



FSEC Energy Research Center

UNIVERSITY OF CENTRAL FLORIDA

FSEC Energy Research Center Strategic Plan (2020-2025)

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Executive Summary

April 16, 2020

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Strategic Plan (2020-2025) Executive Summary

Adopted by FSEC Advisory Board April 16, 2020

The Florida Legislature created the Florida Solar Energy Center (FSEC) in 1975 to support the growth and development of renewable energy. The year 2025 will mark the half-century mark for FSEC's service as the statewide energy research and education institute. In preparation for the next 50 years of dynamic energy developments, the FSEC Energy Research Center is undertaking a strategic planning and rebranding process.

Vision Statement

Promote the rapid transition to a sustainable energy economy through renewable energy, energy efficiency, and sustainable transportation research, demonstration, and education.

Mission Statement

Develop, research, and evaluate energy technologies that enhance the environment and economy, and transfer the results to the public, students and practitioners.

Goals

- I. Enhance FSEC's prominence in core programs of sustainable energy research and development
- II. Deploy FSEC's distinctive assets to support the clean energy sector's response to society's greatest challenges as underscored by the United Nation's First Assessment Report and UCF's Climate Action priorities
- III. Maintain FSEC's broad base of academic and industry affiliations and stakeholders that support and inform our research, development, education and training initiatives
- IV. Elevate and expand FSEC's educational programming
- V. Increase stakeholder and constituent awareness of FSEC and its programs, services and training offerings
- VI. Nurture an inclusive and diverse FSEC faculty, staff, and stakeholder base

Program Focus

Over the next five years, FSEC’s seven research and education program areas will serve as the pathway to the longer-term period of sustained energy innovation.

Program Area	Program Focus
Solar Energy	Photovoltaic (PV) systems (rooftop, land-based and floating), performance, durability, testing and certification; PV cell/module manufacturing; and, distributed energy resources
High Performance Buildings	Building science, indoor air quality, smart energy efficient devices and systems, load management, advanced weatherization, affordable housing applications, and deep retrofits
Sustainable Transportation	Sustainable transportation, electric vehicles, alternative fuels, autonomous systems, and infrastructure
Energy Storage	Energy storage (electrochemical and thermal), fuel cell technology, and on-demand hydrogen production
Energy Systems Integration	Energy systems integration, including vehicle to building technology, grid-interactive efficient buildings, smart buildings, demand management, smart mobility, and resiliency.
Education and Training	Workforce training, K-12 STEM education, curricula and credential development, public education, outreach and marketing
Energy Policy Research	Energy policy analysis, codes and standards development and administration