

Client Alert

Energy

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IRS and Treasury Issue Section 48 Investment Tax Credit Proposed Regulations

Section 48 of the Internal Revenue Code of 1986, as amended (the “Code”) provides for an investment tax credit (“ITC”) for certain energy property. The Inflation Reduction Act of 2022 (the “IRA”) amended Section 48 in several significant ways, including making additional types of energy property eligible for the ITC and providing an increased credit amount for energy projects that satisfy the prevailing wage and apprenticeship requirements (the “PWA Rules”).¹

The ITC establishes a technology-dependent income tax credit equal to 30 percent of the tax basis of eligible energy property where the PWA Rules are satisfied (6 percent if not). This tax credit can be increased by bonus credits of 10 percentage points each for satisfying certain “domestic content” and/or “energy community” requirements.² Further bonus tax credits are available in very limited circumstances for facilities located in low-income communities/Native American lands and also for certain low-income projects. This means the maximum ITC can be 70 percent of eligible tax basis. Certain property that is eligible for a production tax credit (“PTC”) can elect to claim the ITC in lieu of the PTC.

On November 17, 2023, the Treasury and IRS issued proposed regulations ([REG-132569-17](#)) (the “Proposed Regulations”). The Proposed Regulations, among other things, update the types of energy property eligible for the ITC, including additional types of energy property added by the IRA, further clarify certain aspects of the PWA Rules and transferability rules under Section 6418 that are applicable to the ITC, and clarify other requirements and rules generally applicable to energy property.



ENERGY PROPERTY

The Proposed Regulations update the existing ITC regulations that provide definitions and eligibility rules for qualifying energy property. As a general matter, energy property must be specified in Section 48 and with respect to which depreciation (or amortization in lieu of depreciation) is allowed. In addition, energy property must be constructed, reconstructed or erected by the taxpayer or acquired by the taxpayer if the original use of such property commences with the taxpayer. It must also meet certain minimum performance and quality standards.

While generally adopting the existing statutory definitions of energy property and related rules, including the “placed in service” and “beginning of construction” rules, the Proposed Regulations expand upon the existing definitions to account for additional types of technologies added by the IRA.³ In addition, the Proposed Regulations apply the concepts of “functional interdependence” and “integral property,” to determine what components are part of an energy property. Some of the types of energy property and the functional interdependence and integral property concepts are described in more detail below.

Solar Energy Property

The Proposed Regulations modify the current statutory definition of “solar energy property” in several respects.⁴ The Proposed Regulations define solar energy property as equipment that 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, and parts related to the functioning of such equipment, except property used to generate energy for purposes of heating a swimming pool. The term “solar electric generation equipment” is defined as equipment that converts sunlight into electricity through the use of devices such as solar cells or other collectors.⁵ Solar energy property used to generate electricity includes only equipment up to (but not including) the stage that transmits or uses electricity.

The Proposed Regulations also eliminate the exclusion for passive solar under the existing definition of solar energy property and explicitly include in the definition equipment that uses solar energy to generate steam at high temperature for use in industrial or commercial processes (solar process heat).⁶

Energy Storage Technology

The IRA added “energy storage technology” to the definition of energy property.⁷ Energy storage technology is property (other than property primarily used in the transportation of goods or individuals and not for the production of electricity) that receives, stores, and delivers energy for conversion to electricity (or, in the case of hydrogen, that stores energy), and has a nameplate capacity of not less than 5 kWh.

The Proposed Regulations clarify the definition of energy storage technology with respect to each type of energy storage technology. The Proposed Regulations define “hydrogen energy storage property” as property (other than property primarily used in the transportation of goods or individuals and not for the production of electricity) that stores hydrogen and has a nameplate capacity of not less than 5 kWh, equivalent to 0.127 kg of hydrogen or 52.7 standard cubic feet (scf) of hydrogen. Hydrogen energy storage property includes a hydrogen compressor and associated storage tank and underground storage facility and associated compressors.

The type of hydrogen storage medium is not limited to a specific technology or method. However, hydrogen energy storage property must store hydrogen that is solely used for the production of energy and not for the production of end products, such as fertilizers. Hydrogen used to produce heat, to generate electricity, or to be used in a fuel cell vehicle would meet this definition. This end use limitation raises a number of questions relating to documentation and verification requirements, especially for hydrogen produced by a party for resale to unrelated parties. This limitation



could potentially inform how the Treasury and IRS would define “clean hydrogen” for purposes of the clean hydrogen production tax credit under Section 45V, which is currently pending guidance from the Treasury and IRS.

Energy storage technology excludes property primarily used in the transportation of goods or individuals and not for the production of electricity. The Treasury and IRS determined that this exclusion, at a minimum, would apply to batteries and other energy storage technology that are incorporated into or otherwise physically integrated within motor vehicles and other modes of transportation of goods or individuals and from which an electric motor of such vehicles or other modes of transportation draws electricity for propulsion. The Treasury and IRS noted, however, that this exclusion is not intended to apply to batteries and other energy storage technology that may be used to charge or recharge such vehicles, if the batteries and other energy storage technologies are physically separate from such vehicles or other modes of transportation.

The Proposed Regulations provide that “electrical energy storage property” includes, among other things, the following: rechargeable electrochemical batteries of all types (such as lithium ion, vanadium flow, sodium sulfur, and lead-acid); ultracapacitors; physical storage such as pumped storage hydropower, compressed air storage, flywheel; and reversible fuel cells.

Finally, “thermal energy storage” includes, but is not limited to, thermal ice storage systems that use electricity to run a refrigeration cycle to produce ice that is later connected to the HVAC systems as an exchange medium for air conditioning the building, heat pump system that store thermal energy in an underground tank or borehole field to be extracted for later use for heating and/or cooling, and electric furnaces that use electricity to heat bricks to high temperatures that later use this stored energy to heat a building through the HVAC system.

Qualified Biogas Property

The IRA added “qualified biogas property” to the definition of energy property. Qualified biogas property is property comprising a system that converts biomass into a gas that consists of not less than 52 percent methane by volume, or is concentrated by such system into a gas that consists of not less than 52 percent methane, and captures such gas for sale or productive use, and not for disposal via combustion. Qualified biogas property includes any property that is part of such system that cleans or conditions such gas.⁸

The Proposed Regulations clarify that qualified biogas property includes a waste feedstock collection system, a landfill gas collection system, mixing or pumping equipment, and an anaerobic digester. However, upgrading equipment used to condition gas into the appropriate mixture for injection into a pipeline is not included in the definition, an unfavorable result for taxpayers. The Treasury and IRS explained that while upgrading equipment makes the injection of biogas into a pipeline possible, it is not necessary to satisfy the statutory requirements that biogas converted from biomass contain not less than 52 percent methane.

The Proposed Regulations also clarify that methane requirements are measured at the point at which gas exits the biogas production system (which may include an anaerobic digester, landfill gas collectors, or thermal gasification equipment) of a qualified biogas property. In practice, this would be before the gas enters the upgrading equipment, the point at which a taxpayer generally must determine whether it will convert the biogas to fuel for sale or use it directly to generate heat or fuel an electricity generation unit.

Functional Interdependence and Integral Part of an Energy Property

Energy property for ITC purposes consists of all of the components of property that meet the statutory requirements for an energy property as defined by Section 48. The Proposed Regulations apply the functional interdependence test to



determine what components are considered part of an energy property. In addition, the Proposed Regulations apply the concept of integral property to determine whether certain property that is an integral part of an energy property is treated as energy property. This approach is intended to balance the challenge in providing greater clarity to taxpayers for purposes of claiming the ITC on the one hand, and the flexibility to account for, and to facilitate, future technological advances, on the other hand.

Eligible energy property components are those that are “functionally interdependent.”⁹ Components of property are “functionally interdependent” if the placing in service of each component is dependent upon the placing in service of each of the other components in order to generate or to store electricity, thermal energy, or hydrogen, or otherwise perform its intended function. Subject to certain exceptions described below, energy property generally would not include equipment that is an addition or modification to an existing energy property.

The Proposed Regulations further provide that property owned by a taxpayer that is an “integral part” of an energy property owned by that same taxpayer is energy property. Such property must be used directly in the intended function of the energy property as provided in the Code and the Treasury regulations and be essential to the completeness of the intended function.

Power conditioning equipment and transfer equipment, and parts related to the functioning of each equipment, are energy property. Onsite roads that are used for equipment to operate and maintain the energy property, but roads primarily for access to the site, or roads used primarily for employee or visitor vehicles, are not integral parts of an energy property. A building, if it is essentially an item of machinery or equipment, or a structure that houses property that is integral to the activity of an energy property if the use of the structure is so closely related to the use of the housed energy property that the structure clearly can be expected to be replaced when the energy property it initially houses is replaced. Certain types of intangible property, such as power purchase agreements, renewable energy certificates, goodwill, and going concern value, are not energy property because they are not functionally interdependent with other components of an energy property and are not integral part of an energy property.

Energy property excludes any property that is part of a qualified facility with respect to which a PTC is allowed for any taxable year.¹⁰ Energy storage technologies eligible for the ITC are often co-located with qualified facilities eligible for the PTC and may share power conditioning and transfer equipment. In consideration of this practice, the Proposed Regulations provide that a PTC can be claimed on the electricity output from a qualified facility eligible for the PTC while an ITC can be claimed on a co-located energy storage technology. This clarification is particularly helpful to those in the tax equity market considering financing projects based on split tax credits.

OTHER RULES GENERALLY APPLICABLE TO ENERGY PROPERTY

The Proposed Regulations provide additional rules relating to retrofitted energy property and dual use property, and separate ownership of components of an energy property.

Retrofitted Energy Property and Dual Use Property

While energy property generally does not include equipment that is an addition or modification to an existing energy property, retrofitted energy property meeting certain requirements are energy property for purposes of the ITC. The Proposed Regulations provide that a retrofitted energy property may qualify as originally placed in service even though it contains some used components, provided the fair market value of the used components is not more than 20 percent



of the total value of the energy property (that is, the cost of the new components plus the value of the used components) (the “80/20 Rule”).¹¹ This rule is consistent with existing IRS guidance.

Property that uses energy derived from an energy property (and a qualified facility for which an ITC election has been made) and from sources other than an energy property (including a qualified facility for which an ITC election has been made) are called dual use property. Dual use property meeting certain requirements provided in the Proposed Regulations will qualify as energy property.¹² Importantly, the Proposed Regulations provide that dual use property will qualify as energy property if its use of energy from non-qualifying sources does not exceed 50 percent of its total energy input during an annual measuring period. The ITC must be prorated to the extent the percentage is between 50-100 percent. This requirement modifies the existing threshold of 75 percent, also known as the “75-percent cliff.”

Separate Ownership of Energy Property

Section 48 and the existing Treasury regulations are silent regarding whether the components of an energy property can be owned by multiple taxpayers. The Proposed Regulations provide that in the case of multiple taxpayers holding direct ownership in an energy property, each taxpayer determines its eligible basis on its fractional ownership interest in the energy property.¹³ Importantly, the Proposed Regulations provide that a taxpayer must directly own at least a fractional interest in the entire unit of energy property for an ITC to be determined with respect to such taxpayer’s interest.

As an illustrative example, if two taxpayers own fractional ownership interests in a geothermal heat pump equipment, and the equipment is a unit of energy property, then the ITC would be determined with respect to each taxpayer’s fractional ownership interests in the unit of energy property. If, however, one taxpayer owns the coils in the ground and the other taxpayer owns the heap pump, each of which is a component of the geothermal heat pump equipment, no ITC would be available to either taxpayer because each owns a separate component of energy property that does not constitute a unit of energy property.

The Proposed Regulations provide that the use of property owned by one taxpayer that is an integral part of an energy property owned by a second taxpayer will not prevent an ITC from being determined with respect to the second taxpayer’s energy property. For example, if a taxpayer owns only power conditioning and transfer equipment which is an integral part of a qualified offshore wind property (an energy property) owned by an unrelated taxpayer, the taxpayer that owns the power conditioning and transfer equipment would not be eligible for the ITC. However, this would not prevent the taxpayer that owns the energy property from claiming the ITC on the basis of the energy property that it owns. If, instead, the taxpayers in this example jointly own power conditioning and transfer equipment, only the taxpayer that owns the energy property could claim the ITC, the amount of which would be calculated by taking into account both the taxpayer’s share of the basis in the power conditioning and transfer equipment and its basis in the energy property.

PREVAILING WAGE AND APPRENTICESHIP REQUIREMENTS

The Proposed Regulations withdraw and repropose, for additional clarity, portions of previously proposed regulations (REG-100908-23) published in August 2023 regarding the PWA Rules (the “August PWA Proposed Regulations”). Importantly, the Proposed Regulations clarify the definition of “energy project” with respect to which the PWA Rules apply and also clarify the recapture rules under Section 48(a)(10)(C) applicable to failure to satisfy the prevailing wage requirement with respect to alterations or repairs that occur during the five-year period after the energy project is placed in service.¹⁴



The Proposed Regulations define “energy project” as one or more energy properties that are operated as part of a single project. Multiple energy properties are treated as one energy project if, at any point during the construction of the multiple energy properties, they are owned by a single taxpayer and any two or more of the following seven factors listed in the Proposed Regulations are present:

- i. The energy properties are constructed on contiguous pieces of land;
- ii. The energy properties are described in a common power purchase, thermal energy, or other off-take agreement or agreements;
- iii. The energy properties have a common intertie;
- iv. The energy properties share a common substation, or thermal energy off-take point;
- v. The energy properties are described in one or more common environmental or other regulatory permits;
- vi. The energy properties are constructed pursuant to a single master construction contract; or
- vii. The construction of the energy properties are financed pursuant to the same loan agreement.

The single energy project treatment is not optional. If multiple energy properties are treated as a single project for beginning of construction purposes with respect to the ITC, the multiple energy properties would also be treated as one energy project for purposes of the PWA Rules. Related taxpayers (defined as members of a group of trades or businesses that are under common control as defined in Treasury Regulations Section 1.52-1(b)) are treated as one taxpayer in determining whether multiple energy properties are treated as an energy project.

Subject to the Section 48(a)(10)(C) recapture (and the correction and penalty provisions under Section 48(a)(10)(B)), the taxpayer is deemed at the time the energy project is placed in service to satisfy the prevailing wage requirement for alterations or repairs for the five-year period beginning after such project is originally placed in service.¹⁵ The Proposed Regulations clarify that if the taxpayer fails to satisfy the prevailing wage requirement (but not the apprenticeship requirement) during the five-year period beginning on the date the project is placed in service, the taxpayer would be subject to Section 48(a)(10)(C) recapture of a portion (up to 100 percent) of the increased credit amount and the correction and penalty provisions in Section 45(b)(7)(B)). The 6 percent base credit amount would still be available, assuming the applicable requirements are satisfied.

The Proposed Regulations provide that each 365-day period (366-day period in the case of a leap year) within the 5-year recapture period is a separate recapture year and require taxpayers to provide annual information reporting that verifies compliance with the prevailing wage requirements following the close of each recapture year. The IRS anticipates that the annual compliance reporting obligation will be made at the time the taxpayer files its income tax or other annual return following the close of each recapture year.

Finally, the Proposed Regulations provide that with respect to any credit (or portion thereof) transferred pursuant to Section 6418 and to which the Section 48(a)(10)(C) applies, the eligible taxpayer is required to notify the transferee taxpayer of the recapture event, and the transferee taxpayer is responsible for any amount of tax increase due to the Section 48(a)(10)(C) recapture.



EFFECTIVE DATES

The Proposed Regulations generally apply to property that is placed in service after December 31, 2022, and during a taxable year beginning after the date the final regulations are published in the Federal Register.

The rules relating to the PWA Rules under Proposed Regulations Section 1.48-13, however, apply to projects placed in service in taxable years ending after the date final regulations are published in the Federal Register, and the construction of which begins after the date final regulations are published in the Federal Register.¹⁶

The rules relating to the Section 48(a)(10)(C) recapture of a transferred credit under Proposed Regulations Section 1.6418-5(f) apply to taxable years ending on or after the date final regulations are published in the Federal Register.

In each case, taxpayers may rely on the Proposed Regulations in the meantime, provided the taxpayers follow the Proposed Regulations (or applicable provisions thereof) in their entirety and in a consistent manner.

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¹ For a summary of the IRS guidance on the PWA Rules, see the following [King & Spalding Client Alert](#).

² For a summary of the bonus requirements, see the following [King & Spalding Client Alert](#).

³ Prop. Treas. Reg. § 1.48-9(e).

⁴ IRC Section 48(a)(3)(A)(i); Prop. Treas. Reg. § 1.48-9(e)(1). Existing rules define solar energy property as equipment that uses solar energy to generate electricity, and includes storage devices, power conditioning equipment, transfer equipment, and parts solely related to the functioning of those items.

⁵ The existing ITC regulations define "solar energy property" as including equipment that uses 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. Further, the existing ITC regulations define "solar electric generation equipment" as equipment that uses solar energy to generate electricity through a process that involves the transformation of sunlight into electricity through the use of such devices as solar cell or other collectors.

⁶ These changes are consistent with the statutory language in Section 48. Section 48 does not distinguish between passive and active solar energy systems, and the exclusion of solar process heat also conflicts with Section 48(a)(3)(A)(i).

⁷ IRC Section 48(a)(3)(A)(ix); Prop. Treas. Reg. § 1.48-9(e)(10).

⁸ IRC Section 48(a)(3)(A)(x); Prop. Treas. Reg. § 1.48-9(e)(11).

⁹ A "unit of energy property" consists of all functionally interdependent components of property owned by the taxpayer that are operated together and that can operate apart from other energy properties within a larger energy project.

¹⁰ Prop. Treas. Reg. § 1.48-9(d).

¹¹ Prop. Treas. Reg. § 1.48-14(a).

¹² Prop. Treas. Reg. § 1.48-14(b).



¹³ Prop. Treas. Reg. § 1.48-14(e).

¹⁴ Prop. Treas. Reg. § 1.48-13. The definition of “energy project” also applies with respect to the domestic content bonus and the energy community bonus.

¹⁵ To satisfy the prevailing wage requirement, a taxpayer must ensure that any laborers and mechanics employed by the taxpayer or any contractor or subcontractor in the construction of any energy project and alteration or repair (for the five-year period beginning on the date such project is originally placed in service) are paid wages at rates not less than the prevailing rates of a similar character in the locality in which that energy project is located in accordance with the Davis-Bacon Act.

¹⁶ The rules relating to the definition of “energy property”, however, apply to energy projects the construction of which begins after the date of publication in the Federal Register.