



# Policy Priorities for Renewable Energy Stakeholders in the 111<sup>th</sup> Congress

Renewable Energy in the Midwest  
Minneapolis, MN  
August 27, 2009

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# Key Policy Debates in the 111<sup>th</sup> Congress



- Stimulus Funding for Renewable Energy Projects
- Energy Legislation
  - Federal Renewable Electricity Standard
  - Transmission Policies
  - Energy Project Financing
- Climate Change Legislation
- Renewable Fuel Standard Implementation

# American Recovery and Reinvestment Act



- \$550 billion in spending
- Priorities based on job creation and investments in transportation, environmental protection, and other infrastructure that will provide long-term economic benefits
- For many programs, use it within two years or lose it
- Funds appropriated for use until September 30, 2010
- Agencies must post all grants made available under this Act on [www.recovery.gov](http://www.recovery.gov)

## Stimulus Spending for Renewable Energy (Direct Spending) by DOE



- Loan guarantees for renewable technologies and transmission technologies
- Smart Grid Grant Funding
- Renewable Fuels Funding
- Carbon Capture/Sequestration Grant Funding
- Payments for Energy Property in Lieu of Credits

# Recovery Act – Loan Guarantees

- *EPA Act Section 1703 Program – Loan guarantees available to fund new or significantly improved pre-commercial technologies that reduce greenhouse gas emissions*
  - *\$8 billion for Fossil Energy Technologies (March 23, 2009 Application Deadline)*
  - *\$20.5 billion for Nuclear Power (December 19, 2008 Application Deadline)*
  - *\$10 billion Energy Efficiency, Renewable Energy and Advanced Transmission and Distribution Technologies (2/26/09 Application Deadline)*
  
- *AARA Section 1705 Program – Loan guarantees available to fund commercial and pre-commercial technologies that reduce greenhouse gas emissions. These include incremental hydropower, upgrading electric power transmission systems, and biofuel projects performing at the pilot or demonstration scale which substantially reduce life-cycle greenhouse gas emissions compared to other transportation fuels*
  - *\$6 billion in funding to support more than \$60 billion in loans for eligible projects that commence construction no later than September 30, 2011*

# Recovery Act – Smart Grid

- **Smart Grid Investment Grants (\$3.375 billion)** – Matching grants of up to 50 percent for electric utilities and other entities to deploy smart grid technologies. DOE will use a competitive, merit-based process to fund qualified projects. Grants ranging from \$500,000 to \$20 million for smart grid technology deployment. Grants of \$100,000 to \$5 million for deployment of grid monitoring devices. (Applications: August 6, 2009)
- **Smart Grid Demonstration Grants (\$615 million)** – Matching grants of up to 50 percent for electric utilities own grid facilities and partners (products and services suppliers, end users, and state and municipal governments) for demonstrations that support grid monitoring, quantify smart grid costs and benefits, verify technology viability, and examine new business models. (Applications: August 6, 2009)
- **State Formula Grants** for grid resource assessments and planning - \$86 million

# Recovery Act – Renewable Fuels

- **Demonstration Grants for Integrated Biorefineries** (\$480 million) –DOE grants up to \$50 million for integrated biorefinery projects with economic and technical performance data supporting readiness for the next level of scale-up. Projects must produce a liquid transportation fuel as the primary product. (Application deadline: June 30, 2009)
- **Advanced Research Projects Agency – Energy** (\$400 million) – ARPA-E is a new entity established at DOE to foster research and development of transformational energy technologies. Transformational technologies are those that disrupt the status quo. Grant awards of \$500,000 to \$20 million are available for selected projects. (Application deadline: June 10, 2009)
- **Algal Biofuel Consortia** (\$85 million) (Application deadline: TBA)

# Recovery Act – Carbon Capture Technologies

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- Carbon Capture and Sequestration from Industrial Sources and Innovative Concepts for Beneficial CO<sub>2</sub> (\$1.4 billion) – A cost share grant program to demonstrate: (1) Large-scale industrial CCS projects from industrial sources and (2) Innovative concepts for beneficial CO<sub>2</sub> use. The objective is to demonstrate advanced technologies that capture and sequester carbon dioxide emissions from industrial sources into underground formations. (August 7, 2009)
- Clean Coal Power Initiative (\$800 million) – a cost share grant program to demonstrate advanced coal-based technologies that capture and sequester or put to beneficial use a minimum of 300,000 tons per year of CO<sub>2</sub> emissions. (Application deadline: August 24, 2009)

## Recovery Act – Tax Provisions



- Three year extension of the tax credit for renewable electricity production (through 2012 for qualified wind, and 2013 for other qualifying resources)
- Qualifying renewable energy facilities may take a 30 percent investment tax credit for qualified expenditures on facilities placed in service in 2013 (2012 for wind) in lieu of the production tax credit
- Creates a Treasury Department Energy Grant Program which allows taxpayers with an investment tax credit in qualifying renewable energy facilities to receive a cash grant in an amount equal to the credit within sixty days of the facility being placed in service
- \$1.6 billion in new CREB financing
- \$3.2 billion in new Qualified Energy Conservation Bond financing
- Tax credit equal to 50 percent of the cost of installing qualified alternative fuel vehicle refueling property up to a maximum of \$50,000 (\$200,000 for hydrogen refueling property). Credit expires December 31, 2010
- \$2,500 tax credit for plug-in electric vehicles and an additional tax credit for plug-in vehicles with battery propulsion. Credit remains available until 200,000 vehicles are sold beginning after December 31, 2009

# Recovery Act – Tax Incentives

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- Payments for Specified Energy Property in Lieu of Tax Credits – Taxpayers eligible to claim a Section 45 or 48 tax credit for renewable electricity may instead elect to claim a 30 percent investment tax credit and claim a cash payment for the value of that credit through the Treasury Department
  - Eligible Entities include: wind, closed-loop biomass, open-loop biomass, geothermal, landfill gas, MSW, qualified hydro, solar, geothermal heat pumps, combined heat and power, microturbines and fuel cells
  - Projects must be placed in service between January 1, 2009 and December 31, 2010. New projects must commence construction between January 1, 2009 and December 31, 2010 and be placed in service by either the Section 45 or 48 credit termination date

# Federal Climate Change Legislation



- Emissions Cap
  - Creation of an economy wide “cap and trade” program with the cap steadily declining over time to reduce GHG emission levels
    - 2012 – 2005 levels
    - 2020 – 1990 levels
  
- Covered Facilities (80% of U.S. GHG emissions)
  - Any electricity source
  - Stationary source emitters of more than 25,000 tons of CO<sub>2</sub> per year
  - Geologic sequestration sites
  - Natural gas processing plants
  - Natural gas local distribution companies that deliver to customers that are not covered entities
  - Petroleum refineries
  
- Creates a trading program for carbon credits. Covered entities can purchase compliance credits from the government via auction, from other entities holding credits, or from qualified carbon reductions not required by law (forest projects, soil sequestration, methane capture, etc.)
  
- Revenue stream from the cap and trade program will grow as allowance prices and size of auction increase

# Federal Climate Change Legislation – Energy Title

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- Federal Renewable Electricity Standard
- Incentives for Transmission
- Clean Energy Financing

# Renewable Electricity Standard



- Sellers of at 4 million Kwh of electricity per year must include a minimum amount of renewable electricity in annual sales:

	<u>House</u>	<u>Senate</u>
■ 2011-12	4%	3%
■ 2013-15	8%	6%
■ 2016-18	12%	9%
■ 2019-20	16%	12%
■ 2021-2039	20%	15%

- Qualified renewable electricity includes solar, wind, geothermal, biomass, ocean energy, landfill gas, and incremental hydropower
- Energy efficiency can be used to meet 25 percent of a utility's annual renewable requirement
- Establishes a federal renewable energy and energy efficiency credit trading program
- In lieu of purchasing renewable energy credits, utilities may make alternative compliance payments at a rate of 2.5 cents per kilowatt hour
- Double credits for renewable generation on Indian lands, and triple credits for generation from small renewable distributed generators
- All money collected from alternative compliance payments will go into a State renewable energy account for state energy conservation plan grants

# Transmission Incentives – S. 1462

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- Allows States one year from time of filing of a proposal to site a high priority national transmission project
- Gives FERC jurisdiction over siting when states have either been unable to site the facility or have denied the application. Jurisdiction is over facilities 345 kilovolts and above that are included in the transmission plan
- Gives the Department of the Interior lead agency status for development of records of decision on public lands
- FERC must establish, by rule, appropriate methodologies for allocation of costs of high priority national transmission projects. Such methodologies derived from the cost allocation must be just and reasonable and not unduly discriminatory or preferential

# Clean Energy Financing

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- Creates the Clean Energy Deployment Administration (CEDA) as an independent administration within DOE.
- Establishes a Clean Energy Investment Fund, consisting of –
  - funding from the existing DOE loan guarantee program;
  - \$10 billion in funding from Treasury; and
  - supplemental amounts that may be appropriated
- CEDA will directly issue loans, loan guarantees, letters of credit, insurance products and other financial instruments to eligible projects.
- CEDA will offer secondary market support to develop products such as clean energy-backed bonds that would allow less expensive lending in the private sector.
- To the maximum extent practicable, the final decisions on applications are made within 180 days after the date of submission of a completed application.

# Clean Energy Financing

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- CEDA program support is available to deploy “clean energy technologies,” which are defined as a technology related to the production, use, transmission, storage, control, or conservation of energy that will:
  - reduce the need for additional energy supplies through gains in efficiency;
  - diversify domestic energy supplies with sources of energy have a favorable balance of environmental affects considering the entire technology system; or
  - reduce, avoid or sequester greenhouse gas emissions
  
- Projects are awarded credit support based on a review of :
  - how the technology rates based on the evaluation methodology established by the Advisory Council;
  - how the project fits with the goals established by the Secretary for the program; and
  - the potential for the applicant to successfully compete the project

# 2007 Renewable Fuel Standard Implementation



- 2007 Energy Infrastructure and Security Act directs EPA to issue regulations for renewable fuel are sold or introduced into commerce in the United States annually
- Regulations apply to refiners, blenders and importers
- The applicable volume for 2009 is set at 11.1 billion gallons
- Establishes new definitions for the renewable fuels program, including conventional biofuels, advanced biofuels, cellulosic biofuels, and biomass-based diesel
- **Conventional biofuels** is ethanol derived from corn starch. Conventional ethanol facilities that commence construction after the date of enactment must achieve a 20% greenhouse gas (GHG) emissions reduction compared to baseline lifecycle GHG emissions.
- **Advanced biofuels** is renewable fuel other than ethanol derived from corn starch, that is derived from renewable biomass, and achieves a 50 percent GHG emissions reduction requirement. The definition – and the schedule -- of advanced biofuels include cellulosic biofuels and biomass-based diesel. (Cellulosic biofuels that do not meet the 60% threshold, but do meet the 50% threshold, may qualify as an advanced biofuel.)
- **Cellulosic biofuels** is derived from any cellulose, hemicellulose, or lignin, that is derived from renewable biomass, and achieves a 60% GHG emission reduction requirement.

# Renewable Fuel Standard Implementation

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- Comments to EPA on proposed Rule due September 26, 2009
- Outstanding Issues
  - Indirect land use change/GHG LCA
  - Qualifying “renewable biomass”
  - 2009/2010 volume mandates



For more information

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