



MURRAY CITY MUNICIPAL COUNCIL COMMITTEE OF THE WHOLE

The Murray City Municipal Council met as a Committee of the Whole on Tuesday, September 6, 2016, in the Murray City Center, Conference Room #107, 5025 South State Street, Murray Utah.

Council Members in Attendance:

Blair Camp, Chair	District #2
Diane Turner, Vice-Chair	District #4
Dave Nicponski	District #1
Jim Brass	District #3
Brett Hales	District #5

Others in Attendance:

Doug Hill	Public Services Director	Jan Lopez	Council Administrator
G.L. Critchfield	Deputy City Attorney	Janet Towers	Exec. Asst. to the Mayor
Pattie Johnson	Council Office	Justin Zollinger	Finance Director
Blaine Haacke	Power General Manager	Sally Hoffelmeyer Katz	Resident
Jennifer Brass	Resident		

Chairman Camp called the Committee of the Whole meeting to order at 5:45 p.m. and welcomed those in attendance. He noted Mr. Hill was sitting in for Mayor Eyre.

1. Approval of Minutes

Mr. Camp asked for corrections and approval on the minutes from July 19, 2016. Mr. Hales moved approval and Mr. Nicponski seconded the motion. All were in favor.

2. Business Items

2.1 Power Department Quarterly Report - Blaine Haacke presenting.

Providing an overview of his presentation, Mr. Haacke explained how the system operated over the summer and where power purchases were made. Power was purchased at an inexpensive rate and was distributed efficiently with a lack of outages and strong reliability this quarter. He discussed the Utah Associated Municipal Power Systems (UAMPS) small nuclear module, referring to a UAMPS meeting held on September 13, 2016, the progression of refueling at Intermountain Power Agency

(IPA), and reported that the 10 year contract at Landfill #1 had expired. The landfill would be looking for a partner for the next 9 and ½ years and Murray's contract allows first right of refusal to continue to utilize the landfill gas.

Summer History

The power department experienced a good, healthy summer and as in the past, power was generated from the Hunter Power Plant in Price, the Colorado River Storage Project (CRSP), the San Juan coal fired plant, and two landfills utilizing methane from the Trans Jordan and the Salt Lake County Landfill. A small hydro at the mouth of Cottonwood canyon, gas turbines and market purchases for seasonal, monthly, daily and hourly purchases throughout the summer were utilized, as well. Mr. Haacke used four graphs to explain totals.

Graph #1 - Peak Load Comparisons. This year's peak at 103 MW was a 4% decrease from last year's peak of 107 MW and the previous year, 2014, which also peaked at 103 MW. Approximately 20-30% of the summer peak load was based on air conditioning needs. An all-time high peak occurred in 2007 at 107.5 MW, which was similar to 2015. Load growth decreased between 2007 and 2015 mostly likely due to the recession.

Graph #2 - Monthly Hydro Generation. Totals for the 2016 summer time-line began in March and ended in October. Water from the canyon produced a total of 9.3 million kW hours this year, which was a 15% increase from 2015 due to an increase in water flow. By comparison, this year's production was high, however, 2014 stretched out for a longer number of months. Seeing run off come down the mountain in a controlled fashion is most desirable. The hydro is 2.5% of the city's entire energy load, however, Murray has full ownership of the hydro and when snowfall appears on mountainsides this is where money is made for the city.

Graph #3 - Monthly Gas Turbine Generation Totals. The gas turbines make up 1% of the city's energy load. The city used gas turbines 51% less than last year and 28% less than 2014. Mr. Camp noted this meant the city was getting plenty of power elsewhere at a lower cost. Mr. Haacke confirmed that and explained six reasons turbines were not used as much this year:

- 1) **Soft wholesale market:** Buying natural gas on the grid made it less expensive than producing. Prices plummeted from \$4.04 in 2104 to \$2.35 per dekatherm this year.
- 2) **Scheduling process changes.**
- 3) **Pre-purchase of high load hours (HLH):** Mr. Camp inquired if the gas contract required a minimum purchase amount. Mr. Bellon explained in the current market pre-purchasing was not necessary. It was decided to discontinue pre-purchasing when prices were actually found to be lower on the spot market. The spot market is used for what is actually needed at the time. Some electricity is pre-purchased as energy demands are easily predicted. High load hour blocks for energy were pre-purchased for summer in April, through UAMPS when the cost was in the \$30 range for July and August, which was less than the federal hydro.
- 4) **Active hourly power exchange (PX) purchases:** This is the on-line internet based UAMPS market.

- 5) **Scheduling of gas generation for peak hours:** Every day projections are made in advance knowing energy would be needed in the afternoon. This is purchased on the PX using other city's surplus resources.
- 6) **Hunter and San Juan coal fired plants were operational 100% of the time over summer.** There were no maintenance or repair issues and because Hunter is completely debt free the city pays only for fuel costs.

Graph #4 - Load Patterns. This graph depicted the load range in a 24 hour period on July 21, 2016. Low load was at 5:00 a.m. and the peak was 5:00 p.m. at 103 MW. The department knows the patterns of people and can predict accordingly. Block by block various resources were pulled together for each hour up until the last segment; it was then turbines were activated avoiding the very high cost of purchasing power elsewhere during peak time. Mr. Haacke explained every pattern for everyday reflects a similar situation.

He noted roof top solar load peaks between noon and 2:00 p.m., which also aides the city in reducing the need for market purchases to some extent.

All graphs are included as Attachment #1.

Gas Turbines

The question was often asked about the value of the gas turbines and why the city would utilize them only two months out of the year. It was a twenty million dollar commitment of great value. Should the grid ever be lost Murray could act independently, operating for days on end with its own resource. It would be hard to put a value on the financial losses for Murray businesses should a loss of power occur for an extensive time. By operating the turbines, he noted savings in June of \$60,000, July \$59,000 and August \$5,600, for a total of approximately \$110, 000 instead of buying power. Moreover, the value is security and reliability for the city when disaster comes.

Utah Associated Municipal Power Systems (UAMPS)

Mr. Haacke thanked council members who attended a recent UAMPS seminar. A good variety of topics were covered, as well as, the opportunity to meet with groups, such as, the Sierra Club, and pro and anti-coal individuals. Discussions on the balancing authorities, regional haze and investor owned utilities (IOU) versus municipals were attended. Ms. Turner was very impressed and felt it was very informative, interesting and well balanced compared to past conferences.

Mr. Haacke encouraged the council to attend the Carbon Free Power Project (CFPP) meeting regarding small nuclear reactors and felt it would be very informative. With the re-construction of the IPA power plant in Delta, Utah, and at the same time, UAMPS constructing a new small nuclear reactor plant in Idaho Falls, Murray will have to decide within the next five or six months whether to go further into the commitment or not, but would consider both parallel regarding costs. At a cost of \$15,000 per year, Murray participates only in the nuclear studies aspect of the project because Murray is not resource short; other UAMPS cities have invested a couple hundred thousand dollars per year, comparatively, due to their short supply of resources. The CFPP meeting will aide in future decisions, as the designer of the nuclear reactor plant would be speaking on operational details and areas of concern, as well.

IPA

In 2027 the plant will be given to Utah by California entities. If there is a market for coal fired plants, it will be utilized and Utah owned. If there is no market for coal fired plants, which is probably the case due to legislation, the plant will be reconstructed in 2022 and become a natural gas plant. Monthly discussions continue with California regarding, size, capabilities and operation and it is possible the plant will downsize, having two 600 MW units for a total of 1200 MW, which is 66% the size of the existing plant. The plant currently continues to provide call back capabilities for Murray City and the city can remain in the project at no expense while considering nuclear costs which are estimated to be figuratively higher. Murray has options other cities do not have and it is his opinion to proceed with both plants and once final costs are in during the design phase, a commitment to that plant will be made more feverishly. Many interests are involved with the Intermountain Power Plant, however, there no permanent commitments at this time.

Landfill #1

The 10 year contract has expired and the original designer of the plant has sold it. Murray participated in a study to determine how much of the excess gas was actually going unused. The completed study indicated another engine of 2 MW could be installed at the facility, but the inter-tie to Utah Power was very expensive, so the idea was abandoned and the methane plant will continue to flare.

Murray can walk away from the plant, however, negotiations on an extension are under way. Although expensive, it is a green resource and Murray receives excellent political value and public relations due to this resource. Murray will propose a 2% increase per year, for ten more years and discussions will continue along with the Mayor's full support to renegotiate the contract by the end of the year. A new contract would come to the council for final approval.

Mr. Camp thanked Mr. Haacke for providing valuable information.

3. Announcements: Ms. Lopez made the following announcements:

- September 7, 2016, was the Idle Free Utah Governors Declaration Event. Mayor Eyre signed the declaration and Ms. Turner would be attending to represent him.
- Monday, September 12, 2016, was a retirement party for Jan Wells.
- UAMPS Conferences. September 12-13, 2016.
- ULCT Convention would be held September 14-16, 2016.

4. Adjournment: 6:31 p.m.

Pattie Johnson
Council Office Administrator II