City of Columbia, Missouri



Meeting Minutes

Water and Light Advisory Board

| Wednesday, November 1, 2017 | Regular | 701 E Broadway |
|-----------------------------|---------|--------------------|
| 8:00 AM | | Conference Room 4A |

I. CALL TO ORDER

Mr. John Conway called the meeting to order at 8:00 a.m.

Staff: Tad Johnsen, City Utilities Director; Ryan Williams, Assistant City Utilities Director of Water & Light; John Glascock, Deputy City Manager; Jim Windsor, Utility Financial Manager; Derek Fast, Sr. Rate Analyst; Tina Worley, Utility Services Manager; Terry Freeman, Energy Services Supervisor; Brandon Renaud, Energy Management Specialist; David Storvick, Engineering Manager; Christian Johanningmeier, Power Production Superintendent; James Fisher, Water Production Manager; Deidra McClendon, Lab Supervisor; Kevin Thornton, Line Superintendent; Steve Sapp, Community Relations Director; Brian Atkinson, Marketing and Communications Supervisor; Chris Kisch, Senior Administrative Support Assistant

Public: Julie Ryan, Columbia Safe Water Coalition; Marie Brown, CoMo Safe Water Coalition; Brittney Ruess, Columbia Daily Tribune, Jordana Marie, KMIZ 17-News; Tom Jenson, Industrial Energy Renovation

Present: 5 - John Conway, Dick Parker, Robert Hasheider, Kim Fallis and Scott Fines

II. APPROVAL OF AGENDA

Mr. Dick Parker made a motion to approve the agenda as submitted with a second by Ms. Kim Fallis. Motion passed unanimously.

III. APPROVAL OF MINUTES

The October 4, 2017 meeting minutes were approved with changes with a motion by Mr. Scott Fines and a second by Ms. Kim Fallis. Motion passed unanimously.

Attachments: Meeting Minutes Draft 10 4 17

IV. MPUA ANNUAL CONFERENCE AWARDS

Mr. Conway advised the Water and Light Advisory Board (WLAB) that Columbia Water and Light (CWL) had been presented some awards at the MPUA Annual Conference. He stated that CWL was singled out in recognition of the utility's energy efficiency programs. Mr. Conway presented the Buddy Bennett - Lee Barker Community Service Award to Mr. Brandon Renaud. Mr. Conway stated the MPUA's annual awards are made in recognition of achievement and distinction among professional peers with Missouri's municipal utilities.

Mr. Conway next presented Mr. Kevin Thornton a certificate of appreciation for the recognition and accommodation for the mutual aid after Hurricane Irma in Florida. He stated that CWL shared their manpower and expertise and was able to send linemen and some others to help in restoring power in Florida. Mr. Conway stated that as an MPUA member CWL was being recognized for a "job well done". He stated that the MPUA publically recognized CWL, Arkansas, Nixa, and Hannibal for their help in restoring power in Florida. Mr. Conway stated this was dangerous work and he was happy that CWL could help. Mr. Conway asked Mr. Thornton to provide some details for the WLAB regarding their mutual aid in Florida. Mr. Thornton stated CWL was asked to respond to Hurricane Irma by MPUA. He noted there were two - five man crews that provided the mutual aid. Mr. Thornton said they had stayed ten days in Orlando helping in the power restoration there. From Orlando, they went to Lakeland, Florida. Mr. Thornton noted this had not been previously planned but the city of Lakeland still had 75 percent of its population without electric service. He noted they spent three days there before being released to come home. Mr. Thornton advised he learned a lot in the event there is ever a major storm in Columbia. Mr. Conway asked how many trucks went. Mr. Thornton advised there were seven trucks and eleven employees that had responded from CWL. Mr. Fines asked about the number of trucks outside of Florida that responded. Mr. Thornton advised he was unsure of that number but heard there were approximately 400 linemen and that the state of Kansas was the farthest state that responded. Mr. Hasheider asked about the status of Puerto Rico. Mr. Thornton advised CWL had been contacted on October 31, 2017 about a crew. He stated 45 linemen along with equipment had been requested. He advised that the City of Orlando was organizing the effort. Mr. Conway asked what a crew consisted of. Mr. Thornton stated a crew would be three linemen and one apprentice. Mr. Thornton explained a day's work consisted of reporting in for duty at 6:00 a.m., out in the field by 7:00 a.m., and a sack lunch was provided. Mr. Fines asked if Florida was different than Columbia. Mr. Thornton advised they were. He stated that Florida was all in one building and any communication was direct. Mr. Thornton advised that Florida has customer communication as well. He noted the utility had gone on the public alert system to inform customers not to run generators in their garages. Ms. Fallis asked if any linemen went to Texas after Hurricane Harvey. Mr. Thornton advised they had not due to no municipalities being damaged. Mr. Fines asked who pays the cost for the mutual aid. Mr. Thornton advised it would be the utility requesting the help or it could also be the Federal Emergency Management Agency (FEMA).

V. FINANCIAL REPORT as available

Mr. Conway reminded the WLAB the Financial reports were generated by the Finance Department not Water & Light. He added it was Ms. Hood who is in charge of the cover letters for the Financial Reports. Mr. Johnsen advised that July, 2017 and August, 2017 would be reviewed in this meeting. He advised that as of now, Finance was only one month behind. Mr. Parker asked if September, 2017 was anticipated for the December, 2017 meeting. Mr. Windsor advised it was, adding that Finance would be in the middle of their audit so the numbers would be estimated. Mr. Windsor noted he had provided FERC definitions for the Operating Expenses for help in understanding the Cash and Cash Equivalents Inventory. He noted on the water side of the utility, September, 2017 should be a better month than August, 2017 showed. Mr. Fines asked about a \$1.5 million increase that Mr. Windsor was going to look into. Mr. Windsor noted he would look into that. Mr. Fines stated he was happy Finance was able to put some financial information together and asked for that to be passed on. Mr. Johnsen advised that at the next meeting all year end numbers should be available. Mr. Hasheider asked how to access prior year's annual reports as he would like to look at the last five years. Mr. Conway advised he has those reports and would share with him. Mr. Johnsen noted staff would have all the information in the board files. Mr. Windsor advised that after the audit was complete in late January, 2018 or early February, 2018, he could email the last five years of information to Mr. Hasheider and any other board member that would want it. Mr. Fines and Mr. Hasheider expressed an interest for this information. Mr. Fines stated the cover letters note asset to liability ratios. He noted July shows 8.74 to 1 and August shows 3.06 to 1, adding he was not sure where the difference was in the cover letter. Mr. Windsor advised he had not looked at the cover memo but felt it was a typo and he would look into that to verify. Mr. Conway asked how the calculations occur. Mr.

Windsor explained it was the sum of assets divided by the sum of liabilities. Mr. Johnsen noted the information on what goes into the calculation ratio would be provided.

Action Items:

Mr. Fines asked about a \$1.5 million increase that Mr. Windsor was going to look into. Mr. Windsor noted he would look into that.

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Meeting Minutes

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Attachments: July Financial Statement Memo

Attachments: FY17 July Financial Statement

Attachments: August Financial Statement Memo

Attachments: FY17 August Financial Statement

Attachments: FY17 - Monthly Changes in Cash and Cash Equivalents

Attachments: Summary Change In Revenue & Expense - FY17

VII. NEW BUSINESS

None

VI. OLD BUSINESS

None

VIII. DIRECTOR'S REPORT

a) 3rd Quarter Renewable Energy Report

Mr. Johnsen advised the numbers indicate where the renewables were for the year. He added they should be over the 15 percent by the end of the calendar year. Mr. Windsor noted the requirement was only for five percent for this calendar year. Mr. Johnsen stated that next year's requirements have already been met this year. Mr. Conway asked what was scheduled for next year. Mr. Johnsen stated he had provided a graph that addressed future renewable energy requirements. He added CWL was meeting the requirements by current production. Mr. Johnsen said he had hoped to have some solar for consideration. Mr. Windsor stated the fourth landfill gas generator was not included. Mr. Fines noted it was a good job in getting ahead of schedule then asked how it happened. Mr. Conway stated it was due to good management. Mr. Johnsen added planning for the future helped. Mr. Johnsen noted wind was worth entering into early. Mr. Fines asked how energy efficiency affected the utility. Mr. Johnsen advised a report would be put together on that for the WLAB. Mr. Windsor advised the recession had an impact on where the utility is now.

Action Items:

Mr. Fines asked how energy efficiency affected the utility. Mr. Johnsen advised a report would be put together on that for the WLAB.

Attachments: Renewable Standard - New Format - Calendar 2017

Attachments: Addressing Future Requirements - 10 19 17

b) Fiscal Year Annual Usage Reports

Mr. Johnsen advised this was information that was requested by Mr. Parker. He added if more information was needed to let staff know. Mr. Windsor explained the graphs and forecast comparisons provided to the WLAB. He noted the last was the megawatt hours and he used 27 years of data in the forecast. Mr. Windsor noted the summer was an average summer even with August being cool. He stated the recession had a significant affect. Mr. Windsor stated there was a system peak for electric in 2011, adding it was humid that year. He added 2012 was a hotter and dryer year. Mr. Windsor stated he has been experimenting with more specific hourly information and this has been working well in the model. Mr. Parker stated this last year worldwide was the hottest year on record. Mr. Windsor noted that 2014 was the coldest winter in that period as well. Mr. Windsor provided a historic summer volume as requested. He noted the drivers were weather and customers. Mr. Windsor stated he tried other variables but those did not work well. Mr. Conway asked for the years of the IRP to be shaded and to put those in a separate cell. Mr. Windsor said the utility has to project an average. Mr. Hasheider requested customer growth information be sent to the WLAB via email. Mr. Windsor will provide that information. Mr. Conway asked if any customer growth was included in the FY18 budget on the water side of the utility. Mr. Windsor answered none were used. Mr. Conway asked if that was used on the electric side of the utility. Mr. Windsor answered there is a difference in customer growth and usage growth. Mr. Parker asked if peak energy use and peak megawatt match MISO. Mr. Windsor advised they peak at different times. Mr. Parker stated statistics suggest the value should be higher than average from time to time. He said he was concerned that to have

capacity that would be fairly expensive, adding he would rather not have the expense higher than expected. Mr. Windsor said from a planning standpoint, it has happened before. He added the utility needs to recognize that it can happen and should be prepared for it.

Action Items:

Mr. Conway asked for the years of the IRP to be shaded and to put those in a separate cell.

Mr. Hasheider requested customer growth information be sent to the WLAB via email. Mr. Windsor will provide that information.

Attachments: FY17 - Annual Water & Electric Data Update - November Meeting

Attachments: Graph of 2017 Forecast - MW's & MWH's

c) CIP Progress Report

Mr. Williams noted the update is through October, 2017 and should be at high capacity factor on the three projects that match on emission for the entire landfill emission. He added the fourth would increase that. Mr. Johnsen stated the fourth unit would not produce megawatts but would produce megawatt hour production. Mr. Johaningmeier noted that weather drives the production. He said the 2017 production was down for the first couple of months but from May, 2017 and on production was normal. Mr. Hasheider asked what the number would be if all four units ran. Mr. Johanningmeier answered that would increase reliability. Mr. Williams noted the plant holds four units and is at capacity now. Mr. Johnsen advised if more units were added the plant would need to be expanded. He added there has been concern that gas is moving and a treatment facility may be needed. Mr. Parker asked if the quantity of gas was being measured. Mr. Johanningmeier answered that it was and that CWL does the measuring. Mr. Fines asked if it was a complicated process. Mr. Johnsen answered it was adding if oxygen were to be put in the ground that it would cause major issues. Mr. Fines asked if that would be like the underground fire in St. Louis. Mr. Johnsen confirmed that it would be. Mr. Hasheider asked how one would know if a project was bonded or not. Mr. Johnsen stated the CIP in the budget would show that information. Mr. Conway asked if this report contained any FY18 projects. Mr. Ryan answered there were five categories of CIP projects and this was only a list of current projects for the year. Mr. Conway stated the total accounting for the CIP has some shortcomings in terms of knowing how the CIP list matches up with the "Capital projects entry in the restricted assets on the Water and Light balance sheet". He added he would like to translate to point to where we know have funds for the projects approved. Mr. Conway asked if the software would

allow this. Mr. Williams noted the numbers were not tied to the financial system. Mr. Windsor stated that would involve all projects. He added this was a list of current projects. Mr. Windsor said there could be projects that have the initial funding but not scheduled to start for a couple of years. Mr. Conway stated he felt there was room for improvement with the software. Mr. Fines asked if project E0179 was on hold. Mr. Williams confirmed it was. Mr. Conway asked if the Boiler 8 upgrade was finished. Mr. Johanningmeier confirmed it was and the first start was scheduled for November, 2017. He added all boilers would be back up and in service by the end of the year. Mr. Conway stated that on the water side it appears almost all are complete. Mr. Williams confirmed they were, adding those would be removed but four more projects have been added.

Attachments: CIP Update November 1 2017

Attachments: Electric CIP

Attachments: Water CIP

d) Boiler 7 Biomass Conversion Update

Mr. Johnsen advised this has been a working progress for some time. He noted staff was not looking for a decision from the WLAB. Mr. Johanningmeier advised this would continue until the project was complete or told to stop. Mr. Johanningmeier presented a power point presentation on the Biomass Conversion at the Municipal Power Plant (MPP). Mr. Johnanningmeier stated the project concept was to convert Boiler 7 to combust 100 percent wood fuel and produce energy for renewable energy ordinance compliance. He added staff was hoping for a 15 year lifespan once converted. Mr. Johanningmeier stated there has been research done such as reports and studies, a condition assessment (both thermal and computation fluid dynamics), site visits, three rounds of modeling to ensure this will work, and most important, staff knowledge. Mr. Johanningmeier noted the key assumptions as environmental, fuel, economics, and operations. Mr. Johnanningmeier said the project risks were environmental regulations, fuel supply, equipment supply, and market price. Mr. Johanningmeier stated the biggest impact on the total cost was the fuel supply. Next Mr. Johanningmeier discussed the fuel handling systems and boiler modifications. He then addressed ash handling. He noted the MPP was no longer using More's Lake. Mr. Johanningmeier discussed fly ash and ash disposal. He noted the fly ash was collected in the baghouse and the baghouse only needed minor repairs with some control upgrades. Mr. Johanningmeier moved to turbine overhaul. He noted the condenser needed no work at all. Mr. Johanningmeier then discussed the circulating water system. He explained the cooling towers had three that were deficient but had

been re-done and the circulating water lines were still tied to the original lines from 1918. Mr. Johanningmeier then explained the 400 pound steam system had been replaced. Mr. Parker asked when the project would be online. Mr. Johanningmeier answered it would be approximately 24 to 30 months. Mr. Fines asked about the road damage and if there was any cost impact for that. Mr. Johanningmeier answered there was no study done on that. Mr. Johanningmeier stated there were variable operational costs, adding fuel was the largest expense when compared to energy cost. He noted the fixed costs were the capital cost, property tax, personnel, and all annual costs. In summary Mr. Johanningmeier stated the biomass conversion at the MPP was technically feasible, CWL has the necessary air permit to construct the project, approximately 6.9 to 8.9 percent of CWL load could be produced annually, the overall cost impact depends significantly upon the price of biomass fuel, and the rate impact is expected to be between 0.7 to 3.3 percent, based on a fuel cost of \$2.50 to \$4.00 per MMBtu. Mr. Conway requested this power point presentation be posted on the WLAB Google Site. Mr. Fines asked if this was only one alternative. Mr. Johnsen stated it was. Mr. Fines asked if there were other alternatives. Mr. Johnsen advised there were. Mr. Parker asked about the number of storage days. Mr. Johanningmeier stated it may be 10 days. Mr. Parker asked if this presentation could be repeated at the Public Library on November 21, 2017 at noon. Mr. Conway asked if CWL was moving ahead to create natural gas operations. Mr. Johanningmeier answered not at this time.

e) Columbia Utilities Community Relations Structure

Mr. Johnsen advised he had asked Mr. Steve Sapp with Community Relations to come and explain the changes and provide an update on the organizational changes that occurred. Mr. Sapp explained the goal with the changes was to bring community together but keep the experts where their expert level was so as to educate the citizens. He advised the City of Columbia acts as one. He noted there were no new positions added. Mr. Sapp explained that Mr. Adkinson does the Community Relations while the Contact Center was now the one number listed to call. He gave that number as 573-874-CITY or 573-874-2489. Mr. Sapp stated the caller would call that number and would be directed to a live person regardless of the issue. He advised that 87 percent of the calls were handled with one single call. Mr. Sapp stated the goal here was to connect the caller to the individual they would need to talk to. He noted the contact center employees train continuously and they know all about the City. Mr. Sapp then advised the Media Event Services would be hiring one more video producer. Mr. Conway said he gets calls from Texas, Washington, Illinois, Oklahoma, and other states. He noted these calls were from young journalist working with KOMU, ABC, and etc. Mr. Sapp explained with the technology today, it was easy for journalist to get the names and numbers of most anyone. He stated these calls would more than likely continue until they are told to stop. He said journalist want to talk to someone who makes decisions. Mr. Sapp stated the City could work with the boards to eliminate these calls. He stated the City likes to be aware of these

type things. Mr. Conway explained he was always cautious and very reserved speaking to journalist to prevent speaking for the board. He stated if he does provide information, it was information captured in the meeting minutes. Mr. Sapp stated if the WLAB wanted to talk to communication that could be done and could be done on short notice as well. Mr. Sapp encouraged the WLAB to ask what the story is about. He added it was acceptable to say "I do not know". He did express to follow up with "but I will find out". Mr. Conway asked about saying "I do not have an opinion". Mr. Sapp advised there was a lot of "Speculative Reporting" seen. He stated speculative questions do not need to be a concern. Mr. Conway agreed. Mr. Sapp stated if the media asks about complex subject matters, they are asked to come in to talk as there are people that can answer those questions, provide documents, or whatever is needed. Mr. Sapp said a relationship should be developed to work as a team. He noted the local media is always here. Mr. Sapp advised a new communications employee will be hired for CWL and that interviews were scheduled for the following week.

i) Customer Satisfation Survey

f) Summer Irrigation Planning

Mr. Williams provided the irrigation load information for Beulah Ralph Elementary. He advised the October read date was for September usage and this was on an irrigation meter. He noted the request was to see what the school was doing. Mr. Parker asked why a regular meter was not used. Mr. Williams explained commercial accounts usually do have irrigation meters and there was a different rate from commercial to residential. He said commercial rate is a flat rate. Mr. Parker stated the information was useful but his request still exists for the hourly rate for water. He advised there were a few hours that went below level he felt was problematic. Mr. Parker stated his concern was how successful the distribution loads were. Mr. Williams advised that in 2016 there were a few times when advisory boil advisories were issued but none in 2017. Mr. Johnsen stated he felt the outreach had some impact on that. Mr. Williams advised the hourly information was not available. Mr. Storvick disclosed he had heard from Columbia Public Schools on Tuesday, October 31, 2017. Mr. Conway asked what was being done to remedy the whole southwest area in terms of taking actions to upgrade the distribution system. Mr. Johnsen stated there were capital projects to address those needs. Mr. Stovick advised the outreach would continue as well.

i) Beulah Ralph Irrigation Loads

Attachments: CPS Beulah Ralph Elementary Water Usage

Attachments: Low Pressures

IX. CHAIRMAN'S REPORT

a) APPA Utility Accounting Training (Jay)

Mr. Hasheider stated he would like feedback on if the WLAB would want to spend some time on a discussion on this training. The group expressed interest in hearing about the training Mr. Hasheider attended. The WLAB will include this topic on the December, 2017 agenda.

b) MISO/TEA Services and Process Review

Mr. Conway stated he was looking forward to TEA coming back to bring an update on the functionality on where TEA is with MISO. The WLAB decided on a second meeting in January, 2018.

c) Electric Line Extension/Connection Policy

Mr. Conway stated the Council work session will be on November 6, 2017 at 6:00 p.m. He stated the Consultants would be in attendance and staff would be making their presentation.

d) CID Meeting - Downtown Lighting Update (Jay)

Mr. Williams stated he would hear more in the next month or so.

e) APPA Webinars

Mr. Conway referenced the Wireless Pole Attachment webinar that he viewed. Mr. Johnsen stated the purpose was to put wireless communication on poles. Mr. Williams said he had worked with the Legal Department and it was thought that it would be best to get agreements beforehand. Mr. Johnsen asked if there was any interest in each individual signing up for the webinars. Mr. Parker stated he felt the way these have been being done was beneficial.

i) Wireless Pole Attachment

f) Drinking Water Planning Work Group

Mr. Conway advised the next meeting was scheduled for November 13, 2017 at 5:30 p.m. in Conference rooms 1A and 1B at City Hall.

X. GENERAL COMMENTS BY PUBLIC, MEMBERS AND STAFF

Mr. Tom Jensen introduced himself and the company he represents. He stated he was hoping for something that supports battery storage with no cost to the City. Mr. Jensen referenced a webinar on his website that explains how the demand works and invited the WLAB to view it. He stated he felt this would resonate with the citizens as

this would enhance voltage issues and pricing. Mr. Jensen noted it would be ideal for contracts especially if in a partnership with the University. Mr. Jensen ended by referencing the Fly Ash that was discussed by Mr. Johanningmeier. He noted that another solution was recycling as this could be used in concrete.

Mr. Parker stated he had looked at the information that Mr. Windsor had provided on water demand in terms of irrigation. He said he had run the totals for each month and found winter revenue to be higher than justified. Mr. Parker noted the base charge was identical for summer and winter. He advised that if the higher use rate charge was raised sufficiently for the summer months revenue would be higher and come closer to covering the cost for irrigation. Mr. Parker stated the need to look at the rate structure covering the cost to meet the irrigation needs. He stated he felt a number of customers get hit with higher rates in the summer than needed.

Mr. Hasheider suggested a sub-committee to get with staff on net metering. Mr. Johnsen stated staff would support that. Mr. Conway asked if anyone else would be interested. Mr. Fines stated he would like to see the information only. Mr. Parker suggested that Mr. Hasheider and himself work on this then bring it back to the WLAB. Mr. Johnsen instructed Mr. Parker and Mr. Hasheider to coordinate with Ms. Kisch for any agendas required.

Mr. Fines requested smart meters be included on a future agenda.

Mr. Conway stated Insurance Service Organization (ISO) was coming to Columbia to update the current evaluation of Columbia's ISO rating (class 2) for the Fire Department and Water Department. Mr. Conway requested that the Fire Chief attend a WLAB meeting to provide information on the assessment.

XI. NEXT MEETING DATE

December 6, 2017

XII. ADJOURNMENT

The meeting adjourned at 1:15 p.m.

Members of the public may attend any open meeting. For requests for accommodations related to disability, please call 573-874-7214. In order to assist staff in making the appropriate arrangements for your accommodation, please make your request as far in advance of the posted meeting date as possible.