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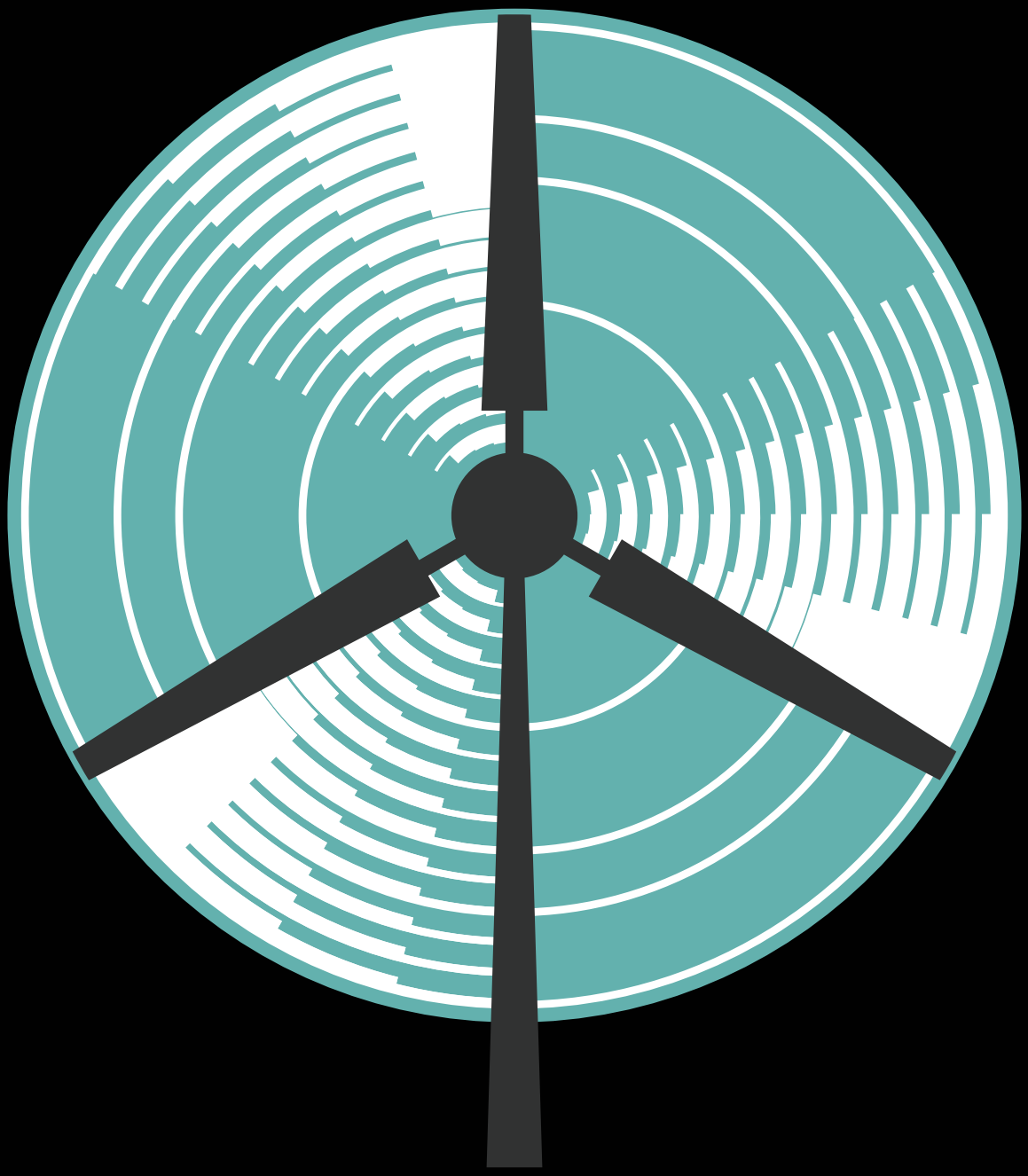

Special Report: Digging In: Beginning of Construction for Energy Credits

Tax notes™

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Digging In: Beginning of Construction for Energy Credits

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In this report, the authors explain the history and operation of the "begin construction" requirement for the production tax credit under section 45 and the energy investment tax credit under section 48. Through examples of common wind project fact patterns, they identify leading practices and critical considerations to help preserve projects' eligibility for the renewable energy tax credits until facilities are placed in service.

I. Introduction

Nearly every year since 2011, some taxpayers have rushed to begin constructing renewable energy projects that use wind, biomass, geothermal, hydropower, and waste resources to generate electricity in order to remain eligible for federal incentives that phase down or expire after the end of the year. Each go-around, taxpayers learn important lessons from their unique experiences that have resulted in various leading practices and critical considerations for the beginning of construction. As the government continues to issue new rules defining how to begin construction and as these transitional rules for eligibility for tax benefits are extended to more technologies such as solar energy property, understanding the intricacies of these guidelines becomes even more important.

On December 18, 2015, President Obama signed into law the Protecting Americans From Tax Hikes (PATH) Act of 2015 and the Consolidated Appropriations Act of 2015 (together, the tax extenders).[1] Among the extended provisions were the production tax credit (PTC) for wind and other qualifying renewable energy technologies under section 45 and the energy investment tax credit under section 48 (also known as the ITC in lieu of the PTC).[2] The legislation extended the PTC for two years for some facilities (for example, biomass, geothermal, hydropower, and waste-to-energy facilities), whose construction must have begun before 2017, and it further extended for five years the PTC for wind facilities, whose construction must begin before 2020. The tax extenders also modified the PTC for wind facilities by providing that the credit will phase out between 2017 and 2020. Under current law, a taxpayer may claim 100 percent of the value of PTCs or the ITC on a new qualified wind facility only if its construction began before 2017. As of January 1, 2017, the value of the credits phases down 20 percent each year until the credits phase out completely for any new facilities that begin construction after 2019.

Tax professionals, taxpayers, and industry stakeholders should carefully consider several planning issues as they begin construction before a year-end deadline. This report summarizes PTC and ITC eligibility requirements for beginning construction by the statutory deadline, including the rules in the most recent government guidance. It reviews examples of common fact patterns for beginning construction and addresses related concerns, and it explains some leading practices to facilitate compliance with applicable obligations to satisfy the "begin construction" requirement and preserve projects' eligibility for tax credits until facilities are placed in service.

II. Common Wind 'Begin Construction' Fact Patterns

The following are three common fact patterns for taxpayers as they begin construction on wind projects. Similar fact patterns are prevalent for biomass, hydropower, geothermal, and other waste-toenergy projects.

A. Scenario 1: On-Site Physical Construction

Taxpayer is developing a 300-megawatt (MW) wind project with a total capital expenditure of $400 million. The wind project is slated to have 100 turbines. Taxpayer has leased land rights and developed an initial site design. On December 1, 2016, Taxpayer entered into an agreement with Contractor to begin on-site physical construction through the excavation of 10 wind turbine foundations. Before the end of 2016, Contractor began work on a single wind turbine foundation (Foundation 1) and a road between Foundation 1 and another planned wind turbine foundation (Foundation 2) for purposes of operating and maintaining the wind turbines once placed in service. Contractor excavated and laid a mud mat for the single turbine foundation before 2017, at a cost of $50,000, and then completed the excavation and laying of the mud mats for the remaining nine turbine foundations under the agreement in early 2017. Contractor's work on the road in 2016 included clearing the land, building embankments using cuts and fills, leveling the dirt and bumps, and placing gravel on the roadbed at a cost of an additional $50,000.

B. Scenario 2: Off-Site Physical Construction

Taxpayer is developing a 300-MW wind project with a total capital expenditure of $400 million. The wind project is slated to have 100 turbines. On December 1, 2016, Taxpayer entered into a binding written contract with Manufacturer to purchase a custom-designed step-up transformer. The total transformer purchase price is $1.9 million. The contract includes a penalty of 5 percent of the purchase price if canceled or terminated. The initial down payment is $100,000, which was paid in 2016 upon execution of the purchase order. Manufacturer fabricated a radiator tank before the end of the year, which is a component of the transformer not commonly held in inventory. This component has a serial number, was not previously held in inventory, and was manufactured after execution of the contract for the specific custom-designed transformer that will be incorporated into the wind project.

C. Scenario 3: Incurring 5 Percent of Total Cost

Taxpayer is developing a 300-MW wind project with a total capital expenditure of $400 million. The wind project is slated to have 100 turbines. Taxpayer entered into a turbine supply agreement with Manufacturer to acquire 10 wind turbines at a cost of $25 million. The turbine supply agreement was executed on December 1, 2016, and requires all turbine components (for example, tower, nacelle, and blades) to be completed with title transferring to Taxpayer by April 15, 2017. Taxpayer is on the accrual method of accounting and paid the $25 million purchase price on December 31, 2016.

The above common fact patterns are all examples that the IRS guidance specifically addresses, and aspects of each scenario have been the subject of public comments by government officials. This report will address specific details and considerations concerning those fact patterns. First, however, it examines the background of the renewable energy tax credits.

III. Background of the PTC and the ITC

In the Energy Policy Act of 1992, Congress created an inflation-adjusted tax credit of 1.5 cents per kilowatt-hour that may be claimed on the electricity produced in the United States (or a possession of the United States) by a qualified facility.[3] Today the PTC may be claimed for facilities using the following sources of energy: wind, closed-loop biomass, open-loop biomass, geothermal, landfill gas, municipal solid waste, qualified hydropower, and some marine and hydrokinetic technologies.[4] PTCs may be claimed by the owner of the facility only for electricity generated and sold to unrelated persons for the first 10 years after the facility is originally placed in service.[5]

In the Energy Policy Act of 2005, Congress permitted some renewable energy technologies to be eligible for a separate ITC under section 48, allowing taxpayers to claim a tax credit equal to 30 percent of the eligible basis of the qualified property or facility in the year in which that property is placed in service.[6] In addition to receiving tax credits, taxpayers that own specified wind energy property and other qualifying renewable technologies under sections 45 and 48 may depreciate that property as five-year property under the modified accelerated cost recovery system.[7] That property may also be eligible for bonus depreciation.[8]

In the wake of the financial crisis of 2008, significant economic losses rendered tax credits less immediately valuable to energy project investors, and Congress responded by creating the section 1603 Treasury program: payments for specified energy property in lieu of tax credits (the 1603 grant program), which allowed a qualifying facility to claim a cash grant in lieu of the ITC and PTC and thereby resuscitated renewable energy project financing.[9] To provide additional flexibility, Congress eventually extended the 1603 grant program's original 2010 begin-construction deadline by one year to permit cash grants to be issued for projects that started construction between 2009 and 2011.[10]

IV. 'Placed in Service' to 'Begin Construction'

Addressing the tax extenders in 2012, Congress modified the eligibility requirements of the PTC and ITC by substituting the "placed in service" standard with the "begin construction" standard.[11] Congress made clear to the IRS that its intention was to use the definition of begin construction that was used in the 1603 grant program.[12] Those rules, in turn, had been borrowed from bonus depreciation, bond financing, ITC, and accelerated depreciation rules dating back to the 1960s and earlier. Since the begin-construction requirement was first enacted in early 2013 for the PTC and ITC, the IRS has issued several notices to define and clarify the requirements for the new standard: Notice 2013-29, 2013-20 IRB 1085; Notice 2013-60, 2013-44 IRB 431; Notice 2014-46, 2014-35 IRB 520; Notice 2015-25, 2015-13 IRB 814; Notice 2016-31, 2016-23 IRB 1025; and Notice 2017-04, 2017-4 IRB 541.

A. Notice 2013-29 and Notice 2013-60

Notice 2013-29 provides that to satisfy the beginconstruction requirement, the taxpayer must prove that before the statutory credit deadline, it commenced "physical work of a significant nature" on the facility (the physical work test) or incurred at least 5 percent of the total cost of the facility (the 5 percent safe harbor).[13] Thereafter, and until the facility is placed in service, the taxpayer must also prove that it maintained a "continuous program of construction" to satisfy the physical work test[14] or made "continuous efforts to advance towards completion of the facility" to satisfy the 5 percent safe harbor (collectively, the continuity requirement).[15]

Under the 2013 guidance, if the facility was placed in service within two calendar years measured from the statutory deadline to begin construction, the taxpayer was automatically deemed to have satisfied the "continuous program of construction" or "continuous efforts" requirement[16] (collectively, the continuity safe harbor). If the facility was not placed in service within two calendar years of the statutory deadline, however, whether the taxpayer satisfied the continuous program of construction or continuous efforts requirement would be determined based on all relevant facts and circumstances, some of which are described in sections 4.06 and 5.02 of Notice 2013-29.

Section 4.06 of Notice 2013-29 provides that "a continuous program of construction involves continuing physical work of a significant nature (as described in section 4.02)." Whether a taxpayer maintains a continuous program of construction will be determined by the relevant facts and circumstances.[17] Some disruptions during the construction of a facility that are beyond the taxpayer's control will not be considered as indicating that the taxpayer has failed to maintain a continuous program of construction (excusable disruptions).[18]

Solely for purposes of the begin-construction requirement, multiple facilities (that is, a wind turbine, tower, and pad) that are operated as part of a single project (along with any property, such as a computer control system, that serves some or all of those facilities) will be treated as a single facility.[19] Whether multiple facilities are operated as part of a single project is based on a facts and circumstances determination.[20]

To satisfy the physical work test, the work performed must be on tangible personal property or other tangible property that is integral to the powergenerating activity of the facility.[21] The IRS has specified that "both on-site and off-site work (performed either by the taxpayer or by another person under a binding written contract) may be taken into account for purposes of demonstrating that physical work of a significant nature has begun."[22] The IRS then provided illustrative examples of both on-site and off-site work:

For example, in the case of a facility for the production of electricity from a wind turbine, on-site physical work of a significant nature begins with the beginning of the excavation for the foundation, the setting of anchor bolts into the ground, or the pouring of the concrete pads of the foundation. If the facility's wind turbines and tower units are to be assembled on-site from components manufactured offsite by a person other than the taxpayer and delivered to the site, physical work of a significant nature begins when the manufacture of the components begins at the off-site location, but only if (i) the manufacturer's work is done pursuant to a binding written contract (as described in section 4.03(1)) and (ii) these components are not held in the manufacturer's inventory (as described in section

4.02(2)). If a manufacturer produces components for multiple facilities, a reasonable method must be used to associate individual components with particular facilities.[23]

In the case of off-site physical work performed on property integral to the facility, work performed on transmission equipment or buildings typically does not count as satisfying the physical work test.[24] Exceptions include physical work on a customdesigned transformer that steps up the voltage of electricity produced at the facility to the voltage needed for transmission, or a building that is essentially an item of equipment or is so closely related to the use of the generation property it houses that it is reasonable to expect that the building would be replaced at the same time as the property.[25]

Notice 2013-29 specifies the following regarding step-up transformers: "Physical work on a customdesigned transformer that steps up the voltage of electricity produced at the facility to the voltage needed for transmission is physical work of a significant nature with respect to the facility because power conditioning equipment is an integral part of the activity performed by the facility."[26]

Similarly, Notice 2013-29 provides that "on-site physical work of a significant nature begins [at a wind farm] with the beginning of the excavation for the foundation, the setting of anchor bolts into the ground, or the pouring of the concrete pads for the foundation"[27] (emphasis added).

In another example of on-site physical work, the IRS concluded that physical work of a significant nature includes starting construction on roads that are "integral to the facility"—for example, "roads for equipment to operate and maintain" the facility and "roads that are used for moving materials to be processed."[28] The IRS noted, however, that work on "roads primarily for access to the site, or roads used primarily for employee or visitor vehicles," does not qualify.

More generally, physical work of a significant nature does not include "preliminary activities, even if the cost of those preliminary activities is properly included in the depreciable basis of the facility."[29]

Both work performed at the project site and off-site can be included as described above.[30] Any components manufactured off-site, however, cannot come from the manufacturer's inventory and cannot be equipment that the manufacturer normally holds in its inventory.[31] This provision can be construed more broadly than intended and has in some circumstances been misinterpreted to limit the use of the physical work test for property that is routinely mass-produced, like the components of a wind turbine. The legal framework for beginning construction introduced in Notice 2013-29 and Notice 2013-60 and clarified in Notice 2014-46 is largely derived from the concepts and language used in the 1603 grant program provisions.[32] The 1603 grant program used much of the same language that existed in the transition rules for the first ITC in 1966.[33] The intent of the inventory provision in the 1603 grant program appears to be to provide incentives for new capital investment in renewable energy, which would support economic recovery more broadly. Guidance released in the form of frequently asked questions (1603 grant program FAQs) provided detailed insight and articulated the specific application of the inventory limitation, even in the context of solar, which has relatively mass-produced, commoditized components like photovoltaic panels[34]:

Q12. What is included in work performed under a binding written contract?

A12. Work performed under the contract includes only work that takes place after the binding written contract is entered into. The work is treated as physical work of a significant nature only if it is work on property that will become specified energy property of the applicant. For example, if a contractor is manufacturing solar panels specifically for the applicant under a binding written contract, any physical work on those panels is physical work of a significant nature on specified energy property of the applicant. If an applicant has a binding written contract with a contractor who is manufacturing solar panels for a number of customers, physical work on the panels would only be considered work performed under the applicant's binding written contract if the contractor can reasonably demonstrate that physical work has started on panels that will become specified energy property of the applicant. The contractor may use any reasonable, consistent method to allocate work it performs among its customers. Whether a method is reasonable depends on all the relevant facts and circumstances.

Q13. If an applicant purchases components or other parts from the inventory of a vendor under a binding written contract entered into before January 1, 2012, has physical work of a significant nature begun?

A13. No. Work performed under a contract does not include work to produce components or parts that are in existing inventory or are normally held in inventory by a manufacturer.

Based on the language above, it would appear that Treasury did not think simply taking finished equipment off the shelf would constitute beginning construction, unless the purchase of that equipment was part of a significant investment in the overall project (for example, 5 percent of the total project cost). It appears that Treasury anticipated that taxpayers would begin physical work on wind turbine components that may in some circumstances be held in inventory, if work for the taxpayer begins after execution of the associated binding written contract by reference to "wind turbines and tower units... assembled on-site from components manufactured off-site by a person other than the taxpayer" in section 4.02 of Notice 2013-29. The fact that the property is routinely mass-produced by the manufacturer will not alone cause work completed under an otherwise binding written contract to be considered inventory, if the physical work actually performed is done for property that is the subject of the contract and not drawn from an existing inventory of component parts that have been produced before entering into the binding written contract.

The work performed can be done by the taxpayer or by a contractor for use in the taxpayer's trade or business (or for the taxpayer's production of income).[35] Any work performed by a contractor, however, is taken into account for this purpose only if it was done under a binding written contract with the taxpayer and the contract was in place before the work began.[36] A contract is binding only if it is enforceable under state law against the taxpayer or a predecessor and does not limit damages to a specified amount.[37] A contractual provision that limits damages to an amount equal to at least 5 percent of the total contract price will not be treated as limiting damages to a specified amount.[38] Further, "an option to either acquire or sell property is not a binding contract."[39]

In determining whether a binding written contract is instead merely an option, the legislative history of the old ITC dating back to the 1969 ITC transition rules provides insight into when an agreement could be an option:

A contract under which the taxpayer has an option to acquire property is not a contract that is binding on the taxpayer for purposes of this provision unless the amount paid for the option is forfeitable (if the taxpayer does not exercise his option), is to be applied against the purchase price of the property (if the taxpayer exercises his option) and then only if the amount paid for the option is not nominal. Similarly, a contract which limits the damages to be recovered, in the event of a breach by the purchaser, to the amount of a deposit or to liquidated damages is not a binding contract if the deposit or the liquidated damages are nominal in amount. In determining whether a deposit, or liquidated damages, or the amount paid for an option is nominal, the size of the deposit, etc., relative to the contract price of the property which is the subject matter of the contract is to be taken into account. If the deposits, etc., are a significant portion of the price of the item, the contract may be a binding contract. For example, a deposit of $50,000 in connection with a contract to acquire property at a price of $1 million is a significant portion of the contract price.[40]

Based on a review of this legislative history and related tax law authority on bonus depreciation and the old ITC, an agreement that requires the forfeiture of more than a nominal amount (for example, 5 percent) may be considered a binding written contract and not merely an option. Moreover, the relevant tax authorities do not prohibit a binding written contract from including a "termination for convenience" provision as long as the taxpayer remains obligated for at least 5 percent of the total contract price.

Likewise, the IRS notices do not prohibit an agreement from being a binding written contract for purposes of the begin-construction requirement merely because the parties are affiliates or related parties. If the written agreement is between entities regarded as satisfying the definition of a person under section 7701(a)(1) and the contract otherwise satisfies the other elements in the PTC notices, including being between bona fide entities duly organized under state law, it would seem reasonable for the IRS to respect that agreement as a binding written contract.

For purposes of the 5 percent safe harbor, the term "paid or incurred" generally means that costs are taken into account when cash method taxpayers pay them and when accrual method taxpayers incur them. A cost is generally incurred for tax purposes when the fact of the liability is fixed, the amount of the liability is determinable with reasonable accuracy, and economic performance has been met for that liability.[41] Under general rules for property manufactured, constructed, or produced for the taxpayer by another person under a binding written contract entered into before the manufacture, construction, or production of the property, the cost of the property is treated as incurred when the property is provided to the taxpayer.[42] Property is provided to an accrual method taxpayer when it is delivered to or accepted by the taxpayer. Property that the taxpayer reasonably expects to be provided within three and a half months of the date of payment will be considered to be provided on the payment date.[43]

An exception is available for periods before the property is provided to the taxpayer by another person, whereby costs incurred for the property by that other person are treated as costs of the property that are incurred by the taxpayer (the look-through exception). This permits a taxpayer to count the costs of a manufacturer of project components toward its 5 percent safe harbor. However, the practical application of the look-through exception is problematic because many manufacturers of project components may be disinclined to share cost-ofperformance data with the purchasing taxpayer.

B. Notice 2014-46

The IRS clarified the physical work test in Notice 2014-46.[44] In emphasizing that "this test focuses on the nature of the work performed, not the amount or cost," the IRS provided a nonexclusive list of activities that will satisfy the physical work test[45]:

1. The beginning of the excavation for the foundation;
2. The setting of anchor bolts into the ground;
3. The pouring of the concrete pads of the foundation;
4. Physical work on a custom-designed transformer that steps up the voltage of electricity produced at the facility to the voltage needed for transmission; and
5. Starting construction on on-site roads used for moving materials to be processed (for example, biomass) and roads for equipment to operate and maintain the qualified facility.

The IRS followed this list of enumerated activities with this conclusive statement: "Beginning work on any one of the activities described above will constitute physical work of a significant nature." [46] Notice 2013-29 also elaborates when commencing the manufacture of component property will constitute physical work of a significant nature:

6. *If the facility's wind turbines and tower units are to be assembled on-site from components manufactured off-site by a person other than the taxpayer and delivered to the site, physical work of a significant nature begins when the manufacture of the components begins at the off-site location,* but only if (i) the manufacturer's work is done pursuant to a binding written contract (as described in section 4.03(1)) and (ii) these components are not held in the manufacturer's inventory (as described in section 4.02(2)). If a manufacturer produces components for multiple facilities, a reasonable method must be used to associate individual components with particular facilities.[47] [Emphasis added.]

In clarifying an example from Notice 2013-29, in which site excavation and concrete pouring occurs at 10 of 50 turbine sites, the IRS said that the example was "not intended to indicate that there is a 20 percent threshold or minimum amount of work required to satisfy the physical work test."[48] Before the publication of Notice 2014-46, IRS officials in multiple public speaking forums said that they wanted to clarify the physical work test.[49] IRS comments indicated that there is no minimum amount of money required to be spent and no minimum percentage of construction required to be completed to constitute physical work of a significant nature. Whether physical work is of a significant nature is a qualitative test, not a quantitative test. A government official involved in drafting all the IRS notices at both Treasury and the IRS reportedly stated[50]:

I don't think there's a 20 percent threshold.... I don't think there's a 2 percent threshold. Excavation of a site for a wind turbine is significant. Did the work begin in 2013?... That's as far as you have to worry.

The language in Notice 2014-46 mirrors and supports those comments: "Assuming the work performed is of a *significant nature, there is no fixed minimum amount of work or monetary or percentage threshold required* to satisfy the physical work test" (emphasis added).[51] Further, the notice provides that if a facility is placed

in service before the end of the continuity safe harbor period, the taxpayer may rely on that safe harbor "regardless of the amount of physical work performed or the amount of costs paid or incurred with respect to the facility" between the credit termination deadline and the end of the safe harbor period.[52]

Notice 2014-46 also clarified taxpayers' ability to transfer property (both partially and fully constructed) among both related and unrelated entities. The IRS emphasized that section 48 includes within the definition of qualifying property some property "acquired by the taxpayer."[53] The notice generally allowed for the transfer between taxpayers of any facility on which construction began without that facility losing its qualification under the physical work test or the 5 percent safe harbor.[54] The acquiring taxpayer may take into account the work performed or amount paid or incurred by the transferor for purposes of the physical work test or 5 percent safe harbor.[55] Further, a taxpayer may relocate a facility to a previously unintended site and take into account the work performed and amount paid or incurred for the initially intended site for purposes of the physical work test or 5 percent safe harbor.[56]

However, the IRS will treat differently transactions involving related and unrelated parties when the transfer consists solely of tangible personal property (including contractual rights to that property under a binding written contract). The notice defines related persons by reference to section 197, which in turn references sections 267 and 707, whereby a party is related if it owns more than a 20 percent capital or profits interest in the other entity.[57] The IRS will permit transfers of the equipment among related parties, but a taxpayer may not transfer solely tangible personal property (including contractual rights to that property under a binding written contract) to an unrelated party.[58]

Finally, the notice modified the application of the 5 percent safe harbor for some facilities for which a taxpayer paid or incurred less than 5 percent, but at least 3 percent, of the total cost of the facility. If a taxpayer pays or incurs at least 3 percent of the total cost of the facility before 2014, the 5 percent safe harbor may be satisfied and the PTC or ITC may be claimed on "any number of individual facilities as long as the total aggregate cost of those individual facilities at the time the project is placed in service is not greater than twenty times the amount the taxpayer paid or incurred before January 1, 2014."[59]

C. Notice 2015-25

In response to a one-year extension of the PTC and ITC by Congress in December 2014,[60] the IRS issued Notice 2015-25, which primarily extended by one year the deadlines in all previous notices and extended by one year the deadline for satisfaction of the continuity safe harbor.[61] That is, if a taxpayer began construction of a facility before the newly enacted statutory credit deadline and placed the facility in service within the continuity safe harbor period, the facility would be considered to satisfy the safe harbor, regardless of the amount of physical work performed or the amount of costs paid or incurred for the facility within the continuity safe harbor period.

D. Notice 2016-31

Following the multiyear extension and phaseout of the PTC and ITC enacted by Congress in 2015, the IRS issued Notice 2016-31 to significantly modify the begin-construction requirement.[62] The IRS revised the two-year continuity safe harbor by providing that a facility will be considered to satisfy the safe harbor if a taxpayer places it in service by the later of December 31, 2016, or four calendar years from the calendar year during which construction began. Notice 2016-31 retroactively applied this standard to all facilities that began construction before issuance of the guidance.[63] Moreover, the 2016 notice prohibited a taxpayer from relying on the physical work test and the 5 percent safe harbor in alternating calendar years to satisfy either the begin-construction requirement or the continuity requirement.[64] If a facility is not placed in service within four calendar years, the determination of whether the taxpayer satisfied the continuous construction or continuous efforts requirements, whichever applies, is based on all relevant facts and circumstances, some of which are described in sections 4.06 and 5.02 of Notice 2013-29, as expanded by section 4.02 of Notice 2016-31.

Notice 2016-31 modifies the list of excusable disruptions and adds the following disruptions: interconnection-related delays, delays in the manufacture of custom components, and financing delays (previously, financing delays must have been for a period of six months or less).

Notice 2016-31 reiterates that multiple facilities that are operated as part of a single project (along with any property, such as a computer control system, that serves some or all of those facilities) will be treated as a single facility solely for purposes of the begin-construction requirement (the aggregation rule). This notice requires that the taxpayer make its aggregation rule determination for beginconstruction purposes in the calendar year during which the last of the multiple facilities is placed in service.[65]

Also, Notice 2016-31 provides that multiple facilities that are operated as part of a single project and treated as a single facility in determining whether construction of a facility has begun may later be disaggregated and treated as multiple separate facilities in determining whether a facility satisfies the continuity safe harbor (the disaggregation rule). Disaggregated facilities placed in service before the continuity safe harbor deadline will be eligible for that safe harbor. The remaining disaggregated facilities not placed in service before the continuity safe harbor deadline may still satisfy the continuity requirement under a facts and circumstances determination.[66] This new provision in the begin-construction guidance provides additional flexibility to developers constructing large projects with long construction schedules. The disaggregation rule may be applied to facilities that rely on either the physical work test or the 5 percent safe harbor to satisfy the continuity requirement.

E. Notice 2017-04

On December 15, 2016, Treasury and the IRS released Notice 2017-04 to clarify and modify the prior IRS notices.[67] Notice 2017-04 principally addresses three tax technical issues that emerged as matters of concern for taxpayers after the release of Notice 2016-31.

1. Retroactivity. Recall that before Notice 2016-31, projects had a two-year continuity safe harbor period in which taxpayers could place projects in service without the need to prove that they began construction on a particular date and continued with construction activities until completion. The two-year continuity safe harbor period began on the tax credit termination date, regardless of the actual date on which the taxpayer began construction. Following Congress's multiyear extension and phaseout of the PTC and ITC in 2015, the IRS issued Notice 2016-31, which revised the two-year continuity safe harbor by providing that a facility will be considered to satisfy the safe harbor if a taxpayer places it in service by the later of December 31, 2016, or four calendar years from the calendar year during which construction began. That change, requiring measurement from the actual year in which construction began, had the unintended consequence of rendering ineligible some projects that started construction in 2013 (or earlier) that could not be completed and placed in service before December 31, 2017 (or earlier).

Notice 2017-04 adopted a simple fix by changing a single date in the preceding guidance. The notice provides that a taxpayer will be deemed to satisfy the continuity safe harbor if a project is placed in service by the later of December 31, 2018, or four calendar years following the calendar year in which construction began.[68] This change allows taxpayers that started construction in 2013 or earlier to be placed in the same position they would have been under prior guidance had Notice 2016-31 simply rolled forward the prior guidance's two-year continuity safe harbor.

2. Alternating methods. The new notice also addresses the prohibition first created in Notice 2016-31 that barred taxpayers from alternating between methods to begin construction (that is, beginning physical work in year 1 and then incurring 5 percent of project costs in year 2) to extend their safe harbor period. Notice 2017-04 provides that this rule will apply only prospectively to facilities whose construction began after June 6, 2016, the official publication date of Notice 2016-31.[69]

3. Repowering. Finally, the notice clarifies that for purposes of wind facility repowering and the socalled 80/20 rule, the cost of new property includes "all costs properly included in the depreciable basis of the new property."[70] In recent years, many taxpayers may have considered refurbishing old wind farms in order to be considered a new facility for PTC purposes and start a new PTC period. Under the 80/20 rule, a taxpayer is required to compare the costs of new property relative to the value of any used property that will remain at the facility. The notice provides some clarity to taxpayers as they calculate various repowering scenarios for particular components that may be added to existing wind facilities.

V. Evolution of Begin-Construction Standard

The legal framework in Notice 2013-29 and Notice 2013-60, which is clarified in later notices, is largely derived from the concepts and language used in the 1603 grant program. Guidance developed under the 1603 grant program used much of the same language that existed in 1966 in transition rules for an earlier ITC enacted to encourage business investment.[71]

The original ITC was enacted in 1962[72] and later suspended[73] between October 10, 1966, and December 31, 1967. Some equipment or projects that had begun construction before suspension remained eligible for the ITC. The legislative history of the statute suspending the ITC provided that "generally, where physical construction (or reconstruction or erection) begins during the suspension period, the machinery and equipment is not eligible for the ITC and the building is not eligible for accelerated depreciation."[74] The Senate report continued:

The construction of a machine or equipment is to be considered as begun when work of a significant nature has begun with respect to the machinery or equipment. *Thus, if the foundation or installation is significant and this has begun, the construction of the machine or equipment will be considered to have begun. If manufacturing on important parts of the machine has begun, construction will be considered as commenced. Similarly, if assembly of parts (other than from inventory) has begun, this too will indicate the beginning of the construction of the machine or equipment. However, construction on a machine or equipment will not be considered as begun if work has begun only on minor parts or components of the machine or equipment.*[75] [Emphasis added.]

A commencement-of-construction standard was used by the IRS to analyze reg. section 1.103-8 in the 1970s and into the 1980s to interpret specific bond financing provisions. In LTR 8015124, a taxpayer requested a ruling on whether the bond resolution of a governmental authority was adopted before the commencement of the construction, reconstruction, or acquisition of a pollution control facility within the meaning of reg. section 1.103-8(a)(5)(iii). The regulation said that if the original use of a facility commences on or after the date of issue of obligations issued to provide the facility, the facility qualifies as an exempt activity if a bond resolution for those obligations had been adopted before the commencement of the construction, reconstruction, or acquisition of the facility. In issuing the ruling, the IRS stated:

A definition of "commencement of construction" is not found in section 1.103 of the regulations, therefore, one may look to other sections of the code, regulations, and legislative history for guidance. In general "commencement of construction" means when actual physical work on the facility is begun as distinguished from preliminary work such as clearing the site, preparing engineering drawings, general grading of the site or ordering raw materials. In addition, *work of a significant nature on a major component must begin. However, starting work on a major component does not mean that a significant amount of work must be completed on the major component for commencement to start.*[76] [Emphasis added.]

Over the last 50 years, legislative changes have resulted in an evolution of transition rules. Throughout the 1970s and 1980s, rules concerning some bond financing provisions and depreciation applied the begin-construction requirement. In the early 2000s, the bonus depreciation rules adopted the begin-construction standard and created a safe harbor. The legislative history and IRS guidance that developed are instructive of the current requirement. The statutory changes that occurred and gave rise to this requirement and various windows for qualification are also informative of how to interpret the most recent tax extenders provisions and IRS guidance.

VI. Leading Practices and Critical Considerations

Taxpayers should carefully consider the process by which work on a facility is documented and substantiated, taking into account any new guidance that Treasury and the IRS may issue. Also, developers should consider an array of leading practices regarding the physical work test and the 5 percent safe harbor and ensure employees' and vendors' current practices continue to conform to IRS requirements.

Generally, the physical work test is a tested, straightforward, and cost-effective approach, given the specificity of guidance provided by Treasury and the IRS to date. The 5 percent safe harbor may be relied on to provide another layer of confidence, especially if the parties anticipate ultimately needing to demonstrate satisfaction of the continuity requirement by facts and circumstances. The physical work test and the 5 percent safe harbor have been used by developers and investors alike to qualify facilities for the PTC and ITC.

In reviewing the common fact patterns provided above, taxpayers may wish to consider the following practices and considerations.

A. Physical Work Test

Scenario 1 as described above is specifically addressed under current guidance as a permissible means for satisfying the begin-construction requirement. For taxpayers that started on-site physical work before January 1, 2017, the IRS notices are clear that beginning the excavation of a single foundation or starting construction of non-access roads may qualify the project under the physical work test. Beginning on-site work necessarily contemplates that preliminary project planning was well underway before the last weeks of December 2016. The clarity of prior notices regarding on-site and off-site physical work was again confirmed by a government official in a recent webinar.[77] The following remarks are from Hannah Hawkins, an attorney-adviser in the Treasury Office of Tax Policy (Tax Legislative Counsel):

Ms. Hawkins: "[Notice] 2014-46, I think, pretty clearly states that the work needs to be physical work of a significant nature as it's defined in the guidance, but also makes pretty clear that there's no minimum threshold with respect to that work either with respect to cost or amount of work. That was in response to industry feedback wondering whether there was a 20 percent threshold... was there any threshold. And the answer is no, and I think that's what the guidance pretty clearly says. The published guidance is the public position of IRS and Treasury, and so there should be no reason to think that we would issue guidance saying that there are no minimum thresholds but somehow have an internal or unofficial position that differs from that. And no, I don't expect us to change our position with respect to this particular point."

Moderator: "Hannah, does the Treasury have any concern about the $100,000 spent or the physical work on the radiator tank, as opposed to completion of the transformer? Do those raise any concerns about qualification in your mind?"

Ms. Hawkins: "No, I think it's pretty illustrative of the principles set forth in our guidance with respect to physical work. We're not concerned with the dollar amount or amount of work or a particular component that you're working on."

Importantly, remember that merely beginning construction of access roads to the project will not satisfy the physical work test, nor will work on roads used primarily for employee or visitor vehicles. The critical consideration for road construction is whether the road will be integral to the facility. The guidance is clear that no quantum of work (for example, a specific percentage of on-site excavation or a specific number of feet of roads) is required to have physical work of a significant nature. Beginning the construction of qualifying roads or the excavation of a single turbine foundation is enough.

Scenario 2 as described above is also specifically addressed under current guidance as a permissible method for satisfying the begin-construction requirement. For taxpayers that started off-site physical work before 2017, the IRS notices provide that beginning work on the construction of a wind turbine and tower unit, or a custom-designed step-up transformer, is physical work of a significant nature. Notice 2014-46 also clarifies that taxpayers may satisfy the physical work test by off-site work on other equipment. As described above, that equipment must be significant (that is, a major component).[78] The guidance makes clear that the

government already considers the following items to be examples of major components: wind turbines, tower units, and custom-designed step-up transformers.[79] Bonus depreciation, unit-of-property provisions, and old ITC transition rules can be instructive in assessing the significance of other similar components for purposes of the begin-construction requirement.

Entering into a binding written contract for the purchase of the equipment is necessary under the guidance in satisfying the physical work test. Binding written contracts should not limit liquidated damages and should commit the purchaser to at least 5 percent of the total contract price.[80]

As discussed above, the legislative history supports termination for convenience provisions in a contract as long as the purchaser is on the hook for at least 5 percent of the contract. That said, because the industry is still being made aware of the background of the option provision, consideration should be given to either modifying prospective purchase agreements to eliminate termination for convenience provisions or discussing those provisions with potential tax equity providers to educate them as necessary.

Effective binding written contracts often set out a specific timeline for the construction of the equipment, including a provision that requires work to continue in accordance with normal construction practices with an expected delivery date or a specific timeline for completion. Also, the manufacturer should represent that the equipment being manufactured under the contract is not inventory or normally held in inventory.

Notice 2013-29 provides that physical work on property that is held in inventory or normally held in the inventory will not satisfy the physical work test. But note that property specifically produced by a manufacturer in accordance with a contract under which the manufacturer has the unilateral right to substitute component parts may cause concerns that those component parts may be considered property held in inventory or normally held in inventory. If a turbine manufacturer began physical work on blades or nacelles and contractual terms prohibit the manufacturer from unilaterally substituting those components once they are completed, work that began on those parts would seem more likely to satisfy the physical work test.

B. 5 Percent Safe Harbor

Finally, Scenario 3 as described above is also specifically addressed under current guidance as a permissible method for satisfying the beginconstruction requirement. Taxpayer incurred $25 million on the purchase of 10 wind turbines in 2016, resulting in 6.25 percent of the total planned project cost of $400 million. When relying on the 5 percent safe harbor, incurring a higher percentage threshold of the anticipated total project cost as the extra amounts incurred provides some cushion for unanticipated cost overruns. If the amount incurred falls below 5 percent of the ultimate total cost of the project, the taxpayer may still be eligible for PTCs based on a smaller number of individual facilities (not all 100 turbines) such that the amount incurred is at least 5 percent of the scaled-back project's total cost.

Accrual method taxpayers, such as the taxpayer in Scenario 3 above, should ensure that components for which costs are incurred to satisfy the 5 percent safe harbor can reasonably be delivered to the taxpayer within three and a half months (105 days). If the component property is not acquired by the taxpayer within the 105-day period after payment is made, the IRS may challenge whether those costs should be treated as incurred on the payment date, even if delivery is delayed because of unforeseen circumstances, such as extreme weather events. However, components can be acquired by the taxpayer without being physically delivered to the project site. For example, developers can take title to the property and have it stored at the manufacturer's site until the project site is ready for delivery and incorporation of the property into the ultimate project site. In that case, it is critical that the taxpayer be able to demonstrate that it truly acquired the component property for federal income tax purposes, and thus that the benefits and burdens of ownership of the property have transferred within the 105-day period, including title, risk of loss, and other indicia of tax ownership.

It is also noteworthy that the 3½-month rule is a method of accounting for federal income tax purposes. One must be careful to ensure that the 3½-month rule can be adopted by the project entity or, alternatively, that the taxpayer has not otherwise established a method of accounting for the provision of property and services that does not follow the 3½-month rule.

C. Continuous Construction and Efforts Tests

If a project will not be placed in service within four calendar years of the year in which construction began or before December 31, 2018, a taxpayer should closely monitor its documentation of vendor services and component manufacturing to substantiate claims that activity was continuous in satisfaction of the continuous construction or continuous efforts requirements of the physical work test and the 5 percent safe harbor, respectively. For example, consider requiring manufacturers to certify daily or weekly reports of component assembly or fabrication. Augmenting those reports with photo or video evidence of the activity is also a leading practice. Finally, consider hiring an independent engineer to regularly visit project or manufacturer sites to review daily reports, personally witness the work, and sign off to affirm that construction activity is underway. Detailed records should also be produced and retained substantiating any excusable disruptions. Note that if a developer is lacking in documentation of continuous activities since physical work started or 5 percent of costs were incurred in 2016 (or earlier), the developer (and its vendorsmanufacturers) should still try to document all activities going forward, especially after January 1, 2017.

D. Transfers

Taxpayers considering transferring or acquiring facilities or equipment should carefully construe the language in the prior IRS notices. The notices appear to incorporate the concerns of the 1603 grant program regarding the trafficking of grandfathered equipment.[81] Taxpayers may comply with the transfer rules through joint venture relationships with other developers and by transferring the equipment to a jointly owned special purpose entity in which the taxpayer retains more than a 20 percent capital or profits interest.[82] Note, however, that disguised sale rules in section 707 prohibit a taxpayer from engaging in a quick disposition of its ownership interest after the equipment is transferred. Therefore, taxpayers transferring solely tangible personal property should be prepared to hold their ownershipinterest in the related party for at least twoyears to avoid any rebuttable presumption that the transfer was a disguised sale under section 707.[83] Otherwise, the burden will be on the taxpayer to prove that the transaction was not a sale under a facts and circumstances test. Treatment as a disguised sale would render the taxpayer's actions an impermissible transfer to an unrelated party and cause the underlying transferred equipment to lose its eligibility for the PTC or the ITC.[84] Note that transfers to unrelated parties may be permissible when the transaction includes tangible personal property and specific intangibles, such as a power purchase agreement or interconnection agreement.

For facility or equipment transfers after which the ITC will be claimed, a taxpayer should remember that it may be subject to full or partial recapture if it sells, transfers, or otherwise disposes of qualifying property within five years of placing the facility or equipment into service.[85] Further, a taxpayer owning an interest in a special purpose entity that claims the ITC may be subject to recapture of a proportionate share of the credit it was allocated if it sells, transfers, or otherwise disposes of more than one-third of its interest in the special purpose entity.[86]

VII. Notice 2017-04 Clarifies Prior Guidance

Despite the four-year continuity safe harbor period provided to the wind industry and taxpayers developing other projects from renewable resources, the wind industry had expressed concern with the retroactivity of the four-year period and other language that appeared in Notice 2016-31.[87] The IRS and Treasury recognized those concerns and quickly began working on clarifying guidance, in addition to parallel guidance for taxpayers beginning construction on solar energy property, since the statutory framework for the ITC for solar also adopted a begin-construction requirement and differs from the PTC in several technical areas.[88]

Notice 2016-31 provided that a taxpayer would satisfy the continuity safe harbor if the taxpayer placed its project into service by the later of December 31, 2016, or four calendar years from the end of the year in which construction began. This led to a result that would hurt some taxpayers' PTC or ITC eligibility, changing the continuity safe harbor standard by providing a limitation on projects that were encouraged to begin construction in earlier years such as 2011, 2012, or 2013. Previous notices gave taxpayers that began construction in 2011 or later a two-year window to place facilities in service beginning on the credit termination date. For example, a taxpayer that began construction in 2011 could place the facility in service before 2017 and still comply with the continuity safe harbor as expressly provided under Notice 2015-25. Under Notice 2016-31, however, the taxpayer would be outside the continuity safe harbor and must prove continuity under a facts and circumstances test all the way back to 2011.

Notice 2017-04 did not go so far as to expressly reconfirm the informal position of the IRS and Treasury and clarify, regarding the application of the excusable disruption rules and examples in section 4.02(2) of Notice 2016-31, that the likelihood or foreseeability of the disruption occurring during the facility's construction is irrelevant. The excusable disruption rule could be clarified by applying a rule similar to the single project determination, such that excusable disruptions must be determined in the calendar year during which the facility is placed in service or, for a single project, during the calendar year in which the last of the multiple facilities is placed in service, regardless of the foreseeability of the disruption during the construction period.

Lastly, Notice 2016-31 prohibited relying on both the physical work test and the 5 percent safe harbor in alternating calendar years, which generated significant interest on the part of taxpayers to "restart" construction in a later calendar year to enhance PTC project opportunities and remain in compliance with the revised continuity safe harbor. Even after Notice 2017-04, this prohibition remains in effect for some facilities whose construction began after June 6, 2016. However, what is arguably not entirely clear in Notice 2017-04 is exactly how this prohibition should apply for facilities whose construction may be viewed as beginning both before and after June 6, 2016. For example, if the construction of a facility is determined to have begun in December 2016 under the 5 percent safe harbor, while at the same time satisfying the physical work test in an earlier calendar year, does the prohibition against combining methods still apply, requiring the taxpayer to measure the application of the continuity safe harbor from the end of the earlier calendar year when physical work was started? Alternatively, would this rule simply no longer apply for the same project if the 5 percent safe harbor was satisfied before June 7, 2016, rather than after June 6, 2016?

Treasury attorney Hannah Hawkins, speaking January 20 on a panel at the American Bar Association Section of Taxation meeting in Orlando, Florida, provided definitive clarity on the interpretation of this provision:

It is the intent of Notice 2017-04 to clarify that the first in time rule is purely prospective so that a taxpayer that began construction under either the physical work test or the 5 percent safe harbor before the publication of Notice 2016-31 can choose either method to demonstrate the start of construction. "What we were really trying to do with the first in time rule in Notice 2016-31 was respond to the fact that the beginning of construction now had a begin date rather than an end date. We thought it was important to create some teeth around that so people can't keep extending the clock on their begin date," she said, adding that the IRS and Treasury realized though that putting the new rule onto the old rules does not quite work.[89]

As a result, the clarifications in sections 3 and 4 of Notice 2017-04 provide that a taxpayer that began physical work before June 6, 2016 (for example, in 2014 or 2015), and then incurred 5 percent of project costs after June 6, 2016 (for example, December 31, 2016), would have the later of four calendar years from the end of the calendar year in which it met the 5 percent safe harbor to place the project into service (for example, December 31, 2020), or December 31, 2018, and still satisfy the continuity safe harbor.

VIII. Conclusion

The IRS and Treasury have now provided six notices to clarify the begin-construction requirement for purposes of the PTC and ITC. As new questions arise in transactions amid new legislation, new technology, and new economic realities, each issuance of published guidance clarifies some issues while bringing to light others. Industry and tax professionals will likely grapple with eligibility and compliance questions through the end of 2020 and beyond. It is important for taxpayers to review their contractual arrangements with project parties and stay in regular contact with manufacturers and other vendors to monitor compliance with activity documentation protocols. No details are minor, and no questions are unimportant in the efforts to begin construction and remain compliant with PTC and ITC eligibility.

End notes

1. P.L. 114-113 (2015).
2. P.L. 114-113, Division Q, sections 301 and 302.
3. P.L. 102-486. The amount of the credit is now adjusted to 2.3 cents per kilowatt-hour. Notice 2016-34.
4. Section 45 reduces by half the value of the credit for open-loop biomass, small irrigation power, landfill gas, municipal solid waste, qualified hydropower, and some marine and hydrokinetic technologies. Section 45(b)(4)(A).
5. Section 45(a). Electricity sold between members of an affiliated group of corporations filing a consolidated return is not considered sold to a related party for this purpose in some situations. Section 45(e)(4).
6. P.L. 109-58.
7. Section 168(e)(3)(B)(vi).
8. Section 168(k). Fifty percent bonus depreciation was also extended as part of the tax extenders legislation. See P.L. 114-113 at Division Q, section 143.
9. Section 1603 of the American Recovery and Reinvestment Act of 2009 (ARRA), P.L. 111-5. Projects were generally eligible to receive a grant if they qualified under section 48. ARRA modified section 45 to permit qualified facilities to elect to claim a 30 percent ITC under section 48, from which the 30 percent 1603 grant could ultimately be claimed. ARRAsections 1102 and 1104.
10. See Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010, P.L. 111-312. Once construction has begun, the project must be placed in service before the termination date of the underlying tax credit. ARRA section 1603(e).
11. The American Taxpayer Relief Act of 2012 (ATRA), P.L. 112-240, section 407.
12. Based on public comments by IRS attorneys. See, e.g., Matthew R. Madara, "Official Provides Insight on Recent Energy Construction Guidance," Tax Notes, Sept. 1, 2014, p. 1033.
13. Notice 2013-29, section 3.
14. Id. at section 4.01.
15. Id. at section 5.01.
16. Notice 2013-60, section 3.02.
17. Notice 2013-29, section 4.06(1).
18. Id. at section 4.06(2).
19. Id. at section 4.04(1) and (2).
20. Id. at section 4.04(2). Factors indicating a single project include: (1) The facilities are owned by a single legal entity; (2) the facilities are constructed on contiguous pieces of land; (3) the facilities are described in a common power purchase agreement or agreements; (4) the facilities have a common intertie; (5) the facilities share a common substation; (6) the facilities are described in one or more common environmental or other regulatory permits; (7) the facilities were constructed under a single master construction contract; and (8) the construction of the facilities was financed under the same loan agreement.
21. Notice 2013-29, section 4.05(1). Reg. section 1.48-1(d)(4) provides that property is used as an integral part of a qualifying activity if "it is used directly in the [qualifying] activity and is essential to the completeness of the [qualifying] activity."
22. Notice 2013-29, section 4.02.
23. Id.
24. Id. at sections 4.05(1) and 4.05(4).
25. Id. See also ECC 201122018 (The IRS concluded that all the equipment at a substation used through the point at which the electricity is stepped up to transmission voltage, plus equipment beyond the step-up transformer if the equipment is related to the functioning of the transformer or transfer equipment, is an integral part of the electricity generation process); and reg. section 1.48-1(e)(1).
26. Notice 2013-29, section 4.05(1).
27. Id. at section 4.02.
28. Id. at section 4.05(2).
29. Id. at section 4.02(1). The guidance provided the following examples of preliminary activities: planning or designing, securing financing, exploring, researching, obtaining permits, licensing, conducting surveys, conducting environmental and engineering studies, clearing a site, test drilling of a geothermal deposit, test drilling to determine soil condition, or excavation to change the contour of the land (as distinguished from excavation for footings and foundations).
30. Id. at section 4.02.
31. Id.
32. ARRA section 1603, as amended by section 707 of the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010, P.L. 111-312. According to conversations with Senate Finance Committee staff and members of the Joint Committee on Taxation, Congress's intent in ATRA was to use the definition of begin construction that was used in the section 1603 program.
33. Madara, supra note 12 (Speaking on an American Wind Energy Association panel, "Christopher Kelley, special counsel, IRS Office of Associate Chief Counsel (Passthroughs and Special Industries), said the physical work of a significant nature test is drawn from a FAQ issued as part of the grant program enacted under [ARRA] section 1603. The 1603 program rules were borrowed from bonus depreciation and investment tax credit rules dating back to the 1960s, he said.").
34. Treasury, "Payments for Specified Energy Property in Lieu of Tax Credits Under the American Recovery and Reinvestment Act of 2009," Frequently Asked Questions, Begun Construction, Q12 and Q13 (Dec. 2011).
35. Notice 2013-29, section 4.01.
36. Id.
37. Id. at section 4.03(1).
38. Id.
39. Reg. section 1.168(k)-1(b)(4)(ii)(C).
40. Tax Reform Act of 1969, H.R. 13270, P.L. 91-172, section 703.
41. Notice 2013-29, section 5.01; reg. section 1.461-4(d)(2).
42. Reg. section 1.461-4(d)(2)(i).
43. Reg. section 1.461-4(d)(6)(ii).
44. Notice 2014-46, section 3.
45. Id.
46. Id.
47. Id.
48. Id.
49. Amy S. Elliott, "Treasury Urged to Issue More Energy Construction Guidance," Tax Notes, May 5, 2014, p. 551; and Madara, "IRS to Release Additional Production Tax Credit Guidance" (May 12, 2014).
50. Elliott, supra note 49.
51. Notice 2014-46, section 3.
52. Id. at section 2.
53. Id.
54. Id. at section 4.01.
55. Id.
56. Id. at section 4.02.
57. Id. at section 4.03; section 197(f)(9)(C) (referencing sections 267(b) and 707(b)(1) and substituting "20 percent" in place of "50 percent").
58. Notice 2014-46, section 4.03.
59. Id. at section 5.01.
60. The Tax Increase Prevention Act of 2014, P.L. 113-295, section 155.
61. Notice 2015-25.
62. Notice 2016-31.
63. Id. at section 7. The guidance is effective beginning January 3, 2013.
64. Notice 2016-31, section 4.01 (providing by example that if a taxpayer performs physical work of a significant nature on a facility in 2015 and then pays or incurs 5 percent or more of the total cost of the facility in 2016, the continuity safe harbor will be applied beginning in 2015, not in 2016).
65. Id. at section 5.04(3).
66. Id. at section 5.04(4).
67. Notice 2017-04.
68. Id. at section 3.
69. Id. at section 4.
70. Id. at section 5.
71. See supra note 12. See also W.E. Partners II LLC v. United States, 119 Fed. Cl. 684 (2015) (giving deference to 1603 grant program guidance, which established the framework of the begin-construction standard for 1603 cash grants).
72. Revenue Act of 1962, P.L. 87-834, section 2.
73. P.L. 89-800 (1966).
74. S. Rep. No. 89-1724, at 22 (1966).
75. Id. at 23. As indicated in the House report, for the construction of a transistor to be used in a computer, the beginning of the construction of the transistor will not mean the beginning of the construction of the computer. Note that transistors were extremely minor components of a computer in the 1960s because each computer used hundreds, if not thousands, of transistors.
76. 76LTR 8015124.
77. American Wind Energy Association, "AWEA Member Update: Still Finalizing Your PTC or ITC Start Construction Strategies?" (Nov. 8, 2016).
78. See supra note 76; and LTR 8015124 (defining commencement of construction: "Work of a significant nature on a major component must begin. However, starting work on a major component does not mean that a significant amount of work must be completed on the major component for commencement to start.").
79. See Notice 2013-29, sections 4.02 and 4.05.
80. 80Id. at section 4.03(1).
81. See, e.g., Treasury, "Payments for Specified Energy Property in Lieu of Tax Credits Under the American Recovery and Reinvestment Act of 2009—Frequently Asked Questions and Answers," at Q23 and Q24 (2010).
82. Notice 2014-46, section 4.03.
83. Reg. section 1.707-3(d).
84. Notice 2014-46, section 4.03.
85. Section 50.
86. Reg. section 1.47-6(a)(2).
87. Luca Gattoni-Celli and Madara, "'Begin Construction' Energy Credit Guidance May Get Tweaks," Tax Notes, May 16, 2016, p. 893; and Marie Sapirie, "More Clarification Provided on 'Begin Construction' Requirement," Tax Notes, Jan. 30, 2017, p. 568.
88. Sapirie, supra note 87. See also Treasury, "2016-2017 Priority Guidance Plan" (first quarter updated), at General Tax Issues No. 14 (Oct. 31, 2016).
89. 89Sapirie, supra note 87.

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