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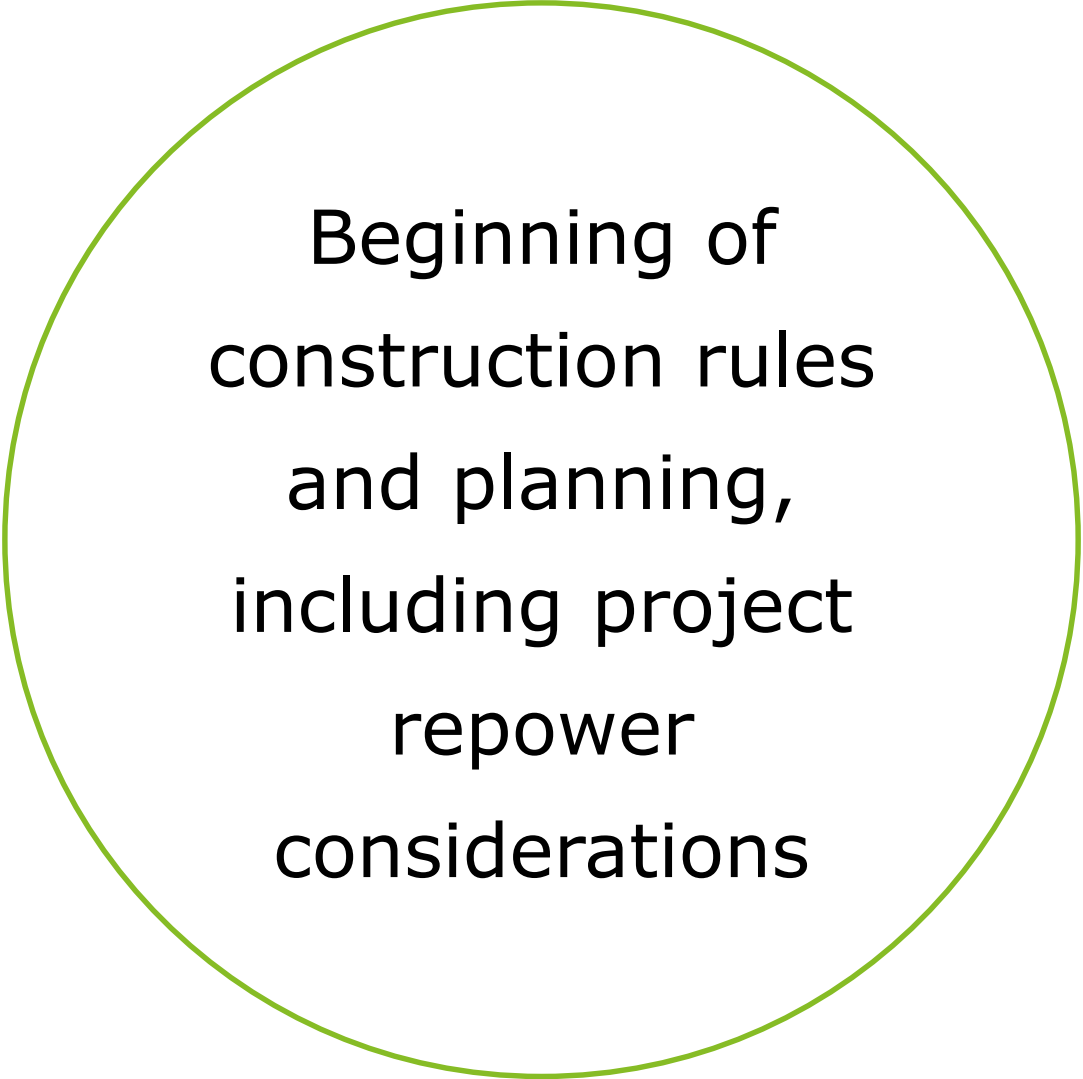


2016 Deloitte Alternative Energy Seminar

Setting new sights

November 14-16, 2016

Deloitte Center *for*
Energy Solutions



Beginning of
construction rules
and planning,
including project
repower
considerations

Begun construction for PTC and ITC in lieu of PTC

Agenda

- Begun construction background
- Common strategies for beginning construction
- Five percent safe harbor
 - Current law and planning considerations
- Physical work test
 - Current law, recent industry comments, planning considerations
- Discussion of common fact patterns
- Continuity safe harbor
 - Recent and forthcoming guidance
- Begun construction for solar ITC
- Repowering wind projects
 - Market and 80-20 test
- Q&A

Begun construction background

Begun construction background

- Under current law, a taxpayer may claim 100 percent of the value of PTCs or the ITC in lieu of PTC on a new qualified wind facility only if construction of the facility began (the begun construction requirement) **before January 1, 2017.**
 - The credit amount thereafter phases down by 20 percent each year and phases out for facilities that do not begin construction before January 1, 2020
- American Taxpayer Relief Act of 2012 was enacted January 2, 2013
 - Changed eligibility for certain PTC and ITC in lieu of PTC technologies from a “placed-in-service” date requirement to a requirement that a facility must have “begun construction” before January 1, 2014
 - Based on recent American Recovery and Reinvestment Act section 1603 Treasury Grant Program implementation
- Taxpayer Increase Prevention Act enacted on December 19, 2014 extended PTC and ITC in lieu of PTC for facilities that had begun construction before January 1, 2015
- Protecting American from Tax Hikes Act of 2015 (PATH Act) and Consolidated Appropriations Act of 2015 (together “tax extenders”) enacted on December 18, 2015, provided the current long term extension and phase out

Begun construction background

- To satisfy the begun construction requirement, IRS guidance requires that the taxpayer prove that prior to the statutory credit deadline, it commenced “physical work of a significant nature” on the facility (physical work test) or incurred at least five percent of the total cost of the facility (Five Percent Safe Harbor).
- 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 or made “continuous efforts to advance towards completion of the facility” to satisfy the Five Percent Safe Harbor (collectively, the Continuity Requirement).
 - A taxpayer was previously deemed to satisfy the Continuity Requirement if a project was placed in service within two years of the begun construction deadline
 - Recent IRS guidance provides that the continuity requirement is deemed satisfied if a project is placed in service within four years of the end of the calendar year in which construction begins (Continuity Safe Harbor)

Common strategies for beginning construction

Example 1: Purchase turbines

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

Has Taxpayer Begun Construction for purposes of the PTC?

Example 2: On-site physical work

Taxpayer is developing a 300 MW wind project with a total capex 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 enters into an agreement with Contractor to begin on-site physical construction through the excavation of ten wind turbine foundations. Before the end of 2016, Contractor begins work on a single wind turbine foundation ("Foundation #1) and by starting to build 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's excavates and lays the mud mat for the single turbine foundation before January 1, 2017 at a cost of \$50,000, and then completes the excavation and laying of the mud mats for the remaining nine turbine foundations pursuant to 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 road bed at a cost of an additional \$50,000.

Has Taxpayer Begun Construction for purposes of the PTC?

Example 3: Off-site physical work

Taxpayer is developing a 300 MW wind project with a total capex of \$400 million. The wind project is slated to have 100 turbines. On December 1, 2016, Taxpayer enters into a binding written contract with Manufacturer, to purchase a custom-designed step-up transformer. The total transformer purchase price is \$1,900,000. The contract includes a penalty of 5% of the purchase price if cancelled/terminated. The initial down payment is \$100,000 which is paid in 2016 upon execution of the purchase order. Manufacturer fabricates a radiator tank, 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.

Has Taxpayer Begun Construction for purposes of the PTC?

Five percent safe harbor

Notice 2013-29

- Issued April 15, 2013
- “Construction of a facility will be considered as having begun before January 1, 2014, if (1) a taxpayer **pays or incurs** (within the meaning of Treas. Reg. § 1.461-1(a)(1) and (2)) five percent or more of the total cost of the facility, except as provided in section 5.01(2), before January 1, 2014, and (2) **thereafter**, the taxpayer makes continuous efforts to advance towards completion of the facility (as determined under section 5.02).” (emphasis added)
 - “Incurring” costs vs. making payment
 - Economic performance through delivery or transfer of tax ownership
 - 3.5-month rule exception
 - Method of accounting
 - Look-through rule for work performed under a binding written contract
- Continuous efforts toward completion
- Excusable disruptions
- Cost overruns

Notice

2013-60

- Issued September 20, 2013
- January 1, 2016 safe harbor for continuous efforts and program of continuous construction
- Master contract can be replaced by project contract for five percent safe harbor
- Successor in interest rule

2014-46

- Issued October 8, 2014
- Clarification of physical work
- Clarification of transfers
- Three percent safe harbor

Notice

2015-25

- Issued March 11, 2015
- Extended begun construction dates in prior guidance
- Extended deemed continuous safe harbor for all projects through 2016, regardless of whether construction started in 2014 or prior

2016-31

- Issued May 5, 2016
- Extended and modified deemed continuous safe harbor
- Prohibition against combining methods (PWSN vs. 5%) in alternating calendar years
- Additional examples of on-site physical work of a significant nature (hydro, biomass, geothermal)
- Additional examples of excusable disruptions
- Timing of single project determination
- Disaggregation rule
- Application of Five Percent Safe Harbor to retrofitted facilities (repowering)

Physical work

Notice 2013-29

2013-29

- Issued April 15, 2013
- “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.”
- 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 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 (emphasis added).

Notice 2013-29

On-site physical work

- “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” (emphasis added).
- In another example of on-site physical work, the IRS concluded that work on “roads primarily for access to the site, or roads used primarily for employee or visitor vehicles” does not qualify. Physical work of a significant nature does include, however, 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.” 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.”
- Guidance does not provide any threshold amount of on-site physical work.

Off-site physical work

- “To satisfy the physical work test, the work performed must be on tangible personal property or other tangible property that is integral to the power generating activity of the facility. Work performed on transmission equipment or buildings typically does not count. **Exceptions include physical work on a custom-designed 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
- **“Physical work on a custom-designed 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.” (emphasis added)

Notice 2013-29

Off-site physical work

Inventory rule

- Components manufactured off-site cannot come from the manufacturer's inventory and cannot be equipment that the manufacturer normally holds in its inventory. 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).

Binding written contract rule

- Any work performed by a contractor 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. 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. 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.

Notice 2014-46

2014-46

- Issued October 8, 2014
- IRS specifically clarified the physical work test in Notice 2014-46
- Emphasized that “[t]his test focuses on the nature of the work performed, not the amount or cost,” by providing a non-exclusive list of activities that will satisfy the physical work test.
 - One of those activities specifically enumerated is “physical work on a custom-designed step-up transformer.” Other activities enumerated include “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” and “[r]oads that are integral to the facility”
 - IRS concluded that “**[b]eginning work on any one of the activities described above will constitute physical work of a significant nature.**” (emphasis added)
 - “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.”
- Clarified an example from Notice 2013-29, in which site excavation and concrete pouring occurs at 10 of 50 turbine sites: [the example was] “not intended to indicate that there is a 20% threshold or minimum amount of work required to satisfy the Physical Work Test.”

Notice 2014-46

2014-46

IRS based clarification of the physical work test on prior begun construction standards:

- Treasury 1603 Grant Program

- Begun construction FAQs

- Answer 3: “physical work on a 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 because power conditioning equipment is part of the qualified facility.”
 - Question 4: “How much physical work is required? Is laying the foundation for one wind turbine that is part of a larger wind farm sufficient?”
 - Answer 4: “In general any physical work on the specified energy property will be treated as the beginning of construction even if such work relates to only a small part of the facility...”

Notice 2014-46

2014-46

IRS based clarification of the physical work test on prior begun construction standards:

- Bonus depreciation, tax exempt bond financing, and old investment credit transition rules provided in rulings and legislative history
 - “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**” (emphasis added).
 - “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 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**” (emphasis added).

Notice 2014-46

2014-46

- IRS based clarification of the physical work test on prior begun construction standards:
 - Bonus depreciation, tax exempt bond financing, and old investment credit transition rules provided in rulings and legislative history
 - [I]f a retail motor fuels outlet or other facility is to be constructed on-site, construction begins when physical work of a significant nature commences at the site; that is, when work begins on the excavation for footings, pouring the pads for the outlet, or the driving of foundation pilings into the ground. Preliminary work, such as clearing a site, test drilling to determine soil conditions, or excavation to change the contour of the land (as distinguished from excavation for footings) does not constitute the beginning of construction. However, **if a retail motor fuels outlet or other facility is to be assembled on-site from modular units manufactured off-site and delivered to the site where the outlet will be used, manufacturing begins when physical work of a significant nature commences at the off-site location**” (emphasis added).

Notice 2016-31

2016-31

- Issued May 5, 2016
- Discusses the physical work test:
 - **“As provided in section 3 of Notice 2014-46, this test focuses on the nature of the work performed, not the amount or the cost. 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)
 - Provides additional examples of on-site physical work “intended to illustrate physical work of a significant nature for different types of renewable energy facilities and is non-exclusive.”

Comments from government

Prior to issuance of Notice 2014-46, a Treasury official commented publicly on the example in Notice 2013-29:

- "That example illustrates a different principle." He added that the physical work test is a qualitative analysis focusing on the kind of work being done, not a quantitative one examining the amount of it. "I don't think there's a 20 percent threshold," he said. "I don't think there's a 2 percent threshold. "[E]xcavation of a site for a wind turbine is significant. "Did the work begin in 2013?" he said. "That's as far as you have to worry."

Comments from industry participants

- January 2014 (prior to Notice 2014-46):
 - **Moderator:** It does not appear that much physical work was required in 2013. Are you willing to rely at this point on the physical work test?
 - **Panelist:** We expect to be able to do that. That said, we have not seen many examples of it yet, so we are still feeling our way about where to draw lines. Hopefully when clients bring deals to us, the physical work will be well documented and will be significant enough to fit within the parameters we think the Treasury and the IRS will use to draw lines.
 - **Moderator:** What do you think is the minimum physical work required?
 - **Panelist:** That's a hard question to answer. It will come down to facts and circumstances. We will make decisions based on what IRS guidance has been issued to date.
- January 2015 (after Notice 2014-46):
 - **Moderator:** How comfortable is the tax equity market with wind projects that relied on physical work at the project site or a factory to be under construction in time to qualify for tax credits?
 - **Panelist:** I think most of the market has become comfortable with physical work cases given that we have now had three rounds of guidance from the IRS. We think the accumulated guidance is fairly comprehensive.

Comments from industry participants

- At the AWEA Finance and Investment Conference in New York City on October 5, 2016, participants on a tax equity panel said that they would only invest in wind projects that satisfy the Physical Work Test in very limited circumstances.
 - Dogs digging holes?
 - Ceremonial shovel in the ground?
- Arbitrary rules of thumb discussed for investing in these projects included completing specific percentages of installation of turbine foundations, miles of roads constructed, and certain amounts spent on a step-up transformer.
- An audience question about the clarity of the IRS guidance to date not requiring arbitrary thresholds was answered with general concerns about the ability of the IRS to challenge physical work and the application of guidance to IRS vs. Treasury.

Discussion of common fact patterns and variations

Recap example 1: Purchase turbines

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

Has Taxpayer Begun Construction for purposes of the PTC?

YES!

- 5% Safe-Harbor / continuous efforts to advance toward completion
- Economic performance and the 3 ½ month rule
- Cost overrun rule
- Tax ownership of turbine components
- Permissible transfers

Recap example 2: On-site physical work

Taxpayer is developing a 300 MW wind project with a total capex 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 enters into an agreement with Contractor to begin on-site physical construction through the excavation of ten wind turbine foundations. Before the end of 2016, Contractor begins work on a single wind turbine foundation ("Foundation #1) and by starting to build 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's excavates and lays the mud mat for the single turbine foundation before January 1, 2017 at a cost of \$50,000, and then completes the excavation and laying of the mud mats for the remaining nine turbine foundations pursuant to 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 road bed at a cost of an additional \$50,000.

Has Taxpayer Begun Construction for purposes of the PTC?

YES!

- Physical work of a significant nature / continuous program of construction
- How much physical work is enough?
- Permissible transfers

Recap example 3: Off-site physical work

Taxpayer is developing a 300 MW wind project with a total capex of \$400 million. The wind project is slated to have 100 turbines. On December 1, 2016, Taxpayer enters into a binding written contract with Manufacturer, to purchase a custom-designed step-up transformer. The total transformer purchase price is \$1,900,000. The contract includes a penalty of 5% of the purchase price if cancelled/terminated. The initial down payment is \$100,000 which is paid in 2016 upon execution of the purchase order. Manufacturer fabricates a radiator tank, 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.

Has Taxpayer Begun Construction for purposes of the PTC?

YES!

- Physical work of a significant nature / continuous program of construction
- How much physical work is enough?
- Inventory rule
- Permissible transfers

Continuity safe harbor

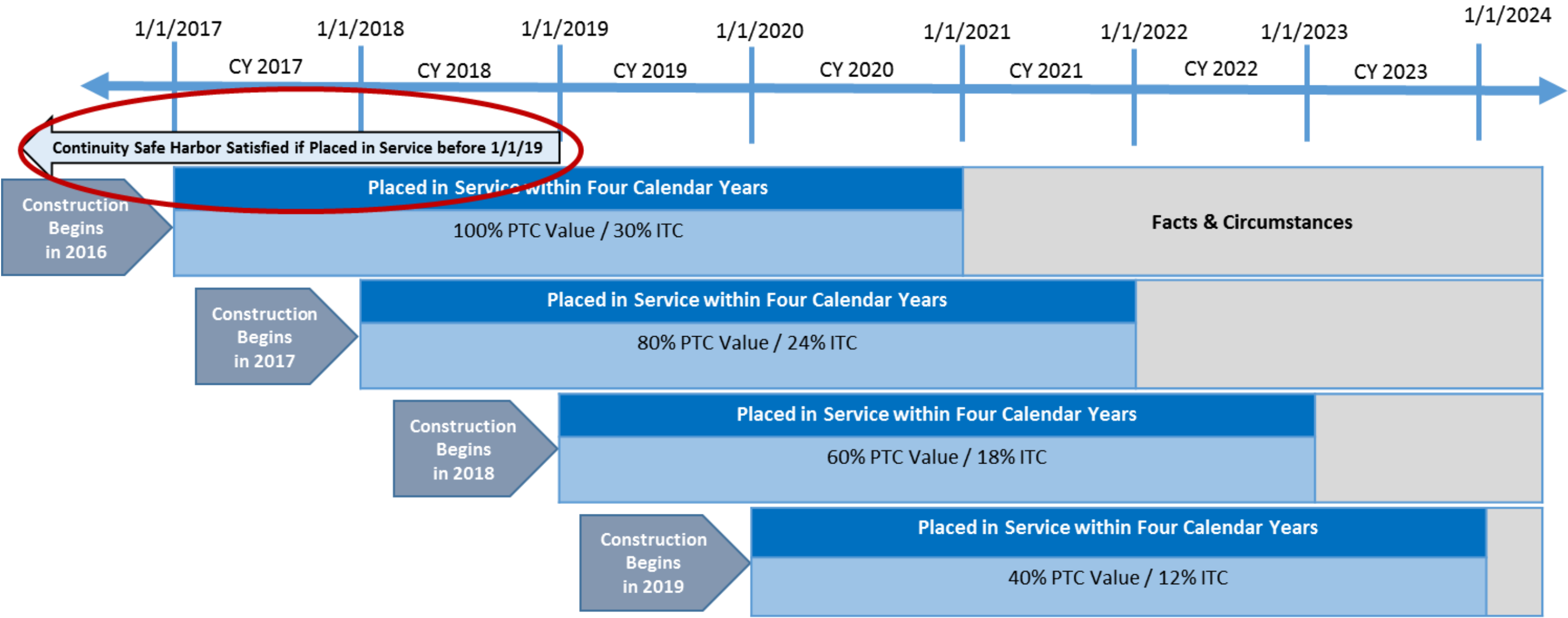
Continuity safe harbor update

Notice 2016-31 (released 5/5/16; re-released 5/18/16)

- Impacts PTC and ITC in lieu of PTC (wind, biomass, hydro, geothermal, waste-to-energy)
- Extension and modification of Continuity Safe Harbor
 - Must be placed in service by the later of four years after calendar year during which BOC occurs or December 31, 2016
 - Prohibition against combining method (PWSN vs. 5%) in alternating calendar years
- Additional examples of excusable disruptions
- Timing of single project determination
- Disaggregation rule
- Wind industry challenging the retroactivity/alternating methods of BOC
 - Additional PTC guidance in development?
- Timing?

Continuity safe harbor

Begun construction guidance after Notice 2016-31 with retroactive "fix"



Begun construction for solar ITC

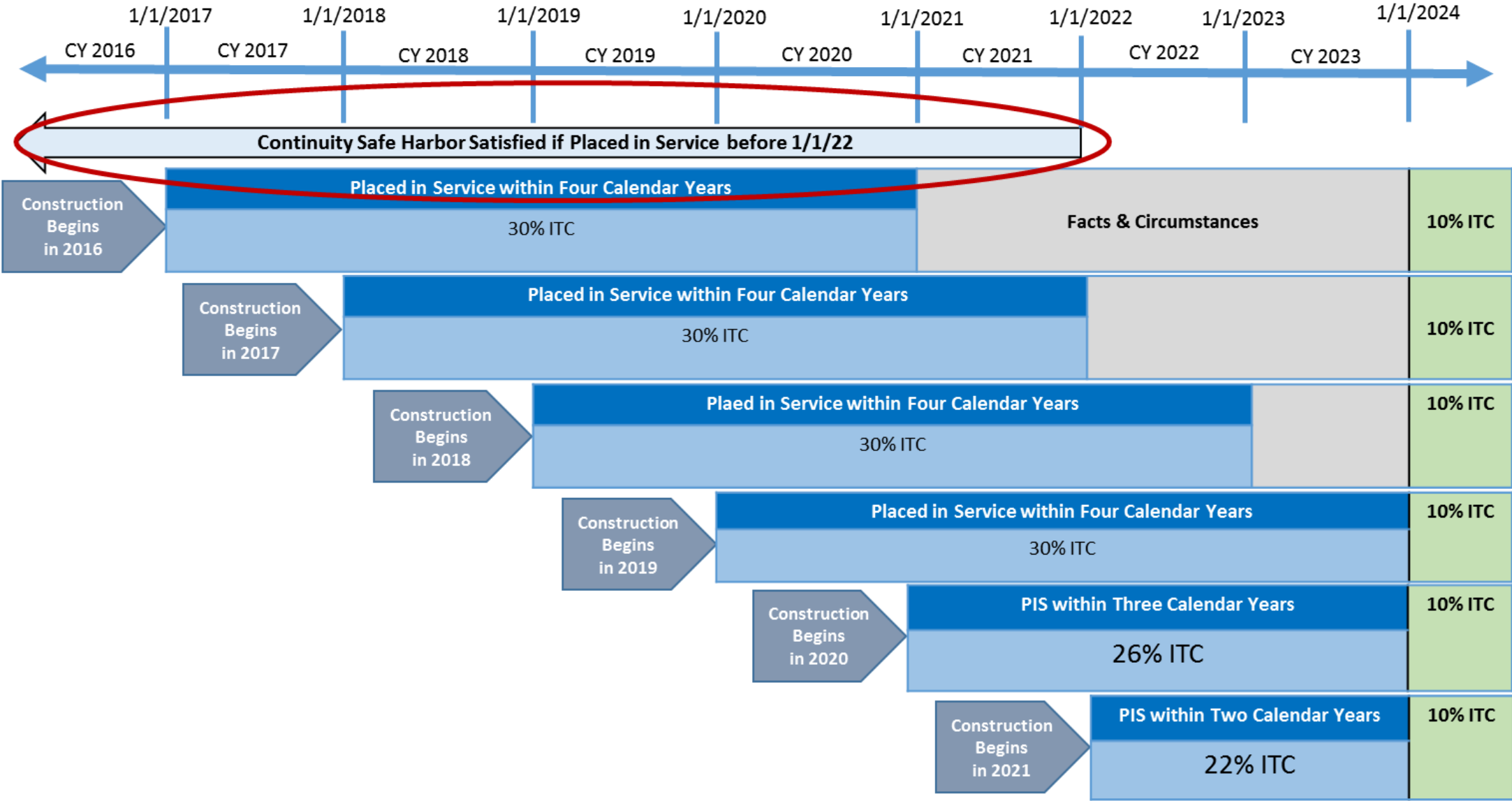
Begun construction guidance for solar ITC

Recommendations for solar begun construction guidance

- Provide a technology-neutral Continuity Safe Harbor that aligns with the statutory placed-in-service deadline
- Confirm eligibility of property integral to the qualifying activity and provide examples
- Clarify the relevant unit of property and adopt a single project election for units of solar energy property under the ITC
- Clarify application of inventory rule
- Provide specific examples of physical work of a significant nature on solar energy property
- Adopt Five Percent Safe Harbor and incorporate a scale-back provision in recognition of cost over-runs that commonly occur in the project development process
- Clarify requirements to preserve ITC eligibility when a project or solar energy property is transferred
- Provide excusable disruptions specific to solar project development

Begun construction for solar ITC

Assuming guidance follows Notice 2016-31 with retroactive fix



Repowering wind projects

Repowering wind projects

- Some wind manufacturers approaching wind clients about “repowering” wind farms that are past the 10-year PTC period
- Opportunity to replace components of wind turbines (e.g., nacelle, blades, rotor, hubs) with new technology
 - Replacement of entire turbine vs. replacement of components
- If the cost of the new property is 80% or more of the total cost of the new property plus fair market value of the used facility, then the facility is considered placed in service anew restarting the 10-year PTC period
- Potential issues:
 - How to value the new and used property (e.g., cost, income approach)
 - Include shared components (e.g., transformer, SCADA)?
 - Include value of PTCs?
 - Tax equity comfort?
- Government unlikely to issue PLRs or further guidance

Contact

Gary Hecimovich
Deloitte Tax LLP
ghecimovich@deloitte.com

Brian Americus
Deloitte Tax LLP
bamericus@deloitte.com



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