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SENATE

S.B. No. 167

RECEIVED BY: *ja*

Introduced by Senator Sergio Osmeña 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 PhP122 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 CO2 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 CO2 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.

Early approval of this bill is earnestly requested.


SERGIO OSMEÑA III
Senator



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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

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

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

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

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

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

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

8 (b) “Demand Side Management” or “DSM” refers to measures undertaken by
9 distribution utilities to encourage end-users in the proper management of their load to achieve
10 efficiency in the utilization of fixed infrastructures in the system;

11 (c) “Designated Establishment” or “Type 1/Type 2 Designated Establishment) refers
12 to a private entity in the industrial, commercial, transport and power sectors consuming energy
13 and/or having other index equivalent to such energy for the previous year beyond the level
14 specific by the Department of Energy (DOE). Such establishments shall be categorized as Type
15 1 or Type 2 Designated Establishment, according to the annual energy consumption [Type 1:
16 $\geq 1,000,000$ but $< 2,000,000$ Liters of Oil Equivalent (LOE), Type 2: $\geq 2,000,000$ Liters of Oil
17 Equivalent (LOE);

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

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

26 (f) “Energy Conservation” refers to the act of reducing the loss and waste in various
27 energy stages from energy production to energy consumption and using energy more efficiently
28 and rationally through application of appropriate energy management system and adopting

1 measures which are technologically feasible, economically sound and environmentally and
2 socially affordable;

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

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

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

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

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

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

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

25 (n) "System Loss" refers to the difference between the electric energy purchased and
26 generated and the electric energy sold by a Distribution Utility. For purposes of this Act, the
27 term System Loss shall consist of the following components: Technical System Loss, referring
28 to the loss inherent in the physical delivery of electric energy, including conductor loss,
29 transformer core loss and technical errors in meters; Non-Technical Loss, referring to energy loss

1 not related to the physical characteristics of the electrical system, including those attributable to
2 pilferage, tampering of meters and erroneous meter reading; and Administrative Loss, referring
3 to the energy required for the operation of the distribution system and any un-billed energy for
4 community-related activities;

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

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

14 CHAPTER 2

15 TYPE 1 AND TYPE 2 DESIGNATED ESTABLISHMENTS

16 SEC. 6. *Type 1 Designated Establishments.* - Establishments with an annual energy
17 consumption equal to or more than 1,000,000 Liters of Oil Equivalent (LOE) but less than
18 2,000,000 LOE are hereby categorized as Type 1 Designated Establishments and shall include
19 the following sectors:

20 a) Building Sector

21 1) Commercial Building

22 2) Hotel

23 3) Hospital Building

24 4) Educational Institutions

25 5) Office Building

26 b) Industrial/Manufacturing (Medium-size industrial/manufacturing plants)

27 1) Food and Beverages

28 2) Plastic

29 3) Metal Fabrication

- 1 4) Chemical
- 2 5) Appliance
- 3 c) Transport Sector (Fleet)
- 4 1) Railway
- 5 2) Road Transport
- 6 3) Sea Freight and Passenger Vessel
- 7 4) Air Transport cargo and passenger vessel
- 8 d) Power Sector
- 9 1) Power Generation
- 10 2) Distribution Utilities

11 **SEC. 7. *Obligations of Type 1 Designates Establishments.*** – Type 1 Designated
12 Establishments shall have the following obligations:

- 13 a) Employ an Energy Conservation Officer (ECO) and duly notify the DOE of said
14 ECO's appointment or separation as soon as possible. The ECO shall manage the energy
15 consumption of facilities, equipment and devices, the improvement and implementation of
16 energy efficiency measures, the conduct of regular energy audit, energy monitoring and control
17 and the preparation of periodic energy consumption report;
- 18 b) Keep records of monthly energy consumption data and other energy-related data;
- 19 c) Set up annual targets and plans for the implementation of energy efficiency and
20 conservation projects or measures and submit *a Semi-Annual Energy Consumption Report* to the
21 DOE not later than 30th day of June and December of each year;
- 22 d) Conduct, through competent energy auditors certified by bodies accredited by the
23 DOE or by DOE-accredited energy service companies or service providers, a periodic Energy
24 Audit once every three (3) years and submit an Energy Audit Report to the DOE upon
25 completion of the said energy audit.
- 26 e) Improve the average Specific Energy Consumption (SEC) by at least one percent
27 (1%) every year.

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

4 a) **Building Sector**

- 5 1) Commercial
- 6 2) Hotel
- 7 3) Hospital
- 8 4) Educational Institutions
- 9 5) Office

10 b) **Industrial/Manufacturing Sectors**

- 11 1) Cement
- 12 2) Mining
- 13 3) Food and Beverages
- 14 4) Electronic/Semi-Conductor
- 15 5) Steel & metal
- 16 6) Chemical
- 17 7) Vehicle
- 18 8) Appliance
- 19 9) Glass
- 20 10) Plastic
- 21 11) Others

22 c) **Transport Sector (Fleet)**

- 23 1) Railway
- 24 2) Road Transport Fleet
- 25 3) Sea Freight and Passenger Vessel
- 26 4) Air Transport cargo and passenger vessel

27 d) **Power Sector**

- 28 1) Power Generating Plants
- 29 2) Distribution and Transmission Utilities

1 shall, in consultation with the Department of Trade and Industry-Bureau of Product Standards
2 (DTI-BPS), require manufacturers, importers and dealers to comply with the Minimum Energy
3 Performance Standards (MEPS) and to display the Energy Label Showing the energy
4 requirement and consumption efficiency of products on their packaging, and on the products
5 themselves, among them designated machinery and equipment, appliances, vehicles and other
6 fuel-using combustion equipment and electric devices.

7 CHAPTER 4

8 CERTIFICATION FOR PROFESSIONAL COMPETENCY AND ACCREDITATION 9 FOR PROFESSIONAL SERVICES

10 SEC. 11. *Certified Energy Manager (CEM) and Energy Conservation Officer (ECO).* –

11 The Commission on Higher Education (CHED) and State Universities and Colleges (SCUs) shall
12 formulate and develop appropriate training course modules for Energy Managers and Energy
13 Conservation Officers under a Certificate Course Program for inclusion in the school curricula.

14 Similarly, competent Non-Profit Organizations and other private training institutions duly
15 accredited by the DOE and CHED shall offer professional certificate programs for Energy
16 Managers and Energy Conservation officers.

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

- 21 a) Development of professional and qualified ESCOs and energy engineers;
- 22 b) Enhancement of capabilities of ESCOs, particularly in providing energy auditing
23 services;
- 24 c) Enhancement of support services procurement and selection procedures;
- 25 d) Enhancement of support to public sector incentive schemes in the promotion of
26 energy efficiency; and
- 27 e) Reduction of energy wastage and elimination of false claims on energy efficiency
28 among industry players.

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

6 CHAPTER 5

7 INCENTIVES FOR ENERGY EFFICIENCY AND CONSERVATION PROJECTS

8

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

14

CHAPTER 6

15

MISCELLANEOUS PROVISIONS

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

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

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

25 (c) Issue an Order to the establishment to take measures in cases where the said
26 establishment failed to follow or comply with the citation or recommendations issued by the
27 DOE. Failure on the part of the establishment to comply with such order shall be a ground for
28 the imposition of penalties in accordance with Section 17 of this Act.

1 and other relevant stakeholders, promulgate the Implementing Rules and Regulations (IRR) of
2 the Act within six (6) months from the effectivity of this Act.

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

6 **SEC. 22. *Repealing Clause.*** – All laws, Presidential Decrees, executive orders, rules and
7 regulations and other issuances inconsistent with the provisions of this Act are hereby repealed
8 or modified accordingly.

9 **SEC. 23. *Effectivity.*** – This Act shall take effect on the fifteenth day after its publication in
10 at least two (2) newspapers of general circulation.

11 Approved,