	<b>FACILITIES OPERATIONS STANDARD PRACTICE</b>	
	Campus Utilities Billing Standard Operating Practice	INSTRUCTION NUMBER: 33-0002

**I. PURPOSE**

To establish a standard operating practice for monthly on-campus utilities billing

**II. PROCEDURE FOR MONTHLY ON-CAMPUS UTILITIES BILLING**


**A. Meter Reader**

1. No later than the sixth (6<sup>th</sup>) calendar day of each month, complete all meter readings and update the meter reading logbook for each meter.
2. Flag any anomalies with a sticky note tab and follow up accordingly. If a meter has stopped registering usage, then Plumbing Shop personnel are to troubleshoot water, steam, and condensate meters. Coordinate with Controls Shop personnel to troubleshoot electricity meters and any natural gas meters. For meter readings that seem outside of the normal monthly consumption, coordinate with the Energy Analyst.
3. No later than the end of the sixth (6<sup>th</sup>) calendar day of each month, turn over the meter reading logbook to Facilities Operations Accounting.

**B. Facilities Operations Accounting**

1. No later than the fourteenth (14<sup>th</sup>) calendar day of each month, enter all electricity, water, and natural gas meter readings into the appropriate meter log spreadsheet used for on-campus billing purposes.
2. Calculate and update monthly unit costs for billable on-campus utilities and note the current month's unit cost in each utility (electricity and water) meter log spreadsheet.
  - Use the campus substation electricity unit cost billed by Duke Energy for billing electricity to facilities fed from the Duke Energy campus substation located on Oakland Avenue.
    - Calculate the billing rate by dividing the total cost billed by Duke Energy by the total number of KWH shown on the bill.
  - Use the combined rate per unit (CCF) rate charged for water from the average of the three (3) main meter accounts billed by the City of Greensboro for billing water meter charges.
3. Perform a brief review of total monthly billable costs for each on-campus customer and determine if the dollar amount is consistent with the same month from the prior year. If there is a significant difference, notify the Energy Analyst and Campus Mechanical Engineer.
4. After monthly meter reading entry and cost review is complete, send email notification to the Energy Analyst, Utilities Manager, and Campus Mechanical Engineer that entries are complete.
5. After receiving joint approval from the Energy Analyst and Campus Mechanical Engineer that their review is complete, proceed with monthly utilities billing. Notes regarding any estimated consumption readings will be entered in utility billing spreadsheet(s) by the Energy Analyst.

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6. Update utility billing spreadsheets with pertinent information received from Controls Shop personnel or Energy Analyst concerning electricity meters that had to be repaired or replaced.

**C. Energy Analyst**

1. Respond to requests from Meter Reader for review of monthly meter readings that appear to be greater or less than the typical monthly consumption.
2. After receiving the notification email from Facilities Operations Accounting that utility billing spreadsheets have been updated with current meter readings, perform a detailed review/analysis of all water and electricity meter readings to determine if they are consistent with the same month of the prior year.
3. For any anomalous meter readings, perform a detailed review, including checking the logbook for original Meter Reader's handwritten meter reading entry. Perform site tours as required to double-check meter readings.
4. Perform a top-level consumption and cost comparison by comparing the current month's consumption and cost billed by Utility Companies using their master meters to the aggregate totals from all pertinent UNCG-owned utility meters.
5. Coordinate with the Campus Mechanical Engineer for review of all electricity and water meter readings. Reach consensus on any specific meter readings that may still be of concern and follow up as agreed with the Campus Mechanical Engineer.
6. No later than the nineteenth (19<sup>th</sup>) calendar day of each month, complete any required follow up or estimation of consumption where a meter stopped accumulating and send an email notifying the Campus Mechanical Engineer that work is complete and recommend that monthly utilities billing of on-campus customers proceed. Include in the email any meters that had to have their monthly consumption estimated, the estimated consumption, and how the estimate was calculated.


**D. Controls Shop**

1. Respond to requests from the Meter Reader and assist with troubleshooting electricity meters. Also, assist with communications issues with any type meter in order to maintain accurate trending of utility meter readings in the Tridium Building Automation System (BAS).
2. If an electricity meter fails or stops accumulating, send an email to Facilities Operations Accounting and the Energy Analyst documenting the date of the last known "good" kWh reading and the date, time, and new kWh reading of the repaired or replaced meter.

**E. Campus Mechanical Engineer**

1. Assist with troubleshooting meter issues as needed or requested.
2. Participate in a monthly coordination session with the Energy Analyst to review consumption of each electricity meter and water meter. Reach consensus with the Energy Analyst on any specific meter readings that may still be of concern.
3. No later than the end of the twentieth (20<sup>th</sup>) calendar day of each month, send an

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email to Facilities Operations Accounting to communicate joint approval with the Energy Analyst for monthly utilities billing of on-campus customers to proceed. Include any details for estimated monthly consumption.

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