be confirmed – including the mechanism for publication
- These proposed changes are intended to be progressed under Tranche 6

Next Steps

- Please provide any initial comments to energymarkets@energy.wa.gov.au
- EPWA to release Consultation Paper on Regulation changes (Late July/Early August)
- EPWA to release a the first draft of the Regulations for consultation

Market Power Mitigation Strategy

Context and Overview

Market Power Mitigation Strategy Objectives

Guiding Principles

The Market Power Mitigation Framework must:

1. Be calibrated to ensure it doesn't constrain the recovery of efficient costs by energy producers while protecting consumers from the extraction of abnormal profits by Market Participants with market power
2. Provide ex-ante regulatory certainty to promote efficient market operation while reducing the need for ex-post investigation and litigation processes
3. Ensure the regulatory effort is proportionate to the cost and the risk being managed so that benefits of improved competition outweigh the regulatory costs
4. Recognise the need for ongoing review to ensure the mechanisms remain balanced and responsive to changing power system conditions and market dynamics and do not overly constrain efficient market conduct

The Taskforce identified deficiencies

Identified Regime Deficiencies

Current market power mitigation mechanisms are largely reactive (ex-post) rather than pro-active (ex-ante).

The nature of the ex-post regime leads to regulatory uncertainty.

Ex-post investigations are complex, resource intensive and time-consuming.

There are lengthy delays between the regulator detecting inappropriate behaviours and remedies being delivered.

The adverse outcomes for other market participants and consumers may persist for extended periods before the behaviour is remedied.

The requirement for the ERA to refer findings to the Electricity Review Board has restricted the ERA's ability to be transparent about the content and progress of market power investigations.

Limited transparency and availability of timely information make compliance with the regime challenging.

Market participants lack clarity regarding their trading conduct obligations.

There are no direct obligations on market participants to ensure compliance and report breaches.

The Taskforce Information Paper

Unconfirmed Elements		Elements affirmed by the Taskforce	
(a)	Assess the suitability of the proposed three-part market power test as an objective measure of market power in the Wholesale Electricity Market (WEM).	Remove reference to short run marginal cost (SRMC) from the rules, replaced with a requirement for Market Participants to make market submissions as they would in the absence of market power.	Trading conduct obligations for market participants and providing guidance on unacceptable exercise of market power.
(b)	Assess the need and practicality of the proposed Offer Construction Guideline.		
(c)	Assess the need and practicality of the proposed pre-approval of offer parameters.	Provide participants with an opportunity to engage with the Regulator to ensure their conduct is compliant.	Introduce an objective test to establish whether a participant is in a position to exercise market power.
(d)	Assess and propose recommendations, on the level of guidance that should be provided to the ERA.	Additional obligations on participants who pass the objective market power test.	Reduce reliance on ex-post investigations.
(e)	Assess and make a recommendation as to how to redesign the current WEM Rules to provide for energy and ESS price limits.	Set energy and ESS price limits.	

Project Scope

Stage 1	Assessment of unconfirmed design elements <ul style="list-style-type: none">▶ Propose a number of credible options for each unconfirmed element.▶ Present a detailed analysis of the proposed options against the four guiding principles – considering the circumstances of the WEM and concerns raised in stakeholder submissions.▶ Recommend a preferred option for each unconfirmed element which addresses the guiding principles, stakeholder concerns and demonstrates the practicality and workability of the solution.
Stage 2	Modelling Market Outcomes <ul style="list-style-type: none">▶ The proposed detailed design of the MPM framework will be qualitatively assessed against the four guiding principles.▶ This will include modelling of the financial impacts of both the proposed and existing MPM design and will assess:<ul style="list-style-type: none">› to what extent they allow participants to recover efficient costs; and› any unintended consequences (e.g. shadow pricing in energy/ESS markets).
Stage 3	Market Power Mitigation Framework – Detailed Design <ul style="list-style-type: none">▶ A detailed design will then be developed based on all of the confirmed elements (including those identified by the Taskforce).
Stage 4	Wholesale Electricity Market (WEM) Rules <ul style="list-style-type: none">▶ Amending WEM Rules will be drafted to implement the market power mitigation arrangements in the new WEM.▶ An Exposure Draft of the rules will be released for stakeholder comment.▶ The final Amending Rules are intended to be submitted to the Minister for Energy for approval by the end of 2022.

The Three-Part Market Power Test

Unconfirmed Element (a)

A three-part Market Power Test for the WEM



The three-part market power test has been found to be the most suitable model for the WEM.
The first stage of this three-part test is the gateway test.

Key question	Analysis
What is a gateway test?	<ul style="list-style-type: none"> ▶ A gateway test, in the WEM context, is defined as the methodology used to determine the presence of market power in one of the RTM, ESS markets or STEM. It represents Stage 1 of the 3-part Market Power Test (MPT).
Which type of gateway test is proposed for the WEM?	<ul style="list-style-type: none"> ▶ Individual Supplier Structural Screens – These are tests used to determine if an individual supplier is likely to have market power at a point in time (static or dynamic).
Which tests were investigated further following qualitative analysis?	<ul style="list-style-type: none"> ▶ Pivotal Supplier Tests (PSTs) – These test whether demand can be met without a supplier’s portfolio in operation. Single and multiple pivotal supplier tests have been assessed. ▶ Concentration Ratios (CRs) – These test the percentage of total market supply that is held by one supplier. Dynamic and static variations of concentration ratios have been assessed.
What other types of gateway tests are there?	<ul style="list-style-type: none"> ▶ Market Based Screens – This is a test undertaken to assess the overall competitive performance of the market. ▶ Simulations – Simulations are generally considered more useful in establishing regulator-determined reference prices (e.g., ERCOT). ▶ Residual Supplier Index – This tests the proportion of demand supplied by all but the largest supplier to determine if the largest supplier holds market power.

Other unconfirmed elements of the proposed three-part market power test are dealt with in the following sections



Examples of the Gateway Test

Different combinations of structural screens may be used together for stage 1 of the MPT

Example	Description of option
<p>Example 1: The Must-Run Supplier (MRS) test (single-PST)</p> 	<ul style="list-style-type: none"> ▶ The MRS test is a pivotal supplier test that tests whether generators within a common ownership portfolio, or one or more generators behind a binding constraint, are required to be in service to meet demand in a market over a set number of intervals. ▶ Potential MRSs are provided notice based on a quarterly forecast (ex-ante), actual MRSs are identified via market outcomes (ex-post). ▶ MRSs identified ex-ante would be subject to additional information gathering and internal control requirements. ▶ Under this option, only 1 MRS need exist but more than 1 MRS can exist in the same interval. ▶ Analysis indicates that this option would capture the least number of intervals with a must-run, or pivotal, supplier.
<p>Example 2: A three-PST with a materiality threshold</p> 	<ul style="list-style-type: none"> ▶ Tests whether any supplier, in combination with the two largest suppliers, is required to be in service to meet demand. ▶ An alternative approach is to simply test whether the three largest portfolios in service are required to meet demand in a set number of intervals, although this approach would not capture smaller portfolios with the potential to hold market power at times of tight supply. ▶ The materiality threshold can be based on dynamic market share (e.g. >10%) or a MW portfolio minimum threshold (e.g. 100MW). ▶ A three-PST based on the three largest suppliers in the WEM is likely to pick up these suppliers in over 99% of intervals. ▶ This test will return more MRSs than in Example 1 as testing any other, relatively, smaller supplier in combination with the largest two suppliers is likely to return a result that those three suppliers are MRSs in at least 85% of intervals. ▶ The application of a consecutive interval threshold and/or a materiality threshold will decrease the number of portfolios that may be captured through the test.

Examples of the Gateway Test (cont.)

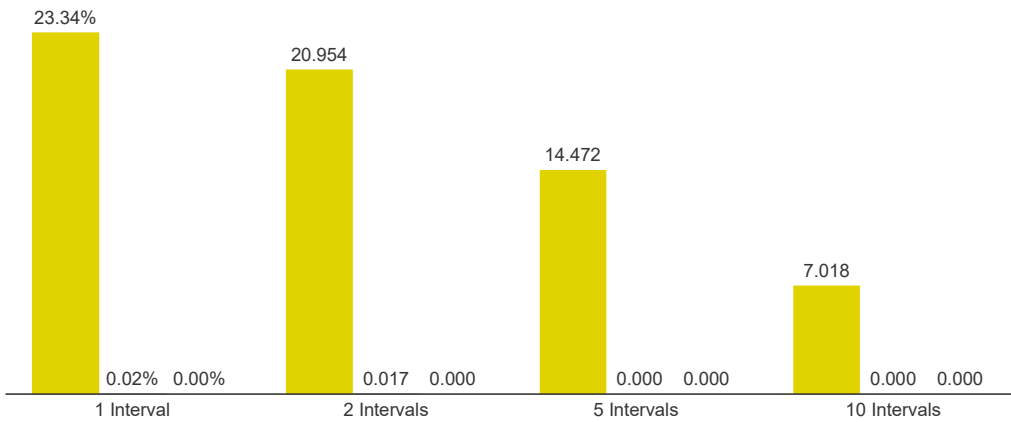
Different combinations of structural screens may be used together for stage 1 of the MPT

Example	Description of option
<p>Example 3: Concentration Ratios used as ex-ante flag and MRS used for ex-post assessment</p> 	<ul style="list-style-type: none"> ▶ Concentration ratios (CRs) measure an individual supplier's share of the market, and are an indication of the ability to exercise market power. Similar to PSTs, CRs can be single or multiple. ▶ In this example, suppliers with a market share above a pre-set threshold (e.g. 10%), based on a quarterly forecast, over a set number of intervals or in a set period of time, will be given notice that they are going to come under further scrutiny from the ERA and will be subject to additional record keeping and internal process requirements. ▶ The MRS test (with or without a materiality threshold) is then used ex-post to determine actual periods where market power was held by the relevant suppliers. ▶ This may increase the likelihood that different suppliers are captured ex-ante and ex-post. ▶ In the WEM context, CRs are likely to pick up the same three large suppliers in most intervals.
<p>Example 4: Concentration Ratios used as ex-ante flag and ex-post assessment</p> 	<ul style="list-style-type: none"> ▶ Only CRs are used to measure the presence of market power over a set number of intervals, or over a set time period, on both an ex-ante and ex-post basis. ▶ A materiality threshold must be set and any supplier below this level will not be captured. ▶ Large suppliers will always be captured even in intervals where they are not actually required to run as demand is not taken into account. ▶ An option we are examining is setting the threshold so any supplier with a market share greater than one sixth will be captured.

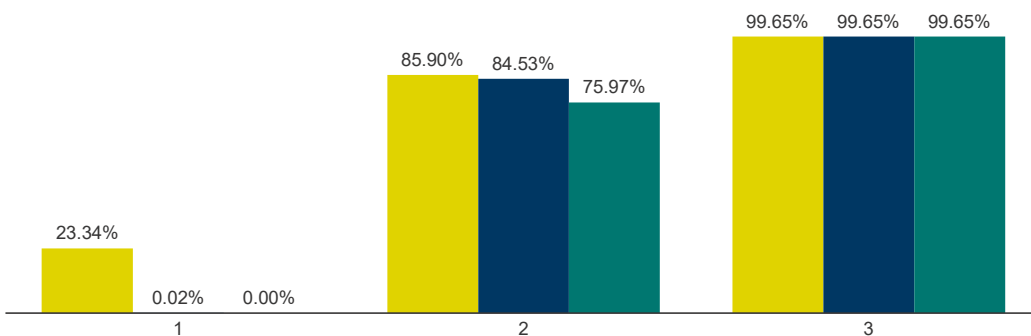
Analysis of Gateway Tests

■ Synergy ■ Alinta ■ SSCP

Single MRS over 1 to 10 Intervals



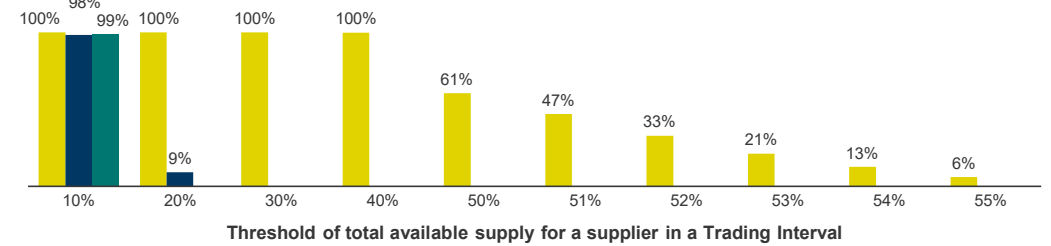
Multiple PS present in a Trading Interval



Pivotal Suppliers

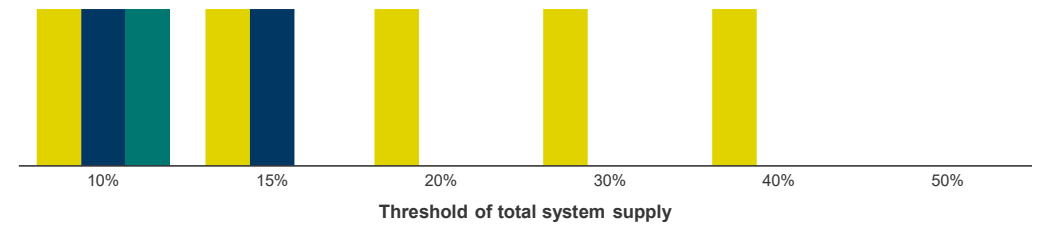
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Dynamic % of Supply in Trading Intervals



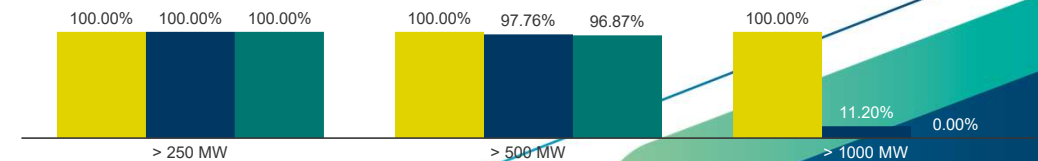
Threshold of total available supply for a supplier in a Trading Interval

Static % of total system supply exceeded



Threshold of total system supply

% of 2021 Intervals MW Offer Threshold Exceeded

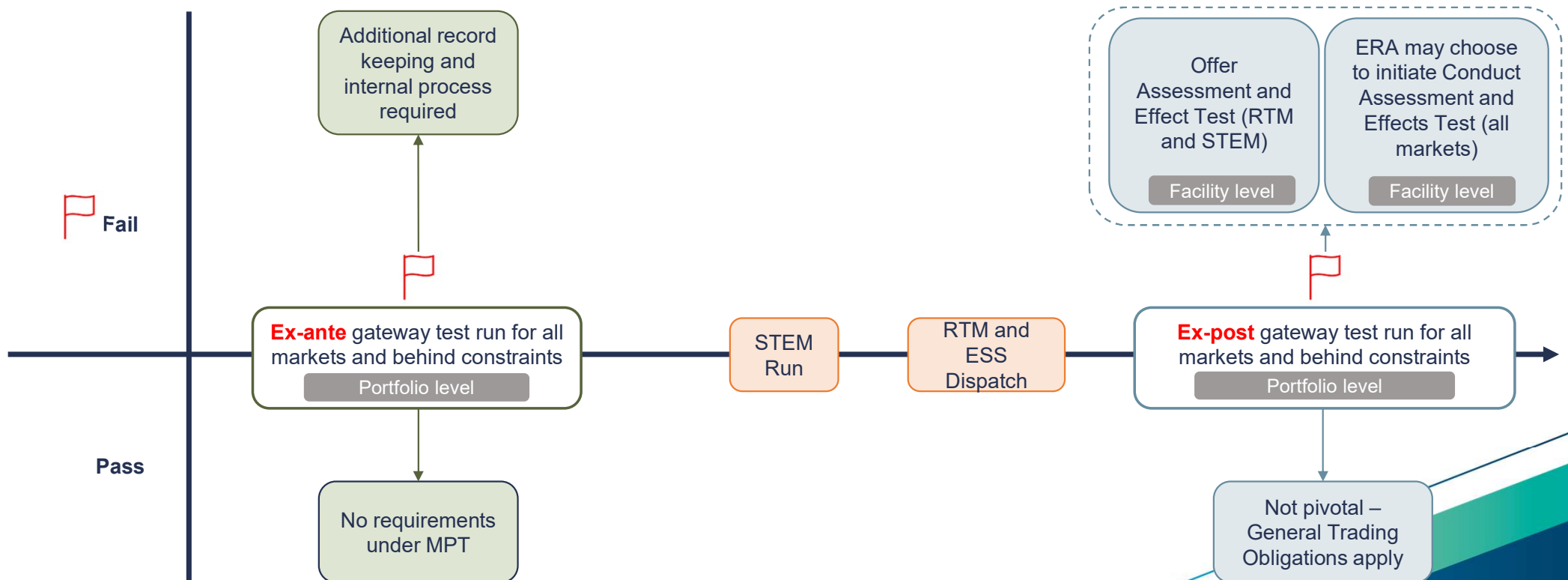


Offer Threshold

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

Illustration of the Gateway Test in practice

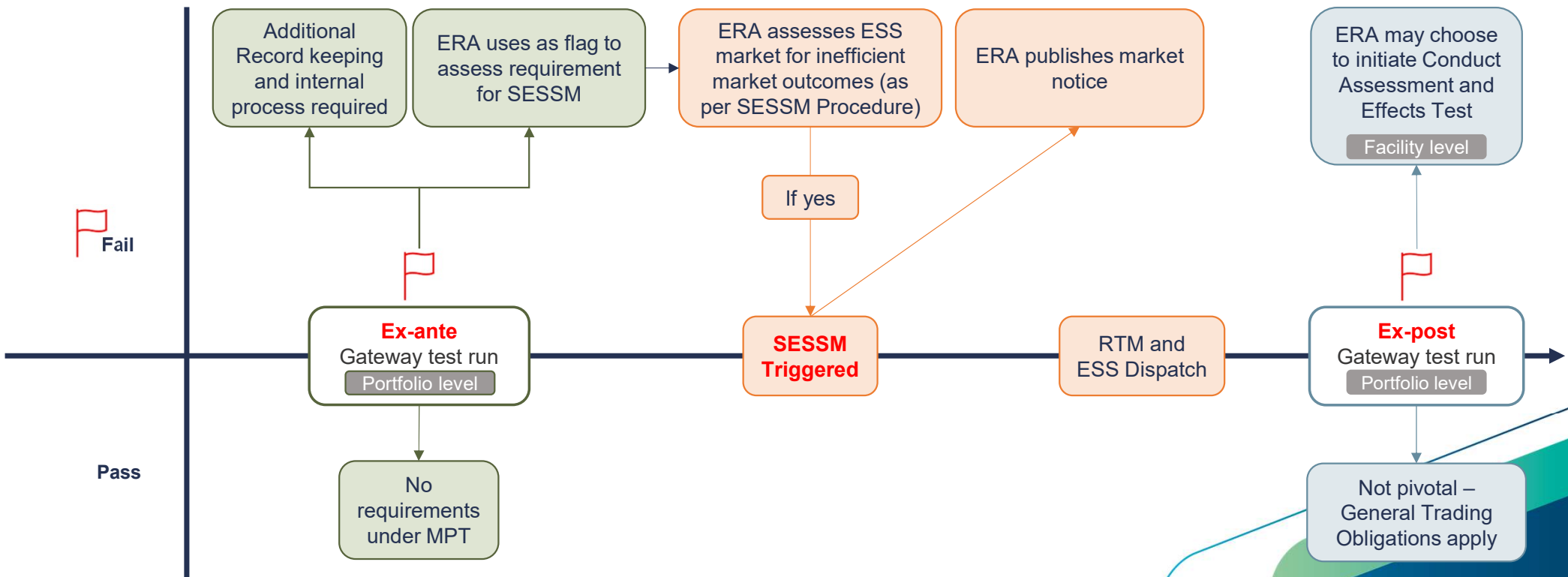
The timeline below illustrates that suppliers would receive a 3-month forward notice that they are likely to be a MRS, with further assessment by the ERA occurring ex-post to interrogate actual market outcomes



Note: = flag to participant

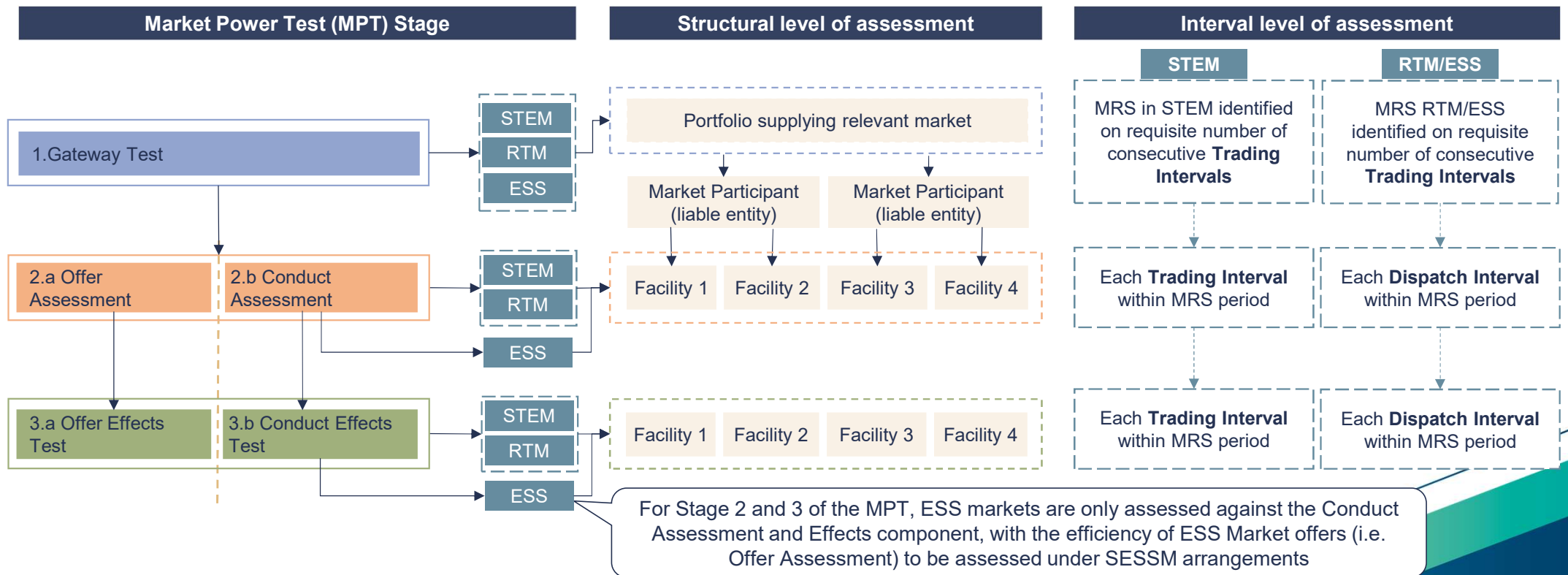
Illustration of how the preferred MPM framework applies to ESS markets

The SESSM framework will be built upon to provide greater ex-ante certainty and a reduced reliance upon ERA investigations



Note: = flag to participant

Flow of the three-part Market Power Test



Offer Construction Guideline

Unconfirmed Element (b)

Options for the Offer Construction Guideline

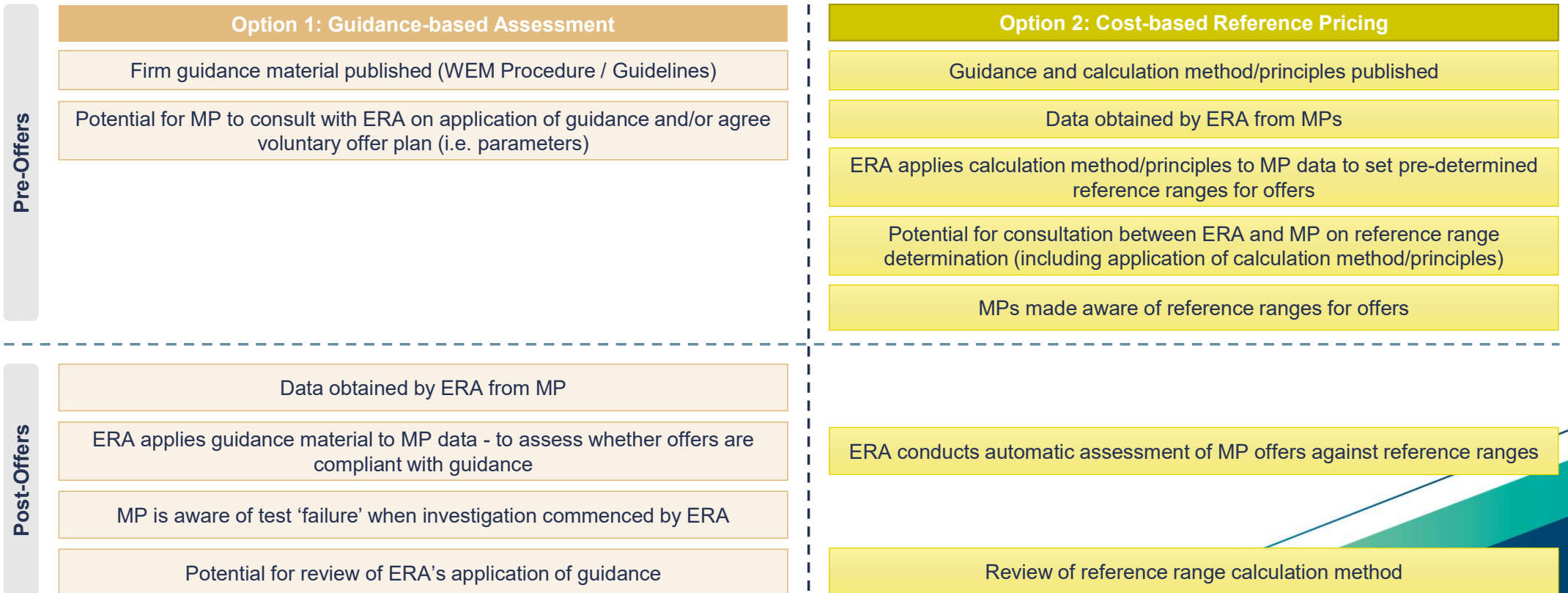
Option	Description of option
<p>Option 1: Guidance-based offer assessment</p> <p>(Minimum option)</p>	<ul style="list-style-type: none"> ▶ The Offer Assessment is undertaken by the ERA on the basis of strict guidance, with the requirements on all parties set out in the WEM Rules. ▶ The ERA then assesses whether offers made by MPs met the 'test', as outlined in detailed ERA guidance material. ▶ There may be some risks regarding the creation of ex-ante uncertainty for MPs, but it may be appropriate in the WEM context to provide the regulator with some discretion on test application, and to avoid incentives for MPs to set offer prices at the upper end of a reference range. ▶ Likely to create additional regulatory burden on the ERA as the additional discretion provided to the ERA may require periodic judgements to be made by ERA.
<p>Option 2: Cost-based reference range offer assessment</p> <p>(Potential to move to this option as the market matures)</p>	<ul style="list-style-type: none"> ▶ Dynamic cost-based reference ranges are developed by the ERA based on strictly prescribed requirements set out in binding instruments, supplemented by advice from the MP. ▶ Would require the ERA to calculate and apply cost-based reference ranges for each MRS facility in the STEM, RTM and, potentially, the ESS markets. ▶ Where offers are made in excess of the reference range for the relevant market, the MP would 'fail the test' and go to the next stage of MPT. ▶ This option provides greater ex-ante certainty to MPs, but is complex and may fetter ERA discretion. ▶ Such arrangements are likely to be administratively burdensome for both MPs and the ERA

Options for the Offer Construction Guideline

Option	Description of option
<p>Option 3: Offer-based reference ranges</p>	<ul style="list-style-type: none"> ▶ Reference ranges for a facility would be based on either: the previous accepted offers made by a MP for that facility; and/or the offers made by similar facilities. ▶ Additional checks and balances could be incorporated into the framework, including comparison with similar facilities and allowing the ERA to modify reference ranges in the event that it detects inefficient market outcomes. ▶ Option 3 would provide significant ex-ante certainty to MPs but may lead to inefficient market outcomes via inaccurate identification of production costs.
<p>Option 4: Price-based reference ranges</p>	<ul style="list-style-type: none"> ▶ This form of reference range would be calculated on a facility basis, based on historical market clearing prices. ▶ Assumes that underlying facility costs are reflected in dispatch clearing prices. ▶ Option 4 provides ex-ante certainty but is likely to create implementation issues associated with identifying the correct set of clearing prices from which to base the reference range. ▶ This may create significant administrative burden for the ERA over time.

Options 1 and 2 compared





Both options allow MPs to consult on offer formation with the ERA



Offer assessment methods in the WEM context

The preferred minimum option for Stage 2 of the MPT is for guidance-based offer assessment

Different combinations may be used together

'Guidance-based' assessment	Cost-based Reference Ranges	Offer-based Reference Ranges	Clearing price-based Reference Ranges
Offers are assessed on guidance or principles published by the ERA	Offers are assessed against 'cost-based' reference levels that are generated ex-ante based on offer cost components	Offers are assessed against 'offer-based' reference levels that are identified ex-ante based on average historical offers	Price-based reference levels are identified by reference to market clearing prices
<ul style="list-style-type: none">▶ The Offer Assessment component of Stage 2 of the MPT would be undertaken by the ERA on the basis of guidance (binding or non-binding) or high-level principles rather than reference ranges.▶ The ERA would be required to publish the guidance.▶ To perform Offer Assessment, the ERA would apply the guidance material against MP data to assess whether offers made by MPs met that guidance, or met principal requirements. 	<ul style="list-style-type: none">▶ The MP or ERA would lead the calculation of dynamic cost-based reference prices (depending on factors such as unit commitment) based on a method established by WEM Rules or guidance, in combination with data provided by the MP.▶ The process would be confidential between the ERA and MPs, with the dynamic reference ranges provided to MPs ex-ante. 	<ul style="list-style-type: none">▶ The ERA would identify reference ranges for a facility based on either: the previous accepted offers made by a MP for that facility; and/or the offers made by similar facilities. 	<ul style="list-style-type: none">▶ Reference ranges are calculated based on historical (potentially lowest-priced) market clearing prices for Dispatch Intervals where the relevant facility was dispatched in merit order, for a set amount of time and/or volume. 

Consultation with the ERA on offer parameters

Unconfirmed Element (c)

Option for consultation with ERA on offer formation

The minimum option is for the ERA to issue detailed guidance and for MPs to have a way of communicating with the ERA on the circumstances surrounding non-standard offers

- ▶ The WEM Rules would require the ERA to detail offer construction parameters in an Offer Construction Guideline, detailing elements that make up offers (including, but not limited to, fuel, maintenance and start-up costs).
- ▶ At a minimum, a process requiring the ERA to consult with MPs should be provided for in the framework to ensure MPs have the opportunity to engage with the ERA on the offer and conduct assessment component of Stage 2 of the MPT.
- ▶ Additionally, the ERA may be given the ability to agree specific offer and/or conduct requirements with a MP where the MP can demonstrate they are necessary and consistent with the higher order principles set out in the Rules or WEM Procedures.
- ▶ The ERA should not be required to reach agreement with MPs on changes to status quo assessment requirements – as this could lead to a stalemate between parties. The ERA should have ultimate discretion in whether to accept or refuse such changes.

Consideration of binding protection against action

In the WEM context, binding protections against enforcement are unlikely to be proportionate to the certainty benefits provided to MPs

As part of compliance arrangements associated with General Trading Obligations – the MPs:

1. Obtain from the ERA advice and/or binding agreement, that proposed conduct is compliant with General Trading Obligations
 - ▶ Requires the ERA to make a judgement in advance as to whether the alternative offer parameters and/or offer behaviour will be within the bounds of the General Trading Obligations.
 - ▶ The administrative and regulatory burden of implementing similar arrangements for only General Trading Obligations under the WEM Rules is unlikely to be proportionate to the ex-ante certainty provided to MPs.
2. Agree a plan (referred to herein as a Mitigation Plan) with the ERA that – if followed – would provide a defence against non-compliance related to conduct to which the plan related
 - ▶ Similar to a binding agreement, this would require the ERA to make a judgement in advance of whether the conduct the subject of the Mitigation Plan would be compliant with General Trading Obligations.
 - ▶ A process with the rigor necessary to guarantee a defence against liability is likely to be administratively burdensome and may ultimately lead to very limited terms, providing only a moderate increase in certainty to the relevant MP.
 - ▶ A non-binding 'no-action' letter approach might provide a suitable compromise.
 - ▶ An exception to this might be in relation to information/internal controls requirements for MRSs.

Level of Guidance to the ERA

Unconfirmed Element (d)

Level of guidance to be provided in WEM Rules

Proposed structure

WEM Rules to set out obligations, such as:

- ▶ Requiring the ERA to conduct a three-part MPT;
- ▶ Setting out the record-keeping and process requirements for MRSs;
- ▶ Setting out the investigation and enforcement consequences of 'passing' or 'failing' the MPT;
- ▶ Prescribe requirements for WEM Procedures/guidelines; and
- ▶ Set out principles for any ERA discretionary decision making.

Detailed WEM Procedures to set out details, such as:

- ▶ Method by which the ERA would execute its MPT obligations; and
- ▶ How the ERA would obtain necessary information from MPs, AEMO or the market

Guidelines to provide additional guidance as to how the ERA will undertake discretionary decision making, such as:

- ▶ The detailed guidance to be provided in the Offer Construction Guideline (particularly on the treatment of fuel and start-up costs).

Open question: the degree of prescription in the WEM Rules on the MPT

May range from:

- Setting out the objectives of the MPT, but leaving the specific elements of the MPT to the ERA; to
- Prescribing the key structural components of the three parts of the MPT and the assessment criteria

Energy and ESS Price Limits

Unconfirmed Element (e)

Energy price caps: as per previous Taskforce review

The energy price cap would be set three-yearly, with potential in-period review

Preferred position: Subject to the implementation of the three-part MPT, a single energy price cap, determined based on high estimates of reasonable operating cost for the most expensive facility/ies in the SWIS (consistent with the Offer Construction Guideline), plus a margin, rounded up to the nearest \$100/MWh

- ▶ Price cap would apply to energy offers and clearing prices.
- ▶ The ERA would assess the most expensive facility/ies for the purpose of the price cap determination (no specific technology to be prescribed in the WEM Rules).
- ▶ There is a prima facie case that the existing practice of analysing “short dispatch cycles” from 0.5 to 6 hours should be focused more narrowly.
- ▶ Price cap would be higher than current, but protection against extraction of abnormal profits should not be diminished, as the MPT and Trading Conduct Obligations do most of the ‘heavy lifting’ in the framework.
- ▶ Retains connection to operating costs, providing consistency with the MPT, supporting ex-ante certainty and confidence in the MPM framework.
- ▶ This option would allow recovery of efficient costs, allow for reduced regulatory effort, and retain the ability to adapt quickly to changing circumstances.

Energy price floor: retention of current approach

The energy price floor would be reviewed three-yearly, with potential for an in-period review

- ▶ The ERA would determine the energy price floor according to the principles and analysis set out in Section 6.20 of the current WEM Rules (added in 2020).
- ▶ This position has regard for findings in previous/current reviews of the Minimum STEM Price, and the current NEM Reliability Standard and Settings Review.
- ▶ Longer review cycle allows for reduced regulatory effort, while retaining the ability to adapt to changing circumstances.
- ▶ Allows recovery of efficient costs (price floor events are rare).

ESS Price Limits

Refresher: Pricing of opportunity costs by WEMDE

References – WEM Rules and Taskforce paper

Future WEM Rule 7.11B.2: “Subject to clauses 7.11B.3, 7.11B.4 and 7.11B.5, the **Market Clearing Price for a Market Service represents the marginal value of that Market Service at the Reference Node at that time, which is calculated as the cost of meeting an incremental change in the requirement for the Market Service at that time in accordance with clause 7.6.4.**”

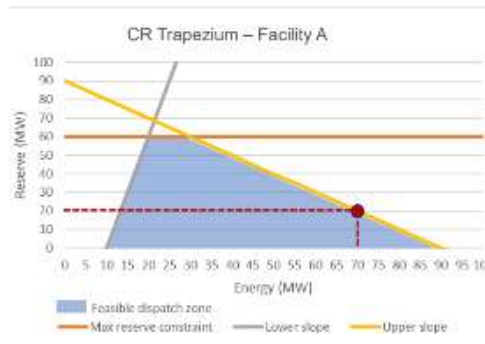
Energy Transformation Taskforce, Essential System Services Scheduling and Dispatch (Dec 2019): “Co-optimisation means that in **most cases, ESS offers do not need to account for the opportunity cost of energy dispatch. Offer prices should reflect short-run marginal cost of retaining headroom or footroom for the facility.**”

Example – TDOWG meeting 2

Marginal Price Interaction Energy and Contingency Raise Interaction



	Facility A	Facility B
Energy Offer	\$70/MWh	\$100/MWh
Contingency Raise Offer	\$10/MWh	N/A
Current Energy Dispatch	70 MW	20 MW
Current CR Dispatch	20 MW	N/A





- Energy demand: 90MW
- CR requirement: 20MW
- Assume extra CR can only come from Facility A
- Next MW of Energy comes from Facility B
 - Energy Price = \$100/MWh
- Next MW of CR comes from Facility A
 - Requires backing off of one MW of energy on Facility A, and one extra MW of energy on Facility B
 - CR Price = $+\$100 - \$70 + \$10 = \$40/\text{MW/h}$
- Multiple markets may interact simultaneously

Transformation Design and Operation Working Group meeting 21

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ESS price cap: options considered

Under both options, the price cap would be set three-yearly, with potential in-period review

Option	Description of option
<p>Option 1 </p> <p>Set at the highest reasonable cost of provision (excluding opportunity costs) plus a margin, rounded up</p>	<ul style="list-style-type: none"> ▶ The ERA would determine the ESS price cap based on high estimates of reasonable operating costs for the most expensive ESS provider(s) in the SWIS, consistently with the Offer Construction Guideline. ▶ The rounding increment would be set at a level that is appropriate to the estimated level of the ESS price cap, potentially to the nearest \$50/MW (or MWs). ▶ The ESS price cap would be the maximum price for ESS offers, but <u>the clearing price may exceed the ESS price cap</u> to allow compensation of opportunity costs. ▶ Subject to further analysis, a separate payment may be made to compensate Enablement Losses that are not recovered through either energy or ESS clearing prices (where a facility is must-run) – likely to require close ERA scrutiny, including on the risk of capacity withdrawal.
<p>Option 2 </p> <p>ESS price cap is set high to allow forecast unrecoverable Enablement Losses to be included in offers</p>	<ul style="list-style-type: none"> ▶ Price cap would be set at the higher of (a) the maximum opportunity cost of providing ESS (energy price cap less energy price floor); and (b) amortised costs not recovered in the energy market for a facility running at min-gen to provide its maximum ESS capability. ▶ The price cap would apply to offers and clearing prices, with no discrete compensation or uplift payment. ▶ This would require an ESS price cap that is an order of magnitude greater than Option 1.

ESS price cap: option analysis

Further considerations

- ▶ Option 1 would connect the ESS price cap to operating costs, promoting ex-ante certainty and confidence in the MPM framework, and providing greater protection against extraction of abnormal profits.
- ▶ Option 1 would allow full recovery of the marginal costs of providing ESS, including opportunity costs, without allowing for double-counting of opportunity costs or start-up costs across energy and ESS markets, or for recovery of forecast unrecoverable Enablement Losses that do not eventuate.
- ▶ Further examination of Option 1 is underway to examine competition effects and the risk of perverse incentives.
- ▶ Option 2 has lower regulatory effort in setting the price cap, but provides wider scope for extraction of abnormal profits, placing greater reliance on ERA investigations.
- ▶ Option 2 may also result in higher costs for consumers, to the extent it relies on ESS providers pricing forecast losses and/or the risk of losses in ESS offers.
- ▶ Technology changes may see ESS predominantly provided by facilities that do not have a min-gen level (e.g. battery storage) in the medium term.

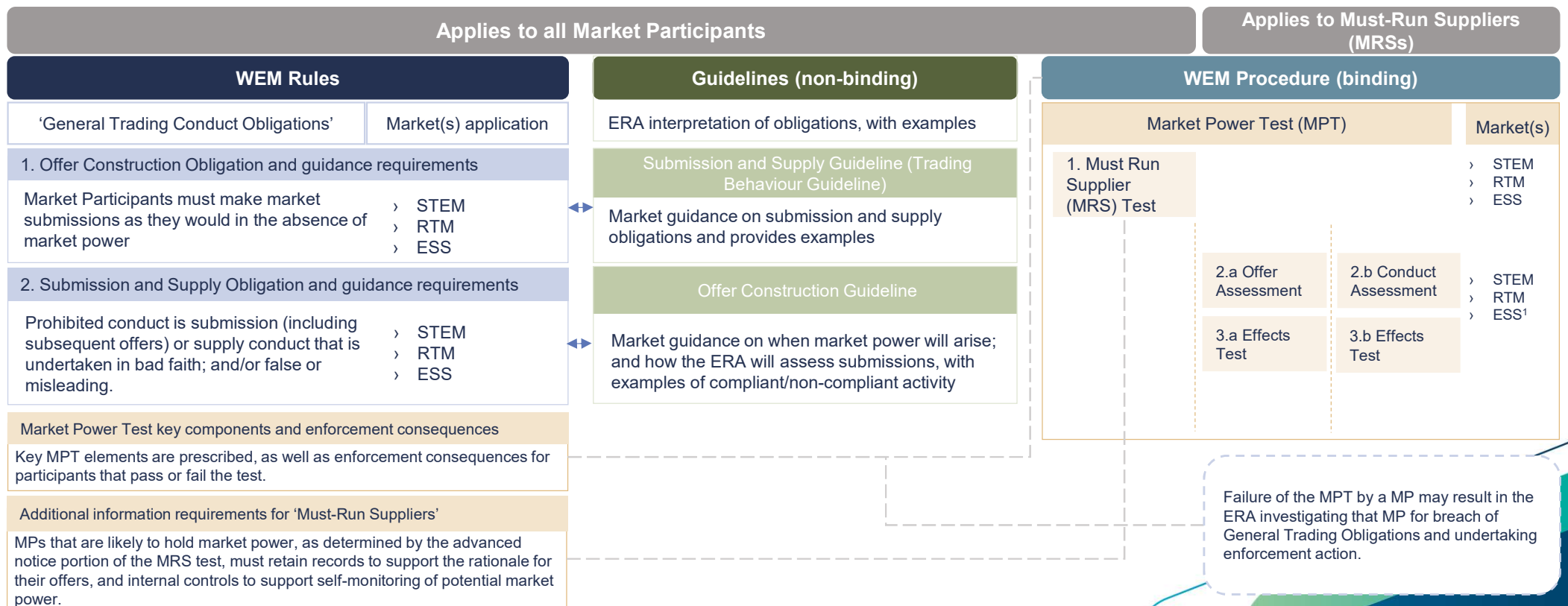
ESS price floor: set at \$0

- ▶ No circumstances have been identified in which ESS might be provided at negative prices, so recovery of efficient costs is not constrained.
- ▶ A \$0 ESS price floor is consistent with other markets including the NEM, California and Texas.
- ▶ The ESS price floor would be prescribed in the WEM Rules, minimising regulatory effort.

Summary of MPM Framework

Alignment of affirmed and unconfirmed elements

It is proposed that General Trading Obligations; details of the Market Power Test; and enforcement consequences for MPT failure are embedded within the WEM Rules to provide certainty to MPs



Next steps

Next steps

- **Further feedback is welcomed – please send any follow-up questions and comments energymarkets@energy.wa.gov.au**
- **Feedback from this meeting, and any subsequent feedback, will be considered in the development of a Consultation Paper, due for release in late July/early August**
- **A final Information Paper will be published (expected September) outlining the final detailed design that will form the basis of Amending WEM Rules**
- **Rule drafting is scheduled for completion in December**

*We're working for
Western Australia.*