

10.0 Utilities

This Element will be deleted as it is not required by the Florida Board of Governors regulations. Policies addressed in this Element are addressed elsewhere in university policy, UF Design and Construction Standards, or Florida Building Code.

GOAL 1: Provide Adequate, Reliable, and Sustainable Chilled Water and Steam Services to Existing and Future Facilities.

Objective 1.1: To correct existing chilled water and steam system deficiencies.

Policies	Status	Benchmarks	Recommendations
<p>Policy 1.1.1: The Physical Plant Division shall evaluate the performance of campus chilled water and steam production facilities with continuous data monitoring of key operational parameters to ensure functionality of systems. Corrective measures will be implemented consistent with Policies 1.1.1 and 1.3.1 of the Facilities Maintenance Element.</p>	Ongoing	The Facilities Services Division continues to provide this service.	Element and Policy not required by BOG. Delete
<p>Policy 1.1.2: The University Design and Construction Standards shall continue to include campus-specific set of heating and cooling criteria for system maintenance and new installations based on the standards set forth by the American Society of Heating, Refrigerating and Air-Conditioning Engineers which identify:</p> <ul style="list-style-type: none"> • Indoor summer and winter design temperatures; • Indoor humidity conditions; • Preferred HVAC systems; • Redundancy requirements; • Testing procedures. 	Ongoing	The Facilities Services Division continues to provide this service.	Element and Policy not required by BOG. Delete

Objective 1.2: To provide for planned expansion of the steam and chilled water systems to meet the University's needs at the end of the planning time frame.

Policies	Status	Benchmark Data	Recommendations
<p>Policy 1.2.1: The University shall maintain continuous accurate records of chilled water temperatures and flows and steam flows.</p>	Ongoing	The Facilities Services Division continues to provide this service.	Element and Policy not required by BOG. Delete
<p>Policy 1.2.2: The University shall maintain updated documents that clearly illustrate the current status of the chilled water system including:</p> <ul style="list-style-type: none"> • Location of chiller plants; • Existing chilled water generating capacity; • Location of chilled water distribution piping; • Capacity of existing distribution system, considering pumps and piping; and • Existing building loads. <p>These documents shall be updated periodically or as major revisions to the chilled water system are implemented. New construction projects shall be reviewed for potential effects on the chilled water system.</p>	Ongoing	The Facilities Services Division continues to provide this service. The Division has developed an extensive inventory of needed upgrades and an implementation plan. Work will begin in the Reitz Union Lawn, Inner Drive and Museum Road in the next five years. Upgrades have been completed for a section of Gale Lemerand Drive. New project utility impacts are evaluated during building programming.	Element and Policy not required by BOG. Delete

Policies	Status	Benchmark Data	Recommendations
<p>Policy 1.2.3: The University shall develop documents that clearly illustrate the current status of the steam production system including:</p> <ul style="list-style-type: none"> • Location of steam plants; • Existing steam generating capacity; • Location of steam distribution piping; • Capacity of existing distribution system, considering piping; and • Existing building loads. <p>These documents shall be updated periodically or as major revisions to the steam system are implemented. New construction projects shall be reviewed for potential effects on the steam system.</p>	Ongoing	The Facilities Services Division continues to provide this service. The Division has developed an extensive inventory of needed upgrades and an implementation plan. Work will begin in the Reitz Union Lawn, Inner Drive and Museum Road in the next five years. Upgrades have been completed for a section of Gale Lemerand Drive. New project utility impacts are evaluated during building programming.	Element and Policy not required by BOG. Delete
<p>Policy 1.2.4: The University shall implement steam and chilled water facility improvements as established in the Capital Improvements Element.</p>	Ongoing	Steam and chilled water facility improvements will be programmed as funding permits.	Element and Policy not required by BOG. Delete
<p>Policy 1.2.5: The University shall require all new buildings to evaluate methods to utilize waste heat recovery to reduce consumption of chilled water and steam.</p>	Ongoing	The Facilities Services Division continues to provide this service.	Element and Policy not required by BOG. Delete
<p>Policy 1.2.6: The University has adopted a level of service standard for saturated steam, which provides and maintains a minimum of 300 degrees supply temperature to meet building heating demands.</p>	Ongoing	The Facilities Services Division continues to provide this service standard. The Design and Construction Standards specify Level of Service.	Element and Policy not required by BOG. Delete

Policies	Status	Benchmark Data	Recommendations
Policy 1.2.7: The University has established a level of service standard for chilled water which provides and maintains a 45 degree chilled water supply temperature to meet building cooling demands.	Ongoing	The Facilities Services Division continues to provide this service standard. The Design and Construction Standards specify Level of Service.	Element and Policy not required by BOG. Delete
Policy 1.2.8: The Physical Plant Division shall appropriately size new chillers to meet anticipated future demand (based on the 10-year capital improvement list) when doing routine upgrades, replacements or new installations.	Ongoing	The Facilities Services Division plans for the ongoing strategic need of chiller expansion.	Element and Policy not required by BOG. Delete

Objective 1.3: To provide redundant capability for chilled water utility.

Policies	Status	Benchmark Data	Recommendations
Policy 1.3.1: The University shall ensure all plants have “N+1” redundancy of major production equipment where feasible.	Ongoing	The University ensures that chiller plants have “N+1” redundancy of major production equipment where feasible.	Element and Policy not required by BOG. Delete
Policy 1.3.2: The University shall require new construction to ensure redundant chilled water service is maintained when feasible.	Ongoing	The University continues to provide redundant chilled water service with new construction when feasible.	Element and Policy not required by BOG. Delete

Objective 1.4: To provide sustainable steam and chilled water systems in new and existing facilities.

Policies	Status	Benchmark Data	Recommendations
Policy 1.4.1: The University shall continue its policy for replacing ozone-depleting refrigerants with environmentally safe refrigerants as approved by the Environmental Protection Agency and the USGBC (United States Green Building Council) during all production equipment replacements.	Not Complete	The University maintains standards and testing procedures in its UF Design and Construction Standards	Element and Policy not required by BOG. Delete

Goal 2: Provide Adequate Facility Capacity to Meet Present and Future Needs of the University, While Identifying Opportunities to Reduce University Energy consumption in New and Existing Facilities.

Objective 2.1: To correct existing electric power and other fuel deficiencies.

Policies	Status	Benchmark Data	Recommendations
Policy 2.1.1: Age and type of transformers shall be investigated annually to ascertain present condition and useful life.	Ongoing	The Facilities Services Division continues to provide this service.	Element and Policy not required by BOG. Delete
Policy 2.1.2: The University Design and Construction Standards shall continue to include campus specific criteria for providing electric power, including: distribution voltages, building secondary distribution voltages, master control criteria and lighting levels.	Ongoing	The Facilities Services Division continues to provide this service.	Element and Policy not required by BOG. Delete
Policy 2.1.3: The University shall correct deficiencies as necessary consistent with Policies 1.1.1 and 1.3.1 of the Facilities Maintenance Element. The timing, phasing requirements and priorities for these improvements shall be established in the Capital Improvements Element.	Ongoing	The Facilities Services Division continues to provide this service.	Element and Policy not required by BOG. Delete
Policy 2.1.4: Underground utilities and support structures are the preferred installation unless otherwise approved by the University.	Ongoing	The Facilities Services Division continues to provide this service.	Element and Policy not required by BOG. Delete and incorporate into Urban Design Element New Policy 1.3.11
Policy 2.1.5: If it is determined that the utility or support structure must be placed above ground, appropriate decorative architectural walls or landscaping shall be provided to help screen the structures from view.	Ongoing	The Facilities Services Division continues to provide this service.	Element and Policy not required by BOG. Delete

Objective 2.2: To provide additional electric power and other fuel capacity to satisfy projected load of master plan.

Policies	Status	Benchmark Data	Recommendations
<p>Policy 2.2.1: New substations shall be provided to allow campus expansion. Loads connected to new double ended substations shall not exceed 50% of the total substation capacity. The timing and phasing requirements and priorities for these improvements are established in the Capital Improvements Element.</p>	Ongoing	The Facilities Services Division continues to provide this service.	Element and Policy not required by BOG. Delete
<p>Policy 2.2.2: The University shall maintain documents that clearly illustrate the current status of the electric power system including:</p> <ul style="list-style-type: none"> • Location of substations; • Existing substation capacity; • Location of electric feeders; and • Capacity of existing distribution system, considering existing substation and feeder loads. <p>These documents shall be updated periodically or as major revisions to the electric power system are implemented. New construction projects shall be reviewed for potential effects on the electric power system, and specific system revisions shall be recommended to accommodate those new projects. The adopted campus master plan shall be amended as needed to reflect these revisions.</p>	Ongoing	The Facilities Services Division continues to provide this service. New project utility impacts are evaluated during building programming, not on an annual basis.	Element and Policy not required by BOG. Delete
<p>Policy 2.2.3: New construction projects shall be reviewed for additional loads on non-university maintained substations. The utility company (ies) shall be requested to increase service capacity as required.</p>	Ongoing	The Facilities Services Division continues to provide this service.	Element and Policy not required by BOG. Delete

Policies	Status	Benchmark Data	Recommendations
Policy 2.2.4: The University shall establish and adopt a level of service standard for electrical energy and other fuels that provides and maintains an appropriate supply to campus buildings. This level of service shall ensure redundancy by requiring double ended substations and loading transformers below 50% of their maximum capacity.	Ongoing	The Facilities Services Division continues to provide this service.	Element and Policy not required by BOG. Delete
Policy 2.2.5: The University shall maintain an annual procedure and assign responsibility to the Physical Plant Division for regularly scheduled meetings with utilities that provide power to campus properties relative to the University's need for electrical power. The University shall pursue interlocal agreements and memoranda of understanding necessary to ensure that electrical energy shall be available to meet the future needs of the University.	Ongoing	The Facilities Services Division continues to provide this service.	Element and Policy not required by BOG. Delete
Policy 2.2.6: The University shall encourage the development of alternative fuel sources and energy recapture where appropriate. Examples of alternatives include biomass (biorefinery), solar and wind.	Ongoing	The Facilities Services Division continues to provide this service. Since 2009, 350KW of solar panels have been installed on the university's main campus.	Element and Policy not required by BOG. Delete and incorporate green energy into Capital Improvement policies.

Objective 2.3: Provide redundant capability for electrical utility.

Policies	Status	Benchmark Data	Recommendations
Policy 2.3.1: The University shall require each distribution system to have at least 100% backup capacity through switching.	Ongoing	The Facilities Services Division continues to provide this service.	Element and Policy not required by BOG. Delete
Policy 2.3.2: The University shall require new construction to ensure redundant electrical service is maintained. If redundancy cannot be met, program corrective solutions as part of new construction shall be accomplished by adding new electrical transformers.	Ongoing	The Facilities Services Division continues to provide this service.	Element and Policy not required by BOG. Delete

Objective 2.4: To implement sustainable energy practices that focus on reducing consumption, retrofitting inefficient systems and provides energy efficient guidelines for new development.

Policies	Status	Benchmark Data	Recommendations
Policy 2.4.1: The University shall continue to evaluate lighting levels and maintain a standard for appropriate light levels and fixtures in the University Design and Construction Standards. These standards shall address energy efficient lighting fixtures, energy efficient electronic ballasts and lamps, and variable frequency drives as appropriate.	Ongoing	The University has amended its Design and Construction Standards to provide appropriate light levels and encourage energy efficient fixtures. Additional modifications to these standards will include incorporation of the Landscape Master Plan and appropriate BUG rating compliance.	Element and Policy not required by BOG. Delete
Policy 2.4.2: The University shall explore ways to make each building occupants on campus aware of their utility consumption by building, so that they may monitor their energy usage and shall establish an incentive program that rewards building occupants that reduce energy usage.	Ongoing	The University has employed a variety of measures toward this goal including information dashboards and metering upgrades.	Element and Policy not required by BOG. Delete

Goal 3: Provide Safe and Adequate Facility Capacity to Meet Present and Future Needs of the Universities Telecommunications and Networking infrastructure.

Objective 3.1: To correct existing telecommunications infrastructure deficiencies where identified.

Policies	Status	Benchmark Data	Recommendations
Policy 3.1.1: The University shall evaluate the current state of campus telecommunications infrastructure and shall recommend methods to correct deficiencies. The adopted campus master plan shall be amended as needed to reflect these methods.	Ongoing	The Division of Information Technology continues to provide this service.	Element and Policy not required by BOG. Delete

Policies	Status	Benchmark Data	Recommendations
Policy 3.1.2: Telephone, data and video pathways shall be reinforced in capacity to serve present requirements and to replace old aerial and direct buried installations.	Ongoing	The Division of Information Technology continues to provide this service.	Element and Policy not required by BOG. Delete
Policy 3.1.3: The Utility land use category shall be used to relocate existing radio and satellite antennas or locate new facilities, except as allowed within other land uses as identified in the Future Land Use Element.	Ongoing	Radio and satellite antennas are sited consistent with Future Land Use designations and definitions.	Element and Policy not required by BOG. Delete
Policy 3.1.4: The University shall continue to expand wireless telecommunication system capabilities to all populated areas of campus.	Ongoing	Wireless telecommunication systems have been expanded throughout campus in buildings and exterior spaces.	Element and Policy not required by BOG. Delete

Objective 3.2: To provide additional telecommunications systems capacity to satisfy projected needs of master plan.

Policies	Status	Benchmark Data	Recommendations
Policy 3.2.1: Telephone, data and video pathways shall be reinforced in capacity and expanded to serve requirements of the master plan. The University shall appropriately size telecommunication facilities to meet anticipated future demand (based on the 10-year capital improvement element) when doing routine upgrades, replacements or new installations.	Ongoing	The Office of Information Technology Network Services continues to provide this service.	Element and Policy not required by BOG. Delete

Policies	Status	Benchmark Data	Recommendations
<p>Policy 3.2.2: The University shall maintain documents that clearly illustrate the current status of the telecommunications system including:</p> <ul style="list-style-type: none"> • Location of incoming services; • Location of telecommunication distribution; • Capacity of existing distribution system; • Wall plate locations; • Emergency Notification Device locations; and • Wireless access point locations. <p>These documents shall be updated periodically or as major revisions to the telecommunications system are implemented. Approved new projects shall be reviewed for potential effects on the telecommunications system, and specific system revisions shall be recommended to accommodate those new projects. The adopted campus master plan shall be amended as needed to reflect these revisions.</p>	Ongoing	The Office of Information Technology Network Services continues to provide this service.	Element and Policy not required by BOG. Delete
<p>Policy 3.2.3: The University shall implement telecommunications facility improvements as necessary. The timing and phasing requirements and priorities for these improvements are established in the Capital Improvements Element.</p>	Ongoing	Telecommunications facility improvements will be programmed as funding permits.	Element and Policy not required by BOG. Delete
<p>Policy 3.2.4: The University shall establish a procedure and assign responsibility for regularly scheduled meetings with service providers relative to the University's need for telecommunications. The University shall pursue interlocal agreements and memoranda of understanding necessary to ensure that telecommunications shall be available to meet the future needs of the University.</p>	Ongoing	The Office of Information Technology Network Services continues to provide this service.	Element and Policy not required by BOG. Delete

Policies	Status	Benchmark Data	Recommendations
Policy 3.2.5: The most recent version of the University of Florida Telecommunication Standards shall be utilized by all campus personnel when moving or replacing any part of the telecommunication infrastructure. These standards may be found online or by contacting Network Services - Telecommunications and Network Infrastructure (TNI). Additionally, all such activities shall be coordinated in advance with Network Services - TNI.	Ongoing	The UF Telecommunication Standards shall be maintained and published online.	Element and Policy not required by BOG. Delete