

ROYAL DECREE ON DESIGNATED BUILDINGS

B.E. 2538

Bhumibol Adulyadej ; Rex.
Given on the 17th. July, B.E. 2538
Being the 50th. year of the present Reign

By command of His Majesty the King bhumibol Adulyadej that,

Whereas it is expedient specify certain types of buildings to be designated buildings for energy conservation purposes,

By virtue of Section 178 of the Constitution of the Kingdom of Thailand, amended by the Constitution of the Kingdom of Thailand Amendment (5th edition), B.E. 2538 and Section 18, Paragraph 1, of the Energy Conservation Promotion Act, B.E. 2535, this Royal Decree is hereby enacted by the King as follows.

Section 1 : This Royal Decree shall be called “**Royal Decree on Designated Buildings, B.E. 2538**”

Section 2 : This Royal Decree shall come into force after completion of a 120 day period from the date of its publication in the Royal Gazette.

Section 3 : Buildings which are not the royal buildings or palaces, embassies or consulates, offices of international organizations or any which is established by the agreement between the Thai and foreign governments, ancient places, temples or buildings for religious purposes which are already governed by other specific laws for construction control, and meet the following conditions, shall be designated buildings:

(1) A building or buildings under same address which are allowed by any energy distributor to install electricity metering device, or to install one or more transformers whose combined capacity is 1,000 kilowatts or 1,175 kilovolt-amperes and up.

(2) A building or buildings under same address which consume commercial energy including electricity and steam as from January 1, to December 31 of the past year in total volume of energy of 20 million megajoules or more of electrical energy equivalent.

Section 4 : Calculation of energy consumption pursuant to Section 3 (2) shall be made in unit of megajoule as per the followings:

(1) For electricity, the total electricity consumption in kwhr must be multiplied by 3.60.

(2) For heat from steam, the heat from steam must be converted by using the following formula:

$$E_s = (h_s - h_w) \times S \times e_{ff}$$

E_s means Volume of heat from steam in unit of megajoule/year of electrical energy equivalent.

h_s means Enthalpy Value of steam consumed in unit of megajoule/ton derived from any general steam table.

h_w means Enthalpy of water at 27 degrees Celsius at atmospheric pressure which is hereby valued at 113 megajoule/ton.

S means the amount of steam consumed in unit of ton/year shown from the steam flow meter at the building.

e_{ff} means Efficiency Factor of conversion from heat to an equivalent electrical energy, which is hereby valued at 0.45.

(3) For other commercial energy, the amount of commercial energy must be converted by using the following formula:

$$E_f = F \times HHV \times e_{ff}$$

E_f means Volume of heat from other commercial energy in unit of megajoule/year of electrical energy equivalent.

F means an amount of commercial energy consumption in unit of weight or volume per year.

HHV means Higher Heating Value of the commercial energy consumed in unit of megajoule/unit of weight or volume.

e_{ff} means Efficiency Factor of conversion from heat to an equivalent electrical energy which is hereby valued at 0.45.

In case that higher heating value is not available from the distributor, an average heating value as prescribed by the Department of Energy Development and Promotion shall be used.

Section 5 : The Minister of Science, Technology and Environment shall take charge of and control the execution of this Royal Decree.

Countersigned by

Chuan Leekphai

Prime Minister

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Remarks : Reason of the enactment of this Royal Decree is that, whereas it is expedient to specify the building which is allowed by any energy distributor to install electricity metering device or to install one or more transformers whose combined capacity is 1,000 kilowatts or 1,175 kilovolt-amperes and up, or the building which consumes commercial energy including electricity and steam as from January 1 to December 31 of the past year in total volume of energy of 20 million megajoules or more of electrical energy equivalent, to be designated building, and whereas Section 18 Paragraph 1 of the Energy Conservation Promotion Act B.E. 2535 stipulates that definition of designated building shall be enacted by the issue of the Royal Decree, the enactment of this Royal Decree is necessary.