

property and that beneficiaries A and B did not own any interests in other trusts, estates, partnerships, or electing small business corporations. Under section 46(c), the qualified investment of XYZ Trust is \$39,000, of beneficiary A is \$33,400, and of beneficiary B is \$15,600, computed as follows:

Basis (or cost)	Applicable percentage	Qualified investment
XYZ TRUST		
\$30,000 (new) .....	33 <sup>1</sup> / <sub>3</sub>	\$10,000
\$15,000 (new) .....	100	15,000
\$12,000 (used) .....	66 <sup>2</sup> / <sub>3</sub>	8,000
\$6,000 (used) .....	100	6,000
Total .....		39,000
BENEFICIARY A		
\$18,000 (new) .....	33 <sup>1</sup> / <sub>3</sub>	\$6,000
\$9,000 (new) .....	100	9,000
\$7,200 (used) .....	66 <sup>2</sup> / <sub>3</sub>	4,800
\$3,600 (used) .....	100	3,600
		23,400
\$10,000 (new) .....	100	10,000
Total .....		33,400
BENEFICIARY B		
\$12,000 (new) .....	33 <sup>1</sup> / <sub>3</sub>	\$4,000
\$6,000 (new) .....	100	6,000
\$4,800 (used) .....	66 <sup>2</sup> / <sub>3</sub>	3,200
\$2,400 (used) .....	100	2,400
Total .....		15,600

(3) In the case of XYZ Trust, the \$25,000 amount specified in section 46(a)(2) is reduced to \$12,500, computed as follows: (i) \$25,000, multiplied by (ii) \$39,000 (qualified investment apportioned to the trust), divided by (iii) \$78,000 (total qualified investment apportioned among such trust (\$39,000), beneficiary A (\$23,400), and beneficiary B (\$15,600)).

[T.D. 6731, 29 FR 6083, May 8, 1964, as amended by T.D. 6931, 32 FR 14040, Oct. 10, 1967; T.D. 6958, 33 FR 9171, June 21, 1968; T.D. 7203, 37 FR 17133, Aug. 25, 1972]

**§ 1.48-9 Definition of energy property.**

(a) *General rule*—(1) *In general.* Under section 48(l)(2), energy property means property that is described in at least one of 6 categories of energy property and that meets the other requirements of this section. If property is described in more than one of these categories, or is described more than once in a single category, only a single energy investment credit is allowed. In that case, the energy investment credit will be allowed under the category the tax-

payer chooses by indicating the chosen category on Form 3468, Schedule B. The 6 categories of energy property are:

- (i) Alternative energy property,
- (ii) Solar or wind energy property,
- (iii) Specially defined energy property,
- (iv) Recycling equipment,
- (v) Shale oil equipment, and
- (vi) Equipment for producing natural gas from geopressured brine.

(2) *Depreciable property with 3-year useful life.* Property is not energy property unless depreciation (or amortization in lieu of depreciation) is allowable and the property has an estimated useful life (determined at the time when the property is placed in service) of 3 years or more.

(3) *Effective date rules.* To be energy property—

(i) If property is constructed, reconstructed or erected by the taxpayer, the construction, reconstruction, or erection must be completed after September 30, 1978, or

(ii) If the property is acquired, the original use of the property must (A) commence with the taxpayer and (B) commence after September 30, 1978, and before January 1, 1983.

For transitional rules, see section 48(m).

(4) *Cross references.* (i) To determine if depreciation (or amortization in lieu of depreciation) is allowable for property, see § 1.48-1(b).

(ii) For the meaning of “estimated useful life”, see § 1.46-3(e)(7).

(iii) The meaning of “acquired”, “original use”, “construction”, “reconstruction”, and “erection” is determined under the principles of § 1.48-2(b).

(iv) For the definition of energy investment credit (energy credit), see section 48(o)(2).

(v) For special rules relating to public utility property, see paragraph (n) of this section.

(b) *Relationship to section 38 property*—

(1) *In general.* (i) Energy property is treated under section 48(l)(1) as meeting the general requirements for section 38 property set forth in section 48(a)(1). For example, structural components of a building may qualify for

the energy credit. In addition, the exclusion from section 38 property under section 48(a)(3) (lodging limitation) does not apply to energy property. For purposes of the energy credit, energy property is treated as section 38 property solely by reason of section 48(1)(1). For example, if property ceases to be energy property, it ceases to be section 38 property for all purposes relating to the energy credit and, thus, if subject to recapture under section 47. See § 1.47-1(h).

(ii) See the effective date rules under paragraph (a)(3) of this section for limitations on the eligibility of property as energy property.

(iii) Section 48(1)(1) does not affect the character of property under sections of the Code outside the investment credit provisions. For example, structural components of a building that are treated as section 38 property under section 48(1)(1) remain section 1250 property and are not section 1245 property.

(2) *Other section 48 rules apply.* (i) In general, section 48(a) otherwise applies in determining if energy property is section 38 property. Thus, energy property excluded from the definition of section 38 property under section 48(a) (except by reason of section 48(a)(1) or (a)(3)) is not eligible for the energy credit. For example, energy property used predominantly outside the United States (section 48(a)(2)) or used by tax exempt organizations (section 48(a)(4)), in general, is not treated as section 38 property for any purpose and thus, is not eligible for the energy credit.

(ii) Other rules of section 48, such as those for leased property under section 48(d), also apply to energy property.

(3) *Regular credit denied for certain energy property.* In computing the amount of credit under section 46(a)(2), the regular percentage does not apply to any energy property which, but for section 48(1)(1), would not be section 38 property. See section 46(a)(2)(D). For example, energy property used for lodging (section 48(a)(3)) and, in general, structural components of a building (section 48(a)(1)(B)) are not eligible for the regular credit even though they may be eligible for the energy credit. However, a structural component of a qualified rehabilitated building (as defined in sec-

tion 48(g)(1)) or a single purpose agricultural or horticultural structure (as defined in section 48(p)) may qualify for the regular credit without regard to section 48(1)(1).

(c) *Alternative energy property*—(1) *In general.* Alternative energy property means property described in paragraphs (c)(3) through (10) of this section. In general alternative energy property includes certain property that uses an alternate substance as a fuel or feedstock or converts an alternate substance to a synthetic fuel and certain associated equipment.

(2) *Alternate substance.* (i) An alternate substance is any substance or combination of substances other than an oil or gas substance. Alternate substances include coal, wood, and agricultural, industrial, and municipal wastes or by-products. Alternate substances do not include synthetic fuels or other products that are produced from an alternate substance and that have undergone a chemical change as described in paragraph (c)(5)(ii) of this section. For example, methane produced from landfills is not an alternate substance; rather it is a synthetic fuel produced from an alternate substance. However, preparing an alternate substance for use as a fuel or feedstock or for conversion into a fuel does not create a new product if no chemical change occurs. For example, pelletizing, drying, compacting, and liquefying do not result in a new product if no chemical change occurs.

(ii) The term “oil or gas substance” means—

(A) Oil or gas and  
(B) Any primary product of oil or gas.

(iii) For the definition of primary product of oil or gas, see § 1.993-3(g)(3)(i), (ii), and (vi). Thus, petrochemicals are not primary products of oil or gas.

(3) *Boiler.* (i) A boiler that uses an alternate substance as its primary fuel is alternative energy property.

(ii) A boiler is a device for producing vapor from a liquid. Boilers, in general, have a burner in which fuel is burned. A boiler includes a fire box, boiler tubes, the containment shell, pumps, pressure and operating controls, and safety equipment, but not pollution

control equipment (as defined in paragraph (c)(8) of this section).

(iii) A “primary fuel” is a fuel comprising more than 50 percent of the fuel requirement of an item of equipment, measured in terms of Btu’s for the remainder of the taxable year from the date the equipment is placed in service and for each taxable year thereafter. Electricity and waste heat are not fuels. For example, electric boilers do not qualify as alternative energy property even if the electricity is derived from an alternate substance.

(4) *Burners.* (i) A burner for a combustor other than a burner described in paragraph (c)(3)(ii) of this section is alternative energy property if the burner uses an alternate substance as its primary fuel (as defined in paragraph (c)(3)(iii) of this section).

(ii) A burner is the part of a combustor that produces a flame. A combustor is a process heater which includes ovens, kilns, and furnaces.

(iii) A burner includes equipment (such as conveyors, flame control devices, and safety monitoring devices) located at the site of the burner and necessary to bring the alternate substance to the burner.

(5) *Synthetic fuel production equipment.*

(i) Equipment (synthetic fuel equipment) that converts an alternate substance into a synthetic solid, liquid, or gaseous fuel (other than coke or coke gas) is alternative energy property. Synthetic fuel production equipment does not include equipment, such as an oxygen plant, that is not directly involved in the treatment of an alternate substance, but produces a substance that is, like the alternate substance, a basic feedstock or catalyst used in the conversion process. Equipment is not eligible if it is used beyond the point at which a substance usable as a fuel has been produced. Equipment is eligible only to the extent of the equipment’s cost or basis allocable to the annual production of substances used as a fuel or used in the production of a fuel. For example, assume for the taxable year that 50 percent of the output of equipment is used to produce alcohol for production of whiskey and 50 percent is used to produce alcohol for use in a fuel mixture, such as gasohol. The alcohol production equipment qualifies

as synthetic fuel equipment but only to the extent of one-half of its cost or basis. If, in a later taxable year, the equipment is used exclusively to produce whiskey, all of the equipment ceases to be synthetic fuel equipment.

(ii) A fuel is a material that produces usable heat upon combustion. To be “synthetic”, the fuel either must differ significantly in chemical composition, as opposed to physical composition, from the alternate substance used to produce it or, in the case of solid fuel produced from biomass, the chemical change must consist of defiberization. Examples of synthetic fuels include alcohol derived from coal, peat, and vegetative matter, such as wood and corn, and methane from landfills.

(iii) Synthetic fuel equipment includes coal gasification equipment, coal liquefaction equipment, equipment for recovering methane from landfill, and equipment that converts biomass to a synthetic fuel.

(iv) Synthetic fuel equipment does not include equipment that merely mixes an alternate substance with another substance. For example, synthetic fuel equipment includes neither equipment that mixes coal and water to produce a slurry nor equipment that mixes alcohol and gasoline to produce gasohol. Equipment used to produce coke or coke gas, such as coke ovens, is also ineligible.

(6) *Modification equipment.* (i) Alternative energy property includes equipment (modification equipment) designed to modify existing equipment. For the definition of “existing,” see paragraph (1)(1)(i) of this section. To be eligible, the modification must result in a substitution for the remainder of the taxable year from the date the equipment is placed in service and for each taxable year thereafter of the items in paragraph (c)(6)(ii)(A) or (B) of this section for all or a portion of the oil or gas substance used as a fuel or feedstock. As a result of the modification, the substituted alternate substance must comprise at least 25 percent of the fuel or feedstock (determined on the basis of Btu equivalency). If the modification also increases the capacity of the equipment, only the incremental cost (as defined in paragraph

(k) of this section) of the equipment qualifies.

(ii) The substitutes for an oil or gas substance are—

(A) An alternate substance or

(B) A mixture of oil and an alternate substance.

(iii) Modification equipment does not include replacements or a boiler of burner. If the boiler or burner is replaced, the items must be described in paragraph (c) (3) or (4) of this section to qualify as alternative energy property. Modification may include, however, replacements of components of a boiler or burner, such as a heat exchanger.

(iv) The following examples illustrate this paragraph (c)(6).

*Example 1.* On January 1, 1980, corporation X is using oil to fuel its boiler. On June 1, 1980, X modifies the boiler to permit substitution of a coal and oil mixture for 40 percent of X's oil fuel needs. The mixture consists 75 percent of oil and 25 percent of coal. The equipment modifying the boiler does not qualify as modification equipment because the alternate substance comprises only 10 percent of the fuel.

*Example 2.* Assume the same facts as in example 1 except 75 percent of the mixture is coal. The equipment modifying the boiler qualifies.

*Example 3.* Assume the same facts as in example 2 except, instead of substituting an oil and coal mixture for 40 percent of X's oil fuel needs, X uses the modification to expand the boiler's fuel capacity by 40 percent using the mixture as additional fuel. The additional fuel mixture comprises only 28 percent of X's total fuel needs. Thus, even though 75 percent of the additional fuel mixture is an alternate substance, the boiler does not qualify as modification equipment because the alternate substance comprises only 21 percent of the total fuel.

(7) *Equipment using coal as feedstock.* Equipment that uses coal (including lignite) to produce a feedstock for the manufacture of chemicals, such as petrochemicals, or other products is alternative energy property. Equipment is not eligible if it is not directly involved in the treatment of coal or a coal product, but produces a substance that is, like coal, a basic feedstock or catalyst used in the coal conversion process. Equipment is not eligible if it is used beyond the point at which the first product marketable as a feedstock has been produced. Equipment used to

produce coke or coke gas, such as coke ovens, is ineligible.

(8) *Pollution control equipment.* (i) Pollution control equipment is alternative energy property. Eligible equipment is limited to property or equipment to the extent it qualifies as a pollution control facility under section 103(b)(4)(F) and the regulations thereunder except that, if control of pollution is not the only significant purpose (within the meaning of those regulations), only the incremental cost (as defined in paragraph (k) of this section) of the equipment qualifies. However, if a Treasury decision changes the regulations under section 103(b)(4)(F) and, thus, the rules reflected in this subdivision (i), the rules as changed will apply as of the effective date of the Treasury decision.

(ii) To be eligible, the equipment must be required by a Federal, State, or local government regulation to be installed on, or used in connection with, eligible alternative energy property (as defined in paragraph (c)(8)(v) of this section).

(iii) Under section 48(1)(3)(D) equipment is not eligible if required by a Federal, State, or local government regulation in effect on October 1, 1978, to be installed on, or in connection with, property using coal (including lignite) as of October 1, 1978.

(iv) Under this subparagraph (8), pollution control equipment is required by regulation if it would be necessary to install the equipment to satisfy the requirements of any applicable law, including nuisance law. The pollution control equipment need not be specifically identified in the applicable law. If several different types of equipment may be used to comply with the applicable law, each type of equipment is considered necessary to satisfy the requirements of the law. An order permitting a taxpayer to delay compliance with any applicable law is disregarded.

(v) Under this subparagraph (8) "eligible alternative energy property" is energy property (as defined in section 48 (1)(2)) described in paragraphs (c) (3) through (7) of this section. If equipment otherwise qualifying as pollution control equipment is installed on, or used in connection with, both eligible

alternative energy property and property other than eligible alternative energy property, only the incremental cost (as defined in paragraph (k) of this section) of the equipment qualifies.

(vi) *Examples.* The following examples illustrate this subparagraph (8). Assume that the property or equipment in the examples are described in §1.103-8(g)(2)(ii) and that their only purpose is control of pollution.

*Example 1.* On October 1, 1978, corporation X acquires and places in service in State A a paper mill. The facility includes a boiler the primary fuel for which is wood chips. The facility includes equipment necessary to comply with pollution control standards in effect on October 1, 1978 in State A. This equipment qualifies as pollution control equipment.

*Example 2.* On October 1, 1978, corporation Y was burning coal at its facility in State B. The emissions from the facility exceeded State air pollution control requirements in effect on October 1, 1978. On January 1, 1979, X installed cyclone separators to comply with the State pollution control requirements. The cyclone separators do not qualify as pollution control equipment.

*Example 3.* Assume the same facts as in example 2 except that Y installs a baghouse instead of cyclone separators to meet more stringent standards that take effect on December 31, 1978. The baghouse qualifies as pollution control equipment because the baghouse was not necessary to meet the standards in effect on October 1, 1978.

*Example 4.* On October 1, 1978, corporation Z is burning coal at its facility in State C. The emissions from that facility exceed State air pollution control standards in effect on October 1, 1978. C orders Z to install cyclone separators before January 1, 1979. However, C allows Z to operate its facility until January 1, 1979, under less stringent interim standards applicable only to Z. The separators do not qualify as pollution control equipment. The delayed compliance order is disregarded.

(9) *Handling and preparation equipment.* (i) Alternative energy property includes equipment (handling and preparation equipment) used for unloading, transfer, storage, reclaiming from storage, or preparation of an alternate substance for use in eligible alternative energy property (as defined in paragraph (c)(9)(ii) of this section). Handling and preparation equipment must be located at the site the alternate substance is used as a fuel or feedstock. For example, equipment used to screen and prepare coal for use at a power plant qualifies if located at the plant.

However, similar equipment located at the coal mine would not qualify.

(ii) Under this subparagraph (9), “eligible alternative energy property” is energy property (as defined in section 48(1)(2)) described in paragraphs (c) (3) through (8) of this section. If equipment otherwise qualifying as handling and preparation equipment is installed on, or used in connection with, property other than eligible alternative energy property, only the incremental cost (as defined in paragraph (k) of this section) of the equipment qualifies.

(iii) The term “preparation” includes washing, crushing, drying, compacting, and weighing of an alternate substance. Handling and preparation equipment also includes equipment for shredding, chopping, pulverizing, or screening agricultural or forestry by-products at the site of use.

(iv) Handling and preparation equipment does not include equipment, such as coal slurry pipelines and railroad cars, that transports a fuel or a feedstock to the site of its use.

(10) *Geothermal equipment*—(i) Alternative energy property includes equipment (geothermal equipment) that produces, distributes, or uses energy derived from a geothermal deposit (as defined in §1.44C-2(h)).

(ii) In general, production equipment includes equipment necessary to bring geothermal energy from the subterranean deposit to the surface, including well-head and downhole equipment (such as screening or slotting liners, tubing, downhole pumps, and associated equipment). Reinjection wells required for production also may qualify. Production does not include exploration and development.

(iii) Distribution equipment includes equipment that transports geothermal steam or hot water from a geothermal deposit to the site of ultimate use. If geothermal energy is used to generate electricity, distribution equipment includes equipment that transports hot water from the geothermal deposit to a power plant. Distribution equipment also includes components of a heating system, such as pipes and ductwork that distribute within a building the energy derived from the geothermal deposit.

(iv) Geothermal equipment includes equipment that uses energy derived both from a geothermal deposit and from sources other than a geothermal deposit (dual use equipment). Such equipment, however, is geothermal equipment (A) only if its use of energy from sources other than a geothermal deposit does not exceed 25 percent of its total energy input in an annual measuring period and (B) only to the extent of its basis or cost allocable to its use of energy from a geothermal deposit 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 (c)(10)(iv) (A) and (B) of this section may be made by comparing, on a Btu basis, energy input to dual use equipment from the geothermal deposit 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 energy derived from a geothermal deposit and energy derived from other sources.

(v) The existence of a backup system designed for use only in the event of a failure in the system providing energy derived from a geothermal deposit will not disqualify any other equipment. If geothermal energy is used to generate electricity, equipment using geothermal energy includes the electrical generating equipment, such as turbines and generators. However, geothermal equipment does not include any electrical transmission equipment, such as transmission lines and towers, or any equipment beyond the electrical transmission stage, such as transformers and distribution lines.

(vi) *Examples.* The following examples illustrate this subparagraph (10):

*Example 1.* On October 1, 1979, corporation X, a calendar year taxpayer, places in service a system which heats its office building by circulating hot water heated by energy derived from a geothermal deposit through the building. Geothermal equipment includes the circulation system, including the pumps and

pipes which circulate the hot water through the building.

*Example 2.* The facts are the same as in Example 1, except that corporation X also places in service a boiler to produce hot water for heating the building exclusively in the event of a failure of the geothermal equipment. Such a boiler is not geothermal equipment, but the existence of such a backup system does not serve to disqualify property eligible in Example 1.

*Example 3.* The facts are the same as in Example 1, except that the water heated by energy derived from a geothermal deposit is not hot enough to provide sufficient heat for the building. Therefore, the system includes an electric boiler in which the water is heated before being circulated in the heating system. Assume that, on a Btu basis, eighty percent of the total energy input to the circulating system during the 365 day period beginning on October 1, 1979, is energy derived from a geothermal deposit. The boiler is not geothermal equipment. For the 1979 taxable year, eighty percent of the circulating system is geothermal equipment because eighty percent of its basis or cost is allocable to use of energy from a geothermal deposit. If, in a subsequent taxable year, the basis or cost allocable to use of energy from a geothermal deposit falls below eighty percent, recapture may be required under section 47 and § 1.47-1(h). Thus, if, on a Btu basis, only 70 percent of the total energy input to the circulating system for the 365 day period beginning October 1, 1980, is energy derived from a geothermal deposit, then there will be complete recapture of the credit during the 1980 taxable year. If, however, for that 365 day period, the portion of the total energy input that is derived from a geothermal deposit is less than 80 percent but greater than or equal to 75 percent, then only a proportional amount of credit will be recaptured during the 1980 taxable year. No additional credit is allowable in a subsequent taxable year, however, if the portion of the basis or cost allocable to use of energy from a geothermal deposit increases above what it was for a previous taxable year (see § 1.46-3(d)(4)(i)).

*Example 4.* Corporation Y acquires a commercial vegetable dehydration system in 1981. The system operates by placing fresh vegetables on a conveyor belt and moving them through a dryer. The conveyor belt is powered by electricity. The dryer uses solely energy derived from a geothermal deposit. The dryer is geothermal equipment while the equipment powered by electricity does not qualify.

(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 de-

rived 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 or 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 paragraphs (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.

(e) An integrated control component determines whether hot water from the hot water tank or from the oil-fired water heater is distributed to fan-coil units located throughout the building.

(f) The roof solar collector is solar energy property. The pump that moves the water to the roof collector and the pipes between the roof collector and the hot water tank qualify because they are solely related to transporting solar heated water. The hot water tank qualifies because it stores water heated solely by solar radiation. The heat exchanger also qualifies.

(g) The oil-fired water heater does not qualify as solar energy property because it is auxiliary equipment.

(h)(1) Because the distribution pipe, the control component, and the pumps and valves serve the oil-fired water heater as well as the solar energy equipment; they qualify only to the extent of eighty percent of their cost or basis, the portion allocable to use of solar energy. If, in a subsequent

taxable year, the basis or cost allocable to their use of solar energy falls below eighty percent, recapture may be required under section 47 and § 1.47-1(h). Thus, if, on a Btu basis, only 70 percent of the total energy input to that equipment for the 365 day period beginning October 1, 1980, is from solar energy, then there will be complete recapture of the credit during the 1980 taxable year. If, however, for that 365 day period, the portion of that equipment's total energy input that is from solar energy is less than 80 percent but greater than or equal to 75 percent, then only a proportional amount of credit will be recaptured during the 1980 taxable year. No additional credit is allowable for the equipment in a subsequent taxable year, however, if the portion of its basis or cost allocable to use of solar energy increases above what it was for a previous taxable year (see § 1.46-3 (d)(4)(i)).

(2) The fan-coil units do not qualify as solar energy property because they are not specially adapted to use energy derived from solar energy.

(e) *Wind energy property*—(1) *In general.* Energy property includes wind energy property. Wind energy property is equipment (and parts related to the functioning of that equipment) that performs a function described in paragraph (e)(2) of this section. In general, wind energy property consists of a windmill, wind-driven generator, storage devices, power conditioning equipment, transfer equipment, and parts related to the functioning of those items. Wind energy property does not include equipment that transmits or uses electricity derived from wind energy. In addition, limitations apply similar to those set forth in paragraphs (d) (5), (6), and (8) of this section. For example, if equipment is used by both auxiliary equipment and wind energy equipment, such equipment is wind energy property only if its use of energy other than wind energy does not exceed 25 percent of its total energy input in an annual measuring period and only to the extent of its basis or cost allocable to its use of wind energy during an annual measuring period.

(2) *Eligible functions.* Wind energy property is limited to equipment (and parts related to the functioning of that equipment) that—

(i) Uses wind energy to heat or cool, or provide hot water for use in, a building or structure, or



(ii) Uses wind energy to generate electricity (but not mechanical forms of energy).

(f) *Specially defined energy property*—

(1) *In general.* Specially defined energy property means only those items described in paragraphs (f) (4) through (14) of this section that meet the requirements of paragraph (f)(2) of this section. The items described in paragraphs (f) (4) through (14) of this section also consist of related equipment, such as fans, pumps, ductwork, piping, and controls, the installation of which is necessary for the specified item to reduce the energy consumed or heat wasted by the process.

(2) *General requirements.* To be eligible, each item described in paragraphs (f) (4) through (14) of this section must be installed in connection with an existing industrial or commercial facility. In addition, the principal purpose of each of those items must be reduction of energy consumed or heat wasted in any existing industrial or commercial process. See section 48(1)(10) and paragraph (1) of this section. If an item performs more than one function, only the incremental cost (as defined in paragraph (k) of this section) of the equipment qualifies.

(3) *Industrial or commercial process.* (i) A process is a means or method of producing a desired result by chemical, physical, or mechanical action. For example, equipment installed in connection with retail sales, general office use, and residential use are not used in a process within the meaning of this paragraph (f)(3).

(ii) An industrial process includes agricultural processes and thermal processes relating to production or manufacture, such as those involving boilers and furnaces.

(iii) A commercial process includes laundering and food preparation.

(iv) More than one process may be conducted in a single facility. The fact that several processes involved in the production of a product are integrated does not cause such integrated processes to be treated as one process. For example, in a food canning facility, producing prepared food from fresh vegetables is not one process but rather an integration of several processes

including washing, cooking and canning.

(v) The following example illustrates this paragraph (f)(3).

*Example.* Corporation X, an advertising agency, acquires an automatic energy control system designed to reduce energy consumed by heating and cooling its office building. Although the use of an office for X's business is a commercial activity, heating or cooling an office is not an industrial or commercial process. The automatic energy control system does not qualify because it does not reduce energy consumed in an industrial or commercial process.

(4) *Recuperators.* Recuperators recover energy, usually in the form of waste heat from combustion exhaust gases, hot exiting product, or product cooling air, that is used to heat incoming combustion air, raw materials, or fuel. Recuperators are configurations of equipment consisting in part of fixed heat transfer surfaces between two gas flows, and include related baffles, dividers, entrance flanges, transition sections, and shells or cases enclosing the other components of the recuperator. In general, a fixed heat transfer surface absorbs heat from a gas or liquid flow or dissipates heat to the gas or liquid flow.

(5) *Heat wheels.* Heat wheels recover energy, usually in the form of waste heat, from exhaust gases to preheat incoming gases. Heat wheels are items of equipment consisting in part of regenerators (which rotate between two gas flows) and related drive components, wiper seals, entrance flanges, and transition sections.

(6) *Regenerators.* Regenerators are devices, such as clinker columns or chains, that recover energy by efficiently storing heat while exposed to high temperature gases and releasing heat while exposed to low temperature gases, fluids, or solids.

(7) *Heat exchangers.* Heat exchangers recover energy, usually in the form of waste heat, from high temperature gases, liquids, or solids for transfer to low temperature gases, liquids, or solids. Heat exchangers consist in part of fixed heat transfer surfaces (described in paragraph (f)(4) of this section) separating two media. Heat exchange equipment does not include fluidized bed combustion equipment.

(8) *Waste heat boilers.* Waste heat boilers use waste heat, usually in the form of combustion exhaust gases, as a substantial source of energy. A substantial source of energy is one that comprises more than 20 percent of the energy requirement on the basis of Btu's during the course of each taxable year (including the start-up year).

(9) *Heat pipes.* Heat pipes recover energy, usually in the form of waste heat, from high temperature fluids to heat low temperature fluids. A heat pipe consists in part of sealed heat transfer chambers and a capillary structure. In general, the heat transfer chambers alternately vaporize and condense a working fluid as it passes from one end of the chamber to the other.

(10) *Automatic energy control systems.* Automatic energy control systems automatically reduce energy consumed in an industrial or commercial process for such purposes as environmental space conditioning (*i.e.*, lighting, heating, cooling or ventilating, etc.). Automatic energy control systems include, for example, automatic equipment settings controls, load shedding devices, and relay devices used as part of such system. Property such as computer hardware installed as a part of the energy control system also qualifies, but only to the extent of its incremental cost (as defined in paragraph (k) of this section).

(11) *Turbulators.* Turbulators increase the rate of transfer of heat from combustion gases to heat exchange surfaces by increasing the turbulence in the gases. A turbulator is a baffle placed in a boiler firetube or in a heat exchange tube in industrial process equipment to deflect gases to the heat transfer surface.

(12) *Preheaters.* Preheaters recover energy, usually in the form of waste heat, from either combustion exhaust gases or steam, to preheat incoming combustion air or boiler feedwater. A preheater consists in part of fixed heat transfer surfaces (described in paragraph (f)(4) of this section) separating two fluids.

(13) *Combustible gas recovery systems.* Combustible gas recovery systems are items of equipment used to recover unburned fuel from combustion exhaust gases.

(14) *Economizers.* Economizers are configurations of equipment used to reduce energy demand or recover energy from combustion exhaust gases and other high temperature sources to preheat boiler feedwater.

(15) *Other property added by the Secretary.* [Reserved]

(g) *Recycling equipment*—(1) *In general.* Recycling equipment is equipment used exclusively to sort and prepare, or recycle, solid waste (other than animal waste) to recover usable raw materials ("recovery equipment"), or to convert solid waste (including animal waste) into fuel or other useful forms of energy ("conversion equipment"). Recycling equipment may include certain other onsite related equipment.

(2) *Recovery equipment.* Recovery equipment includes equipment that—

(i) Separates solid waste from a mixture of waste,

(ii) Applies a thermal, mechanical, or chemical treatment to solid waste to ensure the waste will properly respond to recycling, or

(iii) Recycles solid waste to recover usable raw materials, but not beyond occurrence of the first of the following:

(A) The point at which a material has been created that can be used in beginning the fabrication of an end-product in the same way as materials from a virgin substance. Examples are the fiber stage in textile recycling, the newsprint or paperboard stage in paper recycling, and the ingot stage for other metals (other than iron and steel). In the case of recycling iron or steel, recycling equipment does not include any equipment used to reduce solid waste to a molten state or any process thereafter.

(B) The point at which the material is a marketable product (*i.e.*, has a value other than for recycling) even if the material is not marketed by the taxpayer at that point.

(3) *Conversion equipment.* Conversion equipment includes equipment that converts solid waste into a fuel or other usable energy, but not beyond the point at which a fuel, steam, electricity, hot water, or other useful form of energy has been created. Thus, combustors, boilers, and similar equipment may be eligible if used for a conversion

process, but steam and heat distribution systems between the combustor or boiler and the point of use are not eligible.

(4) *On-site related equipment.* Recycling equipment also includes onsite loading and transportation equipment, such as conveyors, integrally related to other recycling equipment. This equipment may include equipment to load solid waste into a sorting or preparation machine and also a conveyor belt system that transports solid waste from preparation equipment to other equipment in the recycling process.

(5) *Solid waste.* (i) The term “solid waste” has the same meaning as in §1.103-8(f)(2)(ii)(b), subject to the following exceptions and the other rules of this subparagraph (5):

(A) The date the equipment is placed in service is substituted in the first sentence of §1.103-8(f)(2)(ii)(b) for the date of issue of the obligations, and

(B) Material that has a market value at the place it is located only by reason of its value for recycling is not considered to have a market value.

(ii) Solid waste may include a nominal amount of virgin materials, liquids, or gases, not to exceed 10 percent. If more than 10 percent of the material recycled during the course of any taxable year (including the “start up” year) consists of virgin material, liquids, or gases, the equipment ceases to be energy property and is subject to recapture under section 47. The determination of the portion of virgin material, liquids, or gases used is based on volume, weight, or Btu’s whichever is appropriate.

(6) *Ineligible equipment.* Transportation equipment, such as trucks, that transfer solid waste between geographically separated sites (e.g., the collection point and the recycling point) is not eligible. Steam and heat distribution systems are also ineligible.

(7) *Increased recycling capacity.* If the equipment both replaces recycling capacity and increases that capacity at a particular site, only the incremental cost (as defined in paragraph (k) of this section) of increasing the capacity qualifies. Recycling capacity is determined by the ability to produce a product not previously produced by the taxpayer, or more of an existing product,

in a way that does not lower overall production.

(8) *Examples.* The following examples illustrate this paragraph (g).

*Example 1.* Corporation W recycles aluminum scrap metal. W owns a junk yard where it collects and crushes the metal into compact units. W’s trucks bring the scrap metal from the junk yard to its main plant located 3 miles away. W’s furnace equipment at the main plant reduces the scrap to the molten state and W’s rolling equipment rolls the aluminum into sheets. The furnace qualifies, but for two separate reasons the rolling equipment does not qualify. First, the molten aluminum would be a marketable product if reduced to ingots prior to rolling. It is not necessary that W actually reduce the molten aluminum to ingots. Second, the molten aluminum could be used in the same way as virgin material.

*Example 2.* Corporation X manufactures newsprint using wood chips discarded during X’s lumber operations. Assume X could sell the wood chips to other companies located a short distance from X’s mill for use as a fuel. None of the equipment used to manufacture the newsprint qualifies.

*Example 3.* Assume the same facts as in example 2 except X uses old newspapers which have no value except for recycling in the area where X’s mill is located. The equipment qualifies.

*Example 4.* Corporation Y recycles municipal waste. Assume the municipal waste is “solid waste” under paragraph (g)(5) of this section. During the first taxable year Y operates the equipment, Y uses 8,500 pounds of municipal waste and 1,500 pounds of virgin material and liquids. No energy credit is allowed for the equipment.

*Example 5.* Corporation Z owns a waste recovery facility. The corrugated paper portion of the waste stream is picked off a conveyor as it enters the facility. The corrugated paper is baled and sold as a secondary paper product. Z acquires shredding and air-classification equipment. Corrugated paper that is not removed from the conveyor belt enters the new equipment for production as a fuel. Z increases the input of corrugated paper so that the same amount of corrugated paper is removed from the conveyor to be baled. The excess paper that is not removed for baling enters the shredding and air-classification equipment. The new equipment qualifies.

(h) *Shale oil equipment—(1) In general.* Shale oil equipment used in mining or either surface or *in situ* processing qualifies as energy property. Shale oil equipment means equipment used exclusively to mine, or produce or extract oil from, shale rock.

(2) *Eligible processes.* In general, processing equipment qualifies if used in or after the mining stage and up through the retorting process. Thus, eligible processes include crushing, loading into the retort, and retorting, but not hydrogenation, refining, or any process subsequent to retorting. However, with respect to *in situ* processing, eligible processes include creating the underground cavity.

(3) *Eligible equipment.* Shale oil equipment includes—

(i) Heading jumbos, bulldozers, and scaling and bolting rigs used to create an underground cavity for *in situ* processing.

(ii) On-site water supply and treatment equipment and handling equipment for spent shale.

(iii) Crushing and screening plant equipment, such as hoppers, feeders, vibrating screens, and conveyors.

(iv) Briquetting plant equipment, such as hammer mills and vibratory pan feeders, and

(v) Retort equipment, including direct cooling and condensing equipment.

(i) [Reserved]

(j) *Natural gas from geopressured brine.* Equipment used exclusively to extract natural gas from geopressured brine described in section 613A(b)(3)(C)(i) is energy property. Eligible equipment includes equipment used to separate the gas from saline water and remove other impurities from the gas. Equipment is eligible only up to the point the gas may be introduced into a pipeline.

(k) *Incremental cost.* The term “incremental cost” means the excess of the total cost of equipment over the amount that would have been expended for the equipment if the equipment were not used for a qualifying purpose. For example, assume equipment costing \$100 performs a pollution control function and another function. Assuming it would cost \$60 solely to perform the nonqualifying function, the incremental cost would be \$40.

(1) *Existing*—(1) *In general.* For purposes of section 48(l), the term “existing” means—

(i) When used in connection with a facility or equipment, 50 percent or more of the basis of that facility or equipment is attributable to construc-

tion, reconstruction, or erection before October 1, 1978, or

(ii) When used in connection with an industrial or commercial process, that process was carried on in the facility as of October 1, 1978.

(2) *Industrial or commercial process.* (i) A process will be considered the same as the process carried on in the facility as of October 1, 1978, unless and until capitalizable expenditures are paid or incurred for modification of the process. The expenditures need not be capitalized in fact; it is sufficient if the taxpayer has an option or may elect to capitalize. In general, the date of change will be the date the expenditures are properly chargeable to capital account. If the taxpayer properly elects to expense a capitalizable expenditure, the date of change will be the date the expenditure could have been properly chargeable to capital account if the expenditure had been capitalized. Recapture will not occur by reason of a change in a process unless the process change also changes the use of the equipment. See example (1) of § 1.47-1(h)(5).

(m) *Quality and performance standards*—(1) *In general.* Energy property must meet quality and performance standards, if any, that have been prescribed by the Secretary (after consultation with the Secretary of Energy) and are in effect at the time of acquisition.

(2) *Time of acquisition.* Under this paragraph (m) the time of acquisition is—

(i) The date the taxpayer enters into a binding contract to acquire the property or

(ii) For property constructed, reconstructed, or erected by the taxpayer, (A) the earlier of the date it begins construction, reconstruction, or erection of the property, or (B) the date the taxpayer and another person enter into a binding contract requiring each to construct, reconstruct, or erect property and place the property in service for an agreed upon use. See example under paragraph (m)(4) of this section.

(3) *Binding contract.* Under this paragraph (m), a binding contract to construct, reconstruct, or erect property, or to acquire property, is a contract

that is binding at all times on the taxpayer under applicable State or local law. A binding contract to construct, reconstruct, or erect property or to acquire property, does not include a contract for preparation of architect's sketches, blueprints, or performance of any other activity not involving the beginning of physical work.

(4) *Example.* The following example illustrates this paragraph (m).

*Example.* Corporation X owns a junk yard. Corporation Y manufactures recycling equipment and operates several recycling facilities. On January 1, 1979, X and Y enter into a written contract that is binding on both parties on that date and at all times thereafter. Under the contract's terms X will supply scrap metals to Y and Y agrees in return to build a recycling facility on land adjacent to the junk yard. Y will own and operate the facility using the scrap metal supplied by X. Y may treat the agreement as a binding contract under paragraph (m) (2) and (3) of this section.

(n) *Public utility property*—(1) *Inclusions.* Public utility property is included in both of the following categories of energy property:

- (i) Shale oil equipment and
- (ii) Equipment for producing natural gas from geopressured brine.

(2) *Exclusions.* Public utility property is excluded from each of the following categories of energy property:

- (i) Alternative energy property,
- (ii) Specially defined energy property,
- (iii) Solar or wind energy property, and
- (iv) Recycling equipment.

(3) *Public utility property.* The term "public utility property" has the meaning given in section 46(f)(5).

(o)–(p) [Reserved]

(q) *Qualified intercity buses*—(1) *In general.* This paragraph (q) prescribes rules and definitions for purposes of section 48(1)(2)(A)(ix) and (16). Energy property includes qualified intercity buses of an eligible taxpayer, but only to the extent of the increase in the taxpayer's total operating seating capacity (operating capacity) under paragraphs (q) (9), (10), and (11) of this section. For application of recapture rules see § 1.47-1(h)(3)(ii).

(2) *Eligible taxpayer.* A taxpayer is an eligible taxpayer only if it is determined to be both—

(i) A common carrier regulated by the Interstate Commerce Commission or an appropriate State agency and

(ii) Engaged in the trade or business of furnishing intercity transportation by bus.

(3) *Common carrier.* The taxpayer is a common carrier only if the taxpayer holds itself out to the general public as providing passenger bus transportation for compensation over regular or irregular routes, or both.

(4) *Appropriate State agency.* A State agency is appropriate only if it has both—

(i) Power to regulate intrastate transportation provided by a motor carrier, within the meaning of section 10521(b)(1) of the Revised Interstate Commerce Act (49 U.S.C. 10521(b)(1)), and

(ii) Power to initiate an exemption proceeding under section 1025(b) of that Act (49 U.S.C. 10525(b)).

(5) *Intercity transportation.* Intercity transportation means intercity passenger transportation or intercity passenger charter service. Intercity transportation does not include transportation provided entirely within a municipality, contiguous municipalities, or within a zone that is adjacent to, and commercially a part of, the municipality or municipalities (within the meaning of section 10526(b)(1) of the Revised Interstate Commerce Act (49 U.S.C. 10526(b)(1))). See 49 CFR part 1048 (regulations defining commercial zones under that statute).

(6) *Definition of qualified intercity bus.* A qualified intercity bus (qualifying bus) is an automobile bus—

(i) The chassis and body of which are exempt (under section 4063(a)(6)) from the 10-percent excise tax generally imposed under section 4061(a) on trucks and buses.

(ii) With a seating capacity of at least 36 passengers (in addition to the driver).

(iii) With one or more baggage compartments, in an area separated from the passenger area, with an aggregate capacity of at least 200 cubic feet, and

(iv) Which meets the predominant use test.

(7) *Predominant use test.* (i) A bus meets the predominant use test for a

taxable year only if it meets the following conditions:

(A) It is used on a full-time basis during the taxable year, and

(B) At least 70 percent of the total miles driven are driven while furnishing intercity transportation.

(ii) A bus driven from the end point of one trip to the beginning point of another trip ("deadheading"), both of which furnish intercity transportation of passengers, will be considered to have been driven while furnishing intercity transportation of passengers, even if no passengers are carried.

(iii) A bus is considered used on a full-time basis in a taxable year if it was driven 10,000 miles in that year. If available, the best evidence of annual mileage is the difference between odometer readings at the beginning and end of each taxable year. If the bus was placed in service during the taxable year, or for a short taxable year described in section 441(b)(3), that 10,000 mile figure is prorated on a daily basis.

(iv) If a qualifying bus fails to meet the predominant use test in a taxable year, a cessation occurs in that taxable year. See § 1.47-1(h)(3)(ii).

(v) The following examples illustrate this paragraph (q)(7):

*Example 1.* X, a bus company, used a bus for trips between city M and city N, a distance of 100 miles. These trips qualify as furnishing intercity transportation. During the taxable year, 300 round trips were run carrying passengers both ways and 75 trips were run carrying passengers from city M to city N immediately after each of which the bus was returned to city M for the next trip. The bus was also driven 20,000 miles to furnish passenger service which was local transportation. During the taxable year, the bus was driven a total of 100,000 miles. X makes the following calculations to determine if it met the predominant use test for the taxable year.

1. Total miles driven .....	100,000
2. Intercity miles driven:	
a. Passenger round trips (100×2×300)	60,000
b. Passenger one-way (75×100) .....	7,500
c. Non-passenger return trips (75×100) .....	7,500
3. Total intercity passenger miles (sum of lines 2 a, b, and c) .....	75,000
4. 79% of line 1 .....	70,000

Since line 1 is not less than 10,000 miles, the full-time use requirement is met. Since line 3 is greater than line 4, the 70 percent intercity mileage test is met. Thus, for the tax-

able year, the bus meets the predominant use test in paragraph (q)(7)(i) of this section.

*Example 2.* The facts are the same as in example 1, except that the bus was placed in service on the last day of the taxable year. The bus was used only to run one round trip, carrying passengers, between cities M and N. 10,000 miles X one day ÷ 365 days = 27.4 miles. Because, for the one day of the taxable year that the bus was in service, the bus was driven more than 27.4 miles, and all these miles were driven to furnish intercity transportation, it met the predominant use test for the taxable year.

(8) *Leased buses.* (i) A bus which is leased is energy property only if it meets the requirements of paragraphs (q)(6) (i), (ii), and (iii) of this section, the lessee is an eligible taxpayer, and the bus meets the predominant use test in the hands of the lessee. If a leased bus is energy property, the energy credit is available only to the lessee unless paragraph (q)(8)(ii) of this section applies. The lessor must elect under section 48(d) for the lessee to claim the energy credit.

(ii) If a leased bus is energy property and, on or before October 9, 1984, either (A) the lessor and lessee enter into a lease and the lessee places the bus in service, or (B) the bus is not placed in service but the lessor and lessee enter into a binding contract under which the amount of the lease payments cannot be modified, then the energy credit is available to the lessor even if the lessor is not an eligible taxpayer.

(iii) Notwithstanding § 1.47-2(b)(1) (relating to the effect of a disposition by the lessee on the credit claimed by the lessor), if, by reason of a lease or the termination of a lease, a bus is used in a taxable year subsequent to the credit year by a person other than the one whose increase in operating capacity determined the amount of qualified investment for the energy credit, a disposition of the bus under § 1.47-1(h)(2) results. However, if the energy credit for a bus was earned in a taxable year and a lease of the bus which qualifies under section 168(f)(8) (safe-harbor lease) is entered into in a subsequent taxable year, the safe-harbor lease is not a disposition of the bus and the lessee under that lease is treated as the lessee for purposes of this paragraph (q)(8). For the requirement to file an amended return if the energy credit

was allowed in a prior taxable year, see §5c.168(f)(8)-6(b)(2)(ii) (Temporary Income Tax Regulations under the Economic Recovery Tax Act of 1981). For the rule for determining whose operating capacity determines qualified investment for the energy credit, see paragraph (q)(9)(ii) of this section. For the rule for leases to related taxpayers, see paragraph (q)(10)(ii) of this section.

(9) *Operating capacity.* (i) Qualified investment for a qualifying bus is taken into account for the energy credit only to the extent the bus increases the taxpayer's operating capacity. To increase operating capacity, a bus must be counted in operating capacity. The increase in a taxpayer's operating capacity is the excess of the taxpayer's operating capacity for the current taxable year over its operating capacity for the immediately preceding taxable year. Related taxpayers determine operating capacity on a group basis under paragraph (q)(10) of this section.

(ii) Operating capacity for a particular taxable year is determined by adding together the seating capacities of all intercity buses used by the taxpayer in that year and still owned by the taxpayer at the end of that year. An intercity bus is a bus which meets the chassis and body test and the predominant use test in paragraph (q)(6) of this section whether or not the bus is still in use at the end of the taxable year. In the case of a leased bus to which paragraph (q)(8) of this section applies, the lessee's operating capacity determines qualified investment for the energy credit.

(iii) The qualified investment for the energy credit for a qualifying bus is the bus's qualified investment for the regular credit multiplied by a fraction. The numerator of the fraction is the increase in the taxpayer's operating capacity for the taxable year. The denominator is the added operating capacity for the taxable year. Added operating capacity for the taxable year is determined for a taxpayer by adding together the seating capacities of the taxpayer's intercity buses included in operating capacity for the taxable year which were not included in operating capacity for the immediately preceding taxable year.

(iv) In the case of a partnership, each partner's qualified investment for the energy credit for a qualifying bus is the partner's qualified investment for the regular credit (determined under §1.46-3(f) multiplied by the fraction referred to in paragraph (q)(9)(iii) of this section for the partnership, as determined for the partnership taxable year in which the bus is placed in service.

(v) The following example illustrates this paragraph (q)(9):

*Example.* Corporation Y is a calendar year bus company that is an eligible taxpayer under paragraph (q)(2) of this section. Based upon the facts as set forth in the following table, Y makes the following calculations to determine the energy credit earned in 1981:

1. 1980 operating capacity determined as of 12/31/80:		
a. 5 intercity buses×50 seats each .....		250
b. Total 1980 operating capacity .....		250
2. 1981 operating capacity determined as of 12/31/8:		
a. 2 1980 buses used on a full-time basis in 1981 .....		100
b. 1981 added capacity:		
i. Qualifying buses:		
Bus 1 .....		45
Bus 2 .....		55
Bus 3 .....		50
ii. Intercity bus not a qualifying bus .....		50
iii. Total 1981 added capacity .....		200
c. Total 1981 operating capacity .....		300
3. 1981 increase in operating capacity (line 2c - line 1b) .....		50
4. Fraction for determining qualified investment attributable to increase in capacity (line 3+line 2 (b)(iii)) .....		1/4

Accordingly, the energy credit earned in 1981 for each of the qualifying buses is determined as follows:

Qualified investment for the regular credit	×	Line 4	×	Energy per-cent-age	=	Energy credit earned
Bus 1: \$15,000		1/4		10		\$375
Bus 2: \$20,000		1/4		10		500
Bus 3: \$25,000		1/4		10		625
Total energy credit earned in 1981						1,500

(10) *Related taxpayers.* (i) Related taxpayers are treated as one taxpayer in determining the increase in operating capacity under paragraph (q)(9)(ii) of this section and in determining the qualified investment in qualified intercity buses for the energy credit under paragraph (q)(9)(iii) of this section. Related taxpayers are members of a group

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of trades or businesses that are under common control (as defined in § 1.52-1(b)).

(ii) Related taxpayers make all computations relating to operating capacity on a group basis. Also, the determination of whether a bus meets the predominant use test is made on a group basis by aggregating bus usage by each member of the group. For example, if a bus is acquired by one member and used by that member for part of a taxable year and used by other members for the remainder, the combined usage is aggregated in determining whether the predominant use test is met. In addition, all related taxpayers are treated as one person in applying paragraph (q)(8) of this section (relating to leasing).

(iii) The energy credit earned for a qualifying bus is allocated to the member which acquired (or is a lessee treated under section 48(d) as having acquired) the bus whether or not that member had a separate increase in operating capacity for the taxable year.

(iv) Each member must make its own computation of the group's increase in operating capacity for the period comprising its taxable year. A member will make this computation as of the end of its taxable year ignoring different taxable years of other members. For the period comprising its taxable year, the member makes all calculations relating to group operating capacity, including the determination of full-time use by other members.

(v) Each member determines the composition of the group as of the end of that member's taxable year. For example, if X uses the calendar year and makes its computation as of December 31, 1981, and Y is a member of X's group at that time, Y's operating capacity determined as of the end of X's immediately preceding taxable year (December 31, 1980) is taken into account by X for 1980 even if Y was not a member of the group for any day prior to December 31, 1981.

(vi) The following example illustrates this paragraph (q)(10):

*Example (a).* Corporations X and Y are related taxpayers. In this example, each bus is a qualifying bus with a seating capacity of 50. Each bus owned at the close of either X's or Y's taxable year was used on a full-time

basis for the relevant period corresponding to X's or Y's taxable year. Other facts are set forth in the following table:

	X	Y
Taxable year ends	Dec. 31 .....	June 30.
Operating capacity for 1979.	5 buses .....	10 buses.
Buses added .....	3 buses Mar. 1, 1980.	3 buses May 15, 1981.
Buses sold .....	2 buses Mar. 31, 1981.	2 buses Sept. 30, 1980.
Cost of each added bus.	\$40,000 .....	\$60,000.

(b) X makes the following calculations to determine the energy credit earned for calendar year 1980.

1. 1979 operating capacity determined as of 12/31/79:	
a. Attributable to X (5 buses×50 seats) .....	250
b. Attributable to Y (10 buses×50 seats) ....	500
c. Total 1979 operating capacity .....	750
2. 1980 operating capacity determined as of 12/31/80:	
a. X's 5 and Y's 8 1979 buses used on a full-time basis in 1980 and still owned on 12/31/80 .....	650
b. 1980 added capacity (X's 3 buses×50 seats) .....	150
c. Total 1980 operating capacity .....	800
3. 1980 increase in operating capacity (line 2c - line 1c) .....	50
4. Fraction in paragraph (q)(9)(iii) of this section (line 3÷line 2b) .....	1/3

Accordingly, X earned an energy credit of \$4,000 in 1980 ( $\$40,000 \times \frac{1}{3} \times 10\% \times 3$  buses).

(c) Since in calendar year 1981 X placed no qualifying buses in service, X earned no energy credit in 1981.

(d) Since in the taxable year 7/1/79-6/30/80 Y placed no qualifying buses in service, Y earned no energy credit in that taxable year.

(e) Y makes the following calculations to determine the energy credit earned in the taxable year 7/1/80-6/30/81.

1. Operating capacity for the taxable year ending 6/30/80 determined as of the close of that year:	
a. Attributable to X (8 buses×50 seats) .....	400
b. Attributable to Y (10 buses×50 seats) ....	500
c. Total operating capacity for that year .....	900
2. Operating capacity for the taxable year ending 6/30/81 determined as of the close of that year:	
a. X's 6 and Y's 8 buses from prior taxable year used on a full-time basis during current taxable year and still owned on 6/30/81 .....	700
b. Capacity added during current taxable year (Y's 3 buses×50 seats) .....	150
c. Total operating capacity for that year .....	850
3. Increase in operating capacity for taxable year ending 6/30/81 (line 2c - line 1c) .....	(50)

As determined for Y's taxable year ending 6/30/81 the group experienced a decrease in operating capacity. Thus, no energy credit is available for the buses Y placed in service in its taxable year ending 6/30/81.



(11) *Section 381(a) transactions.* (i) In the case of a transaction described in section 381(a), the operating capacity of each transferor or distributor corporation, determined as of the date of distribution or transfer (within the meaning of § 1.381(b)-1(b)), shall reduce the operating capacity of the acquiring corporation (determined without this paragraph (q)(11)) for its first taxable year ending on or after that date for purposes of determining the acquiring corporation's energy credit for that year. This paragraph (q)(11) shall not apply to any case to which paragraph (q)(10) of this section (dealing with related taxpayers) applies.

(ii) The following example illustrates this paragraph (q)(11):

*Example.* X and Y are unrelated corporations which use the calendar year. For 1981, each has an operating capacity of 250 seats (5 buses×50 seats). X merges into Y on January 1, 1982. On May 1, 1982, Y retires and sells two buses and acquires four 50-seat qualifying buses at a cost of \$40,000 each. All buses owned by Y on December 31, 1982, are included in operating capacity. Y makes the following calculations to determine the energy credit earned in taxable year 1982.

1. Y's 1981 operating capacity determined as of 12/31/81 .....	250
2. 1982 operating capacity determined as of 12/31/82 without this paragraph (q)(11):	
a. X's 5 buses plus Y's 5 1981 buses less 2 retired buses (8 buses×50 seats) .....	400
b. 1982 added capacity (4 buses×50 seats) .....	200
c. Total .....	600
3. Operating capacity of transferor (X) on 1/1/82 .....	250
4. Y's 1982 operating capacity (line 2c - line 3) .....	350
5. 1982 increase in operating capacity (line 4 - line 1) .....	100
6. Fraction in paragraph (q)(9)(iii) of this section (line 5÷ line 2b) .....	1/2
7. Energy credit earned in 1982 (\$40,000×1/2×10%×4 buses) .....	\$8,000

(Secs. 7805 (68A Stat. 917, 26 U.S.C. 7805) and 38 (b) (76 Stat. 962, 26 U.S.C. 38) of the Internal Revenue Code of 1954; secs. 38(b) (76 Stat. 963, 26 U.S.C. 38(b)), 48(1)(16) (94 Stat. 264, 26 U.S.C. 48(1)(16)), and 7805 (68A Stat. 917, 26 U.S.C. 7805))

[T.D. 7291, 46 FR 7291, Jan. 23, 1981, as amended by T.D. 7982, 49 FR 39542, Oct. 9, 1984; 49 FR 41246, Oct. 22, 1984; T.D. 8014, 50 FR 11853, Mar. 26, 1985; T.D. 8147, 52 FR 27337, July 21, 1987]

#### § 1.48-10 Single purpose agricultural or horticultural structures.

(a) *In general—(1) Scope.* Under section 48(a)(1)(D), "section 38 property"

includes single purpose agricultural and horticultural structures, as defined in section 48 (p) and paragraphs (b) and (c) of this section. These structures are subject to a special rule for recapture of the credit. See paragraph (g) of this section. For the relation of this section to section 48(a)(1)(B) (other tangible property) and to sections 1245 and 1250 (depreciation recapture), see paragraph (h) of this section.

(2) *Effective date.* The provisions of section 48(a)(1)(D) and this section apply to open taxable years ending after August 15, 1971.

(b) *Definition of single purpose agricultural structure—(1) In general.* Under section 48(p)(2), a single purpose agricultural structure is any structure or enclosure that meets all of the following requirements:

(i) It is specifically designed and constructed for permissible purposes (as defined in paragraph (b)(2) of this section). See paragraph (d) of this section for the rule regarding "specifically designed and constructed".

(ii) It is specifically used exclusively for those permissible purposes. See paragraph (e) of this section for the rules regarding "specifically used".

(iii) It houses equipment necessary to house, raise, and feed livestock and their produce. See paragraphs (b)(3) and (4) of this section.

(2) *Permissible purposes.* The following are the only permissible purposes for a single purpose agricultural structure:

(i) Housing, raising, and feeding a particular type of livestock and, at the taxpayer's option, its produce. The term "housing, raising, and feeding" includes the full range of livestock breeding and raising activities, including ancillary post-production activities (as defined in paragraph (f) of this section). Thus, for example, use of a structure for breeding livestock, or for producing eggs or livestock, is permitted. The structure may also be used for storing feed or machinery, but more than strictly incidental use for these purposes will disqualify the structure. See paragraph (e)(1) of this section. For the special rule concerning the permissible purposes for a milking parlor, see paragraph (b)(2)(iii) of this section.