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M e m o r a n d u m

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Summary of Clean Energy and Energy Efficiency Provisions in the New Stimulus Package

Yesterday, President Obama signed the stimulus package -- the "American Recovery and Reinvestment Act of 2009" (the "Stimulus Act") -- into law. The Stimulus Act is estimated to cost $787 billion and contains approximately $43 billion in spending provisions and $20 billion in tax provisions relating to energy. Clean energy and cleantech industries emerge as big winners in the stimulus package, which contains significant appropriations and tax incentives intended to boost renewable energy, energy efficiency, and smart grid and electricity transmission. In signing the legislation, President Obama emphasized that "we are taking a big step down the road to energy independence and laying the groundwork for a new, green energy economy that can create countless well-paying jobs." However, the Stimulus Act is intended to pump money into the ailing economy quickly with "shovel-ready" projects and will not, standing alone, fulfill President Obama's goals of achieving energy security and addressing climate change.[1] Comprehensive energy legislation (including a federal renewable portfolio standard) and climate change legislation will likely be the next steps taken this year in order to meet the new Administration's longer-term goals.

The following is a summary of the clean energy and energy efficiency provisions in the Stimulus Act.

Appropriations Provisions

Most of the $43 billion in the Stimulus Act's appropriations provisions that is allocated to programs administered by the Department of Energy ("DOE") relate to renewable energy, energy efficiency, and smart grid and electricity transmission. Depending on how appropriations are allocated, approximately $10 billion of additional appropriations relating to energy efficiency and climate change are directed to programs administered by various other federal agencies. The DOE and other federal agencies are tasked with quickly distributing the money appropriated pursuant to the Stimulus Act and maintaining

[1] President Obama's campaign proposals relating to clean energy and climate change are described in our client memorandum dated December 22, 2008, entitled "President-Elect Obama's Climate Change and Clean Energy Initiatives: The Risks and Opportunities Posed by the Greening of the American Economy."

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transparency and accountability with respect to such distributions.[2] In order to pump money quickly into the economy, the Stimulus Act provides that (i) all funds appropriated remain available only until September 30, 2010, unless the Stimulus Act expressly provides otherwise; (ii) for infrastructure investments, preference should be given to activities that can be started and completed expeditiously, with a goal of using at least 50% of the funds in less than four months; and (iii) environmental reviews under the National Environmental Policy Act must be completed on an expeditious basis and use the shortest existing applicable process.[3]

Below is a summary of the more significant appropriations provisions in the Stimulus Act relating to clean energy, energy efficiency, the smart grid, and electricity transmission.

Smart Grid Investments. The term "smart grid" refers to an electricity distribution system that allows for flow of information from a customer's meter inside a building to thermostats, appliances, and other devices, and from a building back to its utility. A smart grid can include a variety of operational and energy measures, such as smart meters, smart appliances, renewable energy resources, and energy efficiency resources. The Stimulus Act appropriates $4.5 billion for "Electricity Delivery and Reliability" to modernize the electrical grid and implement programs authorized under Title XIII of the Energy Independence and Security Act of 2007 (including $100 million for training workers to maintain the grid). Title XIII's programs, which relate to the establishment of a smart grid, include the Smart Grid Investment Program, a federal matching grant program for smart grid demonstration projects. The Stimulus Act amends the Energy Independence and Security Act of 2007 to increase federal matching grants for smart grid investments from 20% to 50%.

Electricity Transmission Investments. The Stimulus Act contains a number of provisions aimed at improving the nation's electricity transmission system, in part to facilitate the transfer of renewable energy from rural production areas to high demand regions. These provisions include:

- Increasing the borrowing authority of the Western Area Power Administration and the Bonneville Power Administration by $3.25 billion each (with the funds remaining available until September 30, 2012), to assist in financing the construction, acquisition, and replacement of transmission systems in the West and Pacific Northwest;

- Requiring the Secretary of Energy to include an analysis of transmission issues facing the renewable energy industry in a pending study of electric transmission congestion due to be released in August 2009;

[2] The Stimulus Act creates a new Recovery Accountability and Transparency Board to coordinate and conduct oversight of appropriated funds and directs the board to create a website (available at www.recovery.gov) to serve as a repository of information regarding the distribution of appropriated funds.

[3] Although the Stimulus Act permits the Secretary of Energy to accelerate the hiring of personnel, some commentators have suggested that the DOE, which has an annual budget of only $25 billion and has had a history of delays in issuing energy efficiency standards and administering loans for energy projects, may have difficulty with the scope and timing of the task of swiftly approving projects meant to provide a quick stimulus to the ailing economy.

- Providing the DOE's Office of Electricity and Energy Reliability with $80 million to conduct a resource assessment and analysis of future demand and transmission requirements;

- Directing the DOE's Office of Electricity and Energy Reliability to provide technical assistance to the North American Electric Reliability Corporation, the regional reliability entities, the States, and other transmission owners and operators for the formation of interconnection-based transmission plans for the Eastern and Western Interconnections and the Electric Reliability Council of Texas; and

- Establishing a $6 billion loan guarantee program (described below) for which transmission technologies are eligible.

Renewable Energy and Transmission Loan Guarantees. The Stimulus Act contains $6 billion for a new, temporary Renewable Energy and Electric Power Transmission Loan Guaranty Program (also referred to in the Stimulus Act as the "Innovative Technology Loan Guaranty Program") under Section 1705 of the Energy Policy Act of 2005 to fund projects involving renewable energy, electric power transmission, and leading edge biofuels that begin construction by September 30, 2011. The $6 billion in appropriated funds for renewable energy and transmission loan guarantees is expected to facilitate more than $60 billion in loans for these projects. Up to $500 million of the $6 billion in loan guarantees can be used for the development of biofuels with demonstrated, commercial promise to reduce greenhouse gas emissions. The DOE's authority to enter into the loan guarantees expires on September 30, 2011.

State Energy Grants. The Stimulus Act provides $6.3 billion for various state energy programs and block grants to encourage energy efficiency measures by state and local governments. Specifically, $3.2 billion is provided for the Energy Efficiency and Conservation Block Program (authorized under the Energy Independence and Security Act of 2007 to reduce fossil fuel emissions and energy use and improve energy efficiency) and $3.1 billion for the State Energy Program (a DOE program providing grants to states for energy efficiency and conservation). In order to receive the State Energy Program grants, governors must ensure that (i) state regulators adopt regulatory policies to ensure that utility financial incentives are aligned with helping customers use energy more efficiently and provide timely cost recovery and earnings opportunities to enhance such customers' incentives (a requirement intended, in part, to "decouple" utility revenues from the amount of electricity sold), (ii) the state or applicable local governments have implemented energy efficient building codes, and (iii) the state prioritizes grants toward funding energy efficiency and renewable energy programs.

Energy Efficiency. The Stimulus Act contains a number of appropriations directed at fostering energy efficiency measures, including:

- Weatherization. $5 billion for the DOE's Weatherization Assistance Program for low-income homes authorized under the Energy Conservation and Production Act. In addition, the Stimulus Act amends the Energy Conservation and Production Act to increase the maximum benefit for weatherization activities per dwelling unit from $2,500 to $6,500 and expands income eligibility from 150% of the federal poverty level to 200%.

- Energy Efficiency Improvements in Federal Buildings. $4.5 billion (approximately half of which must be obligated by September 30, 2010, and the remainder by September 30, 2011) for energy efficiency improvements to federal buildings.

- Other Federal Agencies/Energy Efficiency Projects. The Stimulus Act contains a number of appropriations that can be used, in part, for energy efficiency improvements associated with programs administered by federal agencies other than the DOE, including:

    - Department of Defense Energy Efficiency Projects. The Department of Defense ("DOD"), which accounts for approximately 75% of the federal government's energy use, is allocated (i) approximately $4 billion for investment in energy efficiency projects and the repair and modernization of DOD facilities and military medical facilities, (ii) $120 million for the DOD's Energy Conservation Investment Program, and (iii) $100 million to the Navy and Marine Corps for energy conservation and alternative energy projects.

    - Veterans Medical Facilities Energy Projects. $1 billion for non-recurring maintenance at veterans medical facilities, including energy projects.

    - Energy Efficiency in Public Housing. (i) $4 billion available until September 30, 2011, to assist public housing authorities in rehabilitating and retrofitting public housing units, including increasing the energy efficiency of such units, (ii) $250 million to support a program to upgrade HUD-sponsored low-income housing to increase energy efficiency, and (iii) $510 million available until September 30, 2011, to rehabilitate and improve energy efficiency in housing units maintained by Native American housing programs.

    - Public Transit Grants. $100 million to the Federal Transit Administration for discretionary grants to public transit agencies for capital investments that will assist in reducing energy consumption or greenhouse gas emissions of public transportation systems.[4]

- Energy Efficient Appliances. $300 million for the Energy Efficiency Appliance Rebate program and the Energy Star Program to encourage consumers to purchase energy efficient appliances.*[5]

Electric and Fuel-Efficient Automobiles/Alternative Fuels. The Stimulus Act includes a number of appropriations aimed at stimulating the production of electric and other more fuel-efficient automobiles and alternative fuels, including:

- Advanced Battery Manufacturing Grants. $2 billion for Advanced Battery Manufacturing Grants administered by the DOE to support the manufacturing of advanced batteries and components in the United States, including advanced lithium ion batteries, hybrid electrical systems, component

[4] The Stimulus Act also contains significant additional appropriations for public transit, including $8.4 billion in public transit infrastructure investments and $8 billion for a high speed rail investments.

[5] The appropriations marked with an asterisk (including $300 million for energy efficient appliances, $400 million for transportation electrification, $400 million for the Alternative Fueled Vehicles Pilot Grant Program, and $2.5 billion for DOE energy efficiency and renewable energy research, development, demonstration and deployment) appear in the legislative history set forth in the Joint Explanatory Statement of the Committee of Conference, but not in the actual conference markup of the legislation.

manufacturers and software designers;

- Transportation Electrification. $400 million for DOE grants to encourage the use of plug-in electric drive vehicles (or other emerging electric vehicle technologies) and for the implementation of electric transportation technology projects that would significantly reduce emissions of criteria pollutants, greenhouse gas emissions, and petroleum use or consumption;*

- Alternative Fueled Vehicles Pilot Grant Program. $300 million for the Alternative Fueled Vehicles Pilot Grant Program to remain available until September 30, 2011, to provide grants for the acquisition of alternative fueled vehicles, hybrid vehicles, or fuel cell vehicles, including the infrastructure necessary to support them;*

- Federal Fuel-Efficient Vehicles. $300 million to remain available until September 30, 2011, for the purchase of fuel-efficient vehicles for federal fleets;

- Loan Guarantees for Biofuel Development. Up to $500 million in loan guarantees for the development of biofuels with demonstrated, commercial promise to reduce greenhouse gas emissions (described above under "Renewable Energy and Transmission Loan Guarantees"); and

- Diesel Emission Reduction Act Grants. $300 million for Diesel Emission Reduction Act grants administered by the Environmental Protection Agency pursuant to the Energy Policy Act of 2005.

Research and Development Relating to Energy Efficiency, Renewable Energy, and Climate Change. The Stimulus Act provides funding for a number of energy efficiency, renewable energy, and climate change research and development activities, including:

- $3.4 billion for the DOE's Fossil Energy Research and Development Program (of this amount, $1.52 billion is for a range of industrial carbon capture and energy efficiency improvement projects and $800 million is for the DOE's Clean Coal Power Initiative);

- $2.5 billion for DOE energy efficiency and renewable energy research, development, demonstration and deployment activities (of which $800 million of which is specifically for biomass and $400 million for geothermal);*

- $1.6 billion for the DOE's Office of Science, which oversees research programs in climate science, advanced computing, biofuels, high-energy physics, nuclear physics and fusion energy sciences;

- $400 million for the Advanced Research Projects Agency – Energy (a new research arm of the DOE intended to sponsor "out-of-the-box" research on technologies that are more than five years away from reaching the marketplace);

- $400 million available in part for climate research by the National Aeronautics and Space

Administration and $170 million for climate modeling by the National Oceanic and Atmospheric Administration;

- $580 million for research and grants by the National Institute of Standards and Technology; and
- $300 million for DOD research and development in energy generation, transmission, regulation and storage, including energy from fuel cells, wind, solar and other renewable energy sources.

Tax Provisions

The tax provisions of the Stimulus Act, which fall within the "American Recovery and Reinvestment Tax Act," contain a number of tax credits and incentives to promote renewable energy and energy efficiency. The total value of these tax credits and incentives is estimated to be $20 billion over the next decade. A significant portion of this amount relates to expanding the Investment Tax Credit ("ITC") and Production Tax Credit ("PTC") and allowing renewable energy project developers to receive grants from the Treasury Department in lieu of the ITC and PTC. The renewable energy industry has lobbied extensively for such direct grants, as the ITC and PTC have not been useful financing mechanisms during the current recession (when financing entities generally lack taxable income to make use of the tax credits).

Below is a summary of the renewable energy and energy efficiency tax provisions in the Stimulus Act.

Grant Program. The Stimulus Act allows taxpayers with specified energy property to receive grants from the Treasury Department in lieu of claiming the ITC and the PTC for projects placed in service in 2009 and 2010, or after 2010 so long as construction begins in 2009 or 2010 and is completed prior to 2013 (for qualifying wind facilities), 2014 (for certain other renewable power facilities eligible for the PTC), or 2017 (for certain energy properties eligible for the ITC). The amount of a grant would be equal to the amount of the ITC for which the owner of the project otherwise would have been eligible. Receipt of the grant would not be includible in the gross income of the taxpayer. The tax basis of the property for depreciation purposes generally would include the amount of the grant, but would be reduced by one-half of the amount of the ITC that would otherwise have been allowable. Some or all of each grant is subject to recapture if the grant eligible property is disposed of by the grant recipient within five years of being placed in service. The Secretary of the Treasury must make payment of any grant during the 60-day period beginning on the later of (i) the date of the application for such grant, or (ii) the date the specified energy property for which the grant is being made is placed in service. Application for a grant must be made by October 1, 2011. The provision is effective on the date of enactment.

Extension of PTC. The Stimulus Act extends for three years (generally, through 2013; through 2012 for wind facilities) the period during which qualified facilities producing electricity from wind, closed-loop biomass, open-loop biomass, geothermal energy, municipal solid waste, and qualified hydropower may be placed in service for purposes of the PTC. The provision extends for two years (through 2013) the placed-in-service period for marine and hydrokinetic renewable energy resources. The extension of the PTC is effective for property placed in service after the date of enactment.

Temporary Election to Claim the ITC in lieu of the PTC. The Stimulus Act provides taxpayers with an election to claim an ITC at a rate of 30%, in lieu of a PTC, for property qualifying for the PTC (with certain exceptions). The election is available in the case of qualified wind facilities, for property placed in service from 2009 through 2012 and, in the case of other qualifying property, for property placed in service from 2009 through 2013.

Modification of Energy Tax Credits. Under current law, for purposes of computing the energy credit under section 48 of the Internal Revenue Code with respect to energy property, the basis of the property is subject to reduction if the property is financed by subsidized energy financing or with the proceeds of private activity bonds. The Stimulus Act eliminates this basis adjustment for purposes of computing the credit.

Clean Renewable Energy Bonds. Current law authorizes up to $800 million of new clean renewable energy bonds to finance renewable energy projects for governmental bodies, public power providers, and cooperative electric companies. The Stimulus Act authorizes an additional $1.6 billion of such bonds. The provision applies to obligations issued after the date of enactment.

Qualified Energy Conservation Bonds. Current law authorizes up to $800 million of qualified energy conservation bonds. The Stimulus Act expands the present-law qualified energy conservation bond program by authorizing an additional $2.4 billion of such bonds and provides certain clarifications to the rules relating to the bond program. The provision is effective for bonds issued after the date of enactment.

Advanced Energy Investment Tax Credit. The Stimulus Act 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, efficient transmission and distribution of electricity, carbon capture and sequestration, and plug-in electric drive vehicles. This manufacturing credit is intended to promote domestic manufacturing of renewable energy related equipment. Credits are available only for projects certified by the Secretary of the Treasury, in consultation with the Secretary of Energy, through a competitive bidding process. In selecting projects, the Secretary may consider only those projects where there is a reasonable expectation of commercial viability. The Secretary of Treasury must establish a certification program no later than 180 days after date of enactment and may allocate up to $2.3 billion in credits. An applicant for certification has one year from the date the Secretary accepts the application to provide the Secretary with evidence that the requirements for certification have been met. Upon certification, the applicant has three years from the date of issuance of the certification to place the project in service. The provision is effective on the date of enactment.

Tax Credits for Nonbusiness Energy Property (including Energy Efficiency Improvements to Existing Homes). The Stimulus Act extends the present-law tax credits for individuals under section 25C of the Internal Revenue Code for energy efficiency improvements to existing homes through December 31,

2010, and increases the amount of the tax credit to 30%. The Stimulus Act also eliminates the property-by-property dollar caps on this tax credit and replaces the present-law lifetime cap for efficiency improvements in the same dwelling with an aggregate cap of $1,500 in the case of property placed in service in 2009 and 2010. The Stimulus Act also eliminates the credit caps under section 25D of the Internal Revenue Code (credits for certain expenditures by individuals) for solar hot water, geothermal, and wind property and eliminates the reduction in such credits for property using subsidized energy financing for taxable years beginning after December 31, 2008.

Tax Credits for Alternative Fuel Pumps. For 2009 and 2010, the Stimulus Act increases the alternative refueling property credit for businesses (*e.g.*, gas stations that install alternative fuel pumps, such as fuel pumps that dispense E85 fuel, hydrogen, and natural gas) from 30% (capped at $30,000) to 50% (capped at $50,000), with the exception of hydrogen refueling pumps (which remain at a 30% credit percentage, but with an increased cap of $200,000). In addition, the Stimulus Act increases the existing alternative refueling property credit for individuals at their principal residence from 30% (capped at $1,000) to 50% (capped at $2,000).

Tax Credit for Electric Vehicles. The Stimulus Act provides a new 10% tax credit (up to $4,000) for the cost of conversion of a vehicle into a qualified plug-in electric drive motor vehicle before January 1, 2012, and a new 10% tax credit (up to $2,500) for electric low speed vehicles, motorcycles, and three-wheeled vehicles acquired before January 1, 2012. The Stimulus Act also modifies the existing plug-in electric drive motor vehicle credit by limiting the maximum credit to $7,500, regardless of vehicle weight, and eliminates the credit for low speed plug-in vehicles and for plug-in vehicles weighing 14,000 pounds or more. In addition, the Stimulus Act replaces the 250,000 total plug-in vehicle limitation of existing law with a 200,000 plug-in vehicles per manufacturer limitation. The changes to the plug-in electric drive motor vehicle credit are effective for vehicles acquired after December 31, 2009.

Conclusion

The Stimulus Act contains an unprecedented amount of investment in the form of both appropriations for and tax incentives in renewable energy, energy efficiency, and smart grid and electricity transmission. As such, the act supports President Obama's goals of increasing energy efficiency and moving the nation towards an economy fueled by clean energy.

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If you have any questions about the contents of this memorandum, please contact one of our authors listed below.

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