DEPARTMENT CIRCULAR NO.

RULES AND PROCEDURES FOR IMPLEMENTING DEPARTMENT CIRCULAR NO. 2010-03-0003 AND CREATING THE GRID RELIABILITY TASK FORCE

WHEREAS, the Electric Power Industry Reform Act of 2001 (EPIRA) declares the policy of the State to ensure the quality, reliability, security and affordability of the supply of electric power, a mandate vested upon DOE;

WHEREAS, Chapter III, Section 37(I) of EPIRA provides that DOE shall formulate and implement programs, including a system of providing incentives and penalties, for the judicious and efficient use of energy in all energy-consuming sectors of the economy;

WHEREAS, Chapter III, Sections 37(p-q) of EPIRA provides that DOE shall formulate such rules and regulations and exercise such other powers as may be necessary to implement the objectives of EPIRA;

WHEREAS, pursuant to its mandate, DOE issued DC 2010-03-0003 entitled "Directing All Power Generation Companies, The Transmission Service Provider, And All Distribution Utilities To Ensure Adequate And Reliable Electric Power Supply In The Country" on 26 February 2010 which was published on 05 March 2010 in a newspaper of general circulation and became effective on 20 March 2010;

WHEREAS, DC 2010-03-0003 Section 3.3 prescribes that NGCP shall submit to DOE for consideration the GOMP that specifies the availability and aggregate capability of the generating plants to meet the forecasted demand, which it shall prepare in consultation with TransCo.

WHEREAS, DC 2010-03-0003 Section 6 provides that DOE, through EPIMB, shall monitor the compliance of all Generation Companies, all Distribution Utilities and NGCP, and, in consultation with ERC, shall formulate and implement enforcement and penalty mechanisms in cases of non-compliance;

WHEREAS, DC 2010-03-0003 Section 6 further prescribes that DOE shall create a Grid Reliability Task Force to monitor and assess the overall reliability of the Grid and undertake the necessary studies and policy recommendations to DOE and ERC;

NOW, **THEREFORE**, premises considered, DOE hereby adopts the following implementing rules and procedures for the operational implementation of DC 2010-03-0003, entitled "Directing all Power Generation Companies, the Transmission Service Provider, and all Distribution Utilities to Ensure Adequate and Reliable Electric Power Supply in the Country."

Section 1. Title and Scope

1.1. Title

This set of rules and guidelines shall be referred to as the "Rules and Procedures for Implementing Department Circular No. 2010-03-0003 and Creating the Grid Reliability Task Force".

1.2. Scope of Coverage

The following shall be governed by these Implementing Rules and Procedures:

- 1.2.1. Generation Companies including IPP Administrators of power plants connected to the Grid and the National Power Corporation acting as operator of the government's remaining grid-connected generating assets, all referred to in this Circular as generators;
- 1.2.2. The National Transmission Corporation (TransCo) and its service concessionaire, the National Grid Corporation of the Philippines (NGCP);
- 1.2.3. The Philippine Electricity Market Corporation (PEMC);
- 1.2.4. Distribution Utilities (DUs) connected to the Grid, including any Retail Energy Supplier (RES) in the future, and Embedded Generators;
- 1.2.5. The Grid Reliability Task Force (GRTF) created pursuant to this Circular; and
- 1.2.6. Any other entity with a User System connected to the Grid.

Section 2. Definition of Terms

Unless stated otherwise, the definitions used in EPIRA, PGC, and PDC will be adopted in this Circular.

1. "Deactivated shutdown" refers to a condition where a generating unit is unavailable for service for an extended period of time for reasons not related to equipment.

- 2. "**DOE-EPIMB**" refers to the Electric Power Industry Management Bureau of the Department of Energy.
- 3. "Full accessibility / unrestricted access" refers to visitorial privileges to generation and transmission facilities for GRTF's conduct of outage investigations.
- 4. "GRTF" refers to the Grid Reliability Task Force, the body created under this Department Circular.
- 5. "Load curve" refers to a graph showing the electricity demand (in MW) from a generation facility as a function of time (in h).
- 6. "Maximum available capacity" refers to the power-producing capacity of a generator (in MW) as determined and/or verified by GRTF in coordination with ERC. This supersedes the definition used in DC 2010-03-0003.
- 7. "Outage investigation" refers to the act of investigating generation and transmission facilities for the purpose of determining the causes of sudden and unscheduled generation or transmission failure, among others.

Section 3. Creation of the Grid Reliability Task Force

The Grid Reliability Task Force is hereby created to (1) monitor and assess the overall reliability of the Grid and undertake necessary studies and policy recommendations to DOE pursuant to DC 2010-03-0003 Section 6 and (2) complement the functions of the Grid Reliability and Protection Sub Committee under Article 2.3 of PGC for the purpose of maintaining and enhancing the reliability of the generation, transmission, and distribution sectors of the Grid.

3.1. Members

GRTF shall be composed of the following:

Chairman : DOE Undersecretary

Co-Chairman: TransCo President

Members : GMC, 2 members

DMC. 2 members

PEMC Technical Committee, 1 member

PEMC ECO, 1 member PEMC MAG, 1 member TransCo, 2 members NGCP - System Operator, 4 members

Secretariat : DOE-EPIMB, 3 members

TransCo, 2 members

3.2. Specific Mandates

GRTF is hereby mandated to:

- 3.2.1. Monitor, enforce, and ensure compliance of relevant stakeholders to GOMP, performance and reliability standards and policies set forth under this Circular or as duly approved by DOE, and all other relevant existing laws, rules, and codes:
- 3.2.2. Conduct outage investigations such as but not limited to plant and substation inspections to determine and/or verify the cause of unscheduled, continuous, persistent and/or patterned plant outage or derating as well as inspection of substation and transmission line facilities to determine and/or verify the cause and/or extent of power disturbance or failure. GRTF shall send a notice of inspection to the concerned parties within twenty-four (24) hours of occurrence of outage, failure, or derating;
- 3.2.3. Report to the DOE Secretary copy furnished ERC its investigation findings within forty-eight (48) hours after occurrence of outage, failure, or derating;
- 3.2.4. Submit through DOE for ERC's consideration its proposed fines, penalties, and sanctions for noncompliance to this Circular, GOMP and all other relevant existing laws, rules, and codes leading to generation, transmission, or distribution failure;
- 3.2.5. Create its own compliance manual for market players and protocol in the conduct of inspection duly approved by DOE. After such approvals, said protocols shall be disseminated for proper information and to prevent abuse. GRTF shall establish a venue for concerned parties to answer investigation findings following due process;
- 3.2.6. In the event the penalties imposed do not ensure compliance such as when persistent violations lead to more profit despite the payment of fines, recommend to DOE for endorsement to ERC, JCPC, or Congress, actions including but not limited to cancellation of franchise and removal of personnel that are lacking in proficiency and/or of questionable integrity;
- 3.2.7. In coordination with ERC, determine and/or verify the maximum available capacities of power plants as may be necessary;

- 3.2.8. Arising from, but not limited to the actual Grid performance, make policy recommendations on reliability standards for the generation, transmission, and distribution sectors;
- 3.2.9. Review and publish reliability compliance and performance of generators, transmission lines and transformers, and other reliability-related studies, subject to DOE's rules and guidelines on posting reliability information;
- 3.2.10. Define and formulate reliability-related terms and calculation formulas in harmony with PGC, PDC, WESM Manuals, and other pertinent rules; and
- 3.2.11. Owing to the criticality of hydroelectric and geothermal power plants, formulate and recommend to DOE policies regarding dispatch of the same.

Section 4. Responsibilities of Generation Companies and IPP Administrators

4.1. Maximum Available Capacity

Generators shall always offer maximum available capacity in participating in the spot market.

4.2. Load Curves and Fuel Inventory for Fossil Fuel-based Plants

Every 7th day after the 25th of the month, natural gas-, coal-, and oil-based generators shall submit typical load curves for weekdays and weekends during the month to GRTF, including the following:

- 4.2.1. The corresponding fuel requirements for each curve;
- 4.2.2. The projected fuel consumption for the succeeding month;
- 4.2.3. As applicable, fuel inventory segregated between (a) fuel type and volume in store and (b) fuel type and volume in transit, and expected time of arrival; and
- 4.2.4. Actual fuel expended, gross generation, and energy sales for the month.

Data submitted shall be treated with utmost confidentiality and stored in DOE's databank for future policy directions.

4.3. Fuel Supply

4.3.1. Oil-based power plants shall always maintain fuel supply equivalent to at least fifteen (15) days of their requirements as in Section 4.2.2 above;

- 4.3.2. Coal-based power plants shall always maintain fuel supply equivalent to at least thirty (30) days of their requirements as in Section 4.2.2 above; and
- 4.3.3. During scheduled maintenance of Malampaya natural gas facilities, affected power plants shall always maintain fuel supply good for at least fifteen (15) days of their requirements as in Section 4.2.2 above.

4.4. Load Curves and Energy Resource Inventory for Renewable Energy Plants

Every 7th day after the 25th of the month, geothermal, hydroelectric, and other renewable energy generators shall submit typical load curves for weekdays and weekends during the month to GRTF, including the following:

- 4.4.1. As applicable, the corresponding geothermal steam volume, head, insolation, wind velocity, and any other applicable energy resource requirements for each curve;
- 4.4.2. The projected energy resource requirements for the succeeding month;
- 4.4.3. A report on the current status and a forecast of availability of the energy resource requirements of generating plants; and
- 4.4.4. As applicable, quantities of energy resources expended, gross generation, and energy sales for the month.

Data submitted shall be treated with utmost confidentiality and stored in DOE's databank for future policy directions.

4.5. Supply Interruption

- 4.5.1. All generators shall immediately notify and coordinate with NGCP any planned activity such as maintenance shutdown, in accordance with PGC;
- 4.5.2. All generators shall comply with GOMP and reliability standards and policies created by GRTF and duly approved by DOE, including those for forced outages, all of which shall serve as the measure of performance of generators;
- 4.5.3. In parallel with information to NGCP, all generators shall notify GRTF of any unscheduled plant outage or derating of the generating facility or any unit thereof within three (3) hours of occurrence. The report shall include a description of the causes of the unexpected shutdown and estimated time of resumption;
- 4.5.4. All generators shall seek prior clearance from DOE regarding any plans for deactivation or mothballing of existing generating facilities or facilities critical to the reliable operation of the Grid; and

4.5.5. As may be required by GRTF, all generators shall submit a Corrective and Preventive Action Report on major outages within a period prescribed by GRTF.

4.6. Coordination with the System Operator

- 4.6.1. All generators shall follow the protection relay setting set by NGCP. The protection system may include among others ALD, UF/OF, UV/OV, and system preservation facilities;
- 4.6.2. All generators shall, as far as practicable, install data communication infrastructure such as telecommunication equipment and RTU; and
- 4.6.3. As specified by NGCP, all generators shall submit data required to maintain Grid reliability to NGCP.

4.7. Inspection

- 4.7.1. Generators shall grant GRTF visitorial privileges in the form of full accessibility / unrestricted access to generation facilities in the event GRTF deems it necessary to conduct an inspection of facilities due to unexpected shutdown or capacity derating. GRTF will issue a notice of inspection to which generators must affirmatively respond within twenty-four (24) hours;
- 4.7.2. In cases of unscheduled, continuous, persistent and/or patterned plant outage or derating, generators shall allow full accessibility / unrestricted access to and inspection of plant operation and maintenance reports/logbooks made for the past thirty (30) days and plant facilities directly or indirectly related to power generation; and
- 4.7.3. Generators shall fully assist and assure the security of the members of GRTF in its conduct of inspection.

4.8. Ownership

Generators shall inform DOE of any change in ownership of the generation facility.

Section 5. Responsibilities of PEMC

For information purposes, PEMC shall report preliminary observations of anticompetitive behavior of generators for whatever purpose the same shall serve GRTF.

Section 6. Responsibilities of NGCP

6.1. Responsibilities as SO

- 6.1.1. NGCP shall prepare GOMP in a timely manner as prescribed in Section 6.5 of PGC and submit the same to DOE-EPIMB for its consideration;
- 6.1.2. NGCP shall implement and enforce GOMP;
- 6.1.3. NGCP shall impose pertinent requirements in PGC in ensuring the institutionalization of necessary connection agreements with all Grid users; and
- 6.1.4. NGCP shall report generators' noncompliance to dispatch instructions resulting in generation deficiency and report its findings to GRTF.

6.2. Reportorial Requirements

- 6.2.1. Every 7th day after the 25th of the month, NGCP shall submit to GRTF a summary chart of maximum transmission line and substation loadings for the month, which need not be coincidental, as a percentage of maximum capacity. NGCP shall include a contingency plan should facilities with loading exceeding 90% of maximum capacity fail during the succeeding month, including its logistical and time requirements;
- 6.2.2. Every 7th day after the 25th of the month, NGCP shall submit to GRTF a summary of supply reliability performance for the month, including, but not limited to, daily unserved energy requirements due to failures in both generation and distribution sectors:
- 6.2.3. Every 7th day after the 25th of the month, NGCP shall submit to GRTF a summary of daily energy offtakes of each DU during the month;
- 6.2.4. In areas where it is the SO, in accordance with Chapter 6 of PGC, NGCP shall report any significant outage to GRTF within fifteen (15) minutes of occurrence. In addition, NGCP shall submit a copy of the System Incident Report to GRTF as follows:

Time of Occurrence	Deadline of Submission	
12:01 am to 3:00 pm	5:00 pm of the same day	
3:01 pm to 12:00 am	10:00 am of the following day	

Data submitted shall be treated with utmost confidentiality and stored in DOE's databank for future policy directions;

6.2.5. NGCP shall submit a system disturbance analysis report to GRTF for every disturbance or failure of power facilities or the Grid within fifteen (15) days of occurrence; and

6.2.6. NGCP shall declare and report all changes to existing power facilities of the Grid including appurtenances or accessories that affect the operations and reliability of the system.

6.3. Deactivated Shutdown

NGCP shall undertake a rigid evaluation of circumstances attendant prior to approval of deactivated shutdown in accordance with the criteria laid down in the System Operator Procedure Manual.

6.4. Inspection

- 6.4.1. NGCP shall grant GRTF visitorial privileges in the form of full accessibility / unrestricted access to substations and transmission line facilities in the event GRTF deems it necessary to conduct an inspection of facilities due to power disturbance or interruption. GRTF will issue a notice of inspection to which NGCP must affirmatively respond within twenty-four (24) hours;
- 6.4.2. NGCP shall make available drawings, records, reports, logbooks and other related documents for review, analysis, and evaluation during inspection; and
- 6.4.3. NGCP shall fully assist and assure the security of the members of GRTF in its conduct of inspection.

Section 7. Responsibilities of Distribution Utilities and Directly-Connected Entities Including RES in the Future

7.1. Reportorial Requirements

- 7.1.1. Private DUs, LGU-owned DUs, Special Economic Zones, and Embedded Generators shall Submit a Monthly Operations Report to DOE-EPIMB every 25th day of the following month; and
- 7.1.2. ECs shall submit a Monthly Financial and Statistical Report to DOE-EPIMB every 25th day of the following month.

7.2. Reliability

7.2.1. DUs shall ensure that the cumulative daily undelivered energy for the month as a percentage of the average delivered energy for the day type for the month shall not exceed 100% if the failure to deliver is not due to generation or transmission failures; and

7.2.2. DUs shall notify GRTF immediately of any manual load dropping program and any changes therefrom.

7.3. Coordination with the System Operator

- 7.3.1. All DUs and directly-connected entities shall follow the protection relay setting set by NGCP. The protection system may include among others ALD, UF/OF, UV/OV, and system preservation facilities;
- 7.3.2. All DUs and directly-connected entities shall, as far as practicable, install data communication infrastructure such as telecommunication equipment and RTU; and
- 7.3.3. As specified by NGCP, all DUs and directly-connected entities shall submit data required to maintain Grid reliability to NGCP.

Section 8. Submission of Reportorial Requirements to DOE Field Offices

- 8.1. Generation companies and distribution utilities located in Visayas and Mindanao may submit their reportorial requirements to DOE's Visayas and Mindanao field offices.
- 8.2. The Directors of the field offices shall serve as liaison officers in the implementation of these Implementing Rules and Procedures.

Section 9. Separability Clause

If for any reason, any section or provision of these Implementing Rules and Procedures 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.

Should any task of GRTF duplicate or be similar to those being performed by ERC, GRTF shall not impair ERC in performance of its mandate. Rather, GRTF shall support and supplement ERC.

Section 10. Effectivity and Publication

newspaper of gener of the Philippines L	al circulation. Copies of this Ci aw Center - Office of the Nat	n (15) days from its publication in a rcular shall be filed with the University ional Administrative Register (UPLC-, transmission, distribution and supply
	_ day of o, Taguig City, Metro Manila.	_ 2012 at DOE, Energy Center, Merritt

JOSE RENE D. ALMENDRAS
Secretary