

## INSIGHTS

## Energy Beneficiaries of Economic Stimulus Package

October 13, 2008

The Energy Improvement and Extension Act of 2008 embedded in the economic stimulus legislation (H.R. 1424) that President Bush signed into law on October 3, 2008, provides nearly \$17 billion in various tax credits to promote clean power generation technologies, alternative fuels, renewable energy and energy efficiency.

**Renewable Energy Initiatives** While the 2008 Act provides notable incentives for investments in several emerging technologies such as hydrokinetics, fuel cells, geothermal and open-loop biomass facilities, solar and wind emerged as the biggest winners. For commercial-scale wind power producers, the Act provides a brief, although relatively costly, extension of the production tax credit as well as a variety of incentives for microturbines and residential-scale wind projects. For the solar industry, the Act extends the existing 30 percent investment tax credit for solar energy facilities and, perhaps most notably, eliminates the cap on the existing 30 percent tax credit for investments in residential solar. *Extension and Expansion of PTC* "" Section 45 of the Tax Code allows a production tax credit (PTC) for "qualified facilities" that generate electricity from "qualified energy resources." The 2008 Act expanded the definition of "qualified energy resources" to include "marine and hydrokinetic renewable energy." As a result, energy derived from marine resources such as waves, tides, and temperature differentials are now eligible for the PTC. The Act also expands the definition of "open-loop biomass facility," "trash combustion facility," and the definition of "non-hydroelectric dam." The 2008 Act extends the PTC for commercial wind by one year for facilities placed in service by January 1, 2010. The Act also extends the PTC for other types of qualified facilities such as biomass, geothermal, solar, small irrigation and landfill gas, for two years, to January 1, 2011 and for marine and hydrokinetic energy facilities until 2012.

*Long-Term Extension of Energy Property Tax Credit* "" Section 48 of the Tax Code provides tax credits (in addition to the PTC) for investments in energy property. The 2008 Act expands the scope of qualified energy property, removed or raised the caps on this tax credit, and extended the sunset for the credit in certain instances. Specifically, the Act extends through 2016 the 30 percent tax credit for investments in solar energy property and fuel cell property and the 10 percent tax credit for commercial microturbines. The Act amends the definition of energy property to provide a new 10 percent investment tax credit for combined heat and power sources and geothermal equipment that uses ground water for heating or cooling purposes. The Act also increases the tax credit available for investments in qualified fuel cells from \$500 to \$1,500 per half KW.

*Long-Term Extension and Modification of the Residential Energy-Efficient Property Tax Credit "" Section 25D of the Tax Code allows for a 30 percent credit for investments in residential solar and fuel cell properties. The 2008 Act extends through 2016 the credit available for solar property and adds residential small wind and geothermal heat pumps as qualifying property. Significantly, the Act eliminates the \$2,000 cap on the 30 percent tax credit available for solar facilities; the credit can now be applied to the total cost of photovoltaic solar facilities.*

**Energy Conservation and Efficiency Initiatives** The 2008 Act offers states and municipalities, homeowners, contractors, as well as the commercial and manufacturing sectors financing and tax credit incentives for improving energy efficiency. Although the Act did not pick one industrial sector or clean technology as a clear winner, certain sectors fared better than others. Among the biggest beneficiaries are producers of energy-efficient appliances (e.g., stoves and water heaters) as well as producers of smart meters and smart grid systems. For example, the Act extends until 2009 existing tax credits for homeowner investments in energy-efficient appliances and extended until 2013 the existing tax credit for the costs of energy-efficient property installed in commercial buildings. The combined value of these tax credits is nearly \$2 billion.

**Coal Projects and Coal Gasification Investment Credits** The 2008 Act provides new tax credits in section 48A of the Code for qualifying advanced coal electricity projects and in section 48B of the Code for qualifying coal gasification projects that demonstrate the greatest potential for carbon capture and sequestration. Credits are to be awarded through an application process, with priority given to projects demonstrating the greatest CO<sub>2</sub> sequestration. To be considered qualifying, an advanced coal electricity project must capture at least 65 percent of the facility's CO<sub>2</sub> emissions and a coal gasification project must capture and sequester at least 75 percent of the CO<sub>2</sub> emissions.

**Carbon Dioxide and Sequestration Tax Credit** New Section 45Q to the Tax Code provides tax credits for qualifying CO<sub>2</sub> sequestration facilities. The Act provides a \$20 credit per ton of CO<sub>2</sub> captured and transported from an industrial source for permanent storage in a geologic formation and a limited \$10 credit per ton for CO<sub>2</sub> captured and transported from industrial sources for use in enhanced oil recovery. Qualifying facilities must capture at least 500,000 metric tons of CO<sub>2</sub> per year.

**Plug-in Electric Vehicle and Bike Credit** The Act offers a new tax credit in section 30D of the Code ranging from \$2,500 to \$7,500 for the purchase of the first 250,000 plug-in electric vehicles. It also proposes a refueling property credit for alternative fuel vehicles and adds electricity to the type of fuel qualifying for the credit. New section 30C of the Tax Code grants a 30 percent credit for the cost of refueling property placed into service during the year up to \$30,000 for properties subject to depreciation and \$1,000 otherwise. Commuting by bike is also encouraged. The 2008 Act allows employers to provide fringe benefits of up to \$20 a month to employees who bike to work. Bicycle commuters may spend

the benefits on maintaining, repairing or buying bicycles.

**Alternative Fuels Credit** The alternative fuels tax credit under section 6426 of the Tax Code is extended through December 31, 2009, for all fuels except hydrogen. Alternative fuels are considered compressed or liquefied gas derived from biomass; liquefied petroleum gas; compressed or liquefied natural gas; liquefied hydrogen; liquid fuel derived from coal and liquid hydrocarbons derived from biomass.