



Example Business Case: Kit Purchased by For-Profit Business

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Facts

- Missouri working farm – Greener Pastures Inc. (GP, Inc. hereinafter) – currently pumps their water using diesel-powered generators.
- GP, Inc. desires to install a solar-powered pump system (SIP Kit) to replace their diesel-powered generators.
- GP, Inc. will need to modify the area to conform the kit to maximize input (sunlight) and to customize the output for desired use. It is anticipated that the entire cost of each SIP Kit including installation will be \$10,000.
- GP, Inc. desires to recoup the costs in as little time as possible and to benefit from any allowed federal and state tax credits as well as accelerated depreciation options.

Issue

What requirements must be met to achieve the Section 48 tax credit?

Reasoning and Support in Order of Reliance

- Internal Revenue Code (IRC) and Regulations for 48, 167, 168, 1245
- Revenue Procedure 87-56
- Hospital Corp Of America tax court case
- IRS Publication 946
- IRC Section 1603 credit guidance

Analysis and Conclusion

There shall be allowed as a deduction a reasonable allowance for the exhaustion, wear and tear of property used in a trade or business. Solar electric systems and equipment are likely to be used in a trade or business and classified as energy property with a modified accelerated cost recovery system (MACRS) class life of 5-years.

Generally, a solar energy equipment system involves the transformation of sunlight into heat or electricity through the use of such devices as solar cells or other collectors, storage systems for electricity and for hot air or hot water (including rock beds), heat exchangers to utilize captured and stored energy, and related equipment, such as fans and thermostats. Property that uses, as an energy



source, fuel or energy derived indirectly from solar energy, such as ocean thermal energy, fossil fuel, or wood, isn't considered solar energy property.

Solar energy property includes/does not include the following types of property:

1. equipment that uses solar energy to generate electricity and parts related to the functioning of those items
2. includes storage devices and parts related to the functioning of those items
3. power conditioning equipment and parts related to the functioning of those items
4. transfer equipment and parts related to the functioning of those items
5. the transformation of sunlight into electricity through the use of such devices as solar cells or other collectors
6. equipment up to (but not including) the stage that transmits or uses electricity
7. equipment that uses solar energy beyond the distribution stage is eligible only if specially adapted to use solar energy
8. Pipes and ducts used exclusively to carry energy derived from solar energy are solar energy property for purposes of the energy credit
9. Pipes and ducts that are used to carry both energy derived from the solar energy and energy derived from other sources are solar energy property only if their use of energy other than solar energy does not exceed 25% of their total energy input in an annual measuring period, and only to the extent of their basis or cost allocable to their use of solar energy during an annual measuring period. The same rule applies to "auxiliary equipment" such as hot water tanks, which is utilized by both auxiliary equipment and solar energy equipment. Property used in this way is called "dual-use" equipment. The 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 dual use equipment can 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 IRS will consider any other method that accurately establishes the relative annual use by dual use equipment of solar energy and energy derived from other sources.
10. Solar energy property does not include so-called auxiliary equipment such as furnaces and hot water heaters that use a source of power other than solar energy to provide usable energy.
11. 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). So-called "passive" solar energy systems do not qualify for the energy credit, even if they are combined with "active" solar systems. 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. Passive systems are 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. It is not necessary for solar energy property to comprise a completely functional solar system in order to qualify for the credit.
12. The Tax Court has held that solar energy property is any equipment that uses solar energy to generate electricity, to heat, cool, or provide hot water for use in a structure, or to provide solar process heat, and includes parts solely related to the functioning of such equipment. Thus, an incomplete system made up of qualifying parts, such as collectors, storage tanks, thermostats, heat exchangers, etc., can qualify for the credit.

Page 3

In regard to qualifying for the federal business energy credit of 30%, per the 1603 credit guidance, the guidance clearly states the cost of solar energy equipment systems will qualify for the credit.

The pumping system that has been adapted to being powered exclusively by “active” solar energy systems will qualify for the credit. As always consult your advisor as the specific facts.

Sample Analysis Conclusion

- Cost of \$10,000 for the SIP Kit system as energy property and depreciated over 5 years before considering the tax credits. The credit would equate to \$3,000 and coupled with \$8,500 of depreciable basis that could be deducted immediately via IRC 179 or via bonus depreciation methods coupled with MACRS depreciation – tax affected at 30% (approximate additional tax benefits of \$2,500). The additional cost to be recovered via other benefits is approximately \$4,500.

The preceding study applies to the purchase of all versions of Dankoff Solar Pumps LLC’s SIP Kit only. Individual pump and pump component purchases will not qualify.

The above case study does not take into account State credits and basis adjustments. Consult our firm or your tax professional for specific facts and circumstances.

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