


SENATE

'14 AUG 12 P2:50

S. No. 2352

RECEIVED BY: 

Introduced by Senator Ralph G. Recto

AN ACT
PROMOTING THE DEVELOPMENT AND UTILIZATION OF RENEWABLE
ENERGY IN ALL GOVERNMENT BUILDINGS AND OFFICES, PROVIDING FUNDS
THEREFOR, AND FOR OTHER PURPOSES

Explanatory Note

Energy security is a critical factor in achieving our economic growth targets in the short-, medium- and long-term set at 6.5% this year, at 7.5% in 2015-16 and at 8.4% in 2017-20. At the same time, our government is hard-pressed to fulfill its commitments to de-carbonize the energy industry for Scenario 450¹, achieve 60% energy independence and pursue higher electrification rates², even as the population continues to grow at an average of 2.2% in 2010-2020 and 1.6% in 2020-2030.

Additional pressure comes from rising price of oil worldwide, since oil and other fossil fuels will continue to account for our energy consumption until 2020.³ (15,883.13 KTOE out of 28,190.27 KTOE, or Thousand Tonnes of Oil Equivalent) The International Energy Agency predicts world price at US\$128/Blue barrel (bbl) in 2035, using modeling that factor F&D costs (finding and development of new resources)⁴. On the other hand, the ORB (OPEC Reference Basket) projects an average nominal price of US\$110/bbl up to 2020 and US\$160/bbl by 2035⁵.

For the planning period of 2009-2030, the Philippines Development Plan 2011-2016 puts our energy deficit for the 20-year period in the different grids based on a 4.5 demand growth as follows: 11,900 MegaWatts in Luzon; 2,150 MW in the Visayas; and, 2,500 MW in Mindanao.

In the short-term, we are facing power supply deficit by grid from the Second Quarter of 2015 to 2018 as follows:

For Luzon: From April to May 2015, there is a projected deficit of 184 MegaWatts, on Available Capacity. (Based on a 4.2 percent peak demand growth rate and a 7% Gross Domestic Product growth rate target for 2013 to 2015.)

For Visayas: By November and December this year, the region faces a deficit of 30 to 90MW, on Available Capacity. (Based on a 7% peak demand growth rate and a 7% GDP growth rate target for 2013-15.)

For Mindanao: A 55-85MW power deficit is anticipated by November to December 2017, on Available Capacity. (Based on a 5.6% peak demand growth rate and 7% GDP growth rate target for 2013-15.)

¹ <http://www.worldenergyoutlook.org/>

² Philippine Development Plan 2011-16 Chapter 5 Accelerating Infrastructure Development.

³ Draft 2013-2020 Supply and Demand Outlook, As of August 28, 2013 Department of Energy

⁴ <http://www.ica.org/publications/freepublications/publication/WEIO2014.pdf>

⁵ OPEC Reference Basket [Saharan Blend (Algeria), Grassol (Angola), Oriente (Ecuador), Iran Heavy (Islamic Republic of Iran), Basra Light (Iraq), Kuwait Export (Kuwait), Es Sider (Libya), Bonny Light (Nigeria), Qatar Marine (Qatar), Arab Light (Saudi Arabia), Murban (UAE) and Mercy (Venezuela)]

Likewise, the Energy department forecasts average forced outage of the dependable capacity in the three regions, as follows: 6.6% for Luzon; 7% for Visayas; and, 3.41% for Mindanao.

This proposed measure seeks to alleviate an impending power crisis and to provide for the country's long-term energy security. Power supply deficits, whether short-term or long-term negatively affect economic growth targets, obstruct government's delivery of basic services, delay business expansion, constrict job opportunities and set back the country's competitiveness as we approach integration with the rest of Southeast Asia. The effects of power outages will be felt by millions of Filipinos through the years. To illustrate:

2013-2020 Projected Number of Customers of Distribution Utilities⁶

		2014	2015	2016	2017	2018
A.	Residential	15,092,345	15,683,107	16,294,631	16,851,974	17,423,173
B.	Commercial	1,148,502	1,190,507	1,235,445	1,281,898	1,330,257
C.	Industrial	38,847	39,849	40,955	42,108	43,354
D.	Others	317,751	329,699	342,395	355,707	369,857
E.	Total	16,597,445	17,243,162	17,913,425	18,531,687	19,166,641

To achieve a cost-effective solution to the looming power crisis, this Bill seeks to mandate the DPWH in coordination with the DOE to construct RE systems in and retrofit government buildings and offices, by installing Solar Energy Systems as Solar Energy is the most abundant RE resource and can be installed and generate power more speedily. This is in contrast to fossil fuel-based power plants that need a minimum of three to five years gestation period.

Solar Energy Systems can provide part of the Energy department's recommendation for the installation of 400-500 MW additional capacity. The projected 200 Megawatt deficit will be most felt next year from March to May, the months with highest demand.⁷

According to the RE resource assessment conducted by the DOE, the country's Solar Energy annual potential average is estimated at 5.1 kilowatt-hour (kWh)/m²/day⁸ which represents fuel input that is free-of-charge and will not affect our foreign currency reserves as imported petroleum and other fossil fuels do. In addition, the production and installation of materials and equipment for use in Solar Energy Systems incur minimal environmental and physical impacts.

Solar Energy Systems do not require extraction activities like large-scale mining or drilling which bring about negative environmental impacts. It does not generate Greenhouse Gases such as carbon and methane nor emit particulates that are the bane of fossil fuels. Most important, solar panels can be installed on rooftops and designated areas without disrupting activities or dislocating electric power consumers. Solar Energy systems also generate great savings versus fossil-fueled power plants whose feed stocks have to be transported over long distances for which generators incur transport or hauling costs.

This Bill also creates opportunities for employment in terms of new jobs generated and enhanced skills of Filipino labor in the RE industry that will push their competitive edge worldwide. Currently, the \$800 Million in direct investments in the RE industry is expected to create 3,500 new jobs. Meanwhile, by jumpstarting the RE industry through this Bill, the country will be well on its way towards achieving its target of 20,000 to 50,000 jobs in the RE industry by 2020.

⁶ Draft 2013-2020 Supply and Demand Outlook, As of 8-28-13. DOE

⁷ <https://www.doe.gov.ph/news-events/news/press-releases/2438-measures-to-address-2015-tight-supply-proposed>

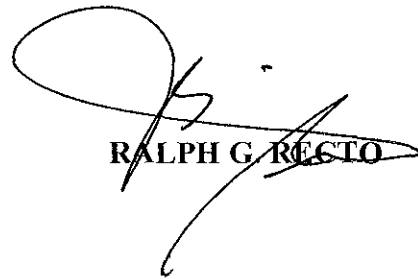
⁸ <https://www.doe.gov.ph/renewable-energy-res/biomass-solar-wind-and-ocean>

Likewise, this Bill will provide the impetus for the country to reach its target RE utilization of 15,000MW in 2030, from the current 5,000MW RE utilization.

The mandate and definite timelines provided for in this Bill shall enable the country to close the gaping power deficit, especially since several committed projects for 2015 have been delayed for technical and regulatory reasons.

The RE Systems to be established shall initially supply at least 10 percent (10%) of the electric power requirements of the government agencies in their respective buildings or offices, at the minimum, which shall be gradually increased so that continuous power supply will enable all government agencies to perform their vital functions.

Hence, the passage of this bill is earnestly sought.




RALPH G. RECTO

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

14 AUG 12 P2:50

SENATE

RECEIVED BY: 

S. No. 2352

Introduced by Senator Ralph G. Recto

AN ACT
PROMOTING THE DEVELOPMENT AND UTILIZATION OF RENEWABLE
ENERGY IN ALL GOVERNMENT BUILDINGS AND OFFICES, PROVIDING FUNDS
THEREFOR, AND FOR OTHER PURPOSES

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

1 **SECTION 1. Title.** – This Act shall be known as “The Green Energy Government
2 Offices Act of 2014”.

3 **SEC. 2. Declaration of Policies.** – It is hereby declared the policy of the State:

- 4 a) To mandate the development and utilization of renewable energy resources in
5 government buildings and offices;
- 6 b) To establish the infrastructure and mechanisms to ensure efficient, cost-effective and
7 sustainable supply of power from renewable energy systems; and
- 8 c) To ensure energy-sufficiency of government agencies for the prompt and unhampered
9 delivery of services to its constituents.

10 **SEC. 3. Coverage.** – This Act shall provide a framework for the establishment of
11 renewable energy systems in all government buildings and offices.

12 **SEC. 4. Definition of Terms.** – As used in this Act, the following terms and phrases are
13 herein defined:

- 14 a) Hybrid System shall refer to any power or energy generation facility which makes use
15 of two or more types of technologies utilizing both conventional and/or renewable
16 fuel sources, such as, but not limited to, integrated solar/wind systems, biomass/fossil
17 fuel systems, hydro/fossil fuel systems, integrated solar/biomass systems, integrated
18 wind/fossil fuel systems, with a minimum of ten (10) megawatts or ten percent (10%)
19 of the annual energy output provided by the RE component;
- 20 b) Renewable Energy (RE) Resources shall refer to energy resources that do not have an
21 upper limit on the total quantity to be used. Such resources are renewable on a regular
22 basis, and whose renewal rate is relatively rapid to consider availability over an

1 indefinite period of time. These include, among others, biomass, solar, wind,
2 geothermal, ocean energy, and hydropower conforming with internationally accepted
3 norms and standards on dams, and other emerging renewable energy technologies;

4 c) Renewable Energy (RE) Systems shall refer to energy systems which convert RE
5 resources into useful energy forms, like electrical, mechanical, etc.;

6 d) Solar Energy shall refer to the energy derived from solar radiation that can be
7 converted into useful thermal or electrical energy; and

8 e) Solar Energy Systems shall refer to energy systems which convert solar energy into
9 thermal or electrical energy.

10 **SEC. 5. *Establishment of Renewable Energy Systems in Government Buildings and***
11 ***Offices.*** – All government agencies in coordination with the Department of Public Works and
12 Highways and the Department of Energy (DOE) shall begin the construction of RE systems in
13 and retrofit their respective buildings and offices within sixty (60) days after the effectivity of
14 this Act: *Provided*, That nothing in this Act shall preclude the expansion of the RE Systems
15 beyond the 31st of December 2014; *Provided further*, That RE utilization shall be increased
16 annually for five years at which point the established RE Systems are expected to have the
17 capacity to supply 50% of the power requirements of all government agencies.

18 **SEC. 6. *General Guidelines.*** – For the purposes of this Act, the following are the General
19 Guidelines for RE systems in government buildings and offices:

20 a) The RE system to be established and constructed shall commence to supply power to
21 the government buildings or offices on or before the 31st of December 2014;

22 b) The Department of Finance shall apply the appropriate provisions of Chapter VII
23 General Incentives of Republic Act No. 9513 or the Renewable Energy Act of 2008
24 to the RE Systems to be established and constructed for government agencies;

25 c) Government agencies shall enjoy the privileges granted to qualified end-users as
26 certified by the DOE-Renewable Energy Management Bureau, as provided for in
27 Sections 10 and 12 of R. A. No. 9513; and

28 d) To ensure sufficient power supply and cost-effectiveness, Hybrid Systems shall be
29 allowed to continue to supply power to government buildings and offices, in
30 conjunction with Solar Energy being the most abundant RE resource.

31 **SEC. 7. *Minimum Standard.*** – The RE Systems to be established shall supply at least ten
32 per cent (10%) of the electric power requirements of the government agencies in their respective
33 buildings or offices for the first year after the effectivity of this Act.

34 **SEC. 8. *Funding.*** – The amount necessary for the immediate implementation of this Act
35 shall be charged against any available funds of the government agencies covered in this Act.
36 Thereafter, such sums as may be necessary to implement this Act shall be included in the
37 General Appropriations Act (GAA).

1 **SEC 9. *Implementing Rules and Regulations.*** – The Department of Energy shall provide
2 the necessary implementing rules and regulations for the effective implementation within thirty
3 (30) days upon the approval of this Act. Such rules and regulations shall take effect after they
4 have been made and shall be published in at least two (2) newspapers of general circulation.

5 **SEC. 10. *Separability Clause.*** – Any portion or provision of this Act that may be
6 declared unconstitutional or invalid shall not have the effect of nullifying other portions or
7 provisions hereof, as long as such remaining portions or provisions can still subsist and be given
8 effect in their entirety.

9 **SEC. 11. *Repealing Clause.*** – All laws, acts, decrees, executive orders, issuances, and
10 rules and regulations or parts thereof which are contrary to and inconsistent with this Act are
11 hereby repealed, amended or modified accordingly.

12 **SEC. 12. *Effectivity.*** - This Act shall take effect fifteen (15) days following its
13 publication in at least two (2) newspapers of general circulation or the Official Gazette.

14 Approved,