

[REPUBLIC ACT NO. 11393, August 22, 2019]

**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:

SECTION 1. *Short Title.* - This Act shall be known as the "Advanced Energy and Green Building Technologies Curriculum Act ".

SEC. 2. *Declaration of Policy.* - It is hereby declared the policy of the State to give priority to education, science and technology, and other similar fields, as well as to support the country's educational institutions in their effort at initiating and implementing curriculum development activities that will lead to socioeconomic progress and technological advancement.

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

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

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

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

(c) *Green building technology* refers to the technology or the application of processes which are environmentally responsible and resources-efficient throughout a building's life cycle: from planning to design, construction, operation, maintenance, renovation and demolition. This requires close cooperation of the contractors, architects, engineers and the clients at all project stages. The green building practice expands and complements the classical building design concerns of utility, economy, durability and comfort; and

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

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

- (a) Uses all forms of renewable energy, such as solar energy;
- (b) Efficiently uses energy, water and other resources;
- (c) Provides good indoor or environmental air quality;
- (d) Uses materials which are sustainable, ethical and nontoxic;
- (e) Adopts pollution and waste reduction measures and promotes reuse and recycling of materials;
- (f) Employs a design that adapts to a changing environments; and
- (g) Considers environment-friendly design, construction and operation.

SEC. 5. *Advanced Energy and Green Building Technologies Curriculum Development.* - The Commission on Higher Education (CHED), in coordination with the Department of Energy (DOE), and CHED-recognized higher education institutions (HEIs), shall develop a curriculum on advanced energy and green building technologies at the undergraduate and graduate levels which shall focus on design resilience, natural resource conservation, and sustainable design and building practices, among others, to prepare students for future careers in advanced energy and green building technologies to enable future engineers, architects and urban planners to incorporate advanced energy and green building technologies in the design of high-performance buildings.

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

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

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