

FLORIDA EXTENSION INITIATIVE FOUR:  
PRODUCING AND CONSERVING TRADITIONAL AND ALTERNATIVE FORMS OF ENERGY

STATEWIDE EDUCATIONAL PROGRAMS IN **ENERGY**

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**SITUATION**

With approximately 18 million people, Florida is the 4<sup>th</sup> most populated state in the nation. It ranks third in the nation in total fuel and electrical energy consumed per year. Florida produces less than 1% of the total energy it consumes. Almost 90% of the energy produced in Florida uses fossil fuels. Florida's per capita residential electricity demand is among the highest in the country, due in part to high air-conditioning use during the hot summer months and the widespread use of electricity for home heating during the winter months. These numbers are expected to rise by 30% over the next 10 years. Florida needs to enter the bio-energy and bio-products arena with a special emphasis on improving self-sufficiency, addressing climate change and stimulating economic development by transforming agricultural products into energy. Florida also needs to provide research based educational programs that address conservation of our energy resources in our homes, workplaces, and communities.

Although energy conservation and production was clearly identified during the development of the Roadmap for Extension, this initiative is not fully developed because of the lack of human resources within IFAS Extension.

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**PROGRAM OBJECTIVES**

- Identify and promote bioenergy and energy conservation
- Support bioenergy and bio-based products thru effective transfer of UF/IFAS research findings
- Collaborate with utilities, builders and the public to promote energy conservation and efficiency
- Promote awareness of the Energy/Water nexus and associated water quality and quantity impacts
- Increase awareness of energy consumption and associated climate change impacts (i.e., sea level rise)

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**EDUCATIONAL METHODS**

**Energy Supply:**

- Develop and deliver educational programs that work with citizens, businesses and government to support development of a sustainable and renewable energy supply in Florida.
- Develop and deliver programs that transfer new, research based technologies for renewable energy and alternative energy sources to Florida citizens and communities.
- Develop and implement extension educational programs to train producers, and processors about production, best management practices, marketing, processing technologies and distribution of bio-based feedstock.
- Develop and deliver programs for policy makers and consumers to increase biofuels literacy.

**Energy Conservation:**

- Develop/deliver educational programs addressing energy issues (i.e., Sustainable Floridians)
- Create websites to increase knowledge of personal energy use (i.e., [www.MyFloridaHomeEnergy](http://www.MyFloridaHomeEnergy))
- Support energy efficient retrofit programs (i.e., PACE, Florida Energy Efficient Loans)
- Work utilities, financial institutions and government to evaluate energy efficiency programs

- Consult with landowners, developers and government to promote design, construction, and management practices that measurably reduce energy consumption in new developments (i.e., Plum Creek)
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## RESULTS

### Energy Supply:

- Greater number of bio-based alternative energy production industries.
- Increased agricultural industries that have the ability to produce sustainable feedstocks for the commercialization of advanced biofuels and renewable chemicals.
- Developed high yielding biomass feedstocks year round that do not compete with food crops and can promote economic stability and security for the long term.
- Adoption of best management practices for the production and transportation of bio-fuel feedstocks.

### Energy Conservation:

- Greater numbers of well-informed citizens locally engaged in activities that will promote sustainability.
  - Improved web access to reliable residential energy efficiency information and recommendations.
  - Increased availability of financing for measurably effective energy efficiency residential retrofits.
  - Improved cost effectiveness of utility demand side management programs (DSM).
  - Adoption of more resource efficient designs and management structures.
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## NEEDS

**Energy Supply:** This program needs additional human resources and the appropriate monetary funding to in design, develop and implement region specific measures and programs that will that will develop bio-based feedstocks and evaluate their feasibility and best management practices.

**Energy Conservation:** This program area has one overriding need to bolster interaction with County Extension Offices; funding for the Sustainable Floridians statewide coordinator position.

The entire bio-based energy industry in Florida is in needed of a comprehensive plan that deals with production, marketing and pricing, processing, transportation and delivery of bio-based energy to consumers.

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## SUPER ISSUES

This PWG most directly supports:

- Resource sustainability and conservation in Florida communities.