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The University of Florida utilities systems require over \$27 million each year to operate and maintain. The Director of the University of Florida Physical Plant Division has been charged with the responsibility to manage these vital assets. I ask that all of you assist in assuring the proper and efficient use of our utilities services by supporting the enclosed policy.

Ed Poppell
Interim Vice President for
Administrative Affairs

UNIVERSITY OF FLORIDA

UTILITIES POLICY 2001

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I. GENERAL PROVISIONS

A. The University of Florida, for utility purposes, consists of the main campus proper, adjoining veterinary, medical, agricultural areas, the PK Yonge Developmental Research school, and other local facilities which are operated or administered by the University and which are by historic association or request are connected to the University's utilities systems or which may subsequently become connected to the University's systems.

B. The following items will be considered utility services:

1. Electrical Power Generation and Distribution;
2. Water Distribution (potable, irrigation, and reclaimed water).
3. Sewage Collection, and Treatment;
4. Steam Distribution;
5. Central Chilled Water Production and Distribution;
6. Telephone System services, Fiber Optic Network for DATA Services, Radio Communication services through University-licensed frequencies, and Cable TV services.
7. Refuse Collection, Medical Waste Disposal, and Recycling Support;
8. Energy Monitoring and Control;
9. Traffic Controls, Street Lighting, and Pedestrian Lighting;
10. Storm Water Collection;
11. Natural Gas

- C. The President of the University has delegated to the Vice President for Administrative Affairs and to the Director of Physical Plant Division the responsibility of managing these services.
- D. The University has the authority to prohibit or restrict external suppliers from providing utility services within the campus as defined by this document. All outside utility services, excluding natural gas that is requested will be contracted by the Physical Plant Division.
- E. The University maintains a comprehensive campus master plan that contains data on current capacity, current conditions, expected demands in future years, procedures to meet these demands, and major repair/improvement programs. The master plan is constantly being reviewed and revised. Formal utility studies by consultants are periodically required to insure data is current and correct. Additionally, Utility Annexes are included in the Comprehensive Master Plan developed by Campus Planning and Construction Management with input from Physical Plant Division. The Comprehensive Campus Master Plan will be revised every five years.
- F. This policy will be incorporated into the Handbook of Business Practices by reference.
- G. Exceptions to this policy must be approved in writing by the Director, Physical Plant Division.
- H. UF Utilities policy will be reviewed and revised every two years.

II. DEFINITION OF USERS

There are two categories of users to be billed for utility services:

A. CATEGORY I. State of Florida Legislative funded activities, including:

1. Education and General (E&G);
2. Health Science Center (HSC);
3. Institute of Food and Agricultural Sciences (IFAS);

B. CATEGORY II. All other users, including:

1. Engineering & Industrial Experiment Station;
2. North East Regional Data Center (NERDC);
3. Shands Hospital and its subordinates;
4. Auxiliary, including Division of Housing (DOH) and vending;
5. Non-profit Corporations;
6. The UF Athletic Association (UAA);
7. Student Government;
8. Fraternities, Sororities and other student organizations;
9. Grant operations;
10. Food contractors;
11. Others.

- C. Category I users will be billed for services provided in all facilities for which they have received utilities operating funds. The services shall be paid for by the entity receiving the funding.
- D. If Category II users occupy an area for which a Category I user has received funding, it shall be the responsibility of the Category I user to arrange for the Category II users to be billed for services. The Category I user is responsible for determining the amount to rebill for services rendered.
- E. The University of Florida has established the following policy concerning delinquent charges payable to the Physical Plant Division for Utility Services:
 - 1. All service charges are due and payable on presentation of invoice.
 - 2. Service may be discontinued for failure to pay bills as per Policy and Procedure Documentation System, Accounts Receivable Collection, Physical Plant Division.

III. OPERATING AND SERVICE PROVISIONS

- A. The Physical Plant Division (PPD), in order to assure system compatibility and quality standards, reserves the right to specify the size, quality and make of any device that connects a user to one of the University's utility distribution system. Physical Plant Division reserves the prerogative to cease service or to require any user to modify its equipment or operation practices if it creates problems with the common production or distribution system.
- B. The Physical Plant Division may interrupt service to make scheduled repairs by giving prior notice. Notice shall be given to the building contacts of record and other affected parties/organizations. At least 48 hours advance notice shall be provided for scheduled outages. Where practicable, all outages will be scheduled to minimize adverse impact on University operations, programs, and personnel.
1. Scheduled outages may require users to rely on temporary backup systems such as emergency generators or to make other arrangements for critical utility requirements. Since this is a project issue, it should be discussed and resolved at the preliminary stages of each project.
 2. When backup services are not available, the scheduled repair may be delayed for a reasonable period of time to allow completion of work being performed that is fully dependent on continuity of service. It shall be the responsibility of the user to communicate the need for delay of an outage to the Physical Plant.
 3. When emergency repairs are being performed, reasonable effort will be made to notify key users even under emergency conditions, and efforts will be made to minimize the impact on University operations.
 4. The HSC, DOH, and IFAS require 14 - 30 days notification for significant outages of the utility services.

- C. No user may connect to, replace or modify any part of the UF utility systems without permission of Physical Plant Division. Physical Plant Division or a contractor under the direction of Physical Plant Division will normally perform connections, replacements or modifications. In the event that an approved construction, contract is administered by a user, utilities connection should normally be included in the contract. Physical Plant Division approval of design is required prior to construction and approval of construction is required prior to acceptance of utility work and connection to the distribution system. Also refer to pages 11 and 12.
- D. The University cannot guarantee the suitability of service provided to the special needs of the user beyond basic service.
1. Electrical power may undergo voltage and current variations that may affect electronic, digital, computer or high tech equipment. Any special protection or power quality required for this equipment is the responsibility of the user.
 2. Potable water quality is "as delivered" by the City of Gainesville Regional Utility. Any requirements for water quality over and above the delivered quality must be made at the users' expense.
 3. Chilled Water is provided for general environmental comfort cooling. Special equipment *or* needs for low temperature or high flow must be provided by the user.
 4. All University data/communications systems will be in compliance with the University's most recent communication master plan.
- E. The utility system relative to design requirements, inter-connections, interfaces, metering and operating conditions, shall as a minimum, meet the requirements specified in the following standards and editions currently in effect for SUS construction projects:
1. Electrical Service - National Electrical Code;
 2. Steam Service - American Society of Mechanical Engineers and American Society of Testing and Materials;
 3. Chilled Water Service - American Society of Heating, Refrigeration, and Air Conditioning Engineers, and also please note that there is a \$1600/ton impact fee for any addition to air conditioning system.

4. Water service - State of Florida Department of Environmental Protection, American Water Works Association M-14 and approved Building Codes.
5. Storm Sewer Service - State of Florida Department of Environmental Protection and approved Building Codes; Storm Water Management Master Plan; St. Johns River Water Management District.
- 6a. Refuse Service - State of Florida Department of Environmental Protection and approved Building Codes;
- 6b. Medical Waste – UF Division of Environmental Health & Safety; State of Florida Department of Health, and Federal Department of Transportation rule 49.
7. Alarm Service - National Fire Protection Association, Volumes 71 through 74;
8. Telephone Service and Data Communications - University of Florida Building Standards and Specifications for Inter-Building Infra-Structure, Bell South System Practices, National Electrical Code, National Fire Protection Association, CCITT Standards, and IEEE Standards;
9. Radio Communication Service - Federal Communication Commission, Rules and Regulations, Part 68.
10. UF Construction Standards, Volumes I and II.

The University may upgrade these standards as required.

- F. All building system controls and fire/safety appurtenances shall be compatible with the currently installed operating system.
- G. The maintenance of utility distribution systems shall be the responsibility of Physical Plant Division. The distribution or collection systems for each utility operated by the Physical Plant Division will end at the following points (unless specific written exceptions are agreed upon -- see "General Provisions" above):
 1. Electrical Power Service – For none E & G, at the low voltage bushing (600V or less) of all transformers owned and maintained by PPD Systems. For transformers that are not owned/maintained by PPD, PPD's responsibilities shall end at high voltage cable termination.

2. Water Service - At the main “valve/meter” connected to the building or group of buildings. Buildings receiving services directly from non-university utility company, the maintenance of all water services shall be the responsibility of the users. For non-University entities or UF buildings outside of main campus, all services will be provided at the boundary of the property owned, leased or occupied by the entity unless otherwise provided under the terms of occupancy.
3. Sanitary Sewage Collection Service - At the first manhole outside of the building line through the Water Reclamation Facilities (WRF). For DOH new MHs to be purchased by DOH and installed by PPD. Non-University entities, UF buildings outside of main campus, and building receiving utilities services from a non-university utility company will be responsible for blockages to their lateral lines and for all lines within the boundary of the property they own, lease or occupy unless otherwise provided under the terms of occupancy.
4. Steam Service - At the main “valve/meter” connected to the building or group of buildings.
5. Chilled Water Service - At the main “valve/meter” connected to the building or group of buildings.
6. Refuse/Recycling Service - At refuse/recycling container and supporting concrete pad.
7. Alarm Service - At the telephone circuit connecting the alarm device or to the coaxial cable connection on the exterior wall of the user's building.
8. Radio Communication Systems - At the last element of the fixed transmission system.
9. Irrigation and Reclaimed Water supply - At the supply main including connectors and up to and including the first immediately available isolation valve.
10. Storm Water Collection System - At first Catch Basin or manhole outside of building line.
11. Telephone Systems - Physical Plant is responsible for all elements of this system.

12. Fiber Optic Network - PPD is responsible for all inter-building cables up to the point-of-presence light interface unit in each building.

NOTE:

The building line includes any permanent above ground structure to the building (e.g. porches, patios, breezeways, etc.)

1. Division of Housings' Cable Television System is not included in the above because this service is the responsibility of Housing Division.
 2. For buildings with services that do not end at UF Water Reclamation Facilities (WRF), the maintenance of all sanitary sewer lines shall be the responsibility of the user. (For example, buildings with septic tanks, or buildings receiving services and/or paying utility bills directly to a utility company).
 3. For buildings that pay Storm Water Management Fees, the maintenance of all Storm Water lines shall be the responsibilities of the user.
- H. The University shall have a cross-connection control program to protect the campus water distribution system. The program shall be in compliance with State of Florida Department of Environmental Protection Guidelines, American Water Works Association M-14 and will apply to the campus primary supply as well as intracampus connections.
- I. In order to protect utilities systems, individual users are responsible for funding back flow prevention when building systems are altered or extended at their request.
- J. The Physical Plant Division shall administer the University's procedure for granting permission to dig on the University of Florida Main Campus. Anyone, including contractors, UF and non-UF entities (e.g. Bell South, Cox Communication, GRU-Communication, Etc.), planning excavation or subsurface construction must obtain prior permission in the form of a Dig Permit from the Physical Plant Division. The State-mandated requirement that the excavator contact Sunshine State One-Call prior to excavating is included in the process to obtain the dig permit. The procedure for obtaining a Dig Permit is established to expedite construction, promote worker safety, prevent damage to existing utility and communications

facilities, and avoid unnecessary service interruptions by providing the permit applicant with locations for all known active underground utilities and communications systems within the affected area. The various UF and non-UF operators of utilities and communication systems located on the University of Florida Main Campus are responsible for locating their underground facilities for permit applicants as part of the Dig Permit process. The Dig Permit procedure is outlined in the Physical Plant Division's Policy & Procedure Documentation System (PPDS #20-5010.1) and is revised periodically as deemed necessary by the Physical Plant Division.

- K. The Physical Plant Division shall maintain the University's official maps of both the above-ground and below-ground utilities and communications infrastructure (including but not limited to cabling, conduit, manholes, etc.) located on the University of Florida Main Campus. To facilitate this, all operators of utilities and communications located on the University of Florida Main Campus must provide the Physical Plant Division with current and accurate as-built information relating to their facilities. All significant modifications to as-built information shall be submitted at the time they are made. The Physical Plant Division Architecture/Engineering Department will periodically update the official utility maps from the as-built information provided. Copies of the maps and computer-based map files may be obtained through the Physical Plant Division, Architecture/Engineering Department.

IV. CONTROL OF THE UTILITIES SYSTEMS

- A. The quality of the University utility distribution service is protected by controlling additions to the system. This control is necessary to prevent the addition of improper equipment, to ensure that connections are done properly, and to prevent overloading any particular system. The Physical Plant Division shall control the utility system to insure that minimum standards of the various code requirements are maintained.
- B. All additions to the system must include a metering device capable of measuring the services provided. This expense shall be borne by the requestor of the expansion. All master metering devices used for billing must be approved by the Physical Plant Division/ Operations Engineering for installation and certified before utilities are provided to buildings; and shall become the property of the PPD once installed, and will be maintained by the Physical Plant Division. Sub metering for prorating purposes shall be the user's responsibility.
- C. All additions to the system, whether they benefit a single user or a group of users, shall be coordinated with and become part of the utility system (See Notes below). All added production equipment may be joined to the utility system's productive capacity by appropriate connections.
- D. When additional capacity is added to the system, the cost of that capacity will be added to the depreciation base and its cost recovered from all users in accordance with current fiscal and budgeting policies.
- E. All existing meters are inspected by PPD Operations Department on a monthly basis for billing. When a meter is found deficient or inoperative, the building user will be notified and the meter will be scheduled to be replaced or repaired. Until a replacement meter is installed or repairs are made, the building will be billed according to existing practice. This practice may include any or all of the followings:
1. History, based on comparable months.
 2. Based on annual average consumption.
 3. Based on square foot assignment (Flat Rate Usage), referenced on page 15.
- F. New Utilities connections will not be provided to any new or renovated buildings until New meters are installed, and certified to be operating properly.
- G. All new E&G, IFAS, HSC, DOH, and Shands new or renovated buildings must provide a remote access controller and all necessary programming to allow PPD to

monitor chilled water/steam totalization for billing.

- H. Potable water (tap or drinking water) is a valuable utility that must be conserved and efficiently used throughout campus. Where potable water is required to support research/experiments (by one-time pass through), use will not exceed 30 minutes duration and must be under constant observation by qualified personnel. Research/experiments requiring more than 30 minutes of pass through water must use self-contained recycle cooling equipment. Exceptions to this policy must be approved in advance by Physical Plant Division Operations Engineering Department.

V. EXPANSION PROVISIONS

New or renovated building/facility projects shall be connected to the University's existing central plant and distributed utility systems. In case where a new, renovated or expanded facility is unusually remote from a central or distributed system, or where its characteristics suggest alternatives to central plant/distribution connections, an analysis will be performed at Physical Plant Division discretion to determine economic, performance, and maintenance feasibility.

- A. Adequate reserve capacity, both production and distribution shall be maintained in all systems. Adequate reserve capacity shall generally mean the ability to meet demand for services with any single unit out of service.
- B. Additions to production and distribution systems required by new construction or new demand shall be funded by the user creating the need, unless a formal decision is made that capacity is available and a specific written exception is granted.

If additional capacity is available without adding to the utility production or distribution systems, then the cost of required new demand will be charged to the new or renovated building/facility project and placed in an escrow account for use in supplementing the cost of the next plant addition and/or providing for oversizing of distribution systems to allow for future connections to future facilities.

- C. The user who is responsible for creating the need for an addition shall be fiscally responsible for a prorated share of the total capacity added.
- D. The Physical Plant Division, with cooperation from Campus Planning and Construction Management Division, shall be responsible for planning utility capacity growth to keep pace with the planned addition of new buildings and facilities on campus.
- E. The Campus Planning and Construction Management Division, with cooperation from Physical Plant Division shall be responsible for including all funds necessary to pay for utilities expansion required in the budget of each major construction project on UF campus.

- F. All expansion must conform to the University of Florida Construction Standards (Volume I & II). Installation by Cox Communications, Bell South, GRU Communications or other entities shall meet the requirements of the University of Florida Construction Standards.

Note: In no case shall underground installation be less than 24 Inches below grade.

- G. All expansion must include isolation devices and metering devices as applicable that shall be funded by the user creating the need. These devices, once installed and accepted, become property of the Physical Plant Division.
- H. All permits for utility expansion shall be obtained from the appropriate agency by Physical Plant Division. Physical Plant Division shall represent the University for all campus installations/utilities permits.
- I. Requests for well drilling permits must be processed through Physical Plant Division.
- J. All storm water permits must be processed through the Physical Plant Division with information copy to Campus Planning and Construction Management Division (to assure compatibility with overall campus development plans).
- K. All design of utilities systems and all construction of utilities systems must have approval of Physical Plant Division. No utility construction will be accepted as complete without "as built" drawings.
- L. Service fees imposed by suppliers to the University of Utility Services shall be the responsibility of the budget entity creating the need. The Physical Plant Division reserves the right at time of project construction or when usage dictates to collect and escrow service fees in order to pay any type service fee based on expected usage.
- M. The capital costs of sewage pretreatment shall be borne by the budget entity creating the need. A processing surcharge may also be imposed based on the quality of effluent being processed and the cost impact to the normal operation of the system.
- N. The cost to recover and neutralize illegal substances dumped in the waste stream will be borne by the Department, Division, College or other entity where the action occurs. Any cost to investigate suspected illegal dumping would be borne by the responsible Department, Division, College or other entity if illegal substances are

confirmed.

VI. FINANCIAL PROVISIONS

- A. The University accounts for utility operations as Auxiliary operations.
- B. The Physical Plant Division shall receive from all users' payments to cover the cost of utility services consumed, whether metered or estimated consumption. In the case of utility services provided to non-metered users, the rate shall be determined according to the square footage of the area served. This rate shall be determined by taking the difference between "Total Utility Costs" less than amount billed to buildings with meters, divided by the total square footage of non-metered buildings. Each non-metered user will be billed according to gross square footage of the building. Refer to Item E. on Page 4.
- C. Estimated delivered consumption shall be used to charge users where metered data is not available.
- D. The rate shall be determined by the following formulas:

Electric rate:

$$\$/Kwh = \frac{[A]}{[B]} + \frac{[D]}{[B]}$$

where:

- A = Total CYTD Electricity Cost from Bills
- B = Total CYTD PPD KWh Meter Reading
- C = [1+% increase/decrease in estimated adjustment based on projected FPC rates]
- D = Total CYTD Distribution Cost

Note: In all formulas, CYTD : Calendar Year to Date (January - December), e.g., for fiscal year 1999/2000, January 96- December 96 data is used.

Chilled Water Rate:

$$\$/Kth = \frac{\text{Total CYTD utility cost for chilled water production} \\ [\$\text{steam} * A + \$\text{Water} * B + \$\text{Electric} * C + \$\text{Sewer} * D] + [E * F]}{[G]}$$

where:

- A = 1 ± % Projected Increase/Decrease in Steam Cost/Klb.

- B = 1 ± % Projected Increase/Decrease in Water Cost/KGal
- C = 1 ± % Projected Increase/Decrease in Electric Cost/Kwh
- D = 1 ± % Projected Increase/Decrease in Sewer Cost/KGal
- E = CYTD Distribution Cost
- F = 1 ± % Projected Increase/Decrease in Distribution Cost
- G = Total CYTD Recorded Chilled Water Consumption by UF

Steam rate:

$$\$/\text{Klb} = \frac{[A]}{[B]} - [C] + \frac{[D]}{[B]}$$

where:

- A = Total CYTD Cost for UF Steam Consumption based on FPC Bills
- B = Total CYTD Consumption (Klb.) by UF based on FPC Bills
- C = 1 ± % Increase/Decrease in FPC's Projected steam rate
- D = CYTD Distribution Cost

Water Rate:

$$\$/\text{KGal Water} = \frac{[A]}{[B]} - [C] + \frac{[D]}{[B]}$$

where:

- A = Total CYTD Cost for UF Water Consumption based on GRU Bills
- B = Total CYTD Consumption (KGal.) by UF based on GRU Bills
- C = 1 ± % Increase/Decrease in GRU's Projected Water Rate
- D = CYTD Distribution Cost

Sewer Rate:

Note: Total Billable Sewer Charges Will *Be* Based on Building Water Consumption:

$$\$/\text{KGal Sewer} = [A] / \text{Kgal Water}$$

Where:

A = Cost Associated with Treatment of Waste Water per KGal.

E. In determining the annual projected costs for production and distribution of the utility service to the users, the following cost elements will be used to determine the cost:

1. Purchased utilities.
2. Salaries of production and repair personnel.
3. Repair and maintenance expenses.
4. Office overhead related to production and distribution centers.
5. Repairs to production and distribution systems that are not capitalized.
6. Depreciation of plant and equipment.
7. Emergency repair allowance.
8. Capitalization for cash flow management.

F. The billing unit level for consumption measurement is as follows:

<u>MEASURE</u>	<u>ALTERNATE</u>
Electrical Power - Metered KWH	Gross Sq.Ft.
Water - Metered K Gallons	Gross Sq.Ft.
Sewage Treatment - Based on Water Consumption	Gross Sq.Ft.
Steam - Metered K pounds	Gross Sq.Ft.
Condensate - Metered K pounds	Gross Sq.Ft.
Chilled Water - Metered K tons hours	Gross Sq.Ft.
Telephone - Circuit/Instruments/ Usage (long distance)	All Actual
Refuse/Medical Waste - Container Capacity (Cubic yards) and service frequency.	All Actual
Alarm System - Circuits	All Actual
Radio Communications - Units	All Actual

- G. Adjustments of consumption charges (credits or debits) will be made only during the UF fiscal year in which it occurs.
- H. The University Controller may exercise override privileges over users' funds to collect outstanding receivables for all utility services.
- I. The University's PPD/Operations Department shall have the right to inspect and require calibration for all meters used to measure consumption. Meter tolerances required will be in accordance to state regulations.
- J. The University, in accordance with existing personnel rules and state laws, will pursue and prosecute any individual who purposely alters or causes any meter to misread or mismeasured.
- K. The general level of consumption measurements will be on a customer basis at the point in the distribution system where billable information may be collected within system accuracy requirements. The cost of metering at the sub-building level shall be borne by the building occupant requesting the metering.
- L. Subsequent allocation of utility bills shall be the responsibility of the user. If shared meters are in use; the allocation will be made by Physical Plant provided the users in writing supply the proration.
- M. The cost of providing services to a new user shall be determined on an incremental cost basis. If additional plant is required, the cost shall be part of the incremental cost.
- N. The cost of capital addition to the plant shall be added to the fixed asset registers.
- O. In the event of a deficient or inoperable meter, consumption charges shall normally be based on prior year's consumption figures adjusted for rate changes and for appropriate changes in usage caused by additional equipment, change in building use or climatic changes, or by averaging the last 12 months of readings, which ever apply best for the condition of the building.
- P. Refuse waste requiring special treatment or handling may generate additional costs that shall be added to the department responsible for generating the waste.

