

CHARLOTTE-MECKLENBURG UTILITIES
ADVISORY COMMITTEE
MINUTES OF MEETING
August 15, 2013

The Charlotte-Mecklenburg Utilities Advisory Committee met Thursday, August 15, 2013, 2:30 pm at 4222 Westmont Drive, Charlotte, North Carolina.

Members Present: Jim Duke, Eric Sieckmann, Pride Patton, Ron Charbonneau, Jim Merrifield

Members Absent: Frank McMahan, Ralph Messera

Staff Present:

Barry Gullet	Director
Chad Howell	Business Manager
Regina Cousar	Continuous Improvement Officer
Karen Whichard	Communications Manager
Steve Miller	Customer Service Manager

Safety Minute

Practical measures to minimize slips, trips and falls

Minutes

A motion was made by Eric Sieckmann, and seconded by Jim Merrifield, to approve the July 2013 minutes. Motion was approved.

CHP (Combined Heat and Power) Project

- McAlpine Creek Wastewater Treatment Plant runs at six (6) megawatts during the day
- Methane gas produced at the facility is used to heat the digesters, with overage being flamed off
- As power rates have risen, power bills have not risen as fast due to management of facility
- National trend is to convert gas to produce power and heat
- Some landfills use CHP
- Power generated can either be used onsite (referred to as “power offset”) or sold back to power company; however, either option could trigger Duke Energy to change the rate structure by which CMUD is billed for power used.
- Power offset option:
 - Reduces power costs for CMUD by using power generated onsite to run plant operations
 - Duke Energy believes the N.C. Utilities Commission may require Duke to charge CMUD under a different rate structure which would cost CMUD more
 - Renewable energy credits (RECs) are given based upon proof that one (1) megawatt of energy has been generated
 - If kept under one (1) megawatt, it may be possible to use the power offset option, keep the current rate structure, and still receive RECs
- Operation & Maintenance cost comparison:
 - Current electrical power costs at the McAlpine Creek Plant are approximately \$3.2M
 - With CHP, power costs would be lowered to approximately \$2.99M (annual savings \$287,853)
- CMUD can apply for a loan from N.C. DENR at a zero percent (0%) interest rate to finance capital portion of the project
- Potential risks include:

- Cost of construction
- Operating and maintenance costs
- Continued value of RECs
- Other beneficial uses of the digester gas
- Net metering could negatively impact future power rates
- Potential benefits include:
 - Power rates could increase in the future
 - Construction cost could be lower than estimated
 - RECs could be more valuable over time
 - Operation & Maintenance costs could be lower than projected
 - Equipment life expectancy is greater than 20 years, so savings should continue beyond capital payback period (11 years)
- This is a potential method of generating electricity, which is less expensive than Duke Energy rates
- If we do not get interest-free loan and finance another way:
 - \$175,000 annual debt service for 20 years = \$112,853 savings per year
 - Clean Water State Revolving Fund (CWSRF) loan (4% statutory) \$254,512 for 20 years = \$33,341 savings per year
 - Revenue Bonds (5.5%) = \$1,000 savings per year
- Environmental impacts include:
 - Providing better use of an unavoidable by-product
 - Emissions are balanced with current process
 - Emission savings if not using Duke Energy
 - Potential good will
 - Environmentally friendly process
- The most concerning aspect of the project is the operation & maintenance risk:
 - Would most likely contract for O&M
 - Operating costs are out of CMUD's control CMUD doesn't have experience with CHP
- Consultants believe we would have enough additional excess methane gas to use for drying biosolids if needed in the future
- Duke Energy rates:
 - No North Carolina industrial base rate increase expected in next 3-4 years
 - Don't foresee substantial increases in the next 10 years
- Advisory Committee agreed CMUD should proceed contingent upon receiving the zero percent (0%) interest rate loan, but did not recommend moving forward with higher cost financing options
- CMUD is requesting City Council approval to apply for a zero percent loan from NC DENR
- The design-build method will likely be used to complete the project CMUD has incremental decisions to make relative to moving the project forward and will be reducing risks with each decision

Union County

- Conversation taking place between CMUD and Union County Public Works regarding how the two could work together to provide better service
- Union County has five (5) wastewater treatment plants (WWTPs)
- Union County is exploring alternative ways to manage and/or operate their WWTPs, including private contract operation
- CMUD believes it needs to position itself as a regional leader With a capacity of 6 mgd, Twelve Mile Creek WWTP is Union's largest plant

- CMUD and Union wastewater plants discharge treated effluent into a common, which is the Catawba River and Fishing Creek Reservoir
- South Carolina is determining TMDL (total maximum daily load) requirements for nutrients for Fishing Creek Reservoir
- Union's other plants are two (2) 50,000 gallons per day plants, one (1) 150,000 gallons per day plant, and a 1.9 million gallon per day plant
- Some years ago, Union, Mecklenburg, and Cabarrus jointly explored the possibility of a regional treatment plant. The project was abandoned due to concerns about potential impacts of increased development on the endangered Carolina Heelsplitter mussel habitat in the Goose Creek
- A long-term perspective is needed relative to management of limited natural resources
- CMUD believes a strong regional approach to water resource management will have long term benefits for Mecklenburg and Union County
- Union County experienced a recent laboratory certification issue which led to a deeper evaluation and Union's decision to explore contract operation of all five of its plants
- Total treatment capacity in Union County is about eight (8) million gallons per day (mgd); for comparison, CMUD's total wastewater treatment capacity is 123 mgd
- Union County plans to discuss the possibility of CMUD involvement with their board soon

Financial Update

- Yearly water sales are under projections by approximately 20% (\$2.24M) for the first month of this fiscal year; rain has caused reduction in sales
- Last year, CMUD over-projected water sales:
 - Tier 1 sales were under-projected by 1.3%
 - Tier 4 sales were over-projected by 10%
- CMUD has to lock in the sales forecast for the fiscal year (July-June) in April of the prior year to coincide with the budget process
- The recently implemented availability fee (fixed fee) has helped stabilize revenues and generates approximately \$30M per year, which is about 20% of the annual debt service amount
- On the expense side:
 - Power charges at the wastewater plants, CMUD's number one expense, have increased due to the increased wastewater flows caused by the wetter than normal weather
 - Personnel costs are as expected
 - Chemical costs are less than projected
- Connection and capacity fees:
 - Connection fees cover the actual installation costs for new water and sewer service connections
 - Capacity fee is a one time "system buy-in fee" and is paid when a new service is established
 - Capacity fees recover a portion of the capital cost of providing basic water and sewer infrastructure / capacity
- A CIP summary list was provided to the Advisory Committee members at their request
 - Currently working on project descriptions for each project listed on the CIP
 - Projects on the list are only projects that are receiving initial or additional funding and are not a complete list of ongoing projects

Adjourned at 4:15 pm
Karen L. Baldwin