

**WORK SESSION TO DISCUSS  
CARBON FREE SMALL MODULAR REACTORS  
MAY 2, 2019  
6:00 PM**

|               |                                                                                      |                                                                                                  |
|---------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| PRESENT:      | Tyler Vincent<br>DJ Bott<br>Alden Farr<br>Ruth Jensen<br>Mark Thompson               | Mayor<br>Councilmember<br>Councilmember<br>Councilmember<br>Councilmember                        |
| ALSO PRESENT: | Dave Burnett<br>Mary Kate Christensen<br>Mike Nelsen<br>Derek Oyler<br>Jason Roberts | Public Power Director<br>City Recorder<br>Police Chief<br>Finance Director<br>City Administrator |
| EXCUSED:      | Tom Peterson                                                                         | Councilmember                                                                                    |

Mr. Burnett introduced Jackie Coombs from Utah Association of Municipal Power Systems (UAMPS).

Ms. Coombs gave an update on the Carbon Free Power Plant (CFPP) located at the Idaho National Laboratory in Southeastern Idaho.

This will be a phased project and each phase will have a budget which cannot be exceeded. If it is, participants may withdraw. The final right to exit the project will be at the PMC decision to proceed to construction (2023). They are still in Phase 1. It is anticipated the end of Phase 1 will be August 2021.

Ms. Coombs reviewed the project's 2018 accomplishments:

- UAMPS finalizing renewal of existing 50/50 cost sharing arrangement with DOE
- 5-year term
- \$119 Million
- Memorandum of Understanding
- JUMP (Joint Use Modular Plant)
- Power Purchase Agreement
- DOE Loan Guarantee
- Site Support
- Site Agreement
- Seismic Study (SSHAC)
- NuScale Support
- \$226M under original DOE award
- \$90M under recent awards

They continue to work with the site evaluations. They are working with the Shoshone Tribe and have completed a water cooling study that was presented to the board. They have yet to decide whether to go wet cooling or dry cooling. Initially, dry cooling is the best option for the project. The final decision will be made by the Board of Directors in the near future.

Ms. Coombs continued that the Regional Economic Development for Eastern Idaho did a study and reported that there will be an estimated 3,356 construction worker jobs during buildout and 300+ fulltime operational jobs. Only 20% of these jobs require more than a high school diploma.

CFPP pricing has gone down. The anticipated cap will be \$55 per MWh in 2018 dollars. It remains competitive with natural gas. It is a great market solution for all UAMPS members.

Ms. Coombs stated that in order for the power sales contracts to become effective, there has to be 150 MWh of interest; they are currently at 115. Many members, including Brigham City, are considering asking for increases in their entitlement.

Mr. Roberts came to the table and said his concern is that there are no other sources identified. There is a significant risk in being in the open market. This project is not dependent on natural gas or other markets.

Other Risks:

- Construction risk for this project is moderate. This risk can be mitigated if we are confident with the outlined construction process.
- In a significant disaster that makes the plant inoperable, this generation would not be available. UAMPS insures all its projects, but the details of insurance for the INL SMR project have yet to be determined.
- This project is dependent on securing sufficient water rights for operations. We anticipate this issue will be resolved prior to making a final decision.
- Transmission risk is obviously apparent. The transmission will all happen on PacifiCorp infrastructure, which is normal course of business for UAMPS.

The primary regulatory risk for this project would be if the operation of the units caused negative environmental impact. It is anticipated that this project will be perceived by many environmental groups as clean power. The waste associated with the project is sealed and stored on site. This waste is the primary environmental concern, but this is the cleanest reliable source of power identified at a reasonable cost.

The estimated cost would be \$55 per MWh in 2018 dollars. 2019 forward contracts for a similar load would cost on average \$60 per MWh.

|                                        |                                  |
|----------------------------------------|----------------------------------|
| Current Average Costs in 2019 Dollars: | \$60.00 @ 10.3 MWh = \$5,413,680 |
| INL SMR Cost in 2027 Dollars:          | \$65.73 @ 10.3 MWh = \$5,930,695 |
| INL SMR Cost in 2019 Dollars:          | \$56.10 @ 10.3 MWh = \$5,061,790 |

This project is significantly dependent on participation from the Department of Energy and other Department of Energy grant funding. If this funding were unavailable, this project would need to be re-evaluated.

The only anticipated variable costs in this project is labor and maintenance. We anticipate the cost for the power should remain consistent through the life of the project.

Councilmember Thompson asked what would happen in three years if everything falls apart. Ms. Coombs explained that all UAMPS members would be in the same situation. Most likely, member cities would have to go with natural gas.

Councilmember Jensen asked if staff looked into getting energy from the Waste Treatment Plant. Ms. Coombs said most methane gas is derived from garbage and the garbage has to be capped correctly. She

will check with other utilities in the nation to see if any of them currently get methane from a treatment plant.

Councilmember Thompson made a motion to target the City's subscription at 15.25 MW for the SMR project. Councilmember Bott seconded the motion. The motion unanimously carried.

The meeting adjourned at 6:57 p.m.

*The undersigned duly appointed Recorder for Brigham City Corporation hereby certifies that the foregoing is a true, accurate and complete record of the May 2, 2019 Budget Work Session.*

*Dated this 6<sup>th</sup> day of June 2019.*

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*Mary Kate Christensen, Recorder*