State Opportunities under the American Recovery and Reinvestment Act:

Energy and Green Jobs Programs

In addition to providing flexible appropriations and formula funds to states and individuals for stimulus purposes, the American Recovery and Reinvestment Act also provides resources to states to create long-run economic growth opportunities. The four key areas are: (1) health information technology, (2) energy and green jobs programs, (3) broadband infrastructure and deployment, and (4) research and development. This paper describes the opportunities available to states in the energy and green jobs programs area. The other three papers may be found at www.nga.org/ARRA .

Summary

Numerous alternative energy, energy efficiency and green jobs programs are included in the American Recovery and Reinvestment Act (ARRA). This paper looks at 31 programs totaling some $45 Billion in non-tax items. They fall mainly under the Department of Energy, but also involve the Departments of Education, Labor, Housing and Urban Development. They span the areas of: alternative energy development, energy efficiency improvements to homes, schools and industry, smart grid and transmission enhancements, fossil energy R&D, alternative fueled vehicles and workforce programs to promote green jobs (i.e. careers in energy efficiency and alternative energy). States would be eligible recipients in over half of the non-tax related programs identified; remaining programs target businesses, universities or non-state entities that could support state efforts and may call for state-sponsored outreach and technical assistance efforts. In addition, there are a dozen tax credit, bond and loan guarantee measures supporting alternative energy development, energy conservation, energy research and development. There are multiple opportunities to leverage related programs.

Many of the provisions entail enhancements to existing programs; however, some of the enhancements represent substantial increases to current funding and will require expansions as in the case of State Energy Program (at $3.1 Billion, a 70 fold increase over FY08 appropriation) and the Weatherization Program (at $5 Billion, a 20 fold increase over FY08 appropriation). In addition, there are new programs like the Energy Efficiency and Conservation Block Grants that will need to be established. The most significant flexible addition is funds provided to the State Energy Program which can be utilized to pursue a wide range of activities.

Governors will face the following major issues specific to this area of funding:

- First, governors may want to consider whether the current structure of their state energy office needs to be enhanced, including elevating it to a cabinet level as has been done in about a dozen states. Through the ARRA, state energy offices will receive considerable increases in funding and responsibility. In addition, they will need to be able to coordinate state efforts across a wide range of agencies and stakeholders and with local entities.

- Second, to make the most of the temporary increase in funding provided under the ARRA, governors should seek to encourage programs and mechanisms that create the basis for a longer term funding support, such as revolving loan funds and energy savings performance contracting.

- Third, governors may need to prioritize some portion of the more flexible energy funding and leverage existing programs to assist with energy workforce development. Successfully spending the ARRA funds will hinge on having an adequate number of trained energy workers available to conduct energy audits, install renewable energy devices, insulation, advanced lighting, HVAC and other technologies, and perform operations and maintenance functions. This is in addition to the upstream demands on manufacturing that will be generated. There are some ARRA funds available to support workforce development, but demand already outpaces supply in some states and the rise in demand nationally will further strain the system.

- Fourth, to receive the State Energy Program funding, governors will need to provide written assurances to the U.S. Department of Energy that the appropriate state or local bodies in their state are pursuing actions on electricity sector rate "decoupling" (adjusting utility profits to be independent of electricity sold) and state energy building code enhancements.

American Recovery and Reinvestment Act (ARRA)

Overview of Funding for Energy and Green Jobs Programs

ALL CAPS denotes that at least a portion of funding will be available to state agencies

Dollars are not additive. Some programs may appear in more than one category.

Energy and Green Jobs Programs

Energy Efficiency

- STATE ENERGY PROGRAM ($3.1 Billion)
- ENERGY EFFICIENCY AND CONSERVATION BLOCK GRANTS ($3.2
- WEATHERIZATION ASSISTANCE PROGRAM ($5 Billion)
- HOME INVESTMENT PARTNERSHIPS ($2.25 Billion)
- ENERGY EFFICIENT APPLIANCES AND SMART APPLIANCES ($300 Million)
- SCHOOL REPAIR ($9 Billion)
- Science and Research Funding ($2 Billion)
- Energy Efficiency and Renewable Energy R&D Funding ($2.5 Billion)
- Qualified Energy Conservation Bonds Limitation Increase
- Energy Efficiency Tax Credits for Homes
- Assisted Housing Green and Energy Retrofit Investments ($250 Million)
- Enhanced Research and Development Tax

Green Jobs

- WORKER TRAINING IN EMERGING INDUSTRY SECTORS ($750 Million)
- ELECTRICITY DELIVERY AND ENERGY RELIABILITY ($100 Million)
- Job Corps Training for Energy Efficiency and Renewable Energy ($250 Million)

Smart Grid

- SMART GRID INVESTMENT PROGRAM ($4.5 Billion)
- STATE ENERGY PROGRAM ($3.1 Billion)
- ENERGY EFFICIENCY AND CONSERVATION BLOCK GRANTS ($3.2 B) Billion)
- ALTERNATIVE FUELED VEHICLE PILOT GRANT PROGRAM ($300 Million)
- ENERGY EFFICIENT APPLIANCES AND SMART APPLIANCES ($300 Million)
- Innovative Technology Loan Guarantee Program ($6 Billion)
- Enhanced Research and Development Tax

Advanced Fossil Energy

- FOSSIL ENERGY R&D ($3.4 Billion)

Renewable Energy

- STATE ENERGY PROGRAM ($3.1 Billion)
- ALTERNATIVE FUELED VEHICLE PILOT GRANT PROGRAM ($300 Million)
- TRANSPORTATION ELECTRIFICATION ($400 Million)
- SCHOOL CONSTRUCTION ($9 Billion)
- Energy Efficiency and Renewable Energy R&D Funding ($2.5 Billion)
- Renewable Energy Tax Credits Extension and Investment Tax Credits
- Innovative Technology Loan Guarantee Program ($6 Billion)
- Plug-In Electric Vehicle Tax Credit
- Clean Renewable Energy Bond Limitation
- Advanced Battery Production Grants ($2 Billion)
- Science and Research Funding ($2 Billion)
- Enhanced Research and Development Tax
- Alternative Fuel Pumps Tax Credit

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21 **Extension of Credit for Electricity Produced from Certain Renewable Sources** (Division B, Title I, Subtitle B, Part I, Sec. 1101)

22 **Election of Investment Credit in Lieu of Production Credit** (Division B, Title I, Subtitle B, Part I, Sec. 1102)

23 **Repeal of Credit Limitations for Renewable Energy Property** (Division B, Title I, Subtitle B, Part I, Sec. 1103)

24 **Increased Limitation on Issuance of New Clean Renewable Energy Bonds** (CREBs) (Division B, Title I, Subtitle B, Part II, Sec. 1111)

25 **Increased Limitation and Expansion of Qualified Energy Conservation Bonds** (Division B, Title I, Subtitle B, Part II, Sec. 1112)

26 **Modification of Credit for Nonbusiness Energy Property** (Division B, Title I, Subtitle B, Part III, Sec. 1121)

27 **Removal of Dollar Limitations on Certain Energy Credits** (Division B, Title I, Subtitle B, Part III, Sec. 1122)

28 **Tax credits for Alternative Fuel Pumps** (Division B, Title I, Subtitle B, Part III, Sec. 1123)

29 **Modification of Carbon Dioxide Sequestration Credit** (Division B, Title I, Subtitle B, Part IV, Sec. 1131)

30 **Credit for Plug-In Electric Drive Motor Vehicles** (Division B, Title I, Subtitle B, Part V, Sec. 1141-44)

31 **Substitute Grants for Energy Property** (Division B, Title I, Subtitle G, Sec. 1603)

1 State Energy Program (Title IV, Department of Energy, Energy Programs, Energy Efficiency and Renewable Energy)

1.1 Purpose

- Formula grants to be distributed to state energy offices to promote the conservation of energy and to reduce the rate of growth of energy demand through the development and implementation of a comprehensive state energy conservation plan. The money can be used for a variety of energy related initiatives including subgrants across all sectors of the economy.

1.2 Funding Level

- $3.1 billion to be administered by the Department of Energy (DOE)

1.3 2008 Appropriations

- $44 million

1.4 Mechanism and Use of Funds

- **Recipient:** Funds are to be distributed through the existing State Energy Office/State Energy Program (SEP).
- **Type:** Formula grant – 1/3 equally to all states and territories, 1/3 according to state population, and 1/3 according to state energy consumption.
- **State match:** The bill waives the twenty percent state match requirement as well as the limitation on the percentage of funding that can be used for the purchase and installation of energy efficiency equipment and materials.
- **Use of funds:** The objectives of the SEP are to promote the conservation of energy and to reduce the rate of growth of energy demand through the development and implementation of a comprehensive State energy conservation plan and the provision of Federal financial and technical assistance to States in support of the program. These can be used for a variety of energy related initiatives including subgrants across all sectors of the economy.
- **Timeline:** Funds will be available to be obligated until September 30, 2010.
- **Administrative costs:** Under the SEP, states can use their prevailed administrative cost rates (usually the indirect spending rate).
- **Additional Provisions:**
    - The Secretary of Energy shall appropriate funds in addition to a state's base level funding[1] only if the Secretary is notified that the governor has obtained necessary assurances that each of the following will occur:
        - The state regulatory authority will seek to implement a general policy that ensures utility financial incentives are aligned with helping customers use energy more efficiently and provides the utility with timely cost recovery and a timely earnings opportunity.
        - The state building code authority (or local building code authorities) will adopt a building code that achieves energy savings equivalent to the latest IECC (residential) and ANSI/ASHRAE/IESNA 90.1-2007 (commercial) and a plan to achieve compliance.

[1] The appropriation under existing SEP program.

    - The State will give priority to projects that include an expansion of existing energy efficiency programs including building and industry retrofits as well as an expansion of existing programs to support renewable energy projects and deployment activities.

1.5 Issues for Governors

- This is a very large increase to the SEP budget. There will be an immediate need to administer funds, so making use of temporary hires or details could make sense for that purpose; additional capacity may be needed in the out-years to monitor and continue to support programs (for instance where a revolving loan fund is created).
- The funds are very flexible, with the energy area, and can therefore be used to support new or existing strategic initiatives in a wide variety of sectors (residential, commercial and industrial) covering a range of end-uses including both electricity and transportation. Many state energy offices have already begun to develop a list of "ready" projects that could be supported by this program. Where the energy office is not integrated into the governor's office, governors should look to strengthen the relationships with this office.
- To make the most of the temporary increase in funding provided under the ARRA, governors should seek to encourage programs and mechanisms that create the basis for a longer term funding support, such as revolving loan funds and energy savings performance contracting.
- With respect to the written assurances noted above, Governors will likely be required to submit a letter to indicate what actions they have taken. In general, such actions could include urging the state PUC or equivalent body to initiative a decoupling proceeding, or urging the legislature (or appropriate local entity in home rule states) to adopt building code changes, and formalizing energy efficiency and renewable energy as top priorities.

2 Weatherization Assistance Program (Title IV, Department of Energy, Energy Programs, Energy Efficiency and Renewable Energy)

2.1 Purpose

- Formula grants to states. States pass the funds to weatherization service providers, typically non-profit agencies. Funds can be used to improve the energy efficiency of low-income homes.

2.2 Funding Level

- \$5.0 billion from DOE

2.3 2008 Appropriations

- \$227 million

2.4 Mechanism and Use of Funds

- **Recipient:** Varies by states: typically the Housing/Community/Economic Development Agency or, in some cases, the State Energy Office or Environmental Affairs Office.
- **Grant type:** Formula grant: 80% to states, in two parts as described below, and 20% for national training and technical assistance.
    - The base allocation is a fixed formula for each state which differs from state to state. Under FY 2008, the sum of the base allocations for all the states totaled

  - $171,258,000. For the state-by-state allocations, see: http://apps1.eere.energy.gov/weatherization/state_activities.cfm .
  - The formula allocation is computed by applying a formula to appropriated funds in excess of base allocation. The formula allocation is based on the state's low-income population, climactic conditions, and residential energy expenditures by low-income households.
  - Under the proposed House and Senate stimulus, warm-climate states will receive a greater share of the allocation if appropriated funds exceed $233.1 million.
- **Use of funds:** States pass the funds to weatherization service providers, typically non-profit agencies. Funds can be used to improve the energy efficiency of low-income homes.
- **Timeline:** Funds will be available to be obligated until September 30, 2010.
- **Administrative costs:** Not specified
- **Additional Provisions:**
  - Lowers the eligibility income threshold from 150% the rate of poverty to 200% the rate of poverty.
  - Increases the limit on the amount of assistance from $2,500 to $6,500 per household/unit. This is defined as all members of a household living in the dwelling unit.
  - The Secretary may encourage states to give priority using such funds to the most cost-effective efficiency activities.

2.5 Issues for Governors

- This is a large increase to the existing weatherization program. As the entity that sets state-specific eligibility criteria and selects and reviews service providers, the state will need to increase its capacity to administer the funding. In addition, states will need to work to identify and possibly train sufficient numbers of contractors to perform energy audits and install technology.
- Other programs in the recovery package directed at workforce development and training can be leveraged to support this. A top concern here would be to ensure that installers are well-qualified and deserving of the contracts they receive.

3 Energy Efficiency and Conservation Block Grants (Title IV, Department of Energy, Energy Programs, Energy Efficiency and Renewable Energy)

3.1 Purpose

- Grants to localities and states for energy efficiency and conservation activities; majority goes to localities.

3.2 Funding Level

- $3.2 billion from DOE

3.3 2008 Appropriations

- New program ($295 million requested in FY 09 appropriation)

3.4 Mechanism and Use of Funds

- **Recipient:** State Energy Office

- **Grant type:** Formula grants. States (including DC and the territories), local governments, and Indian tribes are eligible but most funding (all but 11% or $39 million) is passed through states to locals. Of the $3.2 billion, $2.8 billion is distributed according to the formula with the remaining $400 million to be awarded on a competitive basis.
    - 68% allocated to local governments.
    - 28% allocated to states – but not less than 60% of funds distributed to states must be used for subgrants to local governments not eligible under the program
    - 2% allocated to Indian tribes.
    - 2% allocated to competitive grants to units of local government or a consortia of units of local government.
    - Each state shall receive at least 1.25%, and remaining funds shall be distributed based on a formula established by the Secretary.
- **Requirements for local governments:** Local governments and Indian tribes eligible for funding must submit a proposed energy efficiency and conservation strategy to the Secretary within one year of receiving the grant. The proposed strategy should include:
    - A description of the goals for increased energy efficiency and conservation; and
    - A plan for the use of the grant to help achieve those goals.

  Not later than 2 years after funds are initially provided, the local government or Indian tribe must submit a report describing the status of development and implementation of the energy efficiency and conservation strategy as well as a practicable assessment of energy efficiency gains.
- **Requirements for states:** Under EISA, states were required to submit to the Secretary a proposed energy efficiency and conservation strategy that established a process for providing subgrants and includes a plan for use of program funds received by the state. The Secretary provides grants upon approval of the plan, and states must submit annual reports assessing the status of development and implementation of the proposed strategy, the status of the subgrant program, the energy efficiency gains, and the specific energy efficiency and conservation goals for subsequent calendar years.
- **Timing:** Subgrants must be entered into 180 days after the Secretary approves the proposed energy efficiency and conservation strategy. The Secretary will approve the strategy within 120 days of receipt. The Secretary shall not provide any grant under the program until a proposed strategy is approved.
- **Use of funds:** Funds are to improve energy efficiency in the transportation sector, the building sector, or other appropriate sectors.
- **Administrative costs:** There is a 10 percent (or $75,000, whichever is greater) limit on administrative funds. Each state must submit an annual report to the Secretary of Energy.

3.5 Issues for Governors

- This program primarily goes to local governments, but states will need to help with the administration and therefore need the capacity to pass along funding to local entities and spend funds directly.

4 Smart Grid Investment Program (Title IV, Department of Energy, Energy Programs, Electricity Delivery and Energy Reliability)

4.1 Purpose

- Funding is available for electricity delivery and energy reliability activities to modernize the electric grid, enhance the security and reliability for energy infrastructure, energy storage RD&D, and for implementation of Title XIII of the Energy Independence and Security Act (EISA) of 2007.

4.2 Funding Level

- $4.5 billion from DOE

4.3 2008 Appropriations

- New program

4.4 Mechanism and Use of Funds

- **Recipient:** Electric utilities and "other parties" involved in smart grid development; this opens the door up non-utility recipients and to public private partnerships.
- **Type:** Competitive Grants. These monies are for electric utilities or other parties with up to 50% of the cost of qualifying advanced grid technology investments for demonstration projects.
- **Use of Funds:** Funding is available for electricity delivery and energy reliability activities to modernize the electric grid, enhance the security and reliability for energy infrastructure, energy storage RD&D, and for implementation of Title XIII of the Energy Independence and Security Act (EISA) of 2007. Includes $100 million for worker training (undefined and can be both retraining of displaced workers and new training), $80 million for the DOE office of Electricity Delivery and Energy Reliability to conduct a resource assessment and an analysis of future demand and transmission requirements, and $10 million of funds is designated for implementation of section 1305 of EISA (the Smart Grid Interoperability Framework).
    - Under **Sec. 1304 of EISA**, states, federal agencies, utilities, and other appropriate parties shall carry out a program to: Develop advanced techniques to measure peak load reductions and energy efficiency savings from smart metering, demand response, distributed generation, and electric storage systems; Investigate means for demand response, distributed generation, and storage to provide ancillary services, etc. Under **Sec. 1307 of EISA**, states shall consider requiring that, prior to making investments in non-advanced technology, electric utilities demonstrate that they have considered a qualified Smart Grid system. Each state shall consider authorizing electric utilities to recover from ratepayers any capital, operating expenditure or other costs related to the deployment of a Smart Grid system.
- **Matching:** The bill changes the Federal Smart Grid Investment Matching Grant Program from a 20% federal reimbursement to a 50% federal grant for qualifying investments.
- **Timing:** Within 60 days of enactment, the Secretary must establish procedures by which applicants can obtain grants (limited to 50% of their documented costs).

4.5 Issues for Governors

- Governors should look for linkages in the other energy-related stimulus grants and programs identified in this memo including renewable energy and building related energy efficiency programs and the opportunity for public private partnerships.
- State public utility commissions will need to work closely with utilities in developing and properly implementing their deployment projects including setting any cost recovery provisions.
- Taking full advantage of a smart grid infrastructure may call for the introduction, but the state public utility commission, of variable pricing approaches, such as time of use pricing or real time pricing.

5 Grants for the Production of Advanced Batteries and Components (Title IV, Department of Energy, Energy Programs, Energy Efficiency and Renewable Energy – Joint Statement)

5.1 Purpose

- These are DOE facility funding awards for the production of advanced battery systems and vehicle batteries in the United States.

5.2 Funding Level

- $2 billion from DOE

5.3 2008 Appropriations

- N/A

5.4 Mechanism and Use of Funds

- **Recipient:** Manufacturing facilities
- There are no stated guidelines for the allocation of this funding. The legislation does not reference any prior legislation nor does it create a new program. Therefore, it can be expected that the Secretary of Energy will have full discretion on how to disperse these funds.

5.5 Issues for Governors

- This program can help support other state initiatives related to hybrid electric vehicles.

6 Alternative Fueled Vehicles Pilot Grant Program (Title IV, Department of Energy, Energy Programs, Energy Efficiency and Renewable Energy – Joint Statement)

6.1 Purpose

- **Grants to states, local governments, and metropolitan transport**ation authorities for up to 30 geographically dispersed advanced vehicle demonstration projects.

6.2 Funding Level

- $300 million from DOE

6.3 2008 Appropriations

- None

6.4 Mechanism and Use of Funds

- **Recipient:** Grant recipients will be limited to state and local government agencies and metropolitan transportation authorities. Applications must include a registered participant in the Clean Cities initiative. Participants can be public or private entities, but can include state governments.
- **Type:** Competitive grants. Expands on a competitive grant program, administered by US DOE's Clean Cities.
- **Use of Funds:** Grant funds can pay for:
  - Alternative fuel vehicles, including neighborhood electric vehicles;
  - Fuel cell vehicles;
  - Ultra low sulfur diesel vehicles;
  - Acquisition and installation of fueling infrastructure ; and
  - Operation and maintenance of vehicles, infrastructure and equipment.
- **Matching:** 50 percent cost share
- **Timing:** This solicitation was released on February 20, 2009, added as Area of Interest 4, to a pending solicitation. Applications are due March 31, 2009.

6.5 Issues for Governors

- This is a modest program and best utilized as a complement to other related programs.

7 Transportation Electrification (Title IV, Department of Energy, Energy Programs, Energy Efficiency and Renewable Energy – Joint Statement)

7.1 Purpose

- State and local grants for qualified electric transportation projects including shipside electrification of vehicles, truck stop electrification, airport ground support equipment, cargo handling equipment.

7.2 Funding Level

- $400 million from DOE, as created in the Energy Security and Independence Act

7.3 2008 Appropriations

- No previous funding

7.4 Mechanism and Use of Funds

- **Recipient:** States, local governments, metropolitan transportation authorities.
- **Type:** Competitive Grants.
- **Use of Funds:** Qualified electric transportation projects including shipside electrification of vehicles, truck stop electrification, airport ground support equipment, cargo handling equipment.

7.5 Issues for Governors

- This is a modest program that could compliment other state initiatives.

8 Fossil Energy Research and Development (Title IV, Department of Energy, Energy Programs, Fossil Energy Research and Development)

8.1 Purpose

- Funds are focused on carbon capture and storage but appear to include other fossil energy programs.

8.2 Funding Level

- $3.4 billion from DOE

8.3 2008 Appropriations

- New program authorized under EISA

8.4 Mechanism and Use of Funds

- **Recipient:** Undefined but appears open to states, utilities and private sector companies (or partnerships) to support the development of carbon capture and storage technologies.
  - $1 billion for fossil energy research and development programs.
  - $800 million will be available for DOE's Coal Power Initiative Round III Funding Opportunity Announcement, and DOE should consider projects that utilize pet coke for all or part of its fuel input.
  - $1.52 billion is available for competitive solicitation for large-scale projects that demonstrate carbon capture from industrial sources.
  - $50 million for a competitive solicitation for site characterization activities in geologic formations.
  - $20 million for geologic sequestration training and research grants.
  - $10 million for program direction funding.

8.5 Issues for Governors

- May be an opportunity to combine efforts here with state tax credits or other supportive incentives.

9 Science and Research (Title IV, Department of Energy, Energy Programs, Science and Advanced Research Projects Agency – Energy)

9.1 Purpose

- Funds are to support DOE science programs and for the Advanced Research Projects Agency-Energy (ARPA-E) as established under Sec. 5012 of the America Competes Act (P.L. 110-69).

9.2 Funding Level

- $1.6 billion to the Office of Science for basic research
- $400 million for ARPA-E

9.3 2008 Appropriations

- $4.06 billion for the Office of Science

9.4 Mechanism and Use of Funds

- "Science" is unspecified. Funding for ARPA-E will be to establish the Agency within the Department of Energy in order enhance the economic and energy security of the United States through development of technologies that reduce imports of energy from foreign sources, reduce energy-related emissions (including greenhouse gases), and improve the energy efficiency of all economic sectors.
- ARPA-E will work to identify and promote advanced technologies, translate scientific discoveries into technological innovations, and accelerate transformational technology that is subject to financial uncertainty.

10 Innovative Technology Loan Guarantee Program (Title IV, Department of Energy, Energy Programs, Innovative Technology Loan Guarantee Program)

10.1 Purpose

- Funding for loan guarantees to support innovative technologies that help avoid, reduce, or sequester air pollutants or emission of greenhouse gases or that employ new and improved commercial technologies.

10.2 Funding Level

- $6 billion through DOE
- $25 million to be used for administrative expenses
- $10 million specifically for the administrative expenses for the Advanced Technology Vehicles Manufacturing Loan Program

10.3 2008 Appropriations

10.4 Mechanism and Use of Funds

- Eligible projects under Title XVII of EPAct 2005 include renewable energy systems, advanced fossil energy technology (including coal gasification), hydrogen fuel cell technology, advanced nuclear energy facilities, carbon capture and storage, efficiency end-use energy technologies, production facilities for fuel efficient vehicles, pollution control equipment, and oil refineries.
- The program is designed to encourage early commercial use of new or significantly improved technologies.
- Awarded to project sponsors who submit an application to DOE (mainly private companies).
- Subject to regulations established for the program under 10 CFR Part 609.

11 Research Development, Demonstration and Deployment (Title IV, Department of Energy, Energy Programs, Energy Efficiency and Renewable Energy – Joint Statement)

11.1 Purpose

- Funding for energy efficiency and renewable energy research, development, demonstration, and deployment activities (DOE).

11.2 Funding Level

- $2.5 billion through DOE

11.3 2008 Appropriations

11.4 Mechanism and Use of Funds

- Does not fund any particular program nor does it appear to create a new program.
- Goal of accelerating development of technologies including batteries, water power, and solar energy.
- No less than $800 million for biomass projects and $400 million for geothermal projects.
- Funds are awarded on a competitive basis to universities, companies, and national laboratories.

12 Energy Efficient Appliance Rebate Program and Energy Star Recovery Funding (Title IV, Department of Energy, Energy Programs, Energy Efficiency and Renewable Energy – Joint Statement)

12.1 Purpose

- Funding for energy efficiency appliances.

12.2 Funding Amount

- $300 million (DOE)

12.3 2008 Appropriations

- $30 million

12.4 Mechanism and Use of Funds

- Funds the program created in section 124 of the Energy Policy Act of 2005($30 million authorized in FY 2008).
- **Recipient**: Section 124 of EPAct:
    - A state can receive funding if they have a rebate program for Energy Star products and submit an application to DOE.
    - The funding each state receives is determined by formula: The ratio of the state's population to the total population of all eligible states.
    - Funding used to provide consumers with rebates to replace old appliances with energy efficient Energy Star products.

13 Western Area Power Administration Borrowing Authority (Title IV, Department of Energy, Environmental and Other Defense Activities)

13.1 Purpose

- Amends the Hoover Power Plant Act of 1984 to allow the Western Area Power Administration (WAPA) to borrow funds from the Treasury.

13.2 Funding Level

- Allocates $3.25 billion in loans to WAPA for the purpose of constructing, financing, facilitating, or studying construction of new or upgraded electric power transmission lines or for facilitating the delivery or power generated by renewable energy resources.

13.3 2008 Appropriations

13.4 Mechanism and Use of Funds

- Provides an additional $10 million for the Administrator to hire the necessary personnel to complete the projects listed above – available until expended.
- Up to 0.5% of funds may be used for management and oversight.
- The Administrator can borrow up to $1.75 billion at any one time. If more than $1.75 billion is requested, funds will be disbursed within 90 days of the request, unless there is a joint resolution from Congress rescinding the remainder of the balance.

13.5 Issues for Governors

- Governors may use this as an opportunity to advance transmission related goals.

14 Bonneville Power Administration (Title IV, Department of Energy, Environmental and Other Defense Activities)

14.1 Purpose

- Provides $3.25 billion in borrowing authority to the Bonneville Power Administration (BPA).

14.2 Funding Level

- $3.25 billion.

14.3 2008 Appropriations

14.4 Mechanism and Use of Funds

- Funds may be used to finance the construction, acquisition, and replacement of the transmission system of the Bonneville Power Administration and to implement the authority of the Administrator.

14.5 Issues for Governors

- Governors may use this as an opportunity to advance transmission related goals.

15 Worker Training in High Growth and Emerging Industry Sectors (Title VIII – Departments of Labor, Employment Training Administration, Training and Employment Services)

15.1 Purpose

- A new competitive grant program, as specified in the Green Jobs Act of 2007, to train workers for careers in the energy efficiency and renewable energy industries. The funds are also available to support worker training for other economic recovery funds such as retrofitting of buildings, green construction, and renewable electric power production. $250 million of the $750 million will be prioritized for projects that prepare workers for careers in the health care sector and perhaps other high growth and emerging industry sectors.

15.2 Funding Level

- $750 million
    - $500 million through the Department of Labor for competitive grants
    - $250 million for workforce training

15.3 2008 Appropriations

- None. Funds the Green Jobs Act of 2008. The program is similar to the High Growth Job Training Initiative that was funded from fees generated from the H-1B visa program.

15.4 Mechanism and Use of Funds

- Competitive. No state match required.

15.5 Issues for Governors

- How best to coordinate any grants awarded with these funds with other Workforce Investment Act-related programs already in operation.

16 Job Corps ,Training for Careers in Energy Efficiency and Renewable Energy Industries (Title VIII – Departments of Labor, Office of Job Corps

16.1 Purpose

- Funding for Job Corps Modernization.

16.2 Funding Level

- $250 million.
- Up to 15% of the $250 million for Job Corps Modernization can be transferred by the Secretary of Labor to meet the operational needs of Job Corps Centers, which may include training for careers in the energy, efficiency, renewable energy and environmental protection industries.

16.3 2008 Appropriations

- $1.6 billion for the overall program.

16.4 Mechanism and Use of Funds

- Funds provided to existing Job Corp Centers (grantees)

16.5 Issues for Governors

- Since funds go to the Job Corps Centers, Governors have little policy control and may have difficulty integrating funds into their energy and economic and workforce development strategies.

17 Electricity Delivery and Energy Reliability (Title IV, Department of Energy, Energy Programs, Electricity Delivery and Energy Reliability)

17.1 Purpose

- Worker training activities to assist in the "severe shortage" of candidates in the area of electricity delivery and energy reliability.

17.2 Funding Level

- $100 million through DOE.

17.3 2008 Appropriations

- No previous appropriation.

17.4 Mechanism and Use of Funds

- Discretionary – the Secretary of Energy would determine if there is a "severe shortage" of these workers.

17.5 Issues for Governors

- Competing for funds and integrating this into their broader workforce strategies and programs.

18 HOME Investment Partnerships Program (Title XII, Department of Housing and Urban Development, HOME Investment Partnerships Program)

18.1 Purpose

18.2 Funding Level

- $2.25 billion from the Department of Housing and Urban Development

18.3 2008 Appropriations

- $1.6 billion in FY08 ($650 million for state agencies)

18.4 Mechanism and Use of Funds

- **Recipient:** State housing credit agencies
- **Type:** Formula grant based on the percentage of HOME funds apportioned to each State and participating jurisdictions for Fiscal Year 2008.

  - State agencies shall distribute these funds competitively pursuant to their qualified allocation plan to owners of projects who have received or simultaneously receive low income housing tax credits.
  - Priority should be given to projects that are expected to be completed within three years.
  - The HUD Secretary may waive statutory or regulatory provisions related to the obligation of such funds if necessary to facilitate timely expenditure.
- **Timing:** Funds available until September 30, 2011. State agencies shall commit at least 75 percent of funds within one year. The State shall also demonstrate that owners have expended 75 of funds within two years and 100 percent within three years.
- **Use of funds:** Funding should be used to develop and support low-income housing. There are no provisions regarding energy efficiency or green technologies, however the program does encourage the use of energy efficient and environmentally friendly designs as well as conservation measures.
- **Administrative Costs:** There is a 10 percent limit on administrative funds.

18.5 Issues for Governors

- This is an opportunity to assist low income families through cost saving efficiency improvements, but this will call for support and encouragement of the housing agencies.

19 Assisted Housing Stability and Energy and Green Retrofit Investments (Title XII, Department of Housing and Urban Development, Assisted Housing Stability and Energy and Green Retrofit Investments)

19.1 Purpose

19.2 Funding Level

- $2.25 billion from the Department of Housing and Urban Development with $2 billion for project based rental assistance and $250 million for energy retrofit and green investments.

19.3 2008 Appropriations

- New program

19.4 Mechanism and Use of Funds

- **Recipient:** Owners of properties receiving project-based assistance pursuant to Section 202 of the Housing Act of 1959, Section 811 of the Cranston-Gonzalez National Affordable Housing Act, and Section 8 of the Housing Act of 1937.
- **Type:** Funding is in the form of grants or loans to be distributed by the Office of Affordable Housing Preservation of HUD with conditions the Secretary deems appropriate to ensure the maintenance and preservation of the property, the continued operation and maintenance of energy efficiency technologies, and the timely expenditure of funds. The Secretary may provide incentives to owners to undertake energy retrofits such as fees to cover investment oversight implementation by the owner and to encourage job creation.

- **Timing:** Funding is available until September 30, 2012. The Secretary will ensure that owners receiving funding for energy retrofits will expend such funding within two years of receiving it.
- **Use of funds:** Purpose of funding is to accomplish energy efficiency retrofit investments.
- **Administrative costs:** 1% of funds available for administrative purposes.

19.5 Issues of Governors

- May call for state assistance for identifying and training eligible energy workers.

20 School Modernization, Renovation and Repair (Title XIV, Secs. 14002-14004)

20.1 Purpose

- The bill includes a $53.6 billion State Fiscal Stabilization Fund, to be administered by the Department of Education. The Fund will provide money to governors for use in restoring and providing state funding to school districts.
- Approximately $9 billion of this fund will be available for use by governors to address public safety and other government services. This may include school modernization, renovation, and repair consistent with a recognized green building rating system. This would not cover construction of new schools.

20.2 Funding Level

- $53.6 billion for the State Fiscal Stabilization Fund.
- 18.2% in legislative language – approximately $9 billion.

20.3 2008 Appropriations

- New program.

20.4 Mechanism and Use of Funds

- The Secretary of Education will allocate funds to states based on population and on the population of individuals aged 5 through 24. Governors must return funds that are not awarded as subgrants within two years.
- **Timing:** Funds must be awarded as subgrants or "otherwise committed" within 2 years of receipt.
- **Qualified Zone Academy Bonds (QZABs):** Section 1522 of the Act allows an additional $1.4 billion in QZAB issuing authority to state and local governments for 2009 and 2010. Additional funds can be used to finance renovations, purchase equipment, develop course material, and train teachers at a qualified zone academy.
    - Public schools located in Empowerment Zones, Enterprise Communities, or in which 35% of students are eligible for a free or reduced-rate lunch can apply. Eligible schools must also have an education plan approved by the school district and must receive a private business contribution that is at least 10% of the net present value of the proceeds of the bond.

20.5 Issues for Governors

- Use of funds for school modernization, renovation and repair should ensure efforts to green schools entail increased energy efficiency.

21 Extension of Credit for Electricity Produced from Certain Renewable Sources (Division B, Title I Sec. 1101)

21.1 Purpose

- Extends the placed-in-service date for certain qualified renewable energy facilities by 3 years:
  - Wind facilities: through January 1, 2013;
  - Closed-loop biomass, open-loop biomass, geothermal, landfill gas, trash facilities, hydropower, and **marine** and hydrokinetic facilitie**s: through January 1, 2014**.

21.2 Cost Estimate[2]

- $13.143 billion over ten years.

22 Election of Investment Credit in Lieu of Production Credit (Division B, Title I, Sec. 1102)

22.1 Purpose

- Offers taxpayers the opportunity to claim a 30% investment tax credit rather than production tax credits for wind, closed-loop, open-loop, geothermal, landfill gas, trash, hydropower or marine/hydrokinetic facilities that are placed in service in 2009 or 2010.'
- Taxpayers are permitted to receive grants from the Treasury in lieu of production tax credits for certain renewable energy facilities and certain renewable energy property. Grants equal to 30% of the cost of the enrgy facility may be issued within 60 days of the facility being placed in service or within 60 days of receiving an application.

22.2 Cost Estimate

- $314 million through 2012

23 Repeal of Credit Limitations for Renewable Energy Property (Division B, Title I, Sec. 1103)

23.1 Purpose

- This section repeals the $4,000 limitation on investment tax credits for wind turbines with a nameplate capacity of 100 kW or less.
- Permanently repeals provisions under which energy property is reduced by financing through proceeds from private activity bonds.

23.2 Cost Estimate

- $604 million over ten years.

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[2] All cost estimates are from the Joint Committee on Taxation's "Estimated Budget Effects of the Revenue Provisions in the Conference Agreement for H.R. 1, The 'American Recovery and Reinvestment Tax Act of 2009,'" JCX-19-09, February 12, 2009.

24 Increased Limitation on Issuance of New Clean Renewable Energy Bonds (CREBs) (Division B, Title I, Sec. 1111)

24.1 Purpose

- Increases the national limit for new clean renewable energy bonds by $1.6 billion (to total $2.4 billion).
- Applies to bonds in which 100% of project proceeds are used for capital expenditures incurred by governmental bodies, public power providers, or cooperative electric companies for one or more qualified renewable energy facilities.
- Allocations are as follows:
    - No more than 1/3 to qualified projects of public power providers;
    - No more than 1/3 to qualified projects of governmental bodies (including states); and
    - No more than 1/3 to qualified projects of cooperative electric companies.

24.2 Cost Estimate

- $578 million over ten years.

25 Increased Limitation and Expansion of Qualified Energy Conservation Bonds (Division B, Title I, Sec. 1112)

25.1 Purpose

- Increases the national limit for new qualified energy conservation bonds by $2.4 billion (to total $3.2 billion).
- Allocated by the Secretary of the Treasury such that:
    - 100% of the available project proceeds are to be used for one or more qualified conservation purposes;
    - The bond is issued by a state or local government; and
    - The issuer designates such bonds for qualified conservation purposes.
- States must allocate funds to large local governments (populations of 100,000 or more) funds appropriate to the proportion to the population of the local government area in relation to the population of the state.
- Funds allocated to "large local governments" may be reallocated to the state by the local government.
- At least 70% of allocations to state and local governments must be used to designate bonds which are NOT private activity bonds.
- Any bond used for the purpose of providing grants, loans or other repayment mechanisms for capital expenditures to implement green community programs is not treated as a private activity bond.
- Enables states to issue these tax credit bonds to finance retrofits of existing private buildings through loans and/or grants to individual homeowners or businesses or through other repayment mechanisms.
- Qualified conservation purposes include:
    - Capital expenditures or loans and grants for capital expenditures incurred for –
        - Reducing energy consumption in publicly-owned buildings by at least 20%;
        - Implementing green community programs;
        - Rural development involving the production of electricity from renewable energy resources; or
        - Any qualified facility.

- Expenditures with respect to research facilities, and research grants, to support research in –
  - Development of cellulosic ethanol or nonfossil fuels;
  - Technologies for the capture and sequestration of carbon dioxide produced through the use of fossil fuels;
  - Increasing the efficiency of existing technologies producing fossil fuels;
  - Automobile battery technologies and other technologies to reduce fossil fuel consumption in transportation; and
  - Technologies to reduce energy use in buildings.
- Mass commuting facilities and related facilities that reduce the consumption of energy, including expenditures to reduce pollution from vehicles used for mass commuting.
- Demonstration projects designed to promote the commercialization of –
  - Green building technology;
  - Conversion of agricultural waste for use in the production of fuel or otherwise;
  - Advanced battery manufacturing technologies;
  - Technologies to reduce peak use of electricity; or
  - Public education campaigns to promote energy efficiency.

25.2 Cost Estimate

- $803 million over ten years.

26 Modification of Credit for Nonbusiness Energy Property (Division B, Title I, Sec. 1121)

26.1 Purpose

- Allows a 30% credit for the purchase of qualified energy efficiency improvements to existing homes. This includes:
  - Insulation materials or systems which are designed to reduce the heat loss or gain for a dwelling;
  - Exterior windows and doors; and
  - Metal or asphalt roofs with appropriate coatings.
- Credits are also allowed for the purchase of specific energy efficient property such as advanced main air circulating fans; qualified natural gas, propane, or oil furnaces or hot water heaters; or other qualifying energy-efficiency property.
- Qualifying building insulation components must meet 2009 IECC standards.
- Under this section, the provision is extended through December 31, 2010, and an aggregate cap of $1,500 is applied.

26.2 Cost Estimate

- $2.034 billion through 2011.

27 Removal of Dollar Limitations on Certain Energy Credits (Division B, Title I, Sec. 1122)

27.1 Purpose

- The bill would repeal the individual dollar caps for qualified small energy property, qualified solar water heating property, qualified geothermal heat pumps making them eligible for an uncapped thirty percent credit.

27.2 Cost Estimate

- $131 million through 2013.

28 Tax credits for Alternative Fuel Pumps (Division B, Title I, Sec. 1123)

28.1 Purpose

- Increases the alternative refueling property credit for businesses that install alternative fuel pumps.
- For 2009 and 2010, the bill would increase the 30% alternative refueling property credit for businesses (capped at $30,000) to 50% (capped at $50,000). Hydrogen refueling pumps would remain at a 30% credit percentage, but will be increased to $200,000. In addition, the bill would increase the 30% alternative refueling property credit for individuals (capped at $1,000) to 50% (capped at $2,000).

28.2 Cost Estimate

- $268 million over ten years.

29 Modification of Carbon Dioxide Sequestration Credit (Division B, Title I, Sec. 1131)

29.1 Purpose

- Modifies the carbon dioxide sequestration credit to require permanent geologic storage for carbon dioxide used as a tertiary injectant.

29.2 Cost Estimate

- Negligible.

30 Credit for Plug-In Electric Drive Motor Vehicles (Division B, Title I, Sec. 1141-44)

30.1 Purpose

- Provides a 10% credit (up to $2,500) for electric drive low-speed vehicles, motorcycles, and three-wheeled vehicles
- Provides a 10% credit (up to $4,000) for plug-in vehicle conversions using a qualified battery module with a minimum capacity of 4 kWh. Conversions must be made before December 31, 2011.

- Limits the plug-in electric drive motor vehicle credit to $7,500 regardless of vehicle weight and limits the credit to 200,000 vehicles per manufacturer.

30.2 Cost Estimate

- $2.002 billion over ten years.

31 Substitute Grants for Energy Property (Division B, Title I, Sec. 1603)

31.1 Purpose

- Upon application, the Secretary of Treasury will provide grants to specified energy properties either placed in service in 2009 or 2010, or placed in service after 2010 and before the termination date (varies by property) provided construction began in 2009 or 2010. The amount of the grant is 30% of the basis of the property for wind, closed-loop biomass, open-loop biomass, geothermal, landfill gas, trash facilities, hydropower, and marine and hydrokinetic facilities, solar properties and small wind properties. The amount of the grant is 10% of the basis of the property for any other facility. Any property that has received a grant is no longer eligible to receive production or investment tax credits.