

2009 ARRA IMPLEMENTATION UPDATE

DEPARTMENT OF ENERGY



RECOVERY.GOV

August 13, 2009



Four instructions from Secretary Chu

Move the Funding to Projects Quickly

Invest in Projects that Provide Enduring Value

Deliver With Unprecedented Transparency and Accountability



Make a Down payment on the Nation's Energy & Environmental Future



DOE American Recovery and Reinvestment Act Plan Overview

Significant Commitment to Energy Efficiency and Innovation

\$38.7B in Budget Authority under the Recovery Act

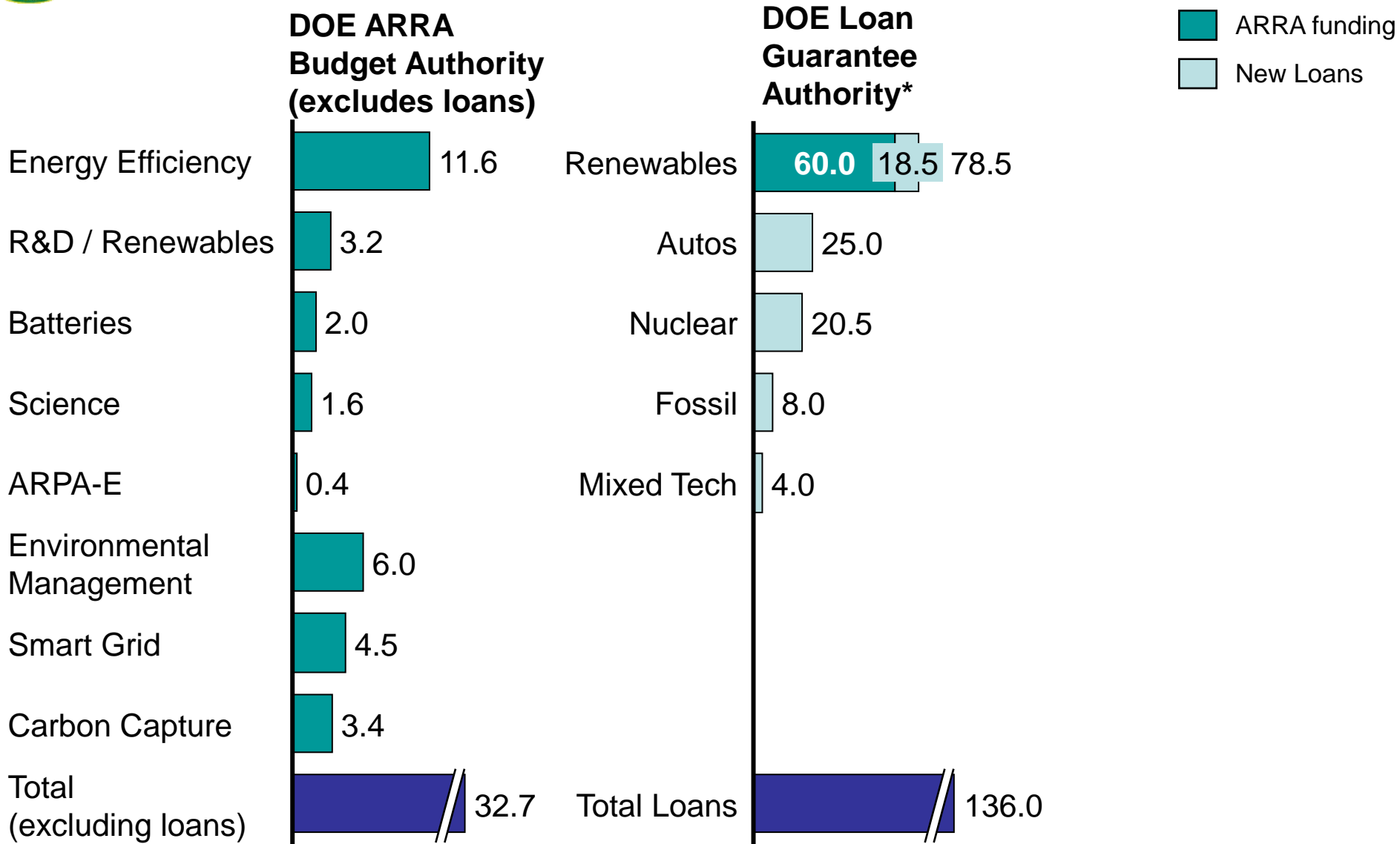
\$32.7B in Recovery Act grants and programs

\$6B to underwrite up to \$60B in new loan guarantees on top of \$76B in existing loan authority

\$6.5B in Power Marketing Administration borrowing authority



DOE is using multiple vehicles to support goals





DOE American Recovery and Reinvestment Act Plan Overview

Other opportunities

- > Loan Guarantees
- > US Treasury Programs
 - Section 48 (c) manufacturing tax credits
 - Section 1603



Announcements

August: Energy Efficiency Conservation Block Grants (EECBG); Batteries, Transport electrification, bio-refineries renewable loan guarantees

September/October: EECBG, Batteries, transport electrification, Smart Grid grants; Industrial Carbon Capture and Storage; renewable loan guarantees



State Specific Information

A quick look at what is available on the
DOE Website.....



West Virginia

West Virginia

Weatherization	\$37,583,874
State Energy Program	\$32,746,000
Energy Efficiency & Conservation Block Grant Program	\$14,003,800
Total	\$84,333,674

- > West Virginia - \$366,482 - Energy Emergency Preparedness grant to improve state emergency preparedness plan and ensure quick recovery and restoration from any energy supply disruptions. Funds are to be used to hire or retrain staff and expand state-level capacities to address challenges to the country's energy systems, including emergency situations such as blackouts, hurricanes, ice storms, and disruptions to heating supplies.
- > West Virginia University (NAFTC) \$6.9 Morgantown, WV State of South Carolina
 - Educational programs for: Graduate, Undergraduate and Secondary Students; Teachers; Technicians; Emergency Responders; General Public
 - Partnering with: NAFTC Headquarters and members; West Virginia Department of Education; South Carolina Department of Education; Greater New Haven Clean Cities Coalition; Innovation Drive, Inc.; Advanced Vehicle Research Center; Auto Exposure LLC; Big Fish Advertising and Public Relations; MotorWeek; Sabre Engineering; Northeast Utilities



Virginia

Virginia

Weatherization	\$94,134,276
State Energy Program	\$70,001,000
Energy Efficiency & Conservation Block Grant Program	\$60,719,900
Science	\$75,000,000
Total	\$299,855,176

> Virginia - \$912,836 Energy Emergency Preparedness grant to improve state emergency preparedness plan and ensure quick recovery and restoration from any energy supply disruptions. Funds are to be used to hire or retrain staff and expand state-level capacities to address challenges to the country's energy systems, including emergency situations such as blackouts, hurricanes, ice storms, and disruptions to heating supplies.

> J. Sargeant Reynolds Community College \$0.72 Commonwealth of Virginia and Neighboring Mid- Atlantic States.

- Educational programs for: Secondary Students; Technicians**
- Partnering with: James Madison University; Virginia Department of Education; Ford; GM; Toyota; Firestone/Bridgestone**



Texas

Texas

Weatherization	\$326,975,732
State Energy Program	\$218,782,000
Energy Efficiency & Conservation Block Grant Program	\$208,759,900
Total	\$754,517,632

- > Texas - \$2,432,068 – Energy Emergency Preparedness grant to improve state emergency preparedness plan and ensure quick recovery and restoration from any energy supply disruptions. Funds are to be used to hire or retrain staff and expand state-level capacities to address challenges to the country's energy systems, including emergency situations such as blackouts, hurricanes, ice storms, and disruptions to heating supplies.
- > University of Texas, Austin (Austin, TX) – \$15 million for five years to pursue fundamental research on charge transfer processes that underpin the function of highly promising molecular materials for photovoltaic and electrical energy storage applications
- > Petra Solar of South Plainfield, NJ: Petra Solar will work with the University of Central Florida (Orlando, FL) and Fifteen Electric Utilities with service in NJ, PA, OH, DE, MD, DC, FL, TX: This project complements the mission of the Solar Program to achieve the widespread adoption of solar energies. It supports improving reliability and resiliency so that high levels of PV integration can be adapted. DOE cost share: up to \$2.9 million
- > University of Texas at Austin - Techno-Economic Modeling of the Integration of 20% Wind and Large-scale energy storage in ERCOT by 2030 (Austin, TX) - \$510,688*



Tennessee

Tennessee

Weatherization	\$99,112,101
State Energy Program	\$62,482,000
Energy Efficiency & Conservation Block Grant Program	\$42,243,200
Science	\$71,168,000
Environmental Management	\$755,110,000
Biomass	\$7,000,000
Total	\$1,037,115,301

- > Tennessee - \$770,233 - Energy Emergency Preparedness grant to improve state emergency preparedness plan and ensure quick recovery and restoration from any energy supply disruptions. Funds are to be used to hire or retrain staff and expand state-level capacities to address challenges to the country's energy systems, including emergency situations such as blackouts, hurricanes, ice storms, and disruptions to heating supplies.
- > Nissan will receive \$1.6 billion to produce electric cars and battery packs at its manufacturing complex in Smyrna, Tennessee. Nissan anticipates the project may result in an increase of up to 1,300 jobs in Smyrna when full production is reached.
- > Electric Transportation Engineering Corp. (ETEC) \$99.8 Headquarters: Phoenix, AZ Manufacturing: Phoenix, AZ and Northern California Deployment: Portland, Salem, Eugene and Corvallis, OR; Seattle, WA; San Diego, CA; Phoenix and Tucson, AZ; Nashville, Chattanooga, and Knoxville, TN ETEC and its partner Nissan will demonstrate up to 5,000 Nissan electric vehicles with a 100 mile range and deploy up to 1 2,500 Level 2 and 250 Level 3 chargers.
- > Oak Ridge National Laboratory; Oak Ridge, TN—\$8.7 million, including \$5.4 million for equipment at the DOE BioEnergy Science Center, a DOE Bioenergy Research Center; \$3.2 million to seed development of computerized knowledgebase to integrate masses of data flowing from DOE-supported genomics and systems biology research; and \$180,000 for fusion energy research.
- > Apollo Solar of Bethel, CT: Apollo Solar will work in collaboration with Saft Batteries (Valdosta, GA), the Electric Power Research Institute (Knoxville, TN), and California Independent System Operator (Folsom, CA). This project creates innovative inverters using energy storage and two-way communications between solar electrical systems and utilities. DOE cost share: up to \$1.5 million
- > Exide Technologies with Axion Power International , \$34.3, Bristol TN and Columbia, GA. Production of advanced lead-acid batteries, using lead-carbon electrodes for micro and mild hybrid applications.



South Carolina

South Carolina

Weatherization	\$58,892,771
State Energy Program	\$50,550,000
Energy Efficiency & Conservation Block Grant Program	\$31,449,200
Environmental Management	\$1,615,400,000
Total	\$1,756,291,971

- > South Carolina - \$611,034 - Energy Emergency Preparedness grant to improve state emergency preparedness plan and ensure quick recovery and restoration from any energy supply disruptions. Funds are to be used to hire or retrain staff and expand state-level capacities to address challenges to the country's energy systems, including emergency situations such as blackouts, hurricanes, ice storms, and disruptions to heating supplies.
- > Celgard, LLC, a subsidiary of Polypore \$49.2 Charlotte, NC Aiken, SC Production of polymer separator material for lithiumion batteries. Toda America, Inc. \$35 Goose Creek, SC Production of nickel-cobalt-metal cathode material for lithium-ion batteries. Chemetall Foote Corp. \$28.4 Silver Peak, NV Kings Mtn., NC Production of battery-grade lithium carbonate and lithium hydroxide.
- > South Carolina State University High-purity germanium detector and a multi-channel analyzer to complete development of an advanced undergraduate radiochemistry laboratory



Oklahoma

Oklahoma

Weatherization	\$60,903,196
State Energy Program	\$46,704,000
Energy Efficiency & Conservation Block Grant Program	\$27,172,500
Total	\$134,779,696

- > Oklahoma - \$534,197 - Energy Emergency Preparedness grant to improve state emergency preparedness plan and ensure quick recovery and restoration from any energy supply disruptions. Funds are to be used to hire or retrain staff and expand state-level capacities to address challenges to the country's energy systems, including emergency situations such as blackouts, hurricanes, ice storms, and disruptions to heating supplies.
- > Oklahoma State University (Stillwater, OK) - *Wind Powering Oklahoma* - \$87,296



North Carolina

North Carolina

Weatherization	\$131,954,536
State Energy Program	\$75,989,000
Energy Efficiency & Conservation Block Grant Program	\$58,050,300
Total	\$265,993,836

- > North Carolina - \$1,046,182 - Energy Emergency Preparedness grant to improve state emergency preparedness plan and ensure quick recovery and restoration from any energy supply disruptions. Funds are to be used to hire or retrain staff and expand state-level capacities to address challenges to the country's energy systems, including emergency situations such as blackouts, hurricanes, ice storms, and disruptions to heating supplies.
- > Celgard, a subsidiary of Polypore \$49.2 Charlotte, NC and Aiken, SC will be receiving a \$49 million grant to gear up production of lithium ion batteries. With this Recovery Act funding, Celgard will be able to upgrade and expand its facilities and its suppliers and contractors including Kings Mtn., NC Production of battery-grade lithium carbonate and lithium hydroxide
- > North Carolina State University (Raleigh, NC) - *Wind Powering America: The Next Steps in North Carolina* - \$99,347



Missouri

Missouri

Weatherization	\$128,148,027
State Energy Program	\$57,393,000
Energy Efficiency & Conservation Block Grant Program	\$43,779,300
Total	\$229,320,327

- > **Missouri - \$742,406 - Energy Emergency Preparedness grant to improve state emergency preparedness plan and ensure quick recovery and restoration from any energy supply disruptions. Funds are to be used to hire or retrain staff and expand state-level capacities to address challenges to the country's energy systems, including emergency situations such as blackouts, hurricanes, ice storms, and disruptions to heating supplies.**
- > **Ford Motor Company \$30 Manufacturing: Michigan and Kansas City, MO; Deployment: several utility partners' fleets Accelerate the launch and commercialization of PHEVs and EVs by partnering with 15 of America's leading utilities. Deploy up to 150 plug-in hybrid electric vehicles, including 130 Ford Escape PHEVs and 20 Ford E450 Van PHEVs. Smith Electric Vehicles \$10 Manufacturing: Kansas City, MO; Deployment Several partners' Fleets Develop and deploy up to 100 electric vehicles, such as "Ampere" (Ford Transit Connect EV), "Faraday" (Ford F150 EV conversions), Step Vans, and "Newton" medium-duty trucks.**
- > **Advanced Electric Drive Vehicle Education Program - Missouri University of Science and Technology \$5 Rolla, MO Warrensburg, MO Linn, MO St. Louis, MO Kansas City, MO Lee's Summit, MO**
 - ***Educational programs for:*** Graduate, Undergraduate and Secondary Students; Teachers; Technicians; Mechanics; Emergency Responders; General Public
 - ***Partnering with:*** University of Central Missouri; Linn State Technical College; St. Louis Science Center; Smith Electric Vehicles U.S. Corporation (SEV-US); Kokam America Inc.



Mississippi

Mississippi

Weatherization	\$49,421,193
State Energy Program	\$40,418,000
Energy Efficiency & Conservation Block Grant Program	\$16,974,600
Total	\$106,813,793

Mississippi, \$469,626 Energy Emergency Preparedness grant to improve state emergency preparedness plan and ensure quick recovery and restoration from any energy supply disruptions. Funds are to be used to hire or retrain staff and expand state-level capacities to address challenges to the country's energy systems, including emergency situations such as blackouts, hurricanes, ice storms, and disruptions to heating supplies.



Maryland

Maryland

Weatherization	\$61,441,745
State Energy Program	\$51,772,000
Energy Efficiency & Conservation Block Grant Program	\$52,295,100
Total	\$165,508,845

- > Maryland, \$716,898, Energy Emergency Preparedness grant to improve state emergency preparedness plan and ensure quick recovery and restoration from any energy supply disruptions. Funds are to be used to hire or retrain staff and expand state-level capacities to address challenges to the country's energy systems, including emergency situations such as blackouts, hurricanes, ice storms, and disruptions to heating supplies.
- > General Motors Corporation \$105 White Marsh, MD, Wixom, MI
Construction of U.S. manufacturing capabilities to produce the second-generation GM global rear-wheel electric drive system.



Louisiana

Louisiana

Weatherization	\$50,657,478
State Energy Program	\$71,694,000
Energy Efficiency and Conservation Block Grant Program	\$33,623,200
Total	\$55,974,678

- > Louisiana - \$604,703 - Energy Emergency Preparedness grant to improve state emergency preparedness plan and ensure quick recovery and restoration from any energy supply disruptions. Funds are to be used to hire or retrain staff and expand state-level capacities to address challenges to the country's energy systems, including emergency situations such as blackouts, hurricanes, ice storms, and disruptions to heating supplies.
- > Novolyte Technologies, Inc. \$20.6 Zachary, LA Production of electrolytes for lithium-ion batteries.



Kentucky

Kentucky

Weatherization	\$70,913,750
State Energy Program	\$52,533,000
Energy Efficiency and Conservation Block Grant Program	\$25,382,500
Environmental Management	\$78,800,000
Total	\$227,629,250

- > Kentucky - **\$591,715** Energy Emergency Preparedness grant to improve state emergency preparedness plan and ensure quick recovery and restoration from any energy supply disruptions. Funds are to be used to hire or retrain staff and expand state-level capacities to address challenges to the country's energy systems, including emergency situations such as blackouts, hurricanes, ice storms, and disruptions to heating supplies.
- > South Coast Air Quality Management District (SCAQMD) \$45.4 Headquarters: Diamond Bar, CA
Manufacturing: Galesburg, MI and **Elizabethtown, KY**; Deployment: 50 different utilities and fleets
Develop a fully integrated, production plug-in hybrid system for Class 2 – 5 vehicles (8,501 – 19,500 lbs gross vehicle weight).
- > Ford Motor Company will receive \$5.9 billion in loans through 2011 to help finance numerous engineering advances to traditional internal combustion engines and electrified vehicles. In addition, these loans will help the company convert two truck plants to the production of cars. Ford will be raising the fuel efficiency of more than a dozen popular models, including the Focus, Escape, Taurus and F-150, representing close to two million new vehicles annually and helping to transform nearly 35,000 employees to green engineering and manufacturing jobs in factories across 5 states: Illinois, Kentucky, Michigan, Missouri, and Ohio. The facilities that will be impacted by today's announcement include: Chicago Assembly, **Louisville Assembly**, Dearborn Assembly, Dearborn Engine, Livonia Transmission, Michigan Assembly, Van Dyke Transmission, Kansas City Assembly, Cleveland Engine, Lima Engine, and Sharonville Transmission.



Florida

Florida

Weatherization	\$175,984,474
State Energy Program	\$126,089,000
Energy Efficiency & Conservation Block Grant Program	\$168,643,400
Total	\$470,716,874

- > Florida \$1,881,676 - Energy Emergency Preparedness grant to improve state emergency preparedness plan and ensure quick recovery and restoration from any energy supply disruptions. Funds are to be used to hire or retrain staff and expand state-level capacities to address challenges to the country's energy systems, including emergency situations such as blackouts, hurricanes, ice storms, and disruptions to heating supplies.
- > Florida Solar Energy Center/UCF: Florida Solar Energy Center will work with Satcon Technology Corporation (Boston, MA), SENTECH, Inc. (Bethesda, MD), SunEdison (Beltsville, MD), Cooper Power Systems EAS (Minneapolis, MN), Northern Plains Power Technologies (Brookings, SD) and Lakeland Electric Utilities (Lakeland, FL). This project focuses on solving technical challenges that must be overcome to include higher PV penetration levels in larger electrical systems. DOE cost share: up to \$1.3 million
- > Saft America, Inc. \$95.5 Jacksonville, FL Production of lithium-ion cells, modules, and battery packs for industrial and agricultural vehicles and defense application markets. Primary lithium chemistries include nickel-cobalt-metal and iron phosphate.
- > University of Florida - Establish a fully digital control system for University of Florida training reactor.



Georgia

Georgia

Weatherization	\$124,756,312
State Energy Program	\$82,495,000
Energy Efficiency & Conservation Block Grant Program	\$67,187,600
Total	\$274,438,912

- > Georgia - \$1,088,094 - Energy Emergency Preparedness grant to improve state emergency preparedness plan and ensure quick recovery and restoration from any energy supply disruptions. Funds are to be used to hire or retrain staff and expand state-level capacities to address challenges to the country's energy systems, including emergency situations such as blackouts, hurricanes, ice storms, and disruptions to heating supplies.
- > Exide Technologies with Axion Power International \$34.3 Bristol, TN Columbus, GA Production of advanced lead-acid batteries, using lead-carbon electrodes for micro and mild hybrid applications.
- > Colorado State University \$5 State of Colorado State of Georgia Fort Collins, CO Boulder, CO Atlanta, GA
 - Educational programs for: Graduate, Undergraduate and Secondary Students; Teachers; Technicians; Emergency Responders; General Public
 - Partnering with: CSU; Georgia Institute of Technology; Arapahoe Community College; Douglas County School System; Nissan NA; KShare; Ricardo; AM General; Motion Reality, Inc.



Arkansas

Arkansas

Weatherization	\$48,114,415
State Energy Program	\$39,416,000
Energy Efficiency & Conservation Block Grant Program	\$20,117,400
Total	\$107,647,815

- > Arkansas - \$461,990 - Energy Emergency Preparedness grant to improve state emergency preparedness plan and ensure quick recovery and restoration from any energy supply disruptions. Funds are to be used to hire or retrain staff and expand state-level capacities to address challenges to the country's energy systems, including emergency situations such as blackouts, hurricanes, ice storms, and disruptions to heating supplies.
- > FutureFuel Chemical Company \$12.6 Batesville, AR Production of high- temperature graphitized precursor anode material for lithium-ion batteries.
- > FedEx Freight East, Harrison, AR, This project will deploy 35 fuel cell systems as battery replacements for a complete fleet of electric lift trucks at FedEx's existing service center in Springfield, Missouri. Success at this service center will lead to further fleet conversions at some or all of FedEx's other 470 service centers. \$1.3 million



Alabama

Alabama

Weatherization	\$71,800,599
State Energy Program	\$55,570,000
Energy Efficiency & Conservation Block Grant Program	\$31,577,900
Total	\$158,948,499

- > Alabama - \$627,742 - Energy Emergency Preparedness grant to improve state emergency preparedness plan and ensure quick recovery and restoration from any energy supply disruptions. Funds are to be used to hire or retrain staff and expand state-level capacities to address challenges to the country's energy systems, including emergency situations such as blackouts, hurricanes, ice storms, and disruptions to heating supplies.
- > University of Alabama - X-ray diffractometer, glovebox, and computer equipment to provide infrastructure for solid state, solution, and theoretical actinide chemistry for the "Introduction into Radiochemistry" Curriculum



Information about your state at Energy.gov

Go to energy.gov, click the “Go” button by the Recovery box.

A screenshot of the Energy.gov website. The top navigation bar includes "ABOUT DOE | ORGANIZATION | NEWS | CONTACT US" and a search box with a "GO" button. The main header features the U.S. Department of Energy logo and the text "U.S. DEPARTMENT OF ENERGY". Below the header is a navigation menu with categories: "SCIENCE & TECHNOLOGY", "ENERGY SOURCES", "ENERGY EFFICIENCY", "THE ENVIRONMENT", "PRICES & TRENDS", "NATIONAL SECURITY", and "SAFETY & HEALTH". The main content area is divided into three columns: "QUICK CLICKS", "IN THE NEWS", and "SPECIAL FEATURES". The "QUICK CLICKS" column lists links for consumers, researchers, educators, students & kids, and employees, along with an "ENERGY SAVINGS TIPS" section. The "IN THE NEWS" column features a video player titled "The Future of Biofuels" with a play button overlay. The "SPECIAL FEATURES" column includes a section titled "ENERGY.GOV/RECOVERY" with a "GO" button circled in red, and a section titled "WHY WEATHERIZE?".



Information about your state at Energy.gov

Scroll to the bottom of the page, you will see a map. Click your state.

A screenshot of the Energy.gov website interface. At the top right, there is a button labeled "View list of awardees / program chart data". Below this is a dark grey header with the text "FIND OUT ABOUT FUNDING IN YOUR STATE". The main content area features a map of the United States with each state labeled with its two-letter abbreviation. Below the map, there is a blue hyperlink: "[Information on how the Recovery Act is being implemented in the District of Columbia, Tribal Nations, and U.S. territories](#)". At the bottom of the page, there are three logos: "GRANTS.GOV" with a red and orange swoosh, "FEDBIZOPPS.GOV" with a blue star, and "RECOVERY ACT LEGISLATION". A green footer bar at the very bottom contains the text "Inspector General | DOE Directives | Small Business".



Information about your state at Energy.gov

On the state pages, you will see a description, Recovery Act figures...

IN YOUR STATE

You are here: [DOE Home](#) > [In Your State](#) > [North Carolina](#)

North Carolina



North Carolina ranks seventh in nuclear capacity with the state's three nuclear power plants providing over 30% of its electricity. There are also nearly 100 primarily hydroelectric, renewable, power plants in North Carolina.

Recovery Act Spending

Weatherization	\$131,954,536
State Energy Program	\$75,989,000
Energy Efficiency & Conservation Block Grant Program	\$58,050,300
Total	\$265,993,836





Information about your state at Energy.gov

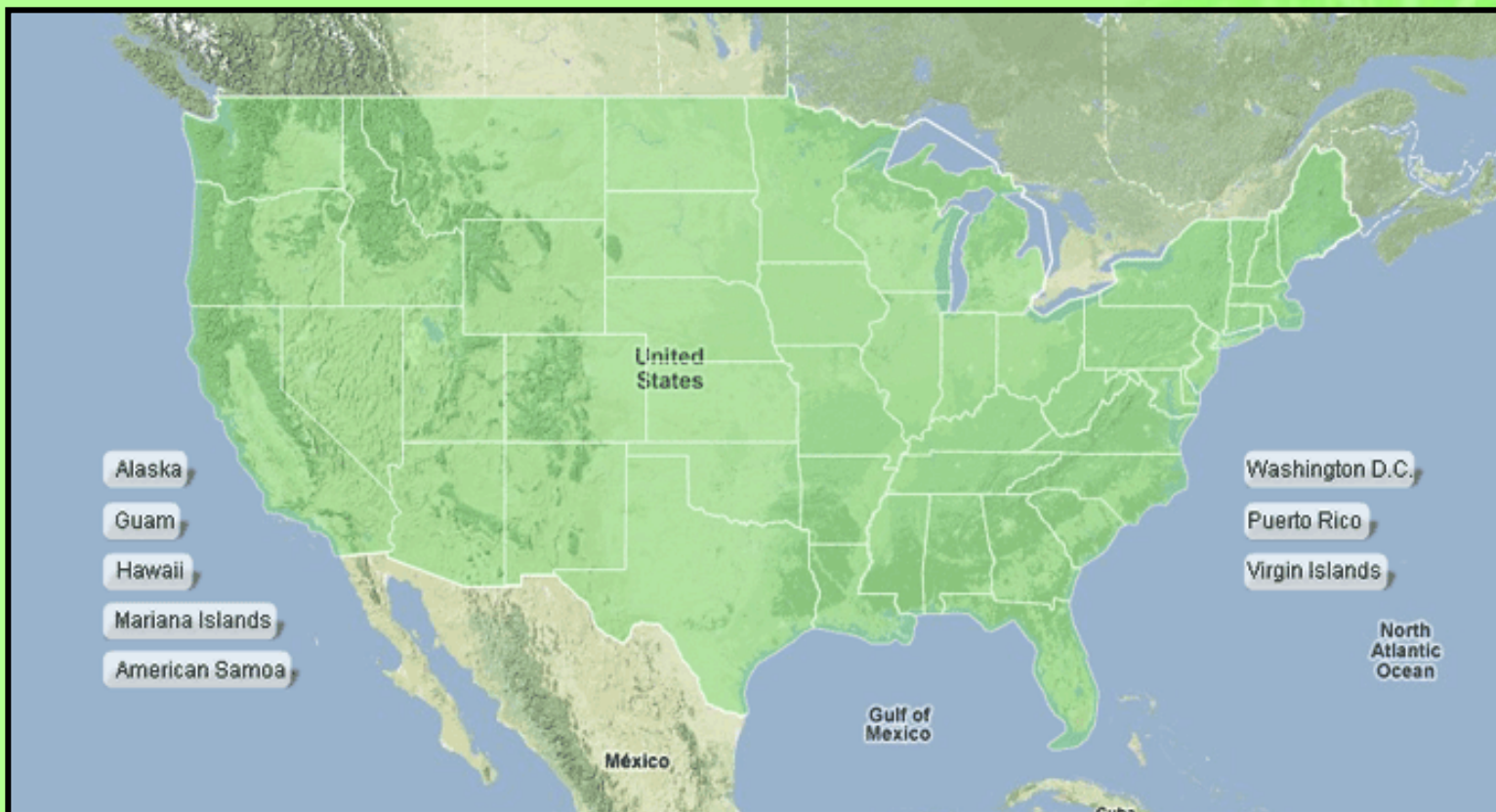
...press releases, and state energy office information.

Montana	Latest News	
Nebraska	08.06.09 :: DOE Awards \$377 Million in Funding for 46 Energy Frontier Research Centers READ FULL TEXT	
Nevada	08.05.09 :: Batteries Announcement - North Carolina READ FULL TEXT	
New Hampshire	08.05.09 :: President Obama Announces \$2.4 Billion in Grants to Accelerate the Manufacturing and Deployment of the Next Generation of U.S. Batteries and Electric Vehicles READ FULL TEXT	
New Jersey	07.29.09 :: DOE Announces Awards for up to \$11 Million for New Solar Energy Grid Integration Systems READ FULL TEXT	
New Mexico	07.16.09 :: DOE Announces Nearly \$14 Million to go to 28 New Wind Energy Projects READ FULL TEXT	
New York		
North Carolina		
North Dakota		
Ohio		
Oklahoma		
Oregon		
Pennsylvania		
Rhode Island		
South Carolina		
South Dakota		
Tennessee		
Texas		
Utah		
Vermont		
	ENERGY OFFICES	FACILITIES
	State Energy Office	
		RELATED LINKS
		DOE North Carolina 2009 Budget Request



Information about your state at Energy.gov

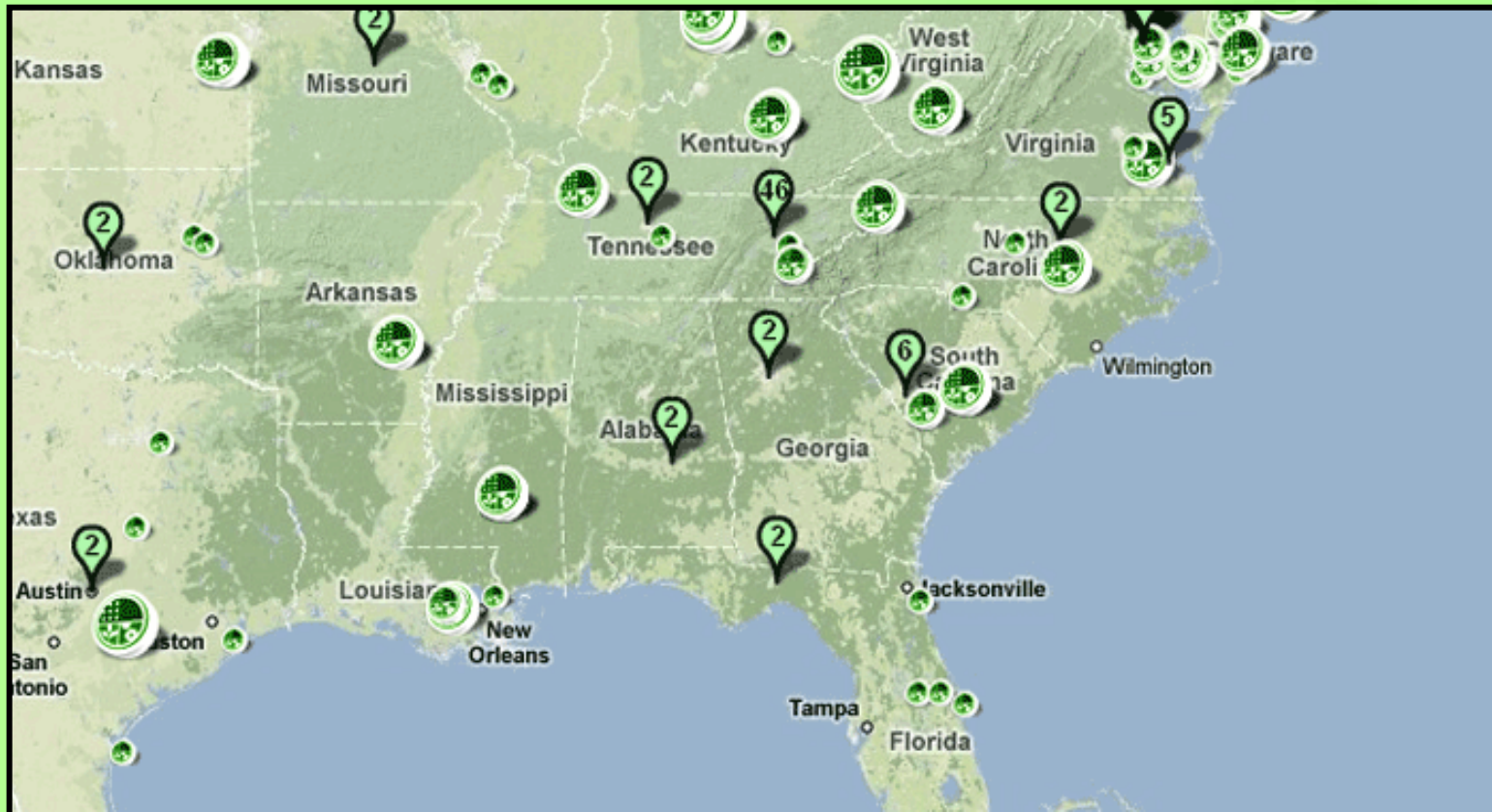
Coming soon, we will be featuring a geospatial map that will track all Recovery Act award data...





Information about your state at Energy.gov

State drill downs will be available, and awards are updated weekly.





Department of Energy Call Center

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