



DEPARTMENT CIRCULAR NO. 2021-XX-XXXX

**MANDATING THE NATIONAL TRANSMISSION CORPORATION (TRANSCO) AS
SMALL GRID SYSTEM OPERATOR (SO) IN OFF-GRIDS AREAS**

WHEREAS, Section 5 (d) of Republic Act No. 7638 or the “Department of Energy Act of 1992” declares, that the Department of Energy (DOE) has the powers and functions to supervise and control over all the government activities relative to energy projects in order to attain the goals embodied in this Act;

WHEREAS, Section 2 of Republic Act No. 9136, otherwise known as the Electric Power Industry Reform Act of 2001 (EPIRA), declares the policy of the State to: (i) ensure and accelerate the total electrification of the country; (ii) ensure the quality, reliability, security, and affordability of the supply of electric power; (iii) enhance the inflow of private capital and broaden the ownership base of the power generation, transmission and distribution sectors; and (iv) encourage the efficient use of energy and other modalities of demand-side management;

WHEREAS, Section 8 of the EPIRA created the National Transmission Corporation (TRANSCO), which shall assume the electrical transmission function of the National Power Corporation (NPC) and have the powers and functions hereinafter granted. The TRANSCO shall assume the authority and responsibility of the NPC for the planning, construction and centralized operation and maintenance of its high voltage transmission facilities, including grid interconnections and ancillary services;

WHEREAS, on 25 February 2013, the Energy Regulatory Commission (ERC) issued Resolution No. 15, Series of 2013 entitled “A Resolution Adopting the Philippine Small Grid Guidelines”, which is aimed to ensure the safe, reliable and efficient operation of the Small Grid systems in the Philippines;

WHEREAS, on 30 June 2014, the ERC also issued Resolution No. 15, Series of 2014 entitled “A Resolution Adopting the Philippine Small Grid Dispatch Protocol” that established the framework governing the operation, maintenance and development of the Small Grid systems and dispatch of power to ensure quality, reliability, security and affordability of electric power supply in areas not connected to the grids of Luzon, Visayas and Mindanao;

WHEREAS, Section 7 of the Philippine Small Grid Guidelines (PSGG) designates distribution utilities as the system operator (SO) for their respective small grids;

WHEREAS, on 25 January 2019, the DOE issued Department Circular No. DC2019-01-0001, entitled “Prescribing the Omnibus Guidelines on Enhancing Off-grid Power Development and Operation”, which prescribes an omnibus set of guidelines that incorporates and interrelates all existing and new policies and strategies for achieving quality, reliability, affordability, security, stability, efficiency and accountability of electric power services in off-grid areas.

WHEREAS, there is a need to fast-track the upgrading of the facilities and operation of power systems in the off-grid areas, including system operation and management in order to ensure the efficient dispatch of power for the purposes of improving reliability and reducing the cost of electricity and subsidies;

WHEREAS, the DOE conducted a review of all relevant policies and guidelines, and presented recommendations to the stakeholders through the consultation meetings conducted on the following dates:

- Focus Group Discussion on 11 March 2020 with the National Grid Corporation (NGCP), NPC and TRANSCO;
- Focus Group Discussion on 28 July 2020 with NPC and TRANSCO; and
- Public Consultations on [Date 1] and [Date 2].

NOW, THEREFORE, FOR AND IN CONSIDERATION OF THE FOREGOING PREMISES, the DOE hereby designates TRANSCO as the Small Grid SO for off-grid areas in accordance with the following guidelines:

RULE 1. PURPOSE

1.1. The specific purpose of these Guidelines shall be:

- 1.1.1. To ensure stable operation and control and optimal dispatch of power in small grids and other off-grid power systems of the country towards attaining adequate, reliable, secure, quality, and efficient electricity supply and services to end-users and reducing the cost of such supply and services;
- 1.1.2. To promote additional investments, new capabilities and advanced technologies towards enhancing the performance of the system operation in small grids and other off-grid power systems;

- 1.1.3. To formulate grid interconnection development plans and program for the off-grid areas and prepare the Distribution Utilities (DUs) and Generation Companies (GenCos) for Small Grid SO and the eventual interconnection of the small grids into the Grid as defined in the latest approved Island Interconnection Development Plan; and
- 1.1.4. To harmonize and clarify the operationalization of policies issued by the DOE as well as the regulatory guidelines of the ERC in relation to SO and other aspects of management of the small grids and off-grid power systems in the country.

RULE 2. DEFINITION OF TERMS

- 2.1. "Department of Energy" or "DOE" refers to the Government agency created by virtue of Republic Act No. 7638 and mandated by the EPIRA to supervise the restructuring of the electric power industry, among others;
- 2.2. "Dispatch Schedule" refers to the target loading levels in MW or kW for each scheduled Generating Unit or scheduled loads and for each reserve facility through the use of a dispatch optimization model.
- 2.3. "Dispatch Protocol" refer to the specific procedures, criteria, methods, and requirements in preparing a Dispatch Schedule to achieve least-cost generation;
- 2.4. Distribution Utility or "DU" refers to an Electric Cooperative, private corporation, government-owned utility or existing local government unit which has an exclusive franchise to operate a Distribution System.
- 2.5. "Energy Regulatory Commission" or "ERC" refers to the quasi-judicial regulatory agency created pursuant to the EPIRA;
- 2.6. "Generating Plant" shall refer to the facility, consisting of one or more Generating Units, where electric energy is produced from some other form of energy by means of a suitable apparatus;
- 2.7. "Generation Company" shall refer to any person or entity authorized by the ERC to operate facilities used in the generation of electricity;
- 2.8. "Grid Owner" shall refer to the party that owns the backbone High Voltage line (for Category 1, Category 2) or the Medium Voltage line (for other Categories) and is responsible for planning, operations and maintaining adequate capacity;

- 2.9. "High Voltage" shall refer to a voltage level exceeding 34.5 kV up to 230 kV;
- 2.10. "Grid" refers to the high voltage backbone system of interconnected transmission lines substations and related facilities, located each in Luzon, Visayas and Mindanao or as may be determined by the ERC in accordance with Section 45 of EPIRA;
- 2.11. "Low Voltage" shall refer to a voltage level not exceeding 1,000 volts or 1kV;
- 2.12. "Medium Voltage" shall refer to a voltage level exceeding one (1) kV up to 34.5 kV;
- 2.13. "Missionary Electrification Development Plan" or "MEDP" refers to the development plan of the DOE, updated annually, detailing the policies, strategies, plans and programs for missionary electrification, including the capital investment and operation in off-grid areas;
- 2.14. "National Electrification Administration" or "NEA" refers to the Government agency created under Presidential Decree No. 269, as amended, to supervise the electric cooperatives, among others;
- 2.15. "National Transmission Corporation" or "TRANSCO" refers to the corporation organized pursuant to Republic Act No. 9136 to acquire all transmission assets of the NPC and mandated by this Circular to serve as the Small Grid System Operator for Small Grids and other off-grid areas under this Circular;
- 2.16. "Off-Grid Area" refers to an area or system that is not connected to the Grid;
- 2.17. "Omnibus Off-Grid Guidelines" refers to DOE Department Circular No. DC2019-01-0001;
- 2.18. "Philippine Small Grid Guidelines" or "PSGG" shall refer to Resolution No. 15, Series of 2013 issued by the ERC;
- 2.19. "Philippine Small Grid Dispatch Protocol" or "PSGDP" shall refer to Resolution No. 15, Series of 2014 issued by the ERC;
- 2.20. "Power Supply Agreement" or "PSA" shall refer to an agreement between a power producer and a DU for the supply of power;

- 2.21. "Small Grid Control Centers" or "SGCC" shall refer to the control center that operate and control the Small Grid power system;
- 2.22. "Small Grid System Operator" or "Small Grid SO" shall refer to the party responsible for generation dispatch and real-time control of the power system in off-grid areas through the management of operating reserves, reactive power support, black start and other operating requirements to ensure safety, power quality, stability, reliability and security of the Small Grid.
- 2.23. "Small Grid User" refers to a person or entity that uses the Small Grid and related facilities;
- 2.24. "Universal Charge for Missionary Electrification" or "UC-ME" refers to the portion of the Universal Charge which is designated for Missionary Electrification.

RULE 3. TRANSCO AS SMALL GRID SYSTEM OPERATOR IN OFF-GRID AREAS

For purposes of this Circular, Small Grid shall refer to the electric power system in off-grid areas composed of an interconnection power generation facilities and backbone system of High Voltage and/or Medium Voltage lines, substations and other related facilities not connected to the National Grid in Luzon, Visayas and Mindanao;

- 3.1. Rule 7 of Department Circular No. 2019-01-0001 is hereby amended such that the TRANSCO shall serve as the System Operator in a small grid under Categories 1, 2 and 3 as defined by the Philippine Small Grid Guidelines (PSGG):
- 3.2. The DU shall remain as the Small Grid SO in areas classified as Category 4 as defined by the PSGG. Any DUs seeking a Third-Party SO to perform the function on its behalf shall follow the prescribed procedure as stated in Rule 7 of DC2019-01-0001.
- 3.3. The National Power Corporation – Small Power Utilities Group (NPC-SPUG) or any entity operating in off-grid areas shall function as Small Grid SO in areas classified as Category 5 under the PSGG.

RULE 4. SO IMPLEMENTATION PLAN

- 4.1. Within 60 days upon the effectivity of this Circular, the TRANSCO shall submit to the DOE a Small Grid SO Implementation Plan as well as Capital and Operating Expenditure Program that defines the timeline of the areas to be covered by its Small Grid SO services in the next five (5) years including the following in accordance with PSGG and PSGDP while taking into consideration the existing Power Supply Agreements (PSAs) of the concerned DUs with their respective existing power suppliers towards the safe, reliable, secured, efficient, and least-cost electricity services:
 - 4.1.1. Development of an area-specific dispatch protocol;
 - 4.1.2. Control strategies and procedures;
 - 4.1.3. Supporting tools for the efficient control and dispatch of power in the Small Grid;
 - 4.1.4. Basis or criteria for entry in the area as System Operator in accordance to Rule 3 of this Circular; and
 - 4.1.5. List of facilities to be taken-over from the concerned DU or to be shared between the DU and TRANSCO, if any.
- 4.2. The Small Grid SO Implementation Plan, as well as Capital and Operating Expenditure Program shall be updated annually as approved and endorsed by the TRANSCO Board for integration to the Missionary Electrification Development Plan not later than January of the current year.

RULE 5. ADDITIONAL RESPONSIBILITIES OF TRANSCO AS SMALL GRID SO IN OFF-GRID AREAS

In connection to its function as SO, the TRANSCO shall also engage in the following collaboration:

- 5.1. Assist the concerned DU and other stakeholders in the conduct of analytical studies in the formulation of their optimal power development plan to form part of the Distribution Development Plan (DDP), including the Power Supply Procurement Plan (PSPP) and in the preparation of their individual Universal Charge for Missionary Electrification (UC-ME) subsidy rationalization and graduation plan which shall include:
 - 5.1.1. Optimal generation expansion planning, which specifies the least-cost capacity addition, technologies, location and timing that meets the reliability performance standards prescribed by the PSGG;

- 5.1.2. Optimal development of the backbone network considering the optimal generation expansion plan, DDP of the DUs, and eventual interconnection of the Small Grid to the Main Grid; and
 - 5.1.3. Island Interconnection Development Plan, in coordination with the National Grid Corporation of the Philippines and the concerned DU.
- 5.2. Provide useful information in verifying the UC-ME claims for the eligible electricity generated and delivered by the power plants of NPPs, concerned DU and other suppliers as may be needed by the NPC as UC-ME petitioner.
- 5.3. For all Small Grid interconnection project:
- 5.3.1. Formulate a readiness program and prepare the Small Grid and its stakeholders for the eventual interconnection of the area into the Grid through technical advisories and capacity building of the concerned DUs in upgrading its protection system, communication, and automation of distribution monitoring, as well as the eventual adoption of new procedures that are compliant or consistent with the rules, practices and protocols in the Grid;
 - 5.3.2. Provide updates to the DOE, ERC, DU and other stakeholders on the schedules of the planning activities and actual implementation of the interconnection projects to the Grid; and
 - 5.3.3. Advise the DU and the concerned NPPs in closing out existing PSAs that will be severely affected by the interconnection for purposes of reducing the cost of potential stranded contracts.
- 5.4. Submit Annual Reports containing results of the operation, performance assessments and recommendations to the DOE, NEA, ERC and the concerned DU.

RULE 6. OPERATIONALIZATION

- 6.1. In accordance with its SO Implementation Plan as defined in Rule 4 of this Circular, the TRANSCO shall initiate and coordinate with the concerned off-grid DU for the expedient a of the SO functions.

- 6.2. The off-grid DU shall provide the necessary assistance to TRANSCO to ensure the smooth transfer of SO function.
- 6.3. The performance of the SO functions in the Small Grids shall be fully guided by the responsibilities, technical standards, procedures and protocols as defined under the PSGG and the PSGDP.
- 6.4. The NPC and off-grid DUs, with the assistance of NEA in the case of Electric Cooperatives (ECs), shall enter into an agreement with regard to the assumption of NPC-owned transmission and substation facilities in accordance with existing laws and rules on the utilization and/or disposal of government assets.
- 6.5. The TRANSCO shall establish a Small Grid Control Centers and develop tools for system operation to effectively carry out its function as Small Grid SO in assigned off-grid areas under this Circular.
- 6.6. The TRANSCO shall establish a SO Technical Committee consisting of the SO manager as Head, DU, the NEA, NPC, and representatives from other users of the Small Grid, to formulate specific rules or standards in the governance of all activities of the SO as stated in the PSGG and PSGDP. The Committee shall adopt its own business rules to undertake its responsibilities.
- 6.7. Based on its review of DDP including the PSPP of ECs, the NEA shall determine the status and timeline of the system development in all off-grid areas and submit the same to the TRANSCO, copy furnished DOE, ERC and NPC, with a list of Small Grids that may qualify for the SO services of TRANSCO in accordance with Rule 3 of this Circular.

RULE 7. CAPACITY BUILDING FOR SYSTEM OPERATORS IN SMALL GRIDS AND OTHER OFF-GRID AREAS

- 7.1. The TRANSCO shall be responsible to conduct capacity building activities such as trainings, workshops, and other advisory services to DUs in enhancing their capabilities to perform their respective SO functions in the Small Grids.
- 7.2. The TRANSCO shall also provide an annual budget for the capacity building and trainings of its SO officers and personnel as well as the SO officers and personnel of off-grid ECs performing SO functions in their respective areas, as necessary.

RULE 8. REGULATORY SUPPORT

- 8.1. The ERC shall provide the necessary support for the implementation of this Circular including the amendment of the PSGG and PSGDP, as may be necessary.
- 8.2. In accordance with Department Circular No. DC2019-01-0001, the ERC shall develop rules and procedures in reviewing and determining the corresponding cost recovery and rate adjustment in off-grid areas.

RULE 9. TRANSITORY PROVISIONS

- 9.1. Upon the effectivity of this Circular, the TRANSCO shall directly coordinate with the concerned off-grid DUs to facilitate the expedient assumption of the SO functions in small grids.
- 9.2. Upon the DOE's approval of its first SO Implementation Plan, TRANSCO shall notify within ten (10) days the ERC and NEA of the initial list of priority small grids to be covered by its SO services.
- 9.3. The off-grid DU shall continue to function as the System Operator in its area until the assumption of TRANSCO, NPC, or any third-party SO.

RULE 10. REPEALING CLAUSE

- 10.1 Any department circular or issuance, contrary or inconsistent with these Rules is hereby repealed, modified or amended accordingly.
- 10.2 Nothing in this Circular shall be construed to affect any vested rights acquired from institutions or mechanisms existing prior to this Circular.
- 10.3 This Circular shall be applied prospectively.

RULE 11. SEPARABILITY CLAUSE

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

RULE 12. EFFECTIVITY

This Circular shall take effect fifteen (15) days after its publication in at least two (2) newspapers of general circulation. Copies of this Circular shall be filed with the University of the Philippines Law Center — Office of the National Administrative Register (UPLC-ONAR).

This Circular shall remain in effect until otherwise revoked.

Issued on _____ at Energy Center, Bonifacio Global City, Taguig City.

ALFONSO G. CUSI
Secretary

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