

Republic of the Philippines
ENERGY REGULATORY COMMISSION
Pasig City



RESOLUTION NO. 08, SERIES OF 2024

**A RESOLUTION ADOPTING THE
RENEWABLE ENERGY CERTIFICATE (REC) PRICE CAP**

WHEREAS, on 16 December 2008, Republic Act No. 9513, entitled *An Act Promoting the Development, Utilization, and Commercialization of Renewable Energy Resources and for Other Purposes*, otherwise known as the Renewable Energy (RE) Act of 2008, was enacted, declaring the policy of the State to, among others, assure socially and environmentally compatible energy resources and infrastructure; and promote the utilization of indigenous, and renewable energy resources in power generation in order to reduce dependence on imported energy;

WHEREAS, Section 6 of the RE Act of 2008 mandates all stakeholders in the electric power industry to contribute to the growth of the renewable energy industry in the country, and specifically requiring the National Renewable Energy Board (NREB) to set the minimum percentage of generation from eligible renewable energy resources and determine to which sector the Renewable Portfolio Standards (RPS) shall be imposed on a per grid basis within one (1) year from the effectivity of the Act;

WHEREAS, Section 4, Rule 2, Part II of the Implementing Rules and Regulations of the RE Act (RE Act IRR) provides that the RPS, as a policy mechanism, shall oblige electric power industry participants such as generation companies, distribution utilities, and suppliers to source or produce a fraction of their electricity requirements from Eligible RE resources through the Renewable Energy Market (REM);

WHEREAS, on 22 December 2017, the Department of Energy (DOE) promulgated Department Circular No. DC2017-12-0015, entitled *Promulgating the Rules and Guidelines Governing the Establishment of the Renewable Portfolio Standards (RPS) for On-Grid Areas* (RPS On-Grid Rules), setting the aspirational target of 35% RE share in the energy mix by 2030, and one percent (1%) minimum

annual increment of RE percentage applied to the net electricity sales of the on-grid Mandated Participants;

WHEREAS, on 24 August 2018, the DOE promulgated Department Circular No. DC2018-08-0024, entitled *Promulgating the Rules and Guidelines Governing the Establishment of the Renewable Portfolio Standards for Off-grid Areas* (RPS Off-grid Rules), which provides that all off-grid mandated participants shall be required to source or produce, supply, and subsequently maintain a minimum percentage of RE share in their energy portfolio to meet the minimum RE requirement in their area which shall be consistent with the Optimal Supply Mix prescribed in the Missionary Electrification Development Plan (MEDP);

WHEREAS, Section 8 of the RE Act of 2008 provides that to facilitate compliance with the RPS, the DOE shall establish the Renewable Energy Market (REM);

WHEREAS, on 04 December 2019, the DOE issued Department Circular No. DC2019-12-0016, entitled *Promulgating the Renewable Energy Market Rules* (REM Rules), which provides that the Philippine Electricity Market Corporation (PEMC) shall develop the Renewable Energy Certificate (REC) Price Cap, to be endorsed by the DOE to ERC for approval;

WHEREAS, Clause 3.3.5.2 of the REM Rules Annex A provides that the REC Price Cap shall not be greater than any limit that shall be approved by the ERC upon endorsement by the DOE based on the difference of the cost of adding renewable generation, and of the cost of the generation that the latter replaces;

WHEREAS, Section 9 of the REM Rules states that pursuant to its mandate under the EPIRA, the ERC shall provide the necessary regulatory support for the implementation of the REM, including, but not limited to, RE price mitigation and the resulting electricity prices arising from compliance of the Mandated Participants with the On-Grid RPS Rules and the REM Rules;

WHEREAS, in a letter dated 03 December 2020, PEMC informed the DOE about NREB's adaptation of the proposed REC Price Cap and methodologies prepared by the Technical Working Group (TWG) under the NREB and requested that the proposed price cap be endorsed to the ERC for approval;

WHEREAS, on 17 February 2021, the Commission received a letter from the DOE endorsing the proposed methodologies for setting the REC Price Cap which uses the difference of the maximum RE Power Supply Agreement (PSA) rate for the last three (3) years of eligible technologies and the WESM Generator Weighted Average Price (GWAP), resulting to and recommending the amount of Php5,044/MWh;

WHEREAS, the DOE used the following formula for computing the REC Price Cap:

$$REC\ Price\ Cap = RE\ Rate_{high} - GWAP$$

Where:

RE Rate _{high}	Second highest RE PSA rate for 2017-2019, PhP 8.75/kWh
GWAP	Generator Weighted Average Price (GWAP) from 26 December 2016 to 25 December 2019, PhP3.706/kWh

Specifically,

$$\begin{aligned} REC\ Price\ Cap &= RE\ Rate_{high} - GWAP \\ REC\ Price\ Cap &= 8.75 - 3.706 \\ REC\ Price\ Cap &= \text{Php}5.044\text{kWh or PhP}5,044/\text{MWh} \end{aligned}$$

WHEREAS, on 10 June 2022, the DOE promulgated Department Circular No. DC2022-06-0019, entitled *Declaring the Interim Commercial Operations of the Renewable Energy Market*, declaring the interim commercial operations of the Renewable Energy Market (REM) starting 15 July 2022;

WHEREAS, on 30 September 2022, the DOE promulgated Department Circular No. DC2022-09-0030, entitled *Prescribing the Adjusted Annual Percentage Increment to be Imposed on All Mandated Participants of the Renewable Portfolio Standards for On-Grid Areas*. This directive increased the minimum annual increment of renewable energy (RE) percentage applied to the net electricity sales of on-grid Mandated Participants from the initial 1% to 2.52% starting in 2023;

WHEREAS, REC trading is an essential mechanism designed to incentivize the development of RE facilities over conventional technologies with the primary objective of encouraging end-users and developers to invest in RE technologies;

WHEREAS, on 04 December 2023, the Commission approved for posting on ERC's official website, the Draft Resolution entitled *Determination of the Renewable Energy Certificate (REC) Price Cap* (Draft Determination of the REC Price Cap);

WHEREAS, pursuant to the said approval, the Commission, on 07 December 2023, posted a *Notice* on ERC's official website,¹ directing all interested parties to submit their comments on the Draft Determination of the REC Price Cap including a REC Price Cap of PhP963.02/ MWh, under ERC Case No. 2023-010 RM³ on or before 13 December 2023, and setting the virtual public consultation for 19 December 2023. On 08 December 2023, the said *Notice* was likewise posted on ERC's official Facebook page;⁴

WHEREAS, the following stakeholders submitted their comments on the Draft Determination of the REC Price Cap on or before 13 December 2023: (1) Aboitiz Power Corporation, (2) First Gen Corporation, (3) Global Energy Supply Corporation (GESC), (4) Manila Electric Company (MERALCO), (5) Mindanao Energy Systems, Inc., (6) PH Renewables, Inc., (7) Powersource First Bulacan Solar, Inc. (PFBSI) and Toledo Power Company (TPC);

WHEREAS, on 19 December 2023, the Commission conducted the virtual Public Consultation on the Draft Determination of the REC Price Cap via Zoom at 9:00 AM;

WHEREAS, during the virtual public consultation, the following attendees were again instructed to submit, in writing, their additional comments on the draft REC Price Cap on or before 22 December 2023;

1. Aboitiz Power Corporation (AboitizPower);
2. ACEN Corporation (ACEZ);
3. ACX3 Capital Holdings, Inc.;
4. Alsons Power Group;
5. Bac-Man Geothermal, Inc. (BGI);
6. BioPower Group [North Negros BioPower (NNBP), South Negros BioPower (SNBP), San Carlos BioPower (SCBP)];
7. Blueleaf Energy;
8. Cagayan Electric Power And Light Co., Inc. (CEPALCO);
9. Energy Development Corporation;
10. First Gen Corp. (FGEN);
11. Global Energy Supply Corporation (GESC);
12. Green Light LED Energy Solutions, Inc.;

¹ <https://erc.gov.ph/Notices-Singular/83455/>.

³ Entitled, *In Re: Determination of the Renewable Energy Certificate (REC) Price Cap*.

⁴ https://web.facebook.com/profile/100068024055142/search/?q=REC%20PRICE%20CAP&_rd c=1&_rdr.

13. Independent Electricity Market Operator of the Philippines (IEMOP);
14. Jobin-SQM, Inc.;
15. Kratos RES, Inc.;
16. Lachica & Associates;
17. Manila Electric Company (MERALCO);
18. MERALCO PowerGen;
19. MERALCO PowerGen Corporation (MGen) - Business Power Corporation (GBP);
20. Mindanao Energy Systems, Inc. (MINERGY);
21. MORE Electric and Power Corporation;
22. National Transmission Corporation (TransCo);
23. Pampanga I Electric Cooperative, Inc. (PELCO);
24. Pampanga II Electric Cooperative, Inc. (PELCO II);
25. PAVI Green Renewable Energy, Inc.;
26. Philippine Electricity Market Corporation (PEMC);
27. Philippine Independent Power Producers Association, Inc. (PIPPA);
28. SMC Global Power Holdings Corp. (SMCGP);
29. SN Aboitiz Power (SNAP);
30. SunAsia Energy, Inc.;
31. Tarlac Electric, Inc. (TEI);
32. TeaM (Philippines) Energy Corporation;
33. The Lantau Group (TLG); and
34. Wind Energy Developers Association of the Philippines (WEDAP).

WHEREAS, the following stakeholders submitted their additional comments on the Draft Determination of the REC Price Cap: (1) Department of Energy (DOE) and (2) ACEN Renewable Energy Company (ACEN);

WHEREAS, the Commission thoroughly evaluated the legal, technical, and economic considerations raised in the various comments given by the stakeholders;

WHEREAS, the REC Price Cap Rules shall be adopted to set the maximum price of one (1) RE Certificate in PhP/MWh under the RE Market;

WHEREAS, pursuant to Clause 3.3.5.2 of the REM Rules Annex A, the Commission used the Average Power Supply Agreement (PSA) rates as the cost of adding renewable generation;

WHEREAS, the Average Power Supply Agreement (PSA) rates represents all the RE technologies which entered into commercial operation after the effectivity of the RE Act, such as solar, wind, run-of-river hydro, impounding hydro, biomass, and geothermal and updated as of 31 December 2023;

WHEREAS, pursuant to Clause 3.3.5.2 of the REM Rules Annex A, the cost of adding renewable generation that it replaces was represented by the Generator Weighted Average Price (GWAP);

WHEREAS, the Commission used the 5-year GWAP from 26 December 2018 to 25 December 2023 at PhP6,177.67/MWh which encompasses a complete five-year cycle, capturing the significant disruptions caused by the global pandemic, ongoing conflict in Ukraine and recent developments in the market, which has yet to normalize;

WHEREAS, consistent with Clause 3.3.5.2 of the REM Rules Annex A, the Commission resolved to compute the REC Price Cap using the formula:

$$REC\ Price\ Cap = \sum_i^n [\% \ Capacity\ Share_i \times (RE\ Rate_{ave,i} - GWAP)]$$

Where:

% Capacity Share _i	Percentage capacity share based on the capacity of each RE Technology eligible for RPS Compliance
RE Rate _{ave,i}	Average ERC-approved RE PSA rate for a particular RE technology which entered commercial operation after the effectivity of the RE Act in Php/MWh
GWAP	Generator Weighted Average Price (GWAP) from 26 December 2018 to 25 December 2023 in Php/MWh
i	Type of RE Technology (1=Biomass, 2=Geothermal, 3=Impounding Hydro, 4=ROR Hydro, 5=Solar, 6=Wind)

Specifically,

$$\begin{aligned} REC\ Price\ Cap &= [\% \ Capacity\ Share_{Biomass} \times (RE\ Rate_{ave_Biomass} - GWAP)] \\ &+ [\% \ Capacity\ Share_{Geothermal} \times (RE\ Rate_{ave_Geothermal} - GWAP)] \\ &+ [\% \ Capacity\ Share_{Impounding} \times (RE\ Rate_{ave_Impounding} - GWAP)] \\ &+ [\% \ Capacity\ Share_{ROR\ Hydro} \times (RE\ Rate_{ave_ROR\ Hydro} - GWAP)] \\ &+ [\% \ Capacity\ Share_{Solar} \times (RE\ Rate_{ave_Solar} - GWAP)] \\ &+ [\% \ Capacity\ Share_{Wind} \times (RE\ Rate_{ave_Wind} - GWAP)] \end{aligned}$$

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WHEREAS, the Capacity Share and Average PSA Rates are as follows:

Technology	Percent Capacity Share	Average PSA Rate (PhP/ MWh)
Biomass	8.27%	3,463.8
Geothermal	10.93%	4,818.2
Impounding Hydro	1.09%	4,335.4
ROR Hydro	10.23%	5,146.7
Solar	48.78%	6,834.9
Wind	20.69%	8,205.3
TOTAL	100.00%	

WHEREAS, the capacity share represents the share of each RE technology in the total capacity of RE plants eligible for RPS compliance, which started operations after the effectivity of the RE Act until 31 December 2023;

WHEREAS, the resulting initial REC Price Cap is PhP241.56/MWh, as computed below:

REC Price Cap

$$= [8.27\% \times (3,463.8 - 6,177.67)] + [10.93\% \times (4,818.2 - 6,177.67)] + [1.09\% \times (4,335.4 - 6,177.67)] + [10.23\% \times (5,146.7 - 6,177.67)] + [48.78\% \times (6,834.9 - 6,177.67)] + [20.69\% \times (8,205.3 - 6,177.67)]$$

REC Price Cap = PhP241.56/MWh

NOW THEREFORE, the Commission, after thorough and due deliberation, hereby **RESOLVES**, as it is hereby **RESOLVED**, to **APPROVE** and **ADOPT** the **Renewable Energy Certificate (REC) Price Cap at PhP241.56/MWh**. It is **FURTHER RESOLVED** that the REC Price Cap shall be reviewed every two years or when there are significant events or information that are vital and relevant to the setting of REC price cap, whichever comes earlier.

This Resolution shall take effect fifteen (15) days after its publication in the Official Gazette or in a newspaper of general circulation.

Let copies of this Resolution be furnished to the University of the
Philippines Law Center – Office of the National Administrative
Register (UPLC-ONAR) and all parties concerned.

Pasig City, 23 April 2024.



(took no part)
MONALISA C. DIMALANTA
Chairperson and CEO


ALEXIS M. LUMBATAN
Commissioner


CATHERINE P. MACEDA
Commissioner


FLORESINDA G. BALDO-DIGAL
Commissioner


MARKO ROMULO L. FUENTES
Commissioner


MOS: FIT/JGC/SOM

Copy furnished:

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