



Republic of the Philippines
DEPARTMENT OF ENERGY
(Kagawaran ng Enerhiya)

DEPARTMENT CIRCULAR NO. DC2017-12-0015 ✓

**PROMULGATING THE RULES AND GUIDELINES GOVERNING THE
ESTABLISHMENT OF THE RENEWABLE PORTFOLIO STANDARDS
FOR ON-GRID AREAS**

WHEREAS, Republic Act No. 7638, otherwise known as the "Department of Energy (DOE) Act of 1992," declares as a policy of the State to, among others, ensure a continuous, adequate and economic supply of energy through the integrated and intensive exploration, production, management and development of the country's indigenous energy resources;

WHEREAS, Republic Act No. 9136, otherwise known as the "Electric Power Industry Reform Act of 2001" or "EPIRA," declares as a policy of the State to, among others: (a) assure socially and environmentally compatible energy sources and infrastructure; and (b) promote the utilization of indigenous and new and renewable energy resources in power generation in order to reduce dependence on imported energy;

WHEREAS, Section 37, Chapter III of EPIRA mandates the Department of Energy (DOE) to encourage private sector investments in the electricity sector and promote the development of indigenous and RE resources;

WHEREAS, Republic Act No. 9513, otherwise known as the "Renewable Energy Act of 2008" or the "RE Act," declares as a policy of the State to increase the utilization of renewable energy (RE) by institutionalizing the development of national and local capabilities in the use of RE systems, and promoting their efficient and cost-effective commercial application by providing fiscal and non-fiscal incentives;

WHEREAS, the share of RE in the national power generation mix was 34% at the time of the passage of the RE Act;

WHEREAS, the subsequent increase in electricity demand after 2011 and the construction of more fossil fuel plants for base load requirements of the country decreased the share of RE in the national power generation mix approximately 24%;

WHEREAS, the DOE launched the National Renewable Energy Program (NREP) on 15 June 2011 that institutionalizes a comprehensive approach to encourage greater private sector investments in RE development;

WHEREAS, Section 6, Chapter III of the RE Act provides that all stakeholders in the electric power industry shall contribute to the growth of the RE industry in the country;

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 (DUs) including Electric Cooperatives (ECs) and Suppliers of Electricity to source or produce a fraction of their electricity requirements from eligible RE resources; and determine to which sector the Renewable Portfolio Standards (RPS) shall be imposed on a per grid basis within one (1) year from effectivity of the RE Act;

WHEREAS, Section 4, Rule 2, Part II of the RE Act IRR provides that the DOE shall issue the RPS upon the recommendation of the NREB;

WHEREAS, the DOE conducted numerous public consultations and technical working group meetings nationwide from 2011-2017 on the proposed rules governing the establishment of the RPS;

NOW THEREFORE, upon the recommendation of the NREB, the DOE hereby issues, adopts and promulgates the following rules and regulations:

RULE 1 GENERAL PROVISIONS

Section 1. Short Title. This Circular shall be known as the "RPS Rules for On-Grid Areas" and shall hereinafter be referred to as the "RPS On-Grid Rules."

Section 2. Purpose. The RPS On-Grid Rules are hereby adopted to: (a) Mandate the electric power industry participants to source or produce a specified portion of their electricity requirements from eligible RE resources in order to develop indigenous and environmentally friendly energy sources; (b) Establish a minimum annual RPS requirement and the minimum annual incremental RE percentage; (c) Prescribe the eligible RE facilities and the compliance mechanisms; (d) Monitor the compliance of the mandated industry participants; and (e) Provide the penalties for non-compliance.

Section 3. Scope. As provided Section 4(c), Rule 2, Part II of the RE Act IRR, the scope of this RPS On-Grid Rules includes:

- (a) Types of Eligible RE Facilities and the identification and certification of generation facilities using said RE resources;

- (b) Yearly minimum RPS requirements;
- (c) Annual minimum incremental percentage of electricity sold by each Mandated Participant that is required to be sourced from eligible RE resources and which shall, in no case, be less than one percent (1%) of its annual energy demand over the next 10 years unless suspended or modified pursuant to this Rules;
- (d) Means of compliance by the Mandated Participants with the yearly RPS requirements set by the DOE; and
- (e) General principles on the establishment and operations of the RE Market and the RE Registrar.

Section 4. Coverage. This RPS Rules shall apply to on-grid areas only. The DOE shall promulgate a separate issuance for the implementation of RPS for Off-Grid Areas.

Section 5. Definition of Terms. As used in this Circular, the following terms shall be defined as follows:

- (a) *Composite Team* refers to the team established and whose responsibilities are set out under Section 17 and Section 18 respectively, of Rule 5 of this Circular;
- (b) *Contestable Market* refers to the segment of that electricity end-users who have a choice of a supplier of electricity;
- (c) *Direct Connection* refers to an arrangement for the supply of energy to an end-user or ecozone enterprise using the transmission or sub-transmission assets with voltage level requirement beyond the level that can be provided by the Distribution Utility or Ecozone Utility Enterprise where the end-use or ecozone enterprise is located; directly connecting to the grid using facilities that cannot be economically and technically provided by the Distribution Utility or Ecozone Utility Enterprise.
- (d) *Distribution Utilities or DUs* refers to Electric Cooperatives, private corporations, government-owned utilities or existing local government units, which have exclusive franchises to operate distribution systems, including but not limited to, ecozone developers or utility enterprises operating in the economic zones and/or export processing zones;
- (e) *Eligible RE Facility* refers to a generating facility that utilizes an RE resources or RE technology;

- (f) *"Energy Mix"* refers to the total national Net Electricity Sales of the Philippines from all sources of energy in MWh for a given year;
- (g) *"Electricity Supply"* refers to energy in kilowatt-hour (kWh) purchased and/or generated to meet the total energy requirement of the Mandated Participant;
- (h) *"Feed-in Tariff or FIT"* refers to the RE development mechanism provided under the RE Act that offers guaranteed payments on a fixed rate per kWh for emerging RE sources, excluding generation for own-use;
- (i) *"FIT System"* means the system mandated under Section 7 of the RE Act;
- (j) *"Force Majeure"* refers to a typhoon, storm, tropical depression, flood, drought, volcanic eruption, earthquake, tidal wave or landslide or an act of public enemy, war (declared or undeclared), riot, insurrection, revolution, sabotage, blockade or any violent and threatening actions that resulted to extraordinary disruption of the operations of the electric power industry participant;
- (k) *"Generation Facility"* refers to a facility for the production of electricity;
- (l) *"Local Retail Electricity Supplier or Local RES"* refers to the non-regulated business segment of the DUs catering to the Contestable Market only within its franchise area, or persons authorized by appropriate entities to supply electricity within their respective economic zones;
- (m) *"Mandated Participant"* refers to electric power industry participants mandated to comply with the RPS annual requirement which includes entities enumerated in Rule 3, Section 11 of this RPS On-Grid Rules;
- (n) *"Net Electricity Sales"* refers to energy supply less system losses and own-use reckoned from 26 December of the preceding year to 25 December of the current year;
- (o) *"National Power Corporation or NPC"* refers to the government corporation created under Republic Act No. 6395, as amended;
- (p) *"National Renewable Energy Program" or "NREP"* refers to the policy framework developed by DOE setting out among others the indicative targets for the increased installation of power plants using RE resources;
- (q) *"Net Metering"* refers to a system, appropriate for a distributed generation, in which a distribution grid user has a two-way connection to the grid and

is only charged for his net electricity consumption and is credited for any overall contribution to the electricity grid;

- (r) *"Power Supply Agreement or PSA"* is a contract for sale of electricity between the seller and the buyer of electricity;
- (s) *"RE Certificate" or "REC"* refers to a certificate issued by the RE Registrar to electric power industry participants showing the energy sourced, produced, and sold or used. RE Certificates may be traded in the RE Market in complying with the RPS. For purposes of this Circular, the REC shall represent all renewable and environmental attributes from one (1) MWh of electricity generation sourced from duly registered Eligible RE Facilities;
- (t) *"RE Market or REM"* refers to the market where the trading of RECs is made;
- (u) *"REM Rules"* refers to the rules established by the DOE for the operation of the RE Market and to govern the conduct of the RE Registrar for the purpose of implementing this RPS On-Grid Rules;
- (v) *"RE Registrar"* refers to an entity that issues, keeps and verifies RECs corresponding to energy generated from Eligible RE Facilities and sold to or used by end-users;
- (w) *"Retail Electricity Supplier or RES"* refers to any person or entity authorized by the ERC to sell, broker, market or aggregate electricity to the end-users;
- (x) *"RPS"* refers to a market-based policy that requires the Mandated Participant to source a portion of their energy supply from Eligible RE Facilities;
- (y) *"RPS Account"* refers to the account registered with the RE Registrar either by a Mandated Participant or the owner of an Eligible RE Facility to hold its RECs; and
- (z) *"Wholesale Electricity Spot Market or WESM"* refers to the wholesale electricity spot market established by the DOE.

Furthermore, the terms defined under the Republic Act 9136, RA 9513 and their respective IRRs are hereby adopted by reference in this Rules.

RULE 2
RPS POLICY, MINIMUM ANNUAL REQUIREMENT
AND ANNUAL INCREMENT

Section 6. Implementation of RPS On-Grid Rules. The RPS On-Grid Rules shall be implemented in Luzon, Visayas and Mindanao grids.

Section 7. Minimum Annual RPS Requirement. The RE share of electricity coming from RE resources in the Energy Mix shall be based on the aspirational target of 35% in the generation mix expressed in MWh by 2030, subject to regular review and assessment by the DOE.

The minimum annual RPS requirement per Mandated Participant shall be computed by the Composite Team in coordination with the NREB; *provided*, that the annual RPS requirement for each Mandated Participant shall be calculated in accordance with the following formula, all expressed in MWh:

$$RPS_{(n)} = ES_{(n-1)} * \sum_{m=0}^n K_m \quad RPS_{(n)} = ES_{(n-1)} * \sum_{m=0}^n K_m$$

Where:

- m = Year 0 to n, excluding the Transition Period
- n = the Year of the RPS requirement starting at Year 1 and excluding Transition Period
- $RPS_{(n)}$ = RPS for the Year n for each Mandated Participant starting at Year 1 (in MWh, rounded down to the nearest MWh)
- K_0 = the percentage of total energy sales from plants under the FIT System to the total energy sales of all Mandated Participants at Year 0
- K_m = Minimum Annual Incremental RE percentage, as per Section 8, for all Mandated Participants at year m
 - = Incremental RPS percentage as set by NREB at one percent (1%) initially for Mandated Participants in Luzon, Visayas and Mindanao, subject to review annually such that the Target RE Share will be achieved (K is not constant)
- $ES_{(n-1)}$ = Net Electricity Sales in previous Year for each Mandated Participant (in MWh, rounded down to in the nearest MWh). For avoidance of doubt, $ES_{(n-1)}$ at Year 1 shall be the Net Electricity Sales of Year 0

The following years shall be defined as follows:

- (a) Year 0 shall be the year that the RE Market becomes operational pursuant to Section 15 of this Circular;
- (b) Transition Period shall be the year immediately following Year 0, pursuant to Section 24 of this Circular;
- (c) Year 1 shall be the year following the Transition Period and start of compliance with the RPS obligation; and
- (d) Year 2 shall follow Year 1 and onwards.

Attached herewith, as Annex A, is an illustration calculation of RPS requirements for the DUs.

The calculation of RPS requirements for each DU shall be included as an integral part of the Distribution Development Plan.

Section 8. Minimum Annual Incremental RE Percentage. The minimum annual increment required under this RPS On-Grid Rules shall be initially set at one percent (1%) to be applied to Net Electricity Sales of the Mandated Participant for the previous year, and thereafter adjusted by the DOE as may be necessary to ensure that the aspirational target of RE Share will be achieved. The minimum annual incremental RE Percentage shall be used to determine the current year's requirement for RECs of the Mandated Participant.

Section 9. Adjustment of the Minimum Annual Incremental Percentage. The minimum annual percentage shall be adjusted by DOE, in coordination with the NREB, when:

- (a) There are substantial changes in the relevant market in the grid; or
- (b) The prevailing percentage is deemed insufficient to attain the Target RE Share.

RULE 3 ELIGIBLE RE FACILITIES AND MANDATED PARTICIPANTS

Section 10. Eligible RE Facilities. For purposes of compliance with the RPS On-Grid Rules, the Eligible RE Facilities utilizing the following technologies and resources shall be:

- (a) Biomass;
- (b) Waste to energy technology;
- (c) Wind energy;
- (d) Solar energy;
- (e) Run-of-river hydroelectric power systems;
- (f) Impounding hydroelectric power systems;
- (g) Ocean energy;
- (h) Hybrid systems as defined in the RE Act with respect to the RE component;
- (i) Geothermal energy; and
- (j) Other RE technologies that may be later identified by the DOE.

Provided, That, for the RE Facilities utilizing these technologies to be eligible under the RPS compliance and attribution of RECs, they shall have been in commercial operations after the effectivity of the RE Act.

Section 11. Additional Generation from Eligible RE Facilities for RPS Compliance. In addition to the technologies defined in Section 10 hereof, the following additional generation from RE Facilities after the effectivity of RA 9513 shall be considered for compliance as determined by DOE:

- (a) Existing and New Generation Facilities under the FIT System;
- (b) Incremental capacity resulting from expansion of an existing RE Generation Facility;
- (c) Incremental capacity resulting from the upgrading of an existing RE Generation Facility that includes retrofitting, refurbishing or re-powering;
- (d) New capacities resulting from a change in the technology (from a non-RE to RE Generation Facility); *Provided, that co-firing of coal plants that is modified to use agricultural wastes as fuel shall not be allowed unless the DOE provides for a clear mechanism that measures with certainty the use of RE resources as fuel in such Generation Facility;*

- (e) RE Generation Facilities installed in end-user's premises participating under the Net Metering Program;
- (f) RE Generation Facilities installed in the end-user's premises for own-use and synchronized to the DU's system; and
- (g) Mothballed RE Generation Facilities that are restored into operation.

Section 12. RPS Mandated Participant. The following entities are mandated to comply with the RPS On-Grid Rules:

- (a) All DUs for their Captive customers;
- (b) All Suppliers of Electricity for the Contestable Market, as defined in the EPIRA and pursuant to Retail Competition and Open Access (RCOA);
- (c) Generating Companies only to the extent of their actual supply to their directly connected customers; and
- (d) Other entities as may be recommended by NREB and approved by the DOE.

All Mandated Participants, in complying with the RPS requirement, shall undertake Competitive Selection Process (CSP) in sourcing RE generation supply for its customers. As such, any additional cost arising from their compliance with the RPS should not result in higher electricity rates to their consumers. Furthermore, in the case of distribution utilities, it shall be their obligation to look for optimal supply mix to ensure level playing field among the power developers.

Section 13. Responsibility of the DOE and the National Electrification Administration. For compliance with the RPS, each Mandated Participant shall be guided by the DOE and, for electric cooperatives, by the National Electrification Administration (NEA).

Section 14. Review of RPS. This Rules shall be subjected to an annual review by the DOE, in coordination with the NREB and in consultation with the stakeholders; *Provided*, That the compliance percentage (K_m) for each succeeding year ($m+1$) shall be set no later than September 30 of each year.

Such review shall consider, among others, prices of RE technologies, existence of service contracts and change in criteria of Eligible RE Facilities; *Provided further*, that any change in the criteria for the Eligible RE Facilities should not result to any additional obligation to the Mandated Participants.

The RPS policies approved and the aspirational RPS generation targets approved by the DOE shall form part of the NREP, the Power Development Plan (PDP) and the PEP.

RULE 4 RPS COMPLIANCE MECHANISMS AND RE CERTIFICATE

Section 15. Compliance Mechanisms. In complying with the Rules, the Mandated Participant shall use Renewable Energy Certificate (RECs) from any one, a combination, or all of the following:

- (a) Allocation from the RE Registrar pursuant to the relevant rules issued by the DOE. RE generation under the FIT System allocated by the RE Registrar;
- (b) Generation from an Eligible RE Facility that has a PSA with the Mandated Participant;
- (c) Purchase or acquisition of RECs from the RE Market where the ownership and value per unit shall be further defined by the DOE in the REM Rules;
- (d) Any generation from Net Metering arrangements which have been properly measured; *Provided*, That the corresponding energy shall also be added into the Net Electricity Sales of the DU for the calculation of its RPS requirement; and
- (e) Any generation from an RE Facility installed in the end-user's premises for own-use and synchronized to the DU's system, which have been properly measured; *Provided*, That the corresponding energy shall also be added into the Net Electricity Sales of the DU for the calculation of its RPS requirement.

Section 16. RE Market and the RE Registrar. The DOE shall establish the RE Market to facilitate the issuance and commercialization of the RECs and verify the compliance of the Mandated Participants with the annual RPS requirement and ensure that it shall be operational not later than one (1) year from the effectivity of this Circular. As part of the RE Market, the Market Operator, under the supervision of the DOE, shall establish the RE Registrar and shall issue, keep and verify RECs corresponding to energy generated from Eligible RE Facilities.

Section 17. General Principles on the Establishment of the RE Market and the RE Registrar. The following principles shall be considered in the establishment of the rules and guidelines governing the RE Market and the RE Registrar:

- (a) All RECs shall be in scripless form and duly registered with the RE Registrar, which will act as the central clearing house for all purchases and sales of RECs as provided under the REM Rules pursuant to Section 8 of the RE Act;
- (b) The RE Registrar will issue one certificate per MWh (rounded down to the nearest MWh) of generation produced from a registered Eligible RE Facility;
- (c) Only generation from Eligible RE Facilities shall be registered with the RE Registrar;
- (d) All Mandated Participants and owners of Eligible RE Facilities shall have registered their individual RPS Accounts with the RE Registrar;
- (e) The REC issuance process shall be designed so a REC can be issued only once by the RE Registrar for the Eligible RE Facilities;
- (f) REC shall be issued based on the following:
 - i. On the output of Eligible RE Facilities not under the FIT System, the RECs shall be issued to the Mandated Participant to the extent of its PSA with the Eligible RE Facility; *Provided, That* if the generation of the Eligible RE Facility is not dispatched under any PSA, then the RECs shall be issued to the owner of the Eligible RE Facility;
 - ii. On the output of Eligible RE Facilities under the FIT System, the RECs corresponding to the total output of the Eligible RE Facilities under the FIT System shall be shared pro-rata among the Mandatory Participants based on their payment to the FIT allowance, to be detailed by the DOE in a separate issuance. FIT-Eligible RE plants shall, upon the lapse of the FIT entitlement, continue to be qualified for the issuance of RECs;
 - iii. On the energy produced or generated by Eligible RE Facilities under Net Metering programs, the RECs shall belong to the DU to which system the Eligible RE Facility is connected; and
 - iv. On the energy produced or generated by Eligible RE Facilities installed in the end-user's premises for own-use and synchronized to the DU's system, the RECs shall belong to the DU to which system the Eligible RE Facility is synchronized.

- (g) The issuance of RECs shall commence at Year 0 and correspond to the dispatch of Eligible RE Facilities at Year 0. The issuance of RECs shall continue thereafter;
- (h) The RECs issued to Mandated Participants and Eligible RE Facilities in accordance with this Rules can be traded pursuant to Section 15 (c), Rule 4 herein and the REM Rules;
- (i) A REC shall be valid for three (3) years from date of issuance and shall have a certificate identification number which includes the retirement date of the REC;
- (j) A price cap on the REC shall be formulated under the REM Rules and approved by the ERC upon endorsement by the DOE, within 6 months from the promulgation of this Circular;
- (k) The Mandated Participant may be assessed periodically with corresponding penalties for non-compliance with the RPS requirement consistent with the REC validity;
- (l) A Mandated Participant will prove compliance with the RPS by having the proper quantity of RECs in its RPS Account with the RE Registrar, consistent with Section 8, Rule 2 of this Circular;
- (m) Compliance with the Rules shall be on an annual basis. The compliance period shall be from 26 December of the current year to 25 December of the following year. Each Mandated Participant shall ensure that it shall submit sufficient RECs to the RE Registrar through its RPS Account on or before December 25 of the following year for each compliance period; and
- (n) During the first three (3) years of the RPS program and every other year thereafter, the DOE shall review the REM Rules for possible revisions based on the rate of compliance of the Mandated Participant, RE Market activity and general success in meeting RPS goals.

Section 18. RPS Market Development Program. In order to encourage the compliance of the Mandated Participants with their respective RPS obligations, the DOE, in coordination with NREB, shall, not later than the start of the Transition Period under Rule 8, Section 26, establish a market development program for RPS whereby the annual generation requirements equivalent to the aggregate national RPS compliance obligations, year on year, shall be made public to guide the RE developers and the Mandated Participants. Under this program, Mandated Participants shall be encouraged to submit their compliance requirements on a voluntary basis.

RULE 5 COMPOSITE TEAM

Section 19. Creation of Composite Team. For the purpose of implementing the provisions of this Rules, a Composite Team, chaired by DOE Assistant Secretary duly designated by the Secretary, is hereby created with the following members:

- (a) DOE Renewable Energy Management Bureau (REMB) Director or his designated representative;
- (b) DOE Electric Power Industry Management Bureau (EPIMB) Director or his designated representative;
- (c) NREB Chairman or his/her designated representative; and
- (d) Representative from the RE Registrar.

The DOE Legal Services shall provide legal assistance and support to the Composite Team in cases of disputes arising from compliance under this Rules or such other legal issues that may be referred to Legal Services in connection with the interpretation of this Rules.

The Technical Services Management Division of REMB shall provide technical and administrative support to the Composite Team.

Section 20. Responsibilities of the Composite Team. The Composite Team shall:

- (a) Compute the minimum annual RPS requirement per Mandated Participant;
- (b) Submit a Compliance Report of Mandated Participants after the review and validation of the information from the RE Registrar to the DOE Secretary, ERC and NREB;
- (c) Establish the procedure and criteria for evaluating compliance by Mandated Participants including any requests for suspension or carry-over of compliance by Mandated Participants;
- (d) Recommend the suspension of compliance or the carryover of compliance to the RPS of any Mandated Participant;
- (e) Review annually the cost implication of the minimum annual RPS requirement, nationally and per Mandated Participant annually; and

- (f) Perform such other responsibilities and roles as directed by the DOE through a separate issuance.

RULE 6 COMPLIANCE MONITORING

Section 21. Submission of Annual REC Report. The submission of the Annual REC Report by the RE Registrar to the Composite Team shall be within the first quarter of each calendar year after the establishment of the RE Registrar. The Annual REC Report shall serve as the basis for the Composite Team for the Compliance Report. The DOE shall certify the level of compliance of each Mandated Participant.

Section 22. Contents of the Compliance Report. The Compliance Report of the Composite Team based on the Annual REC Report shall contain, among others, the following information:

- (a) Compliance level of each Mandated Participant;
- (b) Total volume of RECs generated;
- (c) Total shortfall or excess in RECs, if any; and
- (d) Other information that may be required by the DOE.

RULE 7 PROHIBITED ACTS AND SANCTIONS

Section 23. Prohibited Act. Pursuant to Section 35(a) of the RE Act, non-compliance or violation of the RPS On-Grid Rules by any Mandated Participant under this Circular shall be subject to the administrative penalties herein provided.

Section 24. Penalties for Non-Compliance. Consistent with RE Act, its IRR and this Rules, the following administrative and criminal sanctions may be imposed:

- a. **Administrative Liability.** The DOE may impose a penalty ranging from a minimum of One Hundred Thousand Pesos (₱100,000.00) to Five Hundred Thousand Pesos (₱500,000.00) or, upon its discretion, may recommend to the appropriate government agency for the revocation of the Mandated Participant's license, franchise or authority to operate.

- b. **Criminal Liability.** In accordance with Section 36 (*Penalty Clause*) and Section 35 (*Prohibited Acts*) of the RE Act, any person who willfully fails to comply with or violates the RPS On-Grid Rules shall be imposed with the penalties provided under the RE Act. Any person who willfully aids or abets the commission of such failure or violation or who causes the commission of any such act by another shall be liable in the same manner as the principal.

In the case of association, partnership or corporations, the penalty shall be imposed on the partner, president, chief operating officer, chief executive officer, directors or officers responsible for the violation.

The failure to comply with or violation of the RPS On-Grid Rules, upon conviction thereof, shall suffer the penalty of imprisonment of one (1) year to five (5) years, or a fine ranging from a minimum of One Hundred Thousand Pesos (₱100,000.00) to One Hundred Million Pesos (₱100,000,000.00), or twice the amount of damages caused or costs avoided for non-compliance, whichever is higher, or both upon the discretion of the court.

This is without prejudice to the penalties provided for under existing environmental regulations prescribed by the DENR or any other concerned government agency.

The DOE Rules of Practice and Procedure shall be applicable to cases for the imposition of the foregoing penalties.

In no case shall a fine or penalty imposed on a Mandated Participant be charged to any of its customers or be considered a substitute for compliance, unless such fines or penalties are provided as a future form of compliance and provide the least cost alternative to the Mandated Entity.

Section 25. Suspension or Carry-Over of Compliance. The DOE shall, in any given year, suspend or carry-over compliance of the Mandated Participant with the Annual RPS Requirement, as the case may be, under any of the following conditions:

- a. Inadequate supply of the Eligible RE Facilities to meet the annual requirement;
- b. Inadequate supply of RECs to meet the annual requirement;
- c. Unavailable capacity at both the transmission and relevant distribution network to transport the Eligible RE Facilities to the grid;

- d. Occurrence or existence of *Force Majeure* affecting or preventing the Mandated Participant from complying with the annual requirements, as the case may be; or
- e. Such other consideration or condition, economic or otherwise, which is outside the control of the Mandated Participant as may be determined by the Composite Team.

In all cases, the Mandated Participant seeking suspension of compliance must demonstrate to the Composite Team that the condition was beyond its control and that it exerted all reasonable efforts to comply, notwithstanding the condition, including, but not limited to, a statement from the RE Registrar of the actual conditions reflecting any of the above circumstances. Such a statement shall be sufficient to prove that the situation is beyond the control of the Mandated Participant.

Upon recommendation of the Composite Team, the DOE may, in lieu of suspending compliance of the Mandated Participant, allow the Mandated Participant to carry over the compliance shortfall for a period of 3 years. The request for suspension of compliance of the Mandated Participant shall be deemed approved by the DOE after the lapse of 60 days from date of its submission.

Failure of the Mandated Participants to comply with the shortfall by the end of the carry-over period granted shall subject the Mandated Participant to the administrative liability under Section 24(a), Rule 7 of this Rules.

RULE 8 TRANSITORY AND OTHER PROVISIONS

Section 26. Transition Period. A Transition Period of one (1) year from the commencement of operations of the RE Market or the effectivity of this Rules, whichever is earlier, is hereby provided to ensure an orderly, efficient and effective imposition of the RPS On-Grid Rules. The said period will allow the Mandated Participants to prepare all the information and data required in the establishment of the baseline to be determined by the DOE, prepare their respective compliance mechanisms, as well as prepare the consumers for the impact of the RPS On-Grid Rules.

For such purposes, all Mandated Participants are hereby directed to commence planning for their respective RPS compliance requirements from effectivity of this Circular.

Upon the lapse of the Transition Period, mandatory compliance with the RPS shall commence.

Section 27. Reportorial Requirements. The DOE shall establish a reliable database to serve as the baseline in calculating and monitoring the compliance of the Mandated Participants. To this end, the DUs, the Generators and the National Grid Corporation of the Philippines (NGCP) are mandated to submit the following documents within 6 months from the effectivity of this Circular:

- (a) For DUs within the period required by the DOE:
 - i. Purchases from all Generation Facilities, from the Power Supply Agreements or through the WESM;
 - ii. For purchases from the NPC or the Power Sector Assets and Liabilities Management Corporation (PSALM), all purchases shall be segregated into RE and non-RE based resources on the proportionate share of the non-value added tax allocation from NPC or PSALM; and
 - iii. Such other reports that the DOE may require.
- (b) For Generation Companies in relation to their sales to directly connected customers, all Generation Companies shall be required to submit data on sales to their directly connected customers for the period to be identified by the DOE;
- (c) The NGCP shall submit for approval of the DOE the following:
 - i. A committed Transmission Development Plan (TDP) that identifies network expansion or rehabilitation to enable delivery of new RE resources to the grid that will include the total investments required to support the RE industry;
 - ii. A list of transmission services agreements and other related transmission services signed between the RE developer and NGCP; and
 - iii. A technical study or evaluation on the required incremental ancillary services needed to provide to maintain a reliable power service delivery with the entry of new RE technologies;
- (d) Each Mandated Participant shall submit to the DOE a report containing total sales, Net Electricity Sales and eligible RECs thereof; and

- (e) Such other reports from any person or entity as may be required by the DOE.

Section 28. Responsibilities of NGCP. In accordance with Section 27 of this Rules, NGCP shall implement the TDP approved by the DOE and procure the necessary ancillary services to maintain a reliable transmission network and system operations.

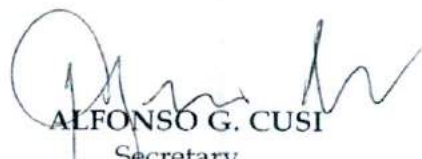
Section 29. Information, Education and Communication Activities. Pursuant to Section 31, Rule 10 of the RE Act IRR, the DOE, together with NREB, shall develop and implement a comprehensive information, education and communication activities that are designed to increase the public awareness and appreciation of the RPS On-Grid Rules and the RE and electric power industry in general.

Section 30. Regulatory Support. The ERC shall provide regulatory support for the effective implementation of this Circular.

Section 31. Separability Clause. If any provision of this Circular is declared invalid or unconstitutional, the other provisions not affected thereby shall remain valid and subsisting.

Section 32. Repealing Clause. All previous issuances, rules and regulations inconsistent with this Circular are hereby repealed, amended or modified accordingly.

Section 31. Effectivity. This Circular shall take effect immediately after publication in at least two (2) newspapers of general circulation.


ALFONSO G. CUSI
Secretary

Issued on DEC 22 2017, at Energy Center, Rizal Drive
Bonifacio Global City, Taguig City.



ANNEX A

		1. Percentage of FIT plants	2. Growth Rate	3. Annual Increment	5. RPS Requirement (MWHs)	6. Beginning Balance	7. RECs Allocated from FIT	8. RECs Issued from PSAs with new RE	9. RECs Surrendered for Compliance	10. Ending Balance	11. Additional RECs needed	12. Additional Capacity needed
		3.00%	3.00%	1.00%								
Year	4. Energy Sales MWHs											
2018	0	22,470,710	-	-	-	-	674,121	210,240	0	884,361	-	-
2019	transition	23,144,831	-	-	884,361	884,361	674,121	210,240	-	1,768,723	-	-
2020	1	23,839,176	898,828	-	1,768,723	1,768,723	674,121	210,240	898,828	1,754,255	-	-
2021	2	24,554,351	1,191,959	-	1,754,255	1,754,255	674,121	210,240	1,191,959	1,446,658	-	-
2022	3	25,290,982	1,473,261	-	1,446,658	1,446,658	674,121	210,240	1,473,261	857,758	-	-
2023	4	26,049,711	1,770,369	-	857,758	857,758	674,121	238,489	1,770,369	-	28,249	9
2024	5	26,831,203	2,083,977	-	-	-	674,121	1,409,856	2,083,977	-	1,171,366	371
2025	6	27,636,139	2,414,808	-	-	-	674,121	1,740,687	2,414,808	-	330,831	105
2026	7	28,465,223	2,763,614	-	-	-	674,121	2,089,493	2,763,614	-	348,806	111
2027	8	29,319,180	3,131,175	-	-	-	674,121	2,457,053	3,131,175	-	367,561	117
2028	9	30,198,755	3,518,302	-	-	-	674,121	2,844,180	3,518,302	-	387,127	123
2029	10	31,104,718	3,925,838	-	-	-	674,121	3,251,717	3,925,838	-	407,537	129
2030	11	32,037,859	4,354,660	-	-	-	674,121	3,680,539	4,354,660	-	428,822	136
2031	12	32,998,995	4,805,679	-	-	-	674,121	4,131,558	4,805,679	-	451,018	143
2032	13	33,988,965	5,279,839	-	-	-	674,121	4,605,718	5,279,839	-	474,160	150
2033	14	35,008,634	5,778,124	-	-	-	674,121	5,104,003	5,778,124	-	498,285	158
2034	15	36,058,893	6,301,554	-	-	-	674,121	5,627,433	6,301,554	-	523,430	166
2035	16	37,140,660	6,851,190	-	-	-	674,121	6,177,068	6,851,190	-	549,636	174
2036	17	38,254,879	7,428,132	-	-	-	674,121	6,754,011	7,428,132	-	576,942	183
2037	18	39,402,526	8,033,525	-	-	-	674,121	7,359,403	8,033,525	-	605,393	192
2038	19	40,584,602	8,668,556	-	-	-	674,121	7,994,434	8,668,556	-	635,031	201
2039	20	41,802,140	9,334,458	-	-	-	674,121	8,660,337	9,334,458	-	665,903	211
2040	21	43,056,204	10,032,514	-	-	-	674,121	9,358,392	10,032,514	-	698,055	221

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4. Energy Sales MWHs: Represents the actual sales level for the DU in 2018. The sales level is increased each year based on the Growth Rate (2).
5. RPS Requirement (MWHs): The RPS requirement starts out as the Percentage of FIT plants (1) times the prior years Energy Sales (4) plus the annual increment. Therefore, for the year 2020 (n) the RPS requirement is 3% plus 1% times the Energy Sales for 2018 ($4\% \times 22,470,710 = 898,828$) since the rule defines n-1 as year 0. Each year after 2020 the percentage is increased by the annual increment. (4%, 5%, 6%, ...)
6. Beginning Balance: Represents the level of RECs in the Compliance Account at the start of the year.
7. RECs Allocated from FIT: Represents the percentage of FIT plants (1) times the Energy Sales for 2018. The number is the same for each year under the assumption that there will be no additional FIT beyond the existing plants.
8. RECs issued from PSAs with new RE: This represents RECs from PSAs with RE plants that have come on line after the affectivity of the RE Law. After 2022 it represents the level of new RECs needed to have the ending balance be zero after the RECs needed for compliance are surrender.
9. RECs Surrendered for Compliance: Represents the RPS requirement for a given year. The DU must surrender the number of RECs equal to the requirement for that year.
10. Ending Balance: Represents the balance in the REC Compliance Account at the end of the year.
11. Additional RECs needed: Represents the number of additional RECs that need to be augured in a given years so that the balance in the account is equal to the number of RECs that need to be surrendered in a given year. The simulation assumes that the RECs acquired in a given year will continue in future years based on a long term Power Supply Agreement with an eligible RE plant.
12. Additional Capacity needed: Represents the capacity needed to produce the level of RECs needed (11) at an assumed capacity factor of 36%.

ANNEX A

		1. Percentage of FIT plants	2. Growth Rate	3. Annual Increment	REC COMPLIANCE ACCOUNT							
		3.00%	4.00%	1.00%								
		5. RPS Requirement (MWHs)	6. Beginning Balance	7. RECs Allocated from FIT	8. RECs Issued from PSAs with new RE	9. RECs Surrendered for Compliance	10. Ending Balance	11. Additional RECs needed	12. Additional Capacity needed			
Year	4. Energy Sales MWHs											
2018	0	2,920,596	-	-	87,618	-	87,618	-	-			
2019	transition	3,037,420	-	87,618	87,618	-	175,236	-	-			
2020	1	3,158,916	116,824	175,236	87,618	-	116,824	146,030	-			
2021	2	3,285,273	157,946	146,030	87,618	-	157,946	75,702	-			
2022	3	3,416,684	197,116	75,702	87,618	33,797	197,116	-	33,797	11		
2023	4	3,553,351	239,168	-	87,618	151,550	239,168	-	117,753	37		
2024	5	3,695,485	284,268	-	87,618	196,650	284,268	-	45,100	14		
2025	6	3,843,305	332,594	-	87,618	244,976	332,594	-	48,326	15		
2026	7	3,997,037	384,330	-	87,618	296,713	384,330	-	51,737	16		
2027	8	4,156,919	439,674	-	87,618	352,056	439,674	-	55,344	18		
2028	9	4,323,195	498,830	-	87,618	411,212	498,830	-	59,156	19		
2029	10	4,496,123	562,015	-	87,618	474,398	562,015	-	63,185	20		
2030	11	4,675,968	629,457	-	87,618	541,839	629,457	-	67,442	21		
2031	12	4,863,007	701,395	-	87,618	613,777	701,395	-	71,938	23		
2032	13	5,057,527	778,081	-	87,618	690,463	778,081	-	76,686	24		
2033	14	5,259,828	859,780	-	87,618	772,162	859,780	-	81,699	26		
2034	15	5,470,221	946,769	-	87,618	859,151	946,769	-	86,989	28		
2035	16	5,689,030	1,039,342	-	87,618	951,724	1,039,342	-	92,573	29		
2036	17	5,916,591	1,137,806	-	87,618	1,050,188	1,137,806	-	98,464	31		
2037	18	6,153,255	1,242,484	-	87,618	1,154,866	1,242,484	-	104,678	33		
2038	19	6,399,385	1,353,716	-	87,618	1,266,098	1,353,716	-	111,232	35		
2039	20	6,655,360	1,471,859	-	87,618	1,384,241	1,471,859	-	118,142	37		
2040	21	6,921,575	1,597,287	-	87,618	1,509,669	1,597,287	-	125,428	40		

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4. Energy Sales MWHs: Represents the actual sales level for the DU in 2018. The sales level is increased each year based on the Growth Rate (2).
5. RPS Requirement (MWHs): The RPS requirement starts out as the Percentage of FIT plants (1) times the prior years Energy Sales (4) plus the annual increment. . Therefore, for the year 2020 (n) the RPS requirement is 3% plus 1% times the Energy Sales for 2018 (4% X 2,920,596 = 116,824) since the rule defines n-1 as year o. Each year after 2020 the percentage is increased by the annual increment. (4%, 5%, 6%,...) and it is multiplied by the prior years energy sales.
6. Beginning Balance: Represents the level of RECs in the Compliance Account at the start of the year.
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9. RECs Surrendered for Compliance: Represents the RPS requirement for a given year. The DU must surrender the number of RECs equal to the requirement for that year.
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ANNEX A

		1. Percentage of FIT plants	2. Growth Rate	3. Annual Increment	REC COMPLIANCE ACCOUNT					11. Additional RECs needed	12. Additional Capacity needed
		5. RPS Requirement (MWHs)	6. Beginning Balance	7. RECs Allocated from FIT	8. RECs Issued from PSAs with new RE	9. RECs Surrendered for Compliance	10. Ending Balance				
Year	4. Energy Sales MWHs										
2018	0	2,165,760	-	64,973	-	0	64,973	-	-	-	-
2019	transition	2,230,733	-	64,973	-	-	129,946	-	-	-	-
2020	1	2,297,655	86,630	129,946	-	86,630	108,288	-	-	-	-
2021	2	2,366,585	114,883	108,288	-	114,883	58,378	-	-	-	-
2022	3	2,437,582	141,995	58,378	64,973	18,644	-	18,644	6	-	6
2023	4	2,510,710	170,631	-	64,973	105,658	-	87,014	28	-	28
2024	5	2,586,031	200,857	-	64,973	135,884	-	30,226	10	-	10
2025	6	2,663,612	232,743	-	64,973	167,770	-	31,886	10	-	10
2026	7	2,743,520	266,361	-	64,973	201,388	-	33,618	11	-	11
2027	8	2,825,826	301,787	-	64,973	236,814	-	35,426	11	-	11
2028	9	2,910,601	339,099	-	64,973	274,126	-	37,312	12	-	12
2029	10	2,997,919	378,378	-	64,973	313,405	-	39,279	12	-	12
2030	11	3,087,856	419,709	-	64,973	354,736	-	41,331	13	-	13
2031	12	3,180,492	463,178	-	64,973	398,206	-	43,470	14	-	14
2032	13	3,275,907	508,879	-	64,973	443,906	-	45,700	14	-	14
2033	14	3,374,184	556,904	-	64,973	491,931	-	48,025	15	-	15
2034	15	3,475,409	607,353	-	64,973	542,380	-	50,449	16	-	16
2035	16	3,579,672	660,328	-	64,973	595,355	-	52,975	17	-	17
2036	17	3,687,062	715,934	-	64,973	650,962	-	55,607	18	-	18
2037	18	3,797,674	774,283	-	64,973	709,310	-	58,349	19	-	19
2038	19	3,911,604	835,488	-	64,973	770,515	-	61,205	19	-	19
2039	20	4,028,952	899,669	-	64,973	834,696	-	64,181	20	-	20
2040	21	4,149,820	966,948	-	64,973	901,976	-	67,280	21	-	21

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5. RPS Requirement (MWHs): The RPS requirement starts out as the Percentage of FIT plants (1) times the prior years Energy Sales (4) plus the annual increment. . Therefore, for the year 2020 (n) the RPS requirement is 3% plus 1% times the Energy Sales for 2018 ($4\% \times 2,165,760 = 86,630$) since the rule defines n-1 as year o. Each year after 2020 the percentage is increased by the annual increment. (4%, 5%, 6%,...) and it is multiplied by the prior years energy sales.
6. Beginning Balance: Represents the level of RECs in the Compliance Account at the start of the year.
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ANNEX A

		1. Percentage of FIT plants	2. Growth Rate	3. Annual Increment	REC COMPLIANCE ACCOUNT					11. Additional RECs needed	12. Additional Capacity needed
		3.00%	6.00%	1.00%							
Year		4. Energy Sales MWHs	5. RPS Requirement (MWHs)	6. Beginning Balance	7. RECs Allocated from FIT	8. RECs Issued from PSAs with new RE	9. RECs Surrendered for Compliance	10. Ending Balance			
2018	0	113,643	-	-	3,409	-	0	3,409	-		
2019	transition	120,461	-	3,409	3,409	-		6,819	-		
2020	1	127,689	4,546	6,819	3,409	-	4,546	5,682	-		
2021	2	135,350	6,384	5,682	3,409	-	6,384	2,707	-		
2022	3	143,471	8,121	2,707	3,409	2,005	8,121	-	2,005	1	
2023	4	152,079	10,043	-	3,409	6,634	10,043	-	4,629	1	
2024	5	161,204	12,166	-	3,409	8,757	12,166	-	2,123	1	
2025	6	170,876	14,508	-	3,409	11,099	14,508	-	2,342	1	
2026	7	181,129	17,088	-	3,409	13,678	17,088	-	2,579	1	
2027	8	191,997	19,924	-	3,409	16,515	19,924	-	2,837	1	
2028	9	203,517	23,040	-	3,409	19,630	23,040	-	3,115	1	
2029	10	215,728	26,457	-	3,409	23,048	26,457	-	3,418	1	
2030	11	228,671	30,202	-	3,409	26,793	30,202	-	3,745	1	
2031	12	242,392	34,301	-	3,409	30,891	34,301	-	4,099	1	
2032	13	256,935	38,783	-	3,409	35,373	38,783	-	4,482	1	
2033	14	272,351	43,679	-	3,409	40,270	43,679	-	4,896	2	
2034	15	288,692	49,023	-	3,409	45,614	49,023	-	5,344	2	
2035	16	306,014	54,852	-	3,409	51,442	54,852	-	5,828	2	
2036	17	324,375	61,203	-	3,409	57,793	61,203	-	6,351	2	
2037	18	343,837	68,119	-	3,409	64,709	68,119	-	6,916	2	
2038	19	364,467	75,644	-	3,409	72,235	75,644	-	7,525	2	
2039	20	386,335	83,827	-	3,409	80,418	83,827	-	8,183	3	
2040	21	409,515	92,720	-	3,409	89,311	92,720	-	8,893	3	

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ANNEX A

		1. Percentage of FIT plants		3.00%	
		2. Growth Rate		5.00%	
		3. Annual Increment		1.00%	