

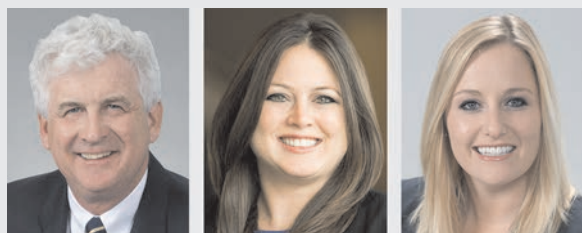
Back to the Beginning: Energy Property Revisited

By Sean Moran, Nicole Gambino, and Lauren Chase

Reprinted from *Tax Notes*, December 19, 2016, p. 1493

Back to the Beginning: Energy Property Revisited

by Sean Moran, Nicole Gambino, and
Lauren Chase



Sean Moran Nicole Gambino Lauren Chase

Sean Moran and Nicole Gambino are partners and Lauren Chase is an associate in the energy and infrastructure practice group at Wilson Sonsini Goodrich & Rosati. The authors thank Lysondra Ludwig and Caitlin Kelly-Garrick for their assistance in the preparation of this article.

In this article, Moran, Gambino, and Chase discuss the availability of the energy investment tax credit under section 48 for storage facilities charged by solar energy. They identify situations in which eligibility for the credit is clear, and they analyze more challenging scenarios.

As we have previously discussed,¹ Congress greatly helped spur investment in solar and other renewable energy projects by enacting and then extending² the energy investment tax credit under section 48.³ Originally enacted in 1962, the ITC is available for “equipment which uses solar energy to

generate electricity” (among other technologies).⁴ As is often the case, much of tax law resides in the regulations promulgated under the 1986 code. Regulations under section 48 provide guidance, elaboration, and lengthy definitions regarding the ITC. The regulations:

- define general categories of property that qualify for the energy credit (tangible personal property for which depreciation is allowable);⁵
- indicate which equipment directly generates electricity from solar energy;⁶
- identify where property must be used to qualify for the ITC (subject to many exceptions);⁷
- specify when property is considered tax-exempt use property (and thus ineligible for the energy credit);⁸
- clarify when property is considered new or used;⁹
- explain how a lessor may elect to treat the lessee as the owner;¹⁰ and, of critical importance,
- specify what constitutes energy property.¹¹

First promulgated in 1981, the section 48 regulations define solar energy property through a “what’s in and what’s out” approach, and they use many examples to explain the general meaning. They provide that to be eligible for the ITC, solar equipment must use solar energy to directly generate electricity. The regulations suggest that this is accomplished by using collectors (to absorb sunlight and create hot liquids or air), storage tanks (to store hot liquids), rock beds (to store hot air), thermostats (to activate pumps or fans, which circulate the hot liquids or air), and heat exchangers

¹Sean Moran, Nicole Gambino, and Lauren Chase, “Renewable Power Facilities: Placed-in-Service Issues,” *Tax Notes*, May 23, 2016, p. 1109.

²The Revenue Reconciliation Act of 1990, P.L. 101-508; the Energy Policy Act of 1992, P.L. 102-486; the Energy Policy Act of 2005, P.L. 109-58; the American Taxpayer Relief Act of 2012, P.L. 112-240; the Tax Increase Prevention Act of 2014, P.L. 113-295; and the Consolidated Appropriations Act of 2016, P.L. 114-113.

³It remains to be seen whether, and to what extent, the Trump administration and new Congress will focus on energy incentives, especially in light of proposals for wholesale tax reform.

⁴Section 48(a)(3)(A)(i). See the Revenue Act of 1962, P.L. 87-834, section 2; and the Energy Tax Act of 1978, P.L. 95-6 18, section 301.

This article focuses on the availability of the ITC for storage devices charged by solar energy. The same principles apply in most cases for storage devices charged by wind energy.

⁵Reg. section 1.48-9(a)(2); see also reg. section 1.48-1(b).

⁶Reg. section 1.48-9(d).

⁷Reg. section 1.48-1(g)(1); exceptions are set forth in reg. section 1.48-1(g)(2).

⁸Reg. section 1.48-1(j).

⁹Reg. section 1.48-2 (new property); and reg. section 1.48-3 (used property).

¹⁰Reg. section 1.48-4.

¹¹Reg. section 1.48-9(a); see generally reg. section 1.48-1.

(to use hot liquids or air to create hot air or water).¹² They specify that property that uses fuel or energy derived indirectly from solar energy does not qualify for the ITC, and they describe those energy sources as including wood, fossil fuel, and ocean thermal energy.¹³ Similarly, passive systems based on conductive, convective, or radiant transfer (such as greenhouses, solariums, roof ponds, glazing, and mass or water trombe walls) do not qualify.¹⁴

All of this is fairly intuitive and well understood in the tax and finance worlds, particularly when dealing with standard solar facilities, regardless of whether photovoltaic or concentrated solar power is involved. However, much of the current focus is on whether other items — in particular, storage devices (such as batteries) — qualify for the ITC. This article addresses storage, focusing on situations in which a storage device clearly should qualify for the energy credit as well as situations that may be more challenging.

Storage

The term “storage” encompasses a multitude of concepts and variations. It can involve grid or transmission management, transmission or distribution upgrade deferral, peak shaving, frequency regulation and demand charge management, as well as the use of one or more batteries. Batteries differ greatly as well, involving many types of technologies, from lithium to gold nanowires to chemicals (flow batteries).

Although our government can be forward-looking in some instances, it probably did not anticipate that storage would evolve into such a broad and burgeoning industry. To compound things further, storage and batteries are still at an early stage, and their use continues to be somewhat limited. This is in part a result of the technology itself; it is costly, and its efficiency and reliability are on the lower side.¹⁵ That said, the effort to improve the technology, make it more affordable, and encourage its widespread use is incredibly worthwhile. It is not an understatement to say that storage can greatly improve our national electric system — from diversifying the sources used to generate power, to relieving transmission congestion, to improving consumption of power — all the while ultimately reducing the cost of energy.

Storage as it pertains to renewable energy technologies, given their intermittent and time-of-day

generative nature, is a natural fit. In our minds, storage in the renewable and alternative energy area is one and the same with the underlying technologies and will lead to the successful and widespread use of those technologies to generate the power, store it, and use it when required.

The Law

As discussed above, solar energy property is defined as including equipment that directly generates electricity from solar energy.¹⁶ Notwithstanding this general rule, the regulations clarify that solar energy property includes storage devices.¹⁷ However, dual-use equipment — equipment powered by auxiliary (non-solar) energy and solar energy — is solar energy property only if it uses 25 percent or less total energy from sources other than solar, and only to the extent of its basis or cost allocable to the use of solar energy.¹⁸

An example in the regulations analyzes a solar-energy-powered heating system purchased by a corporation in 1979.¹⁹ The heating system is made up of solar-energy-generating equipment as well as auxiliary equipment (an oil-fired water heater) as a backup source of heat when solar cannot meet energy demands. Solar energy contributes 80 percent of the energy input for the dual-use equipment on a British thermal unit basis. All equipment used solely for the collection and distribution of solar energy is qualified property, including the following equipment, which is related to transporting solar-heated water: a roof solar collector; a pump that moves water to the roof collector; pipes between the roof collector; and the hot water tank holding solar-heated water. The oil-fired water heater does not qualify as solar energy property because it is auxiliary equipment. The pipes, pumps, valves, and other equipment that serve both the oil-fired water heater and solar energy equipment qualify, but only to the extent of 80 percent of their cost or basis (the portion allocable to the use of solar energy).

In a handful of private letter rulings, the IRS considered pretty basic scenarios, such as situations involving residential solar equipment with battery

¹⁶Reg. section 1.48-9(d)(1).

¹⁷Reg. section 1.48-9(d)(3).

¹⁸Reg. section 1.48-9(d)(6) (the so-called cliff rule). For example, if dual-use property is 90 percent solar-powered, the property is eligible for 90 percent of the ITC. If in a later year during the recapture period the property is less than 90 percent solar-powered, that incremental portion of the ITC is recaptured. Moreover, if more than 25 percent of total energy from non-solar sources is used in any year, all of the ITC is recaptured.

¹⁹Reg. section 1.48-9(d), Example 8.

¹²T.D. 7765 and T.D. 8147.

¹³Reg. section 1.48-9(d)(1).

¹⁴Reg. section 1.48-9(d)(2)(iii).

¹⁵A battery can store energy for only a few hours, and high maintenance, capital costs, or both are required to prolong its useful life.

storage and wind energy storage devices, and concluded without hesitation that the storage devices in question qualified for the ITC.²⁰

Similarly, although not directly on point, storage devices were eligible for the section 1603 cash grant.²¹ Treasury's guidance on the section 1603 grant program states that qualified property that generates electricity (which includes wind and solar facilities) "includes storage devices, power conditioning equipment, transfer equipment, and parts related to the functioning of those items."²²

Discussion

Based on the current state of the law and the compelling policy reasons for allowing storage devices to be eligible for the ITC, we believe the circumstances in which storage devices should be eligible for the energy credit are clear. First, if a storage device is installed on the transmission side of the meter (as opposed to the generation side), it should not qualify for the ITC. This eliminates storage devices that mitigate grid or transmission congestion but is consistent with the general rules requiring energy property to be "generation property." Also clear are the rules concerning the charging of the storage device. If more than 25 percent of the power is from the grid or utility (the so-called

cliff), the energy credit is unavailable. Although some wrinkles may exist, we believe that in all other situations in which solar energy charges the storage device, the device should qualify for the ITC. Below is a brief discussion of some of those situations.

The most straightforward scenario is when the solar facility and storage device have the same owner and are installed together, placed in service on the same date, subject to the same off-take agreement, and located on the same site. Clearly, in this situation the ITC should be available on the adjusted basis of the entire system (subject to reductions if the storage device is not 100 percent charged by solar). This same analysis should apply for a retrofit (that is, when an existing project is upgraded with new property exceeding 80 percent of total value) or to the extent of a project expansion (for example, solar panels and a storage device are added to an existing facility).

A more complicated set of facts exists when the storage is not installed and placed in service at the same time as the underlying solar facility. Given that solar technology is more advanced than storage technology, adding a storage device to an existing solar facility may be a fairly common (and beneficial) occurrence. Some have indicated that this may be problematic because the storage device standing alone does not generate electricity. We do not believe this should be an issue, however, because the storage device will operate exactly the same as one installed simultaneously with a solar facility. It is arbitrary to require contemporaneous installation in a developing technology and cost-wise market, and it is poor policy not to provide an ITC for something that should naturally qualify: equipment that improves the efficiency of a solar facility and ultimately conserves electricity.²³

However, depending on the timing, a storage device that is installed before the relevant solar facility (or when there are facts suggesting that the device was not intended to be functionally part of a solar facility) may not qualify for the energy credit because it could be viewed as functionality independent from the solar property and may have used too much power from the grid or utility (that is, it has gone over the cliff).²⁴

Although there are likely many other permutations of the scenarios above (for example, involving

²⁰See, e.g., LTR 201444025 (solar collection panels, storage batteries, wiring, conversion equipment, control equipment, and solar panel mounting equipment of the taxpayer's solar energy systems, as well as the structure on which solar panels are mounted, constituted energy property under section 48); LTR 201308005 (reasoning that the regulations must have contemplated energy property to include storage equipment given the necessity and importance of energy storage in a solar-energy-generating plant, the IRS allowed the ITC for storage-related equipment, although it limited the eligible basis to the cost of the total equipment that was proportionate to the solar energy inputs; the IRS observed that energy storage increases grid efficiency, better accommodates consumer demand, conserves more energy by storing output at off-peak hours, and saves money for the supplier and consumer by increasing the total amount of energy available for peak hours); LTR 201208035 (ruling that taxpayers could claim the ITC for the full cost of a wind storage device because it was part of qualified property at a qualified investment credit facility; wind storage devices do not constitute transmission equipment because despite releasing energy to the grid, the devices' function is one of a classic battery, i.e., storing energy for later use; wind storage devices also do not constitute auxiliary equipment if the storage device will not be used by any property other than the windfarm; LTR 201142005 (same); and cf. LTR 8346002 (ruling that grain-drying bins using thermal energy in ambient air to dry corn kernels do not qualify as solar energy property under section 48; rather, a grain-drying bin is akin to ocean thermal energy since both derive thermal energy indirectly from solar).

²¹Referring to section 1603 of the American Recovery and Reinvestment Act of 2009, P.L. 111-5.

²²Treasury, "Payments for Specified Energy Property in Lieu of Tax Credits Under the American Recovery and Reinvestment Act of 2009," at 12 (2011).

²³The same logic applies when the storage device is owned by a taxpayer other than the one that owns the solar system.

²⁴We can envision circumstances in which a storage device was installed shortly before the solar facility because of minor deviations in the construction schedules or the like. These relatively minor differences in the placed-in-service date of the storage and solar facility should not call into question the ITC eligibility of the storage property.

different off-take agreements or separate sites), we do not believe these should be controversial based on the current state of the law, basic logic, and sound policy objectives.

Regulation Project

For several years Treasury's priority guidance plan has included a regulation project to define qualifying energy property.²⁵ During the pendency of that project, Treasury has issued Notice 2015-70, 2015-43 IRB 604, welcoming commentary, but it has refused to entertain any requests for private letter rulings. Obviously (whether intended or not), these pending regulations have cast a pall over the marketplace and resulted in somewhat of a standstill until the regulations are issued or the project is terminated. We would urge Treasury to opt for prompt termination because we believe that although dated, there is sufficient conceptual guidance to determine what property is eligible for the energy credit. ■

²⁵Treasury, "2016-2017 Priority Guidance Plan," at 1, 12 (Aug. 15, 2016); Treasury, "2015-2016 Priority Guidance Plan," at 1, 11 (Feb. 5, 2016); and Treasury, "2013-2014 Priority Guidance Plan," at 1, 13-14 (Aug. 9, 2013).

Call for Entries:

Tax Analysts' Annual Student Writing Competition

Tax Analysts is pleased to announce the opening of its annual student writing competition for 2017. This global competition enables students who win to publish a paper in *Tax Notes*, *State Tax Notes*, or *Tax Notes International* and receive a 12-month online subscription to all three weekly magazines after graduation. Submissions are judged on originality of argument, content, grammar, and overall quality.

- Students should be enrolled in a law, business, or public policy program.
- Papers should be between 2,500 and 12,000 words and focus on an unsettled question in tax law policy.
- Papers must not have been published elsewhere.
- Deadline for entries is May 31, 2017.

For additional guidelines and to submit a paper, go to:

www.taxanalysts.org/awards/for-students

Click on "Submit your paper."

Questions may be emailed to:

studentwritingcomp@taxanalysts.org

taxanalysts[®]
publisher of **taxnotes**