



Energy Improvement and Extension Act of 2008: Key Energy Tax Credit Provisions Affecting Combined Heat and Power

The Energy Improvement and Extension Act of 2008, passed by Congress on October 3, 2008, significantly expands federal energy tax incentives. The new law extends the duration of existing credits for solar energy, fuel cells, and microturbines by eight years; increases the credit amounts for fuel cells; establishes new credits for small wind-energy systems, geothermal systems, and combined heat and power (CHP) systems; extends eligibility of credits to public utilities; and allows taxpayers to take the credit against the alternative minimum tax, subject to certain limitations. Details of the CHP-related provisions are provided below.

CHP Investment Tax Credit

The Energy Improvement and Extension Act provides for a 10-percent investment tax credit (ITC) for the costs of the first 15 megawatts (MW) of CHP property under Section 48(a)(3)(A)(v) of the Internal Revenue Code of 1986. To qualify for the tax credit, the CHP system specifically must:

- Produce at least 20 percent of its useful energy as electricity and 20 percent in the form of useful thermal energy.
- Be 60-percent efficient on a lower heating value basis.
- Be smaller than 50 MW.
- Be constructed by the taxpayer or have the original use of the equipment begin with the taxpayer.
- Be placed in service before January 1, 2017.

The ITC may be used to offset the alternative minimum tax, and the CHP system must be operational in the year in which the credit is first taken. The credit applies to eligible property placed into service after October 3, 2008. CHP property does not include “property used to transport the energy source to the facility or to distribute energy produced by the facility.”

Accelerated Depreciation

The definition of CHP systems as “energy property” under the act might also qualify CHP for a five-year accelerated depreciation schedule under Section 168 of the Internal Revenue Code. Section 168 provides a Modified Accelerated Cost Recovery System through which “energy property” qualifies for a five-year depreciation method. As yet, the Internal Revenue Service has not provided guidance on application of this provision to CHP systems.

Extension of Energy Credits for Fuel Cells and Microturbines

The act also amended Sections 48(c)(1) and 48(c)(2) of the Internal Revenue Code in the following ways:

- Extending the existing 30-percent ITC for fuel cell property and the 10-percent ITC for microturbine property through December 31, 2016.



- Increasing the credit cap for fuel cell property from the \$1,000 per kilowatt (kW) of capacity for qualified fuel cells to \$3,000 per kW of capacity. The cap for microturbines was left unchanged at \$200 per kW of capacity.

Eligible property includes:

- Fuel cells with a minimum capacity of 0.5 kW that have electric-only efficiencies of 30 percent or higher
- Microturbines up to 2 MW in capacity that have an electric-only efficiency of 26 percent or higher.

Renewable Energy Production Tax Credit

The act extended the renewable energy production tax credit through December 31, 2010, for biomass and other renewable fuel sources. Energy resources that qualify include: closed-loop and open-loop biomass, geothermal energy, solar energy, small irrigation power, municipal solid waste, qualified hydro-power production, and hydrokinetic energy.

- Closed-loop biomass is defined as any organic material from a plant that is grown exclusively for use at a qualified facility to produce electricity.
- Open-loop biomass is defined as solid, nonhazardous, cellulosic waste material, lignin material, or agricultural livestock waste nutrients.

Section 45 provides a renewable electricity production credit of 1.5 cents (adjusted for inflation) per kilowatt-hour (kWh) of electricity generated from qualified facilities. The current credit is now near 2 cents per kWh.

- Electricity produced from closed-loop biomass receives full credit, and open-loop biomass is eligible for half credit.
- Closed-loop biomass units can receive the credit for a 10-year period beginning on the date the facility was first placed in service, whereas open-loop biomass units receive the credit for a five-year period.

Limitations to receiving the production tax credit:

- To qualify for the credit, all electricity produced must be sold to an unrelated person during the taxable year. There is also a simultaneous sale and purchase limitation, defining the sale of electricity as only the amount that exceeds the amount purchased by the facility.
- The taxpayer getting the credit must also be the owner of the facility; however, if the owner of the biomass facility is not the producer of electricity, the person eligible for the credit must be the lessee or operator of the facility.
- If open-loop biomass is co-fired with fossil fuels in excess of the minimum amount of fossil fuel that would be necessary for start-up or flame stabilization, the biomass is not considered a qualified energy resource and the electricity produced from the biomass does not qualify for the production tax credit.

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CHP, please visit the
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