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The Idaho Falls Power Board of the City of Idaho Falls met Thursday, July 8, 2021, at the Idaho Falls Power Energy Center, 140 S. Capital, Idaho Falls, Idaho at 7:00 a.m.

Call to Order, Roll Call, and Announcements:

There were present:

Mayor Rebecca L. Noah Casper
Board Member Michelle Ziel-Dingman
Board Member Jim Francis
Board Member Jim Freeman
Board Member Lisa Burtenshaw
Board Member John Radford
Board Member Thomas Hally

Also present:

Bear Prairie, Idaho Falls Power (IFP) General Manager
Randy Fife, City Attorney
Doug Hunter, Utah Associated Municipal Power System's (UAMPS) General Manager (via Zoom)
Mason Baker, UAMPS' General Counsel (via Zoom)
Linda Lundquist, IFP Board Secretary

Mayor Casper called the meeting to order at 7:02 a.m. and summarized for the Board that there are not significant changes to consider in the proposed resolution and emphasized that the project is still looking for up to five percent support from the city with the expectation of full reimbursement if the project gets built.

Subscription for Licensing Phase I of the Carbon Free Power Project

General Manager (GM) Prairie reviewed the background and timeline of the Carbon Free Power Project (CFPP) and reminded the Board that the original contract requirement still applies if notice is given to withdraw, that incurred costs will need to be paid back. He continued to say that based on the credit ratings of its members, UAMPS is financing everyone's participation with a line of credit and pointed out that interest charges will be accrued. He also noted that if the project goes into bankruptcy, IFP could be responsible for more money than originally agreed to because of its excellent credit rating. Board Member Freeman asked if we know the costs to date and GM Prairie said he put roughly \$800,000 into the budget this year as a placeholder and added that Mr. Hunter had previously indicated that all costs will get rolled into the bond and put on a forty-year payback schedule if the project gets built. GM Prairie explained how the project has been downscaled in size and pointed out that the leveled cost of energy (LCOE) over 40-years would be slightly more now. Accordingly, UAMPS has increased the target LCOE used for project economic evaluation purposes from \$55 per megawatt hour (MWh) to \$58 per MWh. Board Member Hally asked if the performance or life expectancy changes by moving from a 50-megawatt energy (MWe) to 77 MWe module and GM Prairie said the life expectancy has not changed, but pointed out that by moving to 77 MWe, the ability to ramp up and down is less flexible now from what has been explained to the CFPP project management committee (PMC). He also reminded the Board that the new uprated unit is still pending approval from the Nuclear Regulatory Commission (NRC) and said if NuScale does not get approval it would trigger another exit from his understanding of the contract as presented in PMC meetings.

Board Member Francis asked if a Class 3 status was expected in early 2022 and GM Prairie said that would be a question for Mr. Hunter when he comes online and noted that the project is currently at a Class 4 and explained that a Class 3 is indicative of prices where the counts and materials are dialed in more and clarified

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that a Class 1 is where the project will have actual bids back from contractors and going into construction. Mayor Casper asked if the ability to be reimbursed is lost in a Class 3 and GM Prairie said the utility will get reimbursed one hundred percent (100%) if the long-term costs go over \$58 per MWh in the LCOE and the PMC votes to terminate the project. Mayor Casper said that it's important to have some reassurance on the schedule of the design certification and GM Prairie agreed that is a critical aspect of the project. Board Member Freeman pointed out that previously, the \$55 per MWh model was in terms of 2018 dollars and noted that UAMPS has negotiated to move it to 2020 dollars with NuScale. GM Prairie illustrated that when the project comes online in 2030, \$55 per MWh would equate to roughly \$60-64 per MWh, depending upon what inflation assumptions are used. He pointed out that the new proposed design, which is a 6-module plant generating 462 MWe is still sitting around 103 MWe subscription. He explained how each participating member has a vote in the project and from there, it goes to the board of directors in which he is also a director, for a final vote. Board Member Francis asked if the PMC has seen Exhibit A and GM Prairie said the PMC approved the amendments to the Development Cost Reimbursement Agreement (DCRA), but that he has not seen the final agreement. He added that the resolution in the packet has updated information to consider.

Board Member Radford asked GM Prairie if the city is still going to need peaking power and GM Prairie said yes and explained that energy costs during this recent extreme heatwave and pricing event are around \$300 - \$400 per MWh in peak times, but in the middle of the day and other times, they run closer to \$30 - \$40 per MWh and he pointed out that peak energy is what the markets are showing are in short supply this summer and likely going forward. He also noted that IFP's load shape is the same as others' where peak power is needed and not flat 24X7 power. He continued to point out that the problem nuclear faces are base-load energy because if a small modular reactor (SMR) only runs for 1000 peak hours per year, then it's competing with subsidized, lower-capital, non-dispatchable renewable energy like wind and solar that floods the market with excess energy eighty percent (80%) of the time. Board Member Radford said that was his understanding too. Board Member Burtenshaw asked if existing nuclear plants were shutting down due to life-expectancy and GM Prairie said no, that it's due to economics and pointed out that those older plants cost much less to run (between \$32 and \$38 per MWh) than the CFPP and are still shutting down due to more economical options and market price forces in regions of the United States where they have an organized market. Board Member Radford added that the Biden Administration is trying to force them to remain open. Board Member Hally asked if the city has reduced its share or if any member has increased their share? GM Prairie said that he doesn't believe anyone has done any substantial megawatt increases from the last time but has heard there may be some utility increases this off-ramp/re-election period. Mayor Casper pointed out that the strategy for some is to increase shares later in the project and GM Prairie agreed that had been a strategy that has been discussed in past PMC meetings. Mayor Casper talked about the renewed research efforts in battery storage and GM Prairie agreed that the future will likely include a little of everything, including advanced nuclear technology, solar batteries, hydro, etc.

Mayor Casper introduced Mr. Hunter and Mr. Baker of UAMPS who joined the discussion via Zoom and asked for clarity on the city's risks and financial obligations. Mr. Hunter identified several items that he views as de-riskers of the CFPP and gave the following examples; Class 2 engineering estimates that could change pricing, licensing through the NRC, the Department of Energy's (DOE) \$1.4 billion dollar award (which is in the process of modification but hasn't seen any pushback from the DOE), the reduction from twelve (12) to six (6) modules, asking for heavier front loading in the first few years (minimizing debt and government costs, which is UAMPS' responsibility), second contract with NuScale (DCRA), engineering procurement contract (which outlines the complete scope and responsibilities of all parties), move by Fluor to increase estimate costs associated with the run up in construction costs, increased owners cost to be more conservative, and the dry cooling concept is coming in closer to \$56 per MWh. He stated the lessons learned

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from Summer and Vogel were that they didn't have a complete scope of their project and pointed out that UAMPS has hired Project Director, Shawn Hughes, whose experience includes bringing up the United Emirates AP1000 reactors, bringing the South Korean reactors online, and is currently finishing up work on the Ontario Power Nuclear Refurbishment Project. Mr. Hughes he's been working closely with Fluor and NuScale to ensure that very detailed workorders and a complete scope of work is received. Mr. Hunter said these three contracts will allow the project to proceed through to the next off-ramp at \$58 per MWh with one hundred percent (100%) reimbursement if \$58 per MWh is exceeded. GM Prairie asked what class estimate the project would be at by the next off-ramp period and Mr. Hunter said it would be a Class 2 (later in the meeting Mr. Baker reminded Mr. Hunter and the Board that there will be an off-ramp at a Class 3 estimate), which is a pre-vendor bid. He clarified that a Class 1 is a definitive estimate where there would be enough information to decide whether to build the project. Mr. Hunter said if the estimate increased to \$58.01 per MWh, that would trigger an off-ramp and the project could be cancelled with full reimbursement. Mayor Casper asked if the design modification certification would be back by the Class 2 and Mr. Hunter clarified that it wouldn't be a design modification certification but a standard design application. He reiterated that the design has been approved and is in the final stages of the public comment period with the NRC. He reiterated the changes to the design and added there will be one license for six modules. Mr. Hunter said that the NRC has 60 days to accept the application and added if it's not accepted, there could likely be a problem. Mr. Baker agreed with Mr. Hunter that the combined operating license application (COLA) shouldn't pose a problem and will be submitted seven months before it's anticipated the standard design application would be approved so there should be good visibility in how the upgrade approval is going. Mr. Hunter said the reason they are asking for budget adjustments in this off-ramp period is to stay on the 2029 schedule, which will save time and avoid costly delays. Board Member Francis asked if reimbursement eligibility changes if the city reduces its commitment to one or two and a half megawatts and Mr. Hunter said yes, the project would be reimbursed if UAMPS cancels the project. Board Member Francis asked if there is an off-ramp between Class 3 and Class 2 and Mr. Hunter initially said no and added that there could be a chance at an economic competitive test (ECT) run next year at the Class 3. He later corrected that statement and said per Mr. Mason that there will be a Class 3 off-ramp in September 2022. He reminded the Board that any participant can withdraw, but will be committed to the current phase, which runs to February 2024. Board Member Francis asked if once the project gets to a Class 2, would that be after the NRC has approved the COLA and Mr. Hunter said no. Board Member Radford asked if there has been increased interest or subscription in the project and Mr. Hunter listed several letters of interest and added that most of the current participants are increasing their allocations and one that exited the project is coming back in at their same entitlement. He said he expects full subscription by the end of the year. Board Member Radford asked Mr. Hunter to explain peaking versus baseload and asked why there is so much interest in this number. Mr. Hunter said that the most desirable part of the project is to have capacity on the system, the ability to bypass the steam generation and go instantaneously to condenser, the ability to ramp and seasonally modify and he pointed out that those traits are not possible with renewables. He explained what an energy imbalance market is and pointed out that the system is woefully short of capacity and energy and noted that Bonneville Power Administration (BPA) is interested in seeing how the units could be dispatched into the Southwestern market. Board Member Radford asked if Mr. Hunter believes if there has recently been more nuclear support from California and/or the Biden Administration and Mr. Hunter said the Biden Administration and the Secretary of Energy has been very supportive of the project. After Mr. Hunter and Mr. Baker exited the call, there was a discussion on the DOE award and process. Board Member Burtenshaw asked how the contract changes with Fluor and Mayor Casper explained the difference between Fluor and Fluor Corporate and added that she thought Mr. Hunter eluded that Fluor Corporate will possibly take on corporate partnerships. GM Prairie talked about the prior energy crisis in California and what the energy markets are expecting moving forward.

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Board Member Francis commented that GM Prairie has advised the Board that the utility needs a peaking plant that will supply the city and added that the Board should be thinking about what a project like that would look like in terms of costs and future partnerships with organizations like Idaho National Laboratory (INL). He put the question to the Board to consider why the city is pursuing the nuclear path? Board Member Radford stated that the city needs the capacity at some level and added that resiliency is important for the confidence of our customers. He pointed out that the city hasn't had to deal with what California has dealt with and added that this technology is needed for the future and said he doesn't think there's enough producing power in the river and added that carbon free power makes sense, especially if future pricing is affordable. Board Member Hally commented that the uncertainty of the project gives him some pause and he gave examples of other cities and states that are worried about their future energy source. Board Member Freeman stated that he feels the project is worth taking the risk and pointed out that the city has the money and resources like our partnership with INL to be involved in a project of this scale. Board Member Burtenshaw asked GM Prairie what other opportunities would be available if the CFPP doesn't move forward. GM Prairie said he is meeting with INL and other UAMPS utilities about building a clean energy researching plant that can burn clean fuels like hydrogen. Board Member Burtenshaw asked for clarification if this was an either-or scenario and GM Prairie said the world is fraught with failed nuclear projects due to the economics and emphasized that he is interested in diversity and spreading the risk over multiple projects instead of putting all the money into one project that may not come to fruition. Mayor Casper pointed out how climate change is reshaping the industry and agrees that putting money in multiple interests hedges against the uncertainty. She continued to say that 5 MWe is not very much and agrees with Board Member Freeman that it's an affordable investment. Board Member Hally said that the adjustment to 5 MWe was appropriate. There was a discussion on hydrogen and battery storage.

GM Prairie committed to cleaning up the resolution language to reflect the discussed comments and correct offramp dates and dollar amounts before the next Council meeting. Board Member Francis added that he would like the item moved to the regular agenda and Mayor Casper pointed out that was an error in the system and will be part of the regular agenda. There was a discussion on the project processes and the amount of money committed at each offramp period. GM Prairie said he would like to add the accomplishments of the project to the resolution as well as UAMPS' projections and expectations. Board Member Francis made his reservations known and signaled he's not sure how he'll vote. Mayor Casper pointed out that the project has completely changed over the last year. GM Prairie agreed there has been a reset and this is an opportunity to be more specific in the resolution. There was a short discussion about whether the risks outweigh the outcome. GM Prairie summed up to the Board and said that the CFPP is not without risk, and that at some point soon if the project isn't fully subscribed that the PMC must look at why. He said he will feel more comfortable when the project progresses throughout the year and gets closer to being fully subscribed, which could bring the cost down from five percent to one percent, which is where he believes it should be for the city and added that he doesn't believe the project is viable if it's not fully subscribed.

There being no further business, the meeting adjourned at 8:46 a.m.

s/ Linda Lundquist _____

Linda Lundquist, BOARD SECRETARY

s/ Rebecca L. Noah Casper _____

Rebecca L. Noah Casper, MAYOR