



Republic of the Philippines
DEPARTMENT OF ENERGY

DEPARTMENT CIRCULAR No. DC2018_____

PROVIDING THE FRAMEWORK FOR THE OPERATION OF EMBEDDED GENERATORS AND SELF-GENERATING FACILITIES

WHEREAS, Section 2 of Republic Act No. 9136, otherwise known as the Electric Power Industry Reform Act of 2001 (“EPIRA”), declared the Policy of the State among others the following:

- a) Ensure the quality, reliability, security and affordability of the supply of electric power;
- b) Ensure transparent and reasonable prices of electricity in a regime of free and fair competition and full public accountability to achieve greater operational and economic efficiency and enhance the competitiveness of Philippine products in the global market;
- c) Enhance the inflow of private capital and broaden the ownership base of the power generation, transmission and distribution sectors;
- d) Ensure fair and non-discriminatory treatment of public and private sector entities in the process of restructuring the electric power industry; and
- e) Establish a strong and purely independent regulatory body and system to ensure consumer protection and enhance the competitive operation of the electricity market.

WHEREAS, Section 37 of the EPIRA further mandates the Department of Energy (DOE) to supervise the restructuring of the electricity industry, and in addition thereto:

- a) Ensure the reliability, quality and security of supply of electric power;
- b) Encourage private sector investments in the electricity sector and promote development of indigenous and renewable energy sources;
- c) promote a system of incentives to encourage industry participants, including new generating companies and end-users to provide adequate and reliable electric supply;
- d) Develop policies and procedures and, as appropriate, promote a system of energy development incentives to enable and encourage electric power industry participants to provide adequate capacity to meet demand including, among others, reserve requirements
Monitor private sector activities relative to energy projects in order to attain the goals of the restructuring, privatization, and modernization of the electric power sector
- e) Formulate such rules and regulations as may be necessary to implement the objectives of EPIRA; and
- f) Exercise such other powers as may be necessary or incidental to attain the objectives of EPIRA.



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WHEREAS, Section 9 of the EPIRA provided that all generation facilities connected, directly or indirectly, to the transmission system shall be subject to central dispatch of the grid operator.

WHEREAS, the DOE, on 09 May 2012, issued the DC 2012-05-2005 "Prescribing the General Policies for the Implementation of Retail Competition and Open Access" which states that *"subject to the most beneficial arrangement, the policy for embedded generation shall be developed by the DOE in coordination with relevant stakeholders"*

WHEREAS, the DOE, on 04 May 2017, issued the DC 2017-05- 0009 "Declaring the Launch of the Wholesale Electricity Spot Market (WESM) in Mindanao and Providing for Transition Guidelines" effective 26 June 2017 ("Launch Date") to provide sufficient time for the Market Operator ("MO"), System Operator ("SO") and WESM Participants to prepare and familiarize themselves with WESM operations;

WHEREAS, Section 2 of DC 2017-05-0009 states that *"All Embedded Generators (a) with installed capacity of at least 5 MW; (b) with installed capacity below 5 MW that have a contract outside its host distribution utility, or intends to sell to the WESM, or inject power to the Grid; and (c) all Feed-in-Tariff ("FIT") eligible Renewable Energy ("RE") plants shall be registered in the WESM. Embedded Generators with installed capacity below 5 MW and do not fall under (b) or (c) may register in the WESM on a voluntary basis."*

WHEREAS, several issues have been observed or raised by the Electric Power Industry Participants on the operations and requirements for EGs and SGFs in consideration of the need to ensure supply security and reliability and transparency of transactions and scheduling of generators directly or indirectly connected to the grid; and

WHEREAS, the DOE recognize the need to address any policy gaps and ensure optimal utilization of EGs and SGFs in the Philippines.

NOW, THEREFORE, pursuant to its authority and mandate under the EPIRA and its Implementing Rules and Regulations, the DOE hereby declares the following:

Section 1. Guiding Principles. Consistent with the objectives and its mandate under the EPIRA, the DOE recognize the role of Embedded Generators and Self-Generating Facilities in augmenting supply and providing benefits to the power system while on the other hand, there are also potential impact on grid reliability and security. As such, this department circular ensures that Embedded Generators and Self-Generating Facilities shall operate within the framework of:

1.1 Provision of central dispatch by the Grid Operator of all generation facilities connected, directly or indirectly, to the transmission system in accordance with the dispatch schedule submitted by the Market Operator;



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- 1.2 Compliance to the EPIRA and its IRR, Philippine Grid Code, Philippine Distribution Code, Wholesale Electricity Spot Market (WESM) Rules and its Market Manuals, Philippine Electrical Code and other pertinent issuances by the DOE, ERC and other relevant government instrumentalities having authority over the grid reliability and supply security; and
- 1.3 Market share and bilateral contracts limitation under Section 45 and other relevant regulations issued by the ERC concerning abuse of market power and competition.

Section 2. Definition of Terms. The terms as used in this Circular shall have their respective meanings as follows:

- a) **“Ancillary Services”** refer to support services such as Primary Reserve, Secondary Reserve, Tertiary Reserve, Reactive Power Support and Black Start Capability which are necessary to support the transmission capacity and energy that are essential in maintaining Power Quality and the Reliability of the Grid.
- b) **“Central Dispatch”** refers to the process of issuing direct instructions to electric power industry participants by the grid operator, in accordance with the schedule provided by Market Operator where WESM is operational, to achieve the economic operation and maintenance of quality, stability, reliability and security of the transmission system.
- c) **“Directly-Connected Customer (DCC)”** refers to an industrial or bulk electricity end-user, or an Ecozone Enterprise which are supplied through the transmission or sub-transmission assets that are still owned by the National Transmission Corporation (TransCo).
- d) **“Embedded Generator (EG)”** refers to generating units that are indirectly connected to the Grid through the Distribution Utilities’ system.
- e) **“End-User”** refers to any person or entity requiring the supply and delivery of electricity for its own use.
- f) **“Maximum Stable Load or Pmax”** refers to the maximum demand in MW that a generating unit, or generating block or module in case of a combined cycle power plant, can reliably sustain for an indefinite period of time, based on the generator capability tests.
- g) **“Self-Generating Facilities (SGF)”** refer to power Generation Facilities owned and constructed by an End-user for such End-user’s own consumption or internal use excluding Generation Facilities for use by households, clinics, hospitals and other medical facilities.



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Section 3. Scope and Application. This Circular shall apply to the following entities:

- a) EGs including generation facilities directly connected to distribution systems whether or not they have power supply agreements and/or are affiliated with their host distribution utility;
- b) SGFs including generation facilities connected to industrial and commercial End-Users who are either DCCs or connected to the distribution system, and whether they supply all or a portion of the End-Users' supply requirement;
- c) Distribution Utilities (DUs);
- d) Metering Service Providers;
- e) Market Operator (MO);
- f) Transmission Network Provider (TNP); and
- g) System Operator (SO).

Distributed generation for net metering purposes and off-grid EGs and SGFs are excluded from the scope of application of this Circular.

Section 4. Licensing Requirements. The following licensing requirements shall be complied with:

- 4.1. All EGs and SGFs shall secure a Certificate of Compliance (COC) pursuant to existing guidelines on licensing of generation facilities.
- 4.2. DUs owning and entering into PSAs with affiliate EGs shall comply with the existing guidelines, including but not limited to:
 - 4.2.1. Market share and bilateral contract limitations pursuant to the Section 45 of EPIRA; and
 - 4.2.2. Competitive Selection Process Rules.
- 4.3. An End-User with generation facilities installed in its premises owned or operated by a third party entity other than the End-User may secure a COC as SGF, provided that the third party entity has not violated market share limitations pursuant to the EPIRA.
- 4.4. An End-User with SGF, whether DCC or connected to the distribution system, that is intending to sell all or a portion of its generated capacity shall secure a COC as a Generation Company.

Section 5. Connection and Operational Requirements. The following shall apply with regard to the connection and operational requirements of EGs and SGFs:

- 5.1. All EGs and SGFs shall comply with the requirements of the Philippine Distribution Code (PDC).



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5.2. EGs and SGFs mandated to register to the Wholesale Electricity Spot Market (WESM), in accordance with Section 6 of this Circular, shall:

5.2.1. Coordinate and cooperate with the WESM MSP, MO, TNP and SO on the installation of WESM-compliant Remote Terminal Units (RTUs), metering facilities and communication links and their location relative to the connection point, market trading node and scheduling points pursuant to the Philippine Grid Code (PGC) and WESM Rules and relevant Market Manuals; and

5.2.2. Prior to the construction and/or contracting for power supply agreement, seek endorsement from the DOE for the conduct of Grid Impact Study and System Impact Study, where applicable.

Section 6. Market Registration. The following shall apply with regard to the registration and participation of EGs and SGFs to the WESM:

6.1. The following shall register to the WESM:

6.1.1. EGs which qualify under the following criteria:

6.1.1.1. with Pmax equal or above the following regional thresholds:

- a) 10 MW for Luzon Grid;
- b) 5 MW for Visayas Grid; and
- c) 5 MW for Mindanao Grid.

6.1.1.2. with Pmax below regional thresholds that have a contract outside its host distribution utility, or intends to sell to the WESM, or inject power to the Grid; and

6.1.1.3. Feed-in-Tariff ("FIT") eligible Renewable Energy ("RE") plants.

6.1.2. SGFs intending to sell all or a portion of its generated capacity.

6.2. EGs and SGFs that do not meet the above criteria may register to the WESM on a voluntary basis.

6.3. The regional thresholds shall be reviewed on a yearly basis by the MO and the SO and shall be revised as necessary.

6.4. EGs and SGFs mandated to register to the WESM may register as either Scheduled or Non-scheduled Generation Company pursuant to the WESM Rules and Market Manuals.



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- 6.5. EGs contracted to their host DUs may, at its option, register in the WESM as indirect member with their host DU as direct member, provided that the direct member shall assume all obligations of the EG with regard to submission of offers, compliance with dispatch instructions, settlement and other obligations in accordance with the WESM Rules and Manuals.
- 6.6. In line with the Must Offer Rule of the WESM, where Scheduled Generation Companies are required to submit offers equivalent to its maximum available capacity, maximum available capacity of EGs and SGFs shall be equivalent to their respective Pmax less forced unit outages, scheduled unit outages, de-rated capacity due to weather disturbance and technical constraints. For SGFs, the real-time consumption of energy of their host End-User shall qualify as a technical constraint.

Section 7. Dispatch. The following shall apply with regards to dispatching of EGs and SGFs:

- 7.1. EGs and SGFs registered to the WESM shall be subject to Central Dispatch by the SO, in accordance with the WESM Rules and Market Manuals, PGC, PDC and other applicable dispatch guidelines.
- 7.2. The SO, MO and host DUs shall coordinate and establish protocol for the dispatch of EGs and SGFs scheduled in the WESM for provision of energy.

Section 8. Ancillary Services. The following shall apply with regards to ancillary service utilization of EGs and SGFs:

- 8.1. EGs shall be allowed to provide Ancillary Services, subject to the criteria provided in the WESM Rules and Market Manuals, PGC, PDC and other applicable guidelines on ancillary service utilization.
- 8.2. The SO, MO and host DUs shall coordinate and establish a protocol for the dispatch of EGs and SGFs scheduled for provision of Ancillary Services.

Section 9. Metering Service Provider (MSP). The following shall apply with regards to the metering service provision of EGs and SGFs:

- 9.1. Only MSPs duly authorized by the Energy Regulatory Commission (ERC) and registered as WESM members shall be allowed to provide metering services to EGs and SGFs registered to the WESM.
- 9.2. A DU shall not be allowed to act as MSP for an EG or SGF connected to its system if:
 - 9.2.1. Its market trading node is also assigned to said EG or SGF; or



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9.2.2. It owns the connection point of the said EG or SGF.

Section 10. Additional Responsibilities of DUs. DUs with EGs and SGFs connected or seeking to connect to its network shall:

- 10.1. Develop appropriate internal business procedures for EGs and SGFs seeking to connect to its distribution network, consistent with PGC, PDC and other applicable guidelines;
- 10.2. Ensure that operation of EGs and SGFs connected to its distribution network is pursuant to the standards set forth in the PGC, PDC and other applicable guidelines; and
- 10.3. Coordinate with SO with regard to connection of EGs or SGFs that are mandated to register to the WESM.

Section 11. Additional Responsibilities of MSPs. MSPs of EGs and SGFs shall:

- 11.1. Secure authorization from the ERC as WESM MSP; and
- 11.2. Ensure provision of metering equipment and services and compliance with functions and obligations in accordance with the PGC, PDC, WESM Rules and Manuals and other applicable guidelines.

Section 12. Additional Responsibilities of the MO. The MO of the WESM shall:

- 12.1. Submit to the Rules Change Committee of the WESM proposed changes to the WESM Rules and Market Manuals in accordance with the policy provided herein, as necessary;
- 12.2. Ensure WESM registration of all EGs and SGFs mandated to register to the WESM; and
- 12.3. Submit regular reports to the DOE with respect to status of registration of EGs and SGFs to the WESM and their impact to market operations.

Section 13. Additional Responsibilities of the TNP. The TNP shall:

- 13.1. Ensure provision of monitoring, control and communication equipment in accordance with the PGC, PDC, WESM Rules and Manuals and other applicable guidelines; and
- 13.2. Submit regular reports to the DOE with respect to status of installation of monitoring, control and communication equipment to EGs and SGFs.



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Section 14. Responsibilities of the SO. The SO shall:

- 14.1. Coordinate with DUs with regard to connection of EGs or SGFs that are mandated to register to the WESM;
- 14.2. Ensure that monitoring and control of EGs and SGFs is pursuant to the standards set forth in the PGC, PDC and other applicable guidelines; and
- 14.3. Submit regular reports to the DOE with respect to the impact of EGs and SGFs to grid operations.

Section 15. Transitory Provisions. A transition period of one (1) year from the effectivity of this Circular is hereby allowed for EGs and SGFs whose host DU acts as their WESM MSP, provided, that the DU shall register with the MO as MSP and shall comply with the prescribed standards, procedures and timetables with regards to metering equipment, meter data collection and delivery and meter trouble report processing pursuant to the WESM Rules and Market Manual on Metering Standards and Procedures.

Section 16. Regulatory Support. The ERC shall ensure the provision of support in the regulatory requirements and approvals consistent with the policies set forth under this Circular and in accordance with existing laws and procedures. It shall also formulate guidelines or revise existing guidelines, as necessary, to support the implementation of this Circular. These guidelines may include, but not limited to, the following:

- a) Framework for Competitive Metering Services;
- b) Licensing of WESM MSPs;
- c) Rules for Issuance of Certificate of Compliance;
- d) PGC;
- e) PDC;
- f) Ancillary Service Procurement Plan;
- g) Open Access Transmission Rules; and
- h) Distribution Service Open Access Rules.

The ERC shall also implement enforcement and penalty mechanisms in cases of non-compliance to this Circular by any electric power industry participant identified herein.

Section 17. Separability Clause. If for any reason, any section or provision of this Circular is declared unconstitutional or invalid, such parts not affected shall remain valid and subsisting.

Section 18. Repealing Clause. Any department circular or issuance, contrary to or inconsistent with this Circular is hereby repealed, modified or amended accordingly.



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Section 19. Effectivity. This Circular shall take effect fifteen (15) days after publication in at least two (2) newspapers of general circulation and shall remain in effect until otherwise revoked.

Issued this _____ 2018 at the DOE, Energy Center, Rizal Drive, Bonifacio Global City, Taguig City, Metro Manila.

ALFONSO G. CUSI
Secretary

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