



# Renewable Electricity Production Tax Credit (PTC)

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## ELIGIBILITY:

Commercial,  
Industrial

## SAVINGS CATEGORY:

Geothermal Electric,  
Solar Thermal Electric,  
Solar Photovoltaics,  
Wind (All),  
Biomass,  
Hydroelectric,  
Municipal Solid Waste,  
Landfill Gas,  
Tidal,  
Wave,  
Ocean Thermal,  
Wind (Small),  
Hydroelectric (Small)

## MAXIMUM REBATE:

None specified

# Program Info

**Sector Name:**

Federal

**Administrator:**

U.S. Internal Revenue Service

**Website:**

<http://www.irs.gov/pub/irs-pdf/f8835.pdf>

**More Information:****State:**

Federal

**Program Type:**

Corporate Tax Credit

**Rebate Amount:****Systems Commencing construction after December 31, 2016:**

Wind: \$0.0184/kWh for first 10 years of operation

All other technologies: Not eligible

**Systems Commencing construction prior to January 1, 2017:**

Wind, Geothermal, Closed-loop Biomass, and Solar Systems not claiming the ITC:

\$0.023/kWh

Other eligible technologies: \$0.012/kWh

Applies to first 10 years of operation

**Summary:**

Note: Wind facilities commencing construction by December 31, 2019 can qualify for this credit. The value of the credit steps down in 2017, 2018 and 2019. See below for more information. For all other technologies, the credit is not available for systems whose construction commenced after December 31, 2016.

The federal renewable electricity production tax credit (PTC) is an inflation-adjusted per-kilowatt-hour (kWh) tax credit for electricity generated by qualified energy resources and sold by the taxpayer to an unrelated person during the taxable year. The duration of the credit is 10 years after the date the facility is placed in service for all facilities placed in service after August 8, 2005.

Originally enacted in 1992, the PTC has been renewed and expanded numerous times, most recently by the *American Recovery and Reinvestment Act of 2009* (H.R. 1 Div. B, Section 1101 & 1102) in February 2009 (often referred to as "ARRA"), the *American Taxpayer Relief Act of 2012* ([H.R. 8, Sec. 407](#)) in January 2013, the *Tax Increase Prevention Act of 2014* ([H.R. 5771, Sec. 155](#)) in December 2014, and the *Consolidated Appropriations Act, 2016* ([H.R. 2029, Sec. 301](#)) in December 2015.

## Amount

The tax credit amount is \$0.015 per kWh in 1993 dollars for some technologies and half of that amount for others. The amount is adjusted for inflation by multiplying the tax credit amount by the inflation adjustment factor for the calendar year in which the sale occurs, rounded to the nearest 0.1 cents. The Internal Revenue Service (IRS) publishes the inflation adjustment factor no later than April 1 each year in the Federal Registrar. For 2016, the inflation adjustment factor [used by the IRS](#) is 1.5556.

Applying the inflation-adjustment factor for the 2016 calendar year, the production tax credit amount is as follows:

- **\$0.023/kWh for wind, closed-loop biomass, geothermal energy resources, and solar systems that have not claimed the Investment Tax Credit**
- **\$0.012/kWh for open-loop biomass, landfill gas, municipal solid waste, qualified hydroelectric, and marine and hydrokinetic energy resources**

The tax credit is phased down for wind facilities and expires for other technologies commencing construction after December 31, 2016. The phase-down for wind facilities is described as a percentage reduction in the tax credit amount described above:

- **For wind facilities commencing construction in 2017, the PTC amount is reduced by 20%**

- For wind facilities commencing construction in 2018, the PTC amount is reduced by 40%
- For wind facilities commencing construction in 2019, the PTC amount is reduced by 60%

Note that the exact amount of the production tax credit for the tax years 2017-2019 will depend on the inflation-adjustment factor used by the IRS in the respective tax years.

## Duration

The duration of the credit is 10 years after the date the facility is placed in service. Two exceptions applied to facilities placed in service more than a decade ago:

- open-loop biomass, geothermal, small irrigation hydro, landfill gas, and municipal solid waste combustion facilities placed into service after October 22, 2004, and before enactment of the Energy Policy Act of 2005, on August 8, 2005, were only eligible for the credit for a 5-year period, and
- open-loop biomass facilities placed in service before October 22, 2004, were eligible for the 5-year period beginning January 1, 2005.

## Investment Tax Credit in Lieu of Claiming the PTC

Renewable energy facilities placed in service after 2008 and commencing construction prior to 2015 (or 2020 for wind facilities) may elect to make an irrevocable election to claim the [Investment Tax Credit](#) (ITC) in lieu of the PTC. Wind facilities making such an election will have the ITC amount reduced by the same phase-down specified above for facilities commencing construction in 2017, 2018, or 2019.

## Process for Claiming

The credit is claimed by completing [Form 8835](#), "Renewable Electricity Production Credit," and [Form 3800](#), "General Business Credit." For more information, contact IRS Telephone Assistance for Businesses at 1-800-829-4933.

## Recent Legislative Changes

The Consolidated Appropriations Act, 2016 ([H.R. 2029, Sec. 301](#)) extended both the PTC and permission for PTC-eligible facilities to claim the Investment Tax Credit in lieu of the PTC through the end of 2016 (and the end of 2019 for wind facilities). The Act also created a phase-down in the PTC amount for wind facilities commencing construction in 2017, 2018, or 2019. Prior to the legislation, enacted in December 2015, the PTC had expired December 31, 2014. The effective date is January 1, 2015, meaning any qualifying project that commenced construction at any point in 2015 is eligible to claim the PTC.

The *Tax Increase Prevention Act of 2014* ([H.R. 5771, Sec. 155](#)) extended both the PTC and permission for PTC-eligible facilities to claim the [Investment Tax Credit](#) in lieu of the PTC through the end of 2014. Prior to the legislation, the PTC had expired December 31, 2013. Although not enacted until December 2014, the effective date was January 1, 2014, meaning any qualifying project that commenced construction at any point in 2014 was eligible to claim the PTC.

The *American Taxpayer Relief Act of 2012* revised the PTC by removing "placed in service" deadlines and replacing them with deadlines that use the commencing of construction as a basis for determining facility eligibility. It also contained language revising the definition of the term "municipal solid waste" to exclude "paper that is commonly recycled and which has been segregated from other solid waste." The definition change for municipal solid waste applies to electricity produced and sold after the enactment date of the legislation (January 2, 2013) in taxable years ending after that date.

## Determination of Commencing Construction

To claim the PTC, construction on an eligible project must have "commenced construction" prior to January 1, 2015. The IRS has issued guidance on how it will evaluate whether construction has commenced in IRS Notices [2013-29](#), [2013-60](#), [2014-46](#), [2015-25](#), and [2016-31](#) (please see the full text of these notices for complete information on determining the commencing of construction). The guidelines establish two methods—a "physical work" test and a 5% safe harbor (see sections below for details)—to determine when construction has begun on a qualified facility. Meeting the criteria of either method is sufficient to demonstrate that construction has commenced.

Both methods require that a taxpayer make continuous progress towards completion once construction has begun by meeting the Continuous Construction Test (to satisfy the Physical Work Test) or the Continuous Efforts Test (to satisfy Safe Harbor). If a taxpayer places a facility in service during a calendar year that is no more than four calendar years after the calendar year during which construction of the facility began, the facility will be considered to satisfy the Continuity Safe Harbor

### *Physical Work Test*

The physical work test provides that a taxpayer may establish the beginning of construction by beginning "physical work of a significant nature." The physical work test is based on the nature of the work performed rather than the cost of the work; if the work performed is of a significant nature, then "there is no fixed minimum amount of work or monetary or percentage threshold required to satisfy the Physical Work Test" (Notice 2014-46).

Notice 2013-29 provides several examples of actions that constitute work of a significant nature, including:

- for a facility that produces electricity from a wind turbine, 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;
- 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
- beginning construction of roads integral to the activity performed by the facility including onsite roads used for moving materials to be processed (e.g., biomass) and roads for equipment to operate and maintain the facility.

### *Safe Harbor*

Safe Harbor with respect to a facility is demonstrated by showing that 5% or more of the total cost of the facility was paid or incurred.

### **Source:**

<http://programs.dsireusa.org/system/program/detail/734>



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