

Hualapai Tribal Utility Authority (HTUA) Meeting Minutes

March 14, 2018, 9:20 AM to 11:00 AM, Hualapai Health Department, Peach Springs.

Board members:

Charles Vaughn, Chairman – present

Joe Montana, Vice-Chairman – present

Jamie Navenma, Secretary – present

Bill Cyr, Treasurer – present

Rory Majenty – present via telephone

Support personnel and guests:

Kevin Davidson, Planning Director

Lauren Ferrigni, Fennemore Craig (via telephone)

Bob Becherer, IMEG (via telephone)

Tom Mason, Rock Gap Engineering (via telephone)

Patrick Bowman, Intergroup (via telephone)

1) Call to Order¹

2) Roll Call

3) Review and Approval of Minutes from February 14, 2018, meeting

Mr. Cyr made a motion to approve the meeting minutes of February 14, 2018. Mr. Montana seconded the motion. Motion carried 4-0-1.

¹ HTUA entered the conference call link at 9:10 AM and learned from Mr. Becherer's discussion with Mr. Bowman that new loads along Buck and Doe Road where the proposed 69 KV line will be built should be large enough to warrant the cost of installing step-down transformers. This would also apply to loads along the 69 KV line if it was to run into Peach Springs, a distance of some 60 miles from the Dolan Springs substation. Mr. Vaughn asked what size conductor is needed to run power to Peach Springs to avoid voltage drop. Mr. Becherer advised using a 4-aught conductor. However, the conductor would have to be upsized from the Dolan Springs substation to the "T" on Buck and Doe Road where the line divides to serve loads at Grand Canyon West and Peach Springs. Mr. Cyr added that voltage drop can be controlled with regulators, capacitors and tap chargers.

4) Project Updates

a. Proposed Power Line to Grand Canyon West

- i. **Status of Survey and access to private lands along power line route** Mr. Davidson reported that as of March 4, 2018, Taney Engineering was setting panels along the route and was beginning to stake the route from the Dolan Springs substation to Tenny Ranch Road. Mr. Cyr asked about the type of panels and Mr. Davidson replied these will be used by the aerial photographer to ortho-rectify the photos to the actual survey coordinates. After the flight is complete, the panels will be removed.

For access to private land, Mr. Mardian has granted permission to the HTUA to access his property in Section 13 for the power line survey and archeological survey. However, Mr. Davidson noted that Mr. Mardian's permission does not give the HTUA rights to construct a power line across his property. Mr. Vaughn asked what compensation Mr. Mardian would likely seek for having a power line cross his land. Mr. Davidson said he may be looking for access to power. Mr. Vaughn asked if this is the only route to Grand Canyon West. Mr. Davidson said a second option would be to cross land owned by Mr. Rhodes whose property is located on the opposite side of the "butterfly" in Section 19 with BLM holdings on the either side (Sections 18 and 24). Mr. Rhodes has not responded to the HTUA's inquiry to cross his land. Mr. Davidson opined that if the HTUA's radial distribution line serves a non-tribal load off of the reservation, it may be considered a transmission line for at least the first mile or so of the power line's run and that portion may require FERC approval.

- ii. **Status of National Environmental Policy Act (NEPA) review** Mr. Davidson said Andy Whitefield, Bureau of Land Management, has set-up a kick-off meeting for the NEPA review with Tierra Right-of-Way for 10:30 AM on Tuesday, March 20, 2018, at the Kingman Field Office. The priority route is along Tenny Ranch Road, with the Clay Springs Road route only being investigated if the Tenny Ranch Road route proves untenable during the NEPA review.
- iii. **Status of Interconnection Agreement** Mr. Davidson reviewed his notes from the March 13, 2018, meeting with Tucson Electric Power (TEP)/UniSource as follows: 1) model the load as well

as back-up generators, 2) look at outages and impacts of those outages on the system and also range of service, and 3) determine best path to send Hoover power to Grand Canyon West. To do this TEP will need to file an OASIS report to transmit this power. The System Impact Study will take about 60 days and focus on an initial 3 MW load. The HTUA may ask for additional impact studies as loads grow beyond 3 MWs (up to 9 MWs in the next ten years). The new Grand Canyon West substation will be used to monitor load and be configured in such a way as to allow the Grand Canyon West generator set to run independently of TEP/UniSource power supply. The HTUA prefers only a 30 second to 60 second gap between a UniSource outage and generator start up. Ideally, generators will run in parallel with UniSource if power quality needs improving. To proceed, the HTUA will provide TEP with the generator specification. The cost of the impact study is \$30,000. TEP will send the agreement for signature. The HTUA will contact Ms. June Deering at UniSource's Kingman Office to determine if there are any remaining funds from original \$100,000 deposit made by the tribe in 2010 for the initial analysis to credit toward the new System Impact Study. Mr. Vaughn noted this new expense may require a budget adjustment through the Finance Department.

Mr. Vaughn asked how the HTUA could contain the power produced by the existing generators at Grand Canyon West. Mr. Becherer replied the new Grand Canyon West substation could be designed to keep the power from being put onto the new 69 KV and sent back to Dolan Springs. Mr. Cyr asked about UniSource wanting to synchronize their grid power with the existing generator sets to maintain power quality. Mr. Becherer was also surprised to hear this from UniSource but said it would be good to have such a plan in place. Mr. Cyr asked if the 30- to 60-second power outage to generator start-up was a requirement of the HTUA. Mr. Becherer said he is looking to optimize the response time of the generators to keep Grand Canyon West energized. The gap should allow the generators to start-up, synchronize and lock-out the new substation.

iv. Load Forecast and possible amendment to T&D + Q-Spec contract Mr. Davidson said one item brought up at the kick-off meeting in February was identifying which consultant will prepare the load forecast (7 CFR 1710.205 and 207) for Grand Canyon West. Mr. Becherer has done a significant amount of load forecasting for the project so far and is the logical person to fully develop. To that end, IMEG has submitted a contract amendment in the amount of \$9,340 to

allow Mr. Becherer to perform this task. Mr. Cyr requested, in light of a latter agenda item regarding the hiring of a part-time General Manager for the HTUA, that this item be tabled. Mr Davidson said the study can be delayed somewhat. Mr. Vaughn seconded the motion. Motion approved 4-0-1. Mr. Davidson noted the HTUA is now receiving telemetry from the generators, key to the load study.

b. Cost of Service Study

- i. Progress to Date** Mr. Davidson introduced Intergroup's new findings by noting that Mohave Electric Cooperative (MEC) does not currently have authorization to wheel third-party power to customers from any substation including the Round Valley (near mile post 92 on Interstate-40) or the Hualapai (Blake Ranch) substations; however, MEC may be able to develop an O&M charge to do so which would require Arizona Corporation Commission approval. Another option to deliver electricity to the reservation is to construct a new power line from the Round Valley substation to the Nelson substation where the tribe can easily access it. Mr. Bowman said the original findings noted a \$250,000 annual operating deficit to the HTUA should it take over MEC's electrical service in Peach Springs. This would require an electrical rate increase of 37 percent for the HTUA to break even. To help reduce the amount of rate increases, new loads at Grand Canyon West and the pumping of the tribe's future anticipated Colorado River water allocation (water rights settlement) are needed. The cost of the HTUA purchasing bulk power is not appreciably different than those costs incurred by MEC (5 cents vs. 5.8 cents per KWHr). Western Area Power Administration (WAPA) may supply the tribe's hydropower allocation, and additional power as needed, to the Round Valley substation: however, the challenge is to deliver that power to the Nelson substation as Mr. Davidson noted above. Mr. Vaughn asked about the possibility of receiving power from APS. Mr. Bowman said such a supply could come with a utility-scale solar array connected to the Eldorado-Moenkopi 500 KV line on the Hualapai Reservation. This line may be considered for conversion to Direct Current making it even a less likely option. Aside from a new MEC O&M charge or new 69 KV line from Round Valley to Nelson, the new 69 KV power line to Grand Canyon West could also supply power to Peach

Springs via Buck and Doe Road.² Mr. Bowman added that MEC is open to working with the HTUA on setting up an O&M charge to wheel power to the reservation.

Mr. Bowman said the tribe's hydropower allocations from WAPA could be delivered to Round Valley at about five cents per KWHr. Wheeling charges over WAPA's system would be about \$30,000 per year. The tribe's annual Hoover power allocations (D1 and D2) amount to about 1,000 MWHrs of energy per year. However, the tribe's existing revenue from these allocations through the bill credit with MEC and benefit arrangements with Pechanga and Navajo would be negated if the tribe used this power directly. The HTUA would also have to pay MEC an O&M charge to bring this power from its substations. Even with a retail rate of 8.5 cents per KWHr, the small loads in Peach Springs make it difficult for existing customers absorb a rate increase.

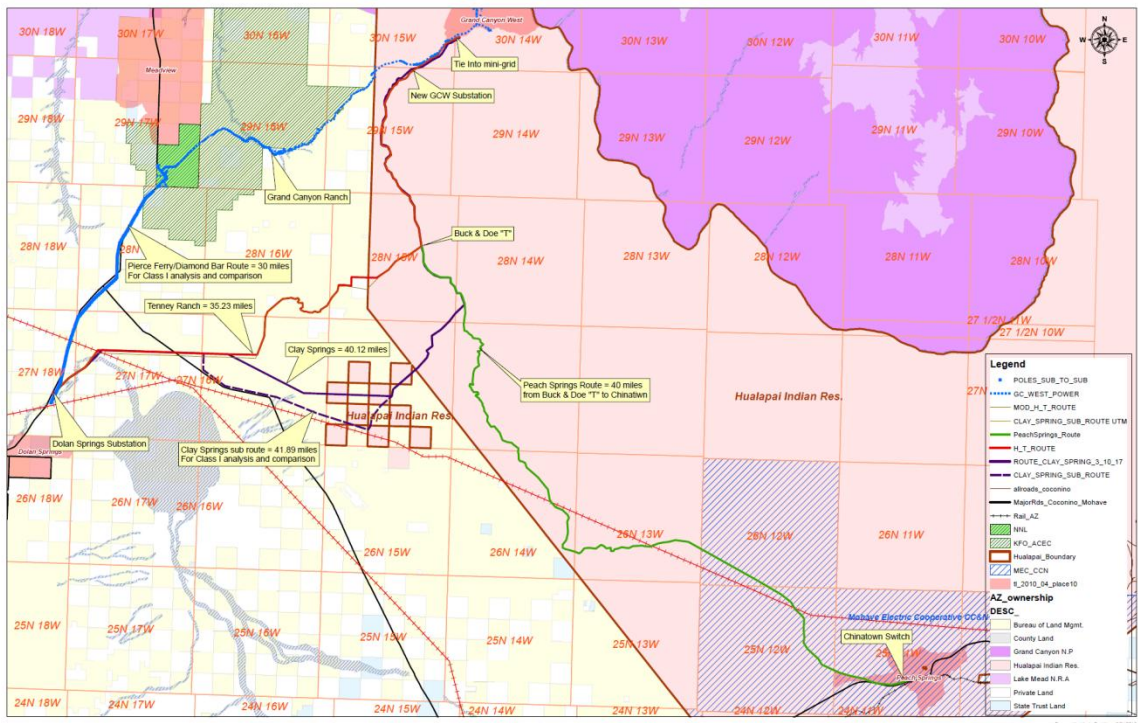
In regard to purchasing the existing electrical system in Peach Springs, some of the equipment is encumbered by a USDA loan so the price may exceed net book value to meet USDA's minimum asset value criteria. Also, the meters are proprietary and must be returned to MEC. The HTUA will need to budget for replacement meters. Mohave Electric Cooperative also must maintain a 24.9 KV line between its Hualapai and Nelson substations for redundancy and to serve downstream customers. This would asset reconfiguration with the HTUA or a new and separate power line between the two substations. Building a new power line for MEC would be an extra cost to the HTUA. Mohave Electric Cooperative prefers one delivery point to supply power to the tribe, namely the Nelson substation. The HTUA would most likely want to serve all loads on the reservation (Burlington Northern Santa Fe and Federal Aviation Administration) aside from its own. However, taking over the 70-mile line to the Havasupai may be an exception given the responsibility of maintaining the line for mostly downstream customers. Mr. Davidson asked if having one point of power delivery from MEC would perpetuate the "radial line" issue. Mr. Bowman said not in the this case because MEC's loop between substations could be tapped by the HTUA to supply power in the case of the Round Valley–Nelson supply going off line. Mr. Cyr noted that WAPA has a mandate to deliver hydropower to tribes.

Looking at delivering power from UniSource via the proposed Grand Canyon West 69 KV line may be an option. Mr. Becherer said the distance is at least 34 miles from the Buck and Doe "T"

² See discussion of this option under Footnote 1 on page 1.

to Peach Springs (see map).³ Mr. Vaughn noted that building a 69 KV power line will allow for a water diversion option at Grand Canyon West. Bringing the water allocation to Grand Canyon West will cost less than diverting it at Diamond Creek and then building a 70-mile long pipeline to Grand Canyon West. Mr. Davidson asked if a 60-plus-mile long 69 KV power line is feasible. Mr. Cyr said it could but a 115 KV or 138 KV line would be more efficient. Mr. Navenma said the tribe should look at the long-term growth of the tribe and provide enough power for both future water pumping as well as increased population in both Peach Springs and Grand Canyon West.

69 KV Powerline Routes from Dolan Springs Substation to Grand Canyon West



c. Community-Scale Solar Array Feasibility Study

i. Presentation to tribal council Mr. Davidson reviewed the presentation made by Mr. Mason to tribal council on Saturday, March 10, 2018. Tribal council is seriously considering placing the array at the Nelson site where it can serve both Peach Springs and the lime plant. The resolution was approved for a 1 MW solar in Peach Springs⁴. Mr. Vaughn noted that MEC would have

³ The distance from the Buck and Doe "T" to the Chinatown switch is approximately 40 miles. The connecting to the 24.9 KV line on Buck and Doe Road would be approximately 36 miles.

⁴ At the meeting Mr. Davidson noted the resolution was tabled but was informed by staff that it was approved.

complete control of the power if the array was built at the West Peach Springs signal site and it would require a subsidy from the tribe to operate with no benefit to Hualapai. Mr. Mason read an extract from the Department of Energy (DOE) grant which the tribe is planning to apply for to help build the solar array as follows: "All proposed projects must be on tribal land and controlled by the tribe." Mr. Mason said the array must be grid-connected to grant eligible. However, some of the power from the Nelson solar array could be sold to Lhoist mine "behind the meter" akin to a roof-top solar array. The tribe would build a single line to Lhoist to deliver the power "behind the meter." The balance of the power would be sold to MEC and delivered to the Nelson substation where it would be sent back into Peach Springs. By having two customers, with one paying a near retail rate for power, the array should make economic sense. Mr. Cyr asked if the HTUA had recommended a site to tribal council. Mr. Davidson replied that it had not and that the Saturday presentation to council was to test their interest in the solar array. Mr. Vaughn noted Lhoist's high start-up demand (7 MWs). Mr. Vaughn asked if the DOE grant required management of the array. Mr. Mason said he had added staffing costs to the solar array budget.

Moving back to the discussion of managing the tribal utility authority, Mr. Montana asked if the HTUA would want to take over the task of reading meters on the reservation. Mr. Navenma advised the HTUA sub-contract meter reading and billing to a qualified company.

d. Mohave Electric Cooperative

- i. Request to MEC to provide records of rights-of-way not on file with BIA** Mr. Davidson said that he just received MEC's data in the mail and will be reviewing it with the BIA next.

5) Other Matters (Planning)

- a. Review and possible action on Statement of Qualifications HTUA General Manager** Mr. Davidson said Mr. Cyr of BC Consulting applied for the part-time manager position by the deadline. One other person asked about the position after the closing date on February 26, 2018. Mr. Davidson has scored Mr. Cyr's SOQ and found his firm to be acceptable. Mr. Cyr

noted his experience with the Aha Macav Power, some 35 years in the power industry as an engineer and said that the HTUA is developing a good plan which should be profitable. Mr. Cyr asked if he could retain his board membership while serving as the part-time GM. Mr. Davidson will review the HTUA Ordinance with the attorney to confirm the answer. Mr. Vaughn, Navenma, Montana and Majenty all found Mr. Cyr to be well qualified and a good fit for the HTUA's requirements of a General Manager. Mr. Vaughn made a motion to accept Mr. Cyr of BC Consulting as the part-time general manager for the HTUA, Mr. Navenma seconded the motion. Motion passed 4-0-1 with Mr. Cyr abstaining.

b. Announcements The DOE has published the NOFA for community-scale solar array. No other announcements.

6) Set time and location for next meeting The next meeting is set for Wednesday, April 11, 2018, at 9:00 AM at the Hualapai Health Department, Peach Springs.

7) Adjourned at 11:00 AM