



MINUTES OF MEETING
CLEVELAND UTILITIES BOARD

July 23, 2015

The Board of Public Utilities met at 3:00 p.m. at the Tom Wheeler Training Center. Present were the following: Aubrey Ector; Chairman; Eddie Cartwright, Vice Chairman; Tom Rowland, Mayor; Chari Buckner, Cleveland Utilities Board; Joe Cate, Cleveland Utilities Board; Ken Webb, President/CEO; Amy Ensley, Utility Board Secretary; Marshall Stinnett; CFO; Bart Borden, Electric Division VP; Craig Mullinax, Water & Wastewater VP; Walt Vineyard, Information Technology VP; Tim Henderson, VP Administrative Services; Jan Runyon, Assistant VP Administrative Services; John Corum, Safety Director; Rev. Joe Brooks; Nick Pavlis, Charter Communications; Rick Norton, *Cleveland Daily Banner*; and Paul Leach, *Chattanooga Times Free Press*. Following a moment of silence honoring the memory of those lives lost in the Chattanooga tragedy last week and the Pledge of Allegiance to the American Flag, Rev. Joe Brooks, Associate Pastor at Waterville Baptist Church, delivered the invocation.

MINUTES OF JUNE 23, 2015

On motion by Eddie Cartwright and seconded by Mayor Tom Rowland, the Board of Public Utilities voted unanimously to approve the June 23, 2015, minutes as written.

MANAGER'S UPDATE AND ANNOUNCEMENTS

United Way Day of Action

Cleveland Utilities will be taking part in Bradley County's United Way Day of Action on Friday, July 31. Two teams comprised of 20 employees will be completing various assignments at the Blythe-Bower Elementary School and the Boys & Girls Club Unit at Cleveland State Community College. This is the 3rd year CU has participated in this event.

DIVISION REPORTS

Financial

Marshall Stinnett reported on the following:

1. A chart tracking the kilowatt-hour cost in residential retail electric rates for the months of August 2011 through August 2015 was reviewed. For the month of August, the residential electric rate will change to 9.456 cents per kilowatt-hour, a decrease of 0.95 percent over last month's rate of 9.547 cents. This rate change is driven by TVA's Fuel Cost Adjustment. As a continued trend, Cleveland Utilities will pass the TVA fuel cost rate adjustment to its consumers.
2. The regular financial and statistical report for June 2015 was not presented due to keeping the books open longer than usual in order to make all year-end entries in an effort to eliminate any possible audit adjustments. During June, the cost of purchased power as a percentage of retail sales increased to 83.2. For the year to date this percentage is 83.6 percent compared to a budgeted percentage of 83.2 percent for FY 2015. Electric sales revenue for June totaled \$9,495,587, which was offset by purchased power of \$7,901,718.

This resulted in an operating margin of \$1,593,869, compared to a budgeted amount of \$1,401,702. Electric sales revenue for FY 2015 totaled \$97,856,518, which was offset by purchased power of \$81,846,712. This resulted in an operating margin of \$16,009,806, compared to a budgeted margin of \$16,078,393.

3. Water sales revenue for June was \$1,202,382. This is compared to a budgeted amount of \$1,218,784. The results for FY 2015 are water sales revenue of \$13,014,047, which is compared to a budgeted amount of \$13,099,600.
4. Wastewater treatment revenue for June was \$916,968. The budgeted amount was \$928,588. Wastewater sales revenue for FY 2015 totaled \$10,622,321, compared to a budgeted amount of \$10,676,201.
5. Auditors from the CPA accounting firm of Arnett, Kirksey, Kimsey, Sullivan, Lay & Hall PLLC will be arriving on August 10, 2015, to begin the year-end audit. Their report is expected to be issued by October 15, 2015. Stinnett pointed out the new GASB standards previously discussed will delay the reporting.

Electric Division

Bart Borden reported on the following:

1. A request for the Harrison Property site work bids was advertised in the Cleveland Daily Banner. Four bid packets were picked up by contractors, and three were emailed to contractors at their request. CU's Operations Engineer met with two contractors on-site per their request prior to the bid due date. Green Star Construction was the sole bidder for the requested work at a price of \$239,695. The bid came in higher than CU's estimate, but the contractor explained the magnitude of work necessary to construct the storm water retention system and to prepare the storage yard area. The purchase order for this project will be presented under new business.
2. In reference to the design to relocate 69/13.2 kV lines for the new Honorable Tom Rowland Interchange at Stone Lake Road, the services of Attorney George McCoin have been secured to represent Cleveland Utilities in the eminent domain proceedings with First Bank of Tennessee to obtain the necessary transmission line easements for the facility relocation. This is the sole remaining required easement.
3. Timber Creek Subdivision, Phase II, Part 1, is 95 percent complete at this time. CU's engineering and operations departments are working with the new developer to resolve a final grade issue with the installed pad-mount transformers pad elevation being too low in respect to the road. The pad-mount concrete pads are going to be raised and back filled. The developer will be paying for these changes.
4. Work is complete on the Michigan Avenue reconductoring project. The cost information is expected to be complete and reported in August.
5. In reference to the Peach Orchard Hill Road Tie Line Project, Cleveland Utilities entered a work contract agreement with Environmental Consultant Bill Phillips to perform a Bat Study. This study is required by the State for the CDBG Grant. The study will determine if the trees along Peach Orchard Hill Road are suitable roosting habitat of the Indiana and northern long-eared

bats, a protected species. Mr. Phillips conducted a similar study in this area for the Whirlpool project, and no issues were found. Borden is hopeful CU's study will indicate the same.

6. A work order was issued to provide permanent electrical service for the new plant expansion at Mueller Company on Industrial Drive SW. A 300 KVA, three-phase pad-mount transformer with underground primary conductors was installed to serve the anticipated load of 250 KW.
7. An engineering department representative met with an official from Bojangles Restaurants and TDOT personnel to evaluate the impact of a new facility on traffic at several sites near APD-40 and McGrady Drive. The availability of electrical facilities was also considered during the site visits.
8. The engineering department reviewed site plans submitted for a new restaurant, The Cookout Restaurant, to be located on the 25th Street location of the Captain D's, which recently closed their operation. CU has not been contacted by the electrical contractor, and no potential load information is available at this time.
9. An update was presented on traffic lighting:
 - The engineering department released two work orders to upgrade existing incandescent traffic signals to energy efficient LED at the intersections of Ocoee Street & Blythe Ferry Road and Stuart Road & Michigan Avenue Road. When this work is completed, the City traffic signals will be 81 percent LED.

Water Division

Craig Mullinax reported on the following:

1. Rehabilitation of the South Sludge Thickener at the Wastewater Treatment Plant is 90 percent complete and is anticipated be finished in one week.
2. K. Berry Construction completed the replacement of the diffuser membranes in basins 1 and 3 at the Wastewater Treatment Plant. Basins 2 and 4 will be completed this fall when the weather cools down.
3. K. Berry Construction resumed work on the spiral lift pump rehabilitation project at the Wastewater Treatment Plant. Small coating repairs on the additional five pumps are being done at this time. Once these repairs are finished, rehabilitation of the sixth and final pump will begin.
4. A 50/50 grant was awarded from the Tennessee Department of Environment and Conservation (TDEC) for the new blower motors on the north blower building at the Wastewater Treatment Plant. The estimated project cost is \$60,000, making the maximum grant award \$30,000. Approval was received to purchase the motors for \$26,220. The motors have been ordered.
5. CTI Engineers completed the design for the new control valves and meter for Waterville Springs. The items are on order.
6. In reference to the property purchase at Waterville Springs, the survey has been completed by Cleveland Surveying. Cleveland Abstract & Title is in the process of preparing the legal documents. Once complete, the documents will be executed for the purchase of 5 acres at a cost of \$25,595.
7. Work is progressing on the first phase of the AMR/AMI Water Project funded through the SRF. A total of 15 routes consisting of 2,978 meters were changed out during the month, and a total of 18 routes consisting of 3,636

- meters have been changed out to date. Although this project is complex, it seems to be going well.
8. King Industries continued the second phase of the fire hydrant painting project. A total of 373 hydrants have been painted during this phase, making the project total to date 1,269 out of 2,600 total hydrants.
 9. Hampton Backhoe Service began replacing the galvanized water line on Wesdell Lane. Once this project is finished, the contractor will start the McDonald School Road project, and will then proceed to the 2010 Annexation Area 2 Water System Improvement project on the north and south sides of APD-40 between South Lee Highway and Exit 20.
 10. Approximately 3,927 feet of 10-inch sanitary sewer line will be replaced with a new 15-inch sanitary sewer line on Barney Lane. Philip Luce has been working diligently on obtaining easements; an estimated 15 out of 20 easements have been obtained to date. Bids for this project will be opened on August 18.
 11. As part of preparing for the work at the new Honorable Tom Rowland Interchange, CTI Engineers completed the design for approximately 3,000 feet of 8-inch sanitary sewer line to be installed as part of the Pleasant Grove Church Road Sewer Extension project. This is part of the 2010 annexation area and will be a very involved project.
 12. The following development under construction has been completed:
 - Windermere Subdivision, Phase 2. 340 feet of 6-inch water main and 325 feet of 2-inch water main are now in service.
 13. Engineering is reviewing plans for Eagle Creek Subdivision, Phase 2. This project consists of 34 lots, 2,070 feet of 6-inch water main and 1,550 feet of 8-inch sewer main. Although this subdivision is in the county, the sewer was approved prior to the City ordinance prohibiting sewer extensions in the county.
 14. Facilities Maintenance has completed 80 percent of the rehabilitation on the Breckenridge Booster Station.
 15. Work is progressing on the Wastewater Rehabilitation Project:
 - AITC has lined 40,217 feet of pipe for the Basin 31-45 (Phase 2) and 10-36 (Phase 1) Rehabilitation project. In addition, 53 point repairs have been completed at various locations to allow for lining, 160 services have been renewed, 155 cleanouts installed, and 83 manholes have been lined.
 - CES continued the CCTV interceptor inspection project of the large mains; approximately 37,000 lineal feet has been completed to date.
 - In reference to the Wildwood and Inman Rehabilitation project, the notice to proceed will be issued on August 1.
 16. The meter department set 37 meters through June 2015, compared to 40 for June 2014 and 15 for June 2013. Of the 37 sets, 16 were for single-family homes, 15 were for townhomes, 4 were for apartments, 1 was for a duplex, and 1 was for commercial.

NEW BUSINESS

Safety Internal Performance Measures (IPM's)

Safety Director John Corum presented the Safety Internal Performance

Measures (IPM's) for January 2015 through June 2015 as part of CU's Strategic Plan. Corum reviewed definitions for the OSHA Recordable Incident Rate, DART Rate, Lost Time Rate, and Vehicle Accident Rate, and provided the various formulas used to derive the rate calculations.

The rates for the electric and water divisions combined for January through June 2015 are as follows:

- **OSHA Recordable Incident Rate – 2.48**
- **DART Rate – 1.49**
- **Lost-Time Case Rate – 0**
- **Vehicle Accident Rate – 5.67 (CU defines accidents in terms of preventable and non-preventable. If an accident is preventable, it will be included in the vehicle accident rate. Typically, if an accident is non-preventable and falls below the insurance deductible, the accident will be reported, but not actually included in this rate.)**

The following data went into the calculations:

- **A total of 966,309 consecutive hours have been worked by the electric and water divisions combined without a lost-time injury (LTI). Electric division employees contributed 705,803 of those hours, with the last lost-time injury occurring on July 1, 2012. The water division has reached 260,506 hours, with the last lost-time injury occurring on November 15, 2013. Corum stated this is a major accomplishment, especially with the diversity of tasks performed by employees of CU.**
- **A total of 200,816 cumulative hours have been worked company-wide in 2015. 109 employees in the electric division have worked 118,026 hours, and 73 employees in the water division have worked 82,790 hours.**
- **In addition, a total of 440,468 cumulative vehicle miles have been driven by employees in 115 vehicles during the first six months of 2015. 178,562 miles were driven by electric division employees, and 261,906 miles by water division employees.**

CU is an active participant in a safety roundtable group comprised of the 10 largest utilities across Tennessee, with CU being among the smallest (in terms of the number employees and hours worked). A chart representing benchmark data in 2014 was shown comparing CU to 3 similar-sized utilities in the group. CU's incident rates are comparable to Utility 1 and better than the other 2 utilities. Although CU is doing well, the goal is to continue to drive those numbers down. Corum described the emphasis placed on safety at CU as "tremendous" and thanked Electric Division VP Bart Borden and Water & Wastewater Division VP Craig Mullinax for their support of the safety program.

Lastly, data from the 2012 Bureau of Labor Statistics (BLS) was reviewed. The total recordable cases average for utilities was 2.8; electric

power generation, transmission, and distribution 2.5; water, sewage, and other systems 4.7; and sewage treatment facilities 3.7.

Webb said, "I think it goes without saying, and you heard John mention it; we practice safety here, and our intention is for safety to be the number 1 priority, not only for our employees, but also for the public. We are very fortunate to have John on our staff as he leads all of the employees in safe practices."

Resolution for CDBG Grant

On motion by Mayor Tom Rowland and seconded by Chari Buckner, the Board of Public Utilities voted to approve a resolution authorizing the President/CEO of Cleveland Utilities to accept a grant for \$250,000 in CDBG funds for electrical system improvements in the City of Cleveland and to execute any and all documents and enter into agreements necessary for the successful award of the grant and to enter into a project administration agreement with the Southeast Tennessee Development District. Board Member Joe Cate abstained from this vote due to serving as a consultant to the Southeast Tennessee Development District. A similar resolution will be voted on at the City Council meeting held on Monday, July 27, authorizing the Mayor to sign documents for the City relating to this same project.

Approval of Purchase Order and Contract with Greenstar, LLC

On motion by Chari Buckner and seconded by Joe Cate, the Utility Board voted unanimously to approve a purchase order and contract with Greenstar, LLC, in the amount of \$239,695 for the entire site work at the Harrison Property to include excavation, pad construction, fence construction, erosion control during construction, topsoil and seeding. This was the only bid submitted. The request for bids was advertised in the Cleveland Daily Banner; 4 contractors picked up bid packages, and 2 of those contractors met with CU staff onsite to discuss the project. This was a budgeted item, and funds are available for the project.

Approval of purchase order with Badger Meter

On motion by Eddie Cartwright and seconded by Joe Cate, the Board of Public Utilities took action to approve a purchase order with Badger Meter in the amount of \$76,359 for the annual purchase of small water meters. The meter purchase is budgeted for FY 2016. These meters are AMI ready, and Badger Meter kept the same pricing as last year.

OLD BUSINESS

Report on FTTP (Fiber-To-The-Premises) Study

President/CEO Webb informed it was a year ago this month when staff began discussing the possibility of looking into the feasibility of a broadband fiber-to-the-premise study by CU. Studying the project, doing it in a methodical manner, and being conservative in the estimates were committed to the Utility Board before any decision was made.

The team (comprised of Walt Vineyard, Bart Borden, Marshall Stinnett and Ken Webb) has worked very diligently gathering and reviewing information on this project over the past year. Staff is very pleased with the work performed by Uptown Services. Vineyard thanked Borden, Stinnett and Webb for their hard work and advised it was a true team effort.

A detailed overview of the FTTP Feasibility Study conducted by consultant Uptown Services was presented by Vineyard. The focus of this analysis was to evaluate the economic feasibility of CU deploying FTTP within its service area, either directly or indirectly, through a range of business model options. Four topics were focused on as part of the analysis framework for the study: market potential, network architecture, financial analysis, and funding.

Uptown Services surveyed 400 residential customers by telephone and completed 7 depth interviews with commercial customers. Key findings for residential include:

- 85% of Cleveland households use broadband.
- Satisfaction ratings with current services are average.
- Lower prices (40%) and faster internet (28%) are the top 2 areas for improvement.
- Majority (57%) if given a choice, would prefer to purchase internet from CU.
- 78% stated they definitely or probably would switch to the FTTP system.
- Support is strong for the FTTP system with 67% stating they would support or are neutral to paying a \$5 surcharge to help fund the new fiber network.

Key findings among commercial customers include:

- Satisfaction ratings with current services are high.
- Need for additional capacity was noted by 50% of interview participants.
- Strong need for improved pricing.

Vineyard explained the video strategy findings. The "no video" strategy is superior to CU either building its own headend or offering video via a terrestrial feed of the video signals (LiveVU). The initial capital investment costs for video range between \$3.9 and \$4 million, and the long-term debt ranges between \$40.7 and \$44.6 million. While the long term results are better with video, it will take a projected 13 years to break even. Another specific challenge of offering video is the unpredictability of the rapidly changing market of cable television; a number of television services are being offered over the Internet, and this is increasing.

Different retail and wholesale scenarios were discussed, including the possibility of a third-party RSP (Retail Service Provider). In addition, the financial viability detailing the funding requirements and financial outcomes of each scenario was presented. Another option in the study was a middle-mile strategy where services would be provided to commercial and industrial customers, and capital investment is only incurred with a signed, multi-year contract for service ensuring a defined revenue stream from each account.

The following recommendations were presented:

1. Should CU proceed with an FTTP system build, Uptown's recommended strategy is for CU to serve as the retailer of Internet and voice service (via CLEC partner). Uptown's analysis indicates that offering video service will only weaken the financial performance of the network, and that a wholesale strategy does not off-load CU's financial risk. In fact, the analysis indicates the required wholesale terms for CU to remain financial neutral compared to a retail strategy would most likely not be acceptable to a third party Retail Service Provider.
2. The FTTP network is marginally viable. Uptown estimates the project will become net cash positive in 14 years, and a 15 year threshold is used for determining financial viability. The high staff overhead loading significantly adds to the ongoing opex for the network. Sensitivity analysis indicates that the network would not sustain a 20% reduction in Internet penetration, leading Uptown to conclude the project is susceptible to downside risk.
3. Uptown notes that CU is not financially prepared to incur the necessary upfront short term debt load required to launch an FTTP system. A working capital requirement of approximately \$4 million was identified. However, CU has available cash reserves of only \$1 million. President/CEO Webb interjected with a comment. "That does not mean our cash reserves are only \$1 million. What that means is there is about \$1 million that we would feel comfortable using on a project like this without affecting other reserves that are necessary for the operation of the electric system." Electric funds could be used for such a project, if approved by TVA.
4. For a non-qualified recommendation to proceed, Uptown would advise CU to establish a working capital reserve of \$4-5M, as well as seek out operating cost efficiencies such that FTTP margins could sustain a -20% sensitivity on Internet penetration.
5. For the near-term, instead of pursuing a last-mile fiber build out, CU should further evaluate a middle-mile strategy whereby direct fiber lateral connections are built from the CU fiber ring to large businesses with more intense data needs. Capital investment is only incurred with a signed, multi-year contract for service that ensures a defined revenue stream from each account. This would allow CU to calculate full project

payback during the contract term for both upfront and indirect costs. Based upon the depth interviews, Uptown identified opportunities among Cleveland large business entities that would switch to CU for a high capacity service via a direct fiber connection. Benefits identified include additional capacity, provider diversity, and bandwidth cost savings for the business.

Vineyard summed up the study with the following: high investment costs, high capital reserve costs, and long break even times (14 years). Full video, Internet, and phone are not viable in today's market. Other options such as the middle mile strategy or providing telephone and Internet services are marginally viable.

Staff recently made a site visit to Erwin Utilities who launched a FTTP pilot program to provide Internet and telephone services to a small region within their service footprint. The utility has signed up 150 customers for services since startup in March 2015 and are expected break-even at 180 customers. The project has been very successful by completing it in this manner. Another huge benefit by completing the system in a phased-in manner is learning experiences along the way have allowed for a significant amount of cost savings. Originally, it was projected to cost \$16 million to complete a fully built system; this has since been reduced to \$9 million as a result of those learning experiences. As it is determined the project is viable, and it does appear promising, the intent is to expand to other regions of their service area. Comcast is the only competitor in Erwin. Customer service, no contracts, and reliability are the main reasons customers desire to change providers. The main methods of marketing for Erwin are word of mouth, yard signs and promotion of services by Erwin employees. Initially, Erwin bought 25 signs to place in yards; almost immediately, there were requests for more signs.

Permission was requested by CU staff to continue discussions with Uptown Services to further analyze how telephone and Internet could be provided to CU's customers.

On motion by Eddie Cartwright and seconded by Mayor Tom Rowland, the Utility Board voted unanimously to authorize staff to hold further discussions with Uptown Services to determine the involvement of developing a business plan to further analyze the feasibility of providing these services, which could potentially lead to a pilot project.

As previously discussed, there are barriers in state law to prevent municipal utilities to provide broadband services outside of their electric service areas.

CU still supports efforts to remove those barriers per Webb. This could allow opportunities for other utilities and CU in the future.

Webb said in closing, "We owe the community two things. We owe it to the community to determine whether or not this is a viable project, and we owe it to the community to determine very conservatively, if it is a viable project, whether it can be financed and will be a project that will last for years". Staff is going to hold discussions with the consultant and hopes to have material for consideration at the next board meeting.

Chairman Ector said, "This is not a culmination, but it is a major milestone down this road to making a decision one way or the other." He also expressed appreciation for everyone's work involved in this effort.

OTHER BUSINESS

Future Board Meeting Dates

Following is a list of future board meeting dates to be held at the Tom Wheeler Training Center:

Thursday, August 27, 2015, 3:00 p.m.

Thursday, September 24, 2015, 3:00 p.m.

Amy Easley
Utility Board Secretary

[Signature]
Chairman

8/27/2015
Date