

MINUTES OF THE WORK/STUDY MEETING OF THE SPRINGVILLE CITY COUNCIL HELD ON TUESDAY, FEBRUARY 11, 2020, AT 5:30 P.M. AT THE CIVIC CENTER, 110 SOUTH MAIN STREET, SPRINGVILLE, UTAH.

Presiding and Conducting:

Mayor Pro Tem Crandall

Elected Officials in Attendance:

Liz Crandall

Craig Jensen

Patrick Monney (arrived at 6:00 p.m.)

Mike Snelson

City Staff in Attendance: City Administrator Troy Fitzgerald, Assistant City Administrator/City Attorney John Penrod, Assistant City Administrator/Finance Director Bruce Riddle, Recorder Kim Crane, Deputy City Recorder Jennifer Grigg, Public Safety Director Craig Martinez, Power Director Leon Fredrickson, Public Works Director Brad Stapley, Recreation Director Corey Meredith, Building and Grounds Director Brad Neel, Community Development Director Josh Yost, Library Director Dan Mickelson, Operations Manager Rod Oldroyd, Power Generation Superintendent Shawn Black, and Museum of Art Director Dr. Rita Wright.

Excused: Mayor Richard J. Child, Councilmember Matt Packard, and Golf Professional Craig Norman

COUNCILMEMBER JENSEN MOTIONED FOR COUNCILMEMBER CRANDALL TO SERVE AS MAYOR PRO TEM FOR TONIGHT'S MEETING. COUNCILMEMBER SNELSON SECONDED THE MOTION AND ALL PRESENT VOTED AYE. THE MOTION PASSED UNANIMOUSLY.

CALL TO ORDER- 5:29 P.M.**COUNCIL BUSINESS****1. Calendar**

- Feb 17 - Observance of President's Day (City Offices Closed Monday)
- Feb 18 - Work/Study Meeting 5:30 p.m., City Council Meeting 7:00 p.m.
- Mar 03 - Work/Study Meeting 5:30 p.m., City Council Meeting 7:00 p.m.
- Mar 08 - Daylight Savings (Spring Forward 1-Hour)
- Mar 10 - Work/Study Meeting 5:30 p.m.

2. DISCUSSION AND PRESENTATIONS**a) Entry/Gateway Signs - Troy Fitzgerald, City Administrator**

Administrator Fitzgerald started his presentation by noting that the entry/gateway signs committee has come to some conclusions. There was a member of the Parks and Recreation Board, as well as staff and an artist on the committee. Redkor Brands, a local design firm here in Springville, won the bid. Springville City received bids from as far away as Virginia and Los Angeles. After the design process, there will be significant dollars in this budget left over for installation. None of the work on location planning, sign build or design has started. This presentation is just several design concepts.

The RFP (*request for proposal*) asked for a family of signs to replace or give direction around town. Many ideas and concepts were submitted. If the Council is comfortable with these concepts, the committee will start working on location planning and cost for sign build through the budgeting process. He continued by showing additional concepts including wayfinding, park entrances, parking, and restriction signs and entry signs.

Councilmember Snelson asked about the entry signs. Administrator Fitzgerald said all of our parks have existing signage. All of our buildings have relatively new signs. Those signs will not be replaced in the foreseeable future. He described the first proposal and noted that the committee focused on *thinking outside the box* designs instead of traditional looking designs. Councilmember Snelson noted that Art City is not visible because it is white. Councilmember Jensen asked about entry sign locations. Administrator Fitzgerald said the entry signs will be at primary entrances to the city while working within the UDOT right-of-way policy. Many of our primary entrances are on UDOT roads. Staff suggests an entry sign at the 400 South interchange, maybe near IHOP. Staff will discuss locations and bring ideas back to the Council. Mr. Oldroyd asked if the entry signs have lighting. Administrator Fitzgerald answered yes. Councilmembers Snelson and Jensen like the first proposal. Administrator Fitzgerald moved on to an *out of the box* idea for a roundabout. Councilmember Snelson clarified that the street signs would be replaced as needed. Administrator Fitzgerald said the new design for street signs would be seen in the west part of town sooner because that is where the majority of current development projects are. He concluded by stating staff will keep the Council apprised of progress. Recently Salt Lake and Orem have added arrival signs. Councilmember Snelson complimented the wayfinding sign. Director Stapley noted there are clear zones on state highways that require breakaway signs.

b) Power Generation Presentation - Shawn Black, Power Generation Superintendent

Superintendent Black started his presentation by highlighting 2019 Power Department milestones including:

- Refinanced Nebo Power Plant debt saving almost \$500,000 over the next five years. The plant will be paid off in 2025.
- Hedged three natural gas fuel purchases through 2026.
- Terminated the Blue Mountain Biogas deal six years early after they breached their contract. Replaced it with a market baseload contract at \$40 per megawatt compared to \$70 per megawatt with biogas.
- Contracted with Olmsted Hydroelectric Plant which is very cheap and produces power only in the summer peak load months.
- Contracted for three megawatts with the Red Mesa Tapaha Solar Resource, located on the Navajo Nation in San Juan County.

He continued by stating that our power resources are more diversified than ever which is good because the San Juan Coal Project goes offline in 2021 eliminating some of our market power. Current resources include coal, natural gas, wind, water and solar. Customer-owned solar is less than .5%. In 2011 Springville City received 68% of its power from coal. In 2017 there was more diversification with the biogas and some solar. In 2019 Springville City bought less biogas, more market, and more solar.

He explained that when procuring resources, the load curve determines where the power purchase originates, whether it is biogas, renewable or carbon-based. Reliability, delivery and time of delivery can determine the price as well as political risk which depends on our City Council, market risk and changing EPA regulations. Past Councils wanted the price charged to residents to be the same no matter the market, in other words, no shocks to the utility bill and keep the margins.

Mr. Black continued by showing a graph from Siemens illustrating the Springville City variations of load throughout the day as well as the availability of wind and solar. It shows that wind is high in the morning. Solar is high through the midday, but Springville City power demand is highest in the evening. The next graph showed that Springville City's summer load climbs about 100% compared to the other



nine months of the year. Daily power planning looks different from long term planning because load curves vary from day to day. Monday is different from Tuesday through Thursday. Fridays, weekends and holidays are also different. From 4:00 a.m. on a Sunday to the afternoon in the summer there is a large load curve jump of almost 40 megawatts; a 200% change in the power load from day to night.

Superintendent Black transitioned his presentation by asking why Springville needs to own its own power generators. He listed reasons like protection against an unknown future of power and resources, maintaining a consumer price ceiling, stabilizing budget planning, local control, insurance for loss of other resources, and emergency power for the city sewer plant. Councilmember Snelson asked about a catastrophic event. Superintendent Black answered four of the engines take 500 gallons of diesel per hour. There would be brownouts throughout the city, as the power plant rotates power between substations. The process of load-following with one generator and base loading with another involves a very technical generator switching process. Superintendent Black designed instructions with fourteen steps and pictures. The best advantage for Springville owning its own power generation is stabilizing the budget with no shocks to the power bill by using our generators when the load curve demands.

He continued by showing the ages of our engines. The older engines were built in 1967, 1978 and 1986. Technology has changed in the last 40 to 50 years. Efficiency, emissions and engine repairs are key drivers in replacing these older engines. The engineers that know how to repair these older engines have retired. New engines are very efficient in ways like reusing waste heat. In addition, newer engines will maximize the air quality permit for the power plant. The 2017 resource mix shows that throughout the year, the Whitehead Power Plant (WHPP) only provided about 6% of the power for the year. That percentage is deceiving because the times in the summer when the WHPP provided power were the most expensive part of the daily and seasonal load. Springville Power uses about 277 million kilowatt-hours per year. WHPP provides 12 million kilowatt-hours per year. That equals a savings of \$1.4 million in addition to providing backup to 25% of the resource portfolio. That means Springville Power buys power at market prices all year long because we can rely on those generators as insurance for less reliable, but more affordable resources on the market. We can buy more diverse and affordable resources because of the generators.

He listed large projects financed from the reserve balance like the Whitehead Plant expansion, the new Operations Center and the two Caterpillar generators. Those large projects are paid off and there has been an unrestricted fund balance growth since 2004. He compared the policy of buying power off the grid to purchasing new engines. Power purchases have no future value, where an engine is an asset. Engines cost about \$1 million per megawatt to buy. If Springville City buys an engine, which is an asset and hedges the fuel with a ten-year contract than the comparison showed a savings of \$2.7 million. Councilmember Snelson asked if the presentation was based on buying new or used engines. Superintendent Black answered it is better to buy a new engine because of modern electronics. He asked the Council to read the report he wrote for more details.

Superintendent Black continued by explaining the design of the power plant. The radiators are on solid cement. There are trenches for pipes carrying natural gas, cooling water, diesel, and air. The new engines have air intakes with big air handlers to improve horsepower. Pollution from west side construction kills the air filters. He explained that the air intake for the cooling towers needs to be heated in the winter which is a waste of energy. He hired a company called Scantech to create air pollution scenarios and they proved that distance from pollution and stack height matter. Automobile traffic near the power plant and the stacks increase pollution. At the current stack height, our air mixtures are not diluted enough for our air quality permit. Scantech set up sensor stations to create air quality scenarios.

Superintendent Black believes a power plant should be out in the middle of a farm to avoid car exhaust. Councilmember Snelson asked about emissions. Superintendent Black answered that the Scantech testing proved that raising our stacks is necessary.



Superintendent Black continued by explaining that the current stacks are 61 feet tall. The proposed new stacks need to be 85 feet tall to get the dissipation needed. Because of our current air quality, our permit prohibits running all of our engines at once. In order to run all the engines, we need to purchase new engines and raise the stacks. Councilmember Snelson asked about replacing the engines all at once. Superintendent Black answered that the current proposal is to replace three engines at once. Currently, there are four old engines and an empty foundation for a new engine. The best option is to buy three new engines. This gives Springville about 28-31 MW (megawatts) instant capacity depending on which engine Springville selects.

Councilmember Jensen said because the Power Department has planned ahead, the reserve balance is appropriate. Some neighboring cities have their own power and some don't. He said Springville City is doing a great job. Councilmember Snelson said we are better off. Superintendent Black said the price of natural gas will drop. Eight gigawatts of coal production ends in the next few years. Springville City can adapt to changes in the market because of our natural gas resources.

He also researched the cost of municipal solar batteries compared to natural gas engines. He researched 40 feet container solar batteries with an estimated 15-year lifespan. The price is \$7.61 per megawatt for a natural gas engine with a 40 or 50-year lifespan. A solar battery costs \$115.98 per megawatt just to buy the solar batteries without filling it with market power or solar power. Mayor Pro Tem Crandall thanked Superintendent Black for taking the time to add the costs of solar batteries to his report. Councilmember Monney asked about what happens when the 40-foot container solar battery reaches its lifespan. Superintendent Black said they would need to be recycled. Superintendent Black reviewed global fuel prices. Councilmember Monney said as a member of the Power Board for the past seven years, he is amazed at how we have diversified and changed our power portfolio. When the power load demand goes up, instead of going out to market, we can use our generators to keep the costs down and avoid a large price hit.

3. MAYOR, COUNCIL, AND ADMINISTRATIVE REPORTS

c) Discussion with Department Directors

There were none.

d) Mayor and Council Reports

Mayor Pro Tem Crandall thanked department directors for preparing for all the extra meetings on the budget this month. She complimented Superintendent Black on his expertise and presentation.

4. CLOSED SESSION, IF NEEDED - TO BE ANNOUNCED IN MOTION

The Springville City Council may temporarily recess the regular meeting and convene in a closed session to discuss the character, professional competence, or physical or mental health of an individual, pending or reasonably imminent litigation, and the purchase, exchange, or lease of real property, as provided by UCA 52-4-205.

There was none.

5. ADJOURNMENT

COUNCILMEMBER CRANDALL MOVED TO ADJOURN THE WORK/STUDY MEETING OF THE SPRINGVILLE CITY COUNCIL AT 6:19 P.M.

COUNCILMEMBER SNELSON SECONDED THE MOTION, ALL VOTED AYE.

This document constitutes the official minutes for the Springville City Council Work/Study meeting held on Tuesday, February 11, 2020.

I, Jennifer Grigg, do hereby certify that I am the duly appointed, qualified, and acting City Recorder for Springville City, of Utah County, State of Utah. I do hereby certify that the foregoing minutes represent a true and accurate, and complete record of this meeting held on Tuesday, February 11, 2020.

DATE APPROVED: _____ March 17, 2020 _____

Jennifer Grigg
Deputy Recorder

