



FDACS Office of Energy Programs Focused on Water and Agriculture

Recognizing the need for more alignment between energy and water, the FDACS Office of Energy has worked with various stakeholders to develop programs and initiatives that reduce energy use in water systems, increase end use water and energy efficiency, and educate school-aged children on the interconnectedness of water and energy.

The **Farm Energy and Water Efficiency Realization Program (FEWER)** was a popular and successful pilot program in Suwannee County Conservation District that provided on-site energy and water audits to farms. The pilot program provided a 75 percent cost share, up to \$25,000, to area agriculture producers who participated in the audit and implemented some of the recommendations. The 132 Suwannee County area agriculture producers who implemented recommendations from their water and energy audits are saving \$1.5 million collectively on their utility bills every year.

Based on the popularity and success of the FEWER program, the FDACS Office of Energy created the **Farm Renewable and Efficiency Demonstration (FRED) Program**. FRED provided free energy evaluations valued up to \$4,500 to Florida agricultural producers. FRED also provided Florida agricultural producers grant reimbursement for 80 percent of the cost to implement the recommendations from the free energy evaluation up to \$25,000. Examples of eligible projects for reimbursement included energy-efficient lighting and water pumps and renewable energy generation, such as solar or biomass. The total funding available under this program was \$3 million. The FRED Program provided 101 energy and water audits to agricultural producers and invested more than \$1.6 million to implement the resulting recommendations. The FDACS Office of Energy is currently performing an analysis to determine the energy and economic impacts of the program.

FDACS Office of Energy worked with the FDACS Division of Aquaculture to develop the **Efficiency and Renewable Improvements in Commercial Aquaculture Program (ERICA)**. The program funding of \$1,006,900 increases energy efficiency, reduces energy usage, and lowers operating costs at commercial aquaculture facilities in Florida. ERICA provides grant reimbursement for technologies that significantly increase EERE for eligible commercial aquaculture facilities and farms located in Florida. Under ERICA, the FDACS Office of Energy received 63 applications and approved 40 applications expending all program funding. The FDACS Office of Energy

is currently analyzing energy data submitted by applications to determine energy impacts of this program.

FDACS Office of Energy also 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 \$2.5 million of **RESTORE Act (Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast Act)** funds, 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 \$25,000. Examples of eligible projects for reimbursement include energy-efficient lighting and water pumps, and small-scale renewable energy generation, such as solar or biomass.

Using a \$75,000 competitive award from the U.S. Department of Energy, the FDACS Office of Energy recently completed a study entitled “**Mapping the Energy Landscape of Water and Wastewater Treatment Plants in the State of Florida.**” This study provides a baseline on energy efficiency and renewable energy measures and practices at water and wastewater treatment plants in Florida, and recommendations on how to reduce energy use and operating costs. The study found that Florida’s wastewater treatment plants could save annually 26,763,827 kilowatt-hours of electricity and 6,354 tons of carbon dioxide through energy efficiency improvements.

Based on the results of the above study, the FDACS Office of Energy launched the **Florida Wastewater Treatment Plant Energy Program** this summer. In addition to reducing energy use and greenhouse gas emissions, the FDACS Office of Energy is continuing its efforts to achieve energy equity by investing in projects that aim to reduce energy burden for Florida consumers. The Florida Wastewater Treatment Plant Energy Program will consider factors that will reduce the total energy consumption but also the costs of wastewater treatment. The FDACS Office of Energy anticipates to announce awards by the end of this year.

FDACS Office of Energy also worked with the FDACS Division of Food, Nutrition and Wellness and the FDACS Division of Aquaculture to install an aquaponics display at the **Holland Building Wellness Garden** in Tallahassee that provides hands-on demonstrations to school aged children on how energy, water, and food are integrated. Tours and demonstrations have been cancelled due to COVID-19 but will resume as soon as it is safe to do so.

FDACS Office of Agricultural Water Policy is also redoubling efforts to enroll agricultural producers into the **best management practices (BMP)** program and verify the effectiveness of BMPs being implemented and is also undertaking review of the manuals governing BMPs to ensure the latest scientific and technical research recommendations related to water resources protection. This office also continues to partner with academic institutions, with particular research emphasis being placed on the role of legacy nutrients within impaired watersheds and encourages prioritized funding of cost share projects within areas of need and innovation.