

2023 Office of Energy ANNUAL REPORT



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I. Florida's Energy Profile

Florida's energy profile is unique among the states in terms of fuel diversity, amounts of electricity generation and consumption, and mix of transportation fuels and renewable resources used by various sectors. This section provides a current year summary of Florida's energy profile and an outlook on trends that could continue for years to come.

Energy Consumption

Florida is the third most populous state and has experienced the second largest numeric increase in population in the United States over the past decade. Home to an estimated 22.6 million people, Florida has experienced a 5.1 percent population growth since 2020. Additionally, over the past decade, nine of Florida's 67 counties grew by more than 10 percent, with four of those counties achieving population growth rates of at least 15 percent.¹ Data from the bullet points below were extracted from the United States Department of Energy (USDOE) Energy Information Administration (EIA), *State Profile and Energy Estimates*.²

- In 2021, Florida ranked third in the nation in overall electricity consumption, behind Texas and California. Florida is a net energy importer of fuels including natural gas, coal, uranium, and petroleum products.
- The residential and transportation sectors drive energy consumption in the state and the magnitude of these sectors account for a heavy reliance on natural gas and petroleum.
- Natural gas is the dominant fuel source used for electric generation in Florida. Due to numerous factors, including cost, availability, and environmental considerations, natural gas fuels approximately three-fourths of Florida's in-state net generation.³
- According to the latest available data, Florida ranked 45th in 2021 for total energy consumption per capita. Florida's lower per-capita energy consumption ranking, relative to the national average, is due to its below-average industrial sector consumption.
- Variations in daily and seasonal demand require generation that can accommodate extended summer peak demand combined with shorter winter peak demand.
- Florida's unique weather conditions contribute to higher-than-average retail electricity sales in the residential sector, which were 55 percent of sales in 2021, compared to 39 percent of sales, nationally.

¹ United States Department of Energy (USDOE) Energy Information Administration (EIA), *State Profile and Energy Estimates*, available at <https://www.eia.gov/state/?sid=FL>

² United States Department of Energy (USDOE) Energy Information Administration (EIA), *State Profile and Energy Estimates*, available at <https://www.eia.gov/state/?sid=FL>

³ [U.S. EIA, Electricity Data Browser, Net generation for all sectors, Florida, Fuel Type, Annual.](#)



Energy Sources in the Power Sector

Florida is one of the largest generators of electricity in the nation, second only to Texas. The majority of the state’s generation capacity comes from steam and combustion turbine generators fueled by natural gas and coal. However, contributions from renewable energy sources, especially solar photovoltaics, continue to diversify the fuel mix. An anticipated modernization of the state’s generation capabilities is forecasted due to the average age of generating units in Florida being 22 years, the anticipated retirement of uneconomical units, and a forecasted increase in peak demand.⁴ Figure 1 shows the comparison of the current and projected mix of fuel sources used in Florida to generate electricity in the next 10 years.



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Figure 1. Florida’s Historic and Forecast Fuel Mix

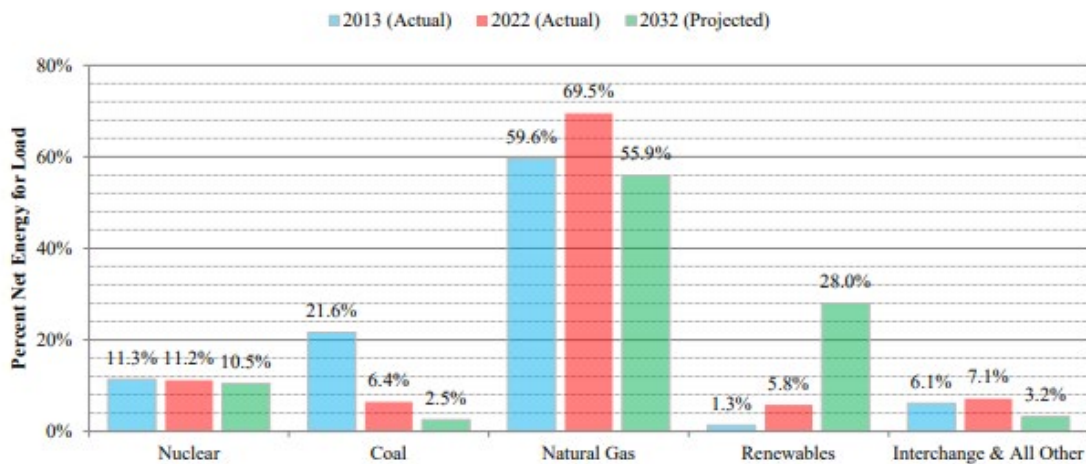


Figure 1: 2013-2022 Florida Reliability Coordinating Council Load & Source Plan and 2022 FPSC Review of the Ten-Year Site Plans of Florida’s Electric Utilities

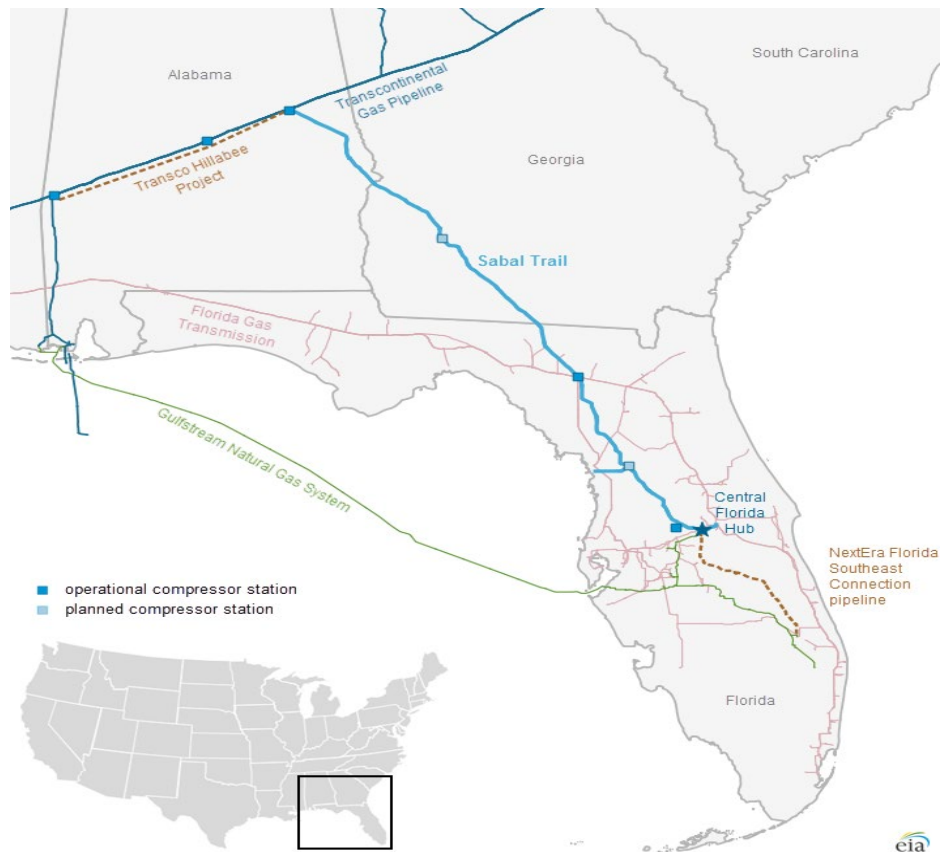
⁴ United States Department of Energy (USDOE) Energy Information Administration (EIA), *State Profile and Energy Estimates*, available at <https://www.eia.gov/state/?sid=FL>



Florida receives its natural gas supplies from four interstate pipelines:

- The Florida Gas Transmission line runs from Texas through the Florida Panhandle to Miami.
- The Gulfstream Natural Gas System is an underwater pipeline running under the Gulf of Mexico from Mississippi and Alabama to Central Florida.
- The Sabal Trail pipeline runs from Alabama to Orange County; and
- The Cypress Pipeline supplies liquified natural gas to the Jacksonville area from Elba Island, Georgia (not shown in Figure 2).

Figure 2: Florida’s Natural Gas Supply



¹ EIA

Renewable Energy

Florida’s renewable energy generation continues to expand. Renewable energy provides approximately 9,274 MW of generation capacity, which accounts for 14.1% of Florida’s overall electric generation capacity.



Figure 3. Existing Renewable Resources

Renewable Type	MW	% Total
Solar	7,798	84.1%
Municipal Solid Waste	475	5.1%
Biomass	380	4.1%
Waste Heat	232	2.5%
Wind	272	2.9%
Landfill Gas	68	0.7%
Hydroelectric	51	0.5%
Renewable Total	9,274	100.0%

¹ [Review.pdf \(floridapsc.com\)](#)

Solar remains the largest renewable resource type, representing more than eighty percent of Florida’s total renewable resources. Florida’s renewable resources are expected to increase by an estimated 15,963 MW over the next ten years.⁵ Figure 4 summarizes the existing renewable capacity in Florida by generation type, along with projections over the 10-year planning horizon.

Figure 4. Florida’s Current and Projected Renewable Resources

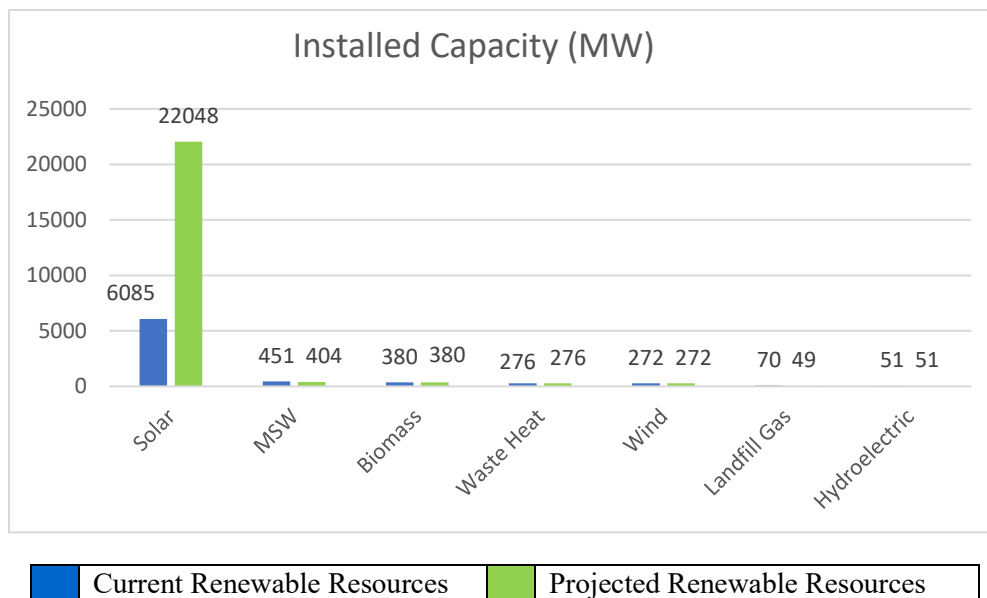


Figure 4: 2013-2022 [Florida Reliability Coordinating Council Load & Source Plan](#), and 2022 FPSC Review of the Ten-Year Site Plans of Florida’s Electric Utilities.

⁵ 2013-2022 [Florida Reliability Coordinating Council Load & Source Plan](#), and 2022 FPSC Review of the Ten-Year Site Plans of Florida’s Electric Utilities.



Transportation Energy

Florida has a vast transportation network comprised of interconnected roadways, airports, and seaports that move goods, residents, and tourists across the state. In fact, Florida ranks third in the nation in terms of all types of transportation fuel consumption. This is driven in large part by Florida's tourism industry, which has historically been among the top contributors to the state's economy and has resulted in Florida's ranking as the third highest motor gasoline and jet fuel demand in the nation. As well, Florida has four USDOE designated Clean Cities Coalitions (CCCs): Southeast Florida, Central Florida, Tampa Bay, and North Florida. The CCCs are responsible for promoting clean energy and alternative fuels for transportation throughout the state.⁶

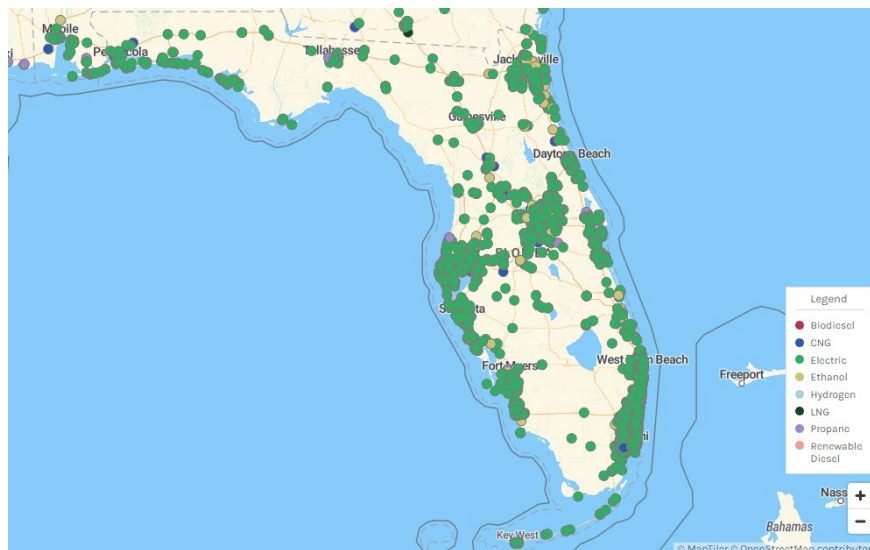
Petroleum

Florida's transportation sector uses more energy than any other sector in the state and nearly all the transportation fuel must be imported. Florida relies on petroleum products delivered by tanker and barge to Florida's marine terminals, primarily in Jacksonville, Port Canaveral, Port Everglades, and Tampa. An intrastate pipeline transports petroleum products from Tampa across Central Florida to Orlando.

Alternative Fuel and Alternative Fuel Vehicles

Florida consumers, private businesses, and local governments are realizing the benefits alternative fuel vehicles have to offer. Private commercial fleet owners, local governments, and school boards continue to convert their larger vehicle fleets to propane, compressed natural gas, and liquefied natural gas. Electric vehicle (EV) use is also expanding as technology increases, charging infrastructure expands, and consumer awareness grows.

Figure 5. Map of EV Charging Station Locations



¹ [Alternative Fuels Data Center](#)

⁶ [Alternative Fuels Data Center](#)



The USDOE’s Alternative Fuels Data Center indicates that:

- The state of Florida currently has 3,817 alternative fuel stations for private and public use. Most of the stations are for EVs, including 3,472 stations with 9,790 charging outlets. There are also 60 compressed natural gas (CNG) stations, 127 propane stations, 5 biodiesel stations, and 3 liquified natural gas (LNG) stations.
- Florida is the second largest adopter of light-duty EVs, with 168,000 EVs registered in Florida, and most of them are within a few miles from one of our coasts.

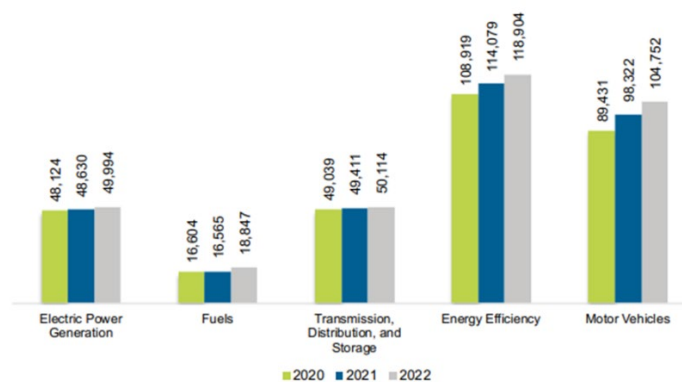
Energy Trends

Clean Energy Economy

Continued investments in energy infrastructure are reinvigorating Florida’s clean energy workforce sector after recent shifts in nationwide employment trends. As detailed in the USDOE 2022 Energy & Employment Report, Florida gained 15,605 energy jobs from 2021-2022. Figure 6 indicates five job classification categories, across which the state’s 342,611 energy workers are employed. Additionally, last year 5,000 energy jobs were gained across the energy efficiency sector (a subset of energy workers) for a total of 118,904 employed.⁷

Florida’s clean energy economy largely relies on solar generation employers and the 12,429 professionals they employed in 2022. As advances in technology continue, Florida needs a skilled workforce that can meet the needs of the market. New building efficient technologies, as well as industrial retrofits that use electricity cogeneration technologies such as combined heat and power (CHP), and alternative fuel vehicles all require a highly skilled labor force that Florida’s educational institutions are addressing. For example, the Tallahassee Community College Workforce Development Center offers certifications in Electrical, Welding, HVAC, Drones, and an A.S. degree for their Unnamed Vehicle Systems Operations program.

Figure 6. Employment by Major Clean Energy Technology Application



¹ [United States Energy & Employment Report 2022](#)

⁷ [United States Energy & Employment Report 2022](#)



Renewable Energy as Firm Generation

Florida's renewable energy generation capacity continues to outpace all other forms of new generation in our state. There were 130,913 installations of customer-owned solar across the state by the end of 2022, with an installed capacity of approximately 1,177 MW.⁸ Solar energy accounts for the vast majority of new renewable generation, in large part, due to strong customer demand, and falling costs of solar photovoltaic technologies. Distributed generation of solar energy is increasingly seen by residential customers as financially feasible, as they weigh the benefits of favorable tax policies, the ability to lease solar photovoltaic systems with few upfront costs, and the ability to participate in retail-rate net metering.

Traditionally, solar energy has been considered a non-firm generation source, as it is available only under certain conditions outside the control of the operating facility and therefore cannot be counted on for reliability purposes. Firm generation is a reliable and controllable source of energy that can produce electricity twenty-four hours a day, seven days a week. However, due to advances in technology, the use of battery storage, and the co-existence of solar generation and the summer peak demand, solar energy is now being used for firm generation capacity that can be relied on to serve customers and can contribute toward the deferral of new fossil fuel power plants. Of the total 15,894 MW of projected renewable generation in Florida over the next decade, roughly a third is considered firm generation. This trend is expected to continue as cost-effective forms of renewable generation will improve the state's fuel diversity portfolio and reduce its dependence on fossil fuels.⁹

⁸ 2013-2022 [Florida Reliability Coordinating Council Load & Source Plan](#), and 2022 FPSC Review of the Ten-Year Site Plans of Florida's Electric Utilities.

⁹ 2013-2022 [Florida Reliability Coordinating Council Load & Source Plan](#), and 2022 FPSC Review of the Ten-Year Site Plans of Florida's Electric Utilities.



II. 2023 FDACS Office of Energy Accomplishments

The FDACS OOE released programs and implemented existing programs that increase efficiency, install renewables, research new technologies, and increase the use of alternative fuels in transportation. These programs, which are primarily funded by the USDOE, are highlighted below.

Florida Counties Low-Income Residential Energy Efficient Grant Program

In 2020, the FDACS OOE released a competitive funding announcement to create more energy-efficient dwellings to improve the lives of low-income families and reduce the burden of residential high energy cost expenditures. Energy is one of the highest monthly expenses for low-income residents as they typically pay more to operate older, less efficient HVAC, water heaters, and appliances, increasing their energy burdens substantially. Broward County, Orange County, Miami-Dade County, and Sarasota County were selected as grant recipients and awarded \$399,998 in funding. The recipients are completing their work and the OOE is compiling energy data for reporting next year.

As of October 2023, the Orange County and Sarasota County subrecipients have completed all energy-efficient installations and submitted all post-energy savings data under their projects. In summary, the two projects allowed for the installation of 75 HVAC systems, 13 hybrid water heaters, 26 non-hybrid water heaters, and 20 refrigerators. Weatherization and duct work for 27 program beneficiaries were also implemented. The subrecipients reported on education, outreach, and postinstallation energy savings. As pictured below, an Orange County program beneficiary received an Energy Star water heater replacement. The United States Environmental Protection Agency's ENERGY STAR program estimates water heater replacements can achieve annual savings with a payback period of less than 5.4 years on products with a lifespan of 13 years.



Old Water Heater



New Energy Star Water Heater



Efficiency and Renewable Improvements in Commercial Aquaculture (ERICA)

In order to increase energy efficiency, reduce energy usage, and lower operating costs at commercial aquaculture facilities in Florida, the FDACS OOE worked with the FDACS Division of Aquaculture to develop ERICA. This program provided \$902,320.38 to commercial aquaculture facilities and farms located in Florida to implement projects that significantly increase energy efficiency and renewable energy. Sixty-three producers applied for funding and forty were approved. All work was completed by the end of 2022. FDACS Office of Energy continues to collect energy data on the program for future reporting.

Energy Education Kits

FDACS OOE created the Energy Curricula and Learning Kits program for K-12 students in Florida schools. As of September 2023, program eligibility was expanded to include School-Age Child Care Facilities (as referenced in 65C-22.008(1), F.A.C.), allowing the opportunity for more students to learn about energy. The kits include wires, motors, milliamp meters, multi-testers, propellers, UV-detecting beads, thermometers, prisms, videos, watt meters, reference books, career guides, and various types and sizes of photovoltaic panels.

The kit components are designed to assist students to develop teamwork and problem-solving abilities, investigate environmental issues, and gain hands-on skills in science, technology, engineering, art, and math (STEAM). Each kit targets a specific grade range and includes enough materials for students to either work individually or in small groups. Since 2019, FDACS OOE has distributed 346 Energy Curricula and Learning kits to public schools and has more available for eligible recipients.



Above photos are the contents inside of a Middle School (left) and High School (right) energy education kit.



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

FDACS OOE worked with the FDACS Office of Agricultural Water Policy to develop and administer a program for agricultural producers in the Apalachicola and Suwannee River Basins. Using a \$2.5 million subaward from the Florida Department of Environmental Protection through the RESTORE council, this program provides free energy and water audits as well as grant reimbursement for 75 percent of the cost to implement the recommendations from the free energy and water audit up to \$50,000.

Examples of eligible projects for reimbursement include energy-efficient lighting and water pumps and small-scale renewable energy generation, such as solar or biomass. To date, twenty-one cost-share agreements have been executed for the Suwannee River Basin and \$657,511.08 in reimbursements have been issued. To date, thirteen cost-share agreements have been issued for the Apalachicola River Basin and \$558,135.13 in reimbursements have been issued.

Florida Wastewater Treatment Plant Energy Program

The Florida Wastewater Treatment Plant Energy Program grant initiative was developed by the FDACS OOE based on the findings of its study entitled ‘Mapping the Energy Landscape of Water and Wastewater Treatment Plants in the State of Florida.’¹⁰ The completed study provides a baseline on energy efficiency and renewable energy measures and practices at water and wastewater treatment plants in Florida as well as specific data and information on how to reduce energy use and operating costs.

The FDACS OOE approved applications for City of Altamonte Springs, Coral Springs Improvement District, City of Cooper City, Pinellas County BOCC, and the South-Central Regional Wastewater Treatment and Disposal Board. The total amount of funding awarded was \$1,956,000. The amount of leveraged funding used to support this activity is \$872,416.00 (match/cost share). The recipients are currently under contract and working to improve aeration systems at the plants with upgraded transmitters, probes, and airflow indicators. All work has been completed and FDACS OOE has begun to collect energy data on the program.

City of Altamonte Springs

Altamonte Springs, Florida utilized their funding to construct improvements related to operational energy efficiency and renewable energy generation infrastructure at its Regional Water Reclamation Facility (RWRf). Improvements included the installation of step-up transformer connections on the existing power system, installation of AC disconnect switches on the existing inverter rack, installation of a fiber optic patch panel, ethernet switch, cables/wiring, and associated conduit, installation of a displacement blower and variable frequency drives. The City of Altamonte Springs anticipates an 18.6% cost reduction per year with the implementation of these improvements.

¹⁰ [Mapping the Energy Landscape of Water and Wastewater Treatment Plants in the State of Florida](#)



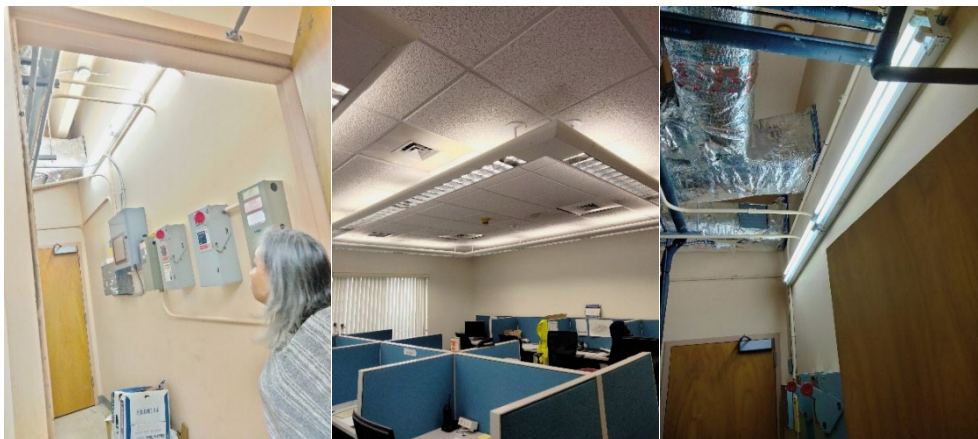


Above photos are pre- and post-install of AC disconnect switches on an existing inverter rack at the Regional Water Reclamation facility located in the City of Altamonte Springs, Florida.

Pinellas County Utilities

Pinellas County Utilities (PCU) recognized the need to improve energy efficiency at its South Cross Bayou Advanced Water Reclamation Facility (facility), in turn reducing the cost of wastewater treatment, and lowering CO2 emissions. The initiatives in their project include improving the efficiency of motors, lighting, and the HVAC system.

The overall goal of the project was to install equipment and systems in the plant to reduce the consumption of energy and the overall cost of wastewater treatment. All project installations are complete, including upgrading 38 standard V-belts to cogged V-belts; upgrading 176 indoor metal halide and fluorescent lights to LED lighting, installing 191 occupancy sensors in all buildings; and installing an energy management system in the main building. PCU anticipates an \$85,000 or 3.4% reduction of energy costs per year with the implementation of this project.



Above photos are post-install of indoor LED lighting at the South Cross Bayou Advanced Water Reclamation facility located in Pinellas County, Florida.

Coral Springs Improvement District

The District replaced two of the existing blowers with two (2) new 200 HP Variable Speed Centrifugal Blowers in its North Blower Building. The installation of this new equipment along with recalibration of the systems control will result in an 11% reduction in energy use and cost



savings of \$21,497 each year. The project allowed the District to meet the immediate need of replacing aging and inefficient equipment with new technology that will improve effectiveness and reliability as well as reduce operating costs. The project will also further the District's long-term goal of resiliency by increasing both long-term energy efficiency and resiliency.



Above photos show the new blower system at Coral Springs Improvement District's Wastewater Treatment Plant.

South Central Regional Wastewater Treatment and Disposal Board

This project added additional field instrumentation and programming controls to optimize the existing aeration tank blower power consumption. The project installed additional dissolved oxygen, ammonia, and nitrate-nitrogen probes in each of the four basins. Control programming monitors the new probes and provides settings to properly modulate the existing blower motor speed and aeration control valves to establish a variable aeration system in each of the biological tanks. The variable aeration system is used to match the fluctuating oxygen demand of the influent wastewater. The variable adjustment of the aeration system will reduce wasted air delivered to the biological system thereby reducing the overall energy consumption of the facility. It is estimated that the amount of energy savings will be approximately \$400 per day or \$130,672 per year once the system has been upgraded and placed into proper operation.



Above photos show the new aeration system for the South Central Regional Wastewater Treatment Plant and Disposal Board.



Florida Urban and Community Farming Pilot Program

FDACS OOE established the Florida Urban and Community Farming Pilot Program to create greenspaces in urban areas that will ultimately reduce energy costs and encourage community involvement giving residents a larger role in improving and protecting the well-being of their own communities. Incorporating green spaces and gardens are important in helping to keep the urban built environment cool thereby reducing energy costs. Program activities have a wide range of possibilities and can include community gardens, green walls and roofs, hands-on agri-business education, food forests, and edible landscaping.

The FDACS OOE awarded funding to 11 applicants under this program, including the City of Kissimmee, City of Oakland Park, City of Orlando, AMIkids, Inc., Jesus House of Hope, Inc., City of Tallahassee, Broward Education Foundation, Inc., Clara White Mission, Inc., School Board of Flagler County, North Florida Educational Development Corporation, and Tampa Family Health Centers, Inc. Project activities center around establishing urban and community farming programs in densely populated communities and food deserts, as well as training students, volunteers, and veterans with employable knowledge about hydroponic growing in greenhouses. As of December 2023, the program has reimbursed \$36,010.12 in project funds and has begun collecting energy savings data for the projects.

City of Kissimmee

The City of Kissimmee utilized their grant funds to construct a new community garden (Quail Hollow Park Community Garden) anticipated to become the new home to the City's local food program. Project installation included: garden plots, fencing, irrigation, plant box containers, and signage.



Above photos are garden plot beds at Quail Hollow Park Community Garden located in City of Kissimmee, Florida.

City of Oakland Park

The City of Oakland Park utilized their grant funds to develop a new community garden (Carter Woodson Community Garden) in a vacant city-owned lot adjacent to an existing park, adding useable green space to the park. Project installation included: constructing community gardens with irrigation; planting materials; installing lighting; and constructing pathways between sections.





Above photos are garden beds at Carter Woodson Community Garden located in City of Oakland Park, Florida.

City of Orlando

The City of Orlando utilized their grant funds to further support their “City of Orlando’s Grow-A-Lot Program”. The program aimed to transform two of the city’s vacant lots into an urban incubator farm, apiary, and community garden. Some of the project activities included: designing a solar power system for the hydroponic container; organizing a community solar installation to install the solar power onto the container and educate the community residents; training 25 youth in hydroponic growing; and engaging community residents in building garden beds for the community garden.



Above photos are garden beds at Parramore Community Garden located in Orlando, Florida.

Jesus House of Hope, Inc.

The Jesus House of Hope, Inc., located in Stuart, utilized their grant funds to further support their “Agricultural and Farming Internship Program” at their House of Hope Growing Hope Production Farm. Their project activities consisted of training (6) six interns within 12 months and equipping them with employable knowledge about hydroponic growing in greenhouses.





Above photos are of Jesus House of Hope, Inc., House of Hope Growing Production Farm located in Stuart, Florida.

AMIkids, Inc

AMIkids, Inc., utilized their grant funds to further support their “AMIkids Youth and Family Nutrition Program” and improve food security and access to nutritious food in five communities (Daytona, Manatee, Miami, Orlando, and Tallahassee). The program’s goal is to improve the knowledge of nutrition, fruits and vegetables, and gardening among youth and families. Program activities include: installing raised bed gardens; incorporating traditional and aquaponic farming concepts; launching food pantries; engaging youth in experiential learning opportunities; and implementing curriculums that teach students how to take care of a living ecosystem.



Above photos are of the aquaponic container and garden beds installed at AMIkids, Inc., located in Orlando, Florida.



Above photos are garden beds and indoor food storage at AMIkids, Inc., located in Manatee, Florida.



Tampa Family Health Centers, Inc.

Tampa Family Health Centers, Inc., utilized their grant funds to plant 65 fruit-bearing trees at 15 of their Tampa Family Health Center locations. Their project was titled “Food Rx – Taking It to The Streets” with a goal to produce and provide local fresh fruits to over 110,000 patients, making the fruit available at no cost. The installation of the trees will also reduce the impact of “urban heat islands”.



Above photos are fruit trees at Tampa Family Health Centers, Inc. located in Tampa, Florida.

City of Tallahassee

The City of Tallahassee used their project to provide urban farming and entrepreneurship training and certification to low-income community residents. The City has placed the remaining graduates on local farms to begin their apprenticeships.



Above photos are from the City of Tallahassee's farm and the Cohort 3 graduation.

Clara White Mission, Inc.

Clara White Mission, Inc., continues to create gardens to engage and feed veterans who live in the local community housing program, through the new gardening program. This project was a huge success and is being submitted to the United States Department of Energy as a Success Story. The mission generated 177 units of Veteran participation, including gardening sessions; wellness demonstrations; herb garden classes; seed starting classes; hot sauce classes; etc. The veterans also helped construct and install arbors and benches and held cookouts using food from the garden. The Clara White Mission had a reduction in gas miles (gasoline consumption) that equated to 370



miles. Water was saved through the installation of drip irrigation and bubbler nozzles and waste was diverted through the utilization of 2,100 pounds of woodchips donated through the city utility company from trimming trees away from power lines.



Above photos are from the Clara White Mission, Inc., Veteran Farm.

Broward Educational Foundation, Inc.

The overall goal of the Broward Technology Empowered Agriculture Food Forest project is to serve as a model for the community as to why and how to grow food sustainably. These goals are being measured for the eight (8) school garden sites throughout Broward County.



Above photos are soon after the gardens were planted at two of the Broward Educational Foundation, Inc., schools.

Solar Photovoltaic (PV) and Pollinator Project

The PV Pollinator Project was designed to address the loss of agricultural land to utility-scale solar implementation by creating and studying dual-use land that fosters a symbiotic environment for both solar photovoltaic (PV) arrays and plants and flowers that provide resources for pollinating insects. The objectives of this program are to collect agronomic data on various crops relevant to agriculture and pollinator habitat in solar farms and determine the potential for pollinator habitat on solar farms to improve crop pollination and yields.



The FDACS OOE is funding this project with \$210,874. The University of Florida’s (UF) Institute of Food and Agricultural Sciences (IFAS) is conducting the project in two locations – Origis Energy, The City of Tallahassee Utilities Solar facility at the Tallahassee International Airport and the UF/IFAS Beef Research Unit North of Gainesville.

Each site was planted with the same mix of grasses and wildflowers at the same rate per site.

The percentage of ground covered by plants for each site ranged from 12.5% to 88.5%, depending on soil health, fertilizer rate, and plant species. A pollinator count was conducted for 5 minutes at each site on 3 separate dates with site 2 in Tallahassee having the largest number of pollinators. Grasshoppers accounted for the majority of the pollinator species on any site.

Fiscally Constrained Energy Efficiency Program

This program will distribute approximately \$6 million in Federal State Energy Program funds to fiscally constrained Florida counties as defined by Section 218.67(1), F.S., and the municipalities within those counties. The Notice of Federal Financial Assistance (NOFFA) was released in August of 2023 and a second round in November of 2023.

This program will assist eligible local governments in implementing projects and programs that will:

- Reduce fossil fuel emissions in a manner that is environmentally sustainable and, to the maximum extent practicable, maximizes benefits for local and regional communities.
- Reduce the total energy use of the eligible entities.
- Improve energy efficiency in the transportation sector, the building sector, and other appropriate sectors.
- Build a clean and equitable energy economy that prioritizes disadvantaged communities and promotes equity and inclusion in workforce opportunities and deployment activities.

The Program gives preference to activities that can be started and completed expeditiously (within 9 months). All projects must be completed by September 30, 2024.

FDACS OOE held workshops in Sebring, Lake City, and Quincy to educate potential applicants on the application process. Results of this program will be reported in next year’s annual report.



Alexander Mack and Gail Stafford presenting at the Fiscally Constrained Energy Efficiency Program workshops.



III. National and Regional Participation

The FDACS OOE participates with state, regional and national organizations that help fulfill the mission of the office.

National Association of State Energy Officials (NASEO)

NASEO is the association that represents energy officials from each of the 56 states and territories. Formed by the states, NASEO facilitates peer learning among state energy officials, serves as a resource for and about state energy offices, and advocates the interests of the state energy offices to Congress and federal agencies. NASEO aids in the oversight of \$7 billion in funds derived from ratepayers and state appropriations annually and aids in emergency response and mitigation related to energy infrastructure, liquid fuels, and cybersecurity.

Energy Services Coalition

The Energy Services Coalition is a national non-profit organization composed of a network of experts from a wide range of organizations working together at the state and local level to increase energy efficiency and building upgrades through energy savings performance contracting. The FDACS OOE partners with the Florida chapter, which was formed in 2022, in order to provide outreach, information, and education on performance contracting to building operations and maintenance contractors within our state.

Florida Energy Systems Consortium (FESC)

FESC was created in 2008 by Section 1004.648, F.S., and is unique in the United States because no other state has a statewide energy consortium that involves all its public universities. The concept combines the state's university resources into one statewide center to advance energy research, technology transfer/commercialization, energy education, and outreach in this rapidly changing and critically important field.

The FESC director reports to the FDACS OOE and is supported by the FESC Associate Director, Industrial Advisory Board, Oversight Board, and Steering Committee members. The Oversight Board is formed by the Vice President of Research (VPR) of each member university. Steering committee members are assigned by the VPRs (one faculty member from each university).

Florida Solar Energy Center (FSEC)

FSEC was created by the Florida Legislature in 1975 to serve as the state's energy research institute. The main responsibilities of the center are to conduct research, test, and certify solar systems, and to develop education programs. FSEC's mission is to research and develop energy technologies that enhance Florida's and the nation's economy and environment and to educate the public, students, and practitioners on the results of the research. FDACS OOE Director, Brooks Rumenik serves as an FSEC Advisory Board Member



Southeast Partnership for Advanced Renewables from Carinata (SPARC) Advisory Board

The carinata plant can be processed such that oil from its inedible seeds is utilized in the production of jet fuel. Pressing the seed to extract its oil creates a coproduct of mash that is formed into pellets and used as a high-protein cattle feed. The 2013 Farm to Fuel initiative funded a carinata study through the Research and Development Bioenergy Grant Program. The project studied the feasibility and best management practices for growing carinata in the southeast United States. Subsequently, the United States Department of Agriculture’s National Institute of Food and Agriculture awarded the University of Florida Institute of Food and Agricultural Sciences a \$15 million grant to further study carinata and develop the supply chain to commercialize the crop. Through that grant, the Southeast Partnership for Advanced Renewables from Carinata (SPARC) was created. The goal of SPARC is to remove physical, environmental, economic, and social constraints of regional Brassica carinata production as a renewable fuel, bioproducts and coproducts feedstock, and ensure stable markets for jet fuel and bioproducts through demonstration of enhanced value across the supply chain. SPARC held its Annual Meeting and Biomaterials Summit in March 2023, in Tifton, Georgia, which included discussions on net-zero emissions and carbon-neutral growth from industry practitioners, leaders in academic research, and state and local governments.



Southeast Energy Efficiency Alliance (SEEA)

SEEA is the regional organization that promotes energy efficiency as a catalyst for economic growth, workforce development, and energy security across 11 southeastern member states, including Florida. Through stakeholder engagement, SEEA focuses its efforts to advance energy efficiency in four work areas:

- State, local, and utility policy;
- The built environment;
- Energy equity; and,
- Innovative finance.

FDACS OOE Deputy Director, Tony Morgan serves as a SEEA Board member.

Southern States Energy Board (SSEB)

Section 377.711, F.S., establishes Florida as a member of the SSEB. The SSEB is a nonprofit interstate compact organization created by state law in 1960 and consented to by Congress, with a broad mandate to contribute to the economic and community well-being of the southern region.



Its mission is to enhance economic development and the quality of life in the Southeast through innovations in energy and environmental policies, programs, and technologies. Florida is represented by Governor Ron DeSantis, Senator Ed Hooper (Senator Debbie Mayfield - alternate), Representative Bobby Payne (Representative Mike Giallombardo – alternate), and FDACS OOE Director Brooks Rumenik.

Florida Green Building Coalition (FGBC)

In January 2017, the FDACS OOE joined the FGBC, a leading certifier of green construction projects in Florida with nearly 17,000 “Florida Green” certified projects to date. FGBC is focused on promoting Florida-specific green building and sustainability techniques through its regional education and certification program. The FGBC strives to:

- Administer certification programs based upon the green building standards;
- Award its certification mark to qualified projects;
- Educate the general public, businesses, institutional and governmental bodies of the long-term benefits of sustainable development and green building practices; and.
- Encourage housing affordability by increasing building sustainability.

In June of 2023, FDACS OOE Deputy Director, Tony Morgan was chosen to serve on the FGBC Board of Directors.



IV. Next Steps

In 2024, FDACS OOE will continue to work with all stakeholders and interested parties to advance policies and implement programs that utilize energy as a solution to the issues our state faces. FDACS OOE will seek ways to secure clean, affordable, and reliable energy while creating new opportunities for Florida's economy.

2024 Information Gathering Stakeholder Roundtables

In addition to the continued monitoring and management oversight of programs described within this report, FDACS is looking to expand efforts that would support the interface between energy and agriculture. Through ongoing research and engagement with key stakeholders and subject matter experts, the office intends to identify opportunities in a variety of areas, including:

Agrivoltaics (Solar on Agricultural Lands)

Agrivoltaics is the use of land for both agriculture and solar photovoltaic energy generation. As our state continues to grow in population, it is more important than ever to explore efficient use and management of farmlands to support Florida's energy, economic, and agricultural needs.

Anaerobic Digesters (Manure Digesters)

Anaerobic digestion is the process used for converting livestock manure and other waste into either a digestate (organic fertilizer, animal bedding, crop irrigation, etc.) or biogas (electricity, heat, vehicle fuel, or renewable natural gas). The potential benefits for this include additional economic opportunities for farmers, improved soil and water health on agricultural lands, enhanced opportunity for farm energy independence, and the potential to improve farm-community relationships.

Rural County Energy Infrastructure

Rural county infrastructure refers to infrastructure and facilities necessary to provide services such as transport, energy/electricity, drinking water and sanitation, health, education, etc., in rural areas. Rural communities play an important role in our economy, supporting many manufacturers, farmers, and ranchers throughout Florida. Unfortunately, much of our rural infrastructure is in various states of deterioration or at best, in need of energy efficiency upgrades to allow these communities the ability to meet increased demands and cost-effectively function to support their community.

General Energy Policy Needs

Florida is a large, diverse, and ever-evolving state facing ongoing energy challenges, yet also blessed with several unique opportunities and natural resources. It is imperative that we continue to evaluate and prioritize energy choices for Floridians, as well as address the various needs within our state.

