Internal Revenue Service

Number: **201308005**
Release Date: 2/22/2013

Index Number: 48.00-00

Department of the Treasury
Washington, DC 20224

Third Party Communication: None
Date of Communication: Not Applicable
Person To Contact:
, ID No.
Telephone Number:

Refer Reply To:

PLR-121432-12
Date:
November 20, 2012

LEGEND:
Taxpayer

State A
State B
City
a
b
c
d

Dear :

This is in response to your request for rulings, submitted by your authorized representative, concerning the federal income tax consequences of the transaction described below. The facts as represented by the Taxpayer are as follows.

Taxpayer is a State A corporation. Taxpayer is a large solar developer headquartered in City, State B with numerous projects completed or underway in more than a dozen states. Taxpayer files a consolidated tax return.

Taxpayer designs, finances and installs residential and commercial solar photovoltaic systems on the roofs of houses, big-box stores, schools, and other buildings throughout the United States. It also provides on-going monitoring and repair services for the systems it installs. Taxpayer usually retains ownership of the systems and either leases them to the homeowners and businesses or sells electricity from them

to such customers under long-term power contracts. However, it makes direct sales in some cases to homeowners who prefer to own.

The typical system is a set of solar photovoltaic panels mounted on the roof of a home or other building, wiring and an inverter to convert the electricity from AC to DC. Taxpayer is starting to include batteries with some systems.

The typical residential battery has a storage capacity of b kWh and a power rating of a kWh and can store from b% to c% of the expected average daily energy output of the solar system. It is usually mounted next to the inverter and electrical panel. A typical battery has useful life of approximately b years after which it will be replaced if the related customer agreement remains in effect.

The primary use of the battery is to make the best use of solar electricity and correct for deficiencies in the photovoltaic system since it produces energy during daylight hours in a pattern that may not match peak usage by the customer. The battery allows the customer to store the solar electricity during the day and use it later after the sun has set when customer usage increases. It can also serve four other purposes.

The battery puts the customer in a position to save money by storing electricity from both the system and the grid during off-peak hours to be used by the customer during peak hours or supplied back to the grid during peak hours under a net metering arrangement. Under a net metering arrangement, a customer can supply the excess electricity generated by the system to the local utility and credit the value against its future electricity bills from the utility.

The battery also allows the customer to regulate the “ramp rate” at which electricity is fed into the grid in areas where the large amount of intermittent renewable generating equipment makes it hard for the grid to accommodate additional renewable generators. Ramp control may be called for if output from renewables such as solar and wind fluctuates rapidly, forcing all generators to reduce the amount of energy they feed into the grid. This can lead to lost revenue or grid instability. A battery gives the solar system the option of storing power in the battery during fast ramp periods rather than let the electricity go to waste.

The battery can also provide ancillary services to the grid like “regulation services” where the customer is given additional billing credit for being willing to let the grid pull electricity from the battery and shed electricity to the battery when needed to stabilize the grid. The electricity grid operates at a frequency of d cycles per second (hz) when the supply of electricity and the demand for it, or load, are in balance. If the supply increases in relation to load, then the frequency increases. To avoid problems from imbalances in supply and demand, the grid relies on electricity generators who have bid to provide regulation services to increase or reduce output from their power

plants within seconds of receiving notice. Solar power projects have a hard time doing this because of their dependence on the sun. By adding a storage device, a solar facility puts itself in a position to be able to provide regulation services in the same way as other power plants.

Finally, the battery can be used by a customer to reduce its demand charges for electricity. Demand charges are the opposite of a capacity payment to a generator; the customer may have to pay a separate charge for the ability to draw on electricity from the grid. A customer could use the battery to shave its peak usage and, therefore, reduce its peak reservation charge. Solar systems generate electricity when the sun shines; they do not after the sun sets. Adding a battery puts the owner in a better position to try to limit its peak usage of electricity from the grid. The battery permits the customer to store electricity from both the system and the grid during off-peak hours to be used by the customer during peak hours or supplied back to the grid during peak hours under a net metering arrangement.

This ruling request concerns property owned by Taxpayer

RULINGS REQUESTED

The Taxpayer has requested the Service to rule that:

(i) The storage device will be considered part of the "energy property" within the meaning of § 48(a)(3)(A)(i) and, therefore, an investment credit may be claimed on its full cost; and

(ii) The investment credit claimed on the storage device will be subject to recapture in the same circumstances as the credit claimed on the rest of the solar sytem and will not be subject to a separate 75% “cliff”; and

LAW AND ANALYSIS

Section 48(a)(2)(A)(i)(II) of the Code provide that the energy percentage is 30 percent in the case of energy property described in paragraph (3)(A)(i) but only with respect to periods ending before January 1, 2017.

Section 48(a)(3)(A)(i) provides that the term “energy property” means any property which is equipment which uses solar energy to generate electricity, to heat or cool (or provide hot water for use in) a structure, or to provide solar process heat, excepting property used to generate energy for the purposes of generating energy for the purposes of heating a swimming pool.

Section1.48-9(a)(2) of the regulations provides that in order to qualify as “energy property” under § 48 of the Code, property must be depreciable property with an estimated useful life when placed in service of at least three years and constructed after certain dates.

Sections 1.48-9(d)(1) of the regulations provides, in part, that 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 generate electricity. Generally, these functions are accomplished through the use of equipment such as collectors. 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.

Section 1.48-9(d)(3) of the regulations provides, in part, that solar energy property includes equipment that uses solar energy to generate electricity, and includes storage devices and parts related to its functioning. However, solar energy property used to generate electricity includes only equipment up to (but not including) the stage that transmits or uses electricity.

Section 1.48-9(d)(6) of the regulations provides, in part, that solar energy property does not include equipment (auxiliary equipment) that use a source of power other than solar to provide usable energy. 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 output in an annual measuring period and (ii) only to the extent of its basis or cost allocable to its use of solar energy during an annual measuring period. An “annual measuring period” for an item of dual use equipment is the 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. Section 1.48-9(d)(8)(h)(i) provides, in part, that if on a Btu basis, only 80 percent of the total energy input to certain equipment is from solar energy then only 80 percent of the cost basis of such equipment qualify for the energy credit. 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. Thus, if on a Btu basis, only 70 percent of the total energy input to that equipment for the 365 day period is from solar energy then there will be complete recapture of the credit. 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 taxable year. However, no additional credit is allowable for that equipment in a subsequent taxable year, if the portion of its basis or cost allocable to use of solar energy increases above what it was for a previous taxable year (collectively the 75% ‘cliff’).

In the instant case, the regulations clearly provide that solar energy property includes a storage device. The main function of the storage device is to make the best use of solar electricity and correct for deficiencies in the photovoltaic system since it produces energy during daylight hours in a pattern that may not match peak usage by the customer. The storing of electricity for use at a later time is a classic use of a battery (and hence a storage device). Further, although the device will be used to store electricity to be used at another time, the device does not constitute transmission equipment. However, the facts indicate that the battery permits the customer to store electricity from both the system and the grid during off-peak hours to be used by the customer during peak hours or supplied back to the grid during peak hours under a net metering arrangement.

Accordingly, based on the foregoing, we conclude that:

(i) The storage device will be considered part of the "energy property" within the meaning of § 48(a)(3)(i) and, therefore, an investment credit may be claimed on its full cost; and

(ii). The investment credit claimed on the storage device will not be subject to recapture in the same circumstances as the credit claimed on the rest of the solar system but will, in fact, be subject to a separate 75% “cliff” cited in § 1.48-9(d) of the regulations.

In accordance with the Power of Attorney on file with this office, we are sending a copy of this letter to your authorized representatives. A copy of this ruling must be attached to any income tax return to which it is relevant. Alternatively, taxpayers filing their returns electronically may satisfy this requirement by attaching a statement to their return that provides the date and control number of the letter ruling

We express no opinion concerning any issue not directly addressed in this ruling.

This ruling is directed only to the Taxpayer who requested it. Section 6110(k)(3) of the Code provides it may not be used or cited as precedent. We are sending a copy of this letter ruling to the Industry Director.

Sincerely,

Peter C. Friedman
Senior Technician Reviewer, Branch 6
Office of Associate Chief Counsel (Passthroughs & Special Industries)