



## Summary of Energy Provisions in the American Recovery and Reinvestment Act

February 16, 2009

On Friday, February 13th, Congress passed H.R. 1, the American Recovery and Reinvestment Act of 2009 intended to revitalize and stimulate the United States economy. President Obama is expected to sign the legislation immediately. The following spending and tax provisions relate to energy production and transmission:

### Energy Efficiency and Renewable Energy

**Energy Efficiency and Renewable Energy Research Development, Demonstration and Deployment:** The Act includes \$2.5 billion for program spending, administered by U.S. Department of Energy (DOE), for discretionary research, development, demonstration and deployment of projects related to: biomass (\$800 million of total); geothermal (\$400 million of total); water power; solar energy; combined heat and power projects; energy efficiency projects; advanced batteries for the conversion of electric vehicles, and energy storage designed to increase the effectiveness of renewable energy projects.

**Energy Efficiency and Conservation Block Grant (EECBG) Program:** The Act provides \$3.2 billion for the EECBG program, which is a population-based formula grant program administered through the DOE. Funding provides assistance to states, cities, counties and tribes to implement strategies that reduce the use of energy and fossil fuels and improve energy efficiency, specifically in the transportation and building sectors. \$400 million is designated for competitive grants awarded by the DOE and the remaining funds will go to municipal, state, and tribal entities at DOE's discretion.

**Weatherization Assistance Program (WAP):** The Act includes \$5 billion for weatherization assistance. The DOE administers WAP funding to state and tribal governments, which in turn will administer grants, according to their own eligibility standards, to local agencies that assist in weatherizing the homes of low-income individuals.

**State Energy Program:** The Act allocates \$3.1 billion to the State Energy Program, which is administered by the DOE and granted to state energy efficiency offices to increase energy efficiency, reduce energy costs, improve the reliability of energy delivery, develop alternative energy resources, improve environmental quality, and reduce reliance on foreign oil in their respective states.

**Energy Efficiency Appliance Rebate Program/EnergyStar:** The Act provides \$300 million for rebates to residential consumers for the purchase of residential EnergyStar products to replace used appliances with more efficient models. This funding will supplement state appliance rebate programs and will be administered by states on an individual basis.

**Transportation Electrification:** The Act provides \$400 million for a competitive grant program administered by the DOE to benefit states, local governments, and metropolitan transportation authorities for qualified electric transportation projects that reduce emissions, including shipside vehicle electrification, electric or dual-mode electric rail, truck stop electrification, airport ground support equipment and cargo handling equipment.

**Alternative Fueled Vehicles Pilot Grant Program/Clean Cities Program:** The Act provides \$300 million for a competitive grant program (up to \$15 million each) administered by the DOE to benefit states, local governments, and metropolitan transportation authorities. These funds would allow the government units to purchase alternative fueled vehicles, fuel cell vehicles, hybrid vehicles, including buses for public transportation, and ground support vehicles at public airports; and to acquire, develop and install infrastructure necessary to fuel and support the vehicles acquired through the program.

**Advanced Battery/Component Manufacturing:** The Act includes \$2 billion for Advanced Battery Manufacturing grants to manufacturers of advanced vehicle batteries and components. Eligible parties include manufacturers of advanced lithium batteries, hybrid electrical systems, and other components, as well as software designers. Grants are awarded by the DOE on a competitive basis.

## Electric Delivery and Energy Reliability

**Electricity Delivery and Energy Reliability/Smart Grid:** The Act makes \$4.5 billion available, to be administered at DOE's discretion, to modernize the electrical grid. Eligible activities include: purchasing demand responsive equipment; enhancing the electrical grid's security and reliability; researching energy storage; and developing programs designed to facilitate recovery from disruptions to the energy supply. \$100 million is available for related worker training and \$10 million is available to develop a smart grid interoperability framework with input from public and private organizations.

## Loan Guarantees

**Renewable Energy and Transmission Technology Loan Guarantee Program:** The Act provides for \$6 billion loan guarantees administered by the DOE to provide adequate capital to construct of new generation renewable energy projects and to improve the nation's transmission infrastructure.

## Fossil Energy

**Clean Coal and Carbon Capture and Sequestration (CCS) Technology:** The Act provides funding for fossil energy projects, including clean coal and CCS. The final bill includes: \$1.52 billion for competitive grants for CCS research, development and demonstration, \$800 million in additional funding for the third round of the Clean Coal Power Initiative, which provides competitive grants for clean coal projects, \$50 million for competitive grants for site characterization activities in geologic formations, and \$20 million for geologic formation training and research grants. All funding provided under this section is administered by and at the discretion of the DOE.

## Science

**Office of Science/ARPA-E:** The Act includes \$2 billion for DOE's research and development efforts, including \$400 million for the Advanced Research Project Agency—Energy (ARPA-E) to support high-risk, high-payoff research to accelerate the innovation cycle for both traditional and alternative energy sources and energy efficiency. Funding for the Office of Science and ARPA-E is at DOE's discretion.

## Tax Provisions

**Advanced Energy Investment Credit:** The Act establishes a new 30% investment tax credit for manufacturing advanced energy property, such as facilities that manufacture components for the production of renewable energy, energy storage, energy conservation, efficient transmission and distribution of electricity, carbon capture and sequestration, advance battery technology, and other next-generation green technologies. DOE administers this program in consultation with the Department of Treasury and eligible projects must be certified through a competitive bidding process.

**Production Tax Credit for Renewable Electricity Projects:** The act extends, generally for three years, an existing credit under current law for producing energy from renewable sources at qualifying facilities.

- ▶ For wind facilities, the act extends the "placed-in-service" date to Dec. 31, 2012, three years later than the current deadline.
- ▶ For other types of facilities including closed-loop biomass, open-loop biomass, solid waste, hydropower, geothermal and landfill gas, the act extends the placed-in-service date to Dec. 31, 2013, three years later than the current deadline.
- ▶ For marine and hydrokinetic facilities, the act extends the placed-in-service deadline to Dec. 31, 2013, two years later than the current deadline.

**Election to Claim Investment Tax Credit in Lieu of Production Tax Credit:** The Act allows owners of solar facilities to elect to claim the investment tax credit in lieu of the production tax credit which is payable over 10 years.

**Repeal of Limitations on Credit for Renewable Energy Property:** The Act repeals the limitation of the investment tax credit for renewable energy properties financed with industrial development bonds or through any other government-subsidized financing program. Under the act, businesses and individuals qualify for the full amount of the investment tax credit regardless of the finance arrangement.

**Treasury Department Energy Grants in Lieu of Tax Credits:** The Act allows taxpayers to receive a grant from the Department of Treasury in lieu of production tax credits for electricity produced by certain renewable energy facilities and an investment tax credit for certain renewable energy property. Grants would amount to 30% of the facility cost.

**Clean Renewable Energy Bonds:** The Act authorizes an additional \$1.6 billion of new clean renewable energy bonds to finance facilities that generate electricity from wind, closed-loop biomass, open-loop biomass, geothermal, small irrigation, hydropower, landfill gas, marine renewable, and trash combustion facilities. One third of the authorization would be available to qualifying projects of state, local, and tribal governments, one third would be available for projects of public power providers, and one third would be available for projects of electric cooperatives.

**Qualified Energy Conservation Bonds:** The Act authorizes an additional \$2.4 billion of qualified energy conservation bonds to finance state, municipal, and tribal government programs designed to reduce greenhouse gas emissions. It also clarifies that qualified energy conservation bonds could be issued to make loans and grants for capital expenditures to implement green community programs and that the bonds may be used for programs in which utilities provide ratepayers with energy-efficient property and recoup the costs of that property over an extended period of time.

**Credit for Non-Business & Residential Energy Property:** The Act extends beyond 2009 and temporarily increases the tax credit to 30% for non-business energy property which covers energy-efficient improvements to homes, including new furnaces, energy-efficient windows and doors, or insulation. The act removes the cap on the tax credit for residential wind, geothermal property, and residential solar thermal property and repeals the reduction in tax credits by reason of receipt of subsidized energy financing, and modifies the definition of qualified energy property and wood stoves.

**Consumer Vehicle Incentives:** The Act provides a tax credit for families who purchase plug-in hybrid vehicles with a base credit of \$2,500. If the qualified vehicle draws propulsion from a battery with at least 5 kilowatt hours of capacity, the credit is increased by \$417, plus another \$417 for each kilowatt hour of battery capacity in excess of 5 kilowatt hours. The credit is allowed against the Alternative Minimum Tax.

**Increase Amounts of Alternative Fuel Pump Credits:** The Act increases the business credit for the installation of fuel pumps for alternative fuels, such as natural gas, to 50% and caps the credit at \$50,000. The act increases the individual credit to 50%, with a cap of \$2,000.

**Carbon Capture & Sequestration:** The Act requires that any taxpayer claiming the \$10-per-ton credit for carbon dioxide captured and transported for use in enhanced oil recovery must also ensure that such carbon dioxide is permanently stored in a geologic formation.

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