

**MINUTES
PUBLIC UTILITIES BOARD**

Monday, June 12, 2017

9:00a.m.

City Council Work Session Room

After determining that a quorum of the Public Utilities Board of the City of Denton, Texas is present, the Chair of the Public Utilities Board will thereafter convene into an open meeting on Monday, June 12, 2017 at 9:00a.m. in the Council Work Session Room at City Hall, 215 E. McKinney Street, Denton, Texas.

Present: Chair Randy Robinson, Vice Chair Susan Parker, Barbara Russell, Charles Jackson, Brendan Carroll, Allen Bishop and Lilia Bynum

Ex Officio

Members: Todd Hileman, CM and Mario Canizares, ACM

WORK SESSION

A. PUB17-083 – Receive a report from staff regarding various scenarios for moving the City of Denton toward 100% renewable energy.

Phil Williams made this presentation stating that this is a very exciting time to be in the electrical industry. Williams has been in the businesses for 40 years and have seen transitions from different fuel sources. These transitions of today are challenging and exciting. These fuel sources are more economical and will provide better energy from a sustainable standpoint.

Williams went over the DME Background

- Municipally owned utility since 1905
- 52,000+ customers with 88 percent residential and 12 percent commercial & industrial
- 6th largest MOU in Texas
- DME annual budget: \$176 million
- Electric Reliability Council of Texas (ERCOT)
- City Council and Public Utilities Board

DME was given clear direction by a RDP Resolution R2016-014 which states the City's use of renewable energy in the future, to the amount of 70 percent of its load, as the City Council specifically endorses and sets a goal of achieving 100 percent renewable by 2035 while continuing to offer competitive electric rates and electric reliability to its customers.

Key factors for increasing renewables include:

- Price of renewables
- Renewable output as compared to load
- Managing priced fluctuations and intermittency
- MW capacity versus MWh production
- Research and development

Williams then showed a graph of 100 percent renewable and where we are today. William added that DME will be well beyond the 70 percent goal on to over 80 percent by 2019. There are many different renewable resources that are helping achieve this goal. There is a significant increase in the use of solar and wind. Williams talked about the resource capacity in MW and the resource production in MWh. There were graphs shown regarding the original forecast and current forecast. There were also graphs shown with solar and wind load profiles.

Williams then talked about the progress and how to balance out the renewables. Community Solar benefits residents without access to rooftop solar and details community involvement opportunities under development. Storage research and development includes batteries in our area. Staff has talked to UNT, UT Dallas, SMU, corporations and laboratories regarding staging new technology. They all excited and looking to acquire grant money to help with the endeavors. Denton has set a record on rooftop solar by passing the 100 mark on installations. DME has rebated \$1,211,666 since 2009. Staff has talked to the top commercial customers regarding the demand side management programs that are available. DME provides free in-home audits and GreenSense rebates. DME has the GreenSense Renewable Rate with 168 residential accounts enrolled to date. This program has been available since 2004.

Williams went over how DME's rebates are compared to other Texas cities. He also pointed out that Bryan, College Station, Georgetown, Lubbock, and Greenville do not offer solar rebates or incentives at this time. It isn't that they do not like solar you just have to realize why you give rebates. Those rebates are to motivate people to take an action that they would not otherwise take. We may want to review our rebates in the future.

Next steps include:

- Following Council's direction, DME is focused on increasing renewables.
- DME anticipates being approximately 88% renewable in 2019.
- DME is pursuing various means for increasing renewable energy, including community solar, energy storage, and demand response.
- An additional renewable RFP will be issued this month, and staff will return with a presentation before the end of the year to discuss the responses.

Bynum asked about battery storage and how that technology is progressing. Williams answered battery storage will have use in the electrical grid. Guam is using a small portion to maintain frequency. California is pushing for more battery storage and it will make sense there because they have a small window for peak load for recovery from renewables. In Texas where there are 75 – 80 degree nights and the amount of time to charge those batteries to discharge, the technology isn't there just yet. Williams went on to tell about an installation of batteries in west Texas where the batteries were cycled so many times they wore out in three to four years. The capital investment was large and had to be replaced in a very short period of time.

Bynum then asked about when the sun doesn't shine if there is still power taken in for a load. Williams answered there is some, about 30 percent. Bynum then asked if there are any research on increasing the pull. Williams answered solar it is better than it was and has made great strides and prices are much better.

Parker stated that she has read in California some businesses have installed the battery storage themselves from an R&D prospective, is that something that DME can do maybe partner with the university. Williams answered DME has offered a rebate for that and a couple have taken them up on it. Staff has also talked to a few universities to install something like this to test.

Robinson stated that we are talking about being at 88 percent by 2019 which is a significant jump from 70 percent. What will be required to get to 100 percent. Will that be new technology? Williams not sure of new technologies or the prices that will drive us to that 100 percent. Currently the reason we cannot make that leap is because of pricing.

Robinson stated that he gets lots of comments from people regarding the rebates and he encouraged staff to keep that program.

B. PUB17-107 – Receive a report, hold a discussion and give staff direction on the Denton Electric Fiscal Year 2017-18 Operating and Capital Budget.

Chuck Springer gave this presentation starting with the DME rates, reliability and renewables.

DME Goals

- Maintain competitive rates with the capability to provide reliable electric service for all present and future customers
- Ensure safety for DME employees and general public
- Ensure DME is compliant with state and federal regulations
- Manage DME infrastructure needs for future growth and development plans
- Maximize use of Renewable Energy

DME Goals FY 2017-2017

- Execute Wind & Solar Purchased Power Agreement (PPA) to reach 70% Renewable in 2019 (currently 42-48%)
- Stay on track for trial operations of Denton Energy Center by Fall 2018
- Complete upgrade of Supervisory Control and Data Acquisition (SCADA) Hardware and Software
- Complete construction and energize new North Lakes and Locust Substations
- File a wholesale transmission rate change request in the Fall of 2017 with the Public Utility Commission that should result in a net change in wholesale transmission costs of approximately \$6.4 million

DME Accomplishments

- Paid off approximately \$33 Million of TMPA debt over the last two years with no overall rate increase
- FY 2016 net savings budgeted at \$5.24 million
- Initial estimate of 12-month savings compared to an extended NRG contract: \$10 million
- Savings have been earmarked to pay \$12 million to fund capital projects or pay down TMPA debt
- Energy Cost Adjustment (ECA) Rate Reduction of \$0.003 (7%) effective October 1, 2016, which is estimated to reduce ratepayer expense by \$3.8 million through the end of FY16-17
- Complete the 69 kV conversion to 138 kV from Denton North Interchange to North Lakes Substation by July 2017
- Replacement of 8 miles of underground direct buried cable change out in Southridge Subdivision (DME's largest underground subdivision)
- For fifth consecutive year, DME exceeded national average in system reliability
- Passed a NERC Audit which included review of more than 250 rules
- Continued installation of street lights with decorative poles in Historic District Neighborhood – Sixth Phase approved
- Completed Woodrow Substation conversion from 69 kV to 138 kV (first ever substation conversion in Denton)
- Completed construction of ARCO, Kings Row and McKinney substations
- Installed 7.7 miles of overhead (OH) and 21 miles of underground (UG) distribution lines
- Completed analysis, preparation and submittal of DME's seventh annual Transmission Load Flow Report (FERC 715 Report)
- Placed outage map on City of Denton website (December 2016)

- Added 308 electric meters
- Completed Technology Services Disaster Recovery installation for mission critical applications
- Received approval of interim wholesale transmission rate increase from the Public Utility Commission that resulted in a net change in wholesale transmission costs of approximately \$7.2 million

Performance Measures for DME was talked about.

Cost Containment Strategies

- Filling five existing vacancies in Engineering with Engineering Consultants
- Eliminated two management positions
- Increased budget for Salary Savings to \$308,000 to recognize position vacancies and turnover potential
- Reduced Debt Service \$1.2 million in FY 2017-18 as a result of lower interest rates
- Internally developed four software packages for improved EMO operations
- Implementation of Workforce Management System to facilitate move to paperless environment

Process Improvements

- Implemented MyDME.com Application in February for ratepayers to view their electric usage details the next day – Accessed 13,993 times as of April 2017
- Began utilizing Electric system data to coordinate and implement distribution switching schemes to automate power restoration activities, which will shorten the duration of outages
- Began process to implement Asset Management and Radio Frequency Identification Device (RFID) or Tag
- Standardized PC Models for entire department; simplified support, troubleshooting and procurement
- Conducted Kaizen event which resulted in revamping the meter-to-billing process
- Utilizing temporary interns and programmers to supplement staff instead of hiring new permanent employees
- Converting an EMO operator position to an Energy Trading and Risk Management (ETRM) analyst position, which will save an FTE, and continuing to improve the database for increased access by entire EMO team
- Replacing current ETRM system with a more robust system that can be utilized with portfolio migration to renewable energy sources

The DME annual peak demand and energy with trends graph was shown dates from 1986 to 2016.

Growth factors were discussed.

Russell asked if DME can register the outages by the cause (squirrel). Phil Williams answered squirrels, lightening and equipment failure are the top causes for outages. Each outage is registered by the cause. Staff has started using a wildlife guard in areas where they are a problem. DME is also going to starting to replace infrastructure that is over 50 years old.

Springer reviewed the CIP definitions that DME uses frequently uses.

Springer then talked about the five year capital plan with a total of \$368.8 million. Next he spoke about the CIP budget and actual expenditures by fiscal year without the Denton Energy Center. The familiar cash requirement table for DME was shown that spans out to 2022. The transmission portion of this spreadsheet supports the cost recovery dollars.

The CIP project locations for FY2018-2022 were shown on a map.

Springer stated that DME is proposing a one percent rate decrease. There will be a zero base rate increase. There may be an additional ECA reduction possible in the fall of 2018 when Denton Energy Center (DEC) comes on-line. DME Ten Year Management Study required by City Charter \$500,000 in FY2017-2018.

Budget Highlights were reported both revenue and expenditures. Springer mentioned there is a Closed Agenda item if there specific questions for purchased power or fuel costs.

DME five year forecast information was reported to the Board. There is a planned use of reserves that was pointed out. The future years to 2021 show two percent decreases in rates.

Robinson asked about the debt coverage ratio of 1.19 in 2018, the assumption was 1.25. Springer answered the prior revenue bond coverage requirement and order to issue additional debt was 1.25 the new coverage is 1.0. It does just back up the next year.

Rate comparisons were shown.

Parker asked about the engineering positions that were eliminated and consultants being used, is that because they are difficult to recruit. Williams answered it is difficult to keep up with the market. The salary plan has been reviewed to recruit people, we are having problems retaining them. We will try the consultants and see how that works. Parker then asked if a premium will be paid by using consultants. Williams answered when you consider the benefits and management time and for training we will see. Staff will try and see if this will work.

There were no more questions.

C. PUB17-120 - Receive a report, hold a discussion and give staff direction on the Water Fiscal Year 2017-18 Operating and Capital Budget.

Chuck Springer gave the water presentation.

Accomplishments include:

- Condition assessment for the 30 inch raw water transmission pipeline from Lake Lewisville to the Water Treatment Plant.
- Robotics inspection complete; final report in June.
- Flow tested Lake Lewisville Water Treatment Plant to verify plant performance after 2016 plant rehabilitation and process upgrade.
- Rehabilitated ozone generators at the Lake Ray Roberts Plant to improve system reliability and performance.

Goals include:

- Complete design for Lewisville Plant (Phase 2 Plant Upgrade)
- Improve zebra mussel control for Lewisville and Ray Roberts raw water transmission systems.
- Install communication systems to improve security for unmanned plant facilities
- Implement process to share SCADA resources between the two Plants.
- Complete water supply line improvements for Southwest Booster Pump Station to satisfy growing water demands.
- Complete waterline replacements prior to the Hickory Street reconstruction project.

Performance Measures: Current

- New water meter installations
- Water meter replacements
- Water mains replacements (feet)
- Processed water volume

Performance Measures: New

- Main breaks per 100 miles
- Unbilled water volume

Cost Containment Strategies

- Eliminated FTEs (Water Admin intern, Customer Service - Savings of \$47,854)
- Budgeted salary savings of \$175,000 (vacancies)
- Reduced \$615,519 from O&M budget (FY17 to FY18)
 - Machinery and equipment, outside contract services, and miscellaneous materials
- Improved debt service efficiency by balancing CIP projects and cash flow schedules.
- Reduced revenue funded capital variability by leveling over 5 years
- Total reductions are approximately equal to a 2.5% rate increase

Process Improvements: Completed Process Improvement / Lean projects

- Improved the metering reading, billing and work order process with team members from Water Metering, Electric Metering and Water Utilities Customer Service (reduced redundancy, errors, and rework)

Process Improvements: Future Process Improvement

- Evaluate Capital Project coordination and implementation processes.
- Complete system distribution master plan and implement
- Improve work order data reliability for CityWorks
- Continue to improve asset management program

Future Risks and Mitigation

- Raw Water Transmission Line costs
 - Assessment studies used to target repairs where needed
- Lewisville Dam repair
 - Working with Army Corps of Engineers for cost sharing
- Other transmission lines replacement funding
 - Using studies, system planning, and assessments to target funding where needed
- Age and condition of Lake Lewisville pump station
 - Programming into future CIP
- Declining per capita water usage
 - Adjusting forecasts downwards beginning in 2020

Assumptions

- All rates based on cost of service
- Minimum debt coverage ratio is 1.25 (higher is better)
- Annual revenue funded capital based on depreciation schedules.
- Distribution system replacement funding target is 100% revenue
- Treatment plant infrastructure funding target is 25% revenue, 75% debt
- Reserves maintained within 120-180 day range
- Use multi-year financial planning to minimize rate increases

Five Year Forecast – Zero Rate Increase was introduced with a spreadsheet followed by the proposed five year forecast.

The budget highlights were reported including sales, cost of service, and transfers.

The five year Capital Plan was reviewed with the projects and a map was shown.

Chair Robinson asked if the repair cost for the dam repair are estimates that was agreed by water admin staff.

Water rate comparisons were shown on a graph.

Bynum talked about the water use going down and asked why. Springer answered usage in residential and commercial is trending down because when appliances are changed out there are efficiencies in the new products. There are also local and national campaigns to help conserve water.

D. PUB17-121 - Receive a report, hold a discussion and give staff direction on the Wastewater Fiscal Year 2017-18 Operating and Capital Budget.

Chuck Springer did not make a presentation but did give the Board time to ask questions regarding this this item.

There were no questions.

E. PUB17-122 - Receive a report, hold a discussion and give staff direction on the Solid Waste Fiscal Year 2017-18 Operating and Capital Budget.

Chuck Springer did not make a presentation but did give the Board time to ask questions regarding this this item.

There were no questions.

CLOSED MEETING

A. PUB17-106 – DELIBERATIONS REGARDING CERTAIN PUBLIC POWER UTILITIES: COMPETITIVE MATTERS --- Under Texas Government Code §551.086.

Receive competitive public power information and financial information from staff in the form of the draft operating budget for Denton Municipal Electric (“DME”) for FY 2017-2018, including without limitation, revenues, expenses, and commodity volumes; discuss, deliberate, and provide staff with direction regarding such matters.

B. PUB17-132 - DELIBERATIONS REGARDING REAL PROPERTY - Texas Government Code Section 551.072; CONSULTANT WITH ATTORNEY - Texas Government Code Section 551.071.

Discuss, deliberate, and receive information from staff and provide staff with direction pertaining to the lease and use of 1001 S. Mayhill Rd., Buildings 101 and 102, and 651 S. Mayhill Rd., Denton, Denton County, Texas. Consultation with the City’s attorneys regarding legal issues associated with lease of lease and use of said property described above where a public discussion of these legal matters would conflict with the duty of the City’s attorneys to the City of Denton and the Denton City Council under the Texas Disciplinary

Rules of Professional Conduct of the State Bar of Texas, or would jeopardize the City's legal position in any administrative proceeding or potential litigation.

OPEN MEETING

CONSENT AGENDA

- A. PUB17-028** – Consider recommending approval of “Declaration of an Emergency” and associated cost in the not-to-exceed amount of \$59,996.00 for repairing the Transfer Pump #2 of the City of Denton’s Lake Ray Roberts Water Plant (RFQ #6344).
- B. PUB17-102** – Consider a recommendation for approval of an Interlocal Cooperation Agreement between the City of Denton, Texas and the City of Irving, Texas to provide for the Cities to transfer ground mulch between Cities when available and needed, and to provide emergency landfill and equipment support to one another as appropriate, when needed. (File # 6398)

Barbara Russell pulled this item for more information. Ethan Cox stated this interlocal agreement is for a couple of different things one being the ground mulch. Ground mulch is used in the composting operation. Irving has a surplus of this type of material and Denton will receive some on an as needed basis. If Denton has a surplus it would also be used by Irving. There is a provision in this contract for sharing emergency equipment and the use of landfill in case of a natural disaster. **Russell stated she has not seen anything like this, how did it come about.** Cox added it is a little unique from the ground mulch element. He will check with staff about other aid agreements.

Board Member Russell motioned to approve item (B). There was a second by Board Member Parker. Vote 7-0 approved.

- C. PUB17-119** – Consider recommendation of an ordinance accepting competitive proposals and awarding a contract for the excavation and construction of landfill cells 3B, C, and D at the City of Denton Landfill, providing for the expenditure of funds therefor; and providing for an effective date (RFP 6395-awarded to Hammett Excavation, in an amount of \$3,982,737).

Item pulled by staff to bring back at a later date.

- D. PUB17-123** – Consider recommending approval of a Professional Services Agreement for Architect or Engineer between the City of Denton and Birkhoff, Hendricks & Carter, L.L.P. in the amount of \$229,492.00 for Engineering Services associated with the Hwy 380 to IH 35 and Scripture to IH 35 Water Transmission Line projects (Contract #6479).
- E. PUB17-124** - Consider recommending approval of a Professional Services Agreement for Architect or Engineer between the City of Denton and Kimley-Horn & Associates, Inc. in the amount of \$504,500.00 for Engineering Services associated with the Allred to John Paine Road Water Transmission Line project (Contract #6478).
- F. PUB17-125** – Consider recommending approval of the adoption of an ordinance providing for the expenditure of funds for the emergency replacement of four (4) pumps at the Pecan Creek Water Reclamation Plant Raw Sewage Pump Station No. 2 in accordance with provisions of section 252.022 of the local government code exempting such purchases from

requirements of competitive bidding; and providing an effective date (File 6470-awarded to Control Specialist Services, LP in the estimated amount of \$437,134; \$78,485 for valves purchase to Hugh M. Cunningham Inc, and expenditure of \$150,000 for purchase of pipes and fittings for installation of the pumps for an estimated grand total of \$665,619).

Board Member Parker motioned to approve items (A, D, E and F). There was a second by Board Member Bynum. Vote 7-0 approved.

ITEMS FOR INDIVIDUAL CONSIDERATION

A. PUB17-127- Consider recommending approval of the Public Utilities Board Meeting minutes of May 22, 2017.

Approved as circulated

C. PUB17-128 - ACM Update

1. 2nd quarter financial report
2. Solid Waste FTE Comparison
3. Matrix

Matrix no changes

CONCLUDING ITEMS

Under Section 551.042 of the Texas Open Meetings Act, respond to inquiries from the Public Utilities Board or the public with specific factual information or recitation of policy, or accept a proposal to place the matter on the agenda for an upcoming meeting AND Under Section 551.0415 of the Texas Open Meetings Act, provide reports about items of community interest regarding which no action will be taken, to include: expressions of thanks, congratulations, or condolence; information regarding holiday schedules; an honorary or salutary recognition of a public official, public employee, or other citizen; a reminder about an upcoming event organized or sponsored by the governing body; information regarding a social, ceremonial, or community event organized or sponsored by an entity other than the governing body that was attended or is scheduled to be attended by a member of the governing body or an official or employee of the municipality; or an announcement involving an imminent threat to the public health and safety of people in the municipality that has arisen after the posting of the agenda.

Adjournment 11:25 a.m.

Approved on 6/26/17