

Energy Efficiency Programs in Florida

Energy Services Coalition's Market Transformation Conference September 14, 2022

FDACS OOE Functions & Responsibilities

- Legislatively designated state energy policy development office within Florida
- Evaluate energy related studies, analyses, and stakeholder input
- Promote and advocate for the development and use of renewable energy resources, energy efficiency technologies, alternative fuels, and alternative vehicle technologies
- Use available state and federal funds to develop and manage energy efficiency, renewable energy, energy education, alternative fuels and alternative vehicle technologies programs
- Produce an Annual Energy Report
- Serve as the State clearinghouse for all energy information.



Areas of Focus



Energy Efficiency



Renewable Energy



Education



Florida Counties Low-Income Residential Energy Efficient Grant Program

- The program assists low-income single-family and multifamily households with energy efficiency measures;
- Will improve the efficiency of 105 houses in Broward, Orange, and Sarasota Counties by the completion date of 9/30/2022;
- Reduces the burden of residential energy cost expenditures through the improvement of ventilation, insulation, and inefficient equipment.
- Energy savings are being tracked for one year before and after project completion.









Florida Wastewater Treatment Plant Energy Program

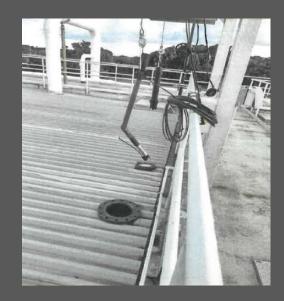
- OOE offered \$2M in grant funding to improve energy efficiency at publicly-owned treatment plants in Florida.
- Treatment plants receiving funding included:
 - Pinellas County,
 - The South Central Regional Wastewater Treatment and Disposal Board,
 - Altamonte Springs, and
 - Coral Springs Improvement District.



Florida Wastewater Treatment Plant Energy Program

Project initiatives have included:

- Improved motor efficiencies,
- LED Lighting upgrades,
- Installation of occupancy sensors and HVAC controls,
- A variable aeration system that matches the fluctuating oxygen demand of the influent, including:
 - variable speed centrifugal blowers.
 - monitoring probes,
 - transmitters, and
 - air flow meters.







Efficiency and Renewable Improvements in Commercial Aquaculture (ERICA)

- In 2020, the FDAC OOE provided approximately \$1M to 37 commercial aquaculture facilities in Florida.
- The ERICA grant helped Aquaculture producers replace old blowers, pumps, HVAC units, generators, solar panels, lighting and more.
- Provided a reimbursement for technologies that significantly increase energy efficiency and reduce energy usage.
- Currently, the program is monitoring energy usage savings.





Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast Act (RESTORE)

- FDACS OOE worked with the Office of Agricultural Water Policy to develop and administer a program using \$2.5 million of RESTORE Act funds.
- Provided free energy and water audits for agricultural producers in the Apalachicola and Suwannee River Basins.
- Also provided grant reimbursement for 75 percent of the cost to implement the recommendations from the free energy and water audit, up to \$25,000.
- Examples of eligible projects for reimbursement included energy-efficient lighting and water pumps, and small-scale renewable energy generation such as solar or biomass.

SunSmart Schools Emergency Shelter Batteries

• The E-Shelter Battery Program contributes to a more sustainable and energy-independent Florida;

• 118 schools, designated as emergency shelters, were equipped with PV systems and battery storage for backup power;

• Originally launched in 2010 in partnership with the Florida

Solar Energy Center,

• Each E-Shelter PV system has been inspected, and

• 48 systems have had equipment replaced, particularly batteries that are no longer performing at capacity.





Florida Urban and Community Farming Pilot Program

- This pilot program provides funding to local governments, Florida School Districts, and community-based non-profit organizations to establish urban and community farming programs in densely populated communities and food deserts.
- Urban and community farming projects can:
 - provide a stable, affordable, and secure source of nutritious produce in areas that otherwise may not have access,
 - lower heat island effects and building heating and cooling costs,
 - promote cleaner air, and
 - help reduce CO₂ emissions.

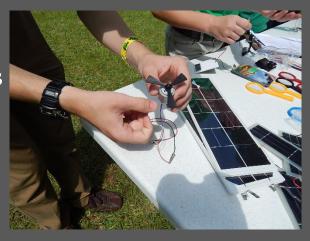




Energy Education Kits

- K-12 public schools can apply for energy education kits designed to develop problemsolving abilities, investigate environmental issues, and gain hands-on science, technology, engineering, art, and math (STEAM) skills.
- Kits are designed for specific age ranges, and include: wires, motors, milliamp meters, multitesters, propellers, UV detecting beads, thermometers, prisms, videos, watt meters, reference books, career guides, and various types and sizes of PV panels.
- The FDACS OOE has made a total of 677 energy education kits available to K-12 public schools.





Infrastructure Investment and Jobs Act (IIJA)

State Energy Program - \$500 Million

• Est. \$16,836,920 to FL Office of Energy

Energy Efficiency and Conservation Block Grant - \$550 Million total

- Est. \$6,100,285 to FL Office of Energy
- Funds can be used to reduce emissions in buildings and transportation

Energy Auditor Grant Training program - Up to \$2 million per state, competitive

- To train individuals to conduct audits or surveys of buildings.
- ASHRAE, AEE, BPI, RESNET, other certifications as recognized by DOE.
- Eligible states are ones with "a demonstrated need for assistance for training energy audits."
- Grant applications will require proposed curriculum, proposed certification, per-individual cost, plan for connecting trainees with employment, etc.

Energy Efficiency Revolving Loan Fund Capitalization Grants - \$250 Million total

- aka INSULATE Act
- · Use of Grant Funds: Commercial and Residential Energy Audits, Upgrades, and Retrofits
- Loans to be provided to recipients without access to private capital to the extent practicable.

Infrastructure Investment and Jobs Act (IIJA)

EERE at Public School Facilities - \$500 Million over five years

- Competitive application process.
- Eligible entities: Local education agencies, non-profit, for-profit or community partners with the knowledge and capacity to assist with energy improvements.
- Prioritizes high need schools as indicated by renovation, repair and improvement funding needs, high percentage of students eligible for free or reduced-price lunch, and school district locale.

Cost-Effective Codes Implementation For Efficiency and Resilience - \$225 Million over 5 years

- Eligible entities: relevant state agencies, partnerships with local code agencies, codes and standards developers, associations of builders and design and construction professionals, local and utility EE programs, consumer efficiency and environmental advocates.
- Eligible Activities:
 - Creating or enabling state or regional partnerships to provide training materials to builders and code officials,
 - Collecting and disseminating quantitative data on code implementation,
 - Developing and implementing plans for highly effective code implementation, including measuring compliance,
 - Implementing updates in energy codes.



Inflation Reduction Act (IRA)

Home Energy Performance-Based, Whole-House Rebates

- Section 50121 sets forth the requirements for this new residential energy efficiency program.
- The HOMES rebate goes to homeowners and aggregators for whole-house energy savings
- There are pathways for both a "modeled performance program" and a "measured performance home rebate"
- Funding will be through State Energy Offices.

High-Efficiency Electric Home Rebate Program

- Section 50122 provides for specific rebates for low or moderate-income households, and establishes amounts for appliances, non-appliance upgrades.
- The cap on home rebates is \$14,000, and appliances must meet ENERGY STAR standards.
- Funding will be through State Energy Offices.



Building Energy Codes

• Section 50131 provides \$1 billion for support of updated building energy codes.

Inflation Reduction Act (IRA)

- The IRA provides for more than \$200 billion in tax incentives, including provisions impacting architecture, engineering, and construction industries as well as commercial building owners.
- The existing commercial building efficiency tax credit under IRC Section 179D will be extended and modified in 2023:
 - The required amount of increased efficiency a building must achieve to qualify for the deduction is reduced from 50% to 25%.
 - Retrofits can now also qualify by showing a 25% decrease in energy use intensity, without simulation modeling.
 - The base amount of the deduction is 50 cents per square foot, with a possible deduction level up to \$5 per square foot.
 - The bonus deduction is available to companies that meet local prevailing wage and apprenticeship requirements for any laborers and mechanics employed by the taxpayer or contractors associated with the installation.
 - The credit will be in alignment with the ASHRAE 90.1-2007 standard and will incorporate any future ASHRAE updates.



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