

Department of Energy

FY 2011 Congressional Budget Request



Energy Efficiency and Renewable Energy
Electricity Delivery and Energy Reliability
Energy Transformation Acceleration Fund
Fossil Energy Research and Development
Naval Petroleum and Oil Shale Reserves
Strategic Petroleum Reserve
Northeast Home Heating Oil Reserve
Clean Coal Technology
Ultra-Deepwater Unconventional Natural Gas

Congressionally Directed Projects

Funding Profile by Subprogram

(dollars in thousands)

FY 2009	FY 2010	FY 2011
---------	---------	---------

Congressionally Directed Projects	228,803	292,135	0
--	---------	---------	---

Description

The Energy and Water Development and Related Agencies Appropriation Act, 2010 included 295 congressionally directed projects within the Office of Energy Efficiency and Renewable Energy. Funding for these projects was appropriated as a separate funding line although specific projects may relate to ongoing work in a specific programmatic area.

Detailed Justification

(dollars in thousands)

FY 2009	FY 2010	FY 2011
---------	---------	---------

Congressionally Directed Projects

<ul style="list-style-type: none"> ▪ 21st Century Renewable Fuels, Energy, and Materials Initiative (MI) 	0	1,250	0
<ul style="list-style-type: none"> ▪ A123 Systems Large Format Nanophosphate Batteries for Solar Energy Storage (MI) 	0	1,000	0
<ul style="list-style-type: none"> ▪ Alternate Fuel Cell Membranes for Energy Independence at the University of Southern Mississippi (MS) 	952	0	0
<ul style="list-style-type: none"> ▪ Adaptive Liquid Crystal Windows (OH) 	952	0	0
<ul style="list-style-type: none"> ▪ Advanced Automotive Fuels Research, Development, & Commercialization Cluster (OH) 	0	1,000	0
<ul style="list-style-type: none"> ▪ Advanced Battery Manufacturing (VA) 	0	200	0
<ul style="list-style-type: none"> ▪ Advanced Engineered Rapidly Deployable Manufacturing Methods and Materials for Environmentally Benign and Energy Efficient Housing (VA) 	476	0	0
<ul style="list-style-type: none"> ▪ Advanced Power Batteries for Renewable Energy Applications (PA) 	351	0	0
<ul style="list-style-type: none"> ▪ Advanced Power Cube for Wind Power and Grid Regulation Services (PA) 	0	500	0
<ul style="list-style-type: none"> ▪ Agri-business Energy Independence Demonstration (NY) 	0	80	0
<ul style="list-style-type: none"> ▪ Alabama Institute for Deaf and Blind Biodiesel Project Green (AL) 	0	300	0
<ul style="list-style-type: none"> ▪ Algae Biofuels Research (WA) 	0	2,000	0
<ul style="list-style-type: none"> ▪ Algae to Ethanol Research and Evaluation (NJ) 	0	750	0
<ul style="list-style-type: none"> ▪ Algal-based Renewable Energy for Nevada (NV) 	714	800	0
<ul style="list-style-type: none"> ▪ Alternative and Unconventional Energy Research and Development 	0	10,000	0

(dollars in thousands)

	FY 2009	FY 2010	FY 2011
(UT)			
▪ Alternative Crops and Biofuels Production (OK)	285	0	0
▪ Alternative Energies Workforce Applications Education and Training Program (OH)	952	0	0
▪ Alternative Energy Engineering Technology (VA)	95	0	0
▪ Alternative Energy for Higher Education (NE)	1,142	0	0
▪ Alternative Energy School of the Future (NV)	1,189	1,200	0
▪ Alternative Energy Training Institute (CA)	0	500	0
▪ Alternative Fuel Bus Project, Schaghticoke, NY (NY)	0	300	0
▪ Anaerobic Digester and Combined Heat Power Project (MO)	571	0	0
▪ Anchorage Regional Landfill (AK)	714	0	0
▪ Ann Arbor Wind Generator for Water Treatment Plant (MI)	952	0	0
▪ Anti-idling Lithium Ion Battery Program (CA)	952	0	0
▪ Atlanta International Terminal LEED Certification (GA)	476	0	0
▪ Auburn University Bioenergy and Bioproducts Laboratory (NY)	951	0	0
▪ Auburn University, Biomass to Liquid Fuels and Electric Power Research (AL)	0	1,500	0
▪ Bayview Gas to Energy Project (UT)	0	1,000	0
▪ Ben Franklin Technology Partners - Clean Technology Commercialization Initiative (PA)	951	500	0
▪ Bexar County Solar Collection Farm and Distribution System (TX)	476	1,000	0
▪ Bio Energy Initiative for Connecticut (CT)	0	1,500	0
▪ Biodiesel Blending (WI)	0	600	0
▪ Bio-diesel Cellulosic Ethanol Research Facility (FL)	951	0	0
▪ Biodiesel Feedstock Development Initiative (MO)	0	1,000	0
▪ Biodiesel Production from Grease Waste (CA)	0	250	0
▪ Bioeconomy Initiative at MBI International (MI)	476	0	0
▪ Bioenergy Demonstration Project: Value-Added Products from Renewable Fuels (NE)	1,903	0	0
▪ Bioenergy/Bionanotechnology Projects (LA)	0	500	0
▪ Biofuel Micro-refineries for Local Sustainability (TN)	0	500	0
▪ Biofuels Campus for Accelerated Development (NC)	0	500	0
▪ Biofuels Development at Texas A&M (TX)	951	0	0
▪ Biofuels Research and Development Infrastructure (WA)	476	0	0
▪ Biofuels Research Laboratory (KT)	0	1,000	0
▪ Biofuels, Biopower and Biomaterials Initiative (GA)	0	1,250	0
▪ Biogas Center of Excellence (MI)	951	0	0
▪ Biomass Energy Generation Project (IA)	285	0	0
▪ Biomass Energy Resources Center (VT)	1,427	1,000	0
▪ Biomass Fuel Cell Systems (CO)	1,665	0	0

(dollars in thousands)

	FY 2009	FY 2010	FY 2011
▪ Biomass Gasification Research and Development Project (WA)	951	0	0
▪ Bioprocesses Research and Development, Michigan Biotechnology Institute, Lansing, MI (MI)	0	500	0
▪ Biorefinery Demonstration Project, UGA, Athens (GA)	1,189	0	0
▪ Biorefinery for Ethanol, Chemicals, Animal Feed and Biomaterials from Sugarcane Bagasse (LA)	951	0	0
▪ Biorefining for Energy Security Project, OU-Lancaster (OH)	951	0	0
▪ Black Hills State Heating and Cooling Plant (SD)	0	1,000	0
▪ Boulder SmartGridCity - Plug-In Electric Hybrid Vehicles (CO)	0	500	0
▪ Bridge Hydro-Turbine Study (OR)	0	150	0
▪ Brookston Wind Turbines Study, Brookston, IN (IN)	0	75	0
▪ California Polytechnic State University Center for Renewable Energy and Alternative Electric Transportation Technologies Equipment Acquisition (CA)	0	250	0
▪ Carbon Neutral Green Campus (NV)	381	0	0
▪ Cayuga County Regional Digester Facility (NY)	476	0	0
▪ Cellulosic Diesel Biorefinery (NJ)	0	1,000	0
▪ Center for Applied Alternative Energy, Sustainable & Practices (FL)	0	500	0
▪ Center for Biomass Utilization (ND)	2,000	7,000	0
▪ Center for Clean Fuels and Power Generation at the University of Houston (TX)	476	0	0
▪ Center for Efficiency in Sustainable Energy Systems (OH)	1,903	0	0
▪ Center for Energy Storage Research (TX)	0	1,000	0
▪ Center for Environmental and Energy Research (NY)	0	250	0
▪ Center for International Intelligent Transportation Research (TX)	523	0	0
▪ Center for Nanoscale Energy (ND)	4,757	5,000	0
▪ Center for Ocean Renewable Energy (NH)	0	750	0
▪ Center for Renewable Energy, Science and Technology (TX)	1,403	0	0
▪ Center of Excellence in Ocean Energy Research and Development, Florida Atlantic University (FL)	1,189	0	0
▪ Central Corridor Energy District Integration Study (MN)	0	500	0
▪ Central Piedmont Community College (NC)	0	525	0
▪ Central Vermont Recovered Biomass Facility (VT)	951	500	0
▪ Chariton Valley Densification - Phase II (IA)	951	0	0
▪ Christmas Valley Renewable Energy Development (OR)	381	410	0
▪ City Hall Leadership in Energy and Environmental Design (LEED) Certification (FL)	0	500	0
▪ City of Boise Geothermal Expansion to Boise State University (ID)	1,427	1,000	0
▪ City of Grand Rapids Solar Roof Demonstration Project (MI)	142	250	0
▪ City of Las Vegas Plug-In Hybrid Vehicle Demonstration Program	142	0	0

(dollars in thousands)

	FY 2009	FY 2010	FY 2011
(NV)			
▪ City of Louisville Energy Conservation Initiative (KY)	142	0	0
▪ City of Markham Community Center (IL)	238	0	0
▪ City of Miami Green Initiative (FL)	951	0	0
▪ City of Norco Waste-to-Energy Facility (CA)	0	750	0
▪ City of Oakdale Energy Efficiency Upgrades (MN)	0	400	0
▪ City of Redlands Facilities Upgrades to Improve Energy Efficiency (CA)	0	900	0
▪ City of Tallahassee Innovative Energy Initiatives (FL)	571	250	0
▪ City of Winter Garden Weatherization Demonstration Project (FL)	0	200	0
▪ Clean and Efficient Diesel Engine (PA)	1,189	0	0
▪ Clean Power Energy Research Consortium (CPERC) (LA)	1,903	1,000	0
▪ Clean Technology Evaluation Program (MA)	476	0	0
▪ Clemson University Cellulosic Biofuel Pilot Plant (SC)	476	1,000	0
▪ Clemson University Cellulosic Biofuel Pilot Plant in Charleston (SC)	951	0	0
▪ Closed Loop Woody Biomass Project (NY)	476	0	0
▪ Cloud County Community College Renewable Energy Center of Excellence (KS)	0	750	0
▪ Coastal Ohio Wind Project: Removing Barriers to Great Lakes Offshore Wind Energy Development (OH)	952	1,000	0
▪ Columbia Gorge Community College Wind Energy Workforce Training Nacelle (OR)	238	0	0
▪ Commercial Building Energy Efficiency Demonstration (IL)	0	500	0
▪ Comprehensive Wind Energy Program, Purdue University-Calumet, IN (IN)	0	500	0
▪ Compressed Natural Gas Fueling Facility (MO)	0	700	0
▪ Concentrator Photovoltaic Technology (AZ)	0	900	0
▪ Consolidated Alternative Fuels Research (OK)	0	250	0
▪ Consortium for Plant Biotechnology Research (Multiple States)	3,806	3,000	0
▪ Controlled Environmental Agriculture and Energy Project (NY)	476	200	0
▪ Cooling, Heating and Power (Micro-CHP) and Bio-fuel Application Center (MS)	1,903	2,000	0
▪ Creighton University Training & Research in Solar Power (NE)	0	1,200	0
▪ Daemen College Alternative Energy/Geothermal Technologies Demonstration Program, Erie County, NY (NY)	0	950	0
▪ Dedham Municipal Solar Project (MA)	0	500	0
▪ Demonstration Plant for Biodiesel Fuels from Low-impact Crops (IL)	0	500	0
▪ Design and Implementation of Geothermal Energy Systems at West Chester University (PA)	0	300	0

(dollars in thousands)

	FY 2009	FY 2010	FY 2011
▪ Developing New Alternative Energy in Virginia: Bio-diesel from Algae (VA)	714	0	0
▪ Development of an Economic and Efficient Biodiesel Production Process (NC)	0	750	0
▪ Development of Biofuels (NV)	1,024	0	0
▪ Development of Biofuels Using Ionic Transfer Membranes (NV)	0	1,500	0
▪ Development of High Yield Feedstock and Biomass Conversion Technology for Development of High Yield Tropical Feedstocks and Biomass Conversion (HI)	0	6,000	0
▪ Development of High Yield Feedstock and Biomass Conversion Technology for Renewable Energy Production and Economic Development (HI)	1,427	0	0
▪ Development of Pollution Prevention Technologies (NY)	0	900	0
▪ Downtown Detroit Energy Efficiency Street Lighting (MI)	951	0	0
▪ DRI Renewable Energy Center (REC) (NV)	476	500	0
▪ Dueco Plug-in Hybrid Engines (WI)	1,903	0	0
▪ East Kentucky Bioenergy Capacity Assessment Project (KY)	0	250	0
▪ Eastern Illinois University Biomass Plant (IL)	0	1,000	0
▪ Ecologically Sustainable Campus-New England College (NH)	300	0	0
▪ Energy Audit, Efficiency Improvements, and Renewable Energy Installations, Township of Branchburg, NJ (NJ)	0	1,000	0
▪ Energy Conservation and Efficiency Upgrade of HVAC Controls (NY)	0	500	0
▪ Energy Conservation Upgrades, Ingham Regional Medical Center, Lansing, MI (MI)	0	250	0
▪ Energy Efficiency Enhancements (AL)	0	250	0
▪ Energy Efficiency Repairs and Air Quality Improvements at Lyonsdale Biomass (NY)	0	500	0
▪ Energy Efficiency Upgrades, New Rochelle, NY (NY)	0	1,000	0
▪ Energy Efficiency/Sustainable Energy Project (NC)	951	0	0
▪ Energy Efficient Buildings, Salt Lake County, Utah (UT)	618	0	0
▪ Energy Efficient Electronics Cooling Project (IN)	952	0	0
▪ Energy Efficient Lighting Project (KY)	190	0	0
▪ Energy Production Through Anaerobic Digestion (NJ)	476	0	0
▪ Energy Reduction and Efficiency Improvement Through Lighting Control (PA)	0	120	0
▪ Energy Saving Retrofitting for the CFCC Main Campus (FL)	0	300	0
▪ Energy Storage/Conservation and Carbon Emissions Reduction Demonstration Project (MA)	0	400	0
▪ Energy Efficient Innovations for Healthy Buildings (NY)	0	500	0
▪ EngenuitySC Commercialization and Entrepreneurial Training Project (SC)	0	500	0

(dollars in thousands)

	FY 2009	FY 2010	FY 2011
▪ Environmental Impact Protocols for Tidal Power (ME)	0	1,000	0
▪ Environmental System Center at Syracuse University (NY)	714	0	0
▪ Ethanol from Agriculture (AR)	951	500	0
▪ Ethanol Pilot Plant (MA, CT)	2,664	0	0
▪ Fairbanks Geothermal Energy Project (AK)	0	1,000	0
▪ Fairview Department of Public Works Building and Site Improvements (NY)	0	500	0
▪ Fallon Paiute-Shoshone Tribe Demonstration Energy Park (NV)	0	200	0
▪ Farm Deployable Microbial BioReactor for Fuel Ethanol Production (AL)	0	800	0
▪ Fast Charging Electric Vehicle Demonstration Project in Charlottesville, Virginia (VA)	0	500	0
▪ Feasibility Study and Design of "Brightfield" Solar Farm (PA)	0	200	0
▪ Flexible Thin-Film Silicon Solar Cells (OH)	1,189	0	0
▪ Florida Renewable Energy Program (FL)	714	1,000	0
▪ Fluid Flow Optimization of Aerogel Blanket Process Project (MA)	1,427	300	0
▪ Forestry Biofuel Statewide Collaboration Center (MI)	1,427	0	0
▪ Fort Mason Center Pier 2 Project (CA)	0	2,000	0
▪ Frostburg State University Sustainable Energy Research Facility Equipment and Staffing (MD)	856	0	0
▪ Fuel Cell Optimization and Scale-up (PA)	351	0	0
▪ Gadsden State Community College Green Operations Plan (AL)	0	75	0
▪ Gas Heat Pump Cooperative Training Program (NV)	0	250	0
▪ Genetic Improvement of Switchgrass (RI)	1,427	1,500	0
▪ Georgetown South Commercial Park, Photovoltaic Generation Facility (TX)	0	100	0
▪ Georgia Southern University Biodiesel Research (GA)	0	250	0
▪ Geothermal Development in Hot Springs Valley (MT)	0	491	0
▪ Geothermal Energy Project at Roberts Wesleyan College (NY)	476	0	0
▪ Geothermal Power Generation Plant at Oregon Institute of Technology (OR)	1,522	1,000	0
▪ Global Green New Orleans - Holy Cross Project (LA)	0	550	0
▪ Gogebic Community College (GCe) - Campus Energy Efficient and Weatherization Upgrade (MI)	0	300	0
▪ Great Basin College Direct-use Geothermal Demonstration Project (NV)	683	1,000	0
▪ Great Lakes Institute for Energy Innovation (OH)	951	1,000	0
▪ Great Plains Wind Power Test Facility, Texas Tech University, Lubbock, TX (TX)	1,903	2,000	0
▪ Green Building Research Laboratory (OR)	0	1,000	0
▪ Green Buildings - Bradley University (IL)	476	0	0

(dollars in thousands)

	FY 2009	FY 2010	FY 2011
▪ Green Buildings - Lakeview Museum (IL)	238	0	0
▪ Green Buildings/Retrofitting (VA)	0	350	0
▪ Green Collar and Renewable Energy Training Program, AB Technical Community College (NC)	666	0	0
▪ Green Energy Job Training Initiative (CA)	238	0	0
▪ Green Fuels Depot (IL)	0	1,500	0
▪ Green Power Initiative (IA)	951	0	0
▪ Green Roof Demonstration Project (IN)	0	600	0
▪ Green Roof for the DuPage County Administration Building (IL)	0	250	0
▪ Green Roof Project - Greene County (MO)	476	0	0
▪ Green Vehicle Depot (NY)	285	0	0
▪ Greenfield Community College Hybrid Geo-thermal Project (MA)	0	525	0
▪ Hardin County General Hospital Energy Efficiency Upgrades (IL)	0	500	0
▪ Harlem United Supportive Housing Fund Wind Power Project (NY)	48	0	0
▪ Hawaii Energy Sustainability Program (HI)	3,116	6,000	0
▪ Hawaii Renewable Energy Development Venture (HI)	0	6,000	0
▪ Henderson, Solar Energy Project (NV)	0	500	0
▪ Hidalgo County Waste-to-Energy Project (TX)	119	0	0
▪ High Carbon Fly Ash Use for the U.S. Cement Industry (UT)	951	0	0
▪ High Penetration Wind Power in Tatitlek (AK)	0	900	0
▪ High Performance, Low Cost Hydrogen Generation from Renewable Energy (CT)	952	0	0
▪ High Speed Wind Turbine Noise Model with Suppression (MS)	0	1,000	0
▪ High Temperature Hydrogen Generation Systems (SC)	0	300	0
▪ Hollow Glass Microspheres (NV)	523	0	0
▪ Hospital Lighting Retrofit (IL)	0	500	0
▪ Housatonic River Net-Zero-Energy Building (MA)	0	1,000	0
▪ Hull Municipal Light Plant Offshore Wind Project (MA)	952	750	0
▪ Hydroelectric Power Generation, Quincy (IL)	476	0	0
▪ Hydrogen Optical Fiber Sensors (CA)	952	0	0
▪ Hydrogen Production and Delivery Technology (CT)	0	500	0
▪ Hydrogen Storage System for Vehicular Propulsion (DE)	1,427	0	0
▪ Hydropower from Wastewater Advanced Energy Project (NY)	476	0	0
▪ HyperCAST R&D Funding for Vehicle Energy Efficiency (CO)	1,427	750	0
▪ Illinois Community College Sustainability Network (IL)	0	250	0
▪ Illinois Energy Resources Center at the University of Illinois at Chicago (IL)	0	400	0
▪ Illinois State University-Biomass Research Project (IL)	476	0	0
▪ Improving Fuel Cell Durability and Reliability Initiative (CT)	0	2,500	0

(dollars in thousands)

	FY 2009	FY 2010	FY 2011
▪ Independent Energy Community Renewable Power System (UT)	0	1,000	0
▪ Installation of a Solar Canopy (MA)	0	534	0
▪ Institute for Sustainable Energy (AL)	0	1,000	0
▪ Integrated Biomass Refining Institute (NC)	1,208	1,000	0
▪ Integrated Power for Microsystems (NY)	951	250	0
▪ Integrated Renewable Energy & Campus Sustainability Initiative (IA)	0	750	0
▪ Integrated Sustainability Initiative (NV)	951	0	0
▪ Intelligent Controls for Net-Zero Energy Buildings (NE)	476	0	0
▪ Intelligent Facades for High Performance Green Buildings (NY)	714	0	0
▪ Iowa Central Renewable Fuel Testing Laboratory (IA)	476	750	0
▪ Iowa Lakes Community College Sustainable Energy Edu. Center (IA)	476	0	0
▪ Isles Inc. Solar and Green Retrofits (NJ)	238	0	0
▪ Issaquah Highlands Zero Energy Affordable Housing (WA)	0	500	0
▪ Jenks Energy Management Equipment (OK)	0	250	0
▪ Juniata Hybrid Locomotive (PA)	714	1,000	0
▪ Kansas Biofuels Certification Laboratory (KS)	990	0	0
▪ Kansas State University Center for Sustainable Energy (KS)	714	500	0
▪ Kansas Wind Energy Consortium (KS)	714	0	0
▪ La Feria Solar Lighting Initiative (TX)	0	500	0
▪ La Samilla Solar Trough Storage Project (NM)	1,903	0	0
▪ Lake Land College Energy Efficient Buildings (IL)	1,332	0	0
▪ Lancaster Landfill Solar Facility (MA)	0	500	0
▪ Lane Community College Energy Demonstration Building (OR)	0	550	0
▪ Large-Scale Wind Training Program, Hudson Valley Community College, Troy, NY (NY)	0	300	0
▪ Lehigh Valley Hospital Photovoltaic Panel Installation (PA)	951	0	0
▪ Lightweight Composites for Heavy-Duty Vehicles and Hydrogen Storage (WV)	476	0	0
▪ Lignocellulosic Biofuels from New Bioenergy Crops (TX)	0	1,000	0
▪ Long Island 50 MW Solar Initiative (NY)	0	1,750	0
▪ Long Island Biofuels Alliance (NY)	0	2,750	0
▪ Low Cost Production of Thin-Film Photovoltaic (PV) Cells (PA)	0	1,200	0
▪ Low Cost Thin Filmed Silicon Based Photovoltaics (NY)	476	0	0
▪ Macomb Community College Transportation and Energy Technology (MI)	476	0	0
▪ Maine Tidal Power Initiative (ME)	952	0	0
▪ Manufacturing Industrial Development for the Hydrogen Economy (MI)	761	0	0

(dollars in thousands)

	FY 2009	FY 2010	FY 2011
▪ MARET Center (MO)	951	1,500	0
▪ Marine Energy Technology (WA)	0	1,750	0
▪ Marine Renewable Energy Center (MA)	952	750	0
▪ Marquette University Anaerobic Biotechnology (WI)	476	0	0
▪ Martin County Hydrogen Fuel Cell Project (NC)	1,427	0	0
▪ Miami Children's Museum Going Green Initiative (FL)	714	1,000	0
▪ Michigan Alternative and Renewable Energy Center Offshore Wind Demonstration Project (MI)	1,427	0	0
▪ Middlesex Community College's Geothermal Project (MA)	238	0	0
▪ MidSouth/Southeast Bioenergy Consortium (AR)	1,903	1,000	0
▪ Mill Seat Landfill Bioreactor Renewable Green Power Project (NY)	1,903	1,000	0
▪ Minnesota Center for Renewable Energy (MN)	714	0	0
▪ Modular Energy Storage System for Hydrogen Fuel Cell (MI)	1,189	0	0
▪ Montana Algal Biodiesel Initiative (MT)	0	500	0
▪ Montana Bio-Energy Center of Excellence (MT)	0	2,250	0
▪ Morris County Renewable Energy Initiative (NJ)	0	2,000	0
▪ Moving Toward an Energy Efficient Campus at Maffei College (MA)	0	400	0
▪ Mt. Wachusett Community College Wind Project (MA)	1,189	1,000	0
▪ Multifunctional Solar Energy Systems Research (UT)	1,332	0	0
▪ Multi-Hybrid Power Vehicles with Cost Effective and Durable Polymer Electrolyte Membrane Fuel Cell and Lithium Ion Battery for Ohio University (OH)	0	600	0
▪ Municipal Building Energy Efficient Window Replacement Program (NJ)	0	180	0
▪ Municipal Complex Solar Power Project (NJ)	0	200	0
▪ Munster Waste-to-Energy Cogeneration Project (IN)	951	0	0
▪ Nanostructured Materials for Energy (NC)	952	1,000	0
▪ Nanostructured Materials for Improved Photovoltaics (MS)	0	1,000	0
▪ Nanostructured Solar Cells for Increased Efficiency and Lower Cost (AR)	1,189	0	0
▪ NaSi and Na-Sg Powder Hydrogen Fuel Cells (NY & NJ)	952	0	0
▪ National Agriculture-Based Industrial Lubricants (IA)	571	0	0
▪ National Center for Manufacturing Sciences Light-Weight Vehicle Materials (MI)	1,903	0	0
▪ National Center of Excellence in Energy Storage Technology (OH)	0	1,000	0
▪ National Offshore Wind Energy Center (TX)	0	2,000	0
▪ National Open-Ocean Energy Laboratory (FL)	0	2,000	0
▪ National Wind Energy Center (TX)	2,379	0	0
▪ NCMS (IL)	0	900	0

(dollars in thousands)

	FY 2009	FY 2010	FY 2011
▪ Near Zero Carbon Footprint Energy Creation Through Thermal Oxidation (PA)	0	1,000	0
▪ Neighborhood Weatherization Collaborative (CO)	0	500	0
▪ Nevada Renewable Energy Integration and Development Consortium (NV)	0	3,000	0
▪ Nevada Virtual Renewable Energy Integration and Development Center (NV)	2,560	0	0
▪ New School "Green" Building (NY)	1,903	0	0
▪ Newark Museum Alternative Energy Enhancement Program (NJ)	0	500	0
▪ Next Generation Composite Wind Blade Manufacturing Technologies (ME)	0	250	0
▪ Next Generation Wind Turbine (MA)	0	1,000	0
▪ Niagara River Hydropower (NY)	476	0	0
▪ NIREC - Nevada Institute for Renewable Energy Commercialization (NV)	476	1,000	0
▪ North Carolina Center for Automotive Research (NC)	476	0	0
▪ Northern Illinois University Transportation Energy Program (IL)	0	1,000	0
▪ Northern Nevada Renewable Energy Training Project (NV)	0	500	0
▪ Norwich Cogeneration Initiative (CT)	0	750	0
▪ Notre Dame/NiSource Geothermal Ionic Liquids Research Collaborative (IN)	952	0	0
▪ Novel Photocatalytic Metal Oxides (NE)	0	250	0
▪ NTRCI Legacy Engine Demonstration Project (TN)	0	500	0
▪ NY State Center for Advanced Ferrite Production (NY)	0	300	0
▪ Oakland University Alternative Energy Education (MI)	0	500	0
▪ Offshore Wind Initiative (ME)	0	5,000	0
▪ Offshore Wind Project Study (NY)	0	500	0
▪ Ohio Advanced Energy Manufacturing Center (OH)	952	500	0
▪ Omega Optical Solar Power Generation Development (VT)	1,427	0	0
▪ One Kilowatt Biogas Fueled Solid Oxide Fuel Cell Stack (NY)	952	0	0
▪ Orange County Solar Demonstration & Research Facility (FL)	0	300	0
▪ Oregon Solar Highway - Innovative Use of Solar Technology (OR)	951	1,000	0
▪ OU Center for Biomass Refining (OK)	714	500	0
▪ Passive NOx Removal Catalyst Research, Notre Dame University, IN (IN)	0	900	0
▪ Pecos Valley Biomass Energy Project (NM)	2,379	0	0
▪ Peru Electrical Department Wind Turbine Generation (IL)	0	1,000	0
▪ Phipps Conservatory CTI Waste-to-Energy Project (PA)	0	500	0
▪ Phoenix Children's Hospital Central Energy Plant Expansion (AZ)	0	2,000	0
▪ Photovoltaic Power Electronics Research Initiative (PERI) (FL)	0	700	0
▪ Photovoltaic System at Town Landfill in Islip (NY)	476	0	0

(dollars in thousands)

	FY 2009	FY 2010	FY 2011
▪ Pinellas County Regional Urban Sustainability Demonstration and Education Facility (FL)	476	0	0
▪ Pittsburgh Green Innovators (PA)	571	1,500	0
▪ Placer County Biomass Utilization Pilot Project (CA)	1,427	1,000	0
▪ Plug-In Hybrid Initiative (MI)	0	750	0
▪ Plug-in Hybrid and Ethanol Research Platforms (NC)	809	0	0
▪ Pope/Douglas Third Combustor Expansion (MN)	951	0	0
▪ Port of Galveston Solar Energy Project (TX)	0	250	0
▪ Prototyping and Development of Commercial Nano-Crystalline Thin Film Silicon for Photovoltaic Manufacturing (NY)	0	500	0
▪ Purdue Hydrogen Technologies Program (IN)	952	0	0
▪ Purdue Solar Energy Utilization Laboratory, West Lafayette, IN (IN)	0	425	0
▪ R&D of Clean Vehicle Technology (OH)	0	1,000	0
▪ Redirection of FY 2008 for Biodiesel Injection Blending Facilities (PA)	-702	0	0
▪ Renewable Energy Center (NC)	0	750	0
▪ Renewable Energy Clean Air Project (RECAP) (MN)	952	1,000	0
▪ Renewable Energy Demonstration (IL)	0	500	0
▪ Renewable Energy Development Venture (HI)	3,799	0	0
▪ Renewable Energy Feasibility Study (NJ)	476	0	0
▪ Renewable Energy Feasibility Study and Resources Assessment (NV)	0	500	0
▪ Renewable Energy Initiative (IL)	0	500	0
▪ Renewable Energy Initiatives for Clark County, Nevada Parks and Recreation (NV)	0	1,000	0
▪ Renewable Energy/Disaster Backup System for Hawaii Red Cross Headquarters Building (HI)	0	240	0
▪ Renewable/Alternative Energy Center (FL)	951	0	0
▪ Renewable/Sustainable Biomass Project (AK)	476	0	0
▪ Research and Development of Liquid Carriers for Hydrogen Energy (WA)	0	500	0
▪ Research on Fuel Cell Powered by Hydrogen Production from Biomass to Provide Clean Energy for Remote Farms Away from Electric Grids (NY)	0	675	0
▪ Rhode Island Ocean Special Area Management Plan (RI)	666	0	0
▪ Richland Community College Bioenergy Program (IL)	0	500	0
▪ Running Springs Retreat Center Solar Upgrade (CA)	0	1,000	0
▪ Saint Joseph's University Institute for Environmental Stewardship (PA)	0	1,000	0
▪ San Diego Center for Algae Biotechnology (SD-CAB) (CA)	0	750	0
▪ San Francisco Biofuels Program (CA)	951	0	0

(dollars in thousands)

	FY 2009	FY 2010	FY 2011
▪ San Francisco Electric Vehicle Initiative (CA)	0	1,000	0
▪ Sandia National Lab Concentrating Solar (NM)	2,855	0	0
▪ Sapphire Algae to Fuel Demonstration Project Portales (NM)	951	0	0
▪ Senior Housing Project Green Building, Cerritos (CA)	381	0	0
▪ Shenandoah Valley as a National Demonstration Project Achieving 25 Percent Renewable Energy by the Year 2025 (VA)	0	750	0
▪ Show Me Energy Cooperative Biomass Development (MO)	0	900	0
▪ Smart Energy Program (CT)	0	500	0
▪ Snohomish County PUD No. 1 Geothermal Energy Study (WA)	476	0	0
▪ Solar Compactor Energy Efficiency Research Demonstration Project (MA)	0	300	0
▪ Solar Demonstration and Research Facility (FL)	238	0	0
▪ Solar Electric Power for Nonsectarian Educational and Social Services Facilities (NV)	0	500	0
▪ Solar Electric Power System (NY)	67	0	0
▪ Solar Energy Development (ME)	0	800	0
▪ Solar Energy Parking Canopy Demonstration Project (CA)	0	3,000	0
▪ Solar Energy Program (FL)	0	800	0
▪ Solar Energy Research Center Instrumentation Facility, University of North Carolina at Chapel Hill (NC)	0	1,000	0
▪ Solar Energy Windows and Smart IR Switchable Buildings (PA)	1,189	0	0
▪ Solar Energy Zone Planning and Infrastructure for the Nevada Test Site and Adjacent Lands (NV)	0	1,000	0
▪ Solar Furnace Research Program, Valparaiso University, IN (IN)	0	500	0
▪ Solar Hot Water Project in Greenburgh, NY (NY)	0	169	0
▪ Solar Lighting Demonstration Project (NV)	761	0	0
▪ Solar Lighting for Artesia Parks (CA)	0	250	0
▪ Solar Panel Expansion Initiative (TX)	0	500	0
▪ Solar Panels and Environmental Education (NJ)	951	0	0
▪ Solar Panels for the Haverhill Citizens Energy Efficiency (MA)	238	0	0
▪ Solar Panels in Municipal Owned Buildings (NJ)	0	1,000	0
▪ Solar Panels on Hudson County Facilities (NJ)	0	500	0
▪ Solar Pioneer and Solar Entrepreneur Programs (NY)	0	500	0
▪ Solar Power for Maywood (NJ)	0	300	0
▪ Solar Power Generation (NJ)	285	0	0
▪ Solar Powered Compressed Natural Gas Refueling Station (NY)	0	500	0
▪ Solar Powered Lighting for Forest Preserve District of DuPage County, IL (IL)	0	300	0
▪ Solar Thermal Demonstration Project (NV)	1,189	0	0
▪ Solid Oxide Fuel Cell Systems PVL Pilot Line (OH)	0	1,000	0

(dollars in thousands)

	FY 2009	FY 2010	FY 2011
▪ Somerset County Renewable Energy Initiative (NJ)	0	2,000	0
▪ South Jersey Wind Turbines (NJ)	0	500	0
▪ Southern Pine Based Biorefinery Center (GA)	0	1,000	0
▪ Southern Regional Center for Lightweight Innovative Designs (MS)	3,806	4,000	0
▪ Southwest Alaska Regional Geothermal Energy Project (AK)	2,855	2,500	0
▪ Springfield Hospital Green Building (OH)	3,806	0	0
▪ St. Clair Community College (MI)	190	0	0
▪ St. Luke's Miners Memorial Hospital Energy Efficiency Improvement Project (PA)	0	525	0
▪ St. Marks Refinery Redevelopment (OH)	0	350	0
▪ St. Petersburg Solar Pilot Project (FL)	1,427	1,000	0
▪ St. Petersburg Sustainable Biosolids/Renewable Energy Plant (FL)	0	2,500	0
▪ Stamford Waste-to-Energy Project (CT)	1,903	0	0
▪ State Colleges' (VSC) Statewide Energy Efficiency and Renewable Energy Initiative (VT)	0	450	0
▪ Storage Tanks and Dispensers for E85 and Bio-diesel (IL)	376	0	0
▪ Strategic Biomass Initiative (MS)	476	500	0
▪ Street Lighting Fixture Energy Efficiency Retrofit Project (CA)	0	500	0
▪ Sun Grant Initiative (SD)	3,806	2,750	0
▪ Sustainable Algal Energy Production and Environmental Remediation (VA)	0	500	0
▪ Sustainable Energy for Homes and Businesses (VT)	714	0	0
▪ Sustainable Energy for Vermont Schools Competition (VT)	856	0	0
▪ Sustainable Energy Options for Rural Nebraska (FL)	0	500	0
▪ Sustainable Energy Research Center (MS)	10,466	10,000	0
▪ Sustainable Hydrogen Fueling Station, California State University Los Angeles (CA)	476	0	0
▪ Sustainable Las Vegas (NV)	951	0	0
▪ Sweet Sorghum Alternative Fuel and Feed Pilot Project (AZ)	0	750	0
▪ Switchgrass Biofuel Research: Carbon Sequestration and Life Cycle Analysis (FL)	0	500	0
▪ Synthesis of Renewable Biofuels from Biomass (MT)	0	500	0
▪ The Biorefinery in New York-Bio Butanol from Biomass (NY)	0	400	0
▪ The Boston Architectural College's Urban Sustainability Initiative (MA)	0	1,600	0
▪ The CUNY Energy Institute (NY)	0	1,550	0
▪ The Institute for Energy, Environment, and Sustainability (KS)	714	0	0
▪ The Johnston Avenue Solar Project (NJ)	0	500	0
▪ The Ohio State University-Ohio Agricultural Research and Development Center (OH)	381	0	0

(dollars in thousands)

	FY 2009	FY 2010	FY 2011
▪ The Solar Energy Consortium (NY)	1,903	2,250	0
▪ Thin Film Photovoltaic Research & Development (VT)	0	500	0
▪ Thurgood Marshall College Fund Minority Energy Science Initiative: NNSA (NC)	0	3,000	0
▪ Tidal Energy Study (WA)	476	0	0
▪ Today's Leaders for a Sustainable Tomorrow: A Sustainable Energy Program (MN)	0	1,500	0
▪ Town of Mexico Geothermal Project (NY)	142	0	0
▪ Transpo Bus Operations and Maintenance Center, South Bend (IN)	952	0	0
▪ Transportable Emissions Testing Lab (WV)	952	0	0
▪ Trenton Fuel Works Cellulosic Diesel Biorefinery (NJ)	476	0	0
▪ Tucson Public Building Solar Arrays (AZ)	0	450	0
▪ Unalaska Geothermal Energy (AK)	952	0	0
▪ Unconventional and Renewable Energy Research Utilizing Computer Simulations (UT)	0	3,500	0
▪ Union Terminal (OH)	0	500	0
▪ United Way of Southeastern Michigan (MI)	0	400	0
▪ University of Akron National Polymer Innovation Center (OH)	0	1,000	0
▪ University of Arkansas at Little Rock Nanostructured Solar Cells (AR)	0	500	0
▪ University of Detroit Mercy Energy Efficient Chemistry Building Renovations (MI)	0	800	0
▪ University of Kentucky Bio-fuels Research Laboratory (KY)	428	0	0
▪ University of Louisville Research and Energy Independence Program (KY)	0	2,000	0
▪ University of New Haven Solar Testing and Training Lab (CT)	0	500	0
▪ University of North Alabama Green Campus Initiative (AL)	951	200	0
▪ University of South Carolina Aiken Biofuels Laboratory in Aiken, SC (SC)	0	456	0
▪ University of Southern Indiana Advanced Manufacturing and Engineering Equipment Project (IN)	952	0	0
▪ University of Wisconsin Oshkosh's Anaerobic Dry Digestion Facility (WI)	0	500	0
▪ University of Wisconsin-BaraboojSauk County Net-Zero Energy Building (WI)	0	500	0
▪ University of Wisconsin-Milwaukee Advanced Nanomaterials for High-Efficiency Solar Cells (WI)	0	500	0
▪ UNR - Biodiesel from Food Waste (I\IV) (NV)	0	1,000	0
▪ UNR - Great Basin Center for Geothermal Energy (I\IV) (NV)	0	1,000	0
▪ UNR - Mass Exchanger Technology for Geothermal and Solar Energy Systems (NV)	0	1,200	0
▪ Urban Wood-based Bio-energy System in Seattle (WA)	476	0	0

(dollars in thousands)

	FY 2009	FY 2010	FY 2011
▪ USD Catalysis Group for Alternative Energy (DE)	1,047	0	0
▪ UW Northwest National Marine Renewable Energy Center (WA)	0	880	0
▪ Vermont Biofuels Initiative (VT)	1,427	750	0
▪ Vermont Energy Investment Corporation (VT)	0	450	0
▪ Wallowa County Integrated Biomass Energy Center (OR)	0	500	0
▪ Warren Technology and Business Center for Energy Sustainability (OH)	0	2,700	0
▪ Washington State Biofuels Industry Development (WA)	0	1,000	0
▪ Washoe Wind Turbine Demonstration Project (NV)	0	50	0
▪ Water-to-Water Heat Pump Chillers, Phoenix Children (AZ)	1,952	0	0
▪ Wave Energy Research and Demonstration Center (OR)	2,331	0	0
▪ Western Iowa Tech Community College Renewable Energy Economy Corridor (IA)	0	500	0
▪ Western Kentucky University Research Foundation Biodiesel Project (KY)	0	500	0
▪ Wind Turbine Development (MT)	0	1,000	0
▪ Wind Turbine Electric High-Speed Shaft Brake Project (OH)	476	0	0
▪ Wind Turbine Infrastructure for Green Energy and Research on Wind Power in Delaware (DE)	0	1,000	0
▪ Wind Turbine Model and Pilot Project for Alternative Energy (DE)	1,427	0	0
▪ Winooski Community Greening Project (VT)	114	0	0
▪ Wisdom Way Solar Village - Rural Development Inc. (MA)	571	0	0
▪ Woody Biomass Project at SUNY-ESF (NY)	714	0	0
▪ WSU, National Institute for Aviation Research, Advanced Materials Research (KS)	0	1,500	0
▪ Ypsi Civic Center (IL)	0	1,000	0
Total, Congressionally Directed Projects	228,803	292,135	0

Explanation of Funding Changes

FY 2011 vs. FY 2010 (\$000)

Congressionally Directed Projects

No funding requested.

-292,135

Total, Congressionally Directed Projects

-292,135

