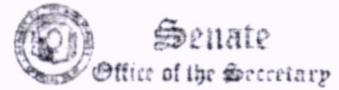


SEVENTEENTH CONGRESS OF THE )  
REPUBLIC OF THE PHILIPPINES )  
Third Regular Session )



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S E N A T E

RECEIVED BY: \_\_\_\_\_

COMMITTEE REPORT NO. 678

Jw  
Energy  
^

Prepared and Submitted jointly by the Committees on Education, Arts and Culture and Finance on MAY 22 2019

Re: House Bill No. 8912

Recommending its approval without amendments.

Sponsor: Senator Escudero

**MR. PRESIDENT:**

The Committees on Education, Arts and Culture and Finance to which was referred House Bill No. 8912, introduced by Rep. Arroyo, G., *et. al.*, entitled:

Jw  
Energy

**"AN ACT  
AUTHORIZING HIGHER EDUCATION CURRICULUM DEVELOPMENT AND  
GRADUATE TRAINING IN ADVANCED ENERGY AND GREEN BUILDING  
TECHNOLOGIES. AND APPROPRIATING FUNDS THEREFOR"**

have considered the same and have the honor to report it back to the Senate with the recommendation that it be approved without amendments.

Respectfully submitted:



**SEN. LOREN B. LEGARDA**

*Chairperson*

Committee on Finance

*Member, Committees on Education,  
Arts and Culture and Energy*

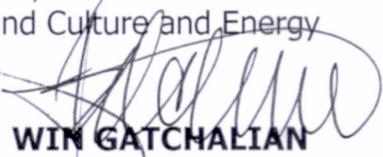


**SEN. FRANCIS G. ESCUDERO**

*Chairperson*

Committee on Education, Arts and Culture

*Member, Committees on Finance  
and Energy*



**SEN. WIN GATCHALIAN**

*Chairperson*

Committee on Energy

*Vice Chairperson, Committee on Education, Arts and Culture*

*Member, Committee on Finance*

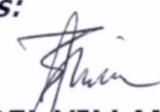
***Vice-Chairpersons:***



**SEN. SONNY M. ANGARA**

Committee on Education, Arts and Culture

Committee on Finance



**SEN. JOEL VILLANUEVA**

Committee on Education, Arts and Culture

*Member, Committees on Energy  
and Finance*



**SEN. PAOLO BENIGNO AQUINO IV**

Committee on Education, Arts and Culture

Committee on Finance

*Member, Committee on Energy*

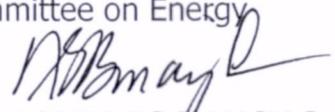


**SEN. JOSEPH VICTOR G. EJERCITO**

Committee on Education, Arts and Culture

Committee on Finance

*Member, Committee on Energy*



**SEN. MARIA LOURDES NANCY S. BINAY**

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**SEN. RICHARD J. GORDON**

Committee on Energy

*Member, Committees on Education, Arts and  
Culture and Finance*



**SEN. CYNTHIA A. VILLAR**

Committee on Finance

*Member, Committees on Education, Arts and  
Culture and Energy*

**SEN. GREGORIO B. HONASAN**

Committee on Energy

*Member, Committee on Finance*



**SEN. PANFILO M. LACSON**

Committee on Finance

**Members:**



**SEN. ANTONIO "SONNY" F. TRILLANES IV**  
Committee on Education, Arts and Culture  
Committee on Finance  
Committee on Energy

**SEN. GRACE POE**  
Committee on Education, Arts and Culture  
Committee on Finance  
Committee on Energy

**SEN. FRANCIS "KIKO" PANGILINAN**  
Committee on Education, Arts and Culture  
Committee on Finance  
Committee on Energy

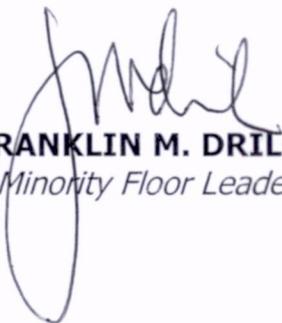
  
**SEN. RISA HONTIVEROS**  
Committee on Education, Arts and Culture  
Committee on Finance

**SEN. EMMANUEL "MANNY" D. PACQUIAO**  
Committees on Education, Arts and Culture  
and Energy

**SEN. LEILA M. DE LIMA**  
*Member, Committee on Energy*

**SEN. AQUILINO "KOKO" PIMENTEL III**  
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**SEN. FRANKLIN M. DRILON**  
*Senate Minority Floor Leader*

  
**SEN. JUAN MIGUEL "MIGZ" F. ZUBIRI**  
*Senate Majority Floor Leader*

  
**SEN. RALPH G. RECTO**  
*Senate President Pro-Tempore*

**SEN. VICENTE C. SOTTO III**  
*Senate President*



## HOUSE OF REPRESENTATIVES

H. No. 8912

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BY REPRESENTATIVES MACAPAGAL-ARROYO, JAVIER, HOFER, GASATAYA, NOEL, NAVA, DIMAPORO (M.K.), ZUBIRI, GARCIA (G.), VIOLAGO, DALIPE, OLIVAREZ, ROCAMORA, NIETO, RODRIGUEZ (M.), TAMBUNTING, SALCEDA, VILLARICA, GONZALES (A.P.), SAMBAR, ROBES, TAN (A.), RAMIREZ-SATO, MANALO, AMANTE, VELOSO, MARINO, SANDOVAL, DUAVIT, GO (M.), AGGABAO, UY (J.), KHO, SAVELLANO, TEJADA, PINEDA, AMATONG, LANETE, UYBARRETA, LOBREGAT, VILLANUEVA, COJUANGCO, NUÑEZ-MALANYAON, AQUINO-MAGSAYSAY, CALIXTO-RUBIANO, SY-ALVARADO, YAP (V.), NOGRALES (K.A.), ZAMORA (M.C.) AND ANDAYA, PER COMMITTEE REPORT No. 1114

---

AN ACT AUTHORIZING HIGHER EDUCATION CURRICULUM DEVELOPMENT AND GRADUATE TRAINING IN ADVANCED ENERGY AND GREEN BUILDING TECHNOLOGIES, AND APPROPRIATING FUNDS THEREFOR

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

1           SECTION 1. *Short Title.* – This Act shall be known as the  
2 “Advanced Energy and Green Building Technologies Curriculum  
3 Act”.

4           SEC. 2. *Declaration of Policy.* – It is hereby declared the  
5 policy of the State to give priority to education, science and

1 technology, and other similar fields, as well as to support the  
2 country's educational institutions in their efforts at initiating and  
3 implementing curriculum development activities that will lead to  
4 socioeconomic progress and technological advancement.

5 Towards this end, the State shall endeavor to provide  
6 assistance to higher education institutions (HEIs) in preparing the  
7 next wave of design and construction professionals, as well as the  
8 existing pool of architects, engineers, landscape engineers,  
9 landscape architects, and planners all over the country, to become  
10 adept in the incorporation of advanced energy and green building  
11 technologies in the design and construction of green or high  
12 performance buildings.

13 SEC. 3. *Definition of Terms.* – As used in this Act:

14 (a) *Advanced energy* refers to the technologies and services,  
15 both emerging and established, which are delivering an energy  
16 system for the 21<sup>st</sup> century, and which are recognized as being  
17 secure, clean and affordable;

18 (b) *Green building* refers to a building which, in its design,  
19 construction or operation, reduces or eliminates the negative impact  
20 on the climate and natural environment of a particular area and the  
21 country in general and can create positive impact. Green buildings  
22 preserve precious natural resources and improve the quality of life;

23 (c) *Green building technology* refers to the technology or the  
24 application of processes which are environmentally responsible and  
25 resource-efficient throughout a building's life cycle: from planning  
26 to design, construction, operation, maintenance, renovation and  
27 demolition. This requires close cooperation of the contractors,

1 architects, engineers and the clients at all project stages. The green  
2 building practice expands and complements the classical building  
3 design concerns of utility, economy, durability and comfort; and

4 (d) *High performance building* refers to a form of green  
5 building with a singular focus on its energy performance and which  
6 integrates and optimizes all major high-performance building  
7 attributes, including energy efficiency, durability, life-cycle  
8 performance, and occupant productivity.

9 SEC. 4. *Features of a Green Building or High-Performance*  
10 *Building*. – A green building or high-performance building shall  
11 have the following features:

12 (a) Uses all forms of renewable energy, such as solar energy;

13 (b) Efficiently uses energy, water and other resources;

14 (c) Provides good indoor or environmental air quality;

15 (d) Uses materials which are sustainable, ethical and  
16 nontoxic;

17 (e) Adopts pollution and waste reduction measures, and  
18 promotes reuse and recycling of materials;

19 (f) Employs a design that adapts to a changing environment;  
20 and

21 (g) Considers environment-friendly design, construction and  
22 operation.

23 SEC. 5. *Advanced Energy and Green Building Technologies*  
24 *Curriculum Development*. – The Commission on Higher Education  
25 (CHED), in consultation with the Department of Energy (DOE) and  
26 CHED-recognized higher education institutions (HEIs), shall  
27 develop a curriculum on advanced energy and green building

1 technologies at the undergraduate and graduate levels which shall  
2 focus on design resilience, natural resource conservation, and  
3 sustainable design and building practices, among others, to prepare  
4 students for future careers in advanced energy and green building  
5 technologies to enable future engineers, architects and urban  
6 planners to incorporate advanced energy and green building  
7 technologies in the design of high-performance buildings.

8       SEC. 6. *Graduate Training in Energy Research and*  
9 *Development.* – The CHED, in consultation with the DOE,  
10 is hereby mandated to develop graduate education curriculum  
11 related to advanced energy technology research, development,  
12 demonstration, and commercial application activities pertaining  
13 to energy research and development.

14       SEC. 7. *Role of the DOE in Curriculum Development for*  
15 *High Performance Building Design.* – The DOE shall assist the  
16 CHED in curriculum development activities in advanced energy  
17 and green building technologies for the purpose of improving  
18 undergraduate and graduate interdisciplinary studies involving the  
19 design and construction of high-performance buildings, including  
20 the development of higher education curricula in engineering,  
21 architecture, fine arts, and other related courses, laboratory  
22 activities, training programs and practicums, and design projects.

23       For this purpose, the DOE shall contribute funds to the  
24 curriculum development activities of the CHED, especially in the  
25 conduct of research, development, demonstration, and commercial  
26 application activities endorsed by the DOE in relation to  
27 high-performance buildings.

1           In awarding grants with respect to which the DOE has  
2 contributed funds under this section, the CHED shall give priority  
3 to applications from the following:

4           (a) HEIs whose departments, programs, centers, or schools  
5 of engineering are considered strong or prominent in engineering  
6 and architecture education, including city, regional, or urban  
7 planning; and

8           (b) HEIs whose departments, programs, centers, or schools of  
9 engineering have partnered with other departments, programs,  
10 centers, or schools of engineering which are considered strong or  
11 prominent in engineering and architecture education, including  
12 city, regional, or urban planning.

13           SEC. 8. *Project Grants.* – The Chairperson of the CHED  
14 shall consult with the Secretary of the DOE when preparing  
15 solicitations and awarding grants for projects described in this Act.

16           SEC. 9. *Appropriations.* – The amount necessary to carry  
17 out the provisions of this Act shall be charged against the current  
18 year's appropriations of the CHED and the DOE. Thereafter, the  
19 amount necessary for the continued implementation of this Act  
20 shall be included in the annual General Appropriations Act.

21           SEC. 10. *Implementing Rules and Regulations.* – Within  
22 ninety (90) days from the effectivity of this Act, the CHED shall, in  
23 consultation with the DOE and concerned stakeholders, promulgate  
24 the implementing rules and regulations necessary to ensure the  
25 efficient and effective implementation of this Act.