



## **Summary of Energy and Transportation Provisions of the Economic Recovery Bill**

February 19, 2009

---

The economic recovery bill – American Recovery and Reinvestment Act (“ARRA”), H.R. 1 – makes historic large-scale investments in clean energy resources, which will create jobs, save consumers and businesses money on their energy bills, and help our country begin to make significant reductions in global warming pollution. The investments in transit and high-speed rail will also be helpful. The clean energy investments in ARRA total about \$50 billion, and NRDC estimates this will create 1.5 million jobs. The bill also contains \$17.7 billion for energy efficient transportation. The energy and transportation investments in the bill are described below.

### **Energy Appropriations Provisions**

ARRA contains \$45.95 billion in energy related appropriations. Approximately \$30 billion of this amount is for clean energy resources. The Senate bill contained a \$50 billion loan guarantee program that could be used to support technologies such as nuclear power and liquid coal, but this was removed prior to final passage of the bill. Key energy investments in the bill are:

- \$3.1 billion for the State Energy Program (SEP). \$25.5 million of this amount is to be distributed according to the standard SEP formula specified in federal regulations, which allows states to use the funding for a broad range of clean energy projects. The remaining amount is to be prioritized towards funding, to the extent practicable, expanding existing energy efficiency and renewable energy programs, including retrofits of buildings and industrial facilities. This remaining amount is also conditioned on a governor from the recipient state notifying the Department of Energy that the governor has obtained necessary assurances that the state will adopt pro-efficiency utility reforms and more stringent building energy codes. If a reasonable number of states adopted these policies, consumers and businesses would save \$135 billion over 10 years (creating a substantial number of jobs), and global warming pollution would be reduced by 150 million metric tons of CO<sub>2</sub> annually by 2020 (equivalent to avoiding 70 large power plants – 500 megawatts in size).
- \$3.2 billion for Energy Efficiency and Conservation Block Grants. \$2.8 billion of this amount is to be awarded through the formula established by the Energy

Efficiency and Conservation Block Grant program authorization. The remaining \$400 million is to be awarded on a competitive basis. The program funding is for projects that promote energy efficiency and renewable energy in the building, transportation and other appropriate sectors.

- \$4.5 billion to convert federal buildings operated by the General Service Administration into high-performance green buildings.
- \$3.4 billion to the Department of Energy's Office of Fossil Energy. This funding is to be used for research and development, mostly focused on carbon capture and sequestration technologies.
- \$4.5 billion to the Department of Energy's Office of Electricity and Energy Reliability. The funds are to be used for expenses necessary to modernize the grid, to include demand responsive equipment, enhance security and reliability of the energy infrastructure, energy storage, development, demonstration and deployment and facilitate recovery from disruptions in energy supply, and for implementation of smart grid programs.
- \$5 billion for the Weatherization Assistance Program. This funding is for the weatherization of low-income homes. Analysis done for NRDC by the Political Economy Research Institute (PERI) at the University of Massachusetts-Amherst found that this extension would create 90,000 jobs.
- \$2.5 billion for energy efficiency and renewable energy research, development, demonstration and deployment (RDD&D). This funding is to Department of Energy. Of the \$2.5 billion total, \$800 is to be used for biomass RDD&D and \$400 million is to be used for geothermal RDD&D. Current energy efficiency and renewable energy funding is about \$1.3 billion annually. ARRA also provides \$1.6 billion to the DOE Office of Science and \$400 million to the Advanced Research Projects Agency – Energy (ARPA-E).
- \$6 billion for energy project loan guarantees. The authorization for these loan guarantees is also in ARRA, which adds a new section to the loan guarantee program initially authorized by Title XVII of the Energy Policy Act of 2005. The loan guarantees are aimed at standard renewable projects such as wind or solar projects and for electricity transmission projects. These loan guarantees are for renewable energy systems that generate electricity, electric power transmission, and “leading edge biofuels projects.”
- \$300 million for the Energy Efficient Appliance Rebate program and the Energy Star Program. The funding for the rebate program is to go to states, which are then to use it to promote Energy Star appliances.
- \$4 billion to the Department of Housing and Urban Development (HUD) Public Housing Capital Fund. The funding is for assisting public housing authorities in

rehabilitating public housing units, including increasing the energy efficiency of units and making critical safety repairs.

- \$250 million to HUD for a program to upgrade HUD sponsored low-income housing to increase energy efficiency, including new insulation, windows, and furnaces.
- \$2 billion for advanced batteries. This funding is for grants for advanced vehicle battery systems and components that are produced in the United States. These include lithium ion batteries, hybrid electrical systems, and software designs. Bringing advanced vehicle battery manufacturing to the United States will foster energy independence while supporting new manufacturing jobs.
- \$300 million for the Diesel Emissions Reduction Act. This will fund diesel vehicle retrofits with cleaner engine configurations and technologies. These technologies will improve air quality at America's busy shipping centers while creating parts manufacturing and auto maintenance jobs. The Emissions Control Technology Association estimates that \$300 million in funding would create almost 10,400 new jobs or avoid loss of existing jobs.
- \$300 million for procurement of efficient and advanced vehicles for the federal fleet. These vehicles include hybrids, electric vehicles, and plug-in electric vehicles. This provision will demonstrate advanced technology and lower fuel expenditures for federal agencies. Funds will not be obligated until the General Services Administration submits a plan demonstrating how expenditure will increase the energy efficiency of the federal fleet.

### **Energy Tax Provisions**

Descriptions of key energy tax provisions, drawing heavily from the Ways & Means Committee summary of the economic recovery bill, are below. The bill contains about \$20 billion in clean energy tax incentives.

- Treasury Department Grants in Lieu of Renewable Energy Credits. Under current law, taxpayers are allowed to claim a production tax credit for electricity produced by certain renewable energy facilities and an investment tax credit for certain renewable energy property. These tax credits help attract private capital to invest in renewable energy projects. Current economic conditions have severely undermined the effectiveness of these tax credits. As a result, the bill would allow taxpayers to receive a grant from the Treasury Department in lieu of tax credits if the property eligible for the grant is placed in service during 2009 or 2010, or if the construction of such property begins in either of these years and is placed in service before the time the applicable tax credit for the property expires. This grant will operate like the current-law investment tax credit. The Treasury Department will issue a grant in an amount equal to thirty percent (30%) of the cost of the renewable energy facility within sixty days of the facility being placed

in service or, if later, within sixty days of receiving an application for such grant. This provision is estimated to cost \$5 million over 10 years.

- Temporary Election to Claim the Investment Tax Credit in Lieu of the Production Tax Credit. Because of current market conditions, it is difficult for many renewable projects to find financing due to the uncertain future tax positions of potential investors in these projects. The bill would allow facilities to elect to claim the investment tax credit in lieu of the production tax credit. Wind facilities could make this election through 2012, and other facilities could make the election through 2013. This provision is estimated to cost \$285 million over 10 years.
- Long-term Extension and Modification of Renewable Energy Production Tax Credit. The bill would extend the placed-in-service date for wind facilities for three years (through December 31, 2012). The bill would also extend the placed-in-service date for three years (through December 31, 2013) for certain other qualifying facilities: closed-loop biomass; open-loop biomass; geothermal; small irrigation; hydropower; landfill gas; waste-to-energy; and marine renewable facilities. This provision is estimated to cost \$13.143 billion over 10 years. Analysis done for NRDC by the Political Economy Research Institute (PERI) at the University of Massachusetts-Amherst found that this extension would create over 100,000 jobs.
- Tax Credits for Energy-Efficient Improvements to Existing Homes. The credit currently provides a credit for 10 percent of the cost of building envelope systems (i.e. windows, doors, and insulation) and various amounts for high efficiency home heating and cooling equipment. The bill would 1) increase the 10 percent credit rate to 30 percent, 2) extend the credit through 2011, and 3) eliminate the \$500 lifetime cap (and all smaller caps relating to windows and equipment) in favor of an aggregate cap of \$1,500. The bill would also update the energy-efficiency standards of the property qualifying for the credit, including a much higher performance standard for windows would have to meet to qualify for the credit. This provision is estimated to cost \$2.034 billion over 10 years.
- Removal of Dollar Caps in the Investment Tax Credit. The bill repeals dollar caps in the investment tax credit for small wind, solar hot water heating, and geothermal heat pump technologies. This provision is estimated to cost \$872 million over 10 years.
- Clean Renewable Energy Bonds (“CREBs”). The bill authorizes an additional \$1.6 billion of new clean renewable energy bonds available to entities lacking taxable income (e.g. public and municipal utilities and co-ops) to finance facilities that generate electricity from the following resources: wind; closed-loop biomass; open-loop biomass; geothermal; small irrigation; hydropower; landfill gas; marine renewable; and trash combustion facilities. This provision is estimated to cost \$578 million over 10 years.

- **Advanced Energy Investment Credit.** The provision establishes a new 30% investment tax credit for facilities engaged in the manufacture of advanced energy property. Advanced energy property includes technology for the production of renewable energy, energy storage, energy conservation, renewable fuels, efficient transmission and distribution of electricity, and carbon capture and sequestration. This provision is estimated to cost \$1.647 billion over 10 years.
- **Qualified Energy Conservation Bonds.** The bill authorizes an addition \$2.4 billion of qualified energy conservation bonds to finance State, municipal and tribal government programs and initiatives designed to reduce greenhouse gas emissions.
- **Tax Credits for Alternative Refueling Property.** The alternative refueling property credit provides a tax credit to businesses (e.g., gas stations) that install alternative fuel pumps, such as fuel pumps that dispense E85 fuel, electricity, hydrogen, and natural gas. For 2009 and 2010, the bill would increase the percentage amounts of the credit for certain refueling property and the dollar cap for hydrogen refueling pumps.
- **Plug-in Electric Drive Vehicle Credit.** The bill modifies a tax credit passed into law at the end of last Congress for each qualified plug-in electric drive vehicle placed in service during the taxable year. The bill replaces the overall 250,000 vehicle limitation with a limitation of 200,000 vehicles per manufacturer before triggering phase out. It caps the per vehicle tax credit to \$7,500 irrespective of weight. The bill also provides a tax credit for plug-in electric drive conversion kits. This provision is estimated to cost \$2.002 billion over 10 years.
- **Addition of Permanent Sequestration Requirement to CO2 Capture Tax Credit.** Last year, Congress provided a \$10 credit per ton for the first 75 million metric tons of carbon dioxide captured and transported from an industrial source for use in enhanced oil recovery, and \$20 credit per ton for carbon dioxide captured and transported from an industrial source for permanent storage in a geologic formation. Facilities were required to capture at least 500,000 metric tons of carbon dioxide per year to qualify. The bill would require that any taxpayer claiming the \$10 credit per ton 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. This provision is estimated to have a negligible revenue effect.
- **Parity for Transit Benefits.** Current law provides a tax-free fringe benefit employers can provide to employees for transit and parking. Those benefits are set at different dollar amounts. This provision would equalize the tax-free benefit employers can provide for transit and parking. The provision sets both the parking and transit benefits at \$230 a month for 2009, indexes them equally for 2010, and

clarifies that certain transit benefits apply to federal employees. This provision is estimated to cost \$192 million over ten years.

- Sales Tax Deduction for Vehicle Purchases. The bill provides all taxpayers with a deduction for State and local sales and excise taxes paid on the purchase of new cars, light truck, recreational vehicles, and motorcycles through 2009. This provision is estimated to cost \$1.684 billion over 10 years.

### **Transportation Appropriations Provisions**

Transportation receives \$48 billion in the package, with \$17.7 billion of that guaranteed to go to relatively energy-efficient public transportation and rail investments. Additionally, there is flexibility for the use of \$29 billion worth of funding, although the majority of it is likely to be invested in highways. The transportation related spending in the bill includes:

- \$27.5 billion is included for highway investments, a portion of which can be "flexed" into transportation alternatives including public transportation and nonmotorized modes (i.e., bicycle and pedestrian projects).
- \$8.4 billion for investments in public transportation, in the form of capital not operating assistance. This assistance is critical for transit agencies, which are struggling to reconcile conflicts between growing ridership and shrinking budgets
- \$1.5 billion for competitive grants to state and local governments for transportation investments, which can go to a variety of non-highway alternatives.
- \$1.3 billion for investments in our air transportation system.
- \$9.3 billion for investments in rail transportation, including Amtrak, high speed and intercity rail – this is the biggest and best transportation element in the bill.