



Department of Energy Recovery Act State Memos

Florida



For questions about DOE's Recovery Act activities, please contact the DOE Recovery Act Clearinghouse:
1-888-DOE-RCVY (888-363-7289), Monday through Friday, 9 a.m. to 7 p.m. Eastern Time
<https://recoveryclearinghouse.energy.gov/contactUs.htm>.

All numbers and projects listed as of October 1, 2010

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American Recovery and Reinvestment Act



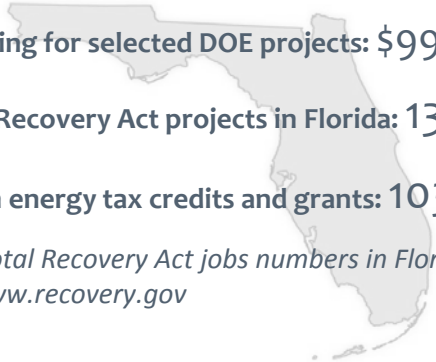
U.S. DEPARTMENT OF ENERGY • FLORIDA RECOVERY ACT SNAPSHOT

Funding for selected DOE projects: \$997.9 million

DOE Recovery Act projects in Florida: 136

Clean energy tax credits and grants: 103

For total Recovery Act jobs numbers in Florida go to www.recovery.gov



The **American Recovery & Reinvestment Act (ARRA)** is making a meaningful down payment on the nation's energy and environmental future. The Recovery Act investments in Florida are supporting a broad range of clean energy projects, from energy efficiency and the smart grid to solar power and biofuels. Through these investments, Florida's businesses, universities, non-profits, and local governments are creating quality jobs today and positioning Florida to play an important role in the new energy economy of the future.

EXAMPLES OF FLORIDA FORMULA GRANTS

Program	State Energy Program	Weatherization Assistance Program	Energy Efficiency Conservation Block Grants	Energy Efficiency Appliance Rebate Program
Award (in millions)	\$126.1	\$177.5	\$171.6	\$17.6
	The Executive Office of the Governor of Florida has received \$126.1 million to invest in state-level energy efficiency and renewable energy priorities.	The State of Florida has received \$177.5 million to scale-up existing weatherization efforts in the state, creating jobs, reducing carbon emissions and saving money for Florida's low-income families. Over the course of the Recovery Act, Florida expects to weatherize nearly 19,100 homes.	Eighty-nine communities in Florida have received a total of \$171.6 million to develop, promote, implement, and manage local energy efficiency programs.	The Executive Office of the Governor of Florida has received \$17.6 million to offer consumer rebates for purchasing certain ENERGY STAR® appliances, which reduce energy use and save money for families, while helping the environment and supporting the local economy.

EXAMPLES OF FLORIDA COMPETITIVE GRANTS AND TAX CREDITS

Award	\$200 million	\$95.5 million	\$72.8 million	\$50 million	\$15 million
	Florida Power & Light Company was awarded \$200 million under the Smart Grid Investment Grant program for a comprehensive project to advance smart grid functionalities across the state.	Saft in Jacksonville was awarded \$95.5 million to build advanced lithium-ion batteries for electric vehicles.	Florida received one hundred and two 1603 payments for renewable energy generation totaling \$72.8 million , which include sixty-nine solar electricity projects totaling \$69.7 million.	INEOS New Planet BioEnergy, LLC in Vero Beach was awarded \$50 million to produce ethanol and electricity from wood and vegetative residues and construction and demolition materials.	Siemens Energy, Inc. , received \$15 million to design, install and operate an advanced carbon capture, solvent-based pilot plant at Tampa Electric Company's Big Bend Station that has significant potential to provide an efficient, low-cost carbon capture solution for both industrial- and utility-scale applications.

Funding Allocation Table

Total dollar amounts in this document are accurate as of October 1, 2010. Please note that Recovery Act Programs are ongoing and the dollar amounts are subject to change. Recipient locations are based on project sites rather than recipients' headquarters locations.

Recovery Act Pillar	Flagship Program Names & Funding Type ¹	Number of Selections	Selected Amount (in millions) ²
Energy Efficiency	Weatherization Assistance Program (F)	1	\$177.5
	State Energy Program (F)	1	\$126.1
	Energy Efficiency and Conservation Block Grant (F)	89	\$171.6
	Energy Efficient Appliance Rebate (F)	1	\$17.6
	Building Energy Efficiency	6	\$0.8
	Additional Programs (CM & C)	1	\$0.3
	TOTAL Energy Efficiency	99	\$493.9
Renewable Energy	Solar (CM)	3	\$3.0
	TOTAL Renewable Energy	3	\$3.0
Electric Grid	Smart Grid Investment and Demonstrations Project (CM) ³	8	\$261.7
	State and Local Energy Assurance and Regulatory Assistance (F)	5	\$3.5
	Smart Grid Workforce Training (CM)	1	\$5.0
	TOTAL Electric Grid	14	\$270.2
Transportation	Advanced Battery Manufacturing (CM)	1	\$95.5
	Advanced Fuels (CM)	3	\$74.5
	Additional Programs (CM)	1	\$2.4
	TOTAL Transportation	5	\$172.4
Carbon Capture and Storage	CCS Projects (CM)	2	\$47.3
	Research and Training (CM)	1	\$0.3
	TOTAL Carbon Capture and Storage	3	\$47.6
Science and Innovation	Advanced Research Projects Agency - Energy (ARPA-E) (CM)	3	\$5.8
	Small Business Research (SBIR/STTR) (CM)	8	\$4.2
	Additional Programs	1	\$0.8
	TOTAL Science and Innovation	12	\$10.8
TOTAL - DOE Programs⁴		136	\$997.9
Tax Credits/ Payments ⁵	Grants for Energy Property in Lieu of Tax Credits (1603)	102	\$72.8
	Clean Energy Manufacturing (48C)	1	\$20.4
	TOTAL Tax Incentives	103	\$93.2
TOTAL - DOE/Treasury + DOE		139	\$1,091.1
¹ F=Formula Grant, CM=Competitive Grant, C=Contract			
² "Selected" indicates DOE has selected a potential funding recipient, which begins the process of negotiating an agreement. This does not necessarily indicate that a final agreement has been reached.			
³ Projects may cross state boundaries, signifies HQ location.			
⁴ Total does not include administrative funds.			
⁵ Jointly administered by DOE and the U.S. Department of Treasury.			

ENERGY EFFICIENCY – 99 projects totaling \$493.9 million

Helping millions of American families cut utility bills by making homes and appliances more energy efficient, expanding the home efficiency industry in sales and manufacturing. For more information, visit <http://www.energy.gov/recovery/energyefficiency.htm>.

Award(s): \$177.5 million, Weatherization Assistance Program (WAP)

Location: Statewide

Florida received \$177.5 million to scale-up existing weatherization efforts in the state, creating jobs, reducing carbon emissions and saving money for Florida's low-income families. Over the course of the Recovery Act, Florida expects to weatherize nearly 19,100 homes. The Weatherization Assistance Program annually provides grant funds to community action agencies, local governments, Indian tribes and non-profit agencies to provide specific program services for low-income families of Florida. These entities provide program services throughout the state. The mission of the program is to reduce the monthly energy burden on low-income households by improving the energy efficiency of the home.

Award(s): \$126.1 million, State Energy Program (SEP)

Location: Statewide

The Executive Office of the Governor of Florida received \$126.1 million to invest in state-level energy efficiency and renewable energy priorities. These funds will be allocated towards a variety of projects statewide, including the Florida Clean Energy Opportunity Fund, created to increase the availability of seed capital and early state venture capital for emerging clean technology companies in Florida. Examples of other projects include Solar for Schools & Shelters, Solar Energy (Water Heating) Loan, the Florida Energy Opportunity Fund and the Florida Residential Retrofit Program.

Award(s): 89 totaling \$171.6 million, Energy Efficiency and Conservation Block Grant Program (EECBG)

Location: Statewide

Recipients: Executive Office of the Governor of Florida, Miami-Dade County, Jacksonville, Hillsborough County, Orange County, Palm Beach County, Miami, Polk County, Pasco County, Pinellas County, Tampa, Lee County, Collier County, Brevard County, Seminole County, Lake County, Orlando, Sarasota County, Marion County, Volusia County, Manatee County, St. Petersburg, Escambia County, Fort Lauderdale, Hialeah, Tallahassee, Cape Coral, Hollywood, Port St. Lucie, Pembroke Pines, Gainesville, Coral Springs, West Palm Beach, Clearwater, Pompano Beach, Boca Raton, Miami Gardens, Lakeland, Miramar, Palm Bay, Davie, Sunrise, Miami Beach, Melbourne, Plantation, Fort Myers, Deltona, Largo, Deerfield Beach, Daytona Beach, Boynton Beach, Palm Coast, Delray Beach, Ocala, Pensacola, Kissimmee, Sarasota, Lauderhill, Weston, Tamarac, Bradenton, St. Lucie, North Miami, Margate, Port Orange, Wellington, North Port, Coconut Creek, Palm Beach Gardens, Pinellas Park, Coral Gables, Jupiter, Titusville, Fort Pierce, Oakland Park, Bonita Springs, Panama, Altamonte Springs, Ormond Beach, Hallandale Beach, North Lauderdale, Riviera Beach, North Miami Beach, Apopka, Lake Worth, Dunedin, Miccosukee Corporation, Palm Coast, Homestead Utilities

Eighty-nine communities in Florida received a total of \$171.6 million to develop, promote, implement and manage local energy efficiency programs. The EECBG funding will support energy reviews and efficiency modifications in residential and commercial buildings, advanced building codes and inspections and financial incentive programs for energy efficiency improvements. Other activities eligible for use of grant funds include transportation programs that conserve energy, projects to

reduce and capture methane and other greenhouse gas emissions from landfills, renewable energy installations on government buildings, energy efficient lighting for traffic signals and street lights and other actions that conserve energy. Examples of EECBGs include:

- **City of Boca Raton - \$990,000**

The City of Boca Raton will buy eleven new hybrid vehicles, the first step in a seven-project green initiative that will spend \$990,000 in federal stimulus dollars. The fleet will replace vehicles due for a change using hybrids is estimated to save the city \$8,000 per year. Some of the other green projects will retrofit the florescent, illuminated street signs at sixteen intersections downtown to LED (light-emitting diodes). Some 1,000 incandescent streetlight heads will be replaced with LED fixtures and 320 outdoor lights at city buildings and parking lots will be replaced with more energy-efficient LEDs.

- **City of Largo - \$719,000**

The City of Largo is undertaking a variety of projects with \$719,000 in EECBG funds including energy efficiency studies and a roof retrofit for City Hall, an energy efficiency sub-grant program for homeowners (up to \$5,000), retrofits to 180 streetlights with LED lighting technology and the conversion of the Community Center to a green building to include a complete photovoltaic system.

Award(s): \$17.6 million, Energy Efficient Appliance Rebate Programs

Location: Statewide

The Executive Office of the Governor of Florida received \$17.6 million to offer consumer rebates for purchasing certain ENERGY STAR® appliances. ENERGY STAR appliances reduce energy use, thereby saving money for families, helping the environment and supporting the local economy. The Florida ENERGY STAR Appliance Rebate Program provides rebates on approximately 68,000 ENERGY STAR appliances purchased from Florida retailers. These rebates bring at least \$62 million into Florida's economy, in addition to generating at least \$4 million in tax revenues. Retailers must provide a sales receipt which includes the retailer's name, address and purchase date and product information such as type of appliance, model number and price.

Award(s): 2 totaling \$808,000, Advanced Building Systems

Location: Orlando

These projects address research focused on the systems design, integration and control of both new and existing buildings. Buildings need to be designed, built, operated and maintained as an integrated system in order to achieve the potential of energy efficient and eventually net zero-energy buildings. The projects move beyond component-only driven research and address the interactions in buildings as a whole, in order to progress development of integrated, high-performance buildings and achieve net zero-energy buildings.

- **University of Central Florida, Orlando - \$552,000**

The University of Central Florida in Orlando received \$552,000 to focus on improving the capability to simulate complex interactions between building elements, including climate, envelope heat and moisture transfer, internal heat gains, lighting power, HVAC equipment, controls, thermal and visual comfort, and energy costs.

- **University of Central Florida, Orlando - \$256,000**

The University of Central Florida in Orlando received \$256,000 to focus on dramatically increasing the efficiency of HVAC systems and pursuing technologies that apply to both air conditioning and refrigeration.

Award(s): 4 totaling \$2,000, Buildings and Appliance Market Transformation

Location: Miami

The Buildings and Appliance Market Transformation project expands building codes, accelerates the pace of Appliance Standard test procedure development and improves the efficiency of commercial buildings' operations by training building operators and commissioning agents.

Award(s): \$250,000, Ground Source Heat Pumps

Location: Miami

Florida International University in Miami received \$250,000 to gather and analyze data to improve GHP loop design and efficiency in systems intended for use in hot and humid regions of the country.

RENEWABLE ENERGY – 106 projects totaling \$96.2 million

Developing clean renewable resources in order to double our supply of renewable energy and boost domestic renewable manufacturing capacity. For more information, visit <http://www.energy.gov/recovery/renewableenergy.htm>.

Award(s): 102 payments totaling \$72.8 million from DOE / Treasury, 1603 Payments for Renewable Energy Generation

Location: Statewide

*For current numbers and names of recipients for 1603 awards, see the weekly update at <http://www.treas.gov/recovery/1603.shtml>

Florida received one hundred and two 1603 payments for renewable energy generation totaling \$72.8 million, which include biomass, solar electricity and solar thermal projects.

- 1 payments for a biomass (open loop, cellulosic) project totaling \$2.9 million
- 69 payments for solar electricity projects totaling \$69.7 million.
- 32 payments for solar thermal projects totaling \$164,000.

Award(s): 3 totaling \$3 million, High-Penetration Solar Deployment

Location: Tampa, Orlando, Tallahassee

- **Ultrasonic Technologies, Inc., Tampa - \$1.4 million**

Ultrasonic Technologies, Inc., in Tampa received \$1.4 million to use resonance ultrasonic vibration (RUV) technology as an industrial tool for silicon solar manufacturing.

- **University of Central Florida, Orlando - \$981,000**

The University of Central Florida in Orlando received \$981,000 for the creation of the Southern Alternative Energy Training Network, which in turn will create industry recognized and quality staffed alternative energy training centers throughout the southern U.S. and its territories. The Southern Alternative Energy Training Network will enhance the South's economic development efforts by responding to projected market and industry demands for solar technologies.

- **Florida State University, Tallahassee - \$600,000**
Florida State University in Tallahassee received \$600,000 for a project that will characterize the variation and impact of solar power as a function of system size (both kilowatt and megawatt), location, installation type and technology, including examination of variation within larger systems. The result will be technical solutions, from protection and control strategies and technologies, to converter, converter control and photovoltaic system technologies, to address any issues identified with high-penetration levels of grid-connected photovoltaics.

MODERNIZING THE ELECTRIC GRID – 14 projects totaling \$270.2 million

Harnessing clean energy sources and integrating them on to a modernized electric grid, while giving consumers better choices and more control over their energy use. For more information, visit <http://www.energy.gov/recovery/smartgrid.htm>.

Award(s): 4 totaling \$2.3 million, Enhancing State and Local Governments' Energy Assurance

Location: Statewide

This project focuses on building regional energy assurance capability by enhancing inter- and intra-state coordination and cooperation during energy emergencies. The project funds states to update or develop State Energy Assurance Plans incorporating new energy portfolios such as wind, renewables and biofuels. The project also funds cities to update or develop Local Energy Assurance Plans. The two sets of funding are used to hire or retrain staff to build in-house expertise in dealing with Smart Grid technologies, critical energy infrastructure interdependencies and cyber-security.

- **Executive Office of the Governor of Florida, Tallahassee - \$1.9 million**
The Executive Office of the Governor of Florida received \$1.9 million to procure consulting services to examine Florida's energy assurance plans and policies separately and as a whole to strengthen the system. In addition, this program will design an automated computer-based system to track the duration, response, restoration and recovery time of energy supply disruptions, including the capability of mapping areas of the state experiencing outages.
- **City Of Delray Beach - \$130,000**
The City of Delray Beach received \$130,000 for the Local Energy Assurance Planning (LEAP) Initiative.
- **City of Lake Worth - \$130,000**
The City of Lake Worth received \$130,000 for the Local Energy Assurance Planning (LEAP) Initiative.
- **City of Palm Beach Gardens - \$130,000**
The City of Palm Beach Gardens received \$130,000 for the Local Energy Assurance Planning (LEAP) Initiative.

Award(s): 8 totaling \$261.7 million, Smart Grid Investment Grant Program (EISA 1306)

Location: Statewide

- **Florida Power & Light Company (FPL), Statewide - \$200 million**
Florida Power & Light Company (FPL) received \$200 million to advance Smart Grid functionalities through end-to-end integration and cross-cutting automation of FPL's grid.
- **Lakeland Electric, Statewide - \$14.9 million**
Lakeland Electric received \$14.9 million for the installation of an AMI infrastructure for all 120,000+ electric residential and 5,900 commercial and industrial customers in a 258 square mile service area.
- **JEA, Statewide - \$13 million**
JEA received \$13 million to perform an upgrade of the metering infrastructure from one-way to two-way.
- **City of Leesburg - \$9.7 million**
The City of Leesburg received \$9.7 million for the deployment of AMI and MDMS, Home Area Networks (energy management for municipal buildings, integrated distributed generation and integrated Volt / VAR Control and Outage Management).
- **City of Tallahassee - \$8.9 million**
The City of Tallahassee received \$8.9 million to implement a next-generation, "Auto-DR" system that seeks to reduce 35 MW of peak power from its customer base.
- **Talquin Electric Cooperative, Inc., Statewide - \$8.1 million**
Talquin Electric Cooperative, Inc., received \$8.1 million to implement an AMI system for 56,000 residential and commercial accounts in a predominantly rural, 2,600 square mile, four-county service area in North Florida.
- **Atheros Communications, Inc., Orlando - \$4.6 million**
Atheros Communications, Inc., in Orlando received \$4.6 million for project that involves the modification of existing power line communications equipment including the INT6400 integrated circuit and reference design to enhance Smart Grid functionality.
- **City of Quincy - \$2.5 million**
The City of Quincy received \$2.5 million to deploy an AMI system with two-way communication across the entire customer base.

Award(s): \$5 million, Smart Grid Workforce Training

Location: Juno Beach

Florida Power & Light Company (FPL) received \$5 million to transform the traditional approach to electric power workforce training by bringing industry and academia together to design and execute workforce training initiatives aimed at producing multidisciplinary standards in power systems that address Smart Grid technologies. Through FPL's Energy Smart Florida project, over 6,000 new jobs will be created for which workforce training may be necessary.

Award(s): \$1.2 million, State Assistance on Electricity Policies

Location: Tallahassee

The Florida Public Service Commission (FPSC) in Tallahassee received \$1.2 million for a staff training program is designed to prepare staff to expeditiously respond to electricity related issues such as developing technologies in renewable energy, energy transmission and Smart Grid technology.

TRANSPORTATION – 5 projects totaling \$172.4 million

Investing in a new generation of advanced fuels and vehicles to reduce our dependence on foreign oil and revitalize domestic manufacturing. For more information, visit <http://www.energy.gov/recovery/vehicles.htm>.

Award(s): \$95.5 million, Advanced Battery Manufacturing

Location: Jacksonville

Saft in Jacksonville received \$95.5 million to build a lithium-ion (Li-ion) battery manufacturing plant. The factory will build advanced Li-ion cells and batteries for military hybrid vehicles, aviation, Smart Grid support, broadband back-up power and energy storage for renewable energy. The high-volume factory will begin production during the second half of 2011, providing additional capacity needed to meet growing customer demand, particularly in renewable energy storage.

Award(s): \$2.4 million, Enabling Fuel Cell Market Transformation

Location: Jacksonville

The University of North Florida received \$2.4 million for advanced direct methanol fuel cell for mobile commuting.

Award(s): \$200,000, Investigation of Intermediate Ethanol Blends, Optimization of E-85 Engines and Development of Transportation Infrastructure

Location: Statewide

Protec Fuel Management, LLC, received \$200,000 to convert existing retail fueling stations to include E85 fuel to service existing large numbers of fleet FFVs and general public FFVs.

Award(s): 2 totaling \$74.3 million, Modify Integrated Biorefinery Solicitation Program for Pilot and Demonstration Scale Biorefineries

Location: Vero Beach, Bonita Springs

- **Ineos New Planet Bioenergy, LLC, Vero Beach - \$50 million**

Ineos New Planet Bioenergy, LLC, in Vero Beach received \$50 million to produce ethanol and electricity from wood and vegetative residues, as well as construction and demolition materials. The facility combines biomass gasification and fermentation and has the capacity to produce eight million gallons of ethanol and 2 MW of electricity per year by the end of 2011.

- **Algenol Biofuels, Inc., Bonita Springs - \$24.3 million**

Algenol Biofuels, Inc., in Bonita Springs received \$24.3 million for a pilot-scale biorefinery that produced ethanol from hybrid algae.

CARBON CAPTURE AND STORAGE – 3 projects totaling \$47.6 million

Developing clean coal technologies in order to utilize America's coal resources sustainably. For more information, visit <http://www.energy.gov/recovery/ccs.htm>.

Award(s): \$300,000, Geologic Sequestration Training and Research Grant Program

Location: Key Biscayne

The University of Miami in Key Biscayne received \$300,000 for an integrated geochemical and remote sensing approach to the monitoring, verification and accounting of carbon dioxide sequestered in deep geologic repositories. This approach uses high-precision space geodesy (GPS and InSAR) to measure subtle surface displacements associated with pressure and volume changes at depth due to pumping of carbon dioxide. This methodology can be implemented at relatively low cost at proposed sequestration sites, requiring only the installation of a sparse network of GPS, seismic and geochemical stations, as well as low cost, commercial satellite imagery. This project supports at least two graduate students during research efforts.

Award(s): 2 totaling \$47.3 million, Industrial Carbon Capture and Storage Applications

Locations: Orlando, Tampa

- **Siemens Energy, Inc., Orlando - \$32.3 million**
Siemens Energy, Inc., in Orlando received \$32.3 million to develop advanced hydrogen fueled gas turbine technology applicable to industrial processes that have the potential to separate and capture carbon dioxide.
- **Siemens Energy, Inc., Tampa - \$15 million**
Siemens Energy, Inc., received \$15 million to design, install and operate an advanced carbon capture, solvent-based pilot plant at Tampa Electric Company's Big Bend Station that has significant potential to provide an efficient, low-cost carbon capture solution for both industrial- and utility-scale applications.

SCIENCE AND INNOVATION – 12 projects totaling \$10.8 million

Renewing the United States' commitment to science and innovation to ensure future global competitiveness. For more information, visit <http://www.energy.gov/recovery/innovation.htm>.

Award(s): 3 totaling \$5.8 million, Advanced Research Projects Agency - Energy (ARPA-E)

Location: Orlando, Gainesville, Odessa

- **Planar Energy Devices, Inc., Orlando - \$4.1 million**
Planar Energy Devices, Inc., in Orlando received \$4.1 million to develop an ultra high energy, long cycle life all solid-state lithium battery that can be manufactured using low cost techniques. Pilot-scale manufacturing of the batteries will be demonstrated using all inorganic materials and solid state electrolytes whose properties are similar to existing liquid electrolytes.
- **University of Florida, Gainesville - \$1 million**
University of Florida in Gainesville received \$1 million to develop a next generation solar powered absorption chiller that is an order of magnitude smaller than the existing systems with a significantly reduced cost.

- **Dais Analytic Corp., Odessa - \$681,000**

Dais Analytic Corp. in Odessa received \$681,000 to scale in size and field trial a novel dehumidification system. The system promises significantly reduced energy consumption for air cooling in warm and humid climates and reduced future carbon emission growth from the HVAC sector.

Award(s): \$837,000, Energy Sciences Fellowships and Early Career Research Program

Location: Gainesville

The University of Florida in Gainesville received \$837,000 for systems biology, whole-genome association analysis of the molecular regulation of biomass growth and composition in populus deltoids.

Award(s): 8 totaling \$4.2 million, Small Business Innovation Research (SBIR) / Small Business Technology Transfer (STTR)

Location: Statewide

- **Mainstream Engineering Corporation, Rockledge (4) - \$2.6 million**

Mainstream Engineering Corporation in Rockledge received four awards totaling \$2.6 million. The funds will be used for phase change slurries for residential thermal energy storage; an organic rankine cycle waste heat recovery system that utilizes an environmentally-sustainable working fluid; a web-based, plug & play, wireless remote monitoring, diagnostic and system health prediction system for residential A / C and heat pump applications; and the development of composite refractory materials with radiant barriers to improve the thermal efficiency of kiln operations.

- **Fieldmetrics, Inc., Seminole - \$1.2 million**

Fieldmetrics, Inc., in Seminole received \$1.2 million for a multi-function sensor platform for real-time Smart Grid power line measurements.

- **Florida Turbine Technologies, Inc., Jupiter - \$150,000**

Florida Turbine Technologies, Inc., in Jupiter received \$150,000 for spar-shell cooling technology verification, manufacturing and development.

- **Fractal Systems, Inc., Belleair Beach - \$150,000**

Fractal Systems, Inc., in Belleair Beach received \$150,000 for enhanced charge transport towards high-efficiency organic photovoltaics.

- **Cobb Design, Inc., St. Petersburg - \$145,000**

Cobb Design, Inc., in St. Petersburg received \$145,000 for the design and demonstration of a solar array for a modular distributed concentrating solar power (CSP) system.

Florida

Recovery Act Success Stories

MIAMI

Methane Sequestration Project: breaking ground in Miami-Dade

- \$1.7 million Recovery Act grant supporting innovative \$15 million project
- Project to capture landfill gases to power water treatment plant
- Combining landfill and digester gases, county to increase amount of self-generated electricity



Through EECBG funding, the existing Miami-Dade County water treatment facility. | Photo courtesy of Miami-Dade County

Officials from Miami-Dade County and the U.S. Department of Energy were on hand Wednesday, October 13 at the County's South Dade Landfill, to formally break ground on the "Methane Sequestration Project."

This innovative project will help improve the energy efficiency of one of the county's largest water treatment facilities.

The project, funded through the Recovery Act, will upgrade and expand the existing power generation system at the water plant, which generates electricity from digester gas produced at the plant. Landfill gas, which is produced from the Solid Waste Department's South Dade Landfill, will be collected and piped across a canal to the water plant where it will be mixed with digester gases. By combining landfill and digester gases, the county will increase the amount of self-generated electricity, and reduce the county's consumption of electricity generated from fossil fuels.

Miami-Dade officials say the \$15 million project would not be possible without an initial \$1.7 million from the Energy Efficiency and Conservation Block Grant (EECBG) Program.

Once completed, this project has the potential to produce 63,800 kW annually and the collected landfill gas will no longer have to be

flared. In addition, it is estimated that this project will generate 40 jobs in the local economy.

"The Methane Sequestration Project is our largest alternative energy project to date. It illustrates how partnerships between residents, businesses and government can ensure we are doing what is necessary for a sustainable future," said Miami-Dade Mayor Carlos Alvarez.

The Methane Sequestration Project is just one of 13 Miami-Dade EECBG projects, which includes a mix of energy management projects, citizen outreach and education, sub-grants, demonstration programs, construction projects, and incentive programs.

In the first year of the EECBG grant program, Miami-Dade County spent over \$4.3 million, or 35 percent of grant funds. This exceeds DOE's milestone of spending 20 percent by September 30, 2010.

Other accomplishments include: installation of a cool roof on a Homestead library, hosting Home Energy Savings Workshops for residents in each of the 13 commission districts, providing grants for energy efficiency retrofits for community based organizations and non-profits, issuing energy retrofit loans to local businesses and the installation of solar panels on park recreational buildings.

SANTA CLARA

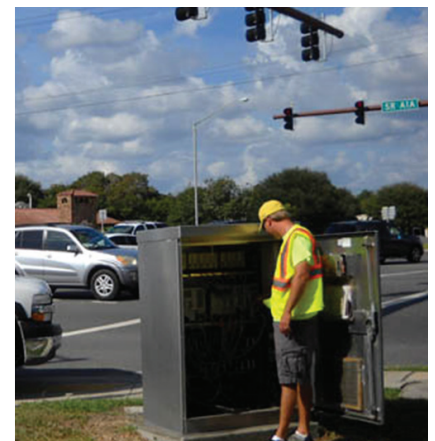
Florida county seeks to reduce emissions and improve traffic

- St. Johns County uses Recovery Act funding to resynchronize 23 traffic signals at five major segments of roadway
- New light patterns to save nearly 729,000 gallons of gas; reduce CO2 emissions by more than 2,200 metric tons
- County plans to reduce driving time and emissions through retiming and synchronization plan

The intersection of State Road A1A and State Road 312 in St. Augustine is messy at 5 o'clock. On one side, tourists returning from Florida's beaches try to navigate their way to hotels and restaurants. On the other side, commuters try to make their way to residential neighborhoods.

Cars wait and wait for turn arrows, while some locals cut through fast food parking lots to avoid the red lights.

Waiting at traffic lights not only frustrates drivers,



A worker synchronizes a traffic light on State Road A1A in St. Augustine, Fla. St. Johns County synchronizing 23 traffic signals in an effort to decrease fuel consumption and travel times. | Photo Courtesy of St. Johns County

it's not good for the environment. Idling vehicles use up to several billion gallons of fuel and emit large quantities of air pollution and greenhouse gases each year.

Saving money with shorter stops

St. Johns is tackling the traffic-timing problem.

Through a \$276,000 investment from a \$438,000 Energy Efficiency and Conservation Block Grant, the county will improve traffic flow by re-synchronizing signals at five major road segments. In total, 23 traffic signals will be retimed and synchronized, resulting in lower fuel consumption, shorter travel times, increased travel speed, less stopping and less engine idling.

The county estimates drivers will save nearly 729,000 gallons of gasoline and reduce CO2 emissions by more than 2,200 metric tons annually.

"These are major arterials in the county," says Jay Kamys, special projects coordinator with the St. Johns Board of County Commissioners. "The changes at these intersections will affect traffic flow. We're looking to get the most bang for our buck effecting these changes with a well thought out and targeted plan."

Change requires prep

The county is hiring a consultant who specializes in traffic light synchronization to provide the engineering reports for the project. The program is scheduled to be completed by April 2012.

"We can't just say we're going to change the signals in one day," says Kamys. "It's far more complicated than most people think."

There is a substantial amount of preparation that needs to be done before the actual changing process can begin, including traffic counts at major intersections—how many cars go through and how long do they wait—and figuring out timing between sets of lights.

On top of that, there are other things to consider, like left-turn-only lanes and no-right-on-reds.

"Turning movements can be different depending on the day of the week and time of day," says Kamys. "There are a lot of factors to consider with these lights."

LAUDERDALE

North Lauderdale gets 'smart' on cars

- Two Smart Cars to save Florida city \$4,800 annually
- Smart Cars to be used as part of night patrols of city parks
- City estimates will save more than \$33,000 annually through Recovery Act projects

The Parks and Recreation Department of North Lauderdale, Fla., is saving money and reducing its carbon footprint, thanks to the recent addition of two energy efficient "Smart Cars" to the city's fleet.

The pint-sized cars, which can travel up to 40 miles on a single gallon of fuel, were purchased with funds from the U.S. Department of Energy's Energy Efficiency and Conservation Block Grant (EECBG) Program.

The cars, which were purchased in Broward County, are used to perform night patrols of city parks and carry out other routine duties. The city expects the two cars to save North Lauderdale taxpayers approximately \$4,800 per year.



North Lauderdale, Fla., expects two Smart cars to save taxpayers approximately \$4,800 per year. | Photo courtesy of North Lauderdale

"The Smart Cars have really made a difference in our budget," says Parks & Recreation Department Director Michael Sargis. "Between performing security checks and facilitating programming, my staff does a lot of driving. With the Smart Cars, we can complete that work while conserving fuel. It's a win-win situation."

Changes for additional savings

According to North Lauderdale Mayor Jack Brady, purchasing the Smart Cars was only the first step in the city's comprehensive shift toward energy efficiency. The remaining funds from the total \$161,800 EECBG grant will be used to install low-flow sinks and toilets at city facilities and equip all municipal offices with motion-activated lighting sensors.

In all, the city expects to save around \$24,400 annually and help North Lauderdale achieve the long-term goal of reducing its carbon footprint.

"With the help of EECBG funding, our community is aiming to become an area-wide model of energy efficiency," says Mayor Brady. "The Smart Cars are a great first step, but we plan to do a lot more to encourage conservation among residents and visitors."

Brady adds that "going green" isn't just responsible, it's cost-effective.

"There has never been a better time to prioritize conservation, both in business and within the community. With fewer resources available at every level, it's important to secure the greatest value for tax payers," he says.

ORLANDO

VP 100: Orlando plugs into electric vehicle charging stations

Imagine spending the day at a theme park in Orlando. After hours of rides, games and fun, you head back to your rental car, which is plugged in at an electric vehicle (EV) charging station in the parking lot.

This scene is closer to reality as Orlando, Fla., prepares to get nearly 300 EV charging stations within the next year as part of Coulomb Technology's ChargePoint America program.



Nearly 300 electric vehicle charging stations are scheduled to be available throughout the Orlando area next year. File photo

Getting the city charged

Coulomb's investment—made possible by \$37 million in funding, \$15 million from the Recovery Act's Transportation Electrification Initiative—will provide charging stations to nine metropolitan areas across the country. Coulomb will provide nearly 5,000 residential and public charging stations overall.

The first public charging station is housed in a parallel parking spot in front of Orlando's city hall.

"It's a high visibility location," says Jon Ippel, Orlando's sustainability manager. "[During a ribbon-cutting ceremony,] a lot of people walked by it and asked great questions."

So far, Ippel has seen a few cars using the station, but expects usage to increase when the Nissan LEAF is released later next year.

In the next few weeks, the spot will have signage about EVs and the program around Orlando. "Because central Florida is relatively low-density, electric vehicles are a pragmatic way for us to explore ways to cut down on gas and emissions," says Ippel.

Wait listed

Mark Thomason, a native Floridian, is on the waiting list to receive an EV this spring. Thomason, the director of business development at Palmer Electric Company, says the charging stations couldn't have come at a better time.

"There's no better way for any American that has to have a car to lower their green house gas emissions," says Thomason. "This is a significant way for people to lower their carbon footprint."

Get Ready

Both Ippel and Thomason serve on the Get Ready Central Florida campaign, which works to spread awareness about Orlando's upcoming EV charging stations. The campaign is part of Project Get Ready, which was started by the Rocky Mountain Institute to help cities distribute information for consumer outreach, engage communities and establish EV infrastructure.

Although he was just an EV enthusiast when he joined Get Ready Central Florida, Thomason now works at locating potential EV charging stations in Orlando. He speaks with property managers

about the benefits of hosting a charger, and helps facilitate the selection process.

Thomason says the ideal places for EV chargers are public places where residents would spend at least a half hour—places like shopping centers, retail locations, office parks, parking garages and airports.

"When people hear the benefits of getting one of these chargers, they get excited," he says.

Project Get Ready is also working on promoting green tourism for Orlando. Ippel finds that a fair number of tourists are interested in green vacations. Since Orlando thrives on tourism—metro Orlando is home to places like SeaWorld, Universal Studios and Walt Disney World Resort—Ippel hopes the high number of EV charging stations and partnerships with airports and car rental companies will allow tourists to use EVs while visiting the city.

"Instead of renting a gasoline vehicle, tourists may choose to rent an EV as both a way to add to their vacation experience and test if EVs may be a worthwhile investment back home. I am confident they will enjoy the experience," Ippel says.