MALHEUR COUNTY COURT MINUTES
April 14, 2021

The regularly scheduled meeting of the County Court was called to order by Judge Dan Joyce at 10:00 a.m. in the County Court Office of the Malheur County Courthouse with Commissioner Don Hodge and Commissioner Ron Jacobs present. County staff present was Administrative Officer Lorinda DuBois and Planner Eric Evans. Notice of the meeting was posted on the County website and emailed to the Argus Observer, Malheur Enterprise, and those persons who have requested notice. The meeting was audio recorded. The agenda is recorded as instrument # 2021-1581

OWYHEE PUMPED STORAGE PRESENTATION

Matthew Shapiro, CEO (Chief Executive Officer) of rPlus Hydro LLP met with the Court and gave a presentation on the Owyhee Pumped Storage proposed project (concept). Mr. Shapiro is the CEO of rPlus Hydro and Gridflex Energy and is based in Boise and focuses on pumped storage hydropower development. rPlus Hydro was formed through a partnership between Gridflex Energy and rPlus Energies. rPlus Energies was formed as a renewable energy developer and financed by the Salt Lake-based KC Gardner Company, one of the largest developers of commercial real estate and active in the Salt Lake, Boise, and Las Vegas areas. Interest in the Owyhee Reservoir site started ten years ago and in terms of the market things are looking more interesting for these types of projects. Pumped storage projects basically involve two reservoirs, one at a lower level and one at an upper level and they serve as large scale energy storage projects. These projects have been used around the world for 100 years. A good pumped hydro energy storage site has a high vertical drop over a short distance and sometimes an existing reservoir can be used for either the upper or the lower reservoir. In this proposed project, Owyhee Reservoir would be the lower reservoir. Most of these types of projects in the US were constructed prior to 1993; there are 43 projects operating in the US and they were built by utilities or the federal government in the days of nuclear development; they had a lot of extra nuclear generation in the middle of the night and they would use that less valuable energy to pump water from the lower reservoir to the upper reservoir and then when power was needed during the day, during a high demand period, they would reverse it, and water would flow downhill into the lower reservoir generating power through the hydro turbines. The interest in those types of projects dwindled in the 90's and early 2000's as there wasn't a need for large-scale energy storage. The need is changing now because of all of the wind and solar on the grid. Mr. Shapiro's companies have been actively looking for the best new sites in the country and initiating the study process on some of those sites and the very long-term permitting timeline on those projects. The Owyhee project is 1 of 10 that is currently being focused on.

The Owyhee pumped storage project would involve construction of a new 100-acre upper reservoir more than 1600 feet above Owyhee Reservoir. The size of the project being considered is 600 megawatts - which is standard for pumped storage projects. This amount of power might represent one-half to one-third of the Treasure Valley's peak power demand on a hot summer day. Projects of this scale are sought to provide the right economics for these types of projects. However, the amount of water involved for 600 megawatts and eight hours of energy storage is quite small.

Because of the high vertical drop, only 3500-acre feet of water is needed, which would be cycled up and down between the reservoirs; this represents about 1/3 of 1% of the full capacity of Owyhee Reservoir.

Numerous different aspects of this concept (proposed project) are being considered such as, how to build it and minimize disturbances to reservoir visitation during the construction phase. Once operational, the only thing anybody would see if they were on the upper side would be the upper reservoir and a transmission line coming out on the upper side that would head towards the transmission corridor. Other than that, there would be no noise or visual impact; and fluctuation to the reservoir would be very small.

These types of projects require licensing from the Federal Energy Regulatory Commission (FERC) and a preliminary permit, which is really just a placeholder, has been filed and received. The project would be a $1.2 billion investment that would last 75-100 years; these types of projects last a very long time and this project would have minimal negative impact.

How does pumped storage work?: When you have excess solar energy in the middle of the day or wind energy in the middle of the night that is not valuable or needed, utilities can use that energy to pump water from the lower reservoir to the upper reservoir and then when power is needed flexibly flip a switch and within seconds power is generated that is going to the grid to meet power demands - so it's basically a giant battery. There is some efficiency loss in the cycle, about 20-25%, so the overall efficiency is 75-80%; it is the best proven form of large-scale energy storage that utilities currently use.

Owyhee Pumped Storage Project Features: Construction of a new upper reservoir (surface area of 100 acres) with a 130-foot-high by 1300-foot dam; 3500 acre-feet total capacity. Owyhee Reservoir would be the lower reservoir. There is over 1600 feet of vertical drop and about 15,000 feet of horizontal distance of tunnels which would be roughly 22 feet in diameter connecting the upper reservoir to a powerhouse; and then the underground powerhouse with another tunnel going to the existing reservoir (the powerhouse would have the generating units which reverse and serve as pumps). A transmission line would be built from where the transmission line would come out of the ground from the underground powerhouse and that would lead to the existing 500KV transmission corridor and head east, most likely to the Hemingway Substation near Melba, Idaho (about a 35-mile line through an existing designated transmission corridor).

Owyhee Reservoir is an existing reservoir of significant size; there is a very high head site (vertical drop); the topography at the upper reservoir site is a natural draw and minimizes the size of the dam that would need to be built to obtain the desired storage capacity; the steep and rocky shoreline is good as it means that what minimal fluctuations there would have less impact on shoreline life; and there is a major transmission corridor near the site.

The project would require a one-time fill of 3,500 acre-feet with an estimated evaporation of 200-acre feet makeup water needed for the upper reservoir site. 3,500 acre-feet is about 1/2 of 1% of

the active storage volume and a very small percentage of the equivalent of the amount that's released every year for irrigation.

Preliminary analysis was run on what fluctuations might be in an 8-hour cycle at 600 megawatts emptying and filling the upper reservoir during both a normal water year and a low water year. In an average water year, the maximum rate of elevation change in the course of the day was 3.9 inches; maximum rate of change in elevation was approximately .5 inch per hour. In an extreme low water year, it was a bit higher with a 6-inch fluctuation in each direction; the rate of change was almost 1 inch per hour, which is something that requires more studying and discussion with Bureau of Reclamation and other parties to make sure that the level of impact is acceptable to normal operations and recreation.

The upper reservoir (forebay) water may get a little warmer but should not have any noticeable impact on the temperature of Owyhee Reservoir. The primary impacts to the surface area would be seen during the construction period of the upper reservoir - which would not be visible from the recreation areas below; and also, the transmission line routing and building the substation.
The pumped storage cycling may help to reduce algae blooms and oxygenation problems in Owyhee Reservoir - a potential benefit of the project.

Strategies to minimize impacts during the construction period are being considered. Proposed construction sequence is: Construction of the access tunnel from a point within the state park; excavation of the underground powerhouse cavern; construction of water tunnels and upper reservoir; installation of powerhouse equipment and construction of the intake/outlet in Owyhee Reservoir; and construction of the transmission line. Almost all of the construction, except for the upper reservoir and transmission line, is underground. In order to minimize the construction phase impacts all the heavy equipment would be brought in during the off-peak season (November-March); access tunnel construction would begin during off-peak season; Fisherman's Road would be improved to allow light vehicle access for staff; and use of a conveyor type system for delivery of material from the lower area to the upper area.

A variety of permits would be required for the project.

Construction phase employment would probably be at least 300 full-time employees over a period of 4 years; during operation of the project it would employ approximately 20 full-time staff.

Mr. Shapiro answered questions from the Court members.

See instrument # 2021-1580 for the written presentation.

COURT MINUTES

Commissioner Jacobs moved to approve Court Minutes of April 7, 2021 as written. Commissioner Hodge seconded and the motion passed unanimously.

BUDGET TRANSFER RESOLUTION

Commissioner Jacobs moved to approve Resolution No. R21-12: In the Matter of Fund Transfers Under Local Budget Law ORS 294.463. Commissioner Hodge seconded and the motion passed unanimously. Funds are transferred within the Health Department budget. See instrument # 2021-1578

BUDGET COMMITTEE

Commissioner Jacobs moved to appoint Bob Skinner as a member of the County Budget Committee. Commissioner Hodge seconded and the motion passed unanimously.

SUPPLEMENTAL BUDGET

Commissioner Jacobs moved to approve Resolution No. R21-14: In the Matter of Fiscal Year 2020/2021 Supplemental Budget by Resolution Under Local Budget Law ORS 294.471. Commissioner Hodge seconded and the motion passed unanimously. The purpose of the supplemental budget is to allocate funds from selling the Ford Ranger in the Surveyor Corner Preservation fund. See instrument # 2021-1579

EMPLOYMENT AGREEMENT AMENDMENT - BOND

Commissioner Hodge moved to approve Accounting Technician - employment of PERS (Public Employees Retirement System) retiree First Amendment to Employment Agreement (recorded with Malheur County Clerk as instrument number 2020-4719) with Judy Bond. Commissioner Jacobs seconded and the motion passed unanimously. See instrument # 2021-1582

PROCLAMATION - PUBLIC SAFETY TELECOMMUNICATIONS WEEK

The Court signed a proclamation declaring April 11-17, 2021 as Public Safety Telecommunicator's Week.

PROCLAMATION PUBLIC SAFETY TELECOMMUNICATIONS WEEK
APRIL 11-17, 2021
BY THE MALHEUR COUNTY COURT, OREGON

WHEREAS, since 1981 the Congress of the United States, and the President of the United States have established one week in April as National Telecommunicators Week; and

WHEREAS, Malheur County considers the services of the public safety telecommunicators to be critical to the interest of the community; and

WHEREAS, emergencies can occur at any time of the day and night. They can range from a serious medical emergency, to an active fire or need for law enforcement assistance. Often when an individual’s encounter an emergency they reach for the phone and dial 911. The men and women who answer these calls for help are trained to gather essential information, dispatch the proper resources and provide vital information and instructions to a caller in distress; and

WHEREAS, public safety telecommunicators are more than a calm and reassuring voice at the end of the phone. They are knowledgeable and skilled professionals who work closely with law enforcement, fire and medical personnel; and

WHEREAS, our County enjoys a high standard of public health and safety and we owe a great deal of gratitude to them. During this special observance we extend a profound thank you to each operator who answers our request for help -- Tom, Brittany, Robin, Kathy, Tauni, Carissa, Charlotte, Brooke and Ashley.

NOW THEREFORE, the Malheur County Court Proclaims the week of April 11th-17th to be Malheur County Public Safety Telecommunicator's Week. We invite all residents to observe this week in honor of our telecommunicators who help protect our health and safety.

COURT ADJOURNMENT

Judge Joyce adjourned the meeting.