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

SENATE

S.B. NO. **1085**

Introduced by **Senator TEOFISTO "TG" GUINGONA III**

EXPLANATORY NOTE

Access to energy is vital in achieving the government's goal of spurring economic activity to create livelihood and employment for 92.3 million Filipinos, 26.5 percent of which are currently living below the poverty threshold (National Statistics Office, 2012). The demand for energy is expected to increase even further in light of the country's growing population, currently pegged at 1.9 percent per year (NSO, 2012). The government basically addresses this situation two-fold: 1) by ensuring adequate supply through vigorous development of indigenous energy resources and promoting investments in the power sector, and 2) managing domestic energy consumption.

Based on the DOE 2010-2030 energy saving forecast projection, there is an annual energy saving potential of 3,455 kilotons of oil equivalent (KTOE) that can be contributed by the energy demand sector comprising of household, industrial, commercial, transport and agriculture sectors. It has a monetary equivalent value of PhP 122 million per year and enough to support socio-economic development of a certain region of the country. Likewise, such projected potential energy saving shall impact on the deferment or postponement of putting-up additional virtual power plant capacity equivalent to 340 Megawatts. On the other hand, the direct contribution of investments and job opportunities could help reciprocate in achieving a sustainable economic environment in this sector of energy. For the environment, a CO_2 reduction shall be in the level of 8.9 million tons per year which means reducing stress to the environment that have direct impact to the survival of the population. Henceforth, the Philippines can actively support global efforts to use energy efficiently as it is widely regarded as the most cost-effective means to reduce CO_2 emissions in the energy sector and mitigate climate change.

Due to the high cost of energy that fuels its economic growth and insufficient indigenous energy resources at this time, the country has to ensure that all present and future energy supply must be used in an efficient manner with minimal waste. This demand-side approach not only contributes to the national economy, but helps the environment as well through the reduction of harmful emissions caused by the combustion of fuel. Furthermore, it is a low-cost and relatively quick but effective solution to managing the nation's energy security.

While the government has espoused energy efficiency and conservation since the oil crisis of the early seventies, such policy has not been institutionalized through legislation.

Numerous executive orders and issuances had been issued to implement said policy, but the lack of an overall framework has precluded the crafting of comprehensive national energy efficiency and conservation programs involving all sectors of the economy and the population at large.

In view of the foregoing considerations, this Energy Efficiency and Conservation measure is being proposed to address the gap by setting an overall policy framework, promoting energy efficiency and conservation through various means, including fiscal and non-fiscal incentives, empowering the Department of Energy to effectively implement the same. Among the other features of the bill are providing incentives for significant capital investments and accreditation of energy service providers and energy manager/ professionals, information, education and communication activities, formulation of an energy utilization data base, setting of performance standards and enforcing compliance thereto.

Although this may require building the capacity of government to effectively perform its monitoring and regulatory functions, it does not necessarily entail substantial increases in expenditures as many of the foreseen activities can be undertaken through new modalities of cooperation such as public-private partnerships, international and regional cooperation and assistance from multilateral organizations.

In view of the foregoing; the passage of this bill is earnestly sought.

TEOFISTO "TG" GUINGONA III
Senator

Senate
Office of the Secretary

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Introduced by **Senator TEOFISTO "TG" GUINGONA III**

AN ACT INSTITUTIONALIZING ENERGY EFFICIENCY AND CONSERVATION, ENHANCING THE EFFICIENT USE OF ENERGY, GRANTING INCENTIVES TO ENERGY EFFICIENCY AND CONSERVATION PROJECTS, AND FOR OTHER PURPOSES

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

CHAPTER I

GENERAL PROVISIONS

SECTION 1. *Short Title.* – This Act shall be known as the "Energy Efficiency and Conservation Act of 2013."

SECTION 2. *Policy Declaration.* – It is hereby declared the policy of the State to institutionalize energy efficiency and conservation as a national way of life geared towards the efficient and judicious utilization of energy by formulating, developing, and implementing energy efficiency and conservation plans and programs to enhance energy supply security of the country, cushion the impact of the high price of imported fuels to local markets and protect the environment in support to the economic and social development goals of the country.

SECTION 3. *Role of Energy Users.* – All Energy users shall exert efforts to use every available energy resources judiciously and efficiently in compliance with the fundamental policies of this Act.

SECTION 4. *Scope.* – This Act shall establish a framework for introducing and institutionalizing fundamental policies on energy efficiency and conservation including the promotion of efficient and judicious utilization of energy and the definition of responsibilities of various government agencies and private entities.

SECTION 5. *Definition of Terms.* – For purposes of this Act, the following terms shall, unless the context indicates otherwise, have the following meanings:

(a) ***Certified Energy Manager (CEM)*** refers to a Professional who becomes eligible for this certification after demonstrating expertise in several areas ranging from standards for energy-consuming appliances, equipment, products, vehicles and systems; air quality; energy audits; procurement and financing. It recognizes individuals who have demonstrated high levels of experience, competence, proficiency and ethical fitness in the energy management profession. Type 2 Designated Establishments shall appoint a CEM who shall be responsible for management of energy consumption of its facility or facilities.

(b) ***Demand Side Management*** refers to measures undertaken by distribution utilities to encourage end-users in the proper management of their load to achieve efficiency in the utilization of fixed infrastructures in the systems;

(c) ***Designated Establishment (Type 1 / Type 2 Designated Establishment)*** refers to private entity in industrial, commercial, transport and power sectors consuming energy and/or having other index equivalent to such energy for the previous year beyond the level specified by the Department of Energy (DOE). Such establishments shall be categorized as Type 1 or Type 2 Designated Establishment, according to the annual energy consumption [Type 1: ≥1,000,000 but <2,000,000 Liters of Oil Equivalent (LOE), Type 2: ≥2,000,000 Liters of Oil Equivalent (LOE)];

(d) ***Distribution Utility*** refers to any electric cooperative, private corporation, government-owned utility or existing local government unit (LGU) which has an exclusive franchise to operate the system of wires extending between the delivery points of the transmission system and the customer point of connection. A distribution utility shall have the obligation to provide distribution services to any end-user within its franchise area;

(e) ***Energy Audit*** refers to the evaluation of energy consumption and review of current energy cost, to determine ways in which energy can be conserved to achieve savings. The three types of energy audit are walk-through audit, preliminary audit and detailed audit;

(f) ***Energy Conservation*** refers to reducing the loss and waste in various energy stages from energy production to energy consumption and using energy more efficiently and rationally through application of appropriate energy management system and adopting measures which are technologically feasible, economically sound and environmentally and socially affordable;

(g) ***Energy Conservation Officer (ECO)*** refers to a person appointed by Type 1 Designated Establishments responsible for the supervision and maintenance of facilities for the proper management of energy consumption and such other functions deemed necessary for the efficient and judicious utilization of energy prescribed under this Act;

(h) ***Energy Efficiency*** refers to the efficient utilization of energy in its various forms through cost-effective options towards the use of less energy for the same or higher performance than regular products or energy systems;

(i) ***Energy Management*** refers to the process of managing energy consumption to ensure that energy has been efficiently consumed;

(j) ***Energy Using Entities*** refers to all energy demand sectors such as commercial, industrial, transport, agricultural, household, government buildings and the power generation, transmission and distribution industry sectors;

(k) ***Energy Conservation Report*** refers to the periodic report submitted to the DOE by Type 2 Designated Establishments and Transmission Utility with regard to the EE&C plan. The items to be reported in the Energy Conservation Report shall be specified by the DOE;

(l) ***Energy Consumption Report*** refers to the periodic report submitted to the DOE by Type 1 or Type 2 Designated Establishments and Transmission Utility with regard to the energy consumption and energy loss and other status of energy use. The items to be reported in the Energy Consumption Report shall be specified by the DOE;

(m) ***Specific Energy Consumption (SEC)*** refers to the energy consumption volume required per unit, such as production volume, sales amount, transportation ton-km, transportation km, floor space and such other indicators relevant to energy consumption;

(n) ***System Loss*** refers to the difference between the electric energy purchased and generated and the electric energy sold by a Distribution Utility. For purposes of this Act, the term System Loss shall consist of the following components: Technical System Loss, referring to the loss inherent in the physical delivery of electric energy, including conductor loss, transformer core loss and technical errors in meters; Non-Technical Loss, referring to energy loss not related to the physical characteristics of the electrical system, including those attributable to pilferage, tampering of meters and erroneous meter reading; and Administrative Loss, referring to the energy required for the operation of the distribution system and any un-billed energy for community-related activities;

(o) ***Transmission Utility*** refers to any private corporation or government-owned utility which has an exclusive franchise to operate the system of wires extending from power generating units to the delivery points through the grid. A transmission utility shall have the obligation to provide distribution services to any end-user within its franchise area.; and

(p) ***Waste Heat Recovery*** refers to the extraction of heat from fluids (i.e., gases or liquids) produced in a thermodynamic or separation process, that would otherwise be vented to the atmosphere, reinjected to the ground or disposed of by other means, for power generation or other applications.

CHAPTER 2

TYPE 1 AND TYPE 2 DESIGNATED ESTABLISHMENTS

SECTION 6. *Type 1 Designated Establishments.* Establishments with an annual energy consumption equal to or more than 1,000,000 Liters of Oil Equivalent (LOE) but less than 2,000,000 LOE are hereby categorized as Type 1 Designated Establishment and shall include the following sectors:

a) Building Sector
    1) Commercial Building
    2) Hotel
    3) Hospital Building

4) Educational Institutions
5) Office Building

b) Industrial/Manufacturing(Medium size industrial/manufacturing plant)
1) Food and Beverages
2) Plastic
3) Metal Fabrication
4) Chemical
5) Appliance

c) Transport Sector (Fleet)
1) Railway
2) Road Transport
3) Sea Freight and Passenger Vessel
4) Air Transport cargo and passenger vessel

d) Power Sector
1) Power Generation
2) Distribution Utilities

SECTION 7. *Obligations of Type 1 Designated Establishments.* – Type 1 Designated Establishment shall have the following obligations:

a) Employ an Energy Conservation Officer (ECO) and duly notify the Department of Energy (DOE), said ECO's appointment or separation as soon as possible. The ECO shall manage the energy consumption of facilities, equipment and devices, the improvement and implementation of energy efficiency measures, the conduct of regular energy audit, energy monitoring and control and the preparation of periodic energy consumption report;

b) Keep records of monthly energy consumption data and other energy-related data;

c) Set up annual targets and plans for the implementation of energy efficiency and conservation projects or measures. Submit *a Semi-Annual Energy Consumption Report* to the DOE, not later than the 30th day of June and December;

d) Conduct, through competent energy auditors certified by bodies accredited by the DOE, or DOE-accredited energy service company or service provider, the periodic Energy Audit once every three (3) years and submit an Energy Audit Report to the DOE upon completion of the energy audit.

e) Improve average Specific Energy Consumption (SEC) by at least one percent (1%) year on year.

SECTION 8. *Type 2 Designated Establishments.* – Energy intensive establishments with an annual energy consumption equal to or more than 2,000,000 Liters of Oil Equivalent (LOE) are hereby categorized as Type 2 Designated Establishment and shall include the following sectors:

a) Building Sector
1) Commercial

2) Hotel
3) Hospital
4) Educational Institutions
5) Office

b) Industrial/Manufacturing sectors
1) Cement
2) Mining
3) Food and Beverages
4) Electronic/Semi-Conductor
5) Steel & Metal
6) Chemical
7) Vehicle
8) Appliance
9) Glass
10) Plastic
11) Others

c) Transport Sector (Fleet)
1) Railway
2) Road Transport Fleet
3) Sea Freight and Passenger Vessel
4) Air Transport cargo and passenger vessel

d) Power Sector
1) Power Generating Plants
2) Distribution and Transmission Utilities

SECTION 9. *Obligations of Type 2 Designated Establishments.* – Type 2 Designated Establishments shall have the following obligations:

a) Employ one (1) Certified Energy Manager (CEM), subject to the provisions of Section 11 of this Act, and duly notify the Department of Energy (DOE) said CEM's appointment or separation as soon as possible. The CEM shall manage the energy consumption of facilities, equipment and devices, the improvement and implementation of energy efficiency measures, the conduct of regular energy audit, energy monitoring and control, and the preparation of periodic energy consumption and energy conservation program reports of the establishment;

b) Keep records on monthly energy consumption data and other energy-related data;

c) Set up annual targets and plans for the implementation of energy efficiency and conservation projects;

d) Submit a *Semi-Annual Energy Consumption Report* and an *Annual Energy Conservation Program Report* to the DOE not later than the 30th day of June and December;

e) Conduct, through competent energy auditor certified by bodies accredited by the DOE or DOE-accredited energy service company or energy provider, periodic Energy Audit

once every three (3) years and submit Energy Audit Report to the DOE upon completion of the energy audit.

f) Improve average Specific Energy Consumption (SEC) by at least one percent (1%) year on year.

CHAPTER 3

ROLE OF THE DEPARTMENT OF ENERGY

SECTION 10. *Responsibilities of the DOE.* – The DOE shall be the primary government agency responsible for the planning, formulation and development of energy management policies and other related energy efficiency and conservation programs and plans. The DOE is shall consult and coordinate with other government agencies and the private sector or create an inter-agency committee, as may be deemed necessary, for the effective implementation of energy efficiency and conservation policies of the government. It shall also promote collaborative efforts with the business sector, particularly the commercial, industrial, transport and power sectors, to broaden and enhance their efficient and judicious utilization of energy. The DOE shall, in consultation with the DTI-BPS, require manufacturers, importers and dealers to comply with the Minimum Energy Performance Standards (MEPS) and to display the Energy Label showing the energy requirement and consumption efficiency of products on their packaging, and on the products themselves, among them designated machinery and equipment, appliances, vehicles and other fuel-using combustion equipment and electric devices

CHAPTER 4

CERTIFICATION FOR PROFESSIONAL COMPETENCY AND ACCREDITATION FOR PROFESSIONAL SERVICES

SECTION 11. *Certified Energy Manager (CEM) and Energy Conservation Officer (ECO).* – The Commission on Higher Education (CHED) and State Universities and Colleges (SCUs) shall formulate and develop appropriate training course modules for Energy Manager and Energy Conservation Officer under a Certificate Course Program for inclusion in the school curricula.

Similarly, competent Non-Profit Organizations and other private training institutions duly accredited by the DOE and CHED shall offer professional certificate programs for Energy Manager and Energy Conservation Officer.

SECTION 12. *Accreditation of Energy Service Company (ESCO) and other Energy Efficiency Service Provider (EESP).* – The Department of Energy shall promote and implement an Energy Service Company (ESCO) Accreditation System as an important component for market development measures and for the following purposes:

a) development of professional and qualified ESCOs and energy engineers;

b) enhance the capabilities of ESCOs, particularly in their energy auditing services;

c) enhance support services procurement and selection procedures;

d) enhance support to public sector incentive schemes in the promotion of energy efficiency; and

e) reduce energy wastage and eliminate false claims on energy efficiency among industry players.

The development of this sector shall expand the general service sector and stimulates economic development through enhancing cost competitiveness while at the same time strengthening Philippine energy security. The accreditation process of this energy service sector is a natural segment of the knowledge economy, providing sustainable environmental and energy-saving benefits.

CHAPTER 5

INCENTIVES FOR ENERGY EFFICIENCY AND CONSERVATION PROJECTS

SECTION 13. *Incentives for Energy Efficiency and Conservation Projects.* The DOE shall endorse projects that utilize pioneering energy efficient technologies to the Board of Investments (BOI) to avail of incentives for a period of five years (5) upon the effectivity of this Act. Such incentives shall include (a) tax and duty free importation of pioneering energy efficient technologies; or (b) income tax holiday.

CHAPTER 6

MISCELLANEOUS PROVISIONS

SECTION 14. *Recommendation, Disclosure and Order.* – Upon determination that an establishment has committed of any of the prohibited acts under Section 16 of this Act, the DOE may consider the following measures prior to the imposition of the appropriate sanctions/penalties for such violations:

(a) Provide citations in cases where the DOE finds materially insufficient reports, false returns, and non-submission of notifications or reports;

(b) Disclose the name of the establishment in cases where the establishment that has received a citation under the preceding paragraph, failed to remedy such citation by the DOE; and

(c) Issue an Order to the establishment to take measures in cases where the said establishment failed to follow or comply with the citation or recommendations issued by the

DOE. Failure on the part of the establishment to comply with such order shall be ground for imposition of penalties in accordance with Section 17 of this Act.

SECTION 15. *On-site Inspections* – For the effective enforcement of this Act, the DOE shall have the right to visit Designated Establishments to inspect energy-consuming facilities, evaluate energy management procedures, identify areas for efficiency improvement, and verify energy monitoring reports and other documents related to the compliance requirements of this Act.

CHAPTER 7

FINAL PROVISIONS

SECTION 16. *Prohibited Acts.* – The following acts shall be prohibited:

a) Failure and/or willful refusal to submit periodic reportorial compliance reports to the DOE;

b) Failure and/or willful refusal to appoint/designate an Energy Conservation Officer and Certified Energy Manager;

c) Failure to comply with the Order under Section 15 hereof; and

d) Willful refusal to submit energy audit report.

SECTION 17. *Penalties.* – Any person who willfully commits any of the prohibited acts enumerated under this Act shall, upon conviction, be liable for penalties that will be defined in the Implementing Rules and Regulations of this Act.

SECTION 18. *Contingency Powers.* – Upon the recommendation of the Secretary of Energy, in times of critical energy supply disruptions or imminent danger thereof, the President may direct the adoption of stringent energy conservation measures, including but not limited to power/fuel allocations or rationing; limiting the operating hours of commercial, industrial and similar establishments; restricting the use of government and private motor vehicles; staggering or limiting working hours in both public and private sectors; and the temporary closure of all energy intensive industries.

SECTION 19. *Appropriations.* – Such sums as may be necessary for the implementation of this act shall be taken from the current fiscal year appropriation of the Department of Energy. Thereafter, the amount needed for the implementation of the act shall be included in the annual general appropriation.

SECTION 20. *Implementing Rules and Regulations.* – The DOE shall, in consultation with concerned government agencies and/or entities, the energy, industrial and commercial sectors, and other relevant stakeholders, promulgate the Implementing Rules and Regulations (IRR) of the Act within six (6) months from the effectivity of this Act.

SECTION 21. *Separability Clause.* – If for any reason, any section or provision of this Act is declared unconstitutional or invalid, such parts not affected thereby shall remain in full force and effect.

SECTION 22. *Repealing Clause.* – All laws, Presidential decrees, executive orders, issuances rules and regulations, inconsistent with the provisions of this Act are hereby repealed or modified accordingly.

SECTION 23. *Effectivity.* – This Act shall take effect fifteen (15) days after its publication in at least two (2) newspapers of general circulation following its approval.

Approved,