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IRS Sheds New Light on Solar Tax Credits, Leaves Energy Storage in the Dark

By Jamie Jackson Hansen, Stephen J. Humes, Mark C. Kalpin, and Seth R. Belzley*

Guidance on when construction has begun on commercial solar energy properties and other qualified energy properties for purposes of claiming the Investment Tax Credit, the key tax credit for solar energy projects, has been issued by the Internal Revenue Service. The guidance provides a number of benefits for developers of commercial solar energy projects, but leaves the energy storage industry with many unanswered questions. This article explains the guidance and the open issues.

The Internal Revenue Service ("IRS") issued recent guidance on when construction has begun on commercial solar energy properties and other qualified energy properties for purposes of claiming the Investment Tax Credit ("ITC"), the key tax credit for solar energy projects, under Section 48[1] of the Internal Revenue Code. Notice 2018-59[2] provides a number of benefits for developers of commercial solar energy projects, including maximizing ITC amounts during a phase-out period and navigating a new import tariff, but leaves a rapidly growing component of the commercial solar industry—energy storage—with many unanswered questions on qualifying for the ITC.

EXTENSION OF THE ITC

In 2015, Congress extended both the ITC and the Production Tax Credit[3] ("PTC"), the wind energy industry's key tax credit. The ITC entitles the owner of solar "energy property" meeting the IRS's definition to a credit in the year the energy property is placed in service that is equal to a defined percentage of the owner's basis in the energy property.

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1 https://www.law.cornell.edu/uscode/text/26/48.

2 https://www.irs.gov/pub/irs-drop/n-18-59.pdf.

3 https://www.law.cornell.edu/uscode/text/26/45.

The extension was welcome news to the solar industry, allowing a credit of 30 percent for projects that begin construction before January 1, 2022. But for projects beginning construction after this date, the credit percentage is phased down incrementally to 10 percent for projects placed in service after January 1, 2024.

Date Construction Begins	Placed in Service Date	ITC Amount
Before 1/1/2020	Before 1/1/2024	30%
1/1/2020 to 12/31/2020	Before 1/1/2024	26%
1/1/2021 to 12/31/2021	Before 1/1/2024	22%
Before 1/1/2022	On or after 1/1/2024	10%
On or after 1/1/2022	Any	10%

IMPORTANCE OF BEGINNING CONSTRUCTION

When a solar energy project "began construction" is a key factor in the project's economics, because the year in which a project began construction, together with the date it was placed in service, determines the amount of the ITC available to the energy property owner under the phase-out scheme. The IRS had previously issued guidance on this important issue for wind projects and the PTC in 2016[4] and 2017,[5] but had not provided similar guidance on the ITC until now.

Under the new guidance, an energy property owner can establish when construction began in one of two ways: By performing work on the project meeting the requirements of the "Physical Work Test" or by incurring project costs qualifying for the "Five Percent Safe Harbor." The energy property owner can claim start of construction based on the earlier of the dates on which either the Physical Work Test or Five Percent Safe Harbor was met. However, in both cases, the IRS imposes a "Continuity Requirement" that the owner make "continuous progress towards completion once construction has begun."

The new guidance provides greater certainty to developers and tax equity investors in the face of the declining ITC and new tariffs[6] on imported solar panels and modules, which went into effect in February 2018 and will decline from 30 percent to 15 percent over four years, terminating in 2021. Developers can still claim the full 30 percent ITC and avoid tariff costs by beginning construction (as defined by the Physical Work Test or the Five Percent Safe

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[4] https://www.irs.gov/pub/irs-drop/n-16-31.pdf.

[5] https://www.irs.gov/pub/irs-drop/n-17-04.pdf.

[6] https://ustr.gov/sites/default/files/files/Press/fs/201%20Cases%20Fact%20Sheet.pdf.

Harbor) before the end of 2019, and by procuring solar panels and modules after expiration of the tariff in 2021 but before the 30 percent in-service deadline of December 31, 2023, as long as the Continuity Requirement is met.

UNANSWERED QUESTIONS FOR ENERGY STORAGE PROJECTS

Meeting the Physical Work Test or Five Percent Safe Harbor requires an understanding of what equipment, if purchased or installed, qualifies an energy project as having begun construction. For developers of solar facilities that utilize storage, the IRS's new notice does not shed light on what types of storage, if purchased or installed, would qualify for the "begin construction" requirement. Utilization of energy storage has grown substantially in recent years, and the Energy Information Administration reports[7] that as of the end 2017, the United States had 664 MW of power and 742 MWh of energy in operational large-scale battery capacity. Energy storage is not limited to batteries, and can also take the form of flywheels, compressed air energy storage, thermal storage, or pumped hydropower storage.

The IRS is still catching up to the emerging industry's innovations. The IRS has defined solar "energy property" in its regulations[8] as including "storage devices, power conditioning equipment, transfer equipment, and arts related to the functioning of those items." The regulations do not clarify what kind of storage equipment qualifies for the ITC and under what circumstances, although the solar industry increasingly recognizes that energy storage paired with solar can enhance the market value of solar projects.

The IRS has provided limited guidance on a case-by-case basis in five private letter rulings over the past seven years (PLRs 201142005,[9] 201208035,[10] 201444025,[11] 201426013,[12] and 201809003[13]) that suggest batteries are "storage devices" eligible for the ITC. However, these letter rulings address only battery storage, not other types of storage. Additionally, the IRS takes the view that "dual use" storage, capable of both transmitting energy to and storing energy from the grid, is only eligible for the ITC if, for a period of five years, at least 75 percent of the energy used on an annual basis to charge the storage device comes only from solar (or other qualifying) technology. The 75 percent

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[7] https://www.eia.gov/conference/2018/pdf/presentations/lisa_cabral.pdf.

[8] https://www.law.cornell.edu/cfr/text/26/1.48-9.

[9] https://www.irs.gov/pub/irs-wd/1142005.pdf.

[10] https://www.irs.gov/pub/irs-wd/1208035.pdf.

[11] https://www.irs.gov/pub/irs-wd/201444025.pdf.

[12] https://www.irs.gov/pub/irs-wd/201426013.pdf.

[13] https://www.irs.gov/pub/irs-wd/201426013.pdf.

requirement cannot be met by averaging, and even if the percentage of energy the storage device receives from solar technology exceeds 75 percent in all five years, if it dips below the benchmark of the first year percentage in the following four years, the ITC amount claimed on the difference in percentage during those years is subject to claw back or recapture. The 75 percent rule stems from policy concerns surrounding energy arbitrage, but makes it difficult for a developer to determine at the time of construction whether storage equipment qualifies for the ITC.

In October 2015, the IRS issued Notice 2015-70[14] requesting comments on how to define qualified properties, including storage properties, for purposes of the Section 48 tax credit. In the notice, the IRS requested input on whether property such as storage devices and power conditioning equipment should be included in energy properties for purposes of the credit and how the terms "storage devices" and "power conditioning equipment" should be defined.

The IRS has yet to act on the comments received in response to this request. In Notice 2018-59, the IRS states that energy property includes property "integral to the production of electricity" but not property "used for the transmission of electricity." The new notice provides examples of property that is "integral to" the energy property, the purchase, construction, or installation of which would meet the Physical Work Test or the Five Percent Safe Harbor:

- Power conditioning equipment, such as transformers;
- Roads required for operation of the energy property; and
- Buildings that are "essentially an item of machinery or equipment" or are "so closely related" to energy property that it will be replaced when the energy property is replaced.

Examples of property that is not "integral" and would not qualify include:

- Transmission equipment;
- Site access roads;
- Fencing; and
- Buildings, except as noted above.

Absent from the notice is any guidance relating to energy storage equipment, although interestingly, power conditioning equipment—also included in the IRS's request for comments, together with storage—*is* listed. The IRS notes that it will not issue private letter rulings regarding the notice, so additional guidance will not be available to developers planning storage components until the IRS takes action in a rulemaking.

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[14] https://www.irs.gov/irb/2015-43_IRB#NOT-2015-70.

PHYSICAL WORK TEST

An energy property owner can establish beginning of construction by starting "physical work of a significant nature." The IRS will look at the nature of the work performed on the property, rather than the amount or cost. There is no minimum amount of work or cost to meet the Physical Work Test requirements.

Self-Performed versus Third-Party Work

Work meeting the IRS requirement can mean work performed by the energy property owner or work performed by third parties under a binding written contract. To qualify, the contract must be entered into before manufacture, construction, or production has begun and must meet certain legal requirements.[15] Notably, and particularly relevant to developers who frequently utilize special purpose entities to carry out development projects, work performed or components purchased by the developer under a master contract, and then later assigned by contract to an affiliated special purpose entity, can be used to qualify for the Physical Work Test.

On-Site and Off-Site Work

Both on-site and off-site work can meet the Physical Work Test requirements. On-site work can include installation of racks or structures to mount PV panels, collectors, or solar modules to the site.

Off-site work can include manufacturing of:

- Components;
- Mounting equipment;
- Support structures such as racks and rails, inverters, and transformers (for step-up to less than 69 kV); and
- Other power conditioning equipment.

Purchase of components that are in a vendor's existing inventory, or that are normally held in the vendor's inventory, does not qualify if a reasonable method is not used to associate the components with the purchaser, even if a written contract for the purchase exists.

Preliminary Activities

Preliminary activities are not "physical work of a significant nature" and can't be used to meet the "begin construction" requirement. The IRS provides examples of preliminary work that does not meet the test's requirements:

- Planning or designing;

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[15] https://www.law.cornell.edu/cfr/text/26/1.168%28k%29-1.

- Securing financing;
- Exploring;
- Researching;
- Conducting mapping and modeling or other surveys to assess solar resource;
- Obtaining permits and licenses;
- Conducting environmental and engineering studies;
- Site clearing;
- Conducting test drilling to determine soil condition, including to test foundation strength;
- Excavating to change land contours (as opposed to foundation excavation);
- Removing existing foundations, turbines, towers, solar panels, or other components, including those on or attached to building structures, that will not be part of the energy project.

Continuity Requirement: Continuous Construction Test

Even if the Physical Work Test is met, the IRS may determine that construction has not begun if a "continuous program of construction" is not maintained.

FIVE PERCENT SAFE HARBOR TEST

As an alternative to the Physical Work Test, an energy property owner can alternatively establish beginning of construction by meeting a safe harbor requirement by paying or incurring five percent or more of the total cost of the energy property (including third-party construction costs) and making "continuous efforts to advance toward completion" of the property. The total cost of the energy property excludes the cost of land, as well as any property not "integral" to the energy property. Additionally, used components can qualify, so long as the fair market value of the used components is not more than 20 percent of the energy property's total value (the "80/20 Rule").

Cost Overruns

A project that previously qualified as having begun construction under the Five Percent Safe Harbor based on an estimate of project cost can be disqualified later from claiming that construction began in that year if the total cost of the project turns out to be greater than the estimate and the amount spent in that year no longer equals five percent or more of the project cost.

For multi-property projects, the IRS provides a workaround for this issue. The project owner can exclude some of the properties for purposes of the ITC

and claim that construction began in the year of the expenditure for the remaining properties, if the expenditure was five percent or more of the total cost of the remaining properties. This workaround is not available if the energy property is not part of a single project consisting of multiple energy properties.

Continuity Requirement: Continuous Efforts Test

The IRS will look at the facts and circumstances to determine whether the Continuity Requirement under the Five Percent Safe Harbor Test is met. The IRS provides examples of "continuous efforts to advance toward completion of an energy property," including:

- Paying or incurring additional costs included in the total cost of the property;
- Entering into binding written contracts for manufacture, construction, or production of components, or for future work, to construct the property;
- Obtaining necessary permits; and
- Performing "physical work of a significant nature," as discussed above.

CONTINUITY REQUIREMENT: SAFE HARBOR AND EXCEPTIONS

The IRS provides a "Continuity Safe Harbor" for any energy property that is placed into service by the end of the fourth year after the year construction began. If this deadline is met, the project falls within the safe harbor and the Continuity Requirement is deemed to be met.

If the project is not placed in service by the Continuity Safe Harbor deadline, the IRS will look at the facts and circumstances surrounding the delay to determine whether the Continuity Requirement is met.

If a project is subject to a disruption that is beyond the owner's control, the project can still meet the Continuity Requirement notwithstanding the disruption. The IRS provides examples of qualifying disruptions, which include:

- Severe weather;
- Natural disasters;
- Delays in obtaining permits or licenses from federal, state, local, or Indian tribal governments, including delays in receiving permits from FERC, the EPA, the BLM, and the FAA;
- Delays due to written requests of federal, state, local, or Indian tribal governments regarding matters of public safety, security, or similar concerns;

- Interconnection-related delays, including delays relating to completion of construction of a new transmission or distribution line or transmission or distribution upgrades necessary to resolve grid congestions;
- Delays in manufacture of custom components;
- Labor stoppages;
- Inability to obtain specialized equipment of limited availability;
- Presence of endangered species;
- Financing delays; and
- Supply shortages.

The date a project is placed in service for purposes of the incremental phase-down of ITC percentages cannot be extended by a disruption or by meeting the Continuity Safe Harbor requirements.

ADDITIONAL GUIDANCE ON SPECIFIC CIRCUMSTANCES

Multi-Property Projects

For purposes of the ITC for commercial solar projects, multiple energy properties are treated as a single project if they are operated as a single project. If one of the properties meets the Physical Work Test or Five Percent Safe Harbor requirements, all of the properties can claim the ITC based on the year in which the first property began construction, with one caveat: The 80/20 Rule for used equipment applies to each individual property in the project. The IRS provides several indicators it will consider in determining whether multiple properties are operated as a single project, including:

- Ownership by a common legal entity;
- Location on contiguous pieces of land;
- Common power purchase agreement(s);
- Common intertie;
- Common substation;
- Common environmental or other regulatory permits;
- Construction under a common master construction contract; and
- Financing under a common loan agreement.

For purposes of the Continuity Requirement, the properties can be considered separately if some, but not all, of the properties meet the four-year Continuity Safe Harbor deadline. Any separate properties in the project that do not meet the Continuity Safe Harbor deadline can still qualify for the Continuity Requirement under a "facts and circumstances" examination.

Transferring Energy Property

The new guidance clarifies that a taxpayer can claim the ITC for all or part of an energy property based on the date construction began, even if the taxpayer did not own the property on that date, if the taxpayer owns the property (or a portion of it) when it is placed in service. However, the ITC amount is limited by the taxpayer's basis in the acquired property.

Additionally, if development begins at one site and components from that site are later transferred to a new site, work performed or amounts paid toward development of the original site can qualify as beginning construction of the new site.

However, transfer between unrelated parties of tangible personal property such as equipment or transfer of the rights to that property does not allow the recipient to claim that construction began on the original purchase date if there is no transfer of the property between project sites.

PATH FORWARD IN THE TRANSITION TO STORAGE

Energy storage has the capability to address the greatest drawback of renewable energy—its intermittency. While the extension of the ITC and the IRS's new guidance provide a clearer path forward for development of commercial solar facilities, the increasingly important storage complement to those facilities remains to be addressed. Each point of the new IRS guidance provides greater certainty for solar generation facilities, but raises more questions for combined solar generation and storage facilities that need to be addressed by the IRS before the window of opportunity closes on the ITC for this important segment of the industry.