

RULES CHANGE COMMITTEE

Proposed Amendments to the WESM Manual on Dispatch Protocol regarding Non-security Over-riding Constraints

Effective Date : 17 June 2022

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WHEREAS, the National Power Corporation (NPC) is a Government-Owned and Controlled Corporation mandated, among others, to manage and supervise dam operations by optimizing water utilization and ensuring the integrity and safety of the people that live downstream of five (5) dams in Luzon (Ambuklao, Binga, San Roque, Angat and Caliraya Dams) and seven (7) dams in Mindanao;

WHEREAS, part of NPC's dam management process in the past years is the protocol on Must-Run Unit (MRU) Operations by which power generating turbines are utilized for pre-emptive water discharge to manage reservoir elevation in anticipation of incoming weather disturbances and emergencies. Discharge of water through MRU Operations also minimizes spillage through the spillway gates and mitigates flood and its aftermath in the downstream communities near the dams¹;

WHEREAS, the details and conditions for NPC's MRU Operations are elaborated in the Caliraya Dam Contingency Protocol (March 2009) and San Roque Dam Dispatch Protocol (May 2010), which in turn referenced Issue 4.0 of the WESM Manual on Management of Must-Run Units ("MRU Manual") that took effect beginning 28 February 2007. MRU Manual Issue 4.0 specified "local calamities and emergencies" as one of the criteria of the System Operator for designating generating units as MRUs for a given dispatch intervals;

WHEREAS, pursuant to the rules change process that included requesting comments from WESM stakeholders, the MRU Manual was revised in 2014 and was published accordingly as Issue 5.0, in which the use for MRUs was amended to only address security and reliability of the grid and correspondingly necessitated the removal of "local calamities and emergencies" as criterion for MRU designation for the following reasons:

- (i) When a portion of the grid becomes isolated due to extreme weather condition and a generator within that local area continues to provide power, that generator is considered an MRU under the new criterion "Real-Power Balancing and Frequency Control"; and
- (ii) It is likely that market intervention or market suspension is declared during local calamities and emergencies, in which case the related scheduling and dispatch procedures and pricing mechanism (i.e., administered price determination methodology) under those conditions shall apply;

WHEREAS, pursuant to DOE DC No. 2017-03-001 dated 20 March 2017 and DOE DC No. 2017-04-0007 dated 20 April 2017, the MRU Manual provisions on pricing were consolidated in the WESM Manual on Price Determination Methodology Issue 1.0, while those on scheduling, dispatch, and reporting were consolidated in the WESM Manual on Dispatch Protocol Issue 12.0, respectively;

¹ NPC's Discussion Paper of Proposal (ORCP-WM-22-03) submitted to RCC on 28 January 2022

WHEREAS, on 28 January 2022, the NPC submitted to the Rules Change Committee (RCC) its proposed urgent amendments to the WESM Manual on Dispatch Protocol to (i) reinstate “local calamities and emergencies” among the criteria and considerations for selection of MRUs, and (ii) prioritize dispatch of hydropower plants, if possible, in times of calamities when there is an excessive amount of stored water that threatens dam or public safety²;

WHEREAS, following the procedures for processing proposed urgent amendments specified in Section 7.2 of the WESM Manual on Procedures for Changes to the WESM and Retail Rules and Market Manuals (“Rules Change Manual”), the RCC deliberated on the proposal over two (2) meetings held on 08 and 18 February 2022 (190th and 191st Meetings, respectively) in which the body decided that³:

- (i) the instant proposal is not urgent as it did not satisfy the criteria for urgent amendments set forth in Section 3.1 of the Rules Change Manual, and
- (ii) the proposal be remanded to NPC for revision, recommending that NPC’s request for its counterpart hydro-power plants to be dispatched to facilitate lowering water reservoir levels during anticipated weather disturbance be included instead under the “non-security limit” category of over-riding constraints in the WESM Manual on Dispatch Protocol;

WHEREAS, the RCC endorsed its decision on the proposal to the PEM Board for the latter’s concurrence, to which the PEM Board agreed with said decision during its meeting on 23 February 2022;

WHEREAS, adopting the foregoing recommendation of the RCC, the NPC submitted its proposed general amendments to the RCC on 17 February 2022 and presented the same on the following day, 18 February 2022 during the 191st RCC Meeting;

WHEREAS, the proposal aims to amend the WESM Manual on Dispatch Protocol to include ‘Local Calamities’ and ‘Emergencies’ as additional categories under the Non-Security Limit type of overriding constraints as a means to prioritize dispatch of hydropower plants in times of calamities and emergencies;

WHEREAS, the RCC initially discussed the general proposal on the same day and approved the posting of the same in the PEMC website, as revised for minor correction, to solicit comments from WESM Members and stakeholders;

WHEREAS, following the 30-working day commenting period from 23 February to 07 April 2022, comments were received from PEMC, the Technical Committee, Independent Electricity Market Operator of the Philippines (IEMOP), National Grid Corporation of the Philippines (NGCP), Millennium Energy, Inc./Panasia Energy, Inc. and SN Aboitiz Power (SNAP), which, together with the proponent’s responses to said comments, the RCC considered during its deliberation;

WHEREAS, the RCC deliberated on the proposal during its 196th Meeting on 20 May 2022, as a result of which the following revisions were made to the proposal:

- 1) Including “emergencies” as an additional category for non-security limit overriding constraints was not adopted since the term is already defined in the WESM Rules as a condition for declaring market

² NPC’s Discussion Paper for Urgent Proposal (ORCP-WM-22-03)

³ RCC Resolution No. 2022-02 dated 18 February 2022

intervention. Using the same term may cause confusion since the proposed definition of “emergencies” only specifically pertains to dam operations.

- 2) The proposed additional category of “local calamities” was revised to further limit its scope to dam operations to emphasize that this non-security limit category may only be invoked for dam management.
- 3) Generating units imposed with non-security limit overriding constraints due to dam operations shall be compensated as ‘price-taker’ to be consistent with the compensation mechanism for generating units dispatched under existing categories of non-security limit overriding constraints (i.e., generating unit limitations and regulatory and commercial testing).
- 4) An additional provision is adopted to describe the process and timeline for the submission by the generating unit of its megawatt target to the System Operator when requesting to be imposed with non-security limit due to dam operations.

WHEREAS, notwithstanding the proposed amendments and the RCC’s revisions thereto, the RCC noted that the NPC as the dam operator is cognizant that: (i) strategizing offers is the primary manner by which its Trading Participant could increase the likelihood of being dispatched, and by extension facilitate the pre-emptive release of stored water from the dams, and (ii) NPC may need to change its coordination protocols with the plant operator;

WHEREAS, the RCC further refined the definition of “Dam Operations during Local Calamities” and finalized the proposal on 17 June 2022 during its 197th Meeting, and approved its endorsement to the PEM Board for the latter’s approval;

NOW THEREFORE, we, the undersigned, on behalf of the sectors we represent, hereby resolve via electronic communication platforms, as follows:

RESOLVED, that the RCC approves, as amended, the Proposed Amendments to the WESM Manual on Dispatch Protocol regarding Non-security Overriding Constraints attached as Annex A;

RESOLVED FURTHER, that the said Proposed Amendments to the WESM Manual on Dispatch protocol regarding Non-security Overriding Constraints are hereby endorsed to the PEM Board for approval and subsequent transmittal to the DOE for promulgation.

Done this **17th** day of **June 2022**, Pasig City.

Approved by: THE RULES CHANGE COMMITTEE	
Independent Members:	
 Concepcion I. Tanglao	 Jesusito G. Morillos
 Fernando Martin Y. Roxas	 Jose Roderick F. Fernando
Generation Sector Members:	
 Dixie Anthony R. Banzon Masinloc Power Partners Co. Ltd. (MPPCL)	 Cherry A. Javier Aboitiz Power Corp. (APC)
 Carlito C. Claudio Millennium Energy, Inc./ Panasia Energy, Inc. (MEI/PEI)	 Mark D. Habana Vivant Corporation - Philippines (Vivant)
Distribution Sector Members:	
 Virgilio C. Fortich, Jr. Cebu III Electric Cooperative, Inc. (CEBECO III)	 Ryan S. Morales Manila Electric Company (MERALCO)
 Ricardo G. Gumalal Iligan Light and Power, Inc. (ILPI)	 Nelson M. Dela Cruz Nueva Ecija II Area 1 Electric Cooperative, Inc. (NEECO II – Area 1)

Supply Sector Member:
 Lorreto H. Rivera TeaM (Philippines) Energy Corporation (TPEC)
Market Operator Member:
 Isidro E. Cacho, Jr. Independent Electricity Market Operator of the Philippines (IEMOP)
System Operator Member:
 Ambrogio R. Rosales National Grid Corporation of the Philippines (NGCP)



Matrix of Proposed Amendments to the WESM Manual on Dispatch Protocol

Title	Section	Original Provision	Proposed Amendment	Rationale
Over-riding Constraints	7.6.2	<p>7.6.2 The types of <i>over-riding constraints</i> that may be imposed in the MDOM include the following:</p> <p>a. <i>Security Limits</i> - The <i>System Operator</i> may impose <i>security</i> limits to override the <i>market offers</i> and address possible threats in <i>system security</i>.</p> <p>i. <i>Generation Limits</i> – involves the minimum and maximum operating limits for <i>generation</i>. <i>Security</i> limits for <i>generating units</i> shall also include scheduled <i>must-run units</i> in accordance with the selection criteria in section 17.2 of this Dispatch Protocol.</p> <p>ii. <i>Branch Group Limits</i> – involves the maximum flow that may pass through a certain group of <i>transmission lines</i></p> <p>iii. <i>Transmission Limits</i> – involves the maximum flow that may pass through a specific line or transformer or <i>HVDC</i></p> <p>iv. Other types as may be recommended by the <i>System Operator</i></p>	<p>7.6.2 The types of over-riding constraints that may be imposed in the MDOM include the following:</p> <p>xxx</p> <p>b. Non-Security Limits: Testing and commissioning</p> <p>i. Generating Unit Limitations</p> <p>ii. Regulatory and Commercial Testing</p> <p>iii. <u>Dam Operations during Local Calamities – refers to instances where there is a need to lower reservoir elevation due to incidents (i.e., flooding, damage to dam infrastructure, etc.) that would allow hydro-electric plants to run under Non-Security Over-riding Constraints to avert or minimize damage to infrastructures and ensure safety of people living in affected localities.</u></p>	<ul style="list-style-type: none"> To facilitate requests to the System Operator for priority dispatch of hydropower plants through the imposition of overriding constraints in times when immediate pre-emptive lowering of reservoir elevation is necessary in anticipation of calamities. To minimize, if not prevent, the probability of spilling operations through the dam spillway that may cause flood in the downstream communities. To optimize the utilization of reservoir stored water through power generating turbines instead of spilling the excess water through the spillway which will be a waste of water resources.



Title	Section	Original Provision	Proposed Amendment	Rationale
		b. Non <i>Security</i> Limits: Testing and commissioning i. Generating Unit Limitations ii. Regulatory and Commercial Testing		
Over-riding Constraints	7.6.3	7.6.3 <i>Over-riding constraints</i> in the scheduling and <i>dispatch of generating units</i> qualifying as <i>must-run units</i> designated under Section 7.6.2 and Section 17, shall be compensated based on the mechanism set forth in the Price Determination Methodology Manual. <i>Over-riding constraints</i> for the scheduling and <i>dispatch of generating units</i> undergoing Regulatory and Commercial testing process shall be considered as price takers in the <i>WESM</i> for <i>generation</i> traded in the <i>spot market</i> .	7.6.3 Over-riding constraints in the scheduling and dispatch of generating Generating units qualifying designated as must-run units designated under Section 7.6.2 and Section 17, shall be compensated based on the mechanism set forth in the Price Determination Methodology Manual. Over-riding constraints for the scheduling and dispatch of generating Generating units undergoing Regulatory and Commercial testing process <u>under the category of non-security over-riding constraints as cited in Section 7.6.2</u> shall be considered as price takers in the <i>WESM</i> for <i>generation</i> traded in the <i>spot market</i> .	<ul style="list-style-type: none"> To clarify and distinguish the compensation mechanisms between generating units designated as must-run units (MRU) and those dispatched through the imposition of non-security limit overriding constraints, which includes the proposed new sub-category of “Dam Operations during Local Calamities”. To emphasize that hydroelectric generating units imposed with non-security limit under the condition of “Dam Operations during Local Calamities” are only considered as price-takers and are not entitled to



Title	Section	Original Provision	Proposed Amendment	Rationale
				additional compensation (unlike MRUs) since they do not incur any fuel costs.
Over-riding Constraints	(NEW) 7.6.5	(None)	(NEW) <u>7.6.5 Generating units requesting dispatch by reason of Dam Operations during Local Calamities shall submit to the System Operator the MW profile that details the MW target for each dispatch interval during its requested spilling operations period on or before two (2) business days prior to the start of the dam's spilling operations.</u>	The provide a timeline for hydroelectric generating units to submit their MW profile to the System Operator.