



UNIVERSITY OF CENTRAL FLORIDA

Office of the President

<b>SUBJECT:</b> Energy and Water Efficiency	<b>Effective Date:</b> 7/17/2020	<b>Policy Number:</b> 3-111.2	
	<b>Supersedes:</b> 3-111.1	<b>Page</b>	<b>Of</b>
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<b>Responsible Authority:</b> Director, Utilities and Energy Services			

**DATE(S) OF INITIAL ADOPTION AND EFFECTIVE DATE 5/21/2008**

### **APPLICABILITY/ACCOUNTABILITY**

This policy applies to all personnel, departments, and units in buildings and facilities on all University of Central Florida (UCF) campuses, owned and/or operated by the university, Direct Support Organizations, and public-private entities or donors.

### **BACKGROUND INFORMATION**

As one of over 250 signatories to the American College & University Presidents' Climate Commitment (ACUPCC), the university is committed to environmental stewardship and carbon neutrality. As energy and water demands and costs continue to rise, efficient use of these resources has become increasingly important to the university's mission. As a result, UCF requires the support of its community, including leadership, administrators, researchers, students, faculty, and staff members.

Water is a precious and limited commodity for the Central Florida region. As water demands continue to rise and the campus population grows, UCF will embrace a culture of smart growth and seek aggressive water conservation and efficiency strategies. Appropriate policies, strategic plans, and procedures, along with strict adherence to the commissioning process, shall continue to guide UCF towards becoming a national leader in energy and water conservation research, education, and stewardship.

## **POLICY STATEMENT**

UCF is committed to meeting its energy and water needs through conservative and efficient means, while ensuring a productive environment for all members of the university community. Energy and water conservation practices must be followed by all members of the university community.

The Department of Utilities and Energy Services (UES) is the single point of contact and clearinghouse for all water and energy efficiency matters related to replacements, renovations, and new construction on university-owned or leased property. UES is also responsible for the commissioning of all building energy-using systems, controls, and assets. The UES director, or their designee, will review all proposed initiatives or projects, whether internal or external. All proposed initiatives or projects must comply with applicable Florida Statutes regarding energy and sustainability building requirements, Florida Building Codes, and Florida Administrative Codes. The university also complies with its prescriptive Green Building Construction and Renovation Requirements, and the UCF Design, Construction, and Renovation Standards.

The UES director is the authority to approve, revise, prohibit, or restrict building programs, project designs, equipment selections, and utility services that do not meet the requirements set forth by Florida Statutes, and UCF's requirements for high-performance buildings.

Utility services must be approved by the UES director, or their designee, as defined by this policy, for:

- mechanical, electrical, and plumbing design, renovation, and commissioning;
- utility concurrency management systems and capacity subscriptions;
- alterations impacting water or energy use on any UCF campus;
- utility and related conservation elements in the University Campus Master Plan;
- smart infrastructure;
- building environmental life-cycle cost analyses;
- high-performance building requirements;
- demand-response initiatives;
- source water and/or fuel switching;
- building additions;
- HVAC and building automation operations and maintenance;
- utility procurement;
- utility generation; and
- utility interconnection.

## DEFINITIONS

**Commissioning.** A quality-focused process for enhancing the delivery of a project, which focuses on verifying and documenting that all of the commissioned systems and assemblies are planned, designed, installed, tested, operated, and maintained to meet the Owner's Project Requirements (OPR) in strict adherence to the latest version of ANSI/ASHRAE Standard 202.

**Concurrency.** The availability of public facilities and services in an equitable manner, and the guarantee of a specific level of service, ensuring that new development will not deplete those levels of utility service. Florida Statute 163.3180 requires Concurrency Management Systems (CMS) for monitoring and ensuring adherence to the adopted level-of-service utility standards, including the schedule of capital improvements and the availability of public facility capacity.

**Leadership in Energy and Environmental Design (LEED).** A green building rating system that provides a framework to create healthy, highly efficient, and cost-saving green buildings. LEED impact categories include: reversing contributions to climate change; enhancing individual human health and well-being; protecting and restoring water resources; protecting, enhancing, and restoring biodiversity and ecosystem services; promoting sustainable and regenerative material resource cycles; building a greener economy; and enhancing social equity, environmental justice, and community quality of life; all of which provide grounds to facilitate advanced teaching and research.

**University Community.** All university personnel, students, Direct Support Organization employees and volunteers, as well as visitors and contractors who conduct business with the university.

## PROCEDURES

### **New Building Construction and Renovations**

The university standard for new construction and facility renovations must adhere to the Green Building Construction & Renovation Requirements, which represent the minimum program requirements for all new construction and renovations.

From the initial conceptual and schematic design to completion, UES will serve as the principal advisor and approval authority for ensuring that energy and water efficiency standards and practices meet all specifications and statutory requirements for design, construction, and operation of all UCF facilities.

The university follows the LEED rating system to guide best practices, including assessing life cycle costs and achieving positive results in LEED's social, environmental, and economic impact categories. The university must meet LEED Gold certification for all new construction and strive for LEED certification on renovation projects.

### **Building Operation**

As directed by Florida Statutes, Chapter 255, Public Property and Publicly Owned Buildings, buildings will be operated in the most energy-efficient manner possible regardless of their funding source(s). Major energy-use systems in existing facilities will be upgraded and/or renovated, where possible, in order to qualify for LEED Operations & Maintenance (O+M) certification; operate efficiently; and cultivate healthy spaces for occupant productivity.

The university will coordinate with UES to optimally group similar space types or functions together to realize the most efficient building utility usage. Scheduling of instruction and research space outside of normal hours of operation will be physically grouped using the most optimal configuration.

### **Building Commissioning**

UCF supports a quality-focused process for enhancing the delivery of a project. Commissioning activities begin at the programming phase for each project and must, at a minimum, be implemented and carried out to include design development and review, construction, and functional testing. Commissioning may be performed in-house by the Department of Utilities and Energy Services or, outsourced to a third-party entity that reports directly to the Department of Utilities and Energy Services. This process focuses upon verifying and documenting that all of the commissioned systems and assemblies are planned, designed, installed, tested, operated and maintained to meet the owner's requirements. This policy can be utilized in the delivery of all or selected systems and assemblies in a project in accordance with the latest ASHRAE standard for commissioning.

### **New Initiatives**

UCF encourages a culture of innovation and change as it pursues energy efficiency improvements. The university community is encouraged to recommend to UES any energy efficiency concepts that could improve campus operations. UES is the primary clearinghouse for these suggestions, and will recommend or implement change, while considering to the impact to the overall mission.

The university will transition towards more sustainable, resilient, and reliable energy sources in order to reduce the delivered cost of purchased energy and negative impacts on the built environment.

The university will be mindful of its limited water capacity agreement with the St. Johns River Water Management District as it develops the Campus Master Plan and Capital Improvement Requests. The university will continue to seek holistic approaches to efficiently use indoor, outdoor, and specialized water sources. The concurrency management system will ensure that campus facilities and services remain available when new development is proposed.

## CONTACTS

Utility and Energy Services

3528 Perseus Loop, P.O. Box 163644, Orlando, FL 32816-3644; 407-823-6789

Director, Utilities and Energy Services: 407-823-2053

## RELATED INFORMATION

Florida Statute 163.3180 Concurrency

[http://www.leg.state.fl.us/statutes/index.cfm?App\\_mode=Display\\_Statute&Search\\_String=&URL=0100-0199/0163/Sections/0163.3180.html](http://www.leg.state.fl.us/statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=0100-0199/0163/Sections/0163.3180.html)

Florida Statute 255.252 Findings and intent

[http://www.leg.state.fl.us/statutes/index.cfm?App\\_mode=Display\\_Statute&Search\\_String=&URL=0200-0299/0255/Sections/0255.252.html](http://www.leg.state.fl.us/statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=0200-0299/0255/Sections/0255.252.html)

Florida Statute 255.254 No facility constructed or leased without life cycle costs

[http://www.leg.state.fl.us/statutes/index.cfm?App\\_mode=Display\\_Statute&Search\\_String=&URL=0200-0299/0255/Sections/0255.254.html](http://www.leg.state.fl.us/statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=0200-0299/0255/Sections/0255.254.html)

Florida Statute 255.255 Life-cycle costs

[http://www.leg.state.fl.us/statutes/index.cfm?App\\_mode=Display\\_Statute&Search\\_String=&URL=0200-0299/0255/Sections/0255.255.html](http://www.leg.state.fl.us/statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=0200-0299/0255/Sections/0255.255.html)

Florida Statute 255.2575 Energy-efficient and sustainable buildings

[http://www.leg.state.fl.us/statutes/index.cfm?App\\_mode=Display\\_Statute&Search\\_String=&URL=0200-0299/0255/Sections/0255.2575.html](http://www.leg.state.fl.us/statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=0200-0299/0255/Sections/0255.2575.html)

Florida Statute 553.994 Applicability

[http://www.leg.state.fl.us/statutes/index.cfm?App\\_mode=Display\\_Statute&Search\\_String=&URL=0500-0599/0553/Sections/0553.994.html](http://www.leg.state.fl.us/statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=0500-0599/0553/Sections/0553.994.html)

Florida Statute 553.995 Energy-efficiency ratings for buildings

[http://www.leg.state.fl.us/statutes/index.cfm?App\\_mode=Display\\_Statute&Search\\_String=&URL=0500-0599/0553/Sections/0553.995.html](http://www.leg.state.fl.us/statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=0500-0599/0553/Sections/0553.995.html)

Green Building Construction & Renovation Requirements

<https://energy.ucf.edu/green-building-construction-and-renovation-requirements/>

International Organization of Standardization (ISO) 50001 Energy management systems

<https://www.iso.org/iso-50001-energy-management.html>

Maintenance & Operation Requirements

<https://energy.ucf.edu/maintenance-and-operations-requirements/>

Professional Services Guide for Design, Construction, and Renovation  
<http://fp.ucf.edu/wp-content/uploads/resources/Standards and Requirements/UCF Professional Services Guide with Exhibits - 3-19-2013.pdf>

UCF Design, Construction, and Renovation Standards  
<https://fp.ucf.edu/wp-content/uploads/resources/Standards%20and%20Requirements/Design%20Construction%20and%20Renovation%20Standards%20v2019-3.pdf>

**INITIATING AUTHORITY:** Vice President and Chief Operating Officer

<b>POLICY APPROVAL</b> <b>(For use by the Office of the President)</b>	
Policy Number: 3-111.2	
Initiating Authority: <u>Misty Shepherd</u>	Date: <u>07/07/20</u>
University Policies and	
Procedures Committee Chair: <u>Frank L Bishop</u>	Date: <u>6/26/2020</u>
Alexander President or Designee: <u>Cartwright</u>	Digitally signed by Alexander Cartwright Date: 2020.07.17 09:25:31 -04'00'      Date: <u>7/17/2020</u>

History: 3-111 5/21/2008; 3-111.1 6/2/2015