Morris, Alexander

From: O'Connor, Niall
Sent: Wednesday, May 27, 2009 9:27 AM
To: 'timothy.farnam@wsj.com'
Cc: Gonzalez, Michael; Hartman, Kristy; Massenburg, Kyndra; Morris, Alexander
Subject: Response to FOIA Request from Tim Farnam, The Wall Street Journal
Attachments: 2009 Earmarks v2.xls; 2007 Projects (Year-long CR).xls; 2008 Earmarks.xls; 20090316_Senatorial and Congressional Briefing.pdf; 20090522_announcement rack up.ppt; Funding Mechanisms for ARRA Programs 5.4.09.doc

Mr. Farnam,

This is in response to your FOIA request received on April 17, 2009. Please see the three attached excel spreadsheets for congressionally directed spending (earmark) information from 2007 to 2009. The other three attachments (non-excel) address your question about direction on the use of funds from the American Recovery and Reinvestment Act of 2009 (ARRA). Please note two important things:

1. 2007 was an abnormal budget year due to the year-long continuing resolution. Because of that, the Office of Management and Budget (OMB) does not consider there to be any earmarks in 2007. The spreadsheet I have attached with 2007 information is projects that were selected on a merit-based basis within DOE.
2. The ARRA information I have attached is general in nature. If you could be more specific, I would be more than happy to go back around to the ARRA contacts at DOE to get you what you need. I assume you have already read the direction provided in the ARRA bill and explanatory statement as well as publicly available information on the OMB site? If not, I would suggest starting there.

Please let me know if you have any questions or concerns.

Thank you,

Niall O'Connor

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Energy and Water Development Appropriations
FY 2007 Supported Congressionally Directed Activities

Program Activity	Amount ($M)
Electricity Delivery and Energy Reliability	
System Control and Data Acquisition (SCADA)	8.000
Electricity Transmission, Distribution, and Energy Assurance (Allegheny Power, Modern Grid, NETL)	0.624
Energy Research and Development Center at University of Missouri - Rolla	0.300
Hawaii/New Mexico Sustainable Energy Project	0.400
Load Control System Reliability	0.150
National Center for Reliable Electric Power Transmission	0.150
Energy Grid Modernization Project at Florida State University	0.400
Optimization of High Voltage Transmission Lines at Tennessee Tech	0.500
Electric Advanced Technology Center (IL)	0.250
Utility Transformation Program (WA)	0.300
Power Technologies Project (CT)	0.200
Energy Efficiency and Renewable Energy	
Utah State University - Renewable Energy for Rural Economic Development Project (RERED)	0.250
Sandia National Lab Megawatt Demonstration Concentrating Solar Project	1.500
Biomass Energy Conservation Project at Iowa State University (BEACON)	0.500
Woody Biomass Project at SUNY-ESF	0.750
Bioeconomy Initiative at MBI International	0.500
Environmental Management	
AEA Technologies	4.000
Hazardous Waste Worker Training	10.000
Hazardous Materials Management and Emergency Response (HAMMER)	5.500
Preservation of B Reactor as a Historical Landmark	0.500
Self Reliance Foundation/Hispanic Communication Network	0.750
Diagnostic Instrumentation and Analysis Laboratory (DIAL)	4.000
Western Environmental Technology Office (WETO)	4.000
Support Consolidation of All DOE Records at Carlsbad Relevant to the Operations of WIPP and TRU Waste Stored in the Repository	2.500
Community of Carlsbad for Educational Support, Infrastructure Improvements, and Related Initiatives to Address the Impacts of Accelerated Operations at WIPP	1.000
Support Remote Handled Operations once permits have been approved.	2.200
Continue Remediation of Low Level Nuclear Waste using Ceramic Ionic Transport Membranes Project	2.000
Inland Northwest Research Alliance (INRA) Consortium of Universities	1.000
Florida International University (FIU)	4.000
Fossil Energy	

Energy and Water Development Appropriations
FY 2007 Supported Congressionally Directed Activities

Program Activity	Amount ($M)
Center for Zero Emission Research and Technology	2.000
Powerspan Electro Catalytic Oxidation	0.500
Arctic Energy Office	1.000
Center for Advanced Separations Technology (CAST)	0.500
RamGen Engine Development	1.500
ITM Syngas Project	2.000
Coal Liquefaction Study (China)	0.700
High Temperature Electrochemistry Center (HiTEC)	3.000
Utah Center for Ultra-Clean Coal Utilization	0.500
Hardin Generating Station Coal fired Power Plant Mercury Emission Control Demo Project	1.000
University of North Dakota Energy and Environmental Research Center/Western Research Institute	6.000
Continuous Solvent Extraction Processes for Coal Derived Carbon Projects	0.700
National Center for Hydrogen Technology	2.500
MW-Scale Oxide Fuel Cell Gas Turbine Hybrid System	2.500
MW-Scale Solid Oxide Fuel Cell Stationary Power Generation	0.250

Energy and Water Development Appropriations
FY 2007 Supported Congressionally Directed Activities

Program Activity	Amount ($M)
Nuclear Energy	
Materials Test Station at Los Alamos to Support Materials and Fuels Experiments using Fast Neutron Spectrum Systems	4.000
University of Nevada Las Vegas Research Foundation to Continue R&D of High Temperature Heat Exchangers and Chemical Processing Equipment to Permit Demo of Nuclear-Powered Production of Hydrogen from Water	2.000
National Nuclear Security Administration	
Funding increase for Ohio State University Lab for Advanced Laser Target Interaction	1.000
Funding increase for Notre Dame Purdue Computer Grid Project	2.500
Big Explosives Experimental Facility (BEEF) to provide funding for critical high pressure experiments in Phoenix Program	3.000
Device Assembly Facility (DAF) is to allow "mission capable" level of support	6.000
Technology Ventures Corporation (TVC) to support technology transfer from each of three weapons labs	2.000
University Research Program in Robotics (URPR) for R &D and technology transfer to NNSA labs	4.500
Subcritical experiments at NTS	0.300
Atomic Testing History Institute	0.500
Continue ongoing infrastructure support grant for University of Nevada, Las Vegas (UNLV) Research Foundation	0.300
UNLV Research Foundation to continue support of radioanalytical services lab	1.000
UNLV Research Foundation to support ongoing program of Institute for Security Studies	1.000
Funding increase to support Historically Black Colleges and Universities (HBCU) - Defense Programs	4.500
Develop vulnerability and risk management solution that continuously discovers and prioritizes network exposures including integrated network topology risk analysis	1.300
Funding increase to support Historically Black Colleges and Universities (HBCU) - Cyber Security	0.300
Funding increase to support Historically Black Colleges and Universities (HBCU) - Nonproliferation	2.200
Nuclear Security Science and Policy Institute at Texas A&M	0.800
National Center for Biodefense at George Mason University	0.500
Offshore Detection Integrated System	0.500
Restore funding for nuclear detection R&D to be divided among Sandia and Los Alamos National Laboratory	10.000
Funding increase to support Historically Black Colleges and Universities (HBCU) - Administrator	13.000
Facility Operations and Target Production - Accelerate target fabrication	9.000
Continue development of high average power lasers	16.000
Naval Research Laboratory	10.000
High Energy Petawatt Laser Development OMEGA operations to provide additional shots	2.000
High Energy Petawatt Laser Development-Continued development of the Petawatt Laser at the University of Texas at Austin	2.100

Energy and Water Development Appropriations
FY 2007 Supported Congressionally Directed Activities

Program Activity	Amount ($M)
Dynamic Materials - additional experiments at JASPER	3.000
Primary Assessment Technologies at NTS	2.500

(2)

Short Description	Amount ($K)	Recipient/Beneficiary	Recip/Benef State
First Responder Green House	98	A-HOME	NY
Kotzebue Electric Wind Power System	148	Kotzebue Electric Assoc.	AK
Center for Energy Efficient Design	197	Center for Energy Efficient Design at Center for Advanced Technology and Career Exploration	VA
York College National Energy Resource Center	197	York Technical College	SC
Renewable Energy Economy Expansion Project	197	University of Massachusetts	MA
Energy and Sustainability Institute Illinois Institute of Technology	246	Illinois Institute of Technology	IL
Green Roof Project Southwest Brooklyn	246	Southwest Brooklyn Industrial Development Corp.	NY
Intermediary Biochemicals	246	Michigan State University	MI
Tanadgusix Foundation Hydrogen Project	246	TDX Corp.	AK
Costilla County Economic Development Council Biodiesel Project	271	Costillo County	CO
Affordable, Energy Efficient, Self-Help Housing	295	State of Mississippi	MS
Alternative Energy Geothermal Technology Demonstration Program	295	Daemen College	NY
Applachian State University Biofuels and Biomass Research Initiative	295	Appalachian State University	NC
Building-Integrated Photovoltaic Solar Energy System	295	CENTRA-Moon Towhship	PA
Casper College Renewable Energy Program	295	Casper College	WY
Renewable Development	295	Navajo Hopi Land Commission Office	NM
SUNY-Oswego Energy Independence	295	State University of New York at Oswego	NY
Biodiesel Project	344	Snohomish County	WA
Alternative Biofuel Infrastructure in Central Georgia	344	Middle Georgia Clean Cities	GA
Western North Carolina Clean Energy Business Incubator	354	Western North Carolina Clean Energy Business	NC
Texas Hydrogen Highway	383	Texas H2 Coalition	TX
Plasma Gasification Waste-to-Energy Project	394	Koochiching County	MN

Advanced Hybrid Vehicle Technology, Hybrid Vehicle Group	394	Michigan State University	MI
Sustainable Buildings Project	394	University of Louisville	KY
Sustainable Energy Model	394	Greenfield Community College	MA
Wisdom Way Solar Village	394	Rural Development, Inc.	MA
Bioenergy Research	492	Auburn Regional Bioenergy Enterprise	NY
Biofuels Research	492	Southern Illinois University	IL
Chariton Valley Biomass for Rural Development	492	Chariton Valley R.C.&D.	IA
Methane Gas Ulitilization Project	492	Chautauqua County	NY
Development of Applied Membrane Technology	492	Compact Membrane Systems, Inc.	DE
Council of Energy Resource Tribes	492	Council of Energy Resource Tribes	CO
Silicon Based Solid Oxide Fuel Cell Chip for Portable Consumer Electronics	492	Lilliputan Systems, Inc.	MA
Development of High Yield Tropical Feedstocks	492	University of Hawaii, College of Tropical Agriculture and Human Resources	HI
Renewable Energy from Animal Biomass	492	Vermont Public Power Supply Authority	VT
Central Vermont Recovered Biomass Facility	492	Vermont Sustainable Jobs Fund	VT
Lightweight Composite Material for Heavy Duty Vehicles	492	West Virginia University	WV
Advancing Texas Biofuel Production	492	Baylor University	TX
Biofuel Production Initiative Claflin University	492	Claflin University	SC
Building Materials Reclamation Center	492	University of North Carolina at Charlotte	NC
Closed Loop Short Rotation Woody Biomass	492	Catalyst Renewables Corp. c/o Lyonsdale Biomass	NY
Energy Efficient Press and Sinter of Titanium Powder	492	Webster-Hoff with International Titanium Powder and Illinois Institute of Technology	IL
Great Lakes Energy Research Park	492	M&M Energy, LLC	MI
Green Energy Arts & Education Center	492	CEC Stuyvesant Cove, Inc.	NY
Illinois State University Biomass Research	492	Illinois State University	IL

Jefferson County Bioenergy Initiative	492	Jefferson County	CO
King County Biogas and Nutrient Reduction Project	492	King Count	WA
Martin County Fuel Cell Development	492	Martin County Economic Development Organization	NC
MBI International Biomass Research	492	MBI International	MI
Messiah College Biodiesel Fuel Generation Project	492	Messiah College	PA
Renewable Energy Research	492	Minnesota State University Mankato, College of Science, Engineering and Technology	MN
Biodiesel	492	Northeast Texas Community College	TX
Renewable Energy Feasibility Study	492	Nye County	NV
Building Efficiency Demonstration Project	492	New York Institute of Technology	NY
Photovoltaic Demonstration Project	492	University of Hartford	CT
Placer County Biomass Utilization Pilot Project	492	Placer County	CA
Port of Umatilla Biodiesel Refining Plant	492	Port of Umatilla	OR
Renewable Energy Biomass Utilization Program	492	Alaska village Initiatives	AK
Risk-Based Data Management System	492	Oklahoma Corporation Commission	OK
Solid Acid Fuel Cell Research	492	Superprotonic, Inc.	CA
Southeast Bioenergy Initiative	492	Auburn University	AL
Strategic Biomass Initiative	492	Mississippi Technology Alliance	MS
Texas A&M Green Campus Research Initiative	492	Texas A&M International University	TX
University of Kentucky Biofuels Research Lab	492	University of Kentucky	KY
National Center for Energy Management	492	University of Nevada, Las Vegas	NV
Clean Energy Technology Export Program	590	DOE	WV
Light Emitting Diode Display Engineering	590	University of Nevada	NV
Coastal Wind Ohio	590	Bowling Green State University	OH
Green Visitor Center Brooklyn Botanic Garden	590	Brooklyn Botanical Garden	NY
Juniata Ultra Low Emission Locomotive Demonstrator	590	Altoona-Blair County Development Corp.	PA

Sustainable LED Flourescent Light Replacement Technology	590	National Center for Manufacturing Sciences	MI
Driftless Area Initiative	608	Resource Conservation and Development Councils	IL
San Francisco MUNI Solar Energy Facility	610	San Francisco Public Utilities Commission	CA
Solar Cell Nanotechnology	738	University of Nevada	NV
Alternative Fuels Pilot Project	738	City of Chula Vista	CA
Biodiesel Injection Blending Facilities	738	Independence Biofuels	PA
Connecticut Biodiesel Power Generator	738	Greater New Haven Clean Cities Coalition	CT
Florida Renewable Energy Program	738	University of Florida's Center for Renewable Chemicals and Fuel	FL
Miami Museum of Science Renewable Energy Project	738	Miami Museum of Science and Planetarium	FL
Mill Seat Landfill Bioreactor Renewable Green Power	738	County of Monroe IDA	NY
NCCR Green Building	738	Shreveport-Bossier Community Renewal, Inc.	LA
Sustainable Energy Research Facility Construction	738	Forstberg State University	MD
University of Oklahoma Biofuels Refining	738	University of Oklahoma	OK
Woody Biomass Project at SUNY-ESF	738	State University of New York, College of Environmental Science and Forestry	NY
Energy Research Center	743	University of Maryland	MD
Advanced Green Design for Museum of Natural History	787	Bell Museum of Natural History, University of Minnesota	MN
Fuel Cells for High Altitude Airship	787	Stark State College of Technology with Lockheed Martin	OH
Alternative Energy Workforce Applications Training Program	819	Cuyahoga Community College	OH
CU-ICAR Hydrogen Infrastructure	836	Clemson University	SC
Greenville Steam Efficiency Project	886	Greenville Steam Company	ME
CIBS Solar Cell Development	935	University of Nebraska	NE

Connnecticut Biofuels Technology Project	984	DBS Energy, Inc.	CT
Biofuel Project	984	University of Florida with EARTH University Foundation	FL
Development of Bipolar Wafer Cell Vehicle Batteries	984	Electro Energy, Inc.	CT
Ponaganset Alternative Energy Lab and Biomass Facilities Project	984	Foster-Glocester Regional School District	RI
Biorefinery for Ethanol, Chemicals, Animal Feed, and Biomaterials from Sugar Cane Bagasse	984	Lousiana State University, Agriculture Center	LA
National Agriculture-Based Industrial Lubricants	984	University of Northern Iowa	IA
Biomass Energy Research	984	Vermont Biomass Energy Resources Center	VT
Vermont Biofuels Initiative	984	Vermont Sustainable Jobs Fund	VT
Transportable Emissions Testing Lab for Alternative Vehicles Emissions Testing	984	West Virginia University	WV
Alternate Fuel Cell Membranes for Energy Independence	984	University of Southern Mississippi	MS
Center for Producer-Owned Energy	984	Center for Producer-Owned Energy	MN
Wind Turbine	984	Cloud County Community College	KS
Demonstration of Plug-in Vehicles	984	Kansas City Area Transportation Authority	KS
Renewable Energy for Rural Economic Development Program	984	State of Utah	UT
Bioethanol Collaborative	984	Clemson University	SC
Biofuels Development at Texas A&M	984	Texas A&M University	TX
Biorefining for Energy Security at Ohio University	984	Ohio University	OH
Center for Renewable Energy, Science, and Technology	984	University of Texas at Arlington	TX
Clean and Efficient Diesel Locomotive	984	General Electric Trainsportation - Rail	PA
High Efficiency Cascade Solar Cells	984	New Mexico State University	NM
High Energy Batteries for Hybrid Buses	984	Enerdel, Inc.	IN

Hydro Partners in Brazil	984	International Utility Efficiency Partnerships	OH
Hydrogen Energy Production and Storage	984	Edison Materials Technology Center	OH
Integrated Biomass Refining Institute at NC State University	984	North Carolina State University	NC
Renewable Fuels Research	984	Iowa Central Community College	IA
Jackson Park Hospital Green Medical Office Building	984	Jackson Park Hospital	IL
Laurentian Energy Authority	984	Laurentian Energy Authority	MN
MARET Center	984	Crowder College	MO
Nanostructural Materials for Safe Alternative Energy	984	Nanostructured Materials for Energy at NC State	NC
Nano-Structured Fuel Cell Membrane Electrode Assembly	984	Nanosys, Inc.	CA
Geothermal Ionic Liquids Research	984	Notre Dame/ Nisource	IN
One Kilowatt Biogas Fueled Solid Oxide Fuel Cell Stack	984	NanoDynamics, Inc.	NY
Geo-Heat Center	984	Oregon Institute of Technology	OR
Plug-in Hybrid Electric Vehicle Demonstration	984	South Coast Air Quality Management District	CA
Purdue Hydrogen Technologies Program	984	Purdue University	IN
RIT Integrated Power Microsystems	984	Rochester Institute of Technology	NY
Safe Detector System for Hydrogen Leaks	984	Intelligent Optical Systems	CA
Solid Oxide Fuel Cell Systems Development	984	Rolls-Royce Fuel Cell Systems with Stark State College of Technology in Canton	OH
Sorghum to Ethanol Research	984	PureVision Technology	CO
Sustainable Energy Center Biodiesel from Algae	984	Western Michigan University	MI
Tools for Nanotechnology Education	984	Chemeketa Community College	OR
Truckee Meadow Water Reclamation Facility	984	City of Reno	NV
University of Arizona Photovoltaic Concentrator Development	984	University of Arizona	AZ

University of North Alabama Green Campus Initiative	984	University of North Alabama	AL
White Earth Tribal Nation Wind Energy	984	White Earth Tribal Nation	MN
Wichita State University Sustainable Energy Solutions	984	Wichita State University	KS
Wyandotte Green Windpower on Brownfields Project	984	Wyandotte Municipal Services	MI
Clean Power Energy Research Consortium	984	Nicholls State University	LA
Wind Spires as Alternative Energy Source	1082	Cleveland State University	OH
Carbon-Based Fuel Cell	1181	University of Akron	OH
Modular Energy Storage for Fuel Cells	1181	Wavecrest Labs	MI
Nanostructured Solar Cells	1181	University of Arkansas at Little Rock	AR
Renewable Energy Development Venture	1230	Pacific International Center for High Technology Research	HI
Michigan Tech Nanostructured Materials	1230	Michigan Technological University	MI
University of Georgia Biorefinery and Fuel Cell Research	1230	University of Georgia	GA
SUNY-Cobleskill Bio-Waste to Bio-Energy Project	1279	SUNY Cobleskill	NY
Biomass Energy Research	1476	Dakota Gold Research Association	SD
Renewable Energy Commercialization	1476	Nevada Insitute for Renewable Energy Commercialization	NV
Bio-Renewable Ethanol and Co-Generation Plant	1476	Raceland Raw Sugar Corp.	LA
Trenton Fuel Works Biofuels Plant Re-Construction	1476	City of Trenton	NJ
Research and Technology Development for Genetic Improvement of Switchgrass	1476	University of Rhode Island	RI
Alternate Fuel for Cement Processing	1476	Auburn University	AL
Arkansas State University Ethanol Fuel Development	1476	Arkansas State University	AR
Bioenergy Cooperative Ethanol Biomass Fuel Plant	1476	Fair Oaks Farm	IN
Hydrogen Fuel Cell Development in Columbia	1476	Engenuity	SC

NaSi and Na-SG Powder Hydrogen Fuel Cells	1476	SiGNa Chemistry	NJ
Renewable and Logistic Fuels for Fuel Cells	1476	Colorado School of Mines	CO
Solar Photovoltaic R&D	1476	Solar Consortium of New York	NY
Stamford Waste-to-Energy Project	1476	City of Stamford Water Pollution Control Authority	CT
Vermont Independent Colleges Zero-Energy Campaign	1476	Vermont Assoc. of Independent Colleges	VT
NREL/ Conductive, Transparent Coatings for Solar Cells	1968	Eikos, Inc.	MA
Hawaii-New Mexico Sustainable Energy Security Partnership	1968	Hawaii Natural Energy Insitute	HI
Bioenergy Demonstration Project: Value-Added Projects from Renewable Fuels	1968	Universtiy of Nebraska	NE
Biomass Research	1968	University of North Dakota, Center for Biomass Utilization	ND
Cooling, Heating, and Power	1968	University of Southern Mississippi	MS
Kentucky Rural Energy Consortium	1968	University of Louisville	KY
Mid-South/ Southeast Bioenergy Consortium	1968	Mid-South/ Southeast Bioenergy Consortium	GA
Great Plains Wind Power Test Facility	1968	Texas Tech University - Great Plains Wind Power Test Facility	TX
Hybrid Hydraulic Drivetrain Demonstration	1968	Parker Hannifin Corp.	OH
Manufacturing Sciences	1968	National Center for Manufacturing Sciences	MI
Waste-to-Energy Cogeneration Project, Munster	1968	Munster	IN
Wave Power Demonstration Project, Reedsport	1968	Ocean Power Technologies and Oregon Iron Works, Inc.	OR
Concentrating Solar	2952	Sandia National Lab	NM
Landfill Gas-to-Clean-Fuel Project	3739	Pierce County	WA
Sun Grant Initiative, Regional Biomass Feedstock Development Partnerships	3936	South Dakota State University	SD
Center for Advanced Vehicular Systems	3936	University of Southern Mississippi	MS
Consortium for Plant Biotechnology Research	3936	Consortium for Plant Biotechnology Research, Inc.	GA

Manufacturing Conversion for Energy Efficeincy	4920	Norhtwest Regional Planning Commission	WI
Research in Nanoscale Energy	5904	North Dakota State University, Center for Nanoscale Energy	ND
Sustainable Energy Research Center	10824	Wichita State University	MS
Support International Institute for Advanced Systems Analysis's Global Energy Assessment	991	National Academy of Sciences	
Historic Preservation at LANL and ETTP	495	LANL, ETTP	NM
Technology Transfer Initiative	738	University of NV, Reno	NV
Hispanic Communications Network	743	Self-Reliance Foundation	DC
Integrated Collaborative Prototyping Environment	984	Savannah River National Lab	SC
Fire Science Academy at Elko	991	University of NV, Reno	NV
Hanford B-Reactor Preservation	991	Hanford Site	WA
WIPP - Carlsbad Educational Support	991	Carlsbad Community	NM
Continue Development of Polymeric Hydrogells for Radiation Decontamination	1476	Cellular Bioengineering, Inc.	HI
Remediation of Low-Level Nuclear Waste Utilizing Ceramic Ionic Transport Membranes	1476	Cerematec, Inc.	UT
Continued Expansion of Rogers and Weiner Large-Scale Structures Lab	1968	University of Nevada, Dept. of Civil and Environmental Engineering	NV
Western Environmental Technology Office	1968	MSE Technology Applications, Inc.	MT
WIPP - Center of Excellence for Hazardous Materials	1982	Carlsbad Community	NM
WIPP - Digital Records Center Construction	2477	Carlsbad Community	NM
Materials Reliability Research	2681	University of Nevada, Center for Materials Reliability	NV
Diagnostic Instrumentation and Analysis Lab	3964	Various	
International Alternative Cleanup Technology Agreement	4920	NuVision Engineering	PA
Hazardous Materials Management and Emergency Response	5450	Hanford Site	WA
Hazardous Waste Worker Training	9909	Various	
Energy Technology & Engineering Center	12882	Santa Susana Field Lab	CA
Ohio River Clean Fuels CO2 Emissions Study	246	Ohio River Clean Fuels, LLC	OH
Advanced Coal Technology in China	344	West Virginia University	WV

Eastern Illinois University Power Plant	492	Eastern Illinois University	IL
Direct Carbon Fuel Cell Prototype	738	Direct Carbon Technologies	CA
Gulf Petro Initiative	738	University of Louisiana at Lafayette	LA
Research in Sustainable Energy	984	Colorado School of Mines, Center for Sustainable Energy	CO
Gulf of Mexico Hydrates Research Consortium	984	University of Mississippi	MS
Advanced Separation Technologies	984	Center for Advanced Separation Technologies	VA
Carbon Sequestration Study	984	Baard Energy	OH
Center for Instrumented Critical Infrastructures	984	Concurrent Technology Corp.	PA
Fuel Research and Development	984	Northern Illinois University	IL
ITM Reaction-Driven Ceramic Membrane Systems	984	Air Products and Chemicals, Inc.	PA
NE Ohio Carbon Sequestration Pipeline Scoping Study	984	Ohio River Clean Fuels, LLC	OH
Arrowhead Center	984	Arrowhead Center at New Mexico State University	NM
CO2 Compression Initiative	1181	Ramgen	WA
Coal Fuels Alliance	1427	University of Kentucky, Purdue University, and Southern Illinois	KY
Membrane Technology for Produced Water	1476	Lea County	NM
Stripper Well Consortium	1476	Stripper Well Consortium/ Pennsylvania State University	PA
Risk-Based Management System	1486	Not Yet Available	
Carbon Sequestration Monitoring Activities	1624	University of Wyoming	WY
Shallow Carbon Sequestration Pilot Demonstration	2460	Not Yet Available	MO
Hydrogen Technology	2952	North Dakota Energy and Environment Research Center	ND
Interdisciplinary Clean Energy Program	3444	University of Utah	UT
Fossil Fuel Cooperative Research and Development	3936	North Dakota Energy and Environment Research Center	ND
Solid Oxide Fuel Cells	3936	Penn State University	PA

Cooperative Research and Development	4954	University of North Dakota Energy & Environmental Research Center, Western Research Institute	ND
Center for Zero Emissions Research and Technology	5904	Montana State University	MT
Artic Energy Office	6888	Artic Energy Office	AK
Research on Water and Fossil Energy Extraction and Utilization	11891	Not Yet Available	
WMPI Project	99090	WMPI, Inc.	PA
Rocky Flats Cold War Museum	492	Rocky Flats Cold War Museum	CO
CVD Single-Crystal Diamond Optical Switch	984	Optelecom-NFK, Inc.	MD
Technology Transfer Activities	2952	Technologies Ventures Corp.	NM
Hot-Cell Upgrades at LANL	14864	LANL	NM
Hot-Cell Upgrades at ORNL	14864	ORNL	TN
Secure Wireless Devices and Sensors	246	Next Wave Systems, H.H.C.	IN
In-Situ Nanomechanics	344	University of Nevada-Las Vegas	NV
Operations and Maintenance	590	Atomic Testing Museum	NV
Museum Site	738	National Museum of Nuclear Science and History	NM
CIMTRAK Cyber Security	984	CIMCOR	IN
Kansas City Plant Multi-Disciplined Integrated Collaboration	984	Honeywell	MO
Technical Product Data Initiative	984	Intellitech	OH
Advanced Engineering Environment at Sandia Lab	1476	Parametric Technology Corp.	CA
Lab for Advanced Laser-Target Interactions	1968	Ohio State University, College of Math and Physical Science	OH
Complete Construction of Petawatt Laser	3444	University of Texas	TX
Interagency Advanced Computing Research at NextEdge Tech Park	3936	Lexis-Nexis	OH
Northwest Indiana Computational Grid	5904	Purdue University	IN
Support Computing Capability	7872	North Dakota State University	ND
Operations and Infrastructure Improvements	17712	Nevada Test Site	NV
Offshore Detection Integrated System	984	Quintell of Ohio, LLC	OH
Causcasus Seismic Network	1476	New England Research, White River Junction	VT

Nuclear Security Science and Policy Institute, Texas A&M	1968	Texas A&M University	TX
George Mason University Center for Biodefense and Infectious Disease Research	2952	George Mason University	VA
ACE Program at Mariocopa Community Colleges	984	Maricopa County Community Colleges	AZ
Wilberforce HBCU	1476	Wilberforce Univ.	OH
Central State HBCU	1476	Central State Univ.	OH
Morehouse College Energy Science Research and Education Initiative	1968	Morehouse College	GA
Marshall Fund Minority Energy Science Initiative	1968	Marshall Fund Minority Energy Science Initiative	MD
Educational Advancement Alliance HBCU Graduate Program	3936	Educational Advancement Alliance HBCU Graduate Program	PA
South Carolina HBCU Math and Science Initiative	10332	Historically Black Colleges and Universities in South Carolina	SC
Research for Inbasin Scale Environmental Impacts for Oil Shale Production	1968	Los Alamos National Lab	NM
Willimar Municipal Utilities Power Generation Study	295	City of Willmar	MN
Chenega Bay Generator Replacement	379	Chengea IRA Council	AK
Solid Oxide Fuel Cell	492	Rolls-Royce Fuell Cell Systems, Inc., Stark State College of Technology	OH
Dine Power Authority	492	Dine Power Authority	AZ
High Voltage Transmission Lines Phase II	492	Tennessee Technological University	TN
National Center for Reliable Electric Power	492	University of Arkansas	AR
University of Missouri-Rolla Distributed Energy Research Center	492	University of Missouri - Rolla	MO
Utility Integration of Distributed Generation	590	San Diego Gas & Electric	CA
Connecticut Energy Savings Technlology Project	738	Nxegen, LLC	CT

Vehicle to Grid Demonstration Project	738	Delaware Economic Development Office, University of Delaware and Delmarva Power and Light	DE
Electricity Utility Transmission and Distribution Line Engineering Program	787	Gonzaga University	WA
New Albany Electrical Substation	886	City of NewAlbany	MS
Florida State University Electric Grid System Study	984	Florida State University	FL
Wauchula Municipal Electric Substation Rehab	984	City of Wauchula	FL
Stored Energy Research	1476	Iowa Stored Energy Plant	IA
Electric Transmission Line Improvements	1476	Luther Forest Technology Campus Economic Development Corp.	NY
Pilot Energy Cost Control Evaluation	1476	Profile, Inc.	WV
Navajo Electrification Demonstration Program	1968	Navajo Tribal Utility Authority	AZ
Energy Surety Research Center	1968	New Mexico Tech University	NM
Alabama Power Project, Integrated Distribution Management System	1968	State of Alabama	AL
Center of Excellence	5117	Bismarck State College	ND
Colorado River Transmission Line	2952	Arizona	AZ
Co-op Agreement - DOE and Inyo County	1574	Inyo County	CA
Louisville Science Center	148	Louisville Science Center	KY
Children's Oncology Group Childhood Cancer Research	197	CureSearch National Childhood Cancer Foundation	TX
Green Building Technologies for Lakeview Museum	197	Lakeview Museum	IL
Research into New Nanoconstructs	246	Center for Nanomedicine, University of Maryland	MD
Belmont Bay Science Center	246	Belmont Bay Science Center	VA
Berkshire Environmental Resources Center	246	Massachusetts College of Liberal Arts	MA
DePaul University Interdisciplinary Science and Technology	246	DePaul University	IL
Indiana Wesleyan University School of Nursing	246	Indiana Wesleyan University	IN
South County Nature Preserve, Irvington	246	Village of Irvington	NY
St. Thomas University - CORTE	246	St. Thomas University	FL

Bronx Community college Sustainable Energy Center	295	Bronx Community College	NY
Eastern Kentucky University Chemical Research Instrumentation	295	Eastern Kentucky University	KY
KUMC Tele-Oncology Network	295	University of Kansas Medical Center	KS
Neuroscience Lab, Dominican University	295	Dominican University	IL
Albright College Science Facilities	344	Albright College	PA
Perry Memorial Hospital PACS System	344	Perry Memorial Hospital	IL
Sustainable Biofuels Development Center	344	Colorado State University	CO
Good Samaritan Hospital Specialty Cancer Center	394	Good Samaritan Hospital	OH
Institute for Collaborative Science Research	394	Barry University	FL
Lapeer Regional Medical Center CT Simulator	394	Lapeer Regional Medical Center	MI
Westminster College Science Center	394	Westminster College	UT
Research of Cellular Antigens and Nucleic Acids	492	Nevada Cancer Institute	NV
Marine Systems Research	492	University of Massachusetts	MA
AAMURI Integrated Environmental Research and Services	492	Alabama A&M University Research Institute	AL
Advanced Cellular and Biomolecular Imaging	492	Lehigh University	PA
Advanced Lab Technology Initiative	492	Kennedy Health System	NJ
Bulk Production of Metallic Glass	492	Federal Technology Group	OH
Emmanuel College Center for Science Partnership	492	Emmanuel College	MA
Energy Efficiency through NY Industrial Retention Network	492	NY Industrial Retention Network	NY
Geothermal Demonstration Project	492	Ohio Wesleyan University	OH
Harney Science Center Equipment	492	University of San Francisco	CA
Jacksonville University Marine Science Research Institute	492	Jacksonville University	FL
Lake Granbury and Lake Whitney Assessment	492	Texas A&M University	TX
Lightweight Power Supply Development	492	Johnson-Mathey Fuel Cells	PA
Memorial Health Systems, Springfield	492	Memorial Health System	IL
Nanotechnology Research Internships in Illinois	492	NanoBusiness Alliance	IL
Nutley Energy Efficient Elementary Schools	492	Nutley Board of Education	NJ

Phase II Design and Construction of Sage Hall Science	492	Stetson University	FL
Pikeville Medical Center, Kentucky	492	Pikeville Medical Center	KY
Purdue Calumet Inland Water Institute	492	Purdue University	IN
Rockland Community College Science Lab	492	Rockland Community College	NY
St. Clare's Hospital	492	St. Clare's Hospital	NJ
St. Rose Dominican Hospitals Sienna Trauma Center	492	St. Rose Dominican Hospitals	NV
Urban Research Center and Greehouse, Brooklyn	492	Brooklyn College	NY
USA Cancer Institute Oncology Medical Record System	492	University of South Alabama	AL
Xavier University Science Equipment	492	Xavier University	OH
Hofstra University Center for Condensed Matter Research	541	Hofstra University	NY
Research of Transglutaminases in Alzheimer's and Huntington's Diseases	590	Dominican University	IL
Research Multi-Modality, Image-Based Markers for Breast Cancer	590	University of Chicago	IL
Research in Increasing Efficiency in Contrast Media	590	University of Mississippi Medical Center	MS
Memorial Hermann Baptist Hospital Orange MRI	590	Baptist Hospitals of Southeast Texas	TX
Fordham University Regional Science Center	689	Fordham University	NY
Roosevelt University Biology Lab Equipment	689	Roosevelt University	IL
University of Saint Francis Science Center	709	University of Saint Francis	IN
Alliance for NanoHealth	738	Alliance for NanoHealth	TX
Cardiac Catherization Research and Equipment	738	Metroplex Hospital	TX
Environmental System Center at Syracuse University	738	Syracuse University	NY
Gulf of Maine Research Institute Lab Upgrades	738	Gulf of Maine Research Institute	ME
Imaging and Oncology Equipment	738	Intermountain Healthcare - Utah Valley Regional Medical Center	UT
Luther College Science Building Renovation Project	738	Luther College	IA

New Mexico Center for Isotopes in Medicine	738	University of New Mexico	NM
Proton Beam Therapy	738	Seattle Cancer Care Alliance	WA
Texas Center for Advanced Science Computing and Modeling	738	University of North Texas	TX
University of Southern Indiana Engineering Equipment	738	University of Southern Indiana	IN
Notre Dame Innovation Park	771	City of South Bend	IN
St. Joseph's University Science Center Equipment	787	St. Joseph's University	PA
Green Energy Xchange	827	Yancey County Local Government	NC
Coe College Scientific Instrumentation	886	Coe College	IA
Research of MRI Science	984	University of Vermont in Burlington	VT
Ongoing Research in Electron Transport Systems and Structural Biology of Proteins	984	University of Louisville Regional NMR Facility	KY
Ultra-Dense Supercomputing Memory Storage Research	984	University Corporation for Atmospheric Research	CO
Northern Hemisphere Location of Particle Detection Observatory	984	Northern Hemisphere Pierre Auger Observatory	CO
Large Scale Application of Single-Walled Carbon Nanotubes	984	University of Oklahoma	OK
Research in Integrated Forest Products Refinery Technology	984	University of Maine	ME
Alternatives to Transplantation	984	Wake Forest University	NC
Bennett College Science and Technology Facility	984	Bennett College for Women	NC
Boston College Institute for Integrated Sciences	984	Boston College	MA
Chicago Public Schools Science Lab Enhancement	984	Chicago Public Schools	IL
Chicago State University Research	984	Chicago State University	IL
Columbus Children's Hospital Imaging Equipment	984	Columbus Children's Hospital	OH
Geothermal System at Sherman Hospital in Elgin	984	Sherman Hospital	IL
Levine Children's Hospital CT Scanner	984	Carolinas Healthcare System	NC

Logan Cancer Center Equipment and Technology	984	Intermountain Healthcare/ Logan Regional Hospital	UT
Nanosystems Initiative at University of Rochester	984	University of Rochester	NY
Pioneer Valley Life Sciences Initiative	984	Baystate Medical Center	MA
Seton Hall University Science and Technology Center	984	Seton Hall University	NJ
University of Dubuque, Environmental Science Center	984	University of Dubuque	IA
University of North Carolina Collaborative Initiative in Biomedical Imaging	984	University of North Carolina	NC
Nevada Water in the 21st Century Multi-Disciplinary Research Project	984	University of Nevada, Las Vegas	NV
Research in Production of Catalysts for Energy Alternatives to Fossil Fuel	1082	South Dakota Catalyst Group for Alternative Energy Research	SD
Nanoscience Education Project	1181	Northwest Missouri State University	MO
South Carolina Lambda Rail Computer Network Portal	1181	Clemson University	SC
Technology for Print Disabled Students	1181	Recording for the Blind and Dyslexic	FL
Tulane Materials and Energy Research	1181	Tulane Materials and Energy Research	LA
Cheyney University STEM Education Infrastructure	1230	Cheyney Foundation of Cheyney University	PA
Neutrino Research	1476	WIPP	NM
Applied Energy Science Design	1476	New Mexico Tech University	NM
Research in Nanotechnology	1476	Louisiana Tech University	LA
Germantown Biotechnology Project	1476	Montgomery College	MD
Inland Northwest Research Alliance Water Research	1476	Washington State University	WA
Molecular Genetics Research	1968	Neurosciences Institute	WV
Seismic Research	1968	University of California	CA
Nanoscale Imaging of Proteins	1968	University of Nebraksa Medical Center	NE
Bioengineering Research Training	1968	Jackson State University	MS

Decision Support Tools for Complex Analysis	1968	Science Applications International Corp.	OH
Eckerd College Science Center	1968	Eckerd College	FL
Loma Linda University Medical College Radiation Protection Program	1968	Loma Linda University Medical Center	CA
New School University Green Building	1968	New School University	NY
Purdue Techology Center	1968	Purdue University	IN
Methanol Economy	1968	University of Southern California	CA
UMASS Integrative Science Building	1968	University of Massachusetts	MA
Antibodies Research	2460	University of North Dakota	ND
Math, Science, and Tech Research and Training Lab	2460	Philadelphia Educational Advancement Alliance	PA
Research in Agricultural, Environmental, and Biological Sciences	2952	University of Vermont	VT
Radiation Research	5904	University of California, Institute for Molecular Medicine	CA
High Performance Computing and Advanced Algorithm Development	7319	Sandia Institute for Advanced Computing Algorithms	NM
Ongoing Brain Related Research	11808	Mind Institute	NM

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Short Description	Amount ($K)	Recip/Benef State
AAMURI Integrated Environmental Research and Services	479	AL
USA Cancer Institute Oncology Medical Record System	479	AL
Harney Science Center Equipment	479	CA
Seismic Research	1913	CA
Loma Linda University Medical College Radiation Protection Program	1913	CA
Methanol Economy	1913	CA
Molecular Medicine Radiation Research	5738	CA
Sustainable Biofuels Development Center	334	CO
Ultra-Dense Supercomputing Memory Storage Research	956	CO
Northern Hemisphere Location of Particle Detection Observatory	956	CO
St. Thomas University - CORTE	239	FL
Institute for Collaborative Science Research	383	FL
Jacksonville University Marine Science Research Institute	479	FL
Phase II Design and Construction of Sage Hall Science	479	FL
Technology for Print Disabled Students	1147	NJ
Eckerd College Science Center	1913	FL
Luther College Science Building Renovation Project	717	IA
Coe College Scientific Instrumentation	861	IA
University of Dubuque, Environmental Science Center	956	IA
Green Building Technologies for Lakeview Museum	191	IL
DePaul University Interdisciplinary Science and Technology	239	IL
Neuroscience Lab, Dominican University	287	IL
Perry Memorial Hospital PACS System	334	IL
Memorial Health Systems, Springfield	479	IL
Nanotechnology Research Internships in Illinois	479	IL
Research of Transglutaminases in Alzheimer's and Huntington's Diseases	573	IL
Research Multi-Modality, Image-Based Markers for Breast Cancer	573	IL
Roosevelt University Biology Lab Equipment	670	IL
Chicago Public Schools Science Lab Enhancement	956	IL
Chicago State University Research	956	IL
Geothermal System at Sherman Hospital in Elgin	956	IL
Indiana Wesleyan University School of Nursing	239	IN
Purdue Calumet Inland Water Institute	479	IN
University of Saint Francis Science Center	689	IN
University of Southern Indiana Engineering Equipment	717	IN

Notre Dame Innovation Park	750	IN
Purdue Techology Center	1913	IN
KUMC Tele-Oncology Network	287	KS
Louisville Science Center	144	KY
Eastern Kentucky University Chemical Research Instrumentation	287	KY
Pikeville Medical Center, Kentucky	479	KY
Ongoing Research in Electron Transport Systems and Structural Biology of Proteins	956	KY
Tulane Materials and Energy Research	1147	LA
Research in Nanotechnology	1435	LA
Berkshire Environmental Resources Center	239	MA
Marine Systems Research	479	MA
Emmanuel College Center for Science Partnership	479	MA
Boston College Institute for Integrated Sciences	956	MA
Pioneer Valley Life Sciences Initiative	956	MA
UMASS Integrative Science Building	1913	MA
Research into New Nanoconstructs	239	MD
Germantown Biotechnology Project	1435	MD
Gulf of Maine Research Institute Lab Upgrades	717	ME
Research in Integrated Forest Products Refinery Technology	956	ME
Lapeer Regional Medical Center CT Simulator	383	MI
Nanoscience Education Project	1147	MO
Research in Increasing Efficiency in Contrast Media	573	MS
Bioengineering Research Training	1913	MS
Green Energy Xchange	803	NC
Alternatives to Transplantation	956	NC
Bennett College Science and Technology Facility	956	NC
Levine Children's Hospital CT Scanner	956	NC
University of North Carolina Collaborative Initiative in Biomedical Imaging	956	NC
Antibodies Research	2391	ND
Nanoscale Imaging of Proteins	1913	NE
Advanced Lab Technology Initiative	479	NJ
Nutley Energy Efficient Elementary Schools	479	NJ
St. Clare's Hospital	479	NJ
Seton Hall University Science and Technology Center	956	NJ
New Mexico Center for Isotopes in Medicine	717	NM
Neutrino Research	1435	NM
Applied Energy Science Design	1435	NM

High Performance Computing and Advanced Algorithm Development	7114	NM
Ongoing Brain Related Research	11478	NM
Research of Cellular Antigens and Nucleic Acids	479	NV
St. Rose Dominican Hospitals Sienna Trauma Center	479	NV
Nevada Water in the 21st Century Multi-Disciplinary Research Project	956	NV
South County Nature Preserve, Irvington	239	NY
Bronx Community college Sustainable Energy Center	287	NY
Energy Efficiency through NY Industrial Retention Network	479	NY
Rockland Community College Science Lab	479	NY
Urban Research Center and Greehouse, Brooklyn	479	NY
Hofstra University Center for Condensed Matter Research	525	NY
Fordham University Regional Science Center	670	NY
Environmental System Center at Syracuse University	717	NY
Nanosystems Initiative at University of Rochester	956	NY
New School University Green Building	1913	NY
Good Samaritan Hospital Specialty Cancer Center	383	OH
Bulk Production of Metallic Glass	479	MT
Geothermal Demonstration Project	479	OH
Xavier University Science Equipment	479	OH
Columbus Children's Hospital Imaging Equipment	956	OH
Decision Support Tools for Complex Analysis	1913	WV
Large Scale Application of Single-Walled Carbon Nanotubes	956	OK
Albright College Science Facilities	334	PA
Advanced Cellular and Biomolecular Imaging	479	PA
Lightweight Power Supply Development	479	PA
St. Joseph's University Science Center Equipment	765	PA
Cheyney University STEM Education Infrastructure	1195	PA
Math, Science, and Tech Research and Training Lab	2391	PA
South Carolina Lambda Rail Computer Network Portal	1147	SC
Research in Production of Catalysts for Energy Alternatives to Fossil Fuel	1052	SD
Children's Oncology Group Childhood Cancer Research	191	CA
Lake Granbury and Lake Whitney Assessment	479	TX
Memorial Hermann Baptist Hospital Orange MRI	573	TX
Alliance for NanoHealth	717	TX
Cardiac Catherization Research and Equipment	717	TX
Texas Center for Advanced Science Computing and Modeling	717	TX
Westminster College Science Center	383	UT

Imaging and Oncology Equipment	717	UT
Logan Cancer Center Equipment and Technology	956	UT
Belmont Bay Science Center	239	VA
Research of MRI Science	956	VT
Research in Agricultural, Environmental, and Biological Sciences	2869	VT
Proton Beam Therapy	717	WA
Inland Northwest Research Alliance Water Research	1435	ID
Molecular Genetics Research	1913	WV
First Responder Green House	98	NY
Kotzebue Electric Wind Power System	148	AK
Renewable Energy Economy Expansion Project	197	MA
York College National Energy Resource Center	197	SC
Center for Energy Efficient Design	197	VA
Tanadgusix Foundation Hydrogen Project	246	AK
Energy and Sustainability Institute Illinois Institute of Technology	246	IL
Intermediary Biochemicals	246	MI
Green Roof Project Southwest Brooklyn	246	NY
Costilla County Economic Development Council Biodiesel Project	271	CO
Affordable, Energy Efficient, Self-Help Housing	295	MS
Applachian State University Biofuels and Biomass Research Initiative	295	NC
Renewable Development	295	NM
Alternative Energy Geothermal Technology Demonstration Program	295	NY
SUNY-Oswego Energy Independence	295	NY
Building-Integrated Photovoltaic Solar Energy System	295	PA
Casper College Renewable Energy Program	295	WY
Alternative Biofuel Infrastructure in Central Georgia	344	GA
Biodiesel Project	344	WA
Western North Carolina Clean Energy Business Incubator	354	NC
Texas Hydrogen Highway	383	TX
Sustainable Buildings Project	394	KY
Sustainable Energy Model	394	MA
Wisdom Way Solar Village	394	MA
Advanced Hybrid Vehicle Technology, Hybrid Vehicle Group	394	MI
Plasma Gasification Waste-to-Energy Project	394	MN
Renewable Energy Biomass Utilization Program	492	AK
Southeast Bioenergy Initiative	492	AL
Placer County Biomass Utilization Pilot Project	492	CA

Solid Acid Fuel Cell Research	492	CA
Council of Energy Resource Tribes	492	CO
Jefferson County Bioenergy Initiative	492	CO
Photovoltaic Demonstration Project	492	CT
Development of Applied Membrane Technology	492	DE
Development of High Yield Tropical Feedstocks	492	HI
Chariton Valley Biomass for Rural Development	492	IA
Biofuels Research	492	IL
Energy Efficient Press and Sinter of Titanium Powder	492	IL
Illinois State University Biomass Research	492	IL
University of Kentucky Biofuels Research Lab	492	KY
Silicon Based Solid Oxide Fuel Cell Chip for Portable Consumer Electronics	492	MA
Great Lakes Energy Research Park	492	MI
MBI International Biomass Research	492	MI
Renewable Energy Research	492	MN
Strategic Biomass Initiative	492	MS
Building Materials Reclamation Center	492	NC
Martin County Fuel Cell Development	492	NC
Renewable Energy Feasibility Study	492	NV
National Center for Energy Management	492	NV
Bioenergy Research	492	NY
Methane Gas Ulitilization Project	492	NY
Closed Loop Short Rotation Woody Biomass	492	NY
Green Energy Arts & Education Center	492	NY
Building Efficiency Demonstration Project	492	NY
Risk-Based Data Management System	492	OK
Port of Umatilla Biodiesel Refining Plant	492	OR
Messiah College Biodiesel Fuel Generation Project	492	PA
Biofuel Production Initiative Claflin University	492	SC
Advancing Texas Biofuel Production	492	TX
Biodiesel	492	TX
Texas A&M Green Campus Research Initiative	492	TX
Renewable Energy from Animal Biomass	492	VT
Central Vermont Recovered Biomass Facility	492	VT
King County Biogas and Nutrient Reduction Project	492	WA
Lightweight Composite Material for Heavy Duty Vehicles	492	WV
Sustainable LED Flourescent Light Replacement Technology	590	MI

Light Emitting Diode Display Engineering	590	NV
Green Visitor Center Brooklyn Botanic Garden	590	NY
Coastal Wind Ohio	590	OH
Juniata Ultra Low Emission Locomotive Demonstrator	590	PA
Clean Energy Technology Export Program	590	WV
Driftless Area Initiative	608	IL
San Francisco MUNI Solar Energy Facility	610	CA
Alternative Fuels Pilot Project	738	CA
Connecticut Biodiesel Power Generator	738	CT
Florida Renewable Energy Program	738	FL
Miami Museum of Science Renewable Energy Project	738	FL
NCCR Green Building	738	LA
Sustainable Energy Research Facility Construction	738	MD
Solar Cell Nanotechnology	738	NV
Mill Seat Landfill Bioreactor Renewable Green Power	738	NY
Woody Biomass Project at SUNY-ESF	738	NY
University of Oklahoma Biofuels Refining	738	OK
Biodiesel Injection Blending Facilities	738	PA
Energy Research Center	743	MD
Advanced Green Design for Museum of Natural History	787	MN
Fuel Cells for High Altitude Airship	787	OH
Alternative Energy Workforce Applications Training Program	819	OH
CU-ICAR Hydrogen Infrastructure	836	SC
Greenville Steam Efficiency Project	886	ME
CIBS Solar Cell Development	935	NE
University of North Alabama Green Campus Initiative	984	AL
University of Arizona Photovoltaic Concentrator Development	984	AZ
Nano-Structured Fuel Cell Membrane Electrode Assembly	984	CA
Plug-in Hybrid Electric Vehicle Demonstration	984	CA
Safe Detector System for Hydrogen Leaks	984	CA
Sorghum to Ethanol Research	984	CO
Connnecticut Biofuels Technology Project	984	CT
Development of Bipolar Wafer Cell Vehicle Batteries	984	CT
Biofuel Project	984	FL
National Agriculture-Based Industrial Lubricants	984	IA
Renewable Fuels Research	984	IA
Jackson Park Hospital Green Medical Office Building	984	IL

High Energy Batteries for Hybrid Buses	984	IN
Geothermal Ionic Liquids Research	984	IN
Purdue Hydrogen Technologies Program	984	IN
Wind Turbine	984	KS
Demonstration of Plug-in Vehicles	984	KS
Wichita State University Sustainable Energy Solutions	984	KS
Biorefinery for Ethanol, Chemicals, Animal Feed, and Biomaterials from Sugar Cane Bagas:	984	LA
Clean Power Energy Research Consortium	984	LA
Sustainable Energy Center Biodiesel from Algae	984	MI
Wyandotte Green Windpower on Brownfields Project	984	MI
Center for Producer-Owned Energy	984	MN
Laurentian Energy Authority	984	MN
White Earth Tribal Nation Wind Energy	984	MN
MARET Center	984	MO
Alternate Fuel Cell Membranes for Energy Independence	984	MS
Integrated Biomass Refining Institute at NC State University	984	NC
Nanostructural Materials for Safe Alternative Energy	984	NC
High Efficiency Cascade Solar Cells	984	NM
Truckee Meadow Water Reclamation Facility	984	NV
One Kilowatt Biogas Fueled Solid Oxide Fuel Cell Stack	984	NY
RIT Integrated Power Microsystems	984	NY
Biorefining for Energy Security at Ohio University	984	OH
Hydro Partners in Brazil	984	OH
Hydrogen Energy Production and Storage	984	OH
Solid Oxide Fuel Cell Systems Development	984	OH
Geo-Heat Center	984	OR
Tools for Nanotechnology Education	984	OR
Clean and Efficient Diesel Locomotive	984	PA
Ponaganset Alternative Energy Lab and Biomass Facilities Project	984	RI
Bioethanol Collaborative	984	SC
Biofuels Development at Texas A&M	984	TX
Center for Renewable Energy, Science, and Technology	984	TX
Renewable Energy for Rural Economic Development Program	984	UT
Biomass Energy Research	984	VT
Vermont Biofuels Initiative	984	VT
Transportable Emissions Testing Lab for Alternative Vehicles Emissions Testing	984	WV
Wind Spires as Alternative Energy Source	1082	OH

Nanostructured Solar Cells	1181	AR
Modular Energy Storage for Fuel Cells	1181	MI
Carbon-Based Fuel Cell	1181	OH
University of Georgia Biorefinery and Fuel Cell Research	1230	GA
Renewable Energy Development Venture	1230	HI
Michigan Tech Nanostructured Materials	1230	MI
SUNY-Cobleskill Bio-Waste to Bio-Energy Project	1279	NY
Alternate Fuel for Cement Processing	1476	AL
Arkansas State University Ethanol Fuel Development	1476	AR
Renewable and Logistic Fuels for Fuel Cells	1476	CO
Stamford Waste-to-Energy Project	1476	CT
Bioenergy Cooperative Ethanol Biomass Fuel Plant	1476	IN
Bio-Renewable Ethanol and Co-Generation Plant	1476	LA
Trenton Fuel Works Biofuels Plant Re-Construction	1476	NJ
NaSi and Na-SG Powder Hydrogen Fuel Cells	1476	NJ
Renewable Energy Commercialization	1476	NV
Solar Photovoltaic R&D	1476	NY
Research and Technology Development for Genetic Improvement of Switchgrass	1476	RI
Hydrogen Fuel Cell Development in Columbia	1476	SC
Biomass Energy Research	1476	SD
Vermont Independent Colleges Zero-Energy Campaign	1476	VT
Mid-South/ Southeast Bioenergy Consortium	1968	GA
Hawaii-New Mexico Sustainable Energy Security Partnership	1968	HI
Waste-to-Energy Cogeneration Project, Munster	1968	IN
Kentucky Rural Energy Consortium	1968	KY
NREL/ Conductive, Transparent Coatings for Solar Cells	1968	MA
Manufacturing Sciences	1968	MI
Cooling, Heating, and Power	1968	MS
Biomass Research	1968	ND
Bioenergy Demonstration Project: Value-Added Projects from Renewable Fuels	1968	NE
Hybrid Hydraulic Drivetrain Demonstration	1968	OH
Wave Power Demonstration Project, Reedsport	1968	OR
Great Plains Wind Power Test Facility	1968	TX
Concentrating Solar	2952	NM
Landfill Gas-to-Clean-Fuel Project	3739	WA
Consortium for Plant Biotechnology Research	3936	GA
Center for Advanced Vehicular Systems	3936	MS

Sun Grant Initiative, Regional Biomass Feedstock Development Partnerships	3936	SD
Manufacturing Conversion for Energy Efficeincy	4920	WI
Research in Nanoscale Energy	5904	ND
Sustainable Energy Research Center	10824	MS
Support International Institute for Advanced Systems Analysis's Global Energy Assessment	991	DC
Historic Preservation at LANL and ETTP	495	NM
Historic Preservation at LANL and ETTP	495	TN
Technology Transfer Initiative	738	NV
Hispanic Communications Network	743	DC
Integrated Collaborative Prototyping Environment	984	SC
Fire Science Academy at Elko	984	NV
Hanford B-Reactor Preservation	991	WA
WIPP - Carlsbad Educational Support	991	NM
Continue Development of Polymeric Hydrogells for Radiation Decontamination	1476	HI
Remediation of Low-Level Nuclear Waste Utilizing Ceramic Ionic Transport Membranes	1476	UT
Continued Expansion of Rogers and Weiner Large-Scale Structures Lab	1968	NV
Western Environmental Technology Office	1968	MT
WIPP - Center of Excellence for Hazardous Materials	1982	NM
WIPP - Digital Records Center Construction	2477	NM
Materials Reliability Research	2681	NV
Diagnostic Instrumentation and Analysis Lab	1200	MS
International Alternative Cleanup Technology Agreement	4920	WA
Hazardous Materials Management and Emergency Response	5450	WA
Hazardous Waste Worker Training	9909	MD
Energy Technology & Engineering Center	12,882	CA
Direct Carbon Fuel Cell Prototype	718	CA
Research in Sustainable Energy	957	CO
Advanced Separation Technologies	957	VA
ITM Reaction-Driven Ceramic Membrane Systems	957	PA
Risk-Based Management System	1156	OK
Coal Fuels Alliance	1388	KY
Membrane Technology for Produced Water	1435	NM
Stripper Well Consortium	1435	PA
Hydrogen Technology	2871	ND
Fossil Fuel Cooperative Research and Development	3828	ND
Solid Oxide Fuel Cells	3828	PA
Cooperative Research and Development	4817	ND

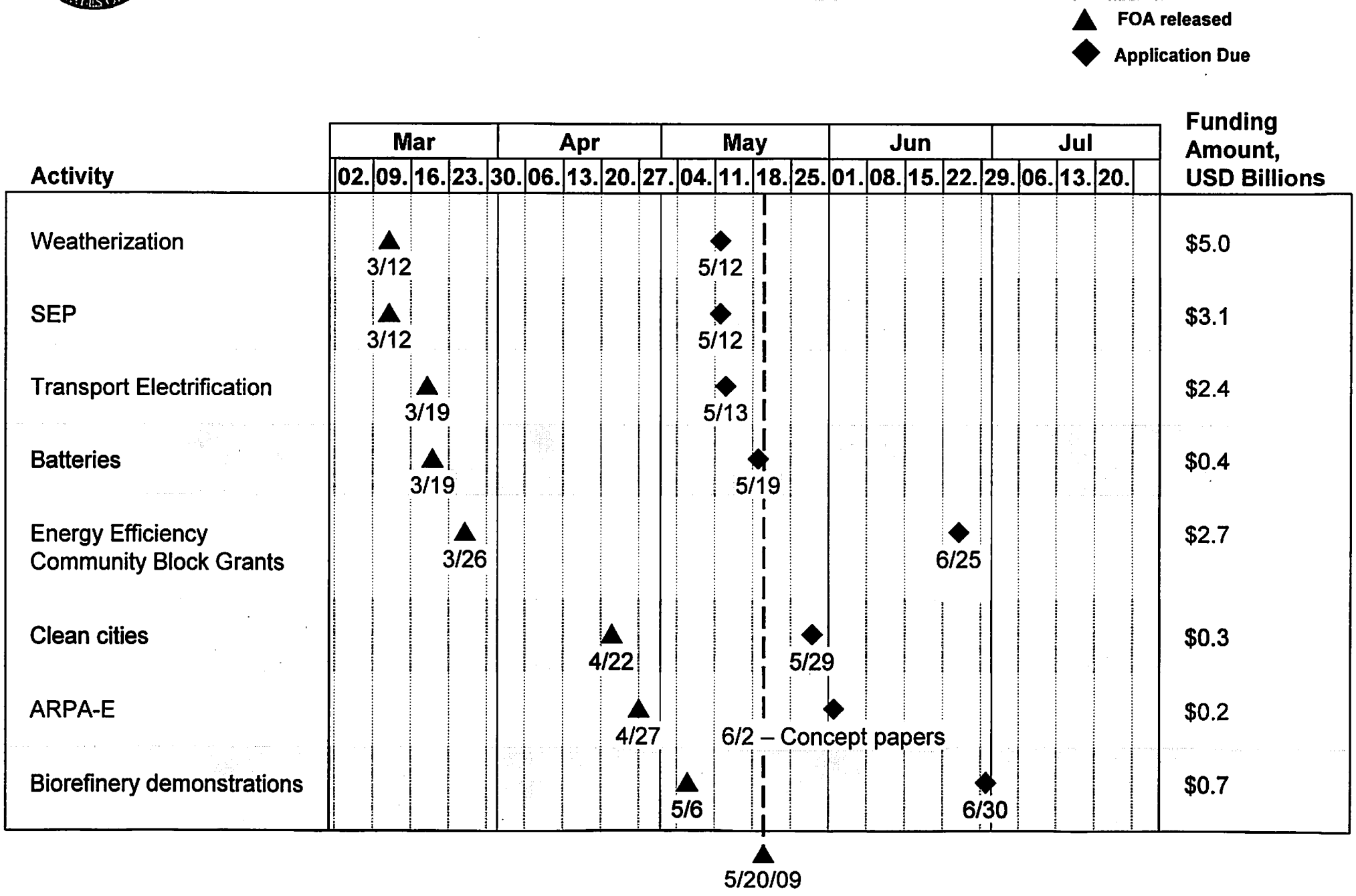
Center for Zero Emissions Research and Technology	5742	MT
WMPI Project	100000	PA
Ohio River Clean Fuels CO2 Emissions Study	239	OH
Advanced Coal Technology in China	334	WV
Eastern Illinois University Power Plant	478	IL
Gulf Petro Initiative	718	LA
Gulf of Mexico Hydrates Research Consortium	957	MS
Carbon Sequestration Study	957	OH
Center for Instrumented Critical Infrastructures	957	PA
Fuel Research and Development	957	IL
NE Ohio Carbon Sequestration Pipeline Scoping Study	957	OH
Arrowhead Center	957	NM
CO2 Compression Initiative	1148	WA
Carbon Sequestration Monitoring Activities	1579	WY
Shallow Carbon Sequestration Pilot Demonstration	2393	MO
Interdisciplinary Clean Energy Program	3350	UT
Artic Energy Office	6697	AK
Research on Water and Fossil Energy Extraction and Utilization	11559	
Rocky Flats Cold War Museum	492	CO
Technology Transfer Activities	2952	NM
Hot-Cell Upgrades at LANL	14864	NM
Hot-Cell Upgrades at ORNL	14864	TN
Secure Wireless Devices and Sensors	246	IN
In-Situ Nanomechanics	345	NV
Operations and Maintenance	591	NV
Museum Site	739	NM
CIMTRAK Cyber Security	985	IN
Kansas City Plant Multi-Disciplined Integrated Collaboration	985	MO
Technical Product Data Initiative	985	OH
Advanced Engineering Environment at Sandia Lab	1478	CA
Lab for Advanced Laser-Target Interactions	1970	OH
Complete Construction of Petawatt Laser	3448	TX
Interagency Advanced Computing Research at NextEdge Tech Park	3940	OH
Northwest Indiana Computational Grid	5910	IN
Support Computing Capability	7880	ND
Operations and Infrastructure Improvements	17730	NV
Offshore Detection Integrated System	984	OH

Causcasus Seismic Network	1476	VT
Nuclear Security Science and Policy Institute, Texas A&M	1968	TX
George Mason University Center for Biodefense and Infectious Disease Research	2952	VA
ACE Program at Mariocopa Community Colleges	984	AZ
Wilberforce HBCU	1476	OH
Central State HBCU	1476	OH
Morehouse College Energy Science Research and Education Initiative	1968	GA
Marshall Fund Minority Energy Science Initiative	1968	MD
Educational Advancement Alliance HBCU Graduate Program	3936	PA
South Carolina HBCU Math and Science Initiative	10332	SC
Research for Inbasin Scale Environmental Impacts for Oil Shale Production	1968	NM
Willimar Municipal Utilities Power Generation Study	295	MN
Chenega Bay Generator Replacement	379	AK
Solid Oxide Fuel Cell	492	OH
Dine Power Authority	492	AZ
High Voltage Transmission Lines Phase II	492	TN
National Center for Reliable Electric Power	492	AR
University of Missouri-Rolla Distributed Energy Research Center	492	MO
Utility Integration of Distributed Generation	590	CA
Connecticut Energy Savings Technlology Project	738	CT
Vehicle to Grid Demonstration Project	738	DE
Electricity Utility Transmission and Distribution Line Engineering Program	787	WA
New Albany Electrical Substation	886	MS
Florida State University Electric Grid System Study	984	FL
Wauchula Municipal Electric Substation Rehab	984	FL
Stored Energy Research	1476	IA
Electric Transmission Line Improvements	1476	NY
Pilot Energy Cost Control Evaluation	1476	IN
Navajo Electrification Demonstration Program	1968	AZ
Energy Surety Research Center	1968	NM
Alabama Power Project, Integrated Distribution Management System	1968	AL
Center of Excellence	5117	ND
Colorado River Transmission Line	2952	AZ

Announcements to date

Announcement	Amount $, Billions	Date of Announcement	Description
Weatherization and State Energy Block Grants	• 8.1	• 3/12	• VP Biden announced $8.1B in weatherization and state energy block grants
Batteries and Transport Electrification	• 2.4	• 3/19	• President Obama announced $2.4B in batteries and transport electrification at SoCal Edison
Solyndra Loan Guarantee	• .535	• 3/20	• Secretary Chu announced first conditional loan guarantee
Science	• 1.2	• 3/23	• Secretary Chu announced $1.2B in Science at Brookhaven
Energy Efficiency Conservation Block Grants	• 3.2	• 3/26	• VP Biden and Secretary Chu announced $3.2B in energy efficiency community block grants in Pittsburgh
Environmental Mgmt	• 6.0	• 3/31	• Secretary Chu announced EM funding
Fuel Cells	• 0.043	• 4/15	• Press release announcement
Smart Grid	• 4.1	• 4/16	• VP Biden announced funding for Smart Grid in Jefferson City, Missouri ($4.1 announced)
Clean Cities Program	• 0.3	• 4/22	• VP Biden announced Clean Cities funding in Maryland on Earth Day
ARPA-E	• 0.4	• 4/27	• President Obama announced ARPA-E funding at the National Academy of Sciences (FOA - $200M)
Wind and Facilities	• 0.2	• 4/29	• Secretary Chu announced in Colorado
Biofuels	• 0.8	• 5/5	• Secretary Chu announced in Washington, DC with VP Biden
Wind Test Blade Center	• 0.025	• 5/12	• Secretary Chu announced in Boston with Governor Patrick
Carbon Capture and Storage	• 2.4	• 5/15	• Secretary Chu announced at the National Coal Council

Application due dates



Fossil Energy Research and Development (inc. research into low-emission coal plants, grants for industrial carbon capture and energy efficiency improvement projects, grants for identifying sites to store carbon dioxide emissions, grants for training and research on safe storage of carbon emission, administration of funding program)

- DOE has not yet fully allocated the fossil energy R&D funds. The Secretary conducted his final review of these funds on Friday. Further details on distribution of these funds will be available as decisions are made in conjunction with OMB in the coming weeks.

Science, Recovery Act

- Funds will awarded through both competitive grants and existing contracts

Office of the Inspector General, Recovery Act

- Direct Federal spending on salaries and expenses

Defense Environmental Cleanup, Recovery Act

- DOE selected lower risk cleanup activities associated with proven technologies, and established cost and schedule baselines and regulatory frameworks. In most cases, the Department was able to utilize or modify contracts already in place to expedite the initiation of work.

Electricity Delivery and Energy Reliability, Recovery Act

- Most of the funds will be competitively awarded through a funding opportunity announcement; grants will be awarded for selected projects.

Energy Efficiency and Renewable Energy, Recovery Act

- Weatherization grants: determined through a formula based on low-income population, climatic conditions, and residential energy expenditures by low-income households in the States and U.S. Territories
- Advanced batteries manufacturing: competitive grants
- EECBG: $2.74 billion is a formula grant to eligible states, counties, and cities per the recently published formula; $456 million will be competitively sourced among eligible entities
- SEP: grants determined by established formula
- Transport electrification: competitive grants
- Alternative fueled vehicles: competitive solicitation through the Clean Cities program
- R and D of renewable and efficient energy technology: run through existing and new competitive solicitations

Non-Defense Environmental Cleanup, Recovery Act

- DOE selected lower risk cleanup activities associated with proven technologies, and established cost and schedule baselines and regulatory frameworks. In most cases, the Department was able to utilize or modify contracts already in place to expedite the initiation of work.

Energy Transformation Acceleration Fund, Recovery Act (ARPA-E)

- Competitive grants at the federal level

Uranium Enrichment Decontamination and Decommissioning Fund, Recovery Act

- DOE selected lower risk cleanup activities associated with proven technologies, and established cost and schedule baselines and regulatory frameworks. In most cases, the Department was able to utilize or modify contracts already in place to expedite the initiation of work.

Title 17 Innovative Technology Loan Guarantee Program, Recovery Act

- DOE will evaluate applicants consistent with the statutory requirements

Construction, Rehabilitation, Operation and Maintenance, Western, Recovery Act (WAPA)

- The Recovery Act appropriation of $10 million under Construction, Rehabilitation, Operation and Maintenance, Western Area Power Administration, is a permanent authorization (i.e. available until expended) to set up the program to administer the borrowing authority of $3.25 billion granted to Western under Section 402. The borrowing authority program (Transmission Infrastructure Program) is a permanent program to construct, finance, facilitate, plan, operate, maintain, or study construction of transmission facilities with at least one terminus in Western's service area to deliver or facilitate delivery of renewable resources. Once the program is established, which is expected to occur in May 2009, Western will start selecting projects to be funded with the $3.25 billion.

Bonneville Power Administration Fund, Recovery Act

- The ARRA provides BPA a new increment of Treasury Borrowing Authority under the Transmission System Act. BPA is authorized to use its borrowing authority for multiple purposes, including to expand and upgrade its transmission system for diverse purposes; energy efficiency; and to meet its obligations under the Pacific Northwest Electric Power Planning and Conservation Act of 1980.

(6)

2009 ARRA IMPLEMENTATION PLAN

DEPARTMENT OF ENERGY

RECOVERY.GOV

Discussion Document

Monday, March 16, 2009

DOE American Recovery and Reinvestment Act Plan

- **The DOE recognizes it has an important leadership role in the American Recovery and Reinvestment Act**
  - $32.7B in Recovery Act Budget Authority excluding loans (plus potentially $3B+ in ITC grant authority)
  - $60B in new Loan Guarantee Authority plus $7.5B for PMA on top of $67.5B in existing authority
  - A run rate of $1.2B in loans and grants per week through December 2010 will be required to deliver on DOE commitments

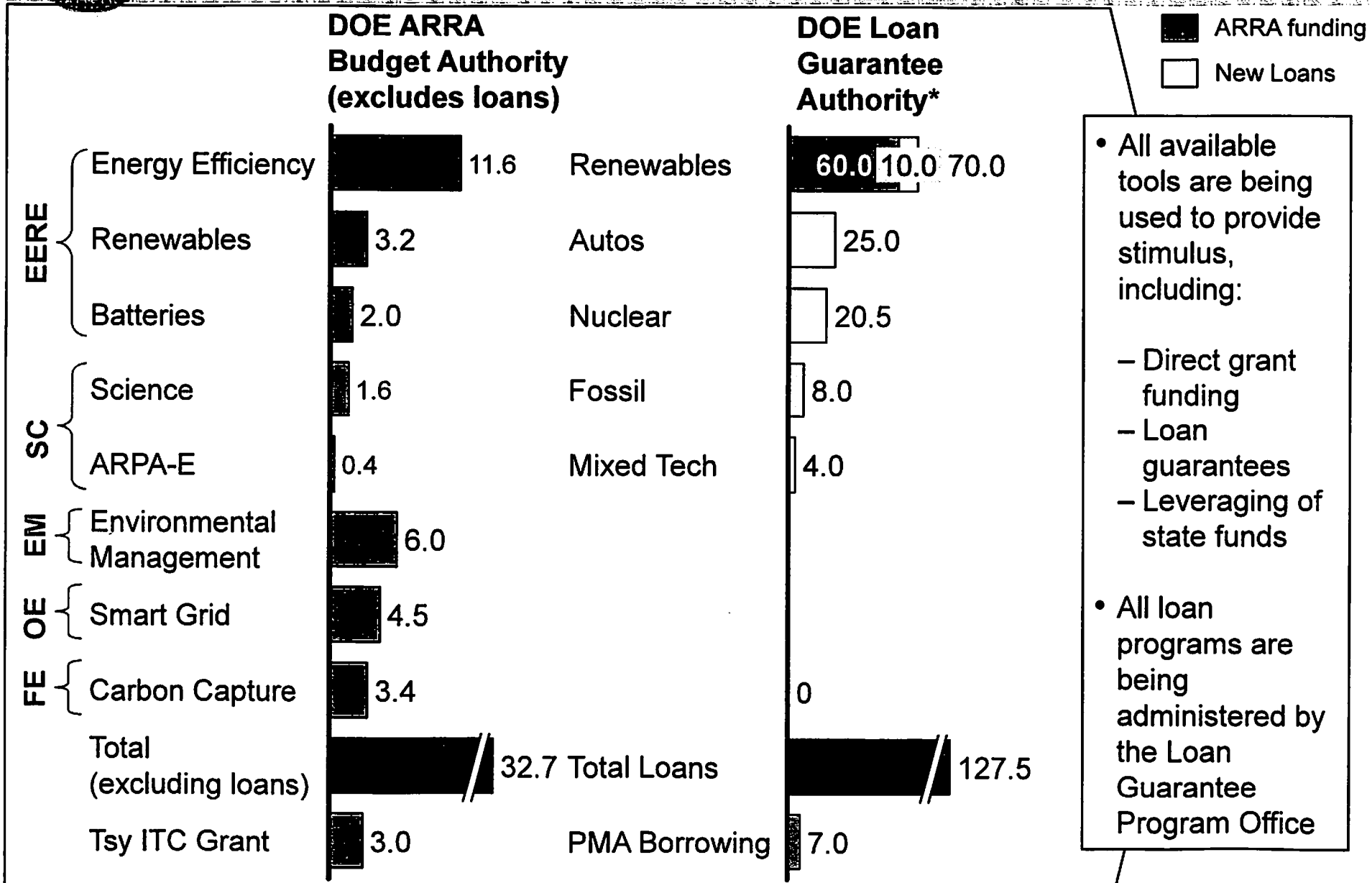
- **We will need to demonstrate the ability to deliver large, early wins. DOE success will be important to the success of the whole ARRA program**
  - Weatherization and State EE block grants
  - EM remediation programs
  - Science investments
  - Large loans out the door

- **The reporting and transparency requirements for this effort are exceptionally high. To this end, we are coordinating and tracking our efforts with a master plan and strengthening internal oversight**
  - Each milestone for each program to ensure we stay ahead on obligation and spend out rate actual v. plan
  - Linked to functional milestones for HC, GC, Procurement; Master plan milestones to guide public affairs
  - Full transparency for every $ and job by state, by recipient, within 5 days of close on Recovery.gov
  - Central database, linked to financials and standard reports to OMB started March 3

- **To meet our commitments to spend out rate and transparency, we will need to debottleneck processes within the DOE while maintaining a commitment to integrity, fairness, and effective deployment of DOE funds**
  - Expediting hiring, standardizing procurement language holding daily Recovery Act meetings with Senior team
  - Risk assessment, risk management plans and risk training working with the IG and internal controls

- **The combination of loans, grants, and tax incentives should contribute to the economic recovery and lay the foundation for cleaner energy in the future**
  - 70% spent by December 2010; 90% private sector jobs
  - Partnering with states; bringing sponsor equity off the sidelines; getting the banks to lend again
  - Double renewable energy capacity by 2011; save 80-100TWH in energy efficiency
  - Smart grid infrastructure; energy waste-clean-up; carbon capture and sequestration
  - Major scientific and technological breakthroughs

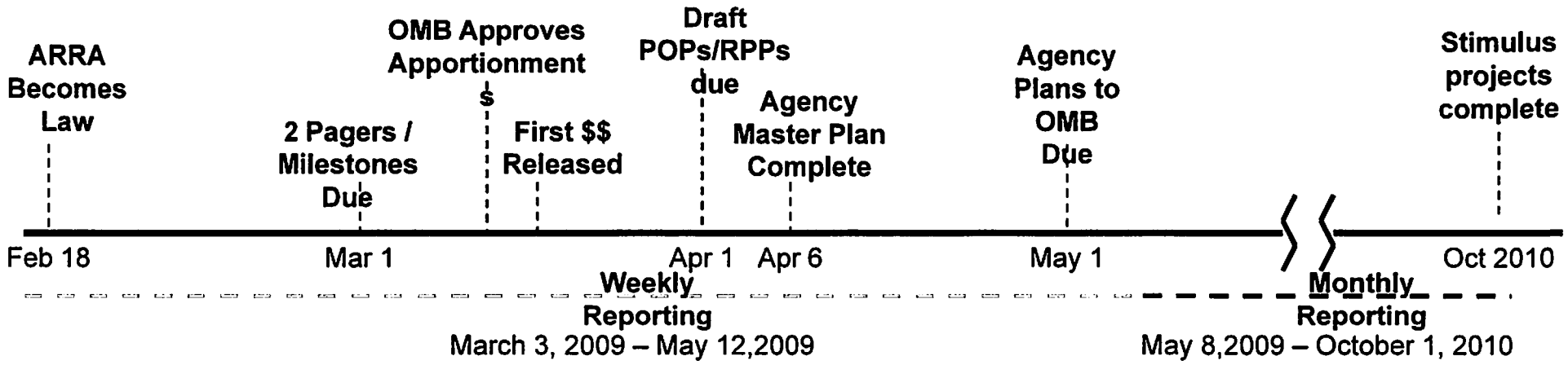
DOE is using multiple vehicles to support goals



- All available tools are being used to provide stimulus, including:
  - Direct grant funding
  - Loan guarantees
  - Leveraging of state funds
- All loan programs are being administered by the Loan Guarantee Program Office

* $6 bn allocated to underwrite cup to $60 bn in loans under ARRA; $7.5 bn available to underwrite auto loans, so 13.5 bn enabling $127.5 of investment

Recovery Act Planning Timeline



Key Process Gates

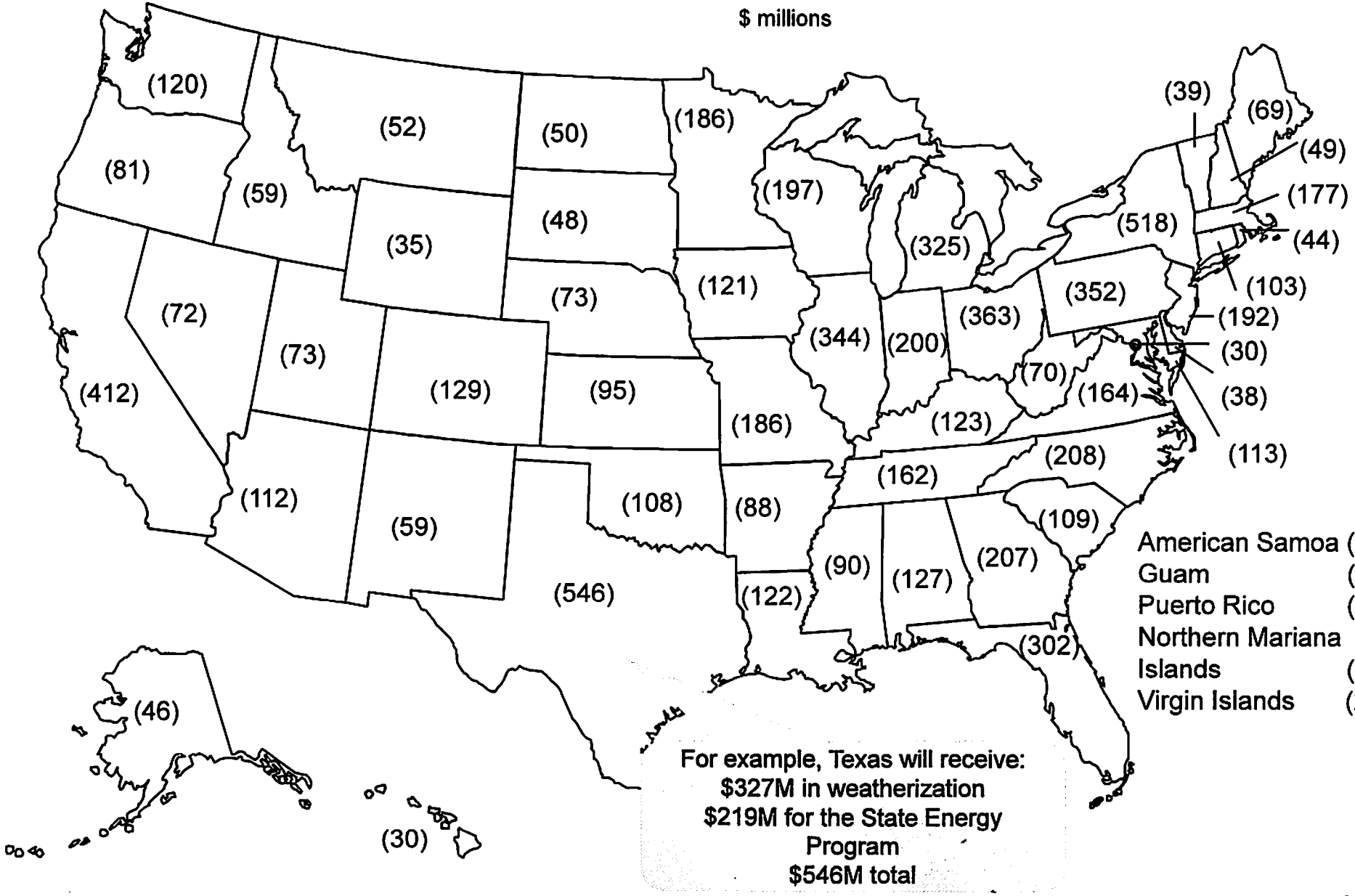
1. S-1 Approves Project Proposals
2. Budget Tables
3. Accounting and Budget Codes Issues
4. Update Approved Funding Program data
5. Conduct OMB Briefing, if requested
6. Approve 2-pagers/ milestones
7. Apportionment received from OMB
8. Treasury warrant received
9. Allotment issued by Budget Office
10. Issue work authorization guidance
11. Allocation data by project to allottee holders
12. Allottee holders complete allocations in STARS at the project level
13. Funds obligated

Program Management Approach

- Daily Recovery Act meetings
- Program risk management plans
- Program fraud/risk training
- Program Executive/CFO Personal Risk Assurance
- Office of Internal Review conducting proactive reviews
- Inspector General Pre-spend Audits
- Phase-Gate Spend plans
- Integrated Procurement Plan
- Master Plan – Plan vs. Actual

State Energy Efficiency Weatherization & State Energy Programs

State (Weatherization and State Energy Program Total funding)
$ millions



DOE American Recovery and Reinvestment Plan

Money Out Quickly

To Good, Enduring Projects

With Unprecedented Transparency

Making a Downpayment on Energy & Environmental Future of the Country