



UES INFO UTL 001 – Rate Information

Utility services at the University of Central Florida are accounted for as an auxiliary operation. The Department of Utilities and Energy Services (UES) receives payment from all utility users to cover the cost of services consumed. Utility consumption can be either metered or estimated. The rates for electricity, natural gas, chilled water, irrigation, water, wastewater, and sewer are based on projected purchased units plus projected UES overhead divided by projected sales. Projections are based on historical information and anticipated changes.

Utility Rates

The following cost elements are used to determine the annual projected costs for production and distribution of utility service to users :

- Purchased utilities
- Salaries of production and repair personnel
- Repair and maintenance expenses
- Overhead related to production, distribution, and administration
- Repairs to production and distribution systems that are not capitalized
- Depreciation of plant and equipment

Utility Master Planning and Base User Capacity Development Charges

Pursuant to [University Controlled Utilities and Interconnection Policy 3-303](#), the end user or project creating the need shall fund any necessary additions to UCF's production and distribution systems.

The utility infrastructure costs resulting from the addition of a new building, whether capital funding comes from the State or from other sources, shall be a component of new building construction budgets, and the funding mechanism for renewal and replacement of existing infrastructure. Hence, applicable utility infrastructure costs shall be included in the budget of all new capital development or renewal and replacement projects.

Each new construction project, facility expansion, or change in classification that increases energy intensity, will be subject to a one-time connection fee, which shall contribute toward reserve, or excess capacity and infrastructure modifications/upgrades of essential systems, equipment replacement, and smaller capital improvements.

The Base User Capacity Development Charges is applied to UCF's utility infrastructure to ensure campus utility production, distribution, and transportation systems all have reserve and adequate distribution capacity to reduce the burden of peak demands or flows that negatively impact reliability.

If the University is unavailable to provide utilities to a project due to geographical location, capacity, or other reason, as agreed to by UCF in writing, the project shall be classified as exempt from the Base User Capacity Development Charges.



Rate Information

The University has established the following Base User Capacity Development Charges for new construction and expansion to the main campus for:

- Chilled Water
- Natural Gas
- Reclaimed Water
- Water
- Wastewater

The applicable Base User Capacity Development Charges will be assessed to each project upon the approved 100% construction documents. Payment is due 30 days prior to interconnection to any of UCF's utility infrastructure. Metering devices and mechanical isolation to UCF's distribution and transportation systems are charged separately from the fees below.

First Right of Refusal to Provide University Services

To reduce UCF's impact on greenhouse gas emissions, building operations, and utility costs, the University owns and operates a diverse utility production and distribution network portfolio, including water, chilled water, thermal storage, wastewater transportation, reclaimed water, renewable energy, and distributed generation, which provide a majority of utility services to the main campus, or offset a fractional balance from each utility provider.

In return for this economic and environmental benefit, and in order to reduce UCF's impact on greenhouse gas emissions, building operations and utility costs, the University shall have the first right of refusal for utility services to any UCF property where production capacity is available, and to all categories of end-users, including E&G, AUX, and DSO.

High Performance Building Requirements

As it is the University's mission to become carbon neutral by 2050, the University has identified key energy demand drivers through our growing campus population that are influenced by building size, complexity, occupancy, and classification. UCF's [Green Building Construction and Renovation Requirements](#) prescribe the minimum facility energy reduction and water conservation requirements, using ASHRAE standards. *ANSI/ASHRAE/USGBC/IES Standard 189.1* serves as the Basis of Design for UCF's high-performance and green buildings, in support of the President's Climate Action Plan.

1998 General Appropriations Act - Facility Classification for Energy Consumption

Each new construction project that increases utility demand, and for which Plant Operation and Maintenance (*PO&M*) funding is requested, shall have the *Florida Facility Classification for Energy Consumption* signed and sealed by the project's engineer of record. The classification structures (*A-F, F being the most energy-intensive*) incorporate building type, usage, complexity, and utility requirements using State-approved algorithms and multipliers to determine the level of required *PO&M*.



Additional Support Services

In addition to providing commodity and infrastructure, UES also provides support to specific general university assets.

Reflecting Pond – See [Reflecting Pond Facilities Event Support Rates](#)



Summary of Rates – effective June 1, 2017

Main Campus* utility rates

Rate Code	Commodity	Rate	Unit
E-01	Electric	\$0.1055**	kWh
G-01	Natural Gas	\$0.4775**	therm
CHW-01	Chilled Water	\$0.1751	ton-hr
WW-01	Water/Wastewater (UCF + Sewer)	\$0.00991**	gal
WW-02	Water/Wastewater (Orange County + Sewer)	\$0.00889**	gal
WW-03	Water/Wastewater (Reclaim + Sewer)	\$0.00691**	gal
W-01	Water (UCF)	\$0.00397	gal
W-02	Water (Orange County)	\$0.00295**	gal
RW-01	Water - Reclaim (Seminole County)	\$0.00097**	gal
S-01	Sewer (Seminole County)	\$0.00594**	gal

Main Campus* utility Base User Capacity Development Charges

Rate Code	Commodity	Rate	Unit
BUC-CHW-01	Chilled Water capacity	\$923.00	tons***
BUC-WW-01	Water capacity	\$4.20	gal/day***
BUC-WW-02	Wastewater capacity	\$7.70	gal/day***
BUC-WW-03	Reclaimed Water capacity	\$0.00	gal/day***
BUC-US-01	UES field assistance	\$73.56	hr
BUC-US-02	Non-destructive digging (four-hour minimum)	\$1,098.00	hr
BUC-US-03	Utility locating, outside of Sunshine 811	\$110.00	hr
BUC-NG-01	Natural Gas capacity	Varies**	
BUC-ELE-01	Electric capacity	Varies**	

* All Branch Campus rates are passed directly from utility providers.

** Rates denoted have a component of cost passed directly from utility providers, as such, rates may change monthly with fluctuations in commodities markets or project scope.

*** Units based on peak design conditions.



Utility Rates

Electric Utility Rate

Main Campus

$$\frac{\$}{kWh} = \left[\frac{A}{B} \right] \times C$$

Where:

- A = Total Monthly Electricity Cost – Main Campus Utility Bill
- B = Total Monthly Electricity Use – Main Campus Utility Bill
- C = Line Loss (1 + %)

Applied: Monthly (Rounded to four decimal places)
Calculated: Monthly

Branch Campus

$$\frac{\$}{kWh} = \left[\frac{A}{B} \right]$$

Where:

- A = Total Monthly Electricity Cost – Utility Bill
- B = Total Monthly Electricity Use – Utility Bill

Applied: Monthly (Rounded to four decimal places)
Calculated: Monthly

Natural Gas Utility Rate

Main Campus

$$\frac{\$}{therm} = \left[\frac{A}{B} \right] \times C$$

Where:

- A = Total Monthly Natural Gas Cost – Main Campus Billing (Deregulated)
- B = Total Monthly Natural Gas Use – Main Campus Billing (Deregulated)
- C = 1 ± % Projected Increase/Decrease in Natural Gas Cost/Therm

Applied: Monthly/Market Based Commodity (Rounded to four decimal places)
Calculated: Monthly



Chilled Water Utility Rate

Main Campus

Total FYTD utility cost for chilled water production

$$\frac{\$}{\text{tonhr}} = \left[\frac{(\$Electric \times A) + (\$Water \times B) + (\$Sewer \times C) + \$D}{E} \right]$$

Where:

- A = 1 ± % Projected Increase/Decrease in Electricity Cost/kWh
- B = 1 ± % Projected Increase/Decrease in Potable Water Cost/Gallon
- C = 1 ± % Projected Increase/Decrease in Sewer Cost/Gallon
- D = FY Chilled Water Distribution Costs*
- E = Annual Total Chilled Water Production

* Distribution costs include but are not limited to labor, chemicals, service contracts, repairs, testing and maintenance, engineering services and consulting.

Applied: Monthly (Rounded to four decimal places)
Calculated: Annually

Potable Water Utility Rate

Main Campus – UCF Produced

Total FYTD utility cost for potable water production

$$\frac{\$}{\text{gallon}} = \left[\frac{(\$Electric \times A) + \$B}{C} \right]$$

Where:

- A = 1 ± % Projected Increase/Decrease in Electricity Cost/kWh
- B = FY Potable Water Distribution Cost*
- C = Annual Total Potable Water Production – UCF Metered

* Distribution costs include but are not limited to labor, chemicals, service contracts, repairs, testing and compliance, maintenance, engineering services and consulting.

Applied: Monthly (Rounded to five decimal places)
Calculated: Annually



Main Campus – Orange County Purchased

$$\frac{\$}{gallon} = \left[\frac{A}{B} \right]$$

Where:

- A = Total Monthly Potable Water Cost – Main Campus Utility Bill
- B = Total Monthly Potable Water Use – Main Campus Utility Bill

Applied: Monthly (Rounded to five decimal places)
Calculated: Monthly

Reclaimed Water Utility Rate

Monthly rates are based on the rate from main campus utility bills for reclaimed water provided by Seminole County. Rates are passed through to users and adjusted with utility provider rate changes.

Sewer Utility Rate

Main Campus

Monthly rates are based on the rate from main campus utility bills for sewer provided by Seminole County. Rates are passed through to users and adjusted with utility provider rate changes. Rates are also adjusted for Inflow/Infiltration of University owned and maintained sewer infrastructure.

$$\frac{\$}{gallon} = A \times B$$

Where:

- A = Utility Provider Current Sewer Rate
- B = 1 + % Inflow/Infiltration (I/I Adjustment)

Applied: Monthly (Rounded to five decimal places)
Calculated: Annually/Based on Rate Changes by Utility Provider

Wastewater Utility Rate

Main Campus

Monthly wastewater rates are based on two components: **Potable Water Rate + Sewer Rate**

Wastewater rates for the main campus depend on whether the user’s facility/site is serviced by Orange County water or UCF Potable Water Production facilities. For questions or concerns on which provider services potable water to your facility/site, please contact UES.



Areas Services by UCF Potable Water Production:

$$\frac{\$}{\text{gallon}} = A + B$$

Where:

A = UCF Produced Potable Water Rate (Main Campus)

B = Sewer Rate (Main Campus)

Areas Serviced by Orange County Potable Water:

$$\frac{\$}{\text{gallon}} = A + B$$

Where:

A = Orange County Purchased Potable Water Rate (Main Campus)

B = Sewer Rate (Main Campus)

Branch Campus

$$\frac{\$}{\text{gallon}} = \left[\frac{A}{B} \right]$$

Where:

A = Total Monthly Metered Cost for Water/Sewer – Utility Bill

B = Total Monthly Metered Use – Utility Bill

Applied: Monthly (Rounded to four decimal places)

Reviewed: Monthly

Monthly Service Fee

All utility services are charged a service fee. The fee is applied at the meter level and includes a combination of recoverable utility costs necessary to collect, read, bill and support utilities for the main campus and branch facilities. The fee is calculated using components of Overhead and Meter Repair/Replacement.



Overhead: Consists of labor and transportation utilized for utility meter reading collection and billing.

$$\text{Overhead} = \left[\frac{\left[\frac{A}{B} \right] + [D \times E]}{C} \right]$$

Where:

- A = Salary with benefits
- B = # Months per Year
- C = Number of Active Meters
- D = Estimated Miles Traveled per Month
- E = University Mileage Rate

Meter Repair/Replacement: Consists of projected lifecycle costs of meters and metering technology utilized to accurately measure and efficiently read, collect, bill and maintain equipment as well as cost of installation, permitting, drawings, inspections, and processing. Some costs are proportionally calculated to the order of magnitude difference between service lines and physical equipment and cost.

$$\text{Meter Fee} = \left[\frac{A + B + C}{D \times 12} \right] + \left[\frac{E}{F \times 12} \right] + \left[\frac{G}{H \times 12} \right]$$

Where:

- A = Equipment Cost per Meter
- B = Labor Costs/Installation per Meter
- C = Administrative Costs per Meter
- D = Projected Metering Equipment Lifecycle (years)
- E = Meter Testing Cost
- F = Period for Testing (years)
- G = Meter Calibration Cost
- H = Period for Calibration (years)



Base User Capacity Development Charges

Chilled Water Base User Capacity Development Charges

Main Campus

UCF provides a basic level of service for general comfort cooling at the point of delivery between 40-44 degrees F, with the goal of maintaining a high differential between the chilled water supply and chilled water return temperatures. This differential is critical to the efficient and economical operation of UCF's system. Therefore, any elevated levels of service must be agreed upon in writing prior to interconnection between the end-user and UES.

$$\frac{\$}{\text{Tons}} = (A + B)$$

Where:

- A = UCF chilled water system development charge
- B = UCF water system development charge

UCF chilled water system development charge includes:

- Capital cost of a 2000 RT chiller (at market value)
- Design, engineering, and installation of a 2000 RT chiller
- District chilled water optimization and controls integration to a new chiller installation
- Chiller life expectancy and capital replacement assumed at 20 years, with a zero-dollar salvage value

Satellite Campus

Services are provided to UCF through master utility service-level agreements, overseen by UES. Services are dependent on capacity and availability of the local utility provider, and may include fees, such as capacity and excess capacity, differential temperature adjustment multiplier for seasonal variation, and the charge per ton-hour.



Water / Wastewater Base User Capacity Development Charges

Main Campus

Water Base User Capacity Development Charges

$$\frac{\$}{\text{Peak Gallons Per Day}} = A + B$$

Where:

- A = UCF water system development charge (\$/GPD) that is designed to recover a portion of the investment for campus water system growth
- B = Consumptive Use permit modifications and engineering

Waste-Water Base User Capacity Development Charges

$$\frac{\$}{\text{Peak Gallons Per Day}} = A + B$$

Where:

- A = UCF waste water system development charge (\$/GPD) that is designed to recover a portion of the investment for campus waste water system growth
- B = Purchased firm capacity based on the *Seminole County / University of Central Florida Exclusive Bulk Wholesale Wastewater and Reclaimed Water Service Agreement*

Satellite Campus

Services are provided to UCF through master utility service-level agreements, overseen by UES. Local utility providers will have their own applicable fees that the user will be responsible for.



Natural Gas Base User Capacity Development Charges

Natural gas service is typically provided by TECO People’s Gas or a UCF-approved natural gas pipeline installer; cost is based on independent project requirements. The project shall bear the first cost and any associated cost of engineering, labor, material, and equipment required to install the service.

UCF’s Natural Gas Base User Capacity Development Charges

$$\frac{\$}{\text{Connection}} = A + B$$

Where:

- A = TECO People’s Gas or Contractor’s material and labor cost passed through the project to install service from the UCF houseline distribution up to the first isolation valve / regulator to a building, or group of buildings
- B = SDC flat fee of \$3000 / 1” of pipe diameter size installed; services less than 1” shall be charged a \$1000 flat fee.

For TECO-owned and TECO-interconnected systems, the Base User Capacity Development Charges shall be waved.

Primary Electric Power Base User Capacity Development Charges

The main campus 15kV electric distribution service is provided by Duke Energy Florida, regulated under the Florida Public Service Commission; to provide primary service for 108,831 kW under the General Service Time of Use Tariff. Cost of campus distribution electrical expansion is recovered through a project-specific Contribution in Aid of Construction (CIAC) fee from Duke Energy that is non-negotiable and paid by the entity creating the need. Primary power is distributed to UCF at 15KV and stepped down locally to 4160, 480, or 120 / 208 VAC.

Similarly, electric distribution at each UCF satellite campus is provided by commercial service through a third-party utility provider, regulated under the Florida Public Service Commission, or city’s municipality, that include the Orlando Utilities Commission (OUC), Florida Power and Light (FPL), and Kissimmee Utility Authority (KUA). These services are much smaller and are based on each utility’s approved tariff or rider.

UES Utility Services

In addition to providing commodity services, UES can provide field assistance, non-destructive digging, and locating services (outside of Sunshine 811)



ADDITIONAL DOCUMENTATION:

- Energy Sustainability [UCF Policy 3-111.1]
<http://policies.ucf.edu/documents/3-111.1EnergySustainability.pdf>
- Green Building Construction and Renovation Requirements [UES INFO 001]
http://energy.ucf.edu/sites/default/files/docs/building_construction_requirements.pdf
- Reflecting Pond Facilities Event Support Rates [FS 2017 UES0002]
<http://fs.ucf.edu/sites/default/files/policies/Reflecting%20Pond%20Rates-%20Final%20signed%203.21.pdf>
- University Controlled Utilities and Interconnection [UCF Policy 3-303]
<http://policies.ucf.edu/documents/3-303UniversityControlledUtilitiesAndInterconnection.pdf>
- Utility Billing Procedure [FS 2015 UES0001]
<http://fs.ucf.edu/sites/default/files/policies/Utility%20Billing%20Procedure-%20FS%202015%20UES%200001.pdf>
- Utility Rate Methodology and Billing [FSP 2016 UES0001]
<http://fs.ucf.edu/sites/default/files/policies/Utility%20Rate%20Methodology%20and%20Billing-%20final%201-19-%20corrected%20date%201-29.pdf>