

Republic of the Philippines
ENERGY REGULATORY COMMISSION
Pasig City



RESOLUTION NO. 07 Series of 2021

**A RESOLUTION ADOPTING AMENDMENTS TO
RESOLUTION NO. 04 SERIES OF 2017 ENTITLED
“AMENDMENTS TO THE PRE-EMPTIVE MITIGATING
MEASURE IN THE WHOLESALE ELECTRICITY
SPOT MARKET (WESM)”**

WHEREAS, Republic Act. No. 9136, otherwise known as the Electric Power Industry Reform Act of 2001 (EPIRA), declares it a policy of the state to ensure the quality, reliability, security and affordability of the supply of electric power, as well transparent and reasonable prices of electricity in a regime of free and fair competition;

WHEREAS, the Energy Regulatory Commission (ERC), under Section 43 of EPIRA, is tasked to promote competition, encourage market development, ensure customer choice, and discourage/penalize abuse of market power in the restructured electric industry;

WHEREAS, consistent with Section 29 of the EPIRA, and recognizing the highly volatile nature of the spot market, the Commission, on 05 May 2014, issued Resolution No. 8, series of 2014, setting an interim mitigation measure in WESM to mitigate sustained high prices during the May and June 2014 supply months, and to prevent the repetition of excessive and unreasonable high market prices in 2013;

WHEREAS, the said Resolution established a price threshold applied over a seventy-two (72) hour period, which is determined through rolling average Generator Weighted Average Price and a secondary cap to be imposed upon breach of the said threshold;

WHEREAS, on 15 December 2014, the Commission issued Resolution No. 20, series of 2014, making permanent the pre-emptive mitigating measures and adopting the Secondary Price Cap (SPC) of PhP6,245/MWh to be applied upon breaching of a PhP9,000/MWh

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rolling average price over a 7-day period as part of the pre-emptive measures in WESM;

WHEREAS, during the peak months of 2019, particularly for the billing months of April to June, high demand and multiple forced and planned plant outages resulted in the issuance of Yellow and Red Alerts² by the System Operator (SO);

WHEREAS, the SPC was imposed during the said period due to the sustained high prices in the WESM resulting from tight supply margin conditions;

WHEREAS, in May 2019, a Joint Congressional Power Commission (JCPC) Hearing was held due to the aforementioned price spikes in the WESM wherein the JCPC requested the ERC to revisit the SPC mechanism in the WESM;

WHEREAS, the Commission conducted a study and came up with the initial recommendations in October 2019 for the System and Regional/Island values as follows:

Table 1. Initial Recommendation for System Values

	CPT (PhP/MWh)	Rolling Ave. Period	SPC (PhP/MWh)
System	6,919	3 days	4,502

Table 2. Initial Recommendation for Regional Values

Region	CPT (PhP/MWh)	Rolling Ave. Period	SPC (PhP/MWh)
Luzon	8,330	3 days	5,249
Visayas	6,038	3 days	2,837
Mindanao	6,550	3 days	3,074

² Yellow Alert - A notice issued by the System Operator when the Primary Reserve is less than the capacity of the largest Synchronized Generating Unit or power import from a single interconnection, whichever is higher.

Red Alert - An alert notice issued by the System Operator when the Primary Reserve is zero, a generation deficiency exists, or there is Critical Loading or Imminent Overloading of transmission lines or Equipment.

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WHEREAS, the same methodologies used for deriving the SPC mechanism in 2014 were replicated in coming up with the initial recommendations in 2019, except for the methods used in identifying the interval classification³ and in identifying the impact of the monitoring period;⁴

WHEREAS, the Commission held a series of public consultations in November 2019 to present the results of the study and the proposal to improve the Mitigating Measures, *to wit*:

Table 3. Public Consultations Schedules

Date	Venue
November 15, 2019 (Friday) 9:30 AM	ERC Visayas Office (Visayas Area Operations Division) St. Mary's Drive, Banilad, Cebu City (For Visayas and Mindanao Stakeholders)
November 18, 2019 (Monday) 9:30 AM	ERC Hearing Room, 8 th Floor, Pacific Center Building, San Miguel Avenue, Ortigas Complex, Pasig City (For Luzon Stakeholders)

WHEREAS, following these public consultations, the Commission consolidated the following stakeholders' comments, and considered these in the reformulation of the SPC scheme:

Table 4. Stakeholders with Submitted Comments

List of Stakeholders
1. Philippine Independent Power Producer Association
2. Millenium Energy, Inc. and Panasia Energy Inc.
3. Aboitiz Power Corporation
4. SN-Aboitiz Power Corporation
5. SMC Global Power Holding Corporation
6. MERALCO
7. MERALCO Powergen Corporation
8. AC Energy Corporation
9. First Gen Corporation
10. Philippine Electricity Market Corporation
11. Market Operator
12. Visayas Market Participants

³ Interquartile range analysis was used due to lack of documented methods previously used

⁴ Interquartile range analysis based on Load Profile was used due to lack of documented methods previously used

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WHEREAS, during the peak months in 2021, particularly for the billing months of May to June, Yellow and Red Alerts were once again declared, coupled with the imposition of the SPC, reflecting sustained high prices in the WESM, shown as follows:

Table 5. Yellow/Red Alert Issuances⁵

Grid	Alert Type	Hours Covered	
		2019	2021*
Luzon	Yellow	258 hrs : 47 mins	18 hrs : 35 mins
	Red	83 hrs : 44 mins	21 hrs : 24 mins
Visayas	Yellow	313 hrs : 56 mins	-
	Red	14 hrs : 27 mins	-

Table 6. Imposition of SPC⁶

Month	2019 (No. of Intervals)	2021* (No. of Intervals)
April	93	-
May	36	57
June	145	111 (including 8 SPC for Visayas only)
TOTAL	274	168

WHEREAS, the Commission notes that without the imposition of the SPC, the average price in May 2021 would have been PhP8,120/MWh; however, with the imposition of the *current* SPC values, the indicative May 2021 average price was set at PhP7,429/MWh, or 8.51% lower than what could have been the values if SPC had not been imposed;

WHEREAS, the reformulation of the re-calculated rolling average price threshold was based on a careful consideration of the daily and weekly peaking intervals, the Load Weighted Average Price (LWAP), the average Cumulative Price Threshold (CPT) per hour, as shown in Table 7;

⁵ As of 02 June 2021

⁶ As of 02 June 2021

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Table 7. Formulation of the Re-calculated Rolling Average Price Threshold

PERIOD	INTERVALS	AVERAGE LWAP (PHP/MWH)	NO. OF HOURS	PRICE PER THRESHOLD (PHP/MWH)
FIRST OFF PEAK	0100H - 0900H	2,360	9	21,236.49
PEAK	1000H, 1200H - 1300H, 1600H - 2100H	9,815	9	88,335.00
PRICE SPIKE	1100H, 1400H - 1500H	32,000	3	96,000.00
SECOND OFF PEAK	2200H - 2400H	3,550	3	10,651.24
TOTAL			24	216,222.73
3-DAY CUMULATIVE PRICE THRESHOLD				648,668.19
AVERAGE CPT PER HOUR				9,009.28

WHEREAS, the CPT of PhP9,000/MWh already accounts for the average Marginal Cost (MC) of the more expensive oil-based plants that are expected to clear during peak period;

WHEREAS, the study conducted by the Commission shows that peaking plants can already clear *above* the average MC even if a seventy-two (72) hour or three (3) day rolling average period under a retained SPC level of PhP6,245/MWh and CPT of PhP9,000/MWh were to be adopted;

WHEREAS, a higher SPC will result to plants that are at the lower part of the merit order to be paid higher than their cost, thereby resulting in higher market price and consequently defeating the purpose of mitigation;

WHEREAS, the Commission conducted simulations using the unregulated prices in May 2021 and the MC of oil-based plants in 2019, on the one hand, and simulations using different options for CPT, SPC and rolling average, on the other hand, to determine the resulting price from each of the options considered;

WHEREAS, the option using the current CPT and SPC over a rolling average of seventy-two (72) hours produced the resulting price of PhP6,338.66/MWh which is lower by twenty-two percent (22%) from the unregulated price;

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WHEREAS, to address the claim that the SPC discourages investments in the power sector, the records of the Department of Energy show a continued business interest in the power sector, as shown by the more than seven thousand seven hundred MW in new capacities committed for the period 2021 to 2027 (Table 8), notwithstanding the pre-emptive mitigating measures adopted in the WESM since 2014;

Table 8. Committed Power Projects (2021-2028)⁷

Plant Type	Capacities (MW)
Coal	3,821.40
Oil-Based	438.16
Natural Gas	2,400.00
Renewable Energy	1053.09
Geothermal	115.60
Hydropower	221.59
Biomass	60.60
Solar	655.30
Wind	-
Total	7,712.65

WHEREAS, records of the ERC also show that despite the imposition of the said pre-emptive mitigating measures, new investments have materialized in the power sector as evidenced by recent Certificate of Compliance (COC) applications,⁸ as follows:

Table 9. Luzon and Visayas New COC Applications from 2020 to 2021

MAIN GRID	Luzon		Visayas	
SUMMARY PER TECHNOLOGY	Number	kW	Number	kW
Solar	7	458,861.000	0	0.000
Hydro	2	7,956.000	0	0.000
Natural Gas	1	52,500.000	0	0.000
Oil-Based	5	97,110.000	0	0.000
Geothermal	0	0.000	0	0.000
Battery Storage	6	220,000.000	3	50,000.000
Hybrid	0	0.000	0	0.000
TOTAL	21	836,427.000	3	50,000.000

⁷ Department of Energy. Summary of Committee Power Projects as of 31 March 2021.

https://www.doe.gov.ph/sites/default/files/pdf/electric_power/summary-of-committed-power-projects_31_march_2021.

⁸ Received applications as of 09 June 2021

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Table 10. Luzon and Visayas COC Renewals from 2020 to 2021

MAIN GRID SUMMARY PER TECHNOLOGY	Luzon		Visayas	
	Number	kW	Number	kW
Solar	11	200,344.000	6	255,127.000
Wind	1	54,000.000	1	36,000.000
Biomass	2	32,500.000	1	46,000.000
Coal	5	1,694,750.000	3	538,400.000
Hydro	10	1,002,341.000	2	6,208.000
Natural Gas	4	2,596,648.000	0	0.000
Oil-Based	2	782,680.000	7	221,800.000
Geothermal	4	410,125.000	6	823,690.000
Battery Storage	0	0.000	0	0.000
Hybrid	0	0.000	0	0.000
TOTAL	39	6,773,388.000	26	1,927,225.000

WHEREAS, with the annual growth in demand and the upcoming commercial operation of WESM in Mindanao, the Commission believes that there are vast economic potentials in the energy industry that can be realized despite the mitigating and pre-emptive measures in place;

WHEREAS, retaining the SPC value at PhP6,245/MWh and the CPT value at Php9,000/MWh strikes a good balance between protecting consumer interests and promoting new investments in the power sector;

NOW THEREFORE, after thorough and due deliberation, the Commission, consistent with its mandate under the EPIRA, hereby **RESOLVES**, as it is hereby **RESOLVED**, to **APPROVE** and **ADOPT** the amendments to Resolution No. 04, Series of 2017 as follows:

- A. Adopt a shorter rolling average period from one hundred twenty (120) hours (5 days) to seventy-two (72) hours or three (3) days;

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- B. On the Regional/Island imposition of SPC mechanism, the regional SPC imposition shall only be applied when the grid interconnection is on outage. The regional/island SPC mechanism shall have the same SPC value, CPT and allowable period similar to that of the system-wide imposition and shall be applied during any of the following conditions:

Scenario 1: CPT was breached on the 72nd hour, but High Voltage Direct Current (HVDC)/island interconnection goes on outage on the 73rd hour;

Scenario 2: On-going System SPC implementation then HVDC/island interconnection goes on outage;

Lifting of the regional/island SPC shall be effective once the rolling average of GWAP in the island/region goes below the CPT.

RESOLVED FURTHER, that except for the shortening of the rolling average period to seventy-two (72) hours and the regional/island imposition, all other features of the Pre-Emptive Mitigation Measure in the WESM under Resolution No. 20, Series of 2014 shall remain to be in effect.

All previous issuances by the Commission contrary to the instant Resolution are deemed superseded.

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This Resolution shall be implemented accordingly in Luzon, Visayas and Mindanao, and shall take effect immediately following its publication in a newspaper of general circulation in the Philippines.

Let copies of this resolution be furnished the University of the Philippines Law Center-Office of the National Administrative Register.

Pasig City, 23 June 2021.


AGNES VST DEVANADERA
Chairperson and CEO

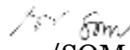


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Commissioner


CATHERINE P. MACEDA
Commissioner


FLORESINDA B. DIGAL
Commissioner


MARKO ROMEO L. FUENTES
Commissioner


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