



RENEWABLE ENERGY TAX CREDITS

The Federal Production Tax Credit (PTC) and Investment Tax Credit (ITC) drive development and deployment of renewable energy technologies. This document answers several common questions about the benefits of these tax credits, differences between the two programs, eligible renewable technologies, and when tax credits will expire unless extended by Congress.

WHAT IS THE PURPOSE OF A FEDERAL TAX CREDIT FOR RENEWABLE ENERGY?

Federal tax incentives for renewable energy projects, such as the PTC and ITC, are designed to:

- Improve the economics of renewable energy technologies and accelerate market adoption
- Stimulate the economy by creating jobs in the renewable energy sector
- Encourage investment in a public good (reduced pollution and robust energy generation)
- Encourage investment in renewable technology research and development

WHAT IS THE PRODUCTION TAX CREDIT (PTC)?

The Production Tax Credit (PTC) reduces the federal income taxes of qualified tax-paying owners of renewable energy projects based on the *electrical output* of renewable energy facilities. Each kilowatt-hour (kWh) generated by an eligible facility and supplied to the electricity grid reduces the amount of federal income tax owed, which provides an economic incentive to develop and deploy technologies that harness renewable resources, such as wind, biomass, and geothermal energy.

WHAT IS THE FEDERAL INVESTMENT TAX CREDIT (ITC)?

The Investment Tax Credit (ITC) reduces federal income taxes for qualified tax-paying owners based on *capital investment* in renewable energy projects. Investment tax credits, earned when the capital equipment is placed into service, help offset upfront investments in renewable energy projects and provide an economic incentive to develop and deploy more capital-intensive renewable energy technologies, such as solar photovoltaic systems and fuel cells.

ARE THERE LIMITS TO THE AMOUNT CLAIMED UNDER THE PTC OR ITC?

There is no maximum limit for credits claimed through the PTC and there is no maximum ITC limit for solar and geothermal technology investments. However, there is a maximum ITC incentive of \$1,000/kW for fuel cell investments and a maximum ITC incentive of \$200/kW for microturbine investments.

Both the PTC and ITC can be applied to federal tax liabilities dating from the previous year and carried forward up to 20 years. In order to take full advantage of the PTC, the asset owner should have an appropriately large tax appetite since credits are currently non-transferable.

WHAT TECHNOLOGIES ARE CURRENTLY ELIGIBLE FOR THE PTC AND ITC?

Tax Credit	Incentive	Eligible Technologies
Production Tax Credit ¹	2.0¢/kWh for first 10 years ²	Closed-loop biomass, geothermal electric, solar, wind
	1.0¢/kWh for first 10 years ²	Hydroelectric, municipal solid waste and landfill gas, open-loop biomass, small hydroelectric, small irrigation power
Investment Tax Credit ³	30% of expenditures for commercial systems	Fuel cells (electric-only efficiency > 30%), solar, solar hybrid lighting
	10% of expenditures for commercial systems	Geothermal power (excluding heat pumps), microturbines ⁴ (electric-only efficiency > 26%; capacity < 2,000 kW)

¹ Established in the Energy Policy Act of 1992, modified in the Energy Policy Act of 2005. Most recently extended in the Tax Relief and Health Care Act of 2006.

² The PTC provides an inflation-adjusted tax credit of 1.5¢/kWh in 1993 dollars. The value is reduced by ½ for specified technologies.

³ Established in the Energy Policy Act of 2005. Most recently extended in the Tax Relief and Health Care Act of 2006.

⁴ Note that “microturbine” technology does not refer to wind turbines, but rather an integrated system comprised of a gas turbine engine, a combustor, a recuperator or regenerator, a generator or alternator, and associated balance of plant components which converts a fuel into electricity and thermal energy.

IS IT POSSIBLE TO CLAIM BOTH THE PTC AND ITC?

No, companies must claim one incentive or the other. The federal PTC prohibits “double-dipping” on incentives for renewable energy projects. Additionally, companies utilizing state incentives in conjunction with the federal PTC should confirm with tax specialists that their PTC benefit is not reduced by the double-dipping provision of the federal PTC.

WHO QUALIFIES FOR THE PTC?

The ownership and tax structure for renewable energy projects, especially for wind projects, can become quite complex. Depending on the complexities of ownership, it may be appropriate to get a letter of opinion from the Internal Revenue Service. Below are several high-level guidelines for claiming the PTC:

- A tax-paying entity must own the generating asset and sell the electricity to an unrelated third party
- Entities that do not pay taxes, such as publicly owned electric utilities, rural electric cooperatives, and government bodies, may not take advantage of the PTC; investor-owned utilities do qualify for the PTC
- Generating asset must be located in the United States and placed in service between December 31, 1992 and January 1, 2009 (unless the current PTC is extended)

WHO QUALIFIES FOR THE ITC?

The following are the primary guidelines for claiming the ITC:

- System owner must be a tax-paying entity
- Regulated utilities and public utilities do not qualify for the ITC since the commercial credit cannot be claimed on public utility property
- Equipment must be new, though used equipment can potentially be treated as new, depending on the amount of upgrades after the purchase
- System must be placed in service in the United States between December 31, 2005 and January 1, 2009 (unless the current ITC is extended)

ARE THERE FEDERAL TAX INCENTIVES FOR THOSE WHO DO NOT QUALIFY FOR THE PTC OR ITC?

There are federal programs that provide tax incentives for public utilities, rural electric cooperatives, and government bodies to invest in renewable power generation. These programs include the Renewable Energy Production Incentive (REPI) and the Clean Renewable Energy Bonds (CREB) program.

WHEN DO THE PTC AND ITC EXPIRE?

To qualify for the PTC or ITC, new projects must be in service before January 1, 2009. If not extended, the PTC and fuel cell and microturbine portions of the ITC will not be available for projects placed in service after calendar year 2008. The solar, solar hybrid lighting, and geothermal systems portions of the ITC will revert to a 10% tax credit.

Legislation to extend the PTC was proposed several times in 2007 and 2008 but did not succeed in passing. The House and Senate passed different versions of an extension of the production tax credits in 2008. At the time of this writing, the House and Senate have not yet agreed on a final extension package to extend the credits.

DO COMPANIES FORFEIT OWNERSHIP OF RENEWABLE ENERGY CERTIFICATES (RECs) BY TAKING ADVANTAGE OF THE PTC AND ITC?

Claiming the PTC or ITC does not affect the ownership of RECs associated with the renewable energy project.

ARE THERE OTHER TAX INCENTIVES AVAILABLE AT THE STATE LEVEL?

Several states provide ITC or PTC incentives that are subject to their own specific rules and requirements. In some cases these incentives can be used in combination with federal tax credits. For the most up-to-date information on state tax credits for renewable technologies, please visit the Database of State Incentives for Renewables and Efficiency (www.dsireusa.org).

ADDITIONAL REFERENCES

- Database of State Incentives for Renewables and Efficiency: <http://www.dsireusa.org/>
- Internal Revenue Service tax forms: www.irs.gov/formspubs
 - * Investment Tax Credit -- Form 3468
 - * Production Tax Credit -- Form 8835
 - * Clean Renewable Energy Bonds -- Form 8912
- Green Power Market Development Group: <http://www.thegreenpowergroup.org/>
- Renewable Energy Production Incentive (REPI): <http://www.eere.energy.gov/repil/>
- Solar Energy Industries Association Guide to Federal Tax Incentives: www.seia.org/taxmanualdownload.php
- WRI's U.S. Climate Policy Resources: <http://www.wri.org/climate/usclimate>