

RULES CHANGE COMMITTEE

Conclusion of NPC's Proposal to Amend the WESM Manual on Dispatch Protocol regarding Non-security Limit Over-riding Constraints to Prevent Dam Spilling Operations



Effective Date : 22 May 2024

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WHEREAS, on 17 February 2022, the Rules Change Committee (RCC) received from the National Power Corporation (NPC) a proposal to amend the WESM Manual on Dispatch Protocol to add Dam Operations during Local Calamities under the category of Non-security Limit Over-riding Constraints;

WHEREAS, the proposal was submitted as a means to pre-emptively lower reservoir elevation during imminent extreme weather conditions and dam infrastructure emergencies by prioritizing dispatch of hydroelectric power plants which prevents the conduct of spilling operations, thus protecting downstream communities from flooding;

WHEREAS, the RCC processed the proposal and eventually endorsed it to the PEM Board as [RCC Resolution No. 2022-09](#) dated 17 June 2022 for the latter's approval, but received instructions from the Board to further study the proposal's impact to other generators and the market;¹

WHEREAS, following the PEM Board's instructions, the RCC endeavored to study the proposal and its effect on the market and system operations, to consider NPC's further revisions and inputs of NPC's WESM trading partners, and, ultimately, to potentially balance the imperative of public safety against the need to maintain a competitive electricity market (see Annex A for chronological digest of activities);

WHEREAS, having established from previous meetings that the issue NPC's proposal seeks to address is only exclusive to Caliraya Dam, the RCC, on 15 March 2024, determined that the WESM Rules and Manuals may not be the appropriate avenue to provide exemptions from existing policies to address Caliraya Dam's unique circumstance, hence recommended NPC to directly seek the assistance and intervention of the Department of Energy (DOE);

WHEREAS, adhering to the RCC's recommendation, NPC elevated their concern to the DOE through a letter dated 25 March 2024 (Annex B), which was supplemented by the RCC with a summary of all discussions held in a letter to DOE dated 04 April 2024 (Annex C);

NOW THEREFORE, given that the proposal is under the evaluation of the DOE, we, the undersigned, on behalf of the sectors we represent, hereby resolve that NPC's proposal is considered closed and is no longer under the Committee's jurisdiction;

RESOLVED, that the RCC herein submits the conclusion of the subject proposal to the PEM Board, for information.

Done this **22nd** day of **May 2024**, Pasig City.

¹ RCC presented the proposal to the PEM Board twice, on 29 June and 31 August 2022.

Approved by:
THE RULES CHANGE COMMITTEE

Independent Members:



JESUSITO G. MORILLOS
Chairperson



JOSE RODERICK F. FERNANDO



RACHEL ANGELA P. ANOSAN



JORDAN REL C. ORILLAZA

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)



Vivant Corporation - Philippines
(Vivant)

Distribution Sector Members:



RYAN S. MORALES
Manila Electric Company
(MERALCO)



VIRGILIO C. FORTICH, JR.
Cebu III Electric Cooperative, Inc.
(CEBECO III)



NELSON M. DELA CRUZ
Nueva Ecija II Area 1 Electric Cooperative, Inc.
(NEECO II – Area 1)



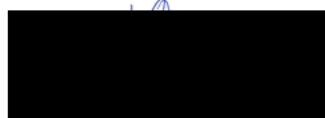
RUSSEL S. ALABADO
Angeles Electric Corporation
(AEC)

Supply Sector Member:**GIAN KARLA C. GUTIERREZ**

First Gen Corporation
(FGEN)

Market Operator Member:**ISIDRO E. CACHO, JR.**

Independent Electricity Market Operator of the Philippines
(IEMOP)

System Operator Member:**DARRYL LON A. ORTIZ**

National Grid Corporation of the Philippines
(NGCP)

Annex A

Chronological Digest of RCC Activities in Processing NPC's Proposal (February 2022 – April 2024)

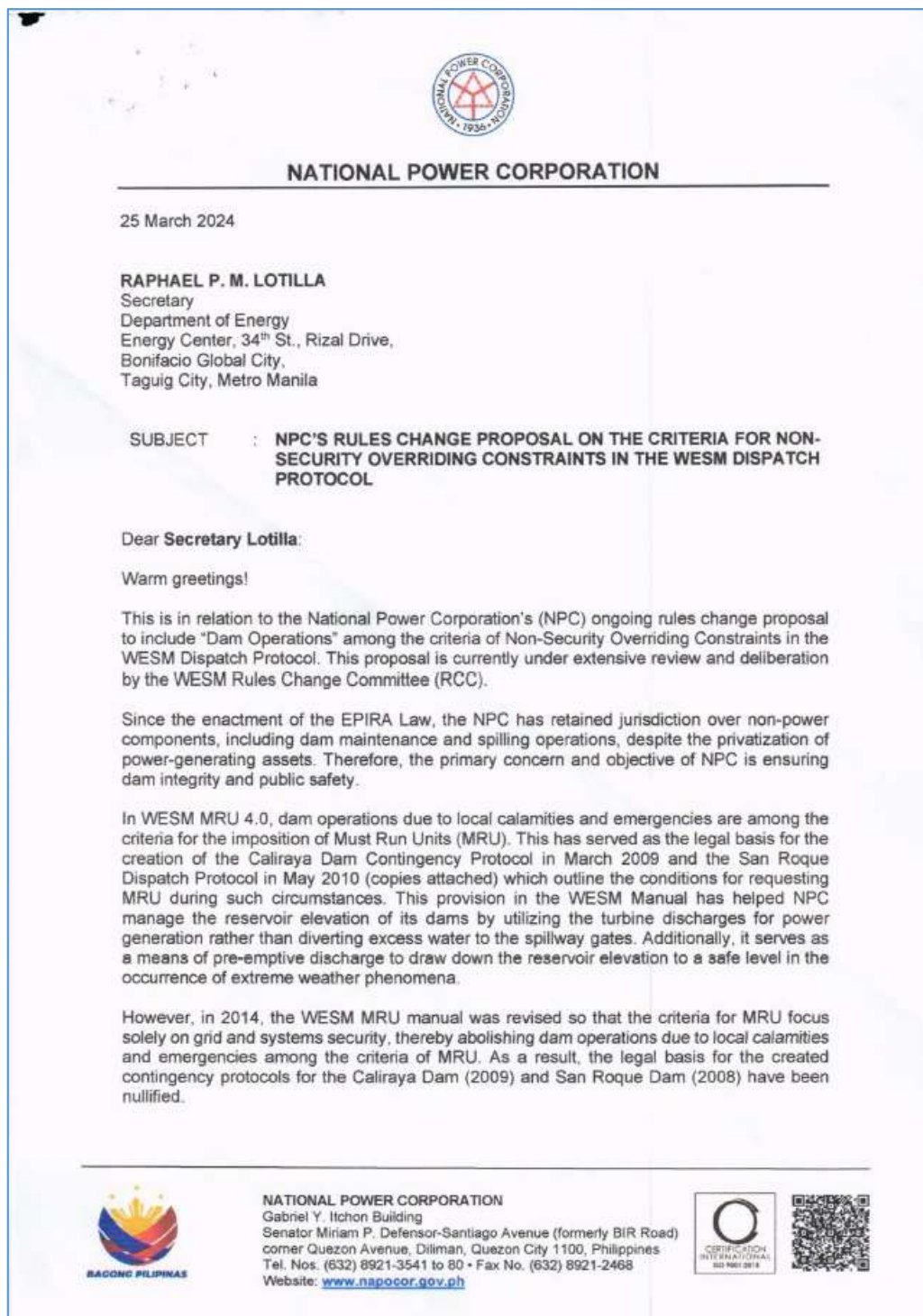
YEAR	DATE	DESCRIPTION
2022	08 February	<ul style="list-style-type: none"> • Deliberation of original proposal: <ul style="list-style-type: none"> ○ urgent amendment ○ add Dam Operations as category of Must-Run Units • RCC-recommended revision: add Dam Operations as category under Non-security Limit Over-riding Constraints
	18 February	Discussion of revised proposal <ul style="list-style-type: none"> ○ converted to general amendment ○ add Dam Operations under Non-security Limit Over-riding Constraints
	23 February – April 07	~ 30-day commenting period ~
	20 May 17 June	<ul style="list-style-type: none"> • Deliberation of proposal with comments • RCC approval via RCC Resolution No. 2022-09
	22 June	Endorsement to PEM Board of RCC Resolution
	29 June	1 st PEM Board deliberation → remanded for further study
	15 July	RCC re-deliberation → voted to pursue endorsing proposal without modifications but with supplemental justifications
	18 August	RCC approval of letter to PEM Board maintaining decision to endorse proposal with additional justifications
	31 August	2 nd PEM Board deliberation → remanded to study impact on dispatch and market price
	16 September	Deliberation <ul style="list-style-type: none"> • Simulation of impact on dispatch and market price presented to RCC • RCC agreement: set aside proposal (deferred reporting back to PEM Board)
	21 October	Deliberation <ul style="list-style-type: none"> • RCC instructed to look at impact of DOE DC2022-10-0031 (Declaring All RE Plants as Preferential Dispatch)
	16 December	Deliberation <ul style="list-style-type: none"> • Impact of DOE DC (Preferential Dispatch) to proposal • Related concern of Angat HEPP regarding trading and dispatch protocol • RCC requested NPC if it would still pursue or withdraw proposal

YEAR	DATE	DESCRIPTION
2023	08 February	RCC received NPC letter expressing it will pursue the proposal
	17 February	Deliberation <ul style="list-style-type: none"> Recognition that Kalayaan HEPP is an Ancillary Service Provider, thus DOE DC on Preferential Dispatch will not address NPC's concern
	17 March	Deliberation <ul style="list-style-type: none"> comparison between impounding hydropower plants registered as scheduled generating plants and preferential dispatch plants in terms of dispatch schedule during normal condition and during MI/MS; compensation and eligibility to claim additional compensation concerns of Angat Dam/HEPP on incurring losses if generating energy when there is zero or negative market price in the WESM Requested NPC to revise proposal
	28 April 19 May	<ul style="list-style-type: none"> Deliberations deferred due to proponent's unavailability No significant discussions held
	14 June	Meeting between RCC Secretariat and NPC <ul style="list-style-type: none"> NPC expounded process between Dams Management Department and plant operator (CBK-PCL) NPC's previous contingency protocols based on MRU, and way forward to revise proposal with stronger basis on necessity to discharge water through turbines (i.e., power generation) instead of through dam spillway gates
	15 September	<ul style="list-style-type: none"> Proponent presented revised proposal: <ul style="list-style-type: none"> "Dam Operations during Local Calamities" → "Prevent Spilling Operations" under Non-security Limit Over-riding Constraints RCC agreed to invite all NPC's trading partners (PSALM, SNAP, SMGP) for inputs
	20 October	<ul style="list-style-type: none"> SNAP (Magat, Binga, Ambuklao) and SMGP (San Roque) stated that requests from NPC for maximum turbine discharge have been granted through management of offers; spilling operations can also be done if turbine discharge is insufficient to decrease reservoir elevation Discussions established that issue is only with Caliraya Dam RCC recommended NPC and trading partners to conduct a meeting to discuss internal operational protocols, especially to solicit inputs from PSALM who is the WESM trader for CBK-PCL (Caliraya Dam partner plant operator), but the latter did not respond to the invitation
	17 November	<ul style="list-style-type: none"> PSALM was unresponsive to several requests for meeting (sent on October 09, November 08 and 10, December 11, January 12) No significant discussions held
	14 December	

YEAR	DATE	DESCRIPTION
2024	19 January	
	16 February	RCC agreed to request NPC on intent to pursue proposal
	07 March	Received letter-response from PSALM that it shall leave the RCC to decide on the proposal
	15 March	<ul style="list-style-type: none"> Given that issue is only limited to Caliraya Dam and CBK-PCL, revising WESM Rules/Manuals may not be appropriate RCC recommended NPC to directly seek help from DOE given Caliraya's unique situation RCC deferred concluding the proposal to April meeting
	27 March	NPC sent letter to DOE requesting assistance and intervention
	04 April	RCC sent letter to DOE providing supplemental information with summary of RCC deliberations on NPC's proposal

Annex B

NPC Letter to DOE dated 25 March 2024



**Conclusion of NPC's Proposal to Amend the WESM Manual on Dispatch Protocol
regarding Non-security Limit Over-riding Constraints to Prevent Dam Spilling Operations**

***NPC's Rules Change Proposal on the Criteria for Non-Security Overriding Constraints
in the WESM Dispatch Protocol***
25 March 2024

In 2022, the Department of Energy (DOE) issued a Department Circular No. DC2022-10-0031 (copy attached) which declares all renewable energy resources as Preferential Dispatch in the Wholesale Electricity Spot Market (WESM). However, this circular does not address NPC's concerns, as it excludes power plants categorized as Auxiliary Service Providers (AS), such as the case for Caliraya Dam. To the knowledge of the deliberating body, only the power plants installed at Caliraya Dam have this kind of situation making the WESM RCC hesitant to amend the WESM Dispatch Manual. Furthermore, there is also an issue that the proposed amendment may be abused and will result in unfair competition in the market, displacing other energy sources.

To intricate the current issue, the discharge from the spillway flows towards the Municipalities of Lumban and Pagsanjan along the Pagsanjan River which are considered tourist spots. The geographic feature of the waterways also presents a short flood propagation time (approximately 20-40 minutes). Consequently, conducting spilling operations at Caliraya Dam is anticipated to cause significant flood damages and potential casualties in these areas.


In light of these, NPC wishes to reinstate and include "dam operations" among the criteria of Non-Security Overriding Constraints instead of MRU in the WESM Dispatch Manual considering that the purpose of implementing the latter is solely for grid and system security. The objective is not only to help avert flood damages in the downstream communities and ensure dam integrity but also to offer a sustainable source of energy aligned with the plans of the Philippine Government of leaning towards affordable and clean energy as stipulated in the NEDA Philippine Development Plan (2023-2028). This proposal is also a proactive approach to dam management and is crucial in averting financial and social implications due to potential flood damages during spilling operations. The said proposal will also serve as a means of regulating reservoir elevation and ensuring dam stability for instances where non-power components such as spillway gates are deemed inoperable.

Acknowledging the complexity of the matter at hand, we humbly seek the assistance and intervention of DOE on the subject matter for possible policy creation that aligns with NPC's objective. Rest assured that NPC will make sure that any policy/rule change created will not be abused and will only be imposed for the sake of ensuring dam and public safety in the occurrence of extreme weather disturbances, upon NPC's request and in accordance with contingency protocols.

For further communication relative to this matter, our personnel, **Engr. Ken G. Trinidad** of the Dams Management Department may be reached through the email address: omdmd@napocor.gov.ph.

We humbly hope for your favorable response and thank you for your attention to this matter.

Respectfully,


FERNANDO MARTIN Y. ROXAS
President and CEO



Encl: As stated

Cf: Jesusito Morallos, Chairperson – WESM Rules Change Committee

Annex C

RCC Letter to DOE dated 04 April 2024



COR-EXT-RCC-24-08

04 April 2024

ATTY. RAPHAEL PERPETUO M. LOTILLA

Secretary
Department of Energy
Energy Center, Rizal Drive
Bonifacio Global City, Taguig City

Subject: National Power Corporation's (NPC) Rules Change Proposal regarding
Non-security Limit Overriding Constraints to Address Caliraya Dam
Situation

Dear **Secretary Lotilla**:

We refer to NPC's letter to DOE dated 25 March 2024 regarding their request to address concerns particular to Caliraya Dam related to the pre-emptive discharge of excess water through power turbines during local calamities. As cited in their letter, NPC submitted a rules change proposal to the WESM Rules Change Committee (RCC) on 17 February 2022. The RCC processed the proposal and eventually endorsed it to the PEM Board as [RCC Resolution No. 2022-09](#) (dated 17 June 2022) for approval. The PEM Board, however, remanded the proposal for the RCC to further study its impact to other generators and the market. The proposal has since been under the RCC's evaluation to address the PEM Board's concerns and consider revisions from NPC, more inputs from other relevant stakeholders and the impact of the DOE policy regarding preferential dispatch issued during the intervening period.

To aid in your evaluation of NPC's request, the RCC respectfully provides pertinent information as a result of the RCC's deliberations in processing NPC's rules change proposal.

GENERAL TOPIC	DISCUSSION
Market Operations	<ul style="list-style-type: none"> The PEM Board remanded the proposal twice, on 21 June and on 31 August 2022, and requested RCC to further study the proposal in terms of its potential impact to other generators and the market. A simulation done in response to the directive resulted in the following: <ul style="list-style-type: none"> Priority dispatch of hydroelectric power plants imposed with Non-Security Limit Overriding Constraints (NSOC) due to Dam Operations will bump-off marginal or higher-priced plants in the dispatch schedule. Such marginal plants may still be dispatched as MRU if the System Operator (SO) deems necessary.

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Conclusion of NPC's Proposal to Amend the WESM Manual on Dispatch Protocol regarding Non-security Limit Over-riding Constraints to Prevent Dam Spilling Operations

COR-EXT-RCC-24-08

GENERAL TOPIC	DISCUSSION
	<ul style="list-style-type: none"> ○ Bumping off higher-priced plants is expected to generally reduce WESM prices during the relevant dispatch intervals. • DOE Circular No. DC2022-10-0031 declaring all Renewable Energy (RE) resources, including impounding hydropower plants, as Preferential Dispatch does not address the concern of NPC since its partner power plant is an ancillary service provider (ASP). ASPs are classified as scheduled generating units in the WESM in view of the principle of co-optimization of energy and reserve capacities through market offers. Thus, as a scheduled generating plant, dispatch is only possible through managing offers or if instructed by the SO. • Other WESM traders of NPC's partner power plants—SN Aboitiz Power (trader for Magat, Binga and Ambuklao Dams' plant operators) and San Miguel Global Power (trader for San Roque Dam plant operator)—informed that they do not have difficulty in managing their plants' offers to ensure these are given dispatch schedules arising from dam operations. It was thus established that NPC's concern is only particular to Caliraya Dam. PSALM, who is the WESM trader of Caliraya Dam's plant operator, was unresponsive to multiple requests for inputs and meetings to discuss the proposal.
System Operations	<ul style="list-style-type: none"> ○ The SO stated that the proposal would provide formal/legal basis for them to grant requests from impounding hydroelectric power plants to be imposed with Non-security Overriding Constraints arising from dam operations, thereby being dispatched at maximum turbine discharge. But the SO emphasized that grid security takes precedence over granting such requests. Thus, if grid security would be compromised if a hydroelectric power plant is dispatched (e.g., when demand is already low due to extreme weather disturbance), then the request shall not be granted. ○ The SO may grant requests for imposition of overriding constraints only during normal market conditions (i.e., when there is real-time dispatch schedule). If market intervention or suspension is declared, which would likely happen during extreme weather disturbances, the SO typically instructs most (if not all) plants to be at minimum dispatch to avoid tripping. ○ NPC has so far avoided conducting spilling operations for Caliraya Dam. In coordination with PSALM and Caliraya

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COR-EXT-RCC-24-08

GENERAL TOPIC	DISCUSSION
	HEPP, previous requests for maximum turbine discharge for Caliraya Dam as precaution during Typhoons Ulysses (November 2020), Jolina (September 2021) and Paeng (October 2022) were all granted. However, there were instances when NPC had to delay implementing maximum turbine discharge since there were other plants already scheduled to be dispatched.
Compensation	<p>The RCC agreed that the following compensation policies should apply for hydroelectric plants dispatched imposed with NSOC-Dam Operations:</p> <ul style="list-style-type: none"> o Generating units imposed with NSOC due to dam operations shall be 'price-takers' 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) pursuant to Section 7.6.3 of the WESM Manual on Dispatch Protocol. o Such plants are also not entitled to additional compensation since this is limited to plants dispatched as MRUs, during market intervention or suspension, as constrained-on generators and when price mitigating measure is imposed (Section 10.1.1 of WESM Manual on Billing and Settlement).

While the RCC endeavored to study the proposal in all possible angles and deliberated how to potentially balance the imperative of public safety against the need to maintain a competitive electricity market, Caliraya Dam's unique situation may not be appropriately addressed by the RCC tasked to shape operational policies applicable to all WESM Members. Nonetheless, the RCC is willing to assist the DOE in resolving this matter acceptable to all.

Thank you.

Very truly yours,



JESUSITO G. MORALLOS
Chairperson, Rules Change Committee

cc: Elvin Hayes E. Nidea, PEMC President
Fernando Martin Y. Roxas, NPC President and CEO