THIRTEENTH CONGRESS OF THE REPUBLIC)
OF THE PHILIPPINES)
First Regular Session)

SENATE

S. B. NO. 2023

Introduced by SENATOR EDGARDO J. ANGARA

EXPLANATORY NOTE

Philippines, which is situated on the periphery of the Asia-Pacific belt and which boasts a successful track record of exploiting local abundant geothermal energy, exhibits a vast, well-mapped potential for New and Renewable Energy (NRE) resources. These indigenous NRE which include, among others, biomass, solar, wind, geothermal, hydropower and ocean energy, and other emerging energy sources are considered as both clean sources of energy and a viable alternative to providing electricity to off-grid barangays.

To date, the Philippines is already a major user of NREs. In fact, NREs as an alternative to conventional / fossil-fuel based energy source, represent the country's single energy source contributing around 28% of the total energy requirements. But since we still depend greatly on imported energy and fuel products (constituting 72% of our energy demands) and there are about 10,000 unelectrified barangays in the country, there exist a pervading need for the government to intensify efforts to tap indigenous energy sources to cope up with the increasing energy requirements.

Specifically, the country's ***wind energy*** potential is over 70,000 MW, PAGASA showing the national average mean wind power density of about 30.8 watts per square meter (W/m^2); using solar panels, we can generate 169 watts/m^2 for our ***solar energy*** applications, with an average solar radiation based on sunshine duration of 161.7 W/m^2 with a range of 128-203 W/m^2; the aggregate ***micro-hydro power*** potential is about 27.8 MW located in various areas of the country; our ***ocean energy*** resource area is 1,000 kms^2 which is attributed mainly on the Philippines's archipelagic nature, with an estimated potential capacity of about 265 million MW; and ***biomass potential*** will save us over 80 million barrels of fuel oil equivalent in the next four (4) years.

Thus said, the contribution of the utilization of NRE as an alternative indigenous energy resource to the country's energy requirements cannot be overemphasized.

This Bill seeks to strengthen and institutionalize current efforts to implement and develop decentralized, area-based and integrated energy program for the promotion, production, commercialization and utilization of renewable energy systems by providing benefits and incentives to entities and stakeholders engaged in the manufacture, distribution and use of these NREs.

These proposed reforms in our power sector is envisioned as a response to the perennial problems in the industry, with electricity tariffs that are among the highest in Asia, to speed up the extension of service coverage to all barangays by 2010 as well as the connection of all potential consumers by 2018, bringing electricity to all of 10.17 million potential consumers by 2025, and ultimately, achieving the Philippine vision of a sustainable energy system with renewables taking a lead in the process.

Indeed, it is high time that we pass this bill.

EDGARDO J. ANGARA
Senator

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AN ACT STRENGTHENING THE PHILIPPINE ENERGY PLAN FOR THE EXPLORATION, DEVELOPMENT, AND UTILIZATION OF NEW AND RENEWABLE ENERGY SYSTEMS USING INDIGENOUS RESOURCES AND FOR OTHER PURPOSES.

Be it enacted by the Senate and the House of Representatives of the Philippines in Congress assembled:

Chapter I

TITLE AND DECLARATION OF POLICY

Section 1. ***Short Title.*** This Act shall be known as the ***"Renewable Energy Resources Act of 2005."***

Section 2. ***Declaration of Policies.*** It is hereby declared the policy of the State to:

a) Advance the goals of energy self-sufficiency, energy affordability, rural electrification, energy security in the country's energy requirements both in electric power and fuel;

b) Reduce reliance on generation systems powered by imported fuels to minimize the effects of price fluctuations in the international market to the economy;

c) Promote and encourage the use of renewable energy sources by institutionalizing its use, including the development of national and local

c) Promote and encourage the use of renewable energy sources by institutionalizing its use, including the development of national and local capabilities in the use of renewable energy systems, and providing fiscal and non-fiscal benefits thereto;

d) Promote and prioritize the utilization of renewable energy resources for non-power application;

e) Adopt full cost accounting principles in the generation of electricity to rationalize the cost inherent in power generation and consequently, reduce harmful emissions generated therefrom; AND

f) Establish the necessary infrastructure to carry out the mandate set herein and other laws.

Towards this end, the State shall promote the exploration, development, and utilization of new and renewable energy systems (NRES) by:

a) Setting up mechanisms to develop local capabilities in the development and use of indigenous renewable energy sources;

b) Generating a conductive business environment to encourage investments and allow easier participation of the private sector in the development of renewable energy resources;

c) Promoting the development and use of indigenous renewable energy resources in consonance with environmental protection;

d) Developing opportunities for all stakeholders to participate in the planning and implementation of renewable energy projects and priorities; AND

e) Promoting greater private sector investment and allow easier participation in the implementation of renewable energy projects and activities.

Section 3. *Scope.* This Act shall establish the framework for the rationalization of all the cost related to the generation of electricity, the grant of fiscal and non-fiscal incentives to Renewable Energy components, projects and operations and the program to increase its utilization.

Section. 4. *Definition of Terms.* For purposes of this Act:

a) ***"Affiliated Renewable Energy Centers (AREC)"*** shall refer to institutions established by the DOE to provide extension and technical services at the national and local levels in the promotion and dissemination of renewable energy technologies. Specifically, it refers to any university, college, non-government organization or private volunteer organization certified by the DOE upon its compliance with the technical and legal requirements that shall be imposed by DOE;

b) ***"Alternative Fuels / Alternative Fuel Systems"*** refer to use of materials, machinery and / or equipment to generate power using non-petroleum fuels. The machinery and / or equipment may be modified from its original condition or an original equipment manufacturer (OEM) that allow the usage of alternative fuel or that further produce, handle, store, and / or utilize alternative fuels;

c) ***"Biomass Energy Systems"*** shall refer to energy systems that use biomass resources generated by extensive agriculture, livestock, and forestry industries to produce heat, steam, mechanical power, electricity, fuels and fuel additives, either through thermochemical, biochemical, or physiochemical processes;

d) ***"Biofuels"*** shall refer to liquid fuels and blending components produced from biomass feedstocks, such as: ethanol from corn, cassava, sugarcane and biodiesel from coconut and vegetable oil, used primarily for land, air and water transportation and other energy-using equipment designed for various purposes such as substitute or addictive to fossil-petroleum fuels;

e) ***"Biogas"*** shall refer to the gas produced from the anaerobic decomposition or organic materials;

f) ***"Biomass Resources"*** shall refer to natural or processed plants and plant materials, trees, crop residues, wood and bark residues, animal manure, and municipal solid waste or any organic that can be used in bioconversion process;

g) ***"Cooperating Research Institutions (CRI)"*** shall refer to institutions doing research and development activities in collaboration with the DOE for the advancement of New and Renewable Energy Systems (NRES);

h) ***"Conventional Energy Systems"*** shall refer to energy systems that use commercially-traded fuels such as petroleum products, coal and electricity produced from such fuels, including large-scale hydro and geothermal power plants;

i) ***"Department of Environment and Natural Resources (DENR)"*** refers to the government agency created pursuant to Executive Order No. 192;

j) ***"Department of Finance (DOF)"*** refers to the government agency created pursuant to Executive Order NO. 127, as amended;

k) ***"Department of Science and Technology (DOST)"*** refers to the government agency created pursuant to Executive Order No. 128;

l) ***"Distribution of Electricity"*** refers to the conveyance of electric power by a Distribution Utility through its distribution system pursuant to the provisions of Republic Act No. 9136 and its implementing rules and regulations;

m) ***"Distribution Utility"*** refers to any electric cooperative, private corporation, government-owned utility or existing local government unit which has an exclusive franchise to operate a distribution system in accordance with its franchise and Republic Act No. 9136;

n) ***"Energy Regulatory Commission (ERC)"*** refers to the independent regulatory agency created pursuant to Republic Act No. 9136;

o) ***"Generation Facility"*** refers to a facility for the production of electricity and / or thermal energy such as steam, hot or cold water;

p) ***"Geothermal Energy"*** refers to all geothermal fluids whether existing naturally or formed by the artificial introduction of fluids into naturally hot formation, heat energy in the earth, and any by-product derived from them;

q) ***"Geothermal Energy Systems"*** refer to machines or other equipment that converts geothermal energy into useful power;

r) ***"Geothermal Resources"*** shall refer to either i) all products of geothermal processes, embracing indigenous steam, hot water and hot brines; ii)) steam and other gases, hot water and hot brines resulting from water, gas, or other fluids artificially introduced into geothermal formations; iii) heat or associated energy found in geothermal formations; and iv) any by-product derived from them;

s) ***"Government Share"*** refers to the amount due the National Government and Local Government Units from the exploitation, development and utilization of naturally-occurring renewable energy;

t) ***"Grid"*** refers to the high voltage backbone system of interconnected transmission lines, substations and related facilities, located in each of Luzon, Visayas, and Mindanao, or as may otherwise be determined by the ERC in accordance with the implementing rules and regulations of Republic Act No. 9136;

u) ***"Hybrid Systems"*** shall refer to any power or energy generation facility which makes use of two or more types of technologies utilizing both conventional and / or renewable fuel sources, such as but not limited to integrated wind /diesel systems, integrated solar / wind systems, biomass / fossil fuel systems, hydro / fossil fuel systems, integrated solar / biomass systems, integrated wind / fossil fuel systems, with a minimum of ten

megawatts or ten percent (10%) of the annual energy output provided by the RES components of the hybrid systems, whichever is lower;

v) ***"Hydroelectric Power Systems or Hydropower Systems"*** shall refer to water-based energy systems which produce electricity by utilizing the kinetic energy of falling or running water to turn a turbine generator;

w) ***"Hydroelectric Power Development or Hydropower Development"*** shall refer to the construction and installation of a hydroelectric power-generating plant and its auxiliary facilities, such as diversion structure, headrace, penstock, substation, transmission, and machine shop, among others;

x) ***"Hydroelectric Power Resources or Hydropower Resources"*** shall refer to resources found technically feasible for development of hydropower projects which include rivers, lakes, waterfalls, irrigation canals, springs, ponds and other water bodies;

y) ***"Large or Conventional Hydroeletric Power Plants or Large or Conventional Hydro Plants"*** refer to electric power-generating plants which i) utilize the kinetic energy of falling or running water (run-of-river or impounding hydropower plants) to turn a turbine generator producing electricity; and ii) have installed capacities of more than 10,000 kilowatts (kWs);

z) ***"Micro-Hydro Power Systems"*** shall refer to small hydro-based energy systems which utilize water turbines with an installed capacity of less than 100 kilowatts (100 KWs) as may be determined by the DOE, to convert the energy from running or falling water into mechanical or electrical power;

aa) ***"Mini-Grid Systems"*** refer to electrical systems composed of power generating plant, distribution lines, substations and related facilities that are installed at isolated locations and are not connected to the Grid;

bb) ***"Mini-hydroelectric Power Plants or Mini-hydro Plants"*** refer to electric power-generating plants which i) utilize the kinetic energy of falling or running water (run-of-river hydropower plant) to turn a turbine generator

producing electricity; and ii) have installed capacities of more than 100 kilowatts but not more than 10,000 kilowatts;

cc) ***"Missionary Electrification"*** refers to the provision of basic electricity service in unviable areas with the aim of bringing the operations in these areas to viability levels;

dd) ***"National Power Corporation (NPC)"*** refers to the government corporation created under Republic Act No. 6395, as amended;

ee) ***"National Transmission Corporation (TRANSCO)"*** refers to the corporation created pursuant to Republic Act No. 9136 which is responsible for the planning, construction, and centralized operation and maintenance of high voltage transmission facilities, including grid interconnection and ancillary services;

ff) ***"New and Renewable Energy Systems (NRES)"*** shall refer to indigenous, small-scale, decentralized and modular energy systems which include production and use of renewable energy resources to produce heat, steam, mechanical power, electricity, fuels or fuel additives, excluding large-scale hydro and geothermal power plants;

gg) ***"Ocean Energy Systems"*** shall refer to energy systems that either convert ocean current to electrical energy, otherwise known as **'wave and tidal power systems'** or convert thermal gradient from the ocean surface to the bottom into electrical energy, otherwise known as **"Ocean Thermal Energy Conversion (OTEC) systems;"**

hh) ***"Off-Grid Systems"*** refer to electrical systems not connected to the wires and related facilities of the Grid;

ii) ***"On-Grid Systems"*** refer to electrical systems composed of interconnected transmission lines, distribution lines, substations and related facilities, for the purpose of conveyance of bulk power on the Grid;

jj) ***"Oxygenate Gasoline"*** shall refer to gasoline formulated with added substance such as menthanol, ethanol and ethyl tertiary butyl ether (ETBE) to increase the oxygen content and octane rating and make the fuel burn more cleanly, thereby reducing toxic tailpipe pollution, particularly carbon monoxide;

kk) ***"Power Development Program (PDP)"*** shall refer to the indicative plan for managing electricity demand through energy-efficient programs and for the upgrading, expansion, rehabilitation, repair and maintenance of power generation and transmission facilities, formulated and updated annually by the Department in coordination with the generation, transmission and distribution utility companies;

ll) ***"Renewable Energy Developers or RE Developers"*** refer to an individual or a group of individuals formed in accordance with existing Philippine Laws engaged in the exploration, development and utilization of renewable energy resources and actual operation of renewable energy systems / facilities;

mm) ***"Renewable Energy Resources"*** shall refer to indigenous resources, with a rapid renewable rate, and which do not have an upper limit on the total quantity to be used. These resources are renewed on a regular basis and shall include, among others, biomass, solar, wind, geothermal, hydropower and ocean energy, and other emerging energy sources using new technologies such as fuel cells and hydrogen cells;

nn) ***"Renewable Energy Service (Operating) Contract or RE Contract"*** refers to the service agreement between the Government, thru the Department of Energy, and RE Developer over a period in which the RE Developer has the exclusive right to a particular RE area for exploration and development. The RE Contract shall be divided into two (2) stages: the pre-development stage and the development / commercial stage. The preliminary assessment and feasibility study up to financial costing shall refer to the pre-development stage. The construction and installation of facilities up to operation phase shall refer to the development stage;

oo) ***"Renewable Energy Systems (RES)"*** refer to energy which convert renewable energy resources into useful energy forms, like electrical, mechanical, etc.;

pp) ***"Republic Act No. 9136 or Electric Power Industry Reform Act of 2001 (EPIRA Law)"*** refers to the law mandating the restructuring of the electric power sector and the privatization of NPC;

qq) ***"Rural Electrification"*** refers to the delivery of basic electricity services, consisting of power generation, sub-transmission, and /or extension of associated power delivery system that would bring about important social and economic benefits of the countryside;

rr) ***"Small Power Utilities Group (SPUG)"*** refers to the functional unit of the National Power Corporation mandated under Republic Act No. 9136 to pursue missionary electrification function;

ss) ***"Solar Energy"*** shall refer to the radiant energy of the sun;

tt) ***"Solar Energy Systems"*** shall refer to energy systems which directly tap and convert solar energy, either through solar thermal applications or through photovoltaic cells, into electricity;

uu) ***"Transmission of Electricity"*** refers to the conveyance of electricity through the high voltage backbone system;

vv) ***"Waste-to-Energy Technologies"*** shall refer to systems which convert biodegradable materials such as animal manure, agricultural waste, etc., into useful energy through chemical processes such as anaerobic digestion, fermentation and gasification, among others;

ww) ***"Wind Energy"*** shall refer to the kinetic energy of the wind converted into electrical or mechanical energy; AND

xx) ***"Wind Energy Systems"*** shall refer to energy systems which use wind turbines to tap wind energy and convert it to mechanical power as in windmill or electrical power in wind turbine systems;

Chapter II

ORGANIZATIONAL MANDATE

Section. 5. ***Lead Agency and Its Powers and Functions.*** In addition to its existing mandate under Republic Act 7638, as amended by Republic Act 9136 (EPIRA Law), the Department of Energy (DOE) shall have the following powers and functions under this Act:

a) Formulate, maintain and regularly update an integrated and comprehensive Philippine Renewable Energy Program (PREP) aimed at stepping up the exploration, development and utilization of renewable energy systems towards a self-sufficient, self-reliant energy requirements for the country;

b) Provide all the necessary and appropriate support services in the implementation of the PREP, including the facilitation of entry of foreign expertise and resources;

c) Establish a mechanism for the integration, rationalization and coordination of the various activities, projects and programs on renewable energy of all government agencies and instrumentalities;

d) Develop and implement specific policies, mechanisms and procedures encouraging the participation of the private sector including Independent Power Producers (IPPs), private individuals, non-governmental organizations (NGOs), private volunteer organizations, and other interested parties;

e) Expedite the processing, certification and approval of applications for RES projects through the establishment of relevant model operating contracts, standards, procedures, terms and conditions;

f) Formulate, maintain and regularly update an information system of renewable energy technologies and establishments with renewable energy systems, within six (6) months from the effectivity of this Act;

g) Impose such reasonable fees and charges in connection with the filing, processing, evaluation and approval of applications for New and Renewable Energy Systems' Projects;

h) Require the RE Developer to post a bond or guarantee of sufficient amount in favor of the Government and with surety or sureties satisfactory to the DOE upon the faithful performance by the RE Developer of any or all of the obligations under and pursuant to the RE operating contract within sixty (60) days after effective date of the contract;

i) Within six (6) months from the approval of this Act, promulgate in consultation with all stakeholders, including government agencies, such as the National Water Resources Board (NWRB), Department of Natural Resources-Environmental Management Bureau (DENR-EMB), Energy Regulatory Commission (ERC), Department of Finance (DOF), Department of Trade and Industry (DTI), among others, such rules and regulations as may be necessary to implement the objectives and provisions of this Act; AND

j) Exercise such powers and functions as are necessary or incidental to achieve the purposes of this Act.

Section 6. ***Institutionalization of Affiliated Renewable Energy Centers (ARECS).*** – There shall be established ARECs to serve as a support to the extension and technical services of the DOE in the field implementation of renewable energy projects pursuant to the objectives of this Act. An AREC can be a recipient of donations or grants from the DOE and other donor agencies to develop and strengthen their capabilities to effectively perform their responsibilities under the Renewable Energy Policy Framework. The Affiliated Non-conventional Energy Centers (ANECs) shall be known as ARECs upon evaluation and accreditation of the DOE.

Chapter III

ON-GRID RENEWABLE DEVELOPMENT

Section 7. *On-Grid Renewable Energy Generation.* – The DOE shall develop and implement a Renewable Portfolio Standard (RPS) that shall be imposed on all non-RE generators of electricity and shall mandate all grid-users, particularly the distribution utilities and electricity suppliers, a percentage utilization of electricity from eligible RES and targets fifty percent (50%) RES capacity of the total generation on the Grid. The timetable and scheme of implementation for this target shall be stipulated in the REPF and the Philippine Energy Plan.

Section 8. *Full Cost Accounting.* The DOE shall spearhead a multi-agency effort that shall determine the full cost involved in the generation of electricity. It shall then make all generators account for all the environmental, economic, health and other detrimental cost associated with or resulting from the production of electricity.

The DOE shall develop and implement a program of collecting fees from all generating plants and such fees shall be used to support the development and operation of clean and renewable sources of energy. Said fees shall be based on the level of emissions and their detrimental effects and shall accrue to the Renewable Energy Trust Fund established herein.

Section 9. *Renewable Energy Market (REM).* – To facilitate compliance with the provisions of this Act, the Department shall, in consultation with the Wholesale Electricity Spot Market (WESM), establish a Renewable Energy Market and promulgate the Rules for the same.

The Department, through the WESM shall also establish or appoint a Renewable Energy Registrar that shall issue, keep and verify Renewable Energy Certificates corresponding to energy generated from eligible Renewable Energy sources. Said certificates may be used for compliance with the RPS.

Section 10. *Intermittent Renewable Energy Generation.* – Specific for power generating facilities using intermittent RE sources such as wind and solar among

others, the DOE, in coordination with TRANSCO and other industry participants, shall facilitate the interconnection of these facilities to the main Grid and shall formulate production predictability incentive schemes (capacity forecast premium).

Section 11. *Green Energy Option.* A Green Energy Option program which provides end-users the option to choose renewable energy sources, shall be made available to all end-users. Towards this end, the DOE shall establish the necessary support and facilities and the modification of the Implementing Rules and Regulations (IRRs), WESM Rule or any other rule or regulation to implement the right to choose Renewable Energy.

End-users with a monthly average peak demand of at least one hundred kilowatts (100 kWs) for the preceding twelve months, may also directly contract for RE-based energy upon the promulgation of the IRRs thereof by the DOE; *Provided,* That the availing parties shall have at least one hundred kilowatts (100 kWs) as the RE Contract demands or source at least fifty-one percent (51%) of its requirements from RES, whichever is higher.

In line herewith, the Distribution Utilities, TRANSCO, WESM and all other parties involved in bringing about the success of the Green Energy Option cited above or any other variant promulgated by the DOE shall ensure and provide the workings for the physical connection and commercial arrangements required.

Section 12. *Net Metering Agreements.* A distribution utility shall, subject to technical considerations, enter into net-metering agreements with qualified distribution grid users at the user's request, up to a distributed generation market share of one percent (1%) of peak distribution grid demand. To qualify, a distribution grid user must generate their own power from renewable sources which shall be less than one hundred kilowatts, and shall meet any regulation set forth by the DOE.

The distribution utility will charge qualified users for no more than their net energy consumption at the standard retail rate. Likewise, it is obliged to credit net contributors at the prevailing bulk generation rate. Thereupon, the distribution

utility will be entitled to any renewable energy production certificate resulting from RE distributed generation for sale or use in the RPS.

The DOE shall promulgate the qualification requirements within one (1) year after the passage of this Act.

In line herewith, the Distribution Utilities, TRANSCO, WESM, and all other parties involved in bringing about the success of the Net Metering cited above or any other variant promulgated by the DOE shall ensure and provide the workings for the physical connection and commercial arrangements required.

Chapter IV
OFF-GRID RENEWABLE ENERGY MARKET

Section 13. ***Off-grid Renewable Energy Development Program.*** – The utilization of renewable energy resources in power generation in energizing off-grid barangays and households shall be prioritized; *Provided, However,* that the same will promote social economic returns in said concerned areas. Consistent with the provisions of Section 70 of the Republic Act No. 9136 and the Rules and Regulations promulgated therefore, the DOE, NPC-SPUG and National Electrification Administration , through the Rural Electric Cooperatives established in accordance to Law, shall prioritize the type of renewable energy technologies and systems on a least-cost basis. The DOE shall endeavor to devise schemes for the standardization of renewable energy equipment for efficient utilization.

Chapter V
OTHER RENEWABLE ENERGY MARKETS

Section 14. ***Promotion of Non-Power Renewable Energy Systems.*** – The DOE shall develop specific support programs for business entities, marketers and distributors of, among others, solar water heaters, windpumps, biomass-fired thermal systems and other non-power renewable energy equipment such as engines, machines and/or equipment capable of using alternative fuels or

fossil/alternative fuel blends as energy source. DOE shall ensure that these entities can also avail of the incentives provided for renewable energy markets and activities as specified under Section 24 of this Act.

Section 15. ***Renewable Energy and Ecotourism.*** – The DOT, in collaboration with the DOE, shall develop technical and financing support programs for ecotourism projects using renewable energy systems and establish accreditation system for the use of environment-friendly renewable energy resources in facilities located or to be constructed in tourists spots, such as beaches, spas, resort areas, cultural centers, etc. The DOT and DOE shall prepare a priority list of ecotourism projects with renewable energy component to promote viable investments in remote and rural areas. The BOI shall incorporate the same in the annual preparation of its Investment Priorities Plan.

Chapter VI
GOVERNMENT SHARE

Section 16. ***Uniform Government Sharing Scheme.*** – Notwithstanding any law to the contrary, all government shares from the proceeds of the exploration, development and utilization of RE generation projects shall be rationalized in accordance with the following:

a. The government's share shall be equal to at least two *per centum* (2%) of the gross revenues of the contractor for the exploration, development and utilization of geothermal resources and one and one half *per centum* (1.5%) of the gross revenues for other RE resources;

b. There shall be a reduction of the government's share in RE generation projects that are not yet commercially viable and are constructed in accordance with the DOE's Renewable Energy Policy Framework;

c. Sharing scheme between the national and local governments as set forth in the Local Government Code shall be duly respected; and

d. The DOF shall assist the DOE in the formulation of the rules and regulations to implement this provision.

The DOE shall ensure that in any instance, the production sharing it imposes shall not further penalize the RE Developer in terms of financial obligations to the Philippine government as compared to other non-RE power producer.

Chapter VII
ENVIRONMENTAL COMPLIANCE

Section 17. ***Compliance with Environmental Regulations.*** – All RE exploration, development, utilization, and RES operations shall be conducted in accordance with existing environmental regulations as prescribed by the DENR.

Section 18. ***Mandatory Restoration Work.*** – In all cases where the proposed hydroelectric power development entails the closure or stoppage of existing water outlets, passageways, connections, conduits, apertures or the like from the water source, it shall be mandatory for the hydropower operating contract holder to restore or reengineer such water outlets, passageways, connections, conduits, apertures or the like on its account or expense, and in such manner that existing users or appropriators shall not be permanently deprived of their use or appropriation.

In the event that the restoration is deemed not economically and technically feasible, the RE Developer shall instead enter into an agreement, under the guidance and supervision of the DOE, for the adequate and reasonable compensation of existing users.

In all other cases where the proposed RE development projects shall affect the environment in any manner, the RE operating contract holder shall be mandated to implement appropriate restoration works in the affected areas to its original conditions.

Chapter IX
GENERAL INCENTIVES

Section 19. ***Incentives for Renewable Energy Projects and Activities.*** – All RE Developers, operators, and users of RE facilities including expansion activities, for both power and non-power applications, as duly certified by the DOE and in consultation with the DOF and DTI, shall be entitled to the following privileges:

a. *Tax and Duty-Free Importation of Machinery, Equipment and Materials.* – Within the duration of a RE operating contract, importation of machinery and equipment, and materials and parts thereof, whether or not shipped with such machinery and equipment, including control and communication equipment, shall not be subject tariff duties and value-added tax: *Provided, However,* that the said machinery, equipment, materials and parts are: 1) not manufactured domestically in reasonable quantity and quality; 2) directly and actually needed and shall be used exclusively in the RE facilities for transformation into energy, and transmission of electric energy to the point of use; and 3) covered by shipping documents in the name of the duly registered Operator to whom the shipment will be directly delivered by customs authorities: *Provided, further,* that prior approval of the DOE is obtained before the importation of such machinery, equipment, materials and parts are made;

b. *Tax Credit on Domestic Capital Equipment.* – A tax credit equivalent to one hundred percent (100%) of the value of the value-added tax and custom duties that would have been paid on the machinery, equipment, materials and parts had these items been imported shall be given to a RE operating contract holder who purchases machinery, equipment, materials and parts from a domestic manufacturer for purposes set forth under the preceding paragraph (a) (2); *Provided,* That prior approval by the DOE was obtained by the local manufacturer; *Provided, Further,* That the acquisition of such machinery, equipment, materials, and parts shall be made within the validity of the RE operating contract;

c. *Real Estate Tax Exemption.* – Notwithstanding any law to the contrary, all lands, including easements, civil works, equipment, machinery, and other

improvements of a registered RE developer actually and exclusively used for RES facilities shall be exempted from the payment of any real estate tax; *Provided,* That the activities they engage in exhibit high social economic returns and necessary to assist reasonable recovery of large investments;

d. *Income Tax Holiday and Exemption.* – For the first eight (8) years of its actual commercial operation, the RE operating contract holder shall be fully exempt from income taxes levied by the National Government; and

e. *RE Production Predictability / Forecast Premium / Bonus.* – RE contract holder shall be entitled to a share of RE Production Premium/Bonus proportionate to the actual power generation from its RE facility as determined by the DOE. For this purpose, there is hereby established a Production Premium/Bonus Fund and for which one centavo (Php 0.01) for every kilowatt-hour sold shall be collected from every generating facilities by the TRANSCO and/or system market operator.

Section 20. *Hybrid and Cogeneration Systems.* The tax exemptions and/or incentives provided for in Section 20 shall be availed of by RE operating contract holders of hybrid and cogeneration systems, utilizing both RE sources and conventional energy; *Provided, However,* That tax exemptions and incentives shall apply only to the equipment, machinery and / or devices utilizing RE sources.

Section 21. *Intermittent RE Resources.* Subject to technical and financial feasibility considerations and WESM rules, qualified RE generating units with intermittent RE sources shall enjoy priority dispatch status. The DOE shall, in consultation with the industry participants promulgate the rules and regulations therefore.

Section 22. *Incentives for RE Commercialization.* – All manufacturers, fabricators and suppliers of locally-produced RE equipment and components duly recognized and accredited by the DOE, in consultation with DOST, DOF and DTI, shall be entitled to the following privileges.

(a) *Tax and Duty-Free Importation of Components, Parts, and Materials.* – All shipments necessary for the manufacture and/or fabrication of RE equipment and components shall be exempted to importation tariff and duties and value added tax; *Provided, However,* That said components, parts and materials are: i) not manufactured domestically in reasonable quantity and quality at reasonable prices; ii) actually, directly and exclusively used in the manufacture / fabrication of RE equipment; and iii) covered by shipping documents in the name of the duly registered manufacturer / fabricator to whom the shipment will be directly delivered by customs authorities: *Provided, Further,* that prior approval of the DOE was obtained before the importation of such components, parts and materials were made;

(b) *Tax Credit on Domestic Capital Components, Parts and Materials.*– A tax credit equivalent to one hundred percent (100%) of the value of the value-added tax and custom duties that would have been paid on the components, parts and materials, had these items been imported shall be given to a RE equipment manufacturer, fabricator, and supplier duly recognized and accredited by the DOE, who purchases RE components, parts and materials from a domestic manufacturer: *Provided,* That such components, materials and parts are directly needed and shall be used exclusively by the RE manufacturer, fabricator and supplier for the manufacture, fabrication and sale of RE equipment; *Provided, also,* That prior approval by the DOE was obtained by the local manufacturer;

(c) *Local Taxes* – All duly recognized and accredited RE equipment manufacturer / fabricator shall be exempted from taxes and fees imposed by local government units, such as real estate tax on lands, local business tax, building permits fees, among others; *Provided,* That the manufacturing / fabricating facilities are in compliance with the established performance standards certified by the DOE;

(d) *Special Realty Tax Rates on Equipment and Machinery.*– Any provision of the Real Property Tax Code or any other law to the contrary notwithstanding, realty and other taxes on civil works, equipment, machinery, and other improvements of a DOE recognized and accredited RE manufacturer,

fabricator and supplier of RE equipment shall not one percent (1%) of their original cost of such civil works, machinery, equipment, devices and/or other components;

(e) *Value-Added Tax Exemption.* – Exemption from the ten percent (10%) value-added tax on (i) the gross receipts derived from the sale of locally-manufactured RE equipment and components; (ii) imported and locally purchased machinery, equipment and devices described in items (a) and (b) hereof; and (iii) other local Value-Added Tax;

(f) *Income Tax Holiday and Exemption.* – For eight (8) years starting from the date of recognition / accreditation, a RE manufacturer, fabricator and supplier of RE equipment shall be fully exempt from income taxes levied by the national Government.

Section 23. *Period of Grant of Fiscal Incentives.* The fiscal incentives granted under this Act shall apply only to the first 2,500 mW capacity sources from RE upon approval of this Act or shall cease to have force and effect twenty (20) years after the approval of this Act, whichever comes first. Thereafter, the tax treatment applicable to the parties concerned prior to the passage of this Act shall thereafter apply.

Section 24. *Renewable Energy One Stop Shop (REOSS).* There is hereby created a Renewable Energy One Stop Shop (REOSS) under the administration and direct supervision of the DOE through its appointed Undersecretary, which shall facilitate in the processing and approval of permits, among others.

To facilitate the development of RE projects, the DOF, DENR, National Power Corporation – Small Power Utilities Group (NPC-SPUG), TRANSCO, all Government Financial Institutions (GFIs), the private sector, academe, non-governmental organizations and other involved agencies shall extend technical assistance and designate a representative to the REOSS.

Section 25. *Renewable Energy Trust Fund (RETF).* – A Renewable Energy Trust Fund, to be administered by the DOE as a special account in any of the GFI, is hereby established for the development and utilization of renewable energy resources. The RETF shall be exclusively used to:

(a) Finance the research, development, demonstration and promotion of the widespread use or renewable energy systems for power and non-power applications;

(b) Conduct resource and market assessment studies for biomass, solar, wind, hydro, tidal current, and ocean energy;

(c) Directly subsidize the development and operation of new RE resources to provide for their competitiveness in the market; *Provided,* That the grant thereof shall be done through a competitive and transparent manner;

(d) Create and operate the REOSS, where an RE database and all related laws, rules and regulations shall be made available to RE proponents and stakeholders; *Provided,* That no more than two *per centum* (2%) of the Fund shall be used for this purpose;

(e) Propagate RE knowledge by training, accrediting, and providing benefits to ARECs; AND

(f) Such other activities as are necessary or incidental to carry out the provisions of this Act.

For this purpose, there shall be appropriated an amount of One Billion Pesos (Php 1,000,000,000.00) from the General Appropriations Act (GAA).

The RETF shall be sourced from:

a. Fines and penalties;
b. Mandatory RES Contributions;
c. Fees exacted pursuant to this Act;
d. Demonstration Earnings;
e. Grants;
f. Donations; and

g. RE Production Predictability/Forecast Premium/Bonus.

The DOE shall manage and administer the said fund subject to existing government accounting and auditing procedures. Further, the DOE, in consultation with other government units and agencies, is hereby authorized to manage and disburse the funds to be used solely for the purposes enumerated herein in the form of grants, loans, equity investments, loan guarantees, and insurance or to access other local or international funds pursuant to the provisions of this Act.

Chapter X
GENERAL PROVISIONS

Section 26. *Creation of Renewable Energy Bureau.* – In accordance with the power of the Secretary and with the approval of the President, the Renewable Energy Bureau is hereby created for the effective management and administration of the renewable energy resources and development. The Renewable Energy Bureau shall have the following Divisions: Hydropower Division; Geothermal Division; Solar and Wind Division and Ocean and Biomass Division.

The Renewable Energy Bureau shall have the following powers and functions:

a. Assist in the formulation and implementation of policies for the efficient and economical transformation, conversion, processing, refining, market packaging and financing, transportation and storage of hydro, geothermal and other renewable energy resources such as wind, solar, biomass and ocean, and ensure their efficient and judicious utilization;

b. Monitor sectoral energy consumption and conduct efficient utilization audit, technical training, energy management advisory services, and technology application projects on efficient energy utilization;

c. Develop, promote and commercialize applications of biomass, solar, hydro, wind, wood and charcoal, and other renewable energy resources including new and more efficient and economical transformation, conversion,

processing, refining, marketing, distribution, transportation and storage technologies for renewable energy resources;

d. Assist in the implementation of an integrated rural electrification program to effectively address the energy self-sufficiency in rural communities and implement, monitor and regularly review the implementation program for efficient administration;

e. Provide information on renewable energy technologies and develop short- and long-term renewable energy technology development strategies;

f. Monitor the implementation of renewable energy projects in coordination with the DENR, National Water Resources Board (NWRB), National Commission on Indigenous People and other government agencies to ensure compliance with the existing regulations and prescribed environmental standards; AND

g. Monitor and supervise renewable energy projects implemented by government and private institutions including, affiliated renewable energy centers.

Section 27. *Product Standards and Testing Procedures.* – The DOE shall, whenever necessary and in consultation with the Bureau of Product Standards, shall if necessary, establish product standards and testing procedures for selected renewable energy products, equipment, devices and accessories, in accordance with existing international renewable energy testing and product standards. The DOE and DTI shall jointly identify and designate laboratories and research facilities as accredited renewable energy testing laboratories to undertake the testing and labeling of renewable energy products, systems and devices according to the approved standards and procedures.

Section 28. *Technology and Manpower Development Program.* – The DOE, in coordination with other government units and agencies, shall ensure sustained technology, manufacturing and manpower development programs to

increase the education, expertise, training, skills and awareness of planners, implementors, inventors, trainors, technicians and beneficiaries in the national and local levels in appropriate aspects of renewable energy development and utilization.

All foreign RE technology suppliers and manufacturers shall be required to conduct technology transfer activities to their proposed users and beneficiaries of the technology. The DOE shall ensure the capacity building sessions are incorporated into the work plan of the foreign technology suppliers prior to project implementation.

Section 29. ***Information Management.***- The DOE shall create, maintain and regularly update an information system of renewable energy resources, technologies, suppliers, companies and projects for the purposes of, but not limited to:

(1) Formulation of Annual energy and power development plans of the country;
(2) Information dissemination to the public who are interested to invest in renewable energy generation projects or in research and development studies, etc.;
(3) Monitoring and evaluation of existing technologies and projects; and
(4) Formulation of appropriate policies.

As such, the information system shall be backed up by a reliable database and shall include all relevant information for the development and commercialization of renewable energy systems. The DOE shall be responsible for the development of the institutional mechanism to ensure sustained maintenance and upgrading of the information exchange system.

Section 30. ***Financial Assistance Program.*** – Government financial institutions (GFIs) such as the Development Bank of the Philippines (DBP), Philippine National Bank (PNB), Government Service Insurance System (GSIS), Land Bank of the Philippines (LBP) and other government institutions that shall, in accordance with and to the extent allowed by the enabling provisions of their respective charters or applicable laws, accord high priority to applications for the

development, utilization and commercialization of RE projects, duly recommended and endorsed by the DOE.

Section 31. ***Adoption of Waste-to-Energy Technologies in Livestock Farms and Slaughterhouses.*** – The DOE shall, whenever practicable, require large-scale livestock farms and slaughterhouses to adopt waste-to-energy facilities such as biogas systems. It shall likewise facilitate the provision on technical assistance in the adoption of the waste-to-energy technologies in coordination with private companies. The DOE shall coordinate with the DENR for the regular monitoring and compliance of this provision.

Chapter XI
FINAL PROVISIONS

Section 32. ***Implementing Rules and Regulations (IRRs).*** – Within six (6) months from the effectivity of this Act, the DOE shall, in collaboration with all RE stakeholders, promulgate the Implementing Rules and Regulations.

Section 33. ***Penalty Clause.*** – The DOE shall formulate and promulgate appropriate penalties to any person who willfully violates violations of rules or regulations provided in this Act shall, upon conviction, be punished by a fine of not less than one hundred thousand pesos (P 100,000.00), or by imprisonment of not less than two (2) years but not more than five (5) years, or both, at the discretion of the court; *Provided, However,* That if the violations committed by a juridical person the penalty provided shall be imposed on the official or employee thereof responsible for the violation; *Provided, Further,* That if the violation is committed by a government official or employee including those in government-owned or controlled corporations, he / she shall, in an addition to the promulgated penalties provided herein, be subject to disciplinary administrative proceedings and penalties.

Section 34. *Official Development Assistance.* - The provision of Executive Order No. 230 of 986, on the power of the NEDA Board, and the rules and regulations governing the evaluation and authorization for the availment of Official Development Assistance notwithstanding the privatization of renewable energy facilities as provided for in this Act shall be eligible for foreign loans and grants without further evaluation by the NEDA Board, subject to Section 21, Article XII of the Constitution.

Section 35. *Separability Clause*. If for any reason any provision of this Act is declared unconstitutional or invalid, such parts not affected thereby shall remain in full force and effect.

Section 36. *Repealing Clause.* – All laws, orders, doctrines, decrees, rules and regulations or parts thereof, including Executive Order No. 462 *(Ocean, Solar and Wind)*, Executive Order No. 232, Republic Act No. 7156 *(Mini-Hydro Act)*, Republic Act No. 7160 *(Local Government Code)*, and Presidential Decree No. 1442 *(Geothermal Act)*, among others, inconsistent with any of the provisions of this Act are hereby repealed, amended or modified accordingly.

Section. 37. *Effectivity Clause.* This Act shall take effect fifteen (15) days after its full and complete publication in the Official Gazette or in at least two (2) newspapers of general circulation.

Approved,