Reg. Section 1.48-9(d)(8)

Definition of energy property

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(d)Solar energy property.

(1)In general. Energy property includes solar energy property. The term "solar energy property" includes equipment and materials (and parts related to the functioning of such equipment) that use solar energy directly to (i) generate electricity, (ii) heat or cool a building or structure, or (iii) provide hot water for use within a building or structure. Generally, those functions are accomplished through the use of equipment such as collectors (to absorb sunlight and create hot liquids or air), storage tanks (to store hot liquids), rockbeds (to store hot air), thermostats (to activate pumps or fans which circulate the hot liquids or air), and heat exchangers (to utilize hot liquids or air to create hot air or water). Property that uses, as an energy source, fuel or energy derived indirectly from solar energy, such as ocean thermal energy, fossil fuel, or wood, is not considered solar energy property.

(2)Passive solar excluded.

(i) Solar energy property excludes the materials and components of "passive solar systems," even if combined with "active solar systems."

(ii) An active solar system is based on the use of mechanically forced energy transfer, such as the use of fans or pumps to circulate solar generated energy.

(iii) A passive system is based on the use of conductive, convective, or radiant energy transfer. Passive solar property includes greenhouses, solariums, roof ponds, glazing, and mass or water trombe walls.

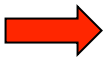
(3)Electric generation equipment. Solar energy property includes equipment that uses solar energy to generate electricity, and includes storage devices, power conditioning equipment, transfer equipment, and parts related to the functioning of those items. In general, this process involves the transformation of sunlight into electricity through the use of such devices as solar cells or other collectors. However, solar energy property used to generate electricity includes only equipment up to (but not including) the stage that transmits or uses electricity.

(4)Pipes and ducts. Pipes and ducts that are used exclusively to carry energy derived from solar energy are solar energy property. Pipes and ducts that are used to carry both energy derived from solar energy and energy derived from other sources are solar energy property (i) only if their use of energy other than solar energy does not exceed 25 percent of their total energy input in an annual measuring period and (ii) only to the extent of their basis or cost allocable to their use of solar energy during an annual measuring period. (See paragraph (d)(6) of this section for the definition of "annual measuring period" and for rules relating to the method of allocation.)

(5)Specially adapted equipment. Equipment that uses solar energy beyond the distribution stage is eligible only if specially adapted to use solar energy.

(6)Auxiliary equipment. Solar energy property does not include equipment (auxiliary equipment), such as furnaces and hot water heaters, that use a source of power other than solar or wind energy to provide usable energy. Solar energy property does include equipment, such as ducts and hot water tanks, which is utilized by both auxiliary equipment and solar energy equipment (dual use equipment). Such equipment is solar energy property (i) only if its use of energy from sources other than solar energy does not exceed 25 percent of its total energy input in an annual measuring period and (ii) only to the extent of its basis of cost allocable to its use of solar or wind energy during an annual measuring period. An "annual measuring period" for an item of dual use equipment is the 365 day period beginning with the day it is placed in service or a 365 day period beginning the day after the last day of the immediately preceding annual measuring period. The allocation of energy use required for purposes of paragraph (d)(6)(i) and (ii) of this section may be made by comparing, on a Btu basis, energy input to dual use equipment from solar energy with energy input from other sources. However, the Commissioner may accept any other method that, in his opinion, accurately establishes the relative annual use by dual use equipment of solar energy and energy derived from other sources.

(7)Solar process heat equipment. Solar energy property does not include equipment that uses solar energy to generate steam at high temperatures for use in industrial or commercial processes (solar process heat).



(8)Example. The following example illustrates this paragraph (d).

Example.

(a) In 1979, corporation X, a calendar year taxpayer, constructs an apartment building and purchases equipment to convert solar energy into heat for the building. Corporation X also installs an oil-fired water heater and other equipment to provide a backup source of heat when the solar energy equipment cannot meet the energy needs of the building. For purposes of this example, all equipment is placed in service on October 1, 1979. On a Btu basis, eighty percent of the total energy input to the dual use equipment during the 365 day period beginning October 1, 1979, is from solar energy.

(b) The items purchased, in addition to the water heater, include a roof solar collector, a heat exchanger, a hot water tank, a control component, pumps, pipes, fan-coil units, and valves. Assume the fan-coil units could be used with energy derived from an oil or gas substance without significant modification. All items are depreciable and have a useful life of three years or more. The use of the equipment to heat the building is the first use to which the equipment has been put.

(c) Water is pumped from the basement through pipes to the roof solar collector. Heated water returns through pipes to a heat exchanger which transfers heat to the water in the hot water tank.

(d) The hot water tank and the oil-fired water heater utilize the same distribution pipe. Pumps and valves at the points of connection between the hot water tank, the oil-fired water heater, and the distribution pipe regulate the auxiliary energy supply use. They also prevent the oil-fired water heater from heating water in the hot water tank.

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