

# The American Recovery and Reinvestment Act

*A Foundation for Our Energy Future*

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U. S. Department of Energy



# The American Recovery and Reinvestment Act of 2009 (Recovery Act)

- President Obama signed this unprecedented effort into law on February 17, 2009:
  - Jumpstarts our economy, create or save millions of jobs, and put a down payment on addressing long-term challenges, so our country can thrive in the 21st Century
  - Requires the hard work and collaboration of homeowners, scientists, local and state governments, small businesses, industry, and many others





# The Department of Energy's role is critical

- Transforms the way we use energy
- Helps reduce our carbon emissions
- Creates entire new industries based on our nation's resources, ingenuity, and workers
- Turns economic crisis into an opportunity to build a clean, secure, and prosperous energy future

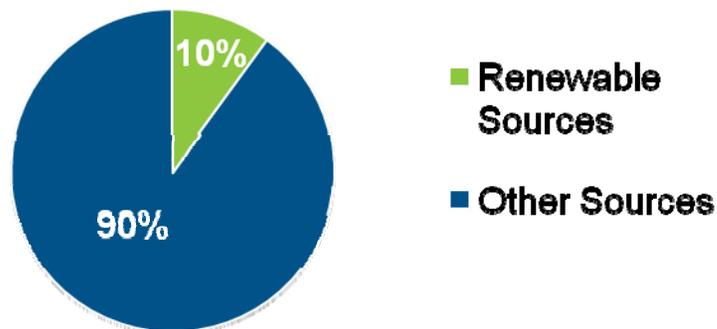




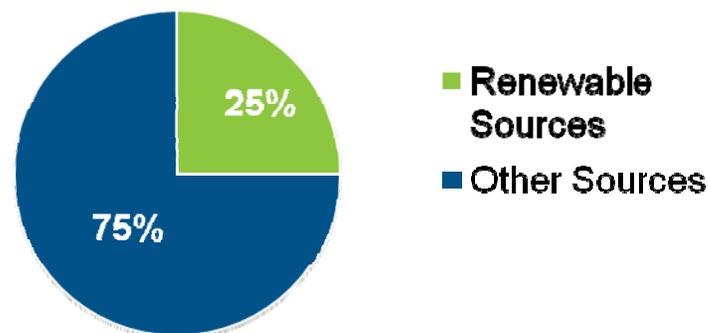
# The Administration's Energy Goals

- Ensure 10 percent of our electricity comes from renewable sources by 2012, and 25 percent by 2025
- Achieve an 80 percent reduction in greenhouse gases by 2050

**Electricity Sources In 2012**



**Electricity Sources In 2025**





# Secretary Chu's key objectives for the Recovery Act

- Getting good projects underway quickly
- Ensuring projects have lasting value
- Delivering an unprecedented degree of transparency
- Making a significant down payment on the nation's energy and environmental future



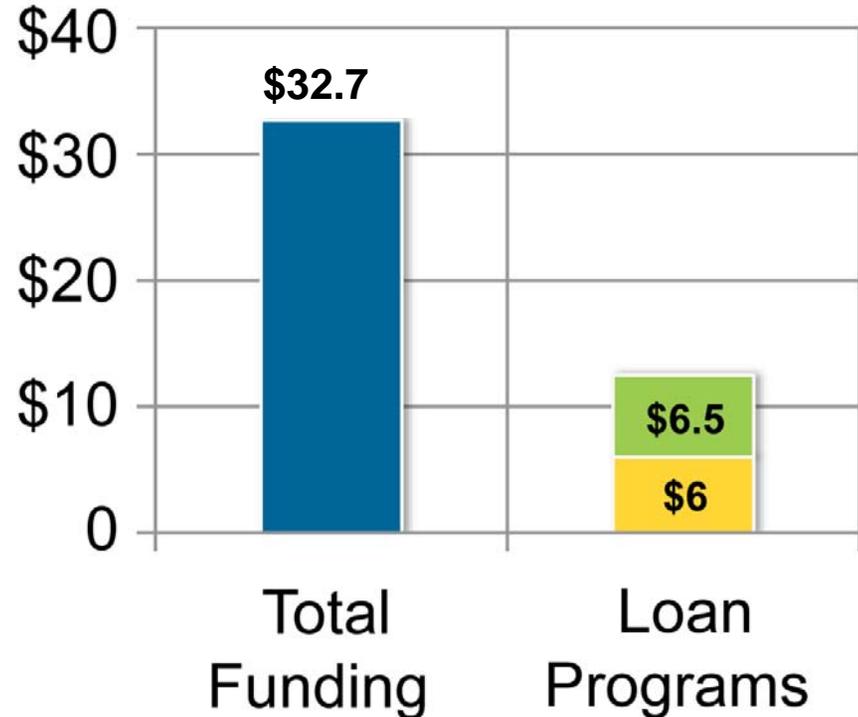
# DOE Recovery Act funding

Total—\$32.7 billion  
(excluding loan programs)

Loan programs—\$12.5 billion

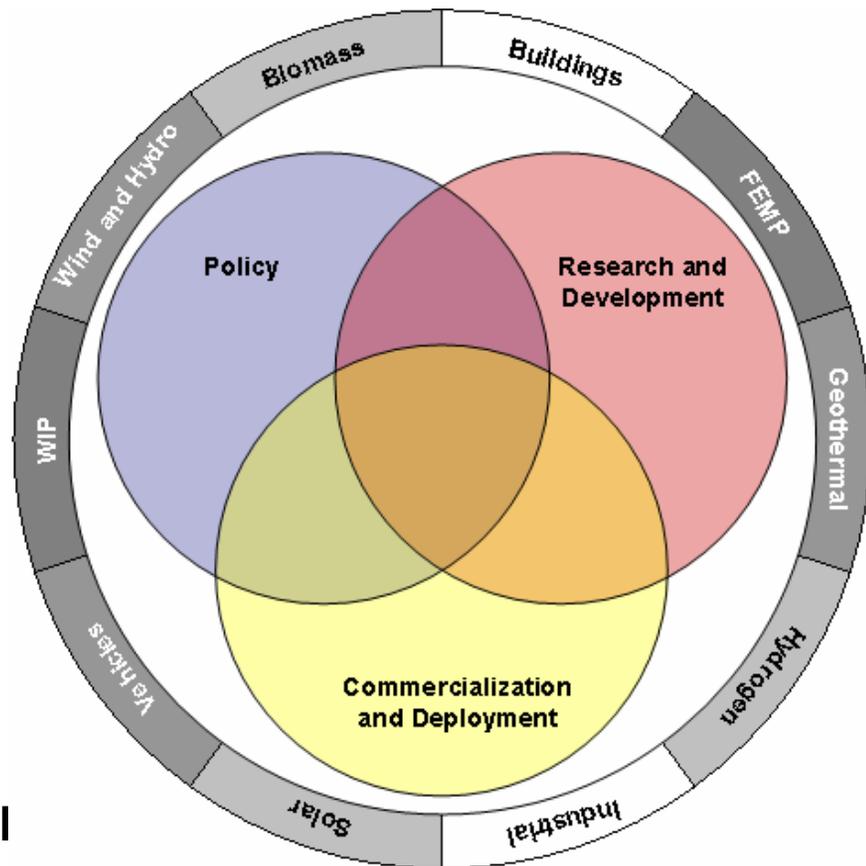
- Rapid deployment of renewable energy systems—\$6 billion
- DOE power administration borrowing authority—\$6.5 billion

**DOE Recovery Act Funding**  
(in billions)



# EERE - Who are we?

- **Power Generation**
  - Wind
  - Solar
  - Geothermal
- **Fuels & Vehicles**
  - Vehicle Technologies
  - Biomass/Biofuels
  - Hydrogen
- **Energy Efficiency**
  - Buildings Technologies
  - Industrial Technologies
  - **Weatherization/Intergovernmental**
  - Federal Energy Management



*We manage America's investment in the research, development and deployment of DOE's diverse energy efficiency and renewable energy applied science portfolio.*

# Energy Efficiency and Renewable Energy (EERE) Recovery Act funding

EERE RD&D			\$2.5B
	Biomass	\$800M	
	Geothermal	\$400M	
	Information & Communications Tech.	\$50M	
	EERE Discretionary Funding	\$1.25B	
State Energy Program			\$3.1B
Energy Efficiency Conservation Block Grants			\$3.2B
Weatherization Assistance			\$5.0B
Energy Efficient Appliance and ENERGY STAR Rebates			\$300M
Alternative Fuel Vehicle Grant Program			\$300M
Advanced Battery Manufacturing Grants			\$2.0B
Transportation Electrification Grants			\$400M
<b>EERE Total:</b>			<b>\$16.8B</b>

# Michigan EERE Funding under the Recovery Act

Total Michigan funding (Energy) \$402.0M

- State Energy Program \$82.0M
- Energy Efficiency and Conservation Block Grant \$76.6M
  - State Formula Allocation - \$19.6M
  - Local Government Formula Allocations - \$57.0M
- Weatherization Assistance Program \$243.4M
- Appliance Rebates - TBD



# Objectives

## Recovery Act

- Spur economic growth and create jobs
- Transparency & accountability

## Strategic Energy

- Save energy and reduce greenhouse gas emissions;
- Invest funds to stimulate economy now **and** meet long-term energy goals
- Create comprehensive energy programs/strategies with aggressive goals and benchmarks of current performance
- Develop programs and projects that will persist beyond grant period
- Leverage funds with public and private sources
- Coordinate across regions, states and local jurisdictions



# The State Energy Program - \$3.1B

- Congress created the State Energy Program (SEP) in 1996 by consolidating the State Energy Conservation Program and the institutional Conservation Program to:
  - Encompass both renewable energy and energy efficiency technologies and address all sectors of the economy
  - Fund states to carry out their own clean energy programs and projects
  - \$82M for MI

**MARCH 12, 2009**

**DOE Announced Nearly \$3 Billion under SEP**

# Use of State Energy Program Funds

- SEP Recovery Act funds can be used for all energy efficiency and renewable energy across all sectors of the economy
  - Buildings, Transportation, Industrial, Power Generation
- States are encouraged to choose activities that will provide sustained benefits to their citizens
  - What are the largest energy users? Biggest challenges?
- States are encouraged to consider programs that have high impacts
  - Create sustainable capital pools,
  - Leverage private financing

# Energy Efficiency and Conservation Block Grant Program - \$3.2B

- Formula grants that support energy audits, efficiency retrofits, improved building codes, etc.
- Applies to cities and counties nationwide. Smaller cities and counties can work through state energy offices to access the funds
- Drives significant improvements in energy efficiency and renewable energy at the local level—high return projects
- \$76.6M for MI

**MARCH 26, 2009**

**DOE Announced \$3.2 Billion for EECBG**

# EE and Conservation Block Grant - \$3.2B

- Presidential Priority - *Deploy the cheapest, cleanest, fastest energy source – energy efficiency*
- Primarily for Energy Efficiency and Energy Conservation
  - Community-wide; not just municipal buildings and facilities
  - Don't have to do capital *projects*, can do *programs*
  - Prioritize activities that pay dividends year after year
- Formula Grants (\$2.8B)
  - For states, cities, counties, and Indian tribes
- Competitive Grants (\$456M)



# Competitive Solicitations

- \$456M - EE and Conservation Block Grant
  - \$56M – Eligibility: Local governments and Indian Tribes ineligible for direct formula grants
  - \$400M – Eligibility: Criteria to be determined
  - Promote market transformation, innovation, and leveraging high impact eligible activities
- \$25M - State Energy Program (2009 Appropriation)
- \$25M - Innovative Alternative Low Income Residential Energy Efficiency Pilot



# Weatherization Assistance Program - \$5B

- The program helps low-income households improve the efficiency of their homes
- Funds are allocated to the states, which distribute funds to local agencies
- Low-income families save an average of \$350 or more each year on their energy bills after their homes have been weatherized.
- \$243.4M for MI

**MARCH 12, 2009**

**DOE Announced Nearly \$5 Billion for Weatherization**

# Weatherization Assistance - \$5B

- Presidential Initiative
- Recovery Act Changes to Program
  - Income level amended from 150% of poverty to 200%
  - Cost per home was raised from \$2,500 to \$6,500
  - T&TA raised from 10 percent to up to 20 percent
- New Opportunities
  - DOE/HUD Agreement
  - Foundation for reaching all homes



# Appliance Rebate Program \$300M

- Offers funding for rebate programs in 50 states
  - *Note: States must apply for the money*
- Increase consumer awareness of energy efficient choices to improve their lives and wallets
- Investment Outcomes
  - Spur sales of energy efficient appliances
  - Significantly reduce energy and water use by American households



# Clean Cities

- Funding for Clean Cities Alternative Fueled Vehicles Pilot Grant Program announced by Vice President Joe Biden and President Barak Obama on Earth Day, April 22, 2009.
- Authorized by EPACT 2005, Sec. 721
- \$300 million at 50% cost share for alternative fuel and advanced vehicles and related infrastructure, training and public awareness.
- Eligibility: State governments, local governments, metropolitan transit authorities, either alone or together, and a designated Clean Cities coalition.
- Sec. 721 Limit: 30 awards between \$5-\$15 million each.



## Advanced Battery Manufacturing and Transportation Electrification Grants

- Advanced batteries are a key component of plug-in hybrids and other next-generation vehicles
- \$1.5 billion in grants to U.S.-based manufacturers to produce these highly efficient batteries and their components
- \$500 million for electric-drive vehicle components
- \$400 million to demonstrate and evaluate plug-in hybrids and other electric infrastructure concepts—like truck-stop charging stations, electric rail infrastructure, and training for technicians to build and repair electric vehicles

**MARCH 19, 2009**

President Obama Announced the Availability of  
\$2.4 Billion for Next-Generation Electric Vehicles



## **BIOMASS RECOVERY ACT FUNDING**

\$786.5 million in Recovery Act funding will be dedicated to accelerate advanced biofuels R&D and to provide additional funding for commercial-scale biorefinery demonstration projects.

- \$480 Million Solicitation for Integrated Pilot- and Demonstration-Scale Biorefineries
- \$176.5 Million for Commercial-Scale Biorefinery Projects
- \$110 Million for Fundamental Research in Key Program Areas
- \$20 Million for Ethanol Research



# Wind and Hydropower Technologies Program

- \$45 million for wind turbine drivetrain R&D and testing
  - Funding will enhance DOE's ability to support the wind industry through testing the performance and reliability of current and next-generation wind turbine drivetrains.
- \$14 million for technology development
  - Improve the quality and use of lighter weight, advanced materials for turbine blades, towers, and other components
- \$24 million for wind power research and development
  - Support development of up to three industry-university consortia to focus on critical wind energy challenges.
- \$10 million for National Wind Technology Center
  - Enhance NREL's ability to support the wind industry through testing current and next-generation wind turbine drive train systems for better performance and reliability.

# Smart Grid Funding (OE)

- Vice President Joe Biden outlined plans to distribute more than \$3.3 billion in smart grid development grants and an \$615 million for smart grid storage, monitoring and technology viability.
- This money will help develop a smart, strong and secure electrical grid, which will create new jobs and help deliver reliable power more effectively with less impact on the environment to customers across the nation.

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“By investing in updating the grid now, we will lower utility bills for American families and businesses, lessen our dependence on foreign oil and create good jobs that will drive our economic recovery – a strong return on our investment.”

- Vice President Biden





# Tracking our progress

The American people want to know who is receiving the money, and they want to know they are receiving value for their hard-earned tax dollars

Everything we do will be transparent:

- Posting weekly updates on the Web site
- Upgrading the Web site and setting up a call center to handle the activity

Visit [recovery.gov](http://recovery.gov) or [energy.gov/recovery/](http://energy.gov/recovery/) to stay informed





## How to Apply for a DOE grant or loan

- Track funding opportunity announcements through:
  - All types—[energy.gov/recovery/funding.htm](http://energy.gov/recovery/funding.htm)
  - Grants—[grants.gov](http://grants.gov)
  - Contracts—[fbo.gov](http://fbo.gov)
  - Loan guarantees—[energy.gov/recovery/funding.htm](http://energy.gov/recovery/funding.htm).
- For first-time applicants, register before submitting applications

## How to Apply for State/Local grants

- Apply directly to state energy office or local government entity
- Go to [energy.gov/recovery/](http://energy.gov/recovery/) to find link to your state energy office

Thank you

For more information:

[www.energy.gov/recovery](http://www.energy.gov/recovery)

1-888-DOE-RCVY (1-888-363-7289)

# Additional Slides



# Recovery Act - Tax Credits Modifications

The Production Tax Credit (PTC) Modifications:

- **Generally** - Extensions and expansions for existing PTC for renewable energy systems plus new tax credit alternatives
- **Wind PTC** - Placed in Service Extension | 12.31.12
- **Municipal Solid Waste, Qualified Hydropower, Biomass Geothermal Facilities** - Placed in Service Extension, 12.31.13
- **Marine and Hydrokinetic** - Placed in Service Extension, 12.31.13
- **PTC to ITC Election** - Taxpayers eligible for PTC to make irrevocable election to take the Investment Tax Credit (ITC) [30%] for property placed in service in 2009-10.



## Tax Benefits - Residential & Business

- **Generally** - Provides greater tax credits for clean energy projects at homes, businesses and manufacturers of clean energy technologies
  - **Tax Credit Increase** - Increases 10% tax credit for homeowners' energy efficiency improvements to a 30% tax credit
  - **Itemized Credit Elimination** - Eliminates improvement-specific credit caps (e.g. windows and furnaces)
  - **Elimination of Aggregate Credit Cap** - Replaces itemized cap with an aggregate cap of \$1,500 for all improvements placed in service in 2009 and 2010 (except biomass systems, which must be placed in service after the Act is enacted)
  - **Qualifying Spec Enhancements** - Enhances energy efficiency specs for property to qualify for tax credit eligibility



# Tax Credits Residential & Business

- **Grant in Lieu of ITC** - New program established by Recovery Act. Treasury will allow taxpayers to apply for a grant instead of claiming the 30% ITC (which may originally stem from a renewable system eligible for a PTC).
- **Removal of Tax Credit Cap** - Qualified solar energy systems, geothermal heat pumps, small wind turbines placed in service before 2017. [Fuel Cell retains it's cap at \$1,667].
- **Subsidized Financing** - No longer variable when calculating tax credits for qualifying energy property.
- **Clean Fuel Refueling Systems** - Provide bonus to homeowners or business owners installing at their homes or businesses
  - *Businesses:*
    - Credit increased from 30 to 50%, except hydrogen refueling property.
    - Increased maximum credit from \$30,000 to \$50,000. Hydrogen is increased to \$200,000.
  - *Homeowners:* Credit doubled from \$1,000 to \$2,000



## New 30% tax credit to encourage new manufacturing facilities

- Encourages investment in the manufacturing facilities that help make such clean energy projects possible. Available for projects that establish, re-equip, or expand manufacturing facilities for:
  - Fuel cells
  - Microturbines
  - Renewable fuel refineries and blending facilities
  - Energy-saving technologies
  - Smart-grid technologies
  - Solar, wind, and geothermal technologies
- Applies to the manufacture of plug-in electric vehicles and their electric components, such as battery packs, electric motors, generators, and power control units

# Energy Efficiency and Conservation Block Grants program

- Formula grants that support energy audits, efficiency retrofits, improved building codes, etc.
- Applies to cities and counties nationwide. Smaller cities and counties can work through state energy offices to access the funds
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# Training and Technical Assistance (T&TA) in the Weatherization Assistance Program

- Objective: Facilitate training and technical assistance (T&TA) for development of a workforce that supports the Weatherization Assistance Program ramp up
- Funding: Recovery Act (FY 2009-11) – Approximately \$1,000M for Weatherization T&TA
  - Approximately \$850M for State-directed T&TA activities (allocated according to formula)
  - Approximately \$150M for DOE HQ-directed activities

# Eligible Uses of EECBG Funds

1. Strategy Development
2. Building Energy Audits & Retrofits
3. Financial Incentive Programs
4. Energy Efficiency and Conservation Programs for Buildings and Facilities
5. Development and Implementation of Transportation Programs
6. Building Codes and Enforcement
7. Energy Distribution Technologies for EE including CHP & district heating and cooling
8. Material Conservation Programs including source reduction, recycling, and recycled content procurement programs
9. Reduction and Capture of Methane and Greenhouse Gases
10. Traffic Signals and Street Lighting
11. Renewable Energy Technologies on Government Buildings
12. Any Other Appropriate Activity