Proposed General Amendments to the WESM Manual on Ancillary Services
Monitoring on Matters regarding the Reserve Conformance
Standards and Related Enforcement Actions

Philippine Electricity Market Corporation

ORCP-WM-24-06

Call for Comments to the Proposed General Amendments to the Proposed General Amendments to the WESM Manual on Ancillary Services Monitoring on Matters regarding the Reserve Conformance Standards and Related Enforcement Actions (ORCP-WM-24-06)

The Rules Change Committee (RCC) is inviting all WESM Members and interested parties to submit comments to the PEM Board-approved *Proposed General Amendments to the WESM Manual on Ancillary Services Monitoring (WESM ASMM) on Matters regarding the Reserve Conformance Standards and Related Enforcement Actions (ORCP-WM-24-06).*

The proposed amendments seek to cover the following matters:

1. Clarification on, and correction of, the criteria and formulas relating to compliance with the Reserve Conformance Standards (RCS)
2. Clarity on the basis of the Ancillary Service Providers in submitting the Request for Reassessment with Notice of Claim
3. Clarity in the responsibilities of the Market Operator, the WESM Governance Arm, and the System Operator regarding the data provision, flagging, determination, and reporting of breach.
4. Timeline of the completion, consolidation, and submission of reports/results.

The WESM document for amendments is:

1. WESM Manual on Ancillary Services Monitoring

BACKGROUND:

The proposed amendments were originally initiated by PEMC on 13 August 2024 by way of the rules change process for urgent amendments. Following the procedures for processing urgent proposals set forth in Section 7 of the Rules Change Manual, the RCC certified the proposal as urgent, immediately deliberated on the proposal on 16 August 2024, and approved it on 22 August 2024.

Activity	Date
RCC Approval	22 August 2024
PEM Board Approval	28 August 2024
Effectivity Date of Revised Rules and Manuals	30 August 2024

Proposed General Amendments to the WESM Manual on Ancillary Services
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The urgent amendments shall remain in effect up to 6 months or until a general amendment on the same matter has been approved by the DOE and becomes continuously in effect, whichever comes first. The updated market rules and manuals could be accessed in this webpage.

DOCUMENTS:

Provided below are the relevant materials for your reference:

1) Original Rules Change Proposal submitted by PEMC (ORCP-WM-24-05)
2) PEM Board-approved urgent proposal (RCC Resolution No. 2024-05) – Note: Further amendments approved by the PEM Board are provided in the matrix (item 3)
3) Matrix of Proposed Amendments for Comments – Annex A of this document *(See below. Please write your comments in the proper columns in the matrix.)*

Kindly submit your comments (in Word format) through the File a Submission page no later than **18 October 2024** or 30 working days from the date of publication (06 September 2024). *Please input in the proper field the e-mail address of your point person(s) who we could further contact regarding activities related to the processing of the proposal.* All comments received shall be published in the PEMC website.

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[In accomplishing and submitting this form, you give your consent for PEMC to collect, record, organize, and update your personal data as herein provided as part of your information for purposes of rules change process.]

Commenter's Information

Name	[Signature over Name]
Designation	
Company	
Company Address	
Telephone No.	
Email Address	

WESM Manual on ASM Issue 1.1								
Title	**Clause**	**Provision**	**Proposed Amendment (PEM Board-approved as Urgent Amendment)**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Original Proponent's Response**	**RCC Decision**
[Please write your general comment here, if any:								
Section 2 – Definition, References, and Interpretation 2.1 Definitions	g. Enforcement Related Notices -	Notice of Probable Breach – A notice issued by the *Market Operator* to the *Enforcement and Compliance Office.* It specifies the *dispatch intervals* in which a probable breach of *Reserve Conformance Standards* is identified. It also specifies the amount adjusted or to be adjusted from the *reserve trading amounts* due from the *System Operator* as a result of probable breach flagging.	Notice of ~~Probable~~ Breach – A notice issued by the *Market Operator* to the **_Ancillary Service Providers_** ~~Enforcement and Compliance Office~~. It specifies the *dispatch intervals* in which a ~~probable~~ breach of *Reserve Conformance Standards* is identified. It also specifies the amount adjusted or to be adjusted from the *reserve trading amounts* due from the *System Operator* ~~as a result of probable breach flagging~~ **after due assessment and verification.**	Deletion of "Probable" to provide clarity in the definition of the notice, as the results have already been assessed by ECO and verified by the ASPs. This already serves as the basis of MO for non-payment reflected in the Preliminary Settlement Statement. ASPs shall be the recipient of the Notice of Breach as this becomes the basis for filing the Request for Reassessment				

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				with Notice of Claim. Related proposed revision: Sec. 7.3.1 (b), 2nd par, where a copy of the consolidated Notice of Breach shall be furnished by IEMOP to ECO and NGCP under Section 7.3.1 (b), 2nd par.				
Section 2 – Definition, References, and Interpretation 2.1 Definitions	g. Enforcement Related Notices -	Notice of Confirmation of Breach – A notice issued to the *Market Operator,* the *System Operator,* and the *Ancillary Services Provider* by the *WESM Governance Arm* after due assessment and verification by the *Enforcement and Compliance Office* which contains confirmation of the finding/s of breach as initially flagged by the *Market Operator.*	Notice of Confirmation of Breach – A notice issued to the *Market Operator,* the *System Operator,* and the *Ancillary Services Provider* by the *WESM Governance Arm* after due assessment and verification by the *Enforcement and Compliance Office* which contains confirmation of the finding/s of breach as ~~initially~~ flagged**, assessed, and reported** by **the *Enforcement and Compliance Office* to** the *Market Operator.*	In reference to revision in Sections 3.1.1 and 7.2 where the responsibility of flagging the probable breach is removed from MO. ECO will <u>flag</u> the breach, validate, assess, and <u>report</u> the results to MO.				
	i.	**(NEW)**	**i. Rated Capacity** - **The full-load continuous gross capacity of a unit under the specified conditions, as calculated from the electric generator nameplate based on the rated Power Factor.** ~~i.~~ **j.** xx ~~j.~~ **k.** xx ~~k.~~ **l.** xx ~~l.~~ **m.** xx	Reference: • PGC (2016 Ed.) • Resolution No. 17, Series of 2023 *"A Resolution Adopting the 2023 Revised Rules for the*				

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			m. **n.** xx n. **o.** xx o. **p.** xx p. **q.** xx q. **r.** xx	*Issuance of Certificates of Compliance (COCs) For Generation Facilities"* Renumbering of the succeeding Terms due to insertion of new term.				
Section 3 – Responsibilities 3.1 Market Operator	3.1.1	The *Market Operator* shall establish a procedure for the monitoring or flagging of *breach* in accordance with the *Reserve Conformance Standards* and the rule pertaining to *Reserve Offer Capacity Compliance* through the use of an appropriate facility.	The *Market Operator* shall establish a procedure for the **timely gathering and provision of available market data to the *WESM Governance Arm* that are necessary for the monitoring of compliance** monitoring or flagging of *breach* in accordance with the *Reserve Conformance Standards* and the rule pertaining to *Reserve Offer Capacity Compliance* through the use of an appropriate facility.	In reference to revision in Section 7.2 where the responsibility of flagging the probable breach is removed from MO. ECO will flag the breach, validate, assess, and report the results to MO. MO will instead be in charge of the timely collection and gathering of data, and provision thereof to PEMC for the Reserve Market compliance monitoring purposes.				

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Section 3 Responsibilities 3.4 Ancillary Services Provider	3.4.1	3.4.1 Ancillary Services Providers shall submit to the System Operator the following real-time data for purposes of monitoring compliance with the Reserve Conformance Standards. a. Generator mode of operations b. Dead band setting	3.4.1 Ancillary Services Providers shall submit to the System Operator the following real-time data for purposes of monitoring compliance with the Reserve Conformance Standards. a. Generator mode of operations b. Deadband setting **c. Speed droop characteristic**	Addition of Speed Droop characteristic to the required data from the Ancillary Services Providers (ASPs) in reference to Section 5.3.3 and 5.4.4.				
SECTION 5 – Reserve Conformance Standards 5.2 Provision of Data for Monitoring and Reporting	5.2.1	The System Operator shall submit to the Market Operator data and reports that may be necessary in initially determining probable breach, such as but not limited to the following: 	**Data**	**Timeline of Provision**
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Generator mode of operation (e.g., Automatic Generation Control, Governor Control Mode, Manual Dispatch Instruction)	Real-Time		The System Operator ~~shall submit to~~ **and** the Market Operator **shall submit to the WESM Governance Arm** data and reports that may be necessary in initially determining probable breach, such as but not limited to the following: 	Data	Timeline of Provision	**Source**
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Generator mode of operation (e.g., Automatic Generation Control, Governor Control Mode, Manual Dispatch Instruction)	~~Real-Time~~ **D+1**	**Market Operator**		For Clarity: SO and MO will be the data provider; and WGA as recipient of the data for compliance monitoring purposes. For consistency with Section 3.2.2 of the ASM Manual. The timeline in the ASM Manual for PEMC-ECO to report the results to IEMOP as basis				

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Title	Clause	Provision		Proposed Amendment (PEM Board-approved as Urgent Amendment)			Rationale	Comments	Proposed Wording based on Comments	Original Proponent's Response	RCC Decision
		Dead band settings	Real-Time	Deadband settings **(Based on certification)**	~~Real-Time~~ **As necessary**	**Market Operator**	for any reserve amount adjustments is too tight (Sections 7.7.1 and 7.7.2 of the ASM Manual), as any delay would affect PEMC's ability to generate compliance monitoring results within the timeline set for the issuance of the WESM Preliminary Statement. To avoid potential issues relating to missing or inconsistent data from the intermediate data transfer through IEMOP.				
		Speed droop	Real-Time	Speed droop **characteristic (Based on certification)**	~~Real-Time~~ **As necessary**	**Market Operator**					
		Generator Status	Real-Time	Generator Status	~~Real-Time~~ **D+1**	**System Operator**					
		Dispatch instructions	By 1200H of the next day for all instructions of the current trading day	Dispatch instructions	~~By 1200H of the next day for all instructions of the current trading day~~ **D+1**	**System Operator**					
		Outages	By 1200H of the next day for all instructions of the current trading day	Outages	~~By 1200H of the next day for all instructions of the current trading day~~ **D+1**	**System Operator**					
		Power System Frequency	Real-Time	Power System Frequency	~~Real-Time~~ **D+1**	**System Operator**					
		Control Dead band	Real-Time	~~Control Dead band~~	Real-Time						
				Desired MW/AGC Command	**D+1**	**System Operator**					
				Certified Capacity (Based on certification)	**As necessary**	**Market Operator**					
				Day-Ahead Ancillary Service	**D-1**	**System Operator**					

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			<table><tr><td>Schedule (DAASS)</td><td></td><td></td></tr><tr><td>BCQ-SO</td><td>D+1</td><td>System Operator</td></tr><tr><td>Actual MW Output</td><td>D+1</td><td>System Operator</td></tr><tr><td>Reserve Type (Based on certification)</td><td>As necessary</td><td>Market Operator</td></tr></table> For other data or reports not enumerated in the foregoing table, the *Market Operator*, **the WESM Governance Arm**, and the *System Operator* shall, from time to time, agree on the manner and schedule of submission. **[Add Footnote] "D" - Day; "D+1": Next Day**					
		For other data or reports not enumerated in the foregoing table, the *Market Operator* and the *System Operator* shall, from time to time, agree on the manner and schedule of submission.		For clarity.				
SECTION 5 – Reserve Conformance Standards 5.3 Reserve Conformance Standards for Regulating Reserve	5.3.3	Reserve facilities scheduled to provide regulating reserve shall also ensure that they meet the following requirements during the relevant dispatch interval: a. Dead band is 0.15 Hz or lower if operating on GCM or AGC b. Speed-droop characteristic is 5% or lower; and c. Provision of reserve is sustainable for the entire dispatch interval.	Reserve facilities scheduled to provide regulating reserve shall also ensure that they meet the following requirements **based on the certified settings** during the relevant dispatch interval: a. Deadband is **0 Hz to +/- 0.15 Hz** ~~0.15 Hz or lower~~ if operating on GCM ~~or AGC~~. b. ~~Speed-droop~~ **Speed droop characteristic** is 5% or lower **and 1% or lower for *Battery Energy Storage System* if operating on GCM**; and c. Provision of reserve is sustainable for the entire dispatch interval.	To indicate the correct dead band settings for GCM mode and to delete "or AGC" as there is no dead band requirement for AGC operations. No speed droop characteristic requirement for AGC since it is automatically controlled by a Supervisory Control and Data				

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				Acquisition (SCADA) from the SO Control Center or manual adjustment of load with specific instructions from the SO. To include the speed droop characteristic for Battery Energy Storage System (BESS)				
SECTION 5 – Reserve Conformance Standards 5.3 Reserve Conformance Standards for Regulating Reserve	5.3.4	A reserve facility providing regulating reserve that fails to maintain an average response accuracy as set out in Sections 5.6.1 and 5.7.1 or an average response time as set out in Sections 5.6.3 and 5.7.3 in any dispatch interval during the monitoring period shall be flagged as non-compliant. Once flagged as non-compliant, a reserve facility will be assessed further based on the following: a) Compliance with the response accuracy for each dispatch interval; and b) Compliance with the response time for each dispatch interval.	A reserve facility providing regulating reserve that fails to maintain an average response accuracy as set out in Sections 5.6.1 and 5.7.1 or an average response time as set out in Sections 5.6.3 and 5.7.3 **or Percentage (%) of Compliance as set out in Section 5.7.1** in any dispatch interval during the monitoring period *settlement interval* shall be flagged as non-compliant. Once flagged as non-compliant, a reserve facility will be assessed further based on the following: a) Compliance with the response accuracy for each dispatch interval; and b) Compliance with the response time for each dispatch interval.	To revise the averaging from a monthly period to hourly interval as this proposed approach would calculate the average response accuracy and response time for the reserve facility operating under GCM within each relevant hourly interval, providing a more balanced and granular assessment of compliance.				

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				To distinguish hourly averaging of response accuracy and response time (under GCM) from Percentage of Compliance (under AGC), in relation to the proposed revisions to Section 5.7 "Measuring Reserve Response Compliance of Generators on Automatic Generation Control".				
SECTION 5 – Reserve Conformance Standards 5.4 Reserve Conformance Standards for Contingency Reserve	5.4.4	Reserve facilities scheduled to provide contingency reserve shall also ensure that they meet the following requirements during the relevant dispatch interval: a. Dead band is greater than 0.15 Hz but less than 0.30 Hz if operating on GCM or AGC; b. Speed-droop characteristic is 5% or lower; and c. Provision of reserve is sustainable for the entire dispatch interval.	Reserve facilities scheduled to provide contingency reserve shall also ensure that they meet the following requirements **based on the certified settings** during the relevant dispatch interval: a. Deadband is ~~greater than 0.15 Hz~~ **-0.16 Hz to -0.30 Hz** ~~but less than 0.30 Hz~~ if operating on GCM ~~or AGC~~**.** b. ~~Speed-droop~~ **Speed droop characteristic** is 5% or lower **and 1% or lower for *Battery Energy Storage System*, if operating on GCM;** and	To indicate the correct dead band settings for GCM mode and to delete "or AGC" as there is no dead band requirement for AGC operations. No speed droop characteristic requirement for	NGCP proposes to revisit the deadband for Contingency Reserves.	Propose to revise as: Xxx a. Deadband is ~~-0.16 Hz to -0.30 Hz~~ **less than -0.15Hz but greater than -0.30Hz, or as determined** by **Certification** if operating on GCM. Xxx		

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			c. Provision of reserve is sustainable for the entire dispatch interval.	AGC since it is automatically controlled by a Supervisory Control and Data Acquisition (SCADA) from the SO Control Center or manual adjustment of load with specific instructions from the SO. To include the speed droop characteristic for BESS.				
SECTION 5 – Reserve Conformance Standards 5.4 Reserve Conformance Standards for Contingency Reserve	5.4.5	A reserve facility providing contingency reserve that fails to maintain an average response accuracy as set out in Sections 5.6.1 and 5.7.1 or an average response time as set out in Sections 5.6.3 and 5.7.3 for the entire monitoring period shall be flagged as non-compliant. Once flagged as non-compliant, a reserve facility will be assessed further based on the following: a) Compliance with the response accuracy for each dispatch interval; and b) Compliance with the response time for each dispatch interval.	A reserve facility providing contingency reserve that fails to maintain an average response accuracy as set out in Sections 5.6.1 and 5.7.1 or an average response time as set out in Sections 5.6.3 and 5.7.3 **or Percentage (%) of Compliance as set out in Section 5.7.1** for the entire monitoring period **settlement interval** shall be flagged as non-compliant. Once flagged as non-compliant, a reserve facility will be assessed further based on the following: a) Compliance with the response accuracy for each dispatch interval; and b) Compliance with the response time for each dispatch interval.	To revise the averaging from a monthly period to hourly interval as this proposed approach would calculate the average response accuracy and response time for the reserve facility operating under GCM within each relevant hourly interval, providing a more balanced and granular				

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				assessment of compliance. To distinguish hourly averaging of response accuracy and response time (under GCM) from Percentage of Compliance (under AGC), in relation to the proposed revisions to Section 5.7 "Measuring Reserve Response Compliance of Generators on Automatic Generation Control".				
SECTION 5 – Reserve Conformance Standards 5.5 Reserve Conformance Standards for Dispatchable Reserve	5.5.3	After synchronization, the dispatchable reserve facility shall deliver the MW capacity instructed by the System Operator within fifteen (15) minutes from synchronization.	After synchronization, the dispatchable reserve facility shall deliver the MW capacity instructed by the System Operator within fifteen (15) minutes from synchronization **and shall generate within the upper and lower dispatch thresholds of +/-1% of the dispatch instruction, or +/- 0.5 MW, whichever is higher. The facility shall sustain and maintain generation in accordance with the active instruction and any succeeding instructions from the System Operator until instructed to shut down.**	To add a criterion that in addition to the requirement for DR to generate within 15 minutes from the SO instruction, the reserve facility must follow a dispatch tolerance of +/- 1% (based on SO's standard				

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				practice for monitoring) or +/- 0.5 MW (based on the survey results conducted with DR-ASPs) for the given period and to clearly establish that the facility must sustain/continue to generate to meet the SO instruction until it receives a specific directive to stop generating. **(See Illustration 1 in Annex IV)**				
SECTION 5 – Reserve Conformance Standards 5.5 Reserve Conformance Standards for Dispatchable Reserve	5.5.4	**[NEW]**	**5.5.4 A dispatchable *reserve facility* that fails to comply with the real-time dispatch instruction of the *System Operator* based on the *Reserve Schedule* due to an outage or unavailability shall be considered in breach of the *reserve conformance standards* for the *dispatch interval* that the non-compliance occurs and in all preceding intervals of the same trading day that have Dispatchable *Reserve Schedules.***	It covers instances where a facility (that is required to be offline) offers for DR but it is, in fact, not available when called to run. It will only be ascertained during the time that it is asked to run by SO. The dispatchable reserve facility that becomes non-dispatchable real-time or is unable				

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				to deliver the MW capacity in real-time due to an outage or other cause/s of unavailability presupposes that it is not also available in the prior intervals (while it was offline). By being unable to run as DR, it does not serve its purpose, i.e., assuring the grid that it is indeed readily available for dispatch (when needed) in order to replenish the CR whenever a generating unit trips or a loss of a single transmission interconnection occurs.				

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SECTION 5 – Reserve Conformance Standards 5.5 Reserve Conformance Standards for Dispatchable Reserve	5.5.4	A *reserve facility* that fails to comply with the provisions set out in Sections 5.5.1, 5.5.2, or 5.5.3 at any *dispatch interval* shall be considered in breach of the *reserve conformance standards* for *dispatchable reserves* for that *dispatch interval*.	5.5.4 **5.5.5** A *reserve facility* that fails to comply with the provisions set out in Sections 5.5.1, 5.5.2, or 5.5.3 at any *dispatch interval* shall be considered in breach of the *reserve conformance standards* for *dispatchable reserves* for that *dispatch interval*.	Renumbered to 5.5.5 due to inserted new provision *(see above Sec. 5.5.4)*				
Section 5 – Reserve Conformance Standards 5.6 Measuring Reserve Response Compliance of Generators on Governor Control Mode	5.6.1	A *reserve facility* responding to a *frequency-driven event* through GCM shall maintain a response accuracy of at least 80% for the entire monitoring period.	A *reserve facility* responding to a *frequency-driven event* through GCM shall maintain **an average** response accuracy of at least 80% for the ~~entire monitoring period~~ **relevant *settlement interval*.** **For purposes of averaging under Sections 5.3.4 and 5.4.5, the response accuracy for a dispatch interval shall be capped at 120%.**	To revise the requirement from being measured over the entire monitoring period, to being measured within relevant settlement interval. This provides for a more granular and balanced assessment. Rationale for Capping at 120%: The 120% capping on the average response accuracy is intended to manage outliers (e.g. overshoot in response accuracy by 200-				

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				300%) and setting an upper limit or fixed threshold value of 120% as the reasonable metric in determining accuracy within a *settlement interval*.				
Section 5 – Reserve Conformance Standards 5.6 Measuring Reserve Response Compliance of Generators on Governor Control Mode	5.6.2	A reserve facility's response accuracy via GCM shall be calculated as follows. $Response\ Accuracy$ $= \dfrac{Actual\ MW\ Response\ Capacity}{Expected\ MW\ Response\ Capacity}\ x\ 100\%$ Where: Actual MW Response Capacity = Highest Actual MW Output – MW Output Prior to Frequency-Driven Event Expected MW Response Capacity = Static Gain x Frequency Change Frequency Change	A reserve facility's response accuracy via GCM shall be calculated as follows. $Response\ Accuracy$ $= \dfrac{Actual\ MW\ Response\ Capacity}{Expected\ MW\ Response\ Capacity}\ x\ 100\%$ **a. When System Frequency falls below the lower deadband:** Actual MW Response Capacity = Highest Actual MW Output – MW Output Prior to Frequency-Driven Event **Where: The Highest Actual MW Output is the value obtained 20 seconds after the Lowest frequency that occurred during the Frequency-Driven Event** **Frequency Change** **= Frequency Prior to Frequency-Driven Event - Lowest Frequency During Frequency-Driven Event** **Frequency Prior to Frequency-Driven Event** **= Nominal Frequency - Dead band Setting**	Modification of the formula (*i.e.,* addition of the "lowest" Actual MW output on the formula) for Actual MW Response Capacity to use both the highest and lowest actual MW output values, in order to reflect the correct response accuracy for any given Frequency Driven-Event, whether it requires an upward or downward response from Ancillary Services Providers (ASPs). A frequency-driven event can trigger the need				

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		= Worst Frequency Highest/Lowest – Frequency Prior to Frequency-Driven Event Frequency Prior to Frequency-Driven Event = Nominal Frequency $\pm$ Dead band Setting $Static\ Gain$ $= \dfrac{Scheduled\ MW\ Capacity}{Droop\ Setting\ x\ Nominal\ Frequency}\ x\ 100\%$	**b. When System Frequency breaches the upper deadband:** **Actual MW Response Capacity** **= Lowest Actual MW Output – MW Output Prior to Frequency-Driven Event** **Where: The Lowest Actual MW Output is the value obtained 20 seconds after the highest frequency that occurred during the Frequency-Driven Event** **Frequency Change** **= Frequency Prior to Frequency-Driven Event - Highest Frequency During Frequency-Driven Event** Expected MW Response Capacity = Static Gain x Frequency Change ~~Frequency Change~~ ~~= Worst Frequency Highest/Lowest – Frequency Prior to Frequency-Driven Event~~ ~~Frequency Change~~ ~~= Frequency Prior to Frequency-Driven Event - Highest/Lowest Frequency During Frequency-Driven Event~~ ~~Frequency Prior to Frequency-Driven Event~~	for immediate response from ASPs to either increase or decrease generation, depending on whether the system frequency breaches the upper or lower threshold (facilities' dead band settings). Using highest actual MW output when the response requires an increase, and the lowest actual MW output when the response requires a decrease, ensures the Actual MW Response Capacity is calculated correctly for the specific event scenario. Rationale for the 20 seconds time reference:				

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			~~= Nominal Frequency ± Dead band Setting~~ $Static\ Gain$ $= \dfrac{\bcancel{Scheduled\ MW}\ \textbf{Rated}\ Capacity}{Droop\ Setting\ x\ Nominal\ Frequency} \times 100\%$ **If the system frequency breaches the upper deadband threshold, the reserve facility needs to react by decreasing generation to correct the frequency and _vice versa_. In this case, the Actual MW Response Capacity shall be calculated as the difference between the Highest or Lowest Actual MW Output, as the case may be, and the MW Output prior to the Frequency-Driven Event.**	20 seconds is a time frame that is typically critical for a reserve facility to respond to control signals being sent from SO's energy management system (EMS). Transposition in the formula for Frequency Change. This is to ensure consistency with the sign of the resulting Expected Response with the Actual MW Output and to have a non-negative Response Accuracy. Addition of the word "during" to clarify that the frequency referenced should be the value observed during the frequency-driven event.				

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				(See Illustration 2 in Annex IV) The Static Gain formula is being revised to use the *Rated Capacity* instead *of Scheduled MW Capacity*. During the discussions with the System Operator, it was clarified that the value of static gain, which represents the change of active power output (in MW) per unit change in system frequency (in Hz), should not be variable and must be a fixed value grounded in the ASPs' *Rated Capacity*. **(See Illustration 3 in Annex IV)** To provide case scenarios when to use the applicable formula, depending on the				

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				system frequency condition.				
Section 5 – Reserve Conformance Standards 5.6 Measuring Reserve Response Compliance of Generators on Governor Control Mode	5.6.3	A reserve facility responding to a frequency-driven event or to a dispatch instruction, while on GCM shall have an average response time of not more than five (5) seconds for the entire monitoring period.	A reserve facility responding to a frequency-driven event or to a dispatch instruction, while on GCM shall have an average response time of not more than five (5) seconds for the ~~entire monitoring period~~ **relevant _settlement interval_**.	Evaluating the response time during the relevant settlement interval, rather than an entire monitoring period, provides a more accurate and representative assessment of the facility's performance during the provision of Ancillary Service (AS).				
Section 5 – Reserve Conformance Standards	5.7.1	A reserve facility responding to a frequency-driven event or to dispatch instructions, through commands received from the System Operator's Energy Management System (EMS) via AGC shall comply to at least 75% of such AGC commands for the entire monitoring period.	A reserve facility responding to a frequency-driven event or to dispatch instructions, through commands received from the System Operator's Energy Management System (EMS) via AGC shall comply to at least ~~75%~~ **90%** of such AGC commands for the ~~entire monitoring period~~ **relevant _settlement interval_**.	90% compliance is to be consistent with the standard practice of NGCP-SO in monitoring reserve facilities operating under AGC.				

WESM Manual on ASM Issue 1.1							
Title	**Clause**	**Provision**	**Proposed Amendment** **(PEM Board-approved as Urgent Amendment)**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Original Proponent's Response**	**RCC Decision**
5.7 Measuring Reserve Response Compliance of Generators on Automatic Generation Control			**Percentage (%) of Compliance of a reserve facility/unit operating on AGC is given below:** $\% \ Compliance$ $= \dfrac{No.\ of\ Compliant\ AGC\ Commands}{No.\ of\ AGC\ Commands} \ x\ 100\%$	To reflect, for clarity, the formula in getting Percentage (*%) of Compliance*. To revise the requirement from being measured over the entire monitoring period, to being measured within each <u>relevant</u> settlement interval. This provides for a more granular and balanced assessment, as proposed in Sections 5.3.4 and 5.4.5. **(See Illustration 4 in Annex IV)**				
Section 5 – Reserve Conformance Standards 5.7 Measuring Reserve	5.7.2	A reserve facility is deemed compliant to an AGC command if: Actual MW Generation > (Desired MW Generation – Control Dead band); and Actual MW Generation < (Desired MW Generation + Control Dead band).	A reserve facility is deemed compliant to an AGC command if **the following conditions are met**: ~~Actual MW Generation > (Desired MW Generation – Control Dead band); and~~ ~~Actual MW Generation < (Desired MW Generation + Control Dead band).~~ **5.7.2.1 The Actual Generation of the reserve facility shall reach at least 63% of the**	Adopted from the System Operator's standard practice for monitoring the compliance of their contracted AS Providers with the AGC commands.				

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Title	**Clause**	**Provision**	**Proposed Amendment** **(PEM Board-approved as Urgent Amendment)**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Original Proponent's Response**	**RCC Decision**
Response Compliance of Generators on Automatic Generation Control			**Desired Generation within 25 seconds from the time the AGC command is issued.** **5.7.2.2 Additionally, the Actual Generation of the reserve facility shall reach at least 90% but shall not exceed 130% of the Desired Generation or ± 0.5 MW from the Desired Generation, (whichever requirement is the higher threshold) within 32 seconds from the time AGC command is issued. The facility shall sustain and maintain generation throughout the command in such range set out herein.**					
Section 5 – Reserve Conformance Standards 5.7 Measuring Reserve Response Compliance of Generators on Automatic Generation Control	5.7.3	A reserve facility responding to a frequency-driven event, or dispatch instructions, through AGC commands shall also have an average response time of not more than twenty-five (25) seconds for the entire monitoring period.	~~A reserve facility responding to a frequency-driven event, or dispatch instructions, through AGC commands shall also have an average response time of not more than twenty-five (25) seconds for the entire monitoring period.~~	No longer applicable in view of the proposed revision in 5.7.2.				

WESM Manual on ASM Issue 1.1								
Title	**Clause**	**Provision**	**Proposed Amendment** **(PEM Board-approved as Urgent Amendment)**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Original Proponent's Response**	**RCC Decision**
Section 5 – Reserve Conformance Standards 5.7 Measuring Reserve Response Compliance of Generators on Automatic Generation Control	5.7.4	A reserve facility's response time is computed from the time of the AGC command until the actual generation reaches control dead band (i.e., desired generation + the dead band).	~~A reserve facility's response time is computed from the time of the AGC command until the actual generation reaches control dead band (i.e., desired generation + the dead band).~~	No longer applicable in view of the proposed revision in 5.7.2.				
Section 5 – Reserve Conformance Standards 5.8 Summary Table of Reserve Conformance Standards for Each Reserve Type	5.8	**5.8 Summary Table of Reserve Conformance Standards for Each Reserve Type** (see table below)	**5.8 Summary Table of Reserve Conformance Standards for Each Reserve Type** (see table below)	To align the reserve conformance standards for each type of reserves set out in Sections 5.3.3 5.4.4, 5.5.3., 5.6.1 and 5.7.				

Provision table (left):

For Regulating Reserves		
Response Accuracy	On GCM	At least 80%
	On AGC	At least 75%
Response Time	On GCM	not more than 5 seconds
	On AGC	not more than 25 seconds
Dead band Setting	0.15 Hz or lower	
Speed droop	5% or lower	
Sustainability	for the entire *dispatch interval*	

Proposed Amendment table (right):

For Regulating Reserves		
Response Accuracy	On GCM	At least 80%
	On AGC	At least ~~75%~~ **90%**
Response Time	On GCM	not more than 5 seconds
	On AGC	~~not more than 25 seconds~~ **At least 63% of the desired generation within 25 seconds; and at least 90% and not more than 130% of the desired**

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Title	Clause	Provision	Proposed Amendment (PEM Board-approved as Urgent Amendment)	Rationale	Comments	Proposed Wording based on Comments	Original Proponent's Response	RCC Decision

Provision column:

For Contingency Reserves		
Response Accuracy	On GCM	At least 80%
	On AGC	At least 75%
Response Time	On GCM	not more than 5 seconds
	On AGC	not more than 25 seconds
Dead band Setting	greater than 0.15 Hz but less than 0.30 Hz	
Speed droop	5% or lower	
Sustainability	for the entire *dispatch interval*	

For Dispatchable Reserves	
Status	must be offline unless there is a *dispatch instruction* from the *System Operator*, or it was scheduled for energy *dispatch* in the *WESM*.

Proposed Amendment column:

		generation or 0.5 MW tolerance whichever is higher within 32 seconds
Deadband Setting **on GCM**	0 Hz to +/-0.15Hz or as per certification	
Speed droop characteristic on GCM	5% or lower; and 1% or lower for BESS	
Sustainability	for the entire *dispatch interval*	

For Contingency Reserves		
Response Accuracy	On GCM	At least 80%
	On AGC	At least ~~75%~~ **90%**
Response Time	On GCM	not more than 5 seconds
	On AGC	~~not more than 25 seconds~~ **At least 63% of the desired generation within 25 seconds; and at least 90% and not more than**

WESM Manual on ASM Issue 1.1									
Title	**Clause**	**Provision**		**Proposed Amendment (PEM Board-approved as Urgent Amendment)**		**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Original Proponent's Response**	**RCC Decision**
		Synchronization	Within 15 minutes upon advice from the *System Operator*		**130% of the desired generation or 0.5 MW tolerance whichever is higher within 32 seconds**					
		Sustainability	After synchronization, the *dispatchable reserve facility* shall deliver the MW capacity instructed by the *System Operator* within 15 minutes							
				Deadband Setting on GCM	**- 0.16 Hz to - 0.30 Hz or as per certification**					
				Speed droop characteristic on GCM	5% or lower**; and** **1% or lower (for BESS)**					
				Sustainability	for the entire *dispatch interval*					

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Title	**Clause**	**Provision**	**Proposed Amendment (PEM Board-approved as Urgent Amendment)**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Original Proponent's Response**	**RCC Decision**
			For Dispatchable Reserves					
			Status — Must be offline unless there is a *dispatch instruction* from the *System Operator,* or it was scheduled for energy *dispatch* in the *WESM*.					
			Synchronization — Within 15 minutes upon advice from the *System Operator*					
			Sustainability — ~~After synchronization, the~~ ~~*dispatchable reserve*~~ ~~*facility* shall deliver the~~ ~~MW capacity instructed by~~ ~~the *System Operator*~~ ~~within 15 minutes~~ **Must sustain the upper and lower threshold of +/-1% of the dispatch instruction or +/- 0.5 MW whichever is higher, within 15 minutes from synchronization**					
			[Add footnote in title: **Adopted from the parameters being implemented by the System Operator for its own compliance monitoring of contracted Ancillary Service Providers**]					

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Title	Clause	Provision	Proposed Amendment (PEM Board-approved as Urgent Amendment)	Rationale	Comments	Proposed Wording based on Comments	Original Proponent's Response	RCC Decision
Section 7 – Monitoring of Compliance with Reserve Conformance Standards 7.2 Flagging of Breach of Reserve Conformance Standards	7.2.1	The *Market Operator* shall, through a dedicated monitoring facility, flag a breach of the *Reserve Conformance Standards* by the *Ancillary Services Provider* based on the parameters set in Section 5*,* and shall notify the *System Operator*, the *Ancillary Services Provider*, and the *Enforcement and Compliance Office* of the same.	The ~~*Market Operator*~~ **Enforcement and Compliance Office** shall, through a dedicated monitoring facility, flag a breach of the *Reserve Conformance Standards* by the *Ancillary Services Provider* based on the parameters set in Section 5*,* and shall notify the ~~*System Operator*, the~~ *Ancillary Services Provider*~~,~~ and the ~~*Enforcement and Compliance Office*~~ of the same.	ECO to flag the probable breach of the RCS as essential part of the monitoring process. Related revision: See Section 3.1.1 above on the responsibility of the Market Operator				
Section 7 – Monitoring of Compliance with Reserve Conformance Standards 7.2 Flagging of Breach of Reserve Conformance Standards	7.2.2	The *Market Operator* and the *System Operator* shall provide copies of the data and information to the *Enforcement and Compliance Office* which will be used by the latter as basis for the validation or confirmation of breach of the *Reserve Conformance* in accordance with the procedures set out in Section 7.5. The *Enforcement and Compliance Office* shall generate monitoring results for reconciliation with the results generated by the *Market Operator*.	The ~~*Market Operator* and the *System Operator* shall provide copies of the data and information to the *Enforcement and Compliance Office* which will be used by the latter as basis for the~~ **shall conduct** validation**, verification, and assessment** ~~or confirmation~~ of breach of the *Reserve Conformance **Standards*** ~~in accordance with the procedures set out in Section 7.5~~. The *Enforcement and Compliance Office* shall generate monitoring results ~~for reconciliation with the results generated by the *Market Operator*~~ **within twenty-five (25) business days after the end of the covered monitoring period. The *Reserve Conformance Standards* monitoring report shall include the specific intervals, resource unit/s, the type of reserve that is found in breach, and such other relevant information as may be appropriate.** **The *Enforcement and Compliance Office* shall furnish the *System Operator* a copy of the**	ECO to proceed with the validation, verification, and assessment and reporting based on the flagged probable breach as essential part of the monitoring process. Added reporting timeline consistent with Sec. 7.7.2 of the ASMM Added contents of the ECO's RCS Monitoring Report to be submitted to				

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Title	Clause	Provision	Proposed Amendment (PEM Board-approved as Urgent Amendment)	Rationale	Comments	Proposed Wording based on Comments	Original Proponent's Response	RCC Decision
			monitoring results for any feedback or confirmation of the results or findings.	MO. These are information necessary in the Notice of Breach to be provided by MO to ASPs in Section 7.3.2				
				Delete reference to Section 7.5 as the validation / assessment referred to therein is done only when there is request for reassessment with Notice of Claim file by ASP.				
				Per PEM Board Resolution No. 2024-75-04				
				Approving the IEMOP's proposal to transfer the responsibility of consolidating the RCS monitoring results (of ECO and SO) from IEMOP to PEMC-ECO; ECO will then submit the				

			WESM Manual on ASM Issue 1.1					
Title	**Clause**	**Provision**	**Proposed Amendment** **(PEM Board-approved as Urgent Amendment)**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Original Proponent's Response**	**RCC Decision**
				consolidated report to IEMOP. **In this section (7.2.2), a corresponding change in timeline is proposed to be made:** (a) To adjust the period for generation of results by ECO (but not to be submitted yet to IEMOP); rather the results will be furnished to SO for feedback or confirmation first, before the same is consolidated; and (b) harmonize it with the period for consolidation of reports by ECO and				

			WESM Manual on ASM Issue 1.1					
Title	**Clause**	**Provision**	**Proposed Amendment** **(PEM Board-approved as Urgent Amendment)**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Original Proponent's Response**	**RCC Decision**
				submission thereof to MO under Section 7.2.3				
Section 7 – Monitoring of Compliance with Reserve Conformance Standards 7.2 Flagging of Breach of Reserve Conformance Standards	7.2.3	The *Market Operator* shall consolidate the initial monitoring results relating to compliance with the *Reserve Conformance Standards* for the relevant billing period on or before the end of the month of the covered billing period. It shall then confer with the *System Operator* and the *Enforcement and Compliance Office* its findings referred to in Section 7.2.1. They shall endeavor to reconcile and/or confirm the results of monitoring within five (5) calendar days after the end of the billing period.	The ***Enforcement and Compliance Office*** ~~*Market Operator*~~ shall consolidate **its own** ~~the~~ initial monitoring result **and the confirmation or report of the *System Operator*, if any,** relating to compliance with the *Reserve Conformance Standards* for the relevant billing period ~~on or before the end of the month of the covered billing period. It shall then confer with the *System Operator* and the *Enforcement and Compliance Office* its findings referred to in Section 7.2.1. They shall endeavor to reconcile and/or confirm the results of monitoring within five (5) calendar days after the end of the billing period~~ **not later than the 25th day of the month following the covered monitoring period. For instance, the results for August *Billing Period* shall be consolidated on or before 25 September.**	Proposed revision: MO will no longer reconcile the reports of ECO, NGCP, and its own monitoring report - to streamline the process and prevent any potential conflicts during the reconciliation of results. In lieu of the reconciliation activity, IEMOP will consolidate the RCS monitoring results of ECO and the confirmation or report of NGCP-SO, if any, before it issues the Preliminary	*Propose to delete the responsibility of the System Operator to submit report relating to compliance of AS providers to streamline the process and prevent any potential conflicts. The compliance monitoring is already guided by the criteria provided in this Manual.*	The **Enforcement and Compliance Office** shall consolidate **its own** monitoring result ~~**and the confirmation or report of the *System Operator*, if any,**~~ relating to compliance with the *Reserve Conformance Standards* for the relevant billing period **not later than the 25th day of the month following the covered monitoring period. For instance, the results for August Billing Period shall be consolidated on or before 25 September.**		

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Title	Clause	Provision	Proposed Amendment (PEM Board-approved as Urgent Amendment)	Rationale	Comments	Proposed Wording based on Comments	Original Proponent's Response	RCC Decision
				Settlement Statement. **Per PEM Board Resolution No. 2024-75-04:** Approving the IEMOP's proposal to transfer the responsibility of consolidating the RCS monitoring results (of ECO and SO) from IEMOP to PEMC-ECO; ECO will then submit the consolidated report to IEMOP.				
Section 7 – Monitoring of Compliance with Reserve Conformance Standards 7.2 Flagging of Breach of Reserve Conformance Standards	7.2.6	If no feedback or confirmation is received from the *System Operator* or no reconciliation is made after the lapse of the period set in Section 7.2.3, the *Market Operator* shall proceed with the finalization of the monitoring breach of the *reserve conformance standards.*	If no feedback, ~~or~~ confirmation**, or report** is received from the *System Operator* ~~or no reconciliation is made~~ after the lapse of the period set in Section 7.2.3, the ***Enforcement and Compliance Office* shall submit to the *Market Operator* the monitoring results. The** *Market Operator* shall **thereafter** proceed with the **settlement adjustment as set out in Section 7.2.7 based on the monitoring report submitted by the *Enforcement and Compliance Office* on compliance of the *Ancillary Services Providers* with the** ~~finalization of the monitoring breach of the~~ *reserve conformance standards.*	Revised to remove "reconciliation" consistent with the proposed revision in Section 7.2.3 and 7.2.6. For clarity. **Per PEM Board Resolution No. 2024-75-04:**	*Propose to align the provision with the proposed removal of System Operator's responsibility in compliance monitoring in clause 7.2.3.*	~~If no feedback, confirmation~~**, or report** ~~is received from the System Operator~~ after the lapse of the period set in Section 7.2.3, **T**~~t~~**he *Enforcement and Compliance Office* shall submit to the *Market Operator* the monitoring results. The** *Market Operator* shall **thereafter** proceed with the **settlement adjustment as set out in Section 7.2.7 based**		

			WESM Manual on ASM Issue 1.1					
Title	**Clause**	**Provision**	**Proposed Amendment (PEM Board-approved as Urgent Amendment)**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Original Proponent's Response**	**RCC Decision**
				Approving the IEMOP's proposal to transfer the responsibility of consolidating the RCS monitoring results (of ECO and SO) from IEMOP to PEMC-ECO; ECO will then submit the consolidated report to IEMOP.		**on the monitoring report submitted by the _Enforcement and Compliance Office_ on compliance of the _Ancillary Services Providers_ with the** _reserve conformance standards._		
Section 7 – Monitoring of Compliance with Reserve Conformance Standards 7.3 Settlement Amount Due from the System Operator after Monitoring	7.3.1	Upon reconciliation or confirmation of the results of the monitoring of the Reserve Conformance Standards following the procedure referred to in Section 7.2, the Market Operator shall: a. calculate the settlement amount due from the System Operator taking into account the finding of breach of the _reserve conformance standards_ on or before the due date for the issuance of preliminary settlement statements, as set in the Billing and Settlement Manual. For this purpose, the Market Operator is authorized to automatically deduct from the settlement amount the reserve amount to the Ancillary Services Provider pertaining to the intervals where an initial determination of breach was flagged; and b. send the Notice of Probable Breach to the Enforcement and Compliance Office, which shall perform the necessary validation and	Upon **receipt of the monitoring report of the _Enforcement and Compliance Office_,** ~~reconciliation or confirmation of the results of the monitoring of the Reserve Conformance Standards following the procedure~~ referred to in Section ~~7.2~~ **7.2.6**, the _Market Operator_ shall: a. calculate the settlement amount due from the System Operator taking into account the finding of breach of the _reserve conformance standards_ on or before the due date for the issuance of preliminary settlement statements, as set in the Billing and Settlement Manual. For this purpose, the _Market Operator_ is authorized to automatically deduct from the settlement amount the reserve amount ~~to the Ancillary Services Provider pertaining~~ **corresponding** to the **number of** ~~intervals where an initial determination of breach was flagged~~ **with findings of breach of the _Reserve Conformance Standards_**; ~~and~~	Revised to remove "reconciliation" consistent with the proposed revision in Section 7.2.3 and 7.2.6. **Per PEM Board Resolution No. 2024-75-04:** Approving the IEMOP's proposal to transfer the responsibility of consolidating the RCS monitoring results (of ECO and SO) from IEMOP to PEMC-				

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Title	Clause	Provision	Proposed Amendment (PEM Board-approved as Urgent Amendment)	Rationale	Comments	Proposed Wording based on Comments	Original Proponent's Response	RCC Decision
		assessment and shall issue the Compliance Monitoring and Assessment Report, as set out in Section 7.5 and Section 7.6.	b. ~~send the Notice of Probable Breach to the Enforcement and Compliance Office, which shall perform the necessary validation and assessment and shall issue the Compliance Monitoring and Assessment Report, as set out in Section 7.5 and Section 7.6.~~ **send the preliminary settlement statement to the _Ancillary Services Providers_ which shall include the _Notice of Breach_ in accordance with the timeline provided in the Billing and Settlement Manual.**	ECO; ECO will then submit the consolidated report to IEMOP. A corresponding change is made in this Section (1st par) to align it with the proposed revision of IEMOP – as the IEMOP will no longer receive a separate report from SO; rather a consolidated report from ECO under Sec. 7.2.3 and 7.2.6, as revised. Typo correction. For clarity on what will be issued by MO to ASP, _i.e.,_ Preliminary Settlement Statement and Notice of Breach. The latter serves as the basis for the filing of Request for Reassessment				

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Title	Clause	Provision	Proposed Amendment (PEM Board-approved as Urgent Amendment)	Rationale	Comments	Proposed Wording based on Comments	Original Proponent's Response	RCC Decision
				with Notice of Claim. IEMOP: to ensure the provision of the Notice along with the prelim statement. This can be included in the settlement data made available in the CRSS for ASPs to access/download				
Section 7 – Monitoring of Compliance with Reserve Conformance Standards 7.3 Settlement Amount Due from the System Operator after Monitoring	7.3.2	The Notice of Probable Breach of the Reserve Conformance Standards shall contain, at a minimum, the specific intervals, resource unit/s, the type of reserve that is found in breach and the amount that is not considered in determining the reserve amount due, and thus, not paid to the Ancillary Services Providers as a consequence of the breach.	The *Notice of ~~Probable~~ Breach* of the *Reserve Conformance Standard*s shall contain, at a minimum, the specific intervals, resource unit/s, the type of reserve that is found in breach and the amount that is not considered in determining the reserve amount due, and thus, not paid to the Ancillary Services Providers as a consequence of the breach.	Related to Revision in Section 2.1 (g). Definition of "Notice of Breach" To provide clarity in the definition of the notice, as the results have already been assessed by ECO and verified by the ASPs. This already serves as the basis of MO for non-payment reflected in the Preliminary Settlement Statement.				

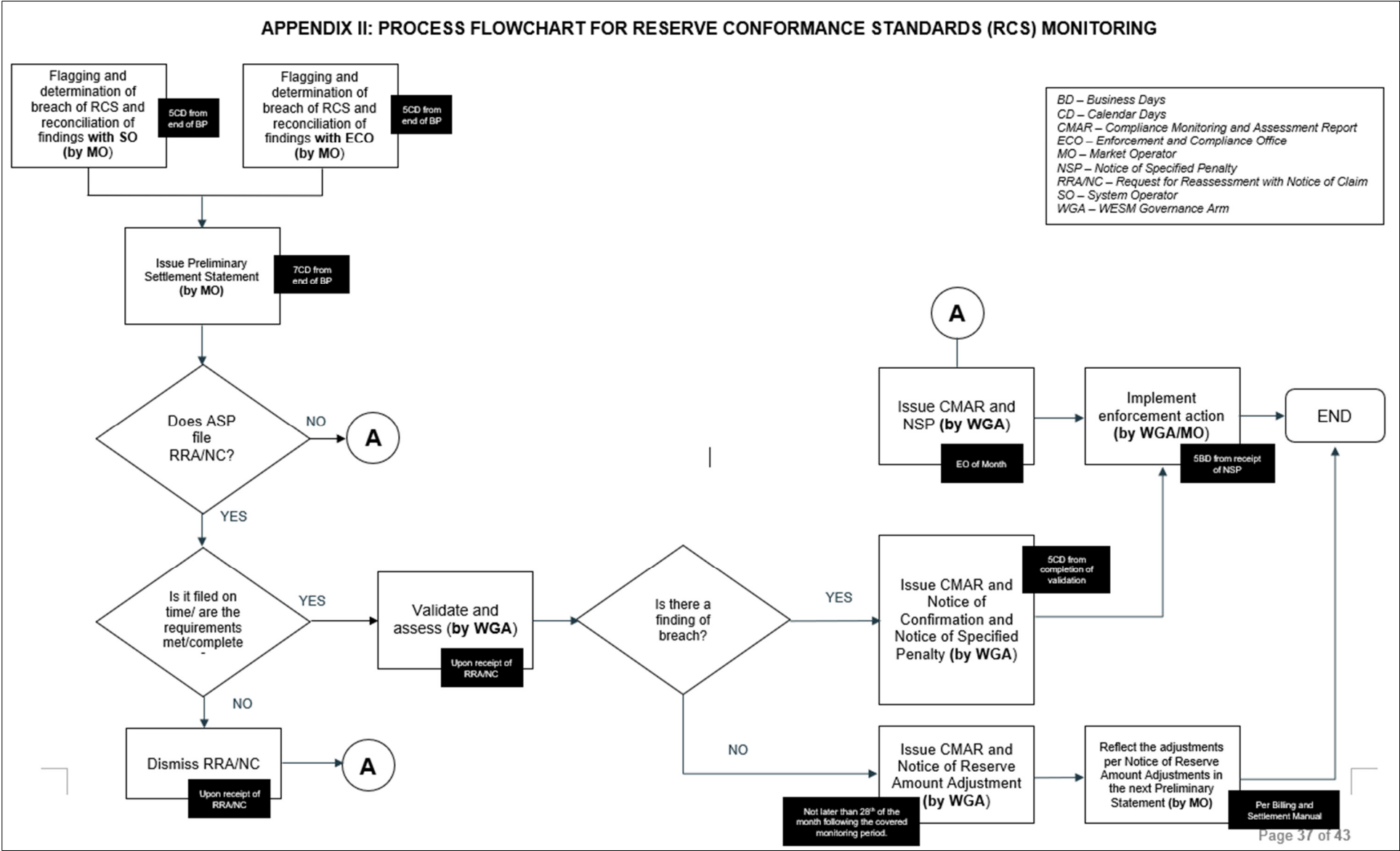|			**WESM Manual on ASM Issue 1.1**					
Title	**Clause**	**Provision**	**Proposed Amendment (PEM Board-approved as Urgent Amendment)**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Original Proponent's Response**	**RCC Decision**
Section 7 – Monitoring of Compliance with Reserve Conformance Standards 7.4. Request for Reassessment with Notice of Claim by Ancillary Services Providers	7.4.1	The Ancillary Service Provider may file a Request for Reassessment with Notice of Claim with the Enforcement and Compliance Office not later than ten (10) calendar days from receipt of the Preliminary Settlement Statement from the Market Operator. A copy thereof shall be furnished by the Ancillary Service Provider to the System Operator and the Market Operator.	The *Ancillary Service Provider* may file a *Request for Reassessment with Notice of Claim* with the *Enforcement and Compliance Office* not later than ten (10) calendar days from receipt of the *Preliminary Settlement Statement **and Notice of Breach*** from the *Market Operator*. A copy thereof shall be furnished by the *Ancillary Service Provider* to the *System Operator* and the *Market Operator*.	Related to revision in Section 7.3.1. above. The Notice of Breach shall accompany the Preliminary Settlement Statement. Such notice serves as the basis of ASP for the filing of Request for Reassessment with Notice of Claim.				
Section 7 – Monitoring of Compliance with Reserve Conformance Standards 7.5 Validation and Assessment	7.5.3	7.5.3 The assessment, validation, and verification of the information gathered in relation to the request shall be completed not later than the end of the billing month following the covered monitoring period. For instance, if the request for reassessment pertains to the August Billing Period, the validation and assessment shall be completed on or before 25 September.	7.5.3 The assessment, validation, and verification of the information gathered in relation to the request shall be completed **within fifteen (15) days from receipt of the *Request for Reassessment with Notice of Claim*** ~~not later than the end of the billing month following the covered monitoring period. For instance, if the request for reassessment pertains to the August *Billing Period,* the validation and assessment shall be completed on or before 25 September.~~	Amended provisions as affected by the 30-day window for completing the validation and assessment of the reserve conformance standards (RCS) monitoring.				
Section 7 – Monitoring of Compliance with Reserve Conformance Standards **7.6 Compliance Monitoring and**	7.6.1	If *Notice of Probable Breach* is received by *Enforcement and Compliance Office,* and no *Request for Reassessment with Notice of Claim* is filed by the concerned *Ancillary Services Provider* within the allowable period to file the same under Section 7.4.1, the *Enforcement and Compliance Office* shall issue a *Compliance Monitoring and Assessment Report* based on its monitoring and assessment, and after reconciliation of the findings with the *Market Operator*. The said report and a *Notice of*	If ~~*Notice of Probable Breach* is received by *Enforcement and Compliance Office,* and~~ no *Request for Reassessment with Notice of Claim* is filed by the concerned *Ancillary Services Provider* within the allowable period to file the same under Section 7.4.1, the *Enforcement and Compliance Office* shall issue a *Compliance Monitoring and Assessment Report* based on its monitoring and assessment, ~~and after reconciliation of the findings with the *Market Operator*~~. The said report and a	Related to Revision in Section 2.1 (g). Definition of "Notice of Breach" A corresponding change is also made in reference to Section 7.3.1				

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Title	Clause	Provision	Proposed Amendment (PEM Board-approved as Urgent Amendment)	Rationale	Comments	Proposed Wording based on Comments	Original Proponent's Response	RCC Decision
Assessment Reports		*Specified Penalty* shall be issued not later than the end of the month following the covered monitoring period. For instance, if the *Notice of Probable Breach* pertains to the August *Billing Period,* the compliance monitoring and assessment report shall be issued on or before 30 September.	*Notice of Specified Penalty* shall be issued ~~not later than~~ **within sixty (60)** *business days* **from** the end of the month following the covered monitoring period. For instance, ~~if~~ t~~he~~ *~~Notice of Probable Breach~~* ~~pertains to the August~~ *~~Billing Period,~~* the compliance monitoring and assessment report **for August** *Billing Period* shall be issued on or before 30 **October**.	To provide clarity in the definition of the notice, as the results have already been assessed by ECO and verified by the ASPs. This already serves as the basis of MO for non-payment reflected in the Preliminary Settlement Statement. Revised to remove "reconciliation" consistent with the proposed revision in Section 7.2.3 and 7.2.6. Amended provisions as affected by the 30-day window for completing the validation and assessment of the reserve conformance standards (RCS) monitoring. Related to revisions proposed by IEMOP and				

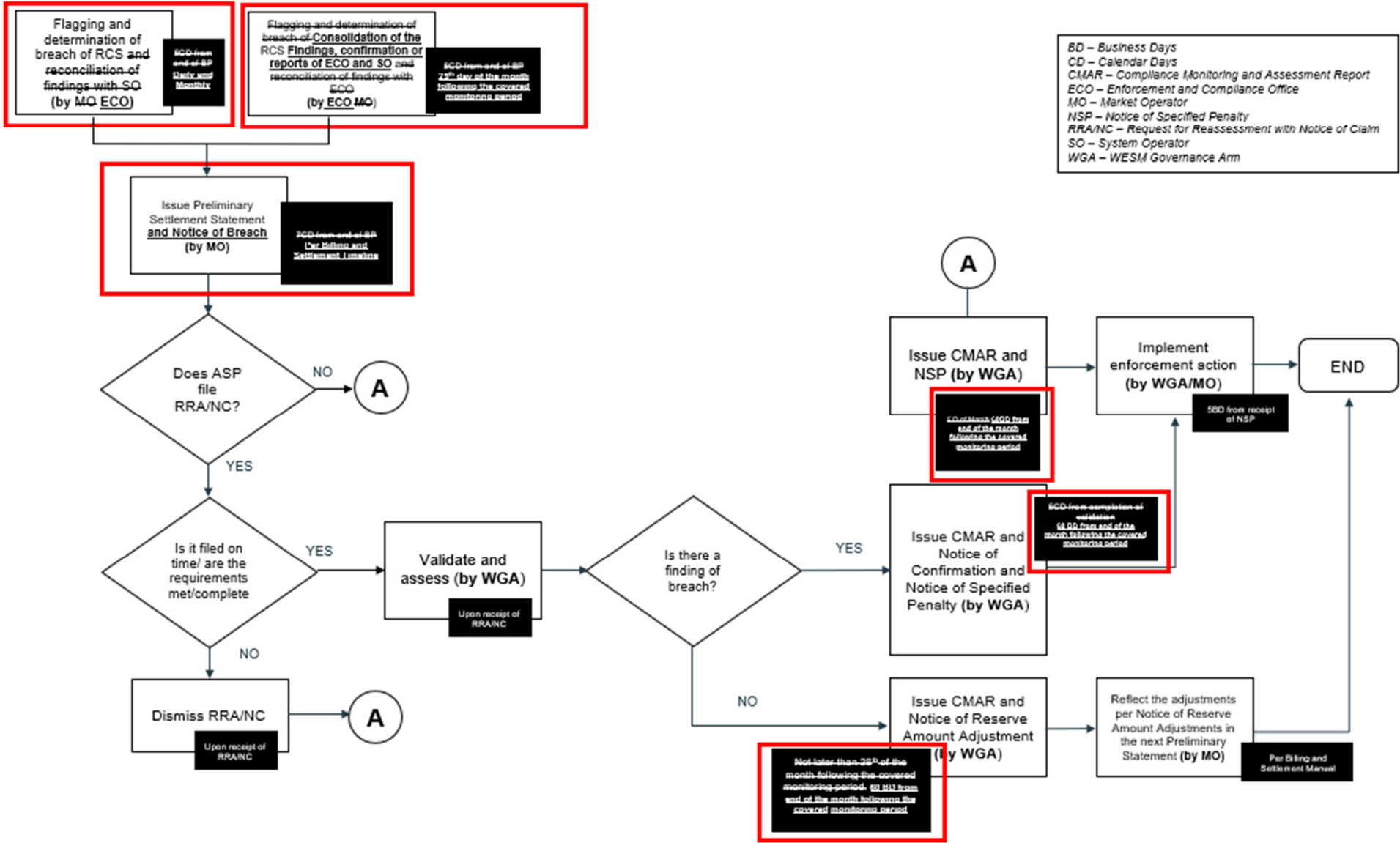|								
WESM Manual on ASM Issue 1.1								
Title	**Clause**	**Provision**	**Proposed Amendment (PEM Board-approved as Urgent Amendment)**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Original Proponent's Response**	**RCC Decision**
				approved per PEM Board Resolution No. 2024-75-04.				
Section 7 – Monitoring of Compliance with Reserve Conformance Standards 7.6 Compliance Monitoring and Assessment Reports	7.6.3	If there is a finding of breach based on the validation and assessment conducted by the *Enforcement and Compliance Office*, the *Compliance Monitoring and Assessment Report* shall likewise be accompanied by the following: a. A *Notice of Confirmation*. Such notice shall indicate a statement confirming a finding of breach, as determined by the *Market Operator* under Section 7.2. b. A *Notice of Specified Penalty*. This notice shall indicate the penalty, as computed under Section 8 of this Manual, and shall be served upon the *Ancillary Services Provider* in accordance with the provisions of this Manual.	If there is a finding of breach based on the validation and assessment conducted by the *Enforcement and Compliance Office*, the *Compliance Monitoring and Assessment Report* shall likewise be accompanied by the following: a. A *Notice of Confirmation*. Such notice shall indicate a statement confirming a finding of breach, as determined by the ~~*Market Operator*~~ ***Enforcement and Compliance Office*** under Section 7.2. b. A *Notice of Specified Penalty*. This notice shall indicate the penalty, as computed under Section 8 of this Manual, and shall be served upon the *Ancillary Services Provider* in accordance with the provisions of this Manual.	ECO shall determine the findings of the breach under Section 7.2. Correction: It is the ECO which issues the Notice of Confirmation, not MO.				
Section 7 – Monitoring of Compliance with Reserve Conformance Standards 7.6 Compliance Monitoring and Assessment Reports	7.6.4	If the *Enforcement and Compliance Office* found, after due validation and assessment, that no breach was committed by the Ancillary Service Provider, the Compliance Monitoring and Assessment Report shall indicate such findings and shall be accompanied by the Notice of Reserve Amount Adjustment. The Notice of Reserve Amount Adjustment shall indicate the amount to be adjusted by the Market Operator in favor of the Ancillary Services Provider.	If the *Enforcement and Compliance Office* found, after due validation and assessment, that no breach was committed by the Ancillary Service Provider, the Compliance Monitoring and Assessment Report shall indicate such findings and shall be accompanied by the Notice of Reserve Amount Adjustment. ~~The Notice of Reserve Amount Adjustment shall indicate the amount to be adjusted by the Market Operator in favor of the Ancillary Services Provider.~~	For correction. ECO will only reassess the intervals with findings of beach and come up with the final compliance monitoring results but will not determine the corresponding amount to be adjusted. Such amount				

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Title	**Clause**	**Provision**	**Proposed Amendment (PEM Board-approved as Urgent Amendment)**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Original Proponent's Response**	**RCC Decision**
				adjustment will be computed and determined by the Market Operator (and not by ECO).				
Section 11 Appendices Appendix II: Process Flowchart for Reserve Conformance Standards (RCS) Monitoring	Appendix II		**[See Separate File for Appendix II]**	To reflect the changes in Appendix II or the process flowchart for RCS, particularly on the following procedures: Flagging and determination of breach of RCS should be performed by ECO instead of MO. MO will no longer reconcile the findings of ECO, NGCP, and its own findings. ECO will consolidate the report of ECO and the confirmation, feedback, or				

		WESM Manual on ASM Issue 1.1					
Title	Clause	Provision	Proposed Amendment (PEM Board-approved as Urgent Amendment)	Rationale	Comments	Proposed Wording based on Comments	Original Proponent's Response	RCC Decision
				report, if any, of the SO. MO will issue a Notice of Breach to ASP in addition to the Preliminary Settlement Statement. Amended provisions as affected by the 30-day window for completing the validation and assessment of the reserve conformance standards (RCS) monitoring.				
Section 11 Appendices Appendix IV: Sample Illustration on the Monitoring of Compliance with Reserve Conformance Standards	**Appendix IV**	**[NEW]**		Immediate reference for the interpretation or application of the formula				

Appendix II (Original Flowchart / Provision)

APPENDIX II: PROCESS FLOWCHART FOR RESERVE CONFORMANCE STANDARDS (RCS) MONITORING

Flagging and determination of breach of RCS and reconciliation of findings with **SO** (by MO) — 5CD from end of BP

Flagging and determination of breach of RCS and reconciliation of findings with **ECO** (by MO) — 5CD from end of BP

BD – Business Days
CD – Calendar Days
CMAR – Compliance Monitoring and Assessment Report
ECO – Enforcement and Compliance Office
MO – Market Operator
NSP – Notice of Specified Penalty
RRA/NC – Request for Reassessment with Notice of Claim
SO – System Operator
WGA – WESM Governance Arm

Issue Preliminary Settlement Statement (by MO) — 7CD from end of BP

Does ASP file RRA/NC? — NO → A

YES

Is it filed on time/ are the requirements met/complete - — YES → Validate and assess (by WGA) — Upon receipt of RRA/NC

NO → Dismiss RRA/NC — Upon receipt of RRA/NC → A

Is there a finding of breach? — YES → Issue CMAR and Notice of Confirmation and Notice of Specified Penalty (by WGA) — 5CD from completion of validation

NO → Issue CMAR and Notice of Reserve Amount Adjustment (by WGA) — Not later than 28th of the month following the covered monitoring period. → Reflect the adjustments per Notice of Reserve Amount Adjustments in the next Preliminary Statement (by MO) — Per Billing and Settlement Manual

A → Issue CMAR and NSP (by WGA) — EO of Month → Implement enforcement action (by WGA/MO) — 5BD from receipt of NSP → END

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Appendix II (Proposed Amendment)

APPENDIX IV: Sample Illustration on the Monitoring of Compliance with Reserve Conformance Standards (RCS)

1. **Illustration depicting Sustainability for an Ancillary Service Facility with a Dispatchable Reserve (DR) Schedule**

TIME_INTERVAL	TIME_INTERVAL	INSTRUCTION	MW_FROM	MW_TO	CATEGORY
01RESOURCE_G02	1/14/2024 17:21	CUT - IN	0	8	DISPATCHABLE RESERVE
01RESOURCE_G02	1/14/2024 20:43	CUT - OUT	8	0	DISPATCHABLE RESERVE
01RESOURCE_G01	1/15/2024 11:03	ON LINE	0	6	DISPATCHABLE RESERVE
01RESOURCE_G01	1/15/2024 11:33	INCREASE LOAD	6	8	DISPATCHABLE RESERVE
01RESOURCE_G01	1/15/2024 15:29	CUT-OUT ASPA DISPATCH	8	0	DISPATCHABLE RESERVE
01RESOURCE_G02	1/15/2024 17:18	ASPA DISPATCH	0	8	DISPATCHABLE RESERVE

Fig. 1.0 Table of Sample Dispatch Instruction Report with Active Instructions

Fig. 2.0 Provision of DR instruction during synchronization

Observation:

- 01RESOURCE_G01 was offline prior to instruction (Status requirement: **COMPLIANT**)
- 01RESOURCE_G01 synchronized at 11:11 (within Interval 11:15) or 8 minutes after the instruction (Synchronization requirement: **COMPLIANT)**
- 01RESOURCE_G01 delivered the 6 MW instruction at 11:21 (within interval 11:25) or 10 minutes after synchronization (Sustainability requirement: **COMPLIANT)**.
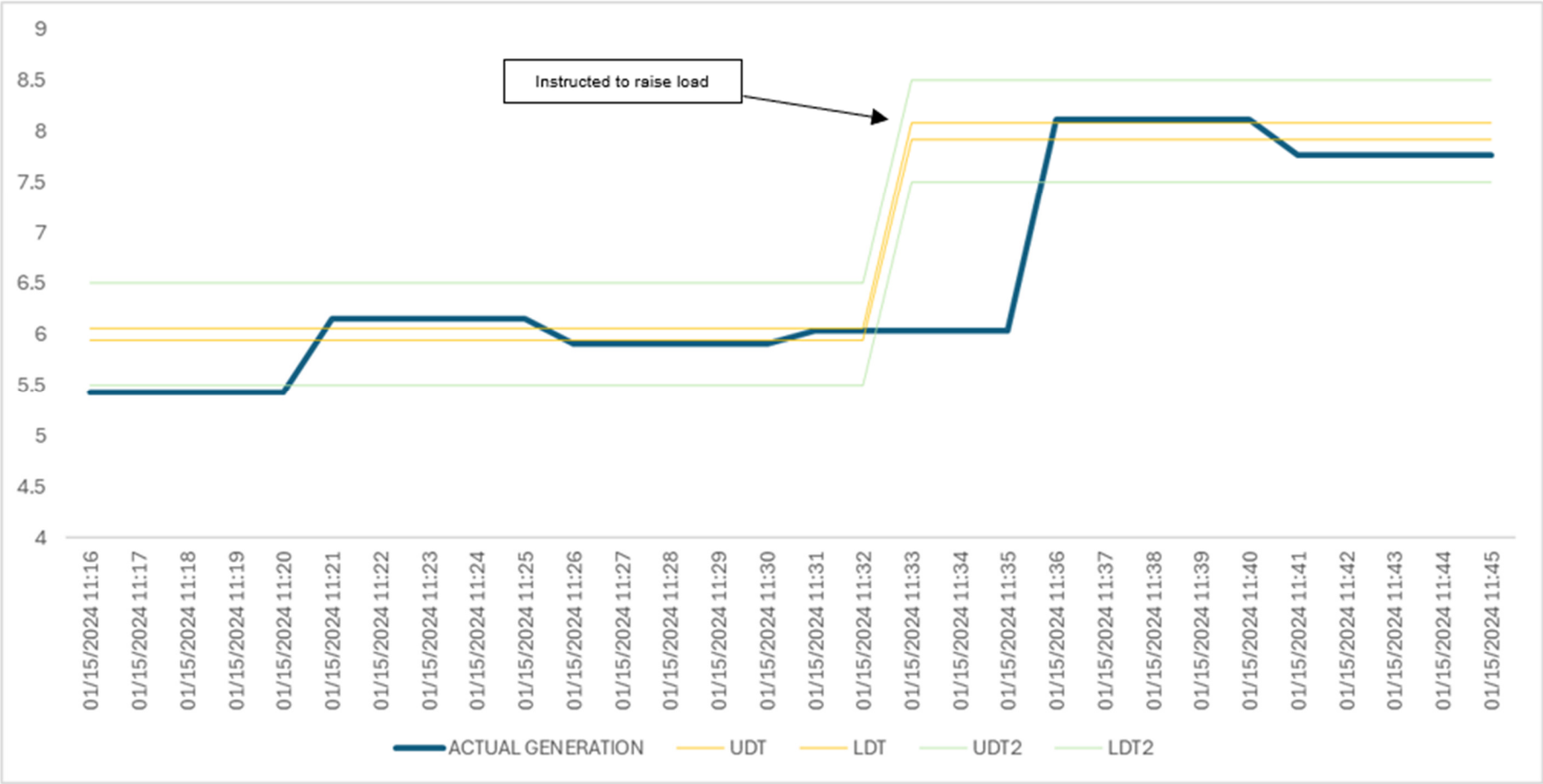
Fig. 3.0 Provision of DR instruction within Threshold as Sustainability Measure

Observation:

- 01RESOURCE_G01 was able to sustain active instruction from 11:25 to 11:30 (Sustainability requirement: **COMPLIANT)**.
- 01RESOURCE_G01 received another instruction to raise load from 6 MW to 8 MW at 11:33 (within Interval 11:35); At 11:36 (within interval 11:40) 01RESOURCE_G01 delivered the 8 MW instruction. (Sustainability requirement: **FOR FURTHER ASSESSMENT)**.
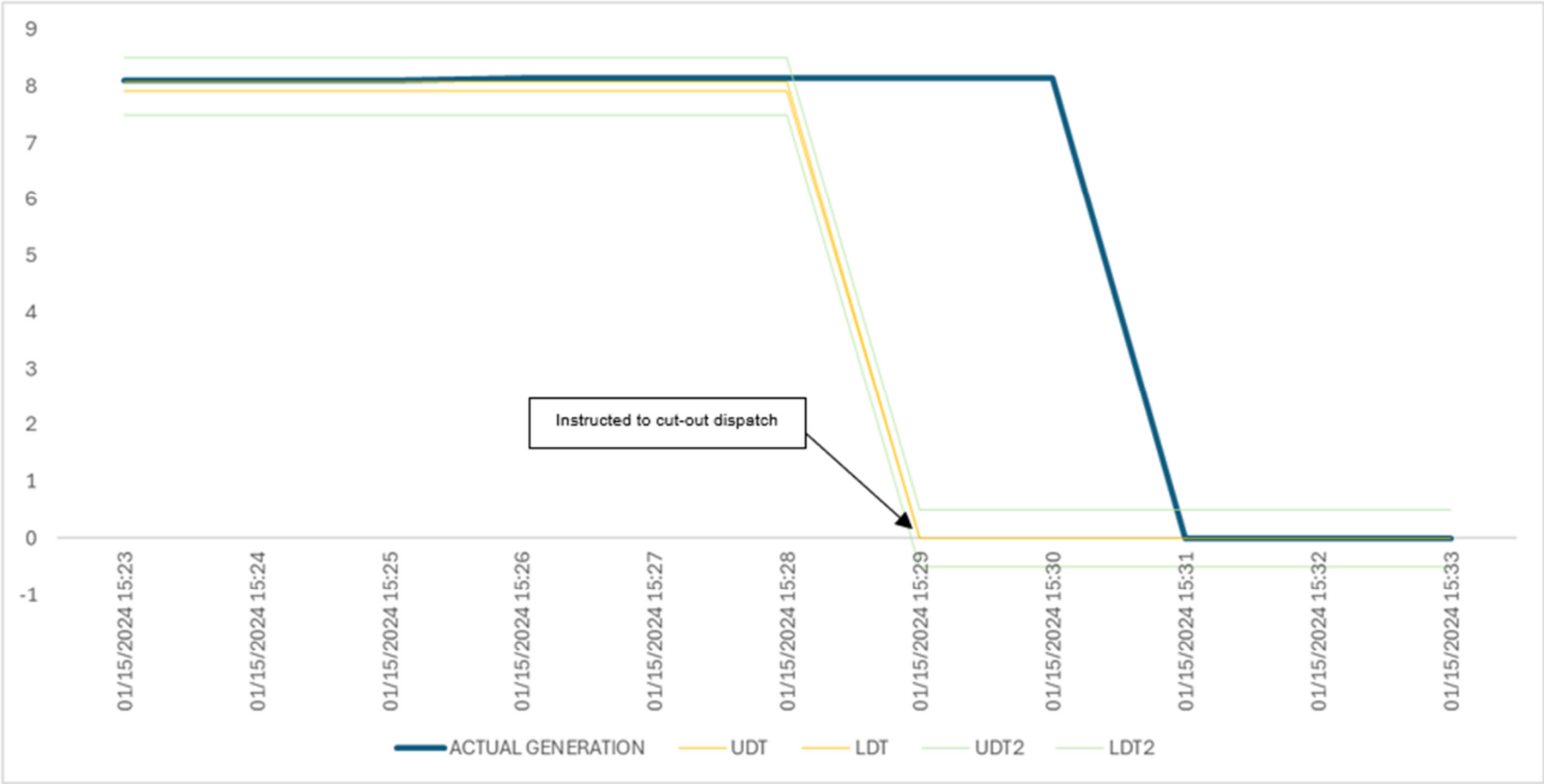
Fig. 4.0 Shutdown procedure after the provision of DR instruction

Observation:

- 01RESOURCE_G01 was able to sustain active instruction from 11:33 to 15:25 (Sustainability requirement: **COMPLIANT)**.
- 01RESOURCE_G01 received another instruction at 15:29 to shut down; At 15:31, the unit was offline. (Sustainability requirement: **FOR FURTHER ASSESSMENT)**.

2. Illustration on the determination of *Response Accuracy* using *Highest* and Lowest Actual MW Output depending on the System Frequency Condition

Scenario 1: The System Frequency falls below the lower deadband threshold, the reserve facility needs to react by increasing generation to correct the frequency.
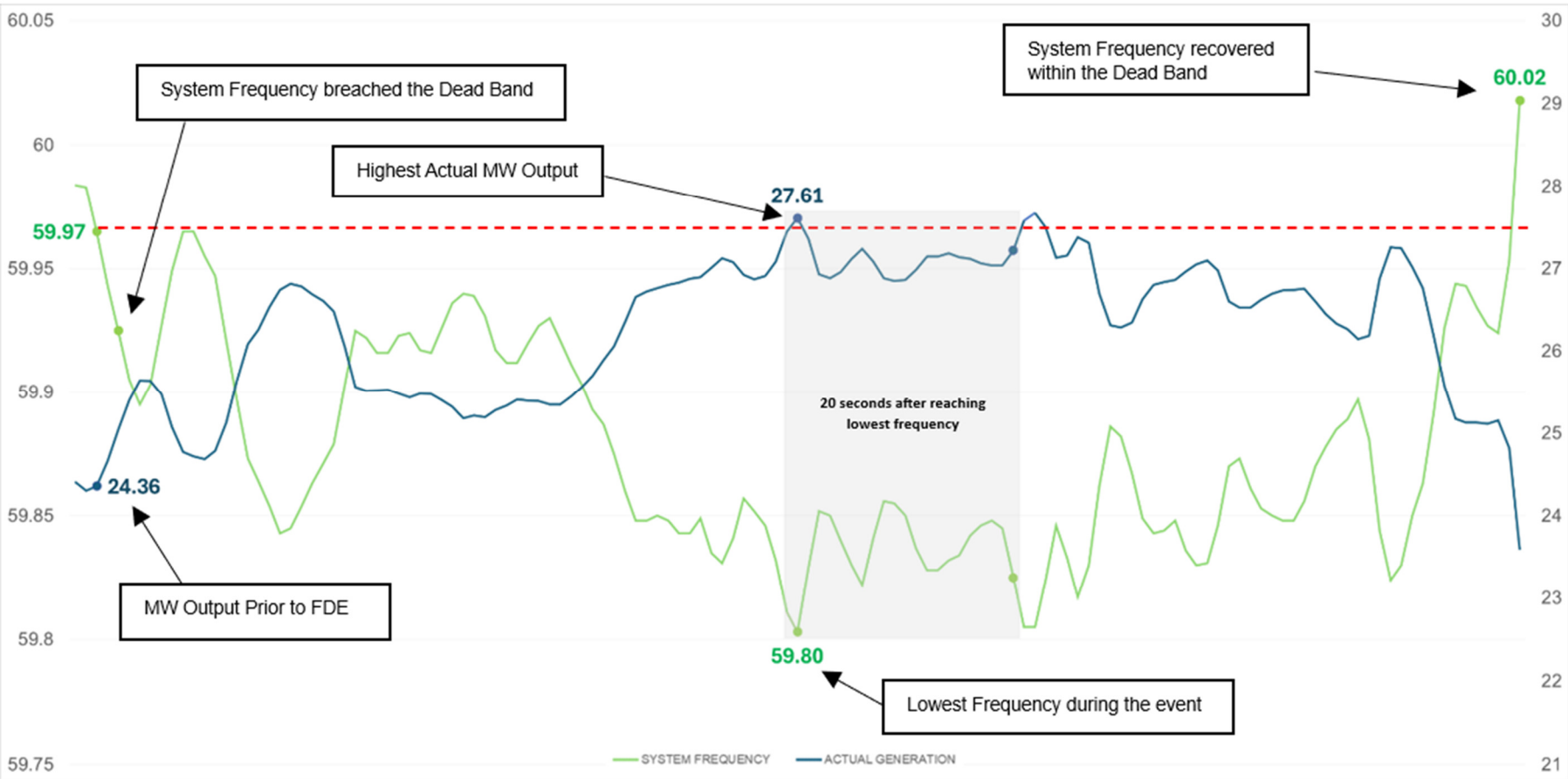

Fig 5.0 Sample Illustration when System Frequency breached lower Deadband

For example, the following are the reserve facility's certified characteristics:

- Droop Setting: 4.5%
- Deadband Settings: 0.03 Hz
- Rated Capacity: 65.4 MW

Given:

- Highest Actual MW Output: 27.61 MW (within the 20-second period after the lowest frequency)
- MW Output Prior to FDE: 24.36 MW
- Lowest Frequency during FDE: 59.80 Hz

Computation:

Actual MW Response Capacity
     = Highest Actual MW Output – MW Output Prior to Frequency-Driven Event
     = 27.61 MW – 24.36 MW
     = **3.25 MW**

$Static\ Gain$
$$= \frac{Rated\ Capacity}{Droop\ Setting\ x\ Nominal\ Frequency}$$

$$= \frac{65.4\ MW}{4.5\ \%\ x\ 60\ Hz}\ x\ 100\%$$
$$= \mathbf{24.22\ MW/Hz}$$

Frequency Prior to Frequency-Driven Event
     = Nominal Frequency $\pm$ Deadband Setting
     = 60 Hz - 0.03 Hz
     = **59.97 Hz**

Frequency Change
     = Frequency Prior to Frequency-Driven Event - Lowest Frequency During Frequency-Driven Event
     = 59.97 Hz – 59.80 Hz
     = **0.17 Hz**

Expected MW Response Capacity
     = Static Gain x Frequency Change
     = 24.22 MW/Hz x 0.17 Hz
     = **4.12 MW**

$Response\ Accuracy$
$$= \frac{Actual\ MW\ Response\ Capacity}{Expected\ MW\ Response\ Capacity}\ x\ 100\%$$

$$= \frac{3.25\ MW}{4.12\ MW}\ x\ 100\%$$
$$= \mathbf{78.88\ \%}\ \textbf{(NON-COMPLIANT)}$$

Scenario 2: The System Frequency breaches the upper deadband threshold, the reserve facility needs to react by decreasing generation to correct the frequency.
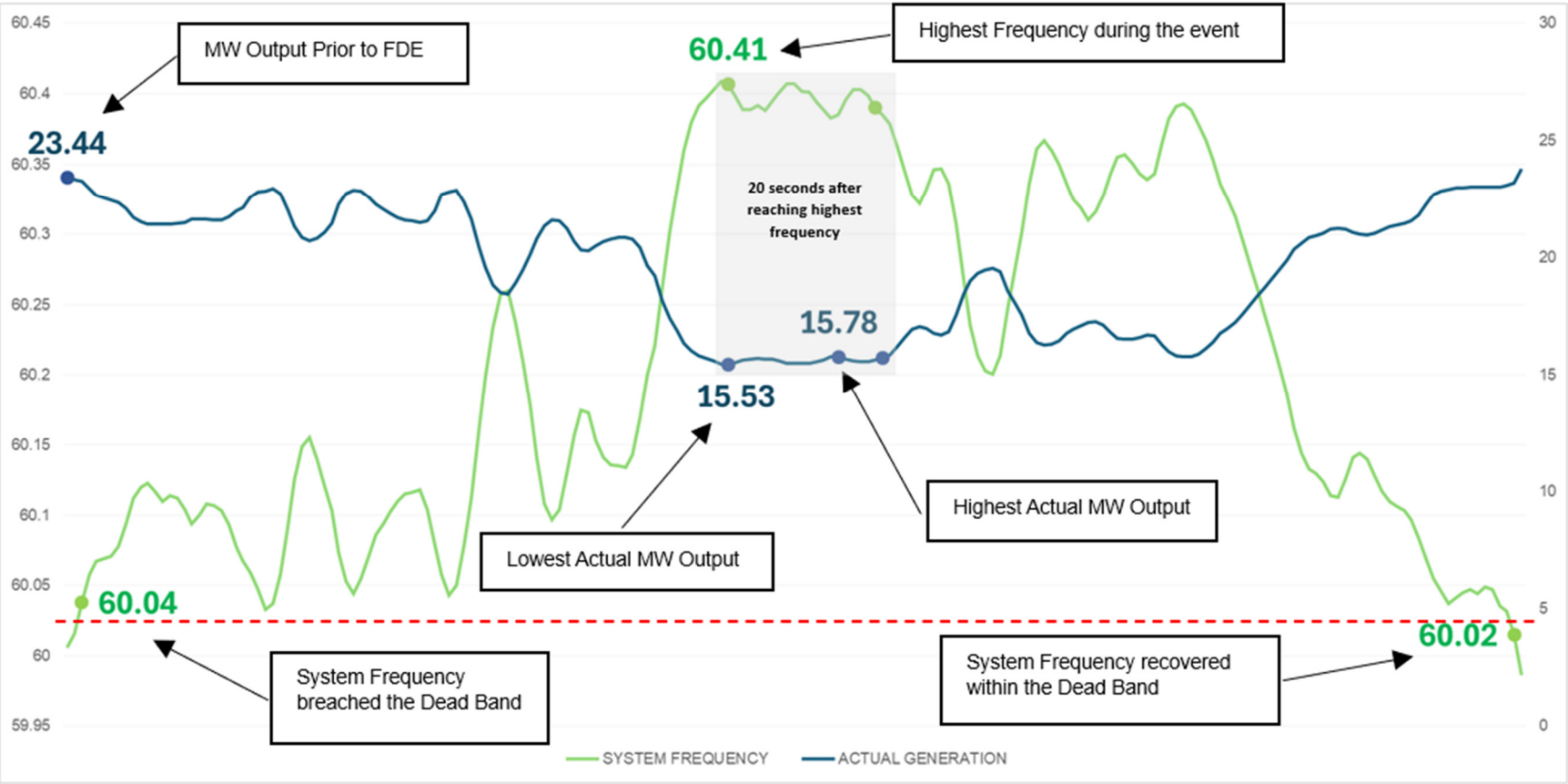

Fig 6.0 Sample Illustration when System Frequency breached Upper Deadband

For this example, the following are the reserve facility's certified characteristics:

- Droop Setting: 4.5%
- Deadband Settings: 0.03 Hz
- Rated Capacity: 65.4 MW

Given:

- Highest Actual MW Output: 15.78 MW (within the 20-second period)
- Lowest Actual MW Output: 15.53 MW (within the 20-second period)
- MW Output Prior to FDE: 23.44 MW
- Highest Frequency during FDE: 60.41 Hz

Computation:

Actual MW Response Capacity
  = Lowest Actual MW Output – MW Output Prior to Frequency-Driven Event
  = 15.53 MW – 23.44 MW
  = **- 7.91 MW**

$Static\ Gain$
$$= \frac{Rated\ Capacity}{Droop\ Setting\ x\ Nominal\ Frequency}$$

$$= \frac{65.4\ MW}{4.5\ \%\ x\ 60\ Hz}\ x\ 100\%$$
$$= \mathbf{24.22\ MW/Hz}$$

Frequency Prior to Frequency-Driven Event
  = Nominal Frequency $\pm$ Deadband Setting
  = 60 Hz + 0.03 Hz
  = **60.03 Hz**

Frequency Change
  = Frequency Prior to Frequency-Driven Event - Highest Frequency During Frequency-Driven Event
  = 60.03 Hz - 60.41Hz
  = **-0.38 Hz**

Expected MW Response Capacity
  = Static Gain x Frequency Change
  = 24.22 MW/Hz x -0.38 Hz
  = **-9.20 MW**

$\boldsymbol{Response\ Accuracy}$
$$= \frac{Actual\ MW\ Response\ Capacity}{Expected\ MW\ Response\ Capacity}\ x\ 100\%$$
$$= \frac{-7.91\ MW}{-9.20\ MW}\ x\ 100\%$$
$$= \mathbf{85.99\%}\ \textbf{(COMPLIANT)}$$

3. Illustration for the determination of Percentage (%) of Compliance of ASP on AGC
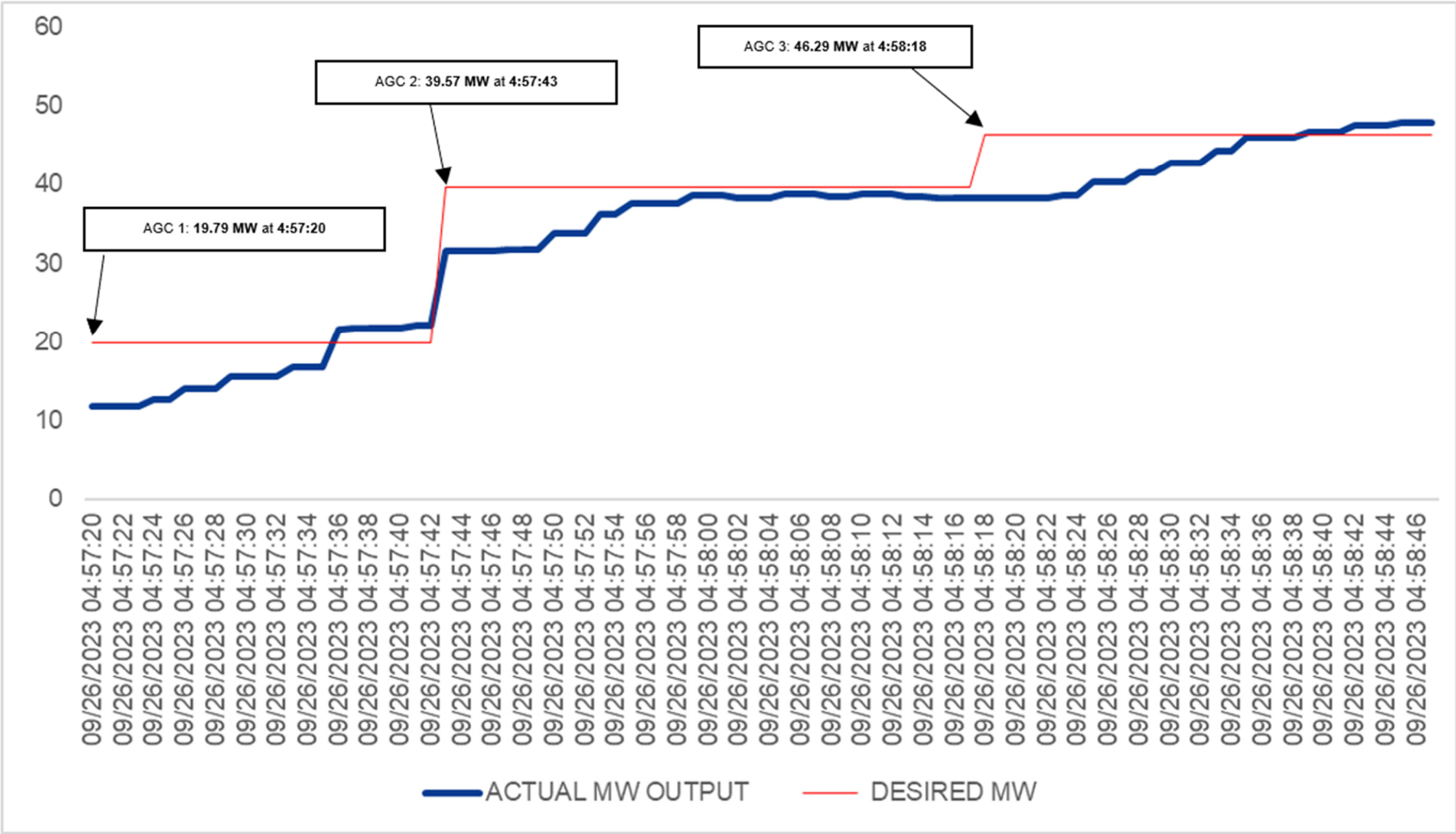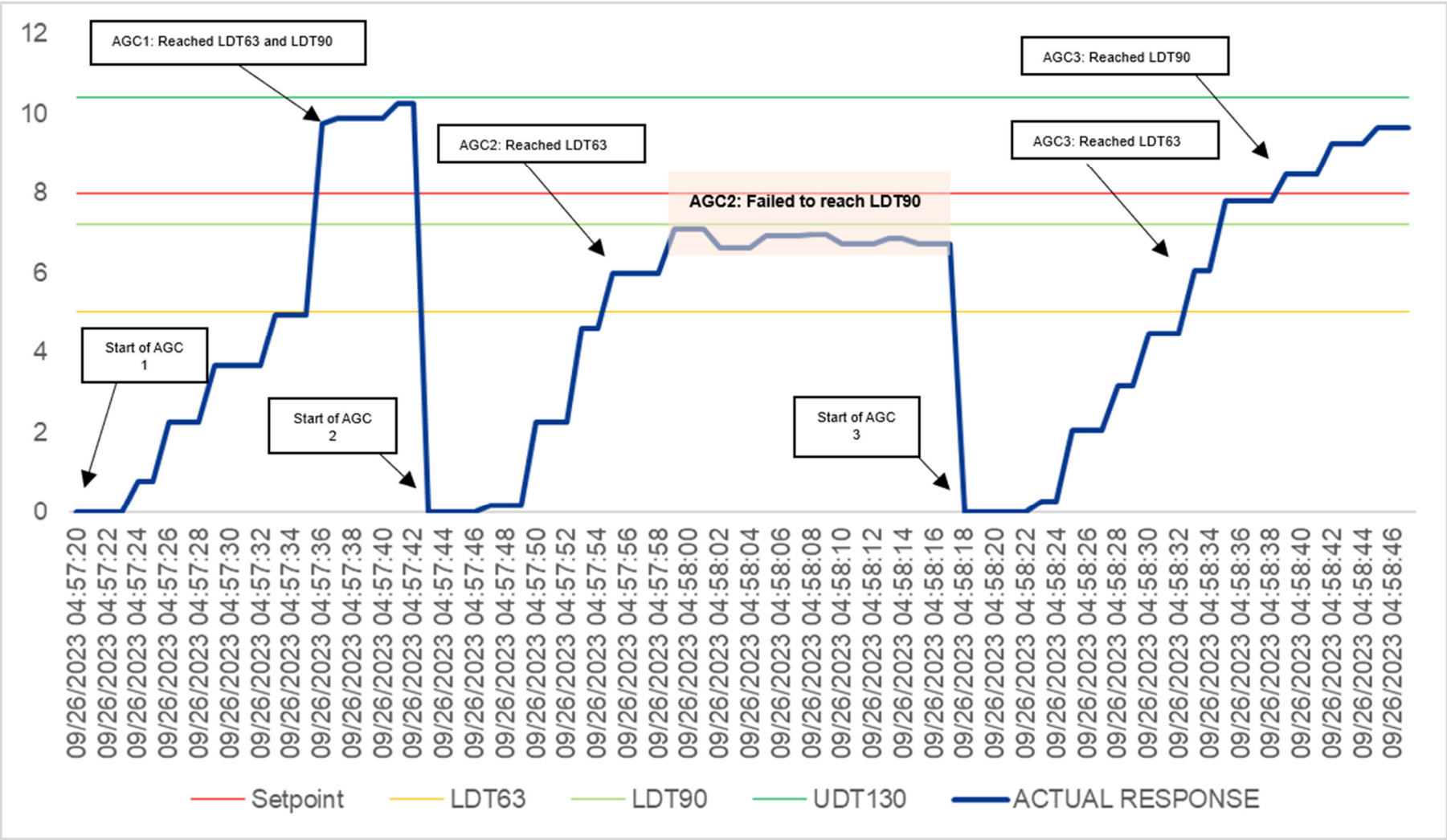

Fig 7.0 Sample series of AGC Commands

Fig 8.0 Equivalent Setpoint and Actual Response

Summary of illustration on Figure 8:

- AGC 1 LDT63 and LDT90 were reached within 16 seconds

- AGC 2 LDT63 reached within 12 seconds
- AGC 2 failed to reach LDT90
- AGC 3 LDT63 reached within 15 seconds
- AGC 3 LDT63 reached within 17 seconds

Since required levels of AGC Command 1 and AGC Command 3 have been reached within the required duration as stated in section 5.7, therefore, AGC Command 1 and AGC Command 3 are compliant

On the other hand, the generator failed to reach all the required levels of AGC Command 2, therefore, AGC Command 2 is non-compliant.

There is a total of 3 Commands in the above example

Total Commands = 3
Total Compliant Commands = 2

$$\% \, Compliance = \frac{No. \, of \, Compliant \, AGC \, Commands}{No. \, of \, AGC \, Commands} \, x \, 100 \, \%$$

$$\% \, Compliance = \frac{2}{3} \, x \, 100 \, \%$$
$$\% \, Compliance = \quad 66.67 \, \% \, \textbf{(NON COMPLIANT)}$$