Establishment and Development of Competitive Renewable Energy Zones in the Country

WHEREAS, Sections 2(g) and (h) of Republic Act (RA) No. 9136, otherwise known as the "Electric Power Industry Reform Act of 2001" or "EPIRA", declare as a policy of the State, among others, to assure socially and environmentally compatible energy sources and infrastructure and promote the utilization of indigenous and new and renewable energy resources in power generation in order to reduce dependence on imported energy;

WHEREAS, Sections 2(a) and (b) of RA No. 9513, otherwise known as the "Renewable Energy Act of 2008" or "RE Act", declare, among others, the following policies of the State, to wit:

(a) Accelerate the exploration and development of renewable energy (RE) resources such as, but not limited to, biomass, solar, wind, hydro, geothermal and ocean energy sources, including hybrid systems to achieve energy self-reliance, through the adoption of sustainable energy development strategies to reduce the country’s dependence on fossil fuels and thereby minimize the country’s exposure to price fluctuations in the international markets, the effects of which spiral down to almost all sectors of the economy; and

(b) Establish the necessary infrastructure and mechanism to carry out the mandates specified in the RE Act and other existing laws;

WHEREAS, Sub-Paragraph (i), Section 37(e) of the EPIRA provides that, following the restructuring of the electricity sector, the Department of Energy (DOE) shall, among others, encourage private sector investments in the electricity sector and promote the development of indigenous and renewable energy sources; and

WHEREAS, in order to enable the efficient and cost-effective integration of variable RE sources into the existing national transmission systems, the DOE issued Department Circular (DC) No. DC2015-11-0017, entitled, "Creating a Technical Advisory Committee and Modelling Working Groups to Enable Variable Renewable Energy Integration and Installation Targets" with the objective of doing a grid integration study to determine the following key factors, namely: (i) potential grid reliability concerns with the scaling up of Variable REs (vREs); (ii) options to improve system flexibility and power system balance; and (iii) option for new installation and grid integration targets;
WHEREAS, in a study entitled “Greening the Grid: Solar and Wind Integration Study for the Luzon-Visayas Systems in the Philippines” (the “Study”), it was found, among others, that RE targets of thirty percent (30%) and fifty percent (50%) can be achieved by the said power system within 2030. These targets, however, require certain policy changes and regulatory support of the electric power industry;

WHEREAS, in pursuit of its mandate under the RE Act, the DOE is laying the ground work to implement various RE policy mechanisms such as the Renewable Portfolio Standards (RPS), establishment of RE Market for the trading of RE Certificates (RECs), and the Green Energy Options Program (GEOP);

WHEREAS, in planning for new transmission infrastructure and/or upgrades to existing transmission infrastructure, the DOE deems it necessary to ensure the cost-effective delivery of electricity generated in regions with abundant RE resources in order to attain sustainable, stable, secure, sufficient, accessible, and reasonably-priced electricity supply and services;

WHEREAS, to achieve this goal, the DOE recognizes the need to pursue and expand the scope of works by the Technical Advisory Committee (TAC) and Modelling Working Groups (MWG), both created under DC No. DC2015-11-0017, to further enhance the planning process and strengthen the implementation of the Philippine Energy Plan (PEP), Power Development Plan (PDP), Transmission Development Plan (TDP), and the National Renewable Energy Program (NREP), among others.

NOW THEREFORE, for and in consideration of the foregoing premises, the DOE hereby adopts the following:

SECTION 1. General Principles and Objectives. This Circular is intended to identify Competitive Renewable Energy Zones (CREZ) in the country and complement the Study.

The Philippine CREZ is intended to enhance the planning process and strengthen the implementation of the PEP, PDP, TDP and NREP. To achieve this, the DOE, in partnership with other stakeholders, shall identify and develop Renewable Energy Zones (RE Zones) and upgrade and expand transmission facilities through policy initiatives and activities that shall enable the optimal use of the indigenous RE resources of the country.

(a) The Philippine CREZ Process is hereby defined to support the DOE in the identification and establishment of the CREZ and preparation of the PDP. It shall likewise support the NGCP in planning transmission line enhancements (e.g., infrastructure upgrades, expansions and/or extensions) by developing a planning framework that shall direct the country’s transmission development to areas where potential RE resources
are located. At the end of the CREZ Process, several CREZs shall be identified and established in the country;

(b) The CREZ Process aims to support the DOE in overcoming RE development obstacles such as transmission constraints and regulatory barriers to financial investments by the private sector.

(c) The CREZ Process, shall:

(i) Identify candidate RE Zones, which represent geographic areas characterized by high-quality, low-cost RE potential in addition to high levels of private-sector developer interest;

(ii) Identify a set of transmission expansion and/or upgrade scenarios that enhance the deliverability of energy originating from candidate RE Zones;

(iii) Analyze the economic, operational, environmental, and other costs and benefits associated with the required transmission enhancement scenarios; and

(iv) Specify cost-effective transmission line enhancements proposed to be included in the TDP, as reviewed and approved by the DOE.

(d) Expansions of and upgrades to the existing system shall be evaluated as part of the reliability analyses and other assessments conducted in the TDP process.

(e) Any identified transmission line enhancement projects derived from the CREZ Process may be used as a form of justification in the approval of ERC.

SECTION 2. Scope and Application. This Circular shall apply to all agencies and entities identified in Sections 4 and 6 of this Circular and to all electric power industry participants.

(a) Study Area: The focus of the CREZ analysis shall include the Luzon, Visayas, and Mindanao interconnections.

(b) Agencies and electric power industry participants shall provide the necessary data and information identified in the Study needed to complete the applicable analyses.
SECTION 3. Composition of the CREZ Process Study Group. The CREZ Process shall be undertaken by the TAC. There shall likewise be Working Groups, to be created to support the TAC in achieving the objectives of the Study.

SECTION 4. Composition of the TAC. Following the structure established in DC No. DC2015-11-0017, the TAC shall consist of two types of members: the TAC Core Members and TAC Ad Hoc Members.

(a) The TAC shall provide guidance on the scenarios, methods, assumptions and interpretation of the results of the integrated clean energy generation and transmission planning analysis.

(b) The TAC Core Members shall be the regular attendees of all the meetings and activities related to the conduct of the integrated clean energy generation and transmission planning analysis, while the TAC Ad Hoc Members shall only be invited as deemed necessary.

(c) The TAC Core Members shall be comprised of the following officers/representatives:

(i) TAC Core Members

Chairperson : DOE Undersecretary, designated by the DOE Secretary

Members : Director, Renewable Energy Management Bureau (REMB) or his/her alternate, and designated technical staff

Director, Electric Power Industry Management Bureau (EPIMB) or his/her alternate, and designated technical staff

Director, Energy Policy and Planning Bureau (EPPB) or his/her alternate, and designated technical staff

Chairperson, National Renewable Energy Board (NREB) or his/her alternate, and designated technical staff

President, National Transmission Corporation (TransCo) or his/her alternate, and designated technical staff
Administrator, National Electrification Administration (NEA) or his/her alternate, and designated technical staff

President, National Grid Corporation of the Philippines (NGCP) – Luzon, Visayas, and Mindanao Systems Operations or their respective alternates, and designated technical staff

President, Philippine Electricity Market Corporation (PEMC) or Independent Electricity Market Operators (IEMO) or his/her alternate, and designated technical staff

Chairperson, Energy Regulatory Commission (ERC) or his/her alternate, and designated technical staff

Executive Director, Grid Management Committee (GMC) or his/her alternate, and designated technical staff

Executive Director, Distribution Management Committee (DMC) or his/her alternate, and designated technical staff

The DOE, upon recommendation of the TAC Core Members, shall invite other Government agencies and stakeholders as resource persons to ensure the objectives of the Philippine CREZ Process are met.

(ii) TAC Ad Hoc Members

The TAC Ad Hoc Members shall be comprised of one (1) representative from each of the following:

a) President, National Power Corporation (NPC), or his/her designated technical representative

b) President, Philippine National Oil Company (PNOC), or his/her designated technical representative

c) President, PNOC Renewables Corporation (PNOC-RC), or his/her designated technical representative
d) President, Power Sector Assets and Liabilities Management Corporation (PSALM), or his/her designated technical representative

e) Each of the Renewable Energy developer associations

f) Each of the Electric Power Industry Participants and associations

g) Academe

h) Grid Experts

i) Other agencies identified by TAC Core Members, as necessary

SECTION 5. Responsibilities of the TAC. The TAC shall have the following functions:

(a) Provide direction on the development, review, and validation of an integrated clean energy generation and transmission planning analysis;

(b) Assist the Technical Assistance Team, composed of the National Renewable Energy Laboratory and United States Agency for International Development, in developing analysis parameters, which include but are not limited to, the vision statement, detailed work plan, scenarios, and sensitivities;

(c) Review the methods, data sources, assumptions, and other key issues of the Zone Identification and Technical Analysis and the Generation and Transmission Modeling Working Groups and provide suggestions as would be appropriate;

(d) Provide input on criteria for excluding certain areas from consideration for RE development;

(e) Aid in evaluating candidate RE Zones;

(f) Assist in interpretation of the modeling results;

(g) Provide direction on the Generation and Transmission Modeling Working Group's recommendations;

(h) Link model outcomes with policy, regulatory, and planning processes;
(i) Ensure the technical rigor of the analysis; and

(j) Participate in future workshops and development of recommendations pertaining to integrated clean energy generation and transmission planning.

SECTION 6. Composition of the Working Groups (WG). There shall be two (2) WGs, namely: the Zone Identification and Technical Analysis Working Group and the Generation and Transmission Modelling Working Group. They shall provide support in the integrated clean energy generation and transmission planning analysis.

Each WG shall be led by the DOE and shall be comprised of two official representatives - one (1) permanent and one (1) alternate - from each of the following:

(a) Zone Identification and Technical Analysis WG

   (i) Department of Energy (DOE):
       a) Renewable Energy Management Bureau (REMB)
       b) Electric Power Industry Management Bureau (EPIMB)
       c) Energy Policy and Planning Bureau (EPPB)
       d) Information Technology and Management Services (ITMS)

   (ii) National Transmission Corporation (TransCo)
   (iii) National Electrification Administration (NEA)
   (iv) National Grid Corporation of the Philippines (NGCP)
   (v) Philippine Electricity Market Corporation (PEMC) or the Independent Electricity Market Operators (IEMO)
   (vi) Energy Regulatory Commission (ERC)
   (vii) Grid Management Committee (GMC)
   (viii) Distribution Management Committee (DMC)

(b) Generation and Transmission Modeling WG

   (i) Department of Energy (DOE):
       a) Electric Power Industry Management Bureau (EPIMB)
       b) Renewable Energy Management Bureau (REMB)
       c) Energy Policy and Planning Bureau (EPPB)

   (ii) National Transmission Corporation (TransCo)
   (iii) National Electrification Administration (NEA)
   (iv) National Grid Corporation of the Philippines (NGCP)
   (v) Philippine Electricity Market Corporation (PEMC) or the Independent Electricity Market Operators (IEMO)
(vi) Energy Regulatory Commission (ERC)
(vii) Grid Management Committee (GMC)
(viii) Distribution Management Committee (DMC)

The DOE, upon recommendation of the TAC Core Members, shall invite other Government agencies and stakeholders as resource persons or to become additional members of either of the WGs to ensure the objectives of the Philippine CREZ Process are met.

SECTION 7. Responsibilities of the WG. The Zone Identification and Technical Analysis and the Generation and Transmission Modeling WGs shall be responsible for the following:

(a) Zone Identification and Technical Analysis WG

(i) Support the identification and sharing of the best-available data sets for energy planning analyses;

(ii) Support the identification and analysis of geographic areas, or “CREZ Study Areas”, with high technical potential for RE development, including the identification of criteria for exclusion of certain areas for RE development;

(iii) Conduct economic resource analyses to generate clean energy supply curves for the study areas to assist developers and the regulatory authority in quantifying the resource that could be developed at certain costs in each study area;

(iv) Develop the parameters, collated from the inputs of various private sector developers themselves, to aid them in their decision to invest in CREZ;

(v) Develop a candidate CREZ map that presents zones with significant levels of high-quality clean energy potential in addition to a high levels of developer interest in a spatial format; and

(vi) Perform additional analyses as deemed necessary.

(b) Generation and Transmission Modeling WG

(i) Identify a set of transmission development scenarios that enhance the deliverability of energy originating from candidate RE Zones;

(ii) Analyze the costs and benefits associated with transmission development options. Benefits shall include, but are not limited to,
operational cost reductions (as determined through production cost modeling), environmental benefits, and economic development opportunities, as determined by the TAC Core Members and TAC Ad Hoc Members;

(iii) Submit a recommendation to NGCP on candidate CREZs and transmission enhancements to consider for inclusion in TDP; and

(iv) Perform additional analyses as deemed necessary.

(c) CREZ Technical Secretariat

(i) Coordinate with TAC and WG members for meetings, request for inputs/comments and other related activities of the CREZ program;

(ii) Compile all documents/data used in the study as requested from concerned agencies/entities for safe keeping and future reference;

(iii) Prepare highlights of meetings and disseminate the same to all members of TAC and WG;

(iv) Provide other technical and administrative support to the TAC and WG members as required; and

(v) Technical Secretariat shall come from REMB-NREB-Technical Services and Management Division.

SECTION 8. Responsibilities of Energy Stakeholders. All electric power industry participants, Government agencies and other energy stakeholders shall contribute to the attainment of the objectives of this Circular.

(a) Energy stakeholders shall provide data and information needed for the conduct and development of the integrated clean energy generation and transmission planning analysis;

(b) The DOE shall ensure the confidentiality of proprietary and commercially sensitive information, and the data provided shall solely be used for policy and planning purposes; and

(c) Once the CREZ has been identified, the DOE shall pursue, in coordination with other government agencies, craft the policies on the integrated clean energy generation and transmission planning analysis.
SECTION 9. 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 10. Repealing Clause. All previous circulars, orders, instructions, and other issuances inconsistent with the provisions of this Circular are hereby repealed or amended accordingly.

SECTION 11. Effectivity. This Circular shall take effect fifteen (15) days following its complete publication in two (2) newspapers of general circulation and shall remain in effect until otherwise revoked and certified true copies thereof shall be filed with the University of the Philippines Law Center – Office of the National Administrative Register.

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