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

DEPARTMENT CIRCULAR NO. DC2023-12-0035

PRESCRIBING THE POLICY AND GENERAL FRAMEWORK ON THE EXPANDED ROOF-MOUNTED SOLAR PROGRAM IN THE PHILIPPINES

WHEREAS, Republic Act (RA) No. 7638, or the "Department of Energy (DOE) Act of 1992", declares the 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, Section 4 of RA 7638 mandates the DOE to carry, prepare, integrate, coordinate, supervise, and control all plans, programs, projects, and activities of the Government relative to energy exploration, development, utilization, distribution, and conservation;

WHEREAS, RA 9136, or the "Electric Power Industry Reform Act of 2001" (EPIRA), declares the policy of the State to, among others: (i) ensure the quality, reliability, security and affordability of the supply of electric power; (ii) assure socially and environmentally compatible energy sources and infrastructure; (iii) promote the utilization of indigenous and new and renewable energy (RE) resources in power generation in order to reduce dependence on imported fuel; and (iv) encourage the efficient use of energy and other modalities of demand side management;

WHEREAS, RA 9513, or the "Renewable Energy Act of 2008" (RE Act), declares the policy of the State to accelerate the exploration, development, and utilization of RE resources including hybrid systems, to, among others, reduce the country's dependence on imported fuels;

WHEREAS, the DOE's 2020-2040 National Renewable Energy Program (NREP), in line with the thrust of the 2020-2040 Philippine Energy Plan (PEP), sets the target of 35% RE share in the power generation mix by 2030 and aspires to increase it to at least 50% by 2040;

WHEREAS, RA 11285, or the "Energy Efficiency and Conservation Act" (EEC Act), declares the policy of the State to institutionalize energy efficiency and conservation, enhance the efficient use of energy, and grants incentives to energy efficiency and conservation projects;

WHEREAS, as of end of 2022, the share of RE in the country's installed capacity and power generation mix is at 30% and 22%, respectively;

WHEREAS, the DOE recognizes the potential use of rooftops as venue to increase RE generation through solar photovoltaic (PV) technology and further promote solar roof-mounted technologies to empower more Electricity End-Users/building establishments, and augment power supply in the country, both for on-grid and off-grid areas;

NOW, THEREFORE, in consideration of the foregoing and after due review of the views, suggestions, and recommendations received during the consultations with all concerned stakeholders, the DOE hereby issues and adopts the following policies for the promotion development and implementation of a comprehensive roof-mounted solar program in the country.

SECTION 1. TITLE. This Circular shall be known as *"Prescribing the Policy and General Framework on Expanded Roof-Mounted Solar Program in the Philippines"* or the *"ERSP"*.

SECTION 2. POLICY OBJECTIVES. The ERSP is hereby introduced and promulgated in pursuit of the Government's goal to promote, develop, and commercialize RE systems and technologies using available rooftops in the Philippines with the following objectives:

(a) Contribute to the attainment of 35% RE share in the power generation mix by 2030 and 50% by 2040;

(b) Attract more investments in RE that will provide additional supply of electricity through the adoption of innovative business models that create additional market for RE Developers;

(c) Empower Electricity End-Users/building owners/establishments in using rooftops and/or hosting roof-mounted RE systems, particularly solar PV technologies;

(d) Decongest or relieve the transmission and distribution networks through decentralization, thereby deferring grid expansions and upgrading, as applicable;

(e) Offer an alternative compliance mechanism to building owners/ establishments with their respective obligations under the EEC Act and its Implementing Rules and Regulations and the Government Energy Management Program (GEMP); and

(f) Streamline and simplify the processes and requirements in the development of roof-mounted solar projects, consistent with the objectives of RA 11032 or the "Ease of Doing Business and Efficient Government Service Delivery Act of 2018", and RA 11234 or the "Energy Virtual One-Stop Shop Act".

SECTION 3. COVERAGE. This Circular shall prescribe the rules and guidelines for all roof-mounted solar energy generating facilities with a capacity of above one hundred-kilowatt peak (100 kWp), intended for own-use and/or export of energy to its host distribution utility (DU) or to the Grid. The ERSP shall be distinct from the Net-Metering Program, Distributed Energy Resources Program, and Green Energy Option Program, and shall apply for both on-grid and off-grid areas.

SECTION 4. SCOPE. This Circular shall apply to the following:

(a) Electricity End-Users which include:
  i. Captive customers;
  ii. Directly Connected Customers (DCCs);
  iii. Contestable Customers with RSF; and
  iv. Government agencies, entities or instrumentalities authorized under applicable laws, rules, and regulations to adopt, implement and/or participate in the ERSP.
(b) Economic zone developers and utility enterprises;
(c) RE Developers/Generation Companies;
(d) Distribution Utilities (DUs)/Electric Cooperatives (ECs);
(e) Market Operator;
(f) Market Governance;
(g) Roof-mounted Solar Providers (RSPs);
(h) Transmission Network Provider (TNP);
(i) System Operator; and
(j) Owners and operators of RSFs.

SECTION 5. DEFINITION OF TERMS. The terms used in this Circular shall have the following meaning:

5.1. "Contiguous Areas" refer to areas which are within the same boundaries such as:

5.1.1. Subdivisions;
5.1.2. Business Districts;
5.1.3. Special Economic Zones;
5.1.4. Commercial establishments such as malls;
5.1.5. Mixed-use development complexes; and
5.1.6. Such other areas where similarly situated Electricity End-Users are located in which supply of electricity can be measured through metering devices.

5.2. "Distribution Asset Study" or **"DAS"** refers to a set of technical studies which are used to determine all distribution assets and costs necessary to accommodate a proposed interconnection to a Distribution System;

5.3. "Distribution Impact Study" or **"DIS"** refers to a set of technical studies which are used to assess the possible effects of a proposed expansion, reinforcement, or modification of the Distribution System or a user development and to evaluate significant incidents;

5.4. "Distribution Services and Open Access Rules" or **"DSOAR"** refers to the rules promulgated by the Energy Regulatory Commission (ERC) under ERC Resolution No. 2, Series of 2010 including any subsequent amendment thereto, covering, among others, the terms and conditions for the connection of generating facilities to the Distribution System;

5.5. **"Electricity End-User"** refers to any person or entity requiring the supply and delivery of electricity, herein referred to as "Consumer"; Provided, that, an Electricity End-User which has a Self-Generation RSF with a capacity above 100 kW is herein referred to as "Prosumer";

5.6. **"Peer-to-Peer Energy Trading"** or **"P2P Energy Trading"** refers to buying and/or selling electricity amongst RSPs, Prosumers and Consumers;

5.7. **"Philippine Distribution Code"** or **"PDC"** refers to the set of rules, requirements, procedures, and standards governing DUs and users of Distribution System in the operation, maintenance, and development of the Distribution System. It also defines and establishes the relationship of the Distribution System with the facilities or installations of the parties connected thereto;

5.8. **"Philippine Electrical Code"** or **"PEC"** refers to the set of standards and rules that establishes the basic materials quality and electrical works standards for the safe use of electricity for light, heat, power, communications, signaling, and for other purposes;

5.9. **"Roof-mounted Solar Facility"** or **"RSF"** refers to a solar PV energy generating system, mounted on the rooftop/s of residential, commercial building, industrial facility, or any similar structure, which is used for own-use and/or commercial purposes;

5.10. **"Roof-mounted Solar Provider" or "RSP"** refers to a natural or juridical entity whose business includes the installation, operation, and maintenance of an RSF. For purposes of this Circular, an RSP with a Lease-to-Generate RSF shall be deemed a Generation Company and an RE Developer; and

5.11. **"System Impact Study" or "SIS"** refers to an assessment made or conducted by the Transmission Network Provider/System Operator, in addition to the Grid Impact Studies and in accordance with the Philippine Grid Code (PGC), to determine the adequacy of the Grid and its capability to accommodate a request for power delivery service and the costs, if any, that may be incurred in order to provide power delivery service to a transmission customer.

SECTION 6. ERSP BUSINESS MODELS. This Circular sets out the policies and guidelines on the following business models/supply augmentation framework for RSFs:

6.1. **Supply Contingency Option**

6.1.1. This business model is voluntary and involves the participation of Electricity End-Users with Self-Generation RSF of above 100 kW, opting to export its energy generation during grid power supply shortages and/or emergency situations only, which include, among others, Yellow and Red Alert situations defined in the PGC;

6.1.2. All Electricity End-Users opting to export energy generation of their RSF to the Grid or distribution system shall be guided by the following:

6.1.2.1. To accommodate export of energy generation, all Electricity End-Users shall update/upgrade their meter and connection through their Metering Service Provider and Network Service Provider to conform to the requirement of its host DU or Grid;

6.1.2.2. Any costs for the updating/upgrading of metering needed to comply with this requirement shall be borne by the Electricity End-User, while all connection costs shall be shouldered by the Network Service Provider concerned; and

6.1.2.3. All Electricity End-Users that opt to export energy generated by their RSFs during supply contingencies mentioned in Section 6.1.1 above shall enter into an agreement with the DU or TNP in the case of DCCs, and shall be compensated by the DU or TNP, as determined by the ERC.

6.2. Lease-to-Generate Option

6.2.1. This business model provides opportunity for interested and potential RE developers to utilize the rooftops of buildings/establishments in contiguous areas for RSF under lease or similar arrangements, either as Grid-connected Generating Plant or Embedded Generator;

6.2.2. All energy generated under this business model shall only be exported either to the DU or to the Grid, pursuant to existing policies and rules applicable to Generation Companies. The sale of power by the RSP to the host DU through a Power Supply Agreement shall be in accordance with the rules and guidelines on Competitive Selection Process or Department Circular (DC) Nos. DC2018-02-0003 and DC2021-09-0030, and any amendments thereto;

6.2.3. Prior to installation of any Lease-to-Generate RSF, the RSP shall secure a Solar Energy Operating Contract from the DOE in accordance with DC No. DC2019-10-0013, or the "Omnibus Guidelines Governing the Award and Administration of Renewable Energy Contracts and the Registration of Renewable Energy Developers," or any amendment thereto; and

6.2.4. For avoidance of doubt, Lease-to-Generate RSFs of RSPs may supply power under the Retail Competition and Open Access, and participate in the Green Energy Option Program and the Green Energy Auction Program, subject to existing rules, policies, and guidelines set by the DOE and ERC.

6.3. Restricted Peer-To-Peer Energy Trading

6.3.1. This business model applies to a confined area or within a contiguous area where RSPs, Prosumers, and Consumers participate in electricity trading within and/or among themselves for power supply;

6.3.2. The RSPs shall provide the appropriate trading platform for the participants and shall be the operator of the P2P trading between Prosumers and Consumers whereby aggregated excess electricity generated may be sold to the host DU or Grid; Provided, that, the RSP shall enter into an agreement with the DU or TNP and shall be compensated for the exported energy as determined by the ERC;

6.3.3. The supply contracts/agreements between RSPs, Prosumers and Consumers shall be non-regulated similar to retail market; and

6.3.4. The DOE shall be informed of all P2P Energy Trading Arrangements entered into by Electricity End-Users and RSPs.

SECTION 7. GENERAL PROVISIONS

7.1. Prior to development, construction, and commercial operation of any RSF, all RSPs shall secure applicable permits and comply with all pertinent rules and guidelines of the DOE and ERC, including the undertaking of a DIS conducted by the DU or SIS by the TNP;

7.2. All connection facilities of any RSF shall follow relevant laws, codes, and standards including the PDC, PGC, and DSOAR, among others;

7.3. To ensure quality and safety procedures in installing RSFs, all RSPs shall comply and meet the safety standard requirements on Solar PV Systems under the PEC;

7.4. As part of their compliance with the GEMP, government agencies, entities, or instrumentalities may adopt, implement and/or participate in the ERSP, subject to applicable laws, rules and regulations; and

7.5 The equivalent Renewable Energy Certificates (RECs) generated by the RSFs under this program shall be allocated in accordance with existing Renewable Portfolio Standards (RPS) Rules or any amendment thereto.

SECTION 8. DUTIES AND RESPONSIBILITIES. Without prejudice to applicable laws, rules, regulations, the following shall have corresponding responsibilities:

8.1. Transmission Network Provider

8.1.1. Conduct timely SIS for Grid-connected RSF prior to construction and commercial operations for above 20 MW capacity in Luzon and 5 MW in Visayas and Mindanao; and

8.1.2. In consultation with the DOE, include the ERSP impacts to the Grid in the annual update of the Transmission Development Plan.

8.2. Distribution Utilities

8.2.1. Ensure the reliability and stability of their distribution systems to accommodate the entry of RSFs through the conduct of DIS/DAS;

8.2.2. Perform technical studies and include possible impact of all existing and projected ERSPs' capacity and energy generation in their annual Distribution Development Plan (DDP) and Power Supply Procurement Plan (PSPP) submission to the DOE;

8.2.3. Act as the default Metering Services Provider to DU-connected RSFs and Prosumers connected to the distribution system; and

8.2.4. Conduct further studies and simulations on the impact of RSFs under the ERSP on the distribution network and provide recommendations to the long-term capacity and generation expansion planning of the DOE.

8.3. Roof-mounted Solar Providers

8.3.1. Provide annual reports to the DOE on or before 30th of January, which include information on the generation, capacity and location, and current and proposed business models, among others;

8.3.2. Comply with the PGC, PDC, DSOAR, and PEC and any amendments thereto; and

8.3.3. Coordinate with the DU or TNP for the proper design and installation of the necessary metering system and connection facility per RSF location, and conduct SIS and DIS / DAS.

8.4. Market Operator

8.4.1. Review and/or propose amendments to the Wholesale Electricity Spot Market (WESM) Rules, RE Market (REM) Rules, and Retail Rules and Market Manuals for possible integration of the ERSP to the WESM, the REM, and the Competitive Retail Electricity Market; and

8.4.2. As may deemed necessary by the DOE, conduct further studies and simulations on the electricity and/or WESM price impact of the ERSP.

SECTION 9. REGULATORY SUPPORT. For the successful implementation of this policy, the ERC shall:

9.1. Formulate rules and regulations and determine pricing methodology and interconnection standards of the ERSP business models, within sixty (60) calendar days after the effectivity of this Circular; and

9.2. Review and, if necessary, amend the pricing methodology of the ERSP to ensure its continued effectiveness and alignment with prevailing market conditions.

SECTION 10. Repealing Clause. Nothing in this Circular shall be construed as to amend, supersede, or repeal any of the mechanism or institutions already existing or responsibilities already allocated and provided for under any existing laws, rules, or contracts.

SECTION 11. Separability Clause. If for any reason, any section or provision of this Circular is declared unconstitutional or invalid, the other parts or provisions hereof which are not affected thereby shall continue to be in full force and effect.

SECTION 12. Effectivity. This Circular shall take effect immediately after its publication in two (2) newspapers of general circulation. A copy of this Circular shall be filed with the University of the Philippines Law Center-Office of the National Administrative Register.

Issued on ___ December 2023 at the DOE, Energy Center, Rizal Drive corner 34th Street, Bonifacio Global City, Taguig City.

RAPHAEL P.M. LOTILLA
Secretary

DEC 14 2023