

2017 Annual Report for the Hualapai Tribal Utility Authority



Prepared by: Hualapai Tribal Utility Authority Board and
Acting General Manager

Presented to HTUA Board on November 22, 2017

Approved by HTUA Board on November 22, 2017

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Preface

In accordance with Section 110 of the Hualapai Tribal Utility Authority (HTUA) Ordinance, the Board of Directors (Board) shall submit a report to the Tribal Council on an annual basis. The report shall include, but not be limited to 1) financial conditions, 2) proposed budget for the upcoming fiscal year, 3) rates for various classes of consumers, 4) progress on HTUA's mission, and 5) other pertinent utility matters.

Any actions that the Board plans to take in the upcoming year that appear to require approval by the Tribal Council shall be highlighted in the annual report, including any request for the appropriation of tribal funds for the operation of HTUA. The Board may assign the General Manager the responsibility for preparing the report, although it shall be presented to, and must be approved by, the Board before being submitted to the Tribal Council. Failure to seek Council approval in an annual report will not necessarily preclude the HTUA from taking a planned action, but, if Council approval is required, a supplemental report to the Council (followed by Council approval) shall be required.

Synopsis

Over the past 12 months, the HTUA has held eleven meetings and accomplished several tasks to further its mission as follows:

- 1) drafted preliminary interconnection agreement to tie planned HTUA power line to UniSource's existing Dolan Springs sub-station and transmitted to UniSource,
- 2) submitted application to Bureau of Land Management to establish right-of-way across approximately 25 miles of public lands to construct power line,
- 3) selected surveyor and environmental consultant to stake power line routes and perform the Environmental Assessment (EA) to analyze multiple routes to Grand Canyon West,
- 4) selected engineering and financial professionals to assist the HTUA's loan application to USDA/Rural Utilities Service to finance the power line to Grand Canyon West
- 5) reviewed and sent recommendation to Tribal Council to approve the Salt Lake City Area/Integrated Projects hydropower contract with Western,
- 6) selected and then worked with third-party consultants to shape the electrical cost of service study and the community-scale solar feasibility study,
- 7) amended various sections of the HTUA Ordinance to allow the HTUA to manage telecommunications and adopted standard contract clause,
- 8) reappointed two HTUA Board members, advertised and appointed one new board member, and elected officers
- 9) adopted one operating budget,

10) received presentations from various entities including InterGroup, Rock Gap Engineering, NextEra, and Holland Consulting on power related projects, future electrical power opportunities for the tribe, operating a tribal utility authority, and renewable-powered micro-grids for remote communities.

Mission Accomplishments in 2017 and Plans for 2018

Newly amended Section 107 of the Ordinance (*italics*) defines five missions for the HTUA as follows: 1) establish and maintain electric power service for Grand Canyon West, 2) establish and maintain water service for Grand Canyon West, 3) establish and maintain sewage service for Grand Canyon West, 4) *establish and maintain telecommunications service*, 5) establish and maintain such *additional utility* services for such other locations within the Hualapai Reservation and on other Tribal lands under the jurisdiction of the Hualapai Tribe as the Tribal Council may deem appropriate pursuant to Section 108 of this Ordinance.

To accomplish these various missions, HTUA is authorized to carry out the following kinds of activities:

- (1) To plan for, provide, and furnish electric power, water and wastewater utility services to GCW and provide telecommunication services for the Hualapai Reservation and other Tribal lands under the jurisdiction of the Hualapai Tribe. Such services may include other energy-related services, including energy conservation and the use of renewable energy technologies.
- (2) To promote the use of HTUA's services where available in order to improve the health and welfare of residents of the Reservation and to facilitate economic development.
- (3) To acquire, construct, operate, maintain, promote, and expand electric power service, water service, and wastewater service at GCW as well as acquire, construct, operate, maintain, promote, and expand telecommunications throughout the Hualapai Reservation and on such other locations within the Hualapai Reservation and on other Tribal lands under the jurisdiction of the Hualapai Tribe as the Tribal Council may deem appropriate pursuant to Section 108 of this Ordinance.
- (4) To operate utility services so as to provide revenue sufficient to service debt on particular component projects as may be required by creditors on such component projects.
- (5) To do everything necessary, proper, and advisable, or convenient for the accomplishment of the mission set forth in this section, and to do all things incidental to or connected with such mission, which are not forbidden by law, this Ordinance, or the Hualapai Constitution.

Recap of 2017 Accomplishments and Setbacks

As in 2016, the HTUA's primary focus in 2017 has been to bring hard-line electric power to Grand Canyon West via an interconnection with the local utility company's (UniSource) electric distribution system adjoining the Hualapai Reservation. The project is expected to cost approximately \$15 million,

but is also expected to reduce power costs at Grand Canyon West by nearly \$2 million per year by switching from on-site diesel generation to utility grid power.

Grand Canyon West Power Line

Interconnection To allow power to flow from the UniSource Electric grid to Grand Canyon West, the HTUA and the tribe must enter into an interconnection agreement with UniSource. This is a new type of contract for both the HTUA and UniSource because neither has previously entered into this type of “wires to wires” agreement between utilities. Given this new contractual arrangement, the HTUA Board requested Fennemore Craig, PC, to draft an interconnection contract with UniSource for council review prior to submittal to UniSource. The draft agreement is based upon UniSource’s existing language for interconnecting power plants to their grid. The contract requires the HTUA and UniSource to construct and maintain their power facilities per nationally adopted standards (ANSI, IEEE, NEC, UL, Good Utility Practice), and share in the maintenance costs of the interconnection facilities. This contract will remain in effect for an indefinite term unless terminated per Article 3.3 of the Agreement. The HTUA will pay for the installation of the electric meter at the Dolan Springs Substation and other upgrades to the substation necessary to make the interconnection to the tribe’s new power line. The Agreement also contains provisions governing dispute resolution (Article 10) and a limited waiver of sovereign immunity (Article 12.13). The language was reviewed and approved by the HTUA Board and submitted to council for approval which in turn approved the draft to be sent to UniSource.

Right-of-Way Application To construct its own 69 KV power line to Grand Canyon West, the HTUA has submitted an application for right-of-way and a Plan of Development to the Bureau of Land Management’s Kingman Field Office for review and processing (see Exhibit B). The BLM, under whose jurisdiction a majority of the power line is to be located, will be the lead federal agency on the environmental review, which is anticipated to be no more involved than creating an Environmental Assessment (EA) and Finding of No Significant Impact (FONSI). The tribe will also enter into a cost recovery agreement with the BLM’s Kingman Field Office (KFO) to compensate the KFO for their time spent on processing the application and overseeing the related environmental review. The actual costs incurred to review and process the right-of-way application is estimated to be \$33,723.52. The cost recovery agreement was reviewed and approved by the HTUA Board and submitted to council for approval which in turn approved the agreement via Resolution No. 86-2017.

Environmental Consultant On January 7, 2017, Hualapai Tribal Council’s rejected the proposed UniSource Funding Agreement that would have required the tribe to pay UniSource for the NEPA consultant to perform the environmental review and create the NEPA document for the power line. Subsequent negotiations with UniSource on the use of Arizona State Court as the venue to hear disputes arising under the agreement and the use of Arizona State law to govern such disputes, eventually led to an impasse between the parties. In light of these challenges, the HTUA decided in February 2017, hearing no objection from UniSource, to procure the NEPA consultant directly. Additionally, the HTUA decided to focus on an alternate route which is some six miles longer but somewhat less expensive to construct than the Pierce Ferry/Diamond Bar Road route given that there is no need to re-construct

some 10 miles of existing power line along Pierce Ferry Road or pay a significant tax gross-up fee to UniSource.

The HTUA published an RFP on September 14, 2017, for environmental consulting services and received four bids on October 16, 2017, with three selected for interview on October 30, 2017. The interview team consisted of staff from the HTUA and IMEG Engineering. The HTUA recommended to council that the environmental services bid of \$157,759 from Tierra Right-of-Way be accepted. Council provisionally awarded the bid on November 21, 2017, pending adoption of HTUA's FY 2018 budget.

Survey Consultant As a result of the first round of environmental consultant interviews conducted in 2016, each firm requested that the power line be staked to allow for the pedestrian survey. To that end the HTUA and IMEG developed an RFP for such services to establish the preliminary line (P-line). The HTUA published an RFP on September 11, 2017, for surveying services and received four responsive bids on October 13, 2017, with two selected for interview on October 30, 2017. The interview team consisted of members of the HTUA staff and IMEG Engineering. The HTUA recommended to council that the surveying services bid of \$184,712 from Taney Engineering be accepted. Council provisionally awarded the bid on November 4, 2017, pending adoption of HTUA's FY 2018 budget.

Publication of the RFPs to secure the environmental consultant and survey consultants was delayed until September 2017 given that the HTUA did not receive a budget enhancement from Council until this past August.

USDA Loan Consultants The Council also awarded contracts for the Long Range Financial Forecast (LRFF) to Cobb Consulting and T&D Technologies to write the Construction Work Plan (CWP), both key components for the loan application to USDA/RUS. Council provisionally awarded the bids on November 4, 2017, pending adoption of HTUA's FY 2018 budget.

The USDA requires a NEPA review, typically an Environmental Assessment (EA), to accompany such loan applications. In addition, RUS also requires a NEPA study be conducted prior to releasing the grant funds for which Hualapai was awarded \$1,881,130 in 2015 to help build part of the power line. Both environmental reviews will be combined into one document.

Other Activities

Hydropower To continue the HTUA's efforts to reduce the tribe's electric cost, the HTUA reviewed and commented on the Western Area Power Administration contract for the renewal of Salt Lake City Area/Integrated Projects (SLCA/IP) or the Colorado River Storage Project (CRSP) through the year 2057. The renewal with Western maintains the same 609 KWs of Winter capacity and 625 KWs of Summer capacity for a total of 2,281 MWHrs of energy as the original contract. This inexpensive hydropower may be purchased by the HTUA at a wholesale rate from Western, which is less than three cents (3¢) per KWHr, and then wheeled to Grand Canyon West, once the power line is constructed, further lowering Grand Canyon West's power cost by several thousand dollars per year. On November 22, 2017, the HTUA Board moved to recommend approval to Tribal Council to approve the contract with Western.

Cost of Service Study As a result of a successful application to the BIA's Tribal Energy Development Capacity Grant Program, the tribe was awarded \$32,960 to perform a cost of service study. This is a prerequisite to understanding the costs involved to acquire and then operate the local electrical distribution system. The tribe hired Intergroup to perform the cost of service study to review existing customer classifications and load data, conduct preliminary annualized revenue requirements for the HTUA (unbundled costs, allocation of costs among rate classes, capital additions), recommend rate design and cost of service model, and identify funding sources to finance the electric system. Intergroup has made two presentations to the HTUA and should have the cost of service study concluded in late 2017. Preliminary analysis shows that the HTUA would have to raise electric rates substantially over MEC's rates if it seeks to take over MEC's electrical distribution system on the reservation.

Community-Scale Solar Feasibility Study The tribe was also able to secure a \$75,000 grant from the BIA Energy and Mineral Development Program to perform a feasibility study for a community-scale solar array in Peach Springs. Rock Gap Engineering was hired to conduct the feasibility study which will recommend 1) the type of solar technology and design to utilize, 2) the optimum site to locate the solar array based on both location along the existing electric distribution line and land resources, 3) the correct size of the solar array to meet community need while not overloading the local utility's (MEC's) distribution system - via a system impact study, 4) identify funding sources to build the solar array and 5) draft a power purchase agreement which will ensure the project is economically feasible. Rock Gap has performed two field trips, conducted a soils test on two candidate sites, and made two presentations to the HTUA. The sites are promising and the soils can support a 1 MW array; however, the PPA offer from MEC of \$30/MWhr prevents the solar project from being economically attractive without a significant subsidy, possibly via a DOE renewable energy grant. The solar site adjacent to the Lhoist mine could be developed as a merchant plant with power sold directly to Lhoist. Being a merchant plant it would not, however, be eligible for DOE grant funding. The feasibility study should be completed by the end of 2017.

Telecommunications As part of the Council's direction to the HTUA in early 2017 to provide free internet service (4G LTE) to students, the mission of the HTUA was expanded to take on this new responsibility. Resolution No. 27-2017 amended Sections 101, 102, 104, 107, 108, 109, 203 and 209 of the Hualapai Tribal Utility Authority Ordinance accordingly. The HTUA also contacted AT&T to see if the tribe could tap the transcontinental fiber optic cable that passes through the southern part of the reservation near Peach Springs. An offer was made by ACC Business, AT&T's wholesale agent, to provide 1,000 mbps to the tribe at a cost of \$5,000 per month, or very near the same price as the tribe currently pays for 200 mbps through existing providers. Prior to accepting the offer, the HTUA, with support from the BIA, is reviewing the terms and conditions of the existing right-of-way agreement to ensure the link can be established.

To further the HTUA's technical ability and energy market acumen, HTUA staff attended the annual Arizona Tribal Energy Association meeting on January 19, 2017.

Look ahead for 2018

In 2018, the HTUA will coordinate the various consultants necessary to develop and fund the power line to Grand Canyon West. The environmental review is expected to be complete by next fall. Procurement of a surveyor to mark the final alignment and general contractor to construct power line is expected in late 2018.

As the time for the loan application draws near, the Council will be asked to sign a limited waiver of sovereign immunity as part of the agreement with the USDA. The HTUA must continue performing public outreach to discuss the use of new Section 3, Article XVI of the Hualapai Constitution which traditionally has been presented to and discussed by tribal members prior to a vote of the Council. The HTUA will lead the tribal loan application effort to USDA/RUS, to provide the matching dollar amount for the \$1,881,130 USDA/RUS High Energy Cost grant that the tribe received in 2015 to build the power line to Grand Canyon West. The HTUA will also begin negotiating and finalizing contracts with UniSource to procure power and wheeling services to directly serve Grand Canyon West.

To ensure the tribe receives some benefit from the SLCA/IP hydropower allocation before the power line is constructed to Grand Canyon West, the HTUA will be soliciting bids for a Benefit Arrangement Agreement or a Bill Credit Agreement akin to its existing agreements with the Pechanga Band of Luiseno Indians and Mohave Electric Cooperative concerning its Western and APA power allocations, respectively.

In anticipation of being a fully functional utility, the HTUA believes that at least two Hualapai should begin apprentice training as linemen and would like to request a scholarship program be provided by the HTUA (see budget request). Once the HTUA is successful in bringing electrical power to Grand Canyon West, it will focus on supplying electrical service to other parts of the reservation, including Peach Springs, and possibly involving the negotiations to purchase Mohave Electric Cooperative's distribution system and to construct a solar farm large enough to meet the daytime power needs of the community. Both of these decisions will be informed by the results of the aforementioned cost of service study and the community-scale solar feasibility study.

Given the expansion of the HTUA's mission to include telecommunications, the HTUA will also investigate and possibly contract with AT&T or another third-party to increase broadband service on the reservation.

FY 2017 Financial Report to date and Budget Request for FY 2018

In December 2016, Tribal Council approved the HTUA's operational budget at \$189,805. The budget was amended by Council August 2017 to \$354,805. The balance through November 15th is \$196,625.54.

Approved HTUA Budget for 2017				Account No 01-60-00-0000	Through November 15, 2017	
Professional Services	Rate	Units/Month	Months	Budget	Expense	Balance Avail
Fennermore Craig				76,642.17	\$44,821.60	\$31,820.57
TTG/IMEG				101,449.36	\$98,986.66	\$2,462.70
Contingency				10,668.47	\$13,016.00	-\$2,347.53
Cobb Assoc (support loan app)				4,000.00	\$0.00	\$4,000.00
SGS Engineers (support Loan app)				15,000.00	\$0.00	\$15,000.00
P-Line survey and staking of route				80,000.00	\$0.00	\$80,000.00
NEPA consultant for Power Line EA				60,000.00	\$0.00	\$60,000.00
				347,760.00	\$156,824.26	\$190,935.74
Board Member Travel	Rate/Mile	Miles		Budget	Expense	Balance
Automobile	\$0.535	2,000		0.00		\$0.00
Per Diem	Rate/Quarter	Rate/Day	Days	Total		
Inside-State Per Diem	\$11.25	\$45.00	10	0.00	\$564.40	-\$564.40
Outside-State Per Diem/Registration	\$15.00	\$60.00	5			
Lodging	Room Rate	Nights		Total		
Hotel	\$125.00	15		0.00		
				0.00	\$564.40	-\$564.40
Memberships	Annual Dues			Budget	Expense	Balance
AZ Tribal Energy Assoc	\$1,500			1,500.00		
				1,500.00	\$0.00	\$1,500.00
Public Outreach	Rate/Cost	Units/Month	Months	Budget	Expense	Balance
Supplies				\$3,810.00	\$790.80	\$3,019.20
Postage	\$1.47	500	2	\$735.00		\$735.00
Food	\$5.00	200	2	\$1,000.00		\$1,000.00
				\$5,545.00	\$790.80	\$4,754.20
Total Budget				\$354,805.00	\$158,179.46	\$196,625.54

Proposed HTUA Budget for 2018			Account No.	01-60-00-0000
General Manager Consulting*	Rate	Units/Month	Months	Total
Labor per Hour	\$75.00	70	12	63,000.00
Lodging per night	\$125.00	0	0	0.00
Per Diem	\$45.00	1	12	540.00
Mileage per visit	\$0.535	200	12	1,284.00
				64,824.00
Legal Counsel & Other Prof Svcs	Rate	Units/Month	Months	Total
Labor per Hour (composite rate)	\$425.00	17	12	85,488.00
Lodging per night	\$100.00	12	3	3,600.00
Per Diem	\$45.00	2	3	270.00
Mileage per visit	\$0.535	400	3	642.00
Total				90,000.00
Engineering Consultant (IMEG)	\$165.00	31	12	60,700.00
Surveyor Consultant (prelim & final)				175,000.00
NEPA Consultant				160,000.00
USDA Loan Application Consultants				55,400.00
				541,100.00
Bureau of Land Management				Total
Review and Processing Costs				20,000.00
				20,000.00
Arizona Power Authority	Rate/MWHR	MWhrs/Month	Months	Total
BCP Post 2017 Schedule D2 Power	\$30.66	15.50	12	5,702.76
Transitional Costs				696.36
Repayable Capital Advance				1,546.92
				7,946.04
Lineman Apprenticeship Training	Tuition/Rate	Units/Students		Total
Class	\$10,000.00	2		20,000.00
				20,000.00
Board Member Training & Travel	Rate/Mile	Miles		Total
Automobile	\$0.575	2,000		1,150.00
Per Diem	Rate/Quarter	Rate/Day	Days	Total
Inside-State Per Diem	\$11.25	\$45.00	10	450.00
Outside-State Per Diem	\$15.00	\$60.00	5	300.00
Training/Conferences	Tuition/Rate	Units/Students		Total
Solar Power International	\$1,065.00	5		5,325.00
Lodging	Room Rate	Nights		Total
Hotel	\$125.00	15		1,875.00
				9,100.00
Memberships	Annual Dues			Total
Arizona Tribal Energy Assoc	\$1,500			1,500.00
				1,500.00
Public Outreach	Rate/Cost	Units/Month	Months	Total
Domain Hosting & Web support	\$130.00	1	12	1,560.00
Pamphlets	\$0.50	500	1	250.00
Postage	\$1.47	500	1	735.00
Food	\$5.00	200	1	1,000.00
Supplies				2,000.00
				3,545.00
Total Budget				668,015.04

For FY 2018, the Hualapai Tribal Utility Authority's budget request is \$668,015.04 from the Hualapai Tribe's General Fund. This represents an increase of \$313,210.04 over last year's budget of \$354,805.00, as amended on August 8, 2017. Most all of this increase is attributed to new requests and existing contracts in Professional Services to support the construction of a 69 KV power line to Grand Canyon West and are as follows:

- 1) a General Manager, most likely a consultant to work 15-20 hours per week, to replace the Acting General Manager, a role currently performed by the Planning Director at no extra cost to the tribe,
- 2) the engineering consultant (IMEG, Inc.) retained by the HTUA for the design of the power line project to Grand Canyon West,
- 3) the surveyor to establish the preliminary alignment for the NEPA consultant to follow and then a final alignment survey required to construct the power line.
- 4) the NEPA consultant to write the Environmental Assessment (EA) to ensure the tribe stays in compliance with the requirements of the \$1,881,130 USDA grant awarded to the tribe in 2015 for the power line project and to provide the support documentation for the HTUA's pending loan application to the USDA

estimated to be \$13,000,000 to construct the power line, and

- 5) the engineering and financial consultants who will write the Construction Work Plan and Long-Range Financial Forecast necessary to support the loan application to the USDA for the power line.
- 6) the legal counsel to the HTUA Board.

Line items for contracted Professional Services, part-time General Manager notwithstanding, is \$541,100. On October 31, 2017 the HTUA staff made a recommendation to Council on the selection of a surveyor to perform the power line survey and an environmental consultant to complete the NEPA analysis for the power line. On November 4, 2017, tribal council failed to select the environmental consultant. The FY 2018 budget request may be increased by up to \$91,000 to award to one of the other bidders. The HTUA will bring this item back for the council's review at a future meeting.

An additional charge related to the NEPA analysis for the new power line is the cost recovery charged by the BLM's Kingman Field Office for processing right-of-way application which is estimated to be \$33,723.52. The request for \$20,000 to cover this cost in FY 2018 assumes that at least \$13,723.52 will be deposited in the BLM during FY 2017. After review by the BIA, tribes are not exempt from the FLPMA Grants of Right-of-Way cost recovery fee.

A new item for the HTUA in FY 2018 is the payment to the Arizona Power Authority for the tribe's new Schedule D allocation of Post-2017 Boulder Canyon Project hydroelectric capacity and energy anticipated to be \$7,946 in 2018 (based on Operating Year 2018). Tribal council and the HTUA Board have entered into a contract with the Arizona Power Authority for this power and a bill credit contract with Mohave Electric Cooperative until the tribe can receive this low cost power on the reservation via the yet to be constructed power line to Grand Canyon West. In the meantime, the bill credit with MEC will be applied to the Highway 66 Mile Post 96.4 well pump account (Meter No. 896099) to reduce the billing amount by up to \$500.00 per month.

Other budget items include travel and training expenses for board members and attending meetings of the Arizona Power Authority and Western Area Power Administration to follow-up on the tribe's hydropower allocation from both entities. Membership dues for the Arizona Tribal Energy Association is also included.

In addition, the HTUA seeks to allocate \$20,000 to begin capacity building by training future Hualapai linemen to work on the new electric system and power line to Grand Canyon West.

Appendix A: Meeting minutes from November 23, 2016 to October 18, 2017

Hualapai Tribal Utility Authority (HTUA) Meeting Minutes

November 23, 2016, 9:22 AM to 10:42 AM, Hualapai Health Department, Peach Springs.

Board members:

Charles Vaughn, Chairman – present

Joe Montana, Vice-Chairman – present

Jamie Navenma, Secretary – present

Rory Majenty – present (via telephone)

Support personnel:

Kevin Davidson, Planning Director

Patrick Black, Fennemore Craig (via telephone)

Bob Becherer, P.E., TTG (via telephone)

1) Call to Order

2) Roll Call

3) Review and Approval of Minutes from September 20, 2016, and October 18, 2016, meetings

In reviewing the September 20, 2016, meeting minutes, Mr. Vaughn asked about the need for the “under-build” on the proposed 69 KV power line. Mr. Becherer said the under-build will allow electric service to Meadview in the current 12.5 KV configuration and that UniSource will be paying for this part of the power line project; however, the HTUA should not be paying UniSource for the taller poles to accommodate the under-build. Mr. Becherer also added that the under-build will not be required if the Tenney Ranch Road alternative route is chosen. Mr. Navenma made a motion to approve the minutes with minor corrections. Mr. Montana seconded the motion. Motion was approved 3-0-1 with Mr. Majenty not voting. Mr. Vaughn made a motion to approve the October 18, 2016, meeting minutes. Motion seconded by Mr. Navenma. Motion carried 3-0-1 with Mr. Majenty abstaining.

4) **Project Updates**

a. **Proposed Power Line to Grand Canyon West**

i. **Outcome of interviews on Environmental Assessment and Tribal Council action** Mr. Davidson reviewed the outcome of the interviews of the three firms chosen to make presentations to the HTUA and UniSource on Friday November 4, 2016. Transcon had the best overall presentation, a good working relationship with the BLM Kingman Field Office (KFO) and the shortest project schedule. The ESM presentation was also very good, but the firm does not have the requisite experience with either the BLM, KFO or preparing National Environmental Policy Act (NEPA) documents for the USDA. The presentation by SWCA was ranked last even though the firm has good experience in working with the BLM and on USDA-funded projects. Mr. Davidson said he presented the results of the interviews to Tribal Council at their regular meeting on Saturday, November 5, 2016, and asked if the HTUA could get an advance approval on this portion of its FY 2017 budget to start the NEPA process; however, Council tabled the item until the budget committee reviews and makes a recommendation on an overall operating budget for the tribe for 2017.

ii. **Review and possible action on draft Environmental Review Funding Agreement with UniSource including limited waiver of sovereign immunity clause** Mr. Davidson reviewed the UniSource draft contract agreement which the HTUA will sign with UniSource to cover the cost of the consultant services as well as the internal costs incurred by UniSource to manage the project. Mr. Black suggested that the HTUA ask for a dollar cap on budget expenses (Section 4.3) and require the HTUA's consent prior to UniSource approving additional contract costs, e.g. change orders. The HTUA should obtain hourly rates and material costs from UniSource for those staff and resources involved in the contract. Mr. Becherer asked what amount of in-kind support for the project we should expect UniSource to offer. Mr. Davidson said that based on the 76 mile length of the two power line alternatives, UniSource may be able to support about 16% of the project costs for the approximately 12 miles of under-build. Mr. Vaughn noted that Section 8.9 contains a limited waiver of sovereign immunity and that it would be wise to have Tribal Council concurrence before signing. Should this language include mediation as referred to in Section 4.3? Mr. Black said that if a price cap is put into the contract, then mediation is not

required; however, if a cap is not agreed to, then the option for mediation should be added to Section 8.9. If mediation is not successful, the contract would be considered in default per Section 7. Mr. Vaughn asked how the dispute would be resolved. Mr. Black said, ideally, the HTUA would negotiate a cap and avoid disputed costs. Mr. Vaughn asked what the likelihood would of being taken to Court under Section 7.3? Mr. Black said it would be difficult to prove that UniSource's extra cost are unjustified, so the issue will most likely be settled before going court. Mr. Black noted that arbitration and litigation would be performed in state court. The consensus of the HTUA Board is for Mr. Davidson and Mr. Black to negotiate a cost cap with UniSource.

iii. Review and possible action on bids for Construction Work Plan and Long Range Financial

Forecast in support of loan application Mr. Davidson briefly reviewed the bids for the Construction Work Plan and the Long Range Financial Forecast. The bid by T&D Services for the Construction Work Plan and the bid by Cobb Consulting for the Long Range Financial Forecast both seem to be adequate and meet the budget allowance for each line item. Mr. Becherer said he has yet to make a full review of the four bids received in the last 24 hours, but will do so in the next week. The HTUA Board voted to table the review of the bids and selection of the winning bidder until the next Board meeting.

iv. Diamond Bar Road Studies Mr. Davidson said that Hualapai Public Works continues to work with the Mohave County Public Works Department to have 4,000 linear feet of additional guardrail installed along the roadway and to provide drainage improvements at various culverts, a prerequisite for the County to assume maintenance of the roadway. Mr. Vaughn asked about the cost savings in building the power line on the Tenney Ranch Road route. Mr. Becherer estimated the savings would be about three million dollars and another million dollars saved by avoiding the tax gross-up costs. The Tenney Ranch Road route would also avoid the issues associated with the Joshua Tree forest and have less of a visual impact on the BLM's Class II view shed. Mr. Black said the tribe can pay some three million dollars in tax gross-up and have the tax mostly rebated over a five-year period or pay just over one million dollars up-front with no rebate option. Mr. Becherer said that the gross-up cost maybe as high as six million dollars if the UniSource selects the most expensive "hot-build" option along Pierce Ferry Road.

b. Follow up on Post-2017 Hoover power allocation and contracting

i. Benefit Arrangement with Pechanga and Western Mr. Davidson next reviewed the draft benefit arrangement contract from the Pechanga Band of Luiseno Indians from Temecula California courtesy of Western. Tribal Council approved the draft contract at its November 5, 2016, regular meeting. The Bureau of Reclamation is also reviewing the contract but is not expected to make substantive changes.

ii. Tribe's representation on Boulder Canyon Project technical, operating and coordinating committees Mr. Davidson referred to the table provided by Western that requests tribal and HTUA membership on the three committees that help operate the Boulder Canyon Project. Mr. Vaughn asked about the qualifications for the committee members. Mr. Davidson reviewed the e-mail from Western as follows: 1) Technical Review Committee (TRC) - participants usually have a background in engineering, operations, or other technical capabilities, 2) Engineering & Operating Committee (E&OC) - participants typically consist of program managers, and 3) Coordinating Committee - participants to consist of program or senior managers who have decision-making authority to resolve disputes arising from the actions of the TRC or E&OC. Mr. Davidson noted that the Tribal Council Resolution No. 95-2016 designated the Hualapai Tribal Chairman or Vice-Chairman, the HTUA Chairman or Vice-Chairman and the HTUA General Manager to be assigned to these three committees.

iii. Bill Credit Agreement with Mohave Electric Cooperative Mr. Davidson noted that Tribal Council Resolution No. 96-2016 formally approved the bill credit with Mohave Electric Cooperative (MEC) and that the MEC Board will consider the bill credit at their December meeting.

5) Review of FY 2017 Budget Request (Planning)

a. Budget amendment Mr. Davidson noted that the dollar amount for the NEPA study for the power line to Grand Canyon West has been increased from \$150,000 to \$165,000 in the FY 2017 budget request due to the requirement from UniSource for the HTUA to cover their internal costs for the study. Mr. Majenty made a motion to approve the budget request. Motion seconded by Mr. Montana. Motion carried 4-0.

b. Update on budget request to Finance Department Mr. Davidson said that he turned the budget into Finance on November 10, 2016. The budget will be reviewed by the tribe's budget committee. This review should occur in the next few weeks.

6) Other Matters (Planning)

a. Review and possible action on Standard Contract Clause for HTUA Mr. Davidson gave an overview of the draft standard clause as follows:

Limited Waiver of Sovereign Immunity. *HTUA agrees to a limited waiver of sovereign immunity solely as to arbitration of and litigation in state court for enforcement of this Agreement. Aside from this limited waiver, nothing in this Agreement, or in any current or future attachments, exhibits, or amendments, is intended to be or shall be construed as a waiver of the HTUA's sovereign immunity, and the Parties understand and agree that neither this Agreement nor any underlying law or procedure abrogates or waives the HTUA's sovereign immunity from suit in any state or federal court ~~or~~ confers jurisdiction on any such court.*

Mr. Black said it would be best to have standard wording vs. creating a custom addendum for each contract. This would require standard clauses for a contract to be disputed in state court or federal court. The proposed language is based upon the Arizona Power Authority contract for Schedule D power. Federal court may be added after mention of state court in the first sentence. This language would be used for smaller contracts that the HTUA decides to enter into. Special language would be drafted for the multi-million dollar contracts. Mr. Vaughn asked that "Standard" be added to the beginning of the title to differentiate it from the bigger contracts that will have special language. Mr. Black said he would revise the language accordingly, pick up any typographical errors, and have it ready for the next HTUA Board meeting.

b. Review and possible action on draft 2016 Annual Report to Tribal Council per Section 110, HTUA Ordinance Mr. Davidson reviewed the highlights of the draft 2016 Annual Report and congratulated the board members for achieving much in 2016, namely amending the Hualapai Constitution to allow the Tribe Council to utilize limited waivers of sovereign immunity and securing

Boulder Canyon Project hydropower contracts. Mr. Navenma noted a typographical error on page 9. Mr. Montana made a motion to approve the 2016 Annual Report as amended. Mr. Navenma seconded the motion. Motion was approved 4-0.

c. Announcements Mr. Davidson gave a brief review of the discussion held on November 22, 2016, with staff from Public Services, Natural Resources, Planning and the Tribal Chairman to develop a solar facility to serve the Hualapai people. Providing back-up power to the community when the electric grid is incapacitated was also discussed at the meeting. To help this project along, the tribe, through the help of the Planning Department, has received a \$75,000 grant from BIA, DEMD to perform a Community-Scale Solar Feasibility Study for the Hualapai Indian Tribe. In addition the tribe has also received a \$32,960 grant from DEMD to perform a cost of service study which will help the HTUA set electric rates. These studies will be performed in 2017.

Mr. Vaughn asked for the web link to the New Directions in Indian Land Management conference at NAU on November 28th to the 30th.

7) Set time and location for next meeting

The next meeting will be held on December 21, 2016, at 9:00 AM at the Hualapai Health Department, Peach Springs.

8) Adjourned at 10:42 AM

Hualapai Tribal Utility Authority (HTUA) Meeting Minutes

December 29, 2016, 9:16 AM to 11:25 AM, Hualapai Cultural Center, Peach Springs.

Board members:

Charles Vaughn, Chairman – present

Joe Montana, Vice-Chairman – present

Jamie Navenma, Secretary – present

Rory Majenty – present

Support personnel:

Kevin Davidson, Planning Director

Phil Wisely, Public Services Director

Patrick Black, Fennemore Craig (via telephone)

Bob Becherer, P.E., TTG (via telephone)

1) Call to Order

2) Roll Call

Prior to review of the November meeting minutes, Mr. Wisely asked if he could present the Diamond Bar Road update (Item No. 5.a.iv). Hearing no objection from the Board members, Mr. Vaughn asked Mr. Wisely to give his presentation.

5.a.iv) Diamond Bar Road Studies Mr. Wisely reviewed the storm event of September 2014 which could be considered the 1,000 year event. The roadway was designed for the 25 to 50-year event and was able to withstand most of the impacts. The owner of the Grand Canyon West Ranch, however, believes the roadway was not designed properly and has damaged his land interests. Mohave County and the Hualapai Tribe have responded by hiring engineers to study the traffic safety and drainage design, respectively. The findings show that the roadway was built per the BIA design which could support some 450 average vehicular trips per day, an amount which is far below the most recent count of 1,600 vehicular trips per day that was performed since the roadway paving was completed in 2014.

Mr. Vaughn asked if the traffic sample could be in error due to the time of year it was taken. Mr. Majenty said that GCRC is currently performing a vehicle traffic study and will share the results when complete. He expects the daily traffic counts to be higher still given the larger number of free and independent travelers (FITs) coming to Grand Canyon West.

Mr. Wisely noted that one of the recommendations from the safety study is to widen the clear zones along the roadway shoulders and add some 4,000 linear feet of guardrail. The drainage study noted sediment build-up in some of the culverts with three culverts recommended for cleaning. The tribe is working on clearing culverts which require hand digging because they are too short for a backhoe to enter. The drainage study also showed that prior to the road construction the flood waters at the Grand Canyon West Ranch main house were a foot higher than they are now. However, floodwaters are now higher on the BLM property adjoining the ranch. Gabions are proposed along areas of excessive erosion. Mr. Vaughn noted that the sediment control should start higher up in the drainage system. Mr. Wisely said that Mohave County will be working with the BLM on this issue. One issue of contention is the height of the right-of-way barbed-wire fence which has been constructed to an Arizona Game and Fish standard of 42" high with a smooth top and bottom wire. Changing the fence would require a change to the Diamond Bar Road EIS. Mr. Sturgil, the rancher, has requested that the county not take the roadway for maintenance until the fence improvements he desires are completed. The BLM is seeking to place a V-Notch in the fence to allow people to easily cross.

Mr. Majenty noted that the GCRC does not have the authority to close Diamond Bar Road in the event of a weather-related problem. Mr. Wisely replied that the portion of the right-of-way controlled by the BIA could be closed. Mohave County should be consulted before the roadway is closed. Mr. Vaughn added that the Hualapai Police Department should be better trained to control traffic on snowy and icy roads.

To wrap up, Mr. Wisely said the guardrails RFP is 50% complete. Mr. Montana noted the designation of Indian Route 1 is being applied to both Buck and Doe Road and to Diamond Bar Road. This is leading to confusion. Mr. Wisely said he would look into it. Mr. Vaughn asked about the status of Mr. Turner's estate and claim against Hualapai. Mr. Wisely noted the bankruptcy hearing will be in January. Mr. Majenty added that whoever purchases the estate will also purchase the debts as well. Mr. Vaughn

asked how the estate could use Grand Canyon West Ranch for their operation since it seems to be copied directly from the tribe's use of Grand Canyon West.

3) Review and Approval of Minutes from November 23, 2016, meeting

Mr. Vaughn noted that "of" should be changed to "or" in the draft standard contract clause shown on page five of six. Mr. Vaughn made a motion to approve the November 23, 2016, meeting minutes, with above mentioned edits. Motion seconded by Mr. Majenty. Motion carried 4-0.

4) Status FY 2017 Budget Request

- a. Council action on December 14, 2016** Mr. Davidson reported that the tribal council approved the HTUA budget for approximately \$189,805, \$386,000 less than requested.
- b. Appeal to Finance Committee and pending Council action** Mr. Davidson said he discussed the budget shortfall with Chairman Clarke and Finance Director Wanda Easter and he will be appealing the decision to the Finance Committee. Mr. Vaughn said the construction of the power line is critical to the success of Grand Canyon West and the Colorado River water rights negotiations. Bringing power to Grand Canyon West along Buck and Doe Road, as part of the water pipeline project being considered in the water rights negotiations is likely to be too expensive and may fail for that reason. Also, the power supply would be from Mohave Electric Cooperative and taken from the same substation where Peach Springs receives its electricity and be subject to the same reliability issues. The board members would like to attend the forthcoming appeal meeting with the Budget Committee.

Mr. Davidson said one reason the budget was reduced is that the tribe may use its own capital reserves rather than applying for a USDA loan to construct the power line. This would remove the cost of the two new consultants to prepare the loan application (and reduce the work load of the HTUA's attorney and consulting engineer). However, the EA will have to be written regardless of the funding source. Mr. Vaughn noted that the tribe received some money from Freeport McMoRan as part of the Big Sandy water rights settlement to purchase additional water rights and further their development. Mr. Majenty asked if these Freeport funds could be

used to help construct the power line that will also be used to operate the water pumps at Grand Canyon West.

Mr. Majenty also reminded those present that the HTUA has invested a tremendous amount effort to get this far along on the power line project, including amending the Hualapai Constitution which will allow the tribe to take on a loan and not rely upon its own cash reserves. Mr. Navenma added that the Council should be consistent in its support for the power line. Mr. Davidson said that during his brief discussion with Chairman Clarke and Ms. Easter, the suggestion of using PL93-638 contract funds to pay for the Environmental Assessment was discussed. This is based upon the tribe's use of "638" fund to pay for the Diamond Bar Road Environmental Impact Statement some 15 years ago. Mr. Davidson said he has investigated this potential funding mechanism with BIA Superintendent Jim Williams and was told that Federal Highway Administration monies were used for the Diamond Bar Road EIS and would not be applicable to creating an EA for a power line. An inquiry to BIA's Division of Energy and Mineral Development revealed that DEMD will only fund EAs for investigations into minerals and geothermal type projects. Mr. Davidson said he has sent a request to Mr. Doug MacCourt of the DOE's Office of Indian Energy to see if this agency can support the cost of preparing the EA for the power line. Mr. Davidson will follow-up with Mr. MacCourt in the first week of January.

5) Project Updates

a. Proposed Power Line to Grand Canyon West

- i. Review and possible action on Environmental Review Funding Agreement with UniSource** Mr. Black began his review of the agreement's term noted in Section 2. The language allows the HTUA to take over management of the EA and pay the consultant directly if the routes carried forward in the EA do not include a route under UniSource's jurisdiction. Mr. Vaughn asked under what conditions UniSource would cease to be involved in the EA. Mr. Black said some routes could be eliminated early in the EA. For example, if the routes along Diamond Bar Road are eliminated then UniSource would most likely not be involved. Mr. Davidson added that in an EA all alternatives are discussed in the introductory chapters, with those alternatives having merit

carried forward for further evaluation. If Alternate Route B, which ascends along Tenney Ranch Road, is the only option to be considered in the EA, UniSource would not be involved.

Additional modifications to the agreement allow the HTUA General Manager and TTG's engineer to be included in the weekly progress meetings. In addition, UniSource has provided the hourly rates for their staff involved in the project and provided an estimate of some \$24,667 over the life of the agreement. Section 8.9 - the limited waiver of sovereign immunity clause - has been modified to include other matters pertaining to the agreement but are not substantive in nature. A new "survival" clause was added (Section 8.10) which allow Sections 4, 6, 7 and 8 to continue after contract termination, this includes payment of outstanding contract balances to UniSource, contract default, remedies and miscellaneous provisions, respectively. Mr. Majenty asked about litigation on survival claims. In the event of non-payment (Section 4), Mr. Black said this is a fairly straightforward claim. Failure to perform (Section 6.2) could be a possible issue; however, Mr. Black does see that as likely for either party. Mr. Majenty referenced a prior study done by the utility company over ten years ago where they did honor the entire agreement. Mr. Davidson asked for a vote by the Board to accept the agreement so it can be presented to tribal council for further action on January 7, 2016. Mr. Majenty made a motion to accept the Environmental Review Funding Agreement with UniSource. Mr. Montana seconded the motion. Motion was approved 4-0.

- ii. **Review and possible action on bids for Long Range Financial Forecast for USDA loan** Mr. Davidson reviewed his rankings for Baker Tilly and Cobb Consulting with the latter scoring five points higher than Baker Tilly, largely due to the 10 point advantage on the cost of services. Mr. Vaughn asked how Cobb Consulting could out-score Baker Tilly who presented the superior proposal. Mr. Davidson noted that Cobb Consulting has a good working relationship with the USDA's field representative who will be overseeing the HTUA's loan application and also offered a price that was within the HTUA's budget. Mr. Becherer reviewed his score which both bids ranked the same and said that Cobb Consulting is a one-person company but does have good working relations with the USDA and is located in Albuquerque, the same location as the USDA field office. Baker Tilly is a large firm and well capable of performing the task, and any additional work for that matter, but the \$20,000 price differential is too large to ignore. Mr. Vaughn asked if Baker Tilly would help the HTUA if the contract with Cobb were to be interrupted or defaulted

upon. Mr. Becherer opined that Baker Tilly is looking to cultivate new clients and would not hold a grudge against the HTUA for selecting another bidder. Mr. Navenma made a motion to accept the offer from Cobb Consulting to perform the Long Range Financial Forecast for the USDA loan application. Mr. Majenty seconded the motion. Motion carried 4-0.

- iii. **Review and possible action on bids for Construction Work Plan for USDA loan** Mr. Davidson reviewed his rankings for SGS Engineers and T&D Services + Q-Spec with the latter scoring 10 points higher, largely due to the 10 point advantage on the cost of services and five points for joint venturing with a Native American owned enterprise (Q-Spec). Also, T&D Services + Q-Spec's bid seemed to be more complete with the relevant USDA bulletins and CFRs cited. Mr. Majenty noted that T&D Services + Q-Spec also had good experience working with Native American Utilities, namely the Navajo Tribal Utility Authority. Mr. Majenty made a motion to accept the offer from T&D Services + Q-Spec to perform the Construction Work Plan for the USDA loan application. Mr. Navenma seconded the motion. Motion carried 4-0.

b. Follow up on Post-2017 Hoover power allocation and contracting

Mr. Davidson next reviewed the draft benefit arrangement contract from the Pechanga Band of Luiseno Indians from Temecula, California courtesy of Western. The Pechanga would like to add the "Power Recipient" so they can be covered under the Sovereign Immunity Clause stated in Section 16 of the arrangement. Mr. Davidson said this new language has been accepted by Western. No changes of substance have been made to the agreement.

As an aside, and given that the Pechanga are also working to establish their own utility authority, Mr. Majenty said it would be appropriate for the HTUA to visit the Pechanga to view their operations. Mr. Davidson said he would contact the Pechanga.

6) Other Matters (Planning)

- a. **Review and possible action on Standard Limited Waiver of Sovereign Immunity Clause** Mr. Black reviewed the revised the draft standard clause as follows:

Standard Limited Waiver of Sovereign Immunity. *As an institution of the Hualapai Tribal Government, the Hualapai Tribal Utility Authority agrees to a limited waiver of its sovereign immunity solely as to arbitration of or litigation in state or federal court, as may be applicable, for enforcement of this Agreement. Aside from this limited waiver, nothing in this Agreement, or in any current or future attachments, exhibits, or amendments, is intended to be or shall be construed as a waiver ~~of~~for the HTUA's sovereign immunity, and the Parties understand and agree that neither this Agreement nor any underlying law or procedure abrogates or waives the HTUA's sovereign immunity from suit in any state or federal court, or confers jurisdiction on any such court.*

Mr. Black said with the addition of the new wording "As an institution of the Hualapai Tribal Government" the clause now explicitly extends the tribe's sovereign immunity to the HTUA. The proposed language is based upon the Arizona Power Authority's contract and the Western Area Power Administration's Electric Service Contract for Schedule D power. Mr. Majenty asked if the standard clause could be modified once adopted. Mr. Black said the language can be modified, but would have to be approved by tribal council. Once the standard clause is adopted, then the HTUA is free to enter into its own contracts. The HTUA would not include this clause for smaller contracts. Mr. Majenty asked if the tribal council's attorney would have to review the language as well. Mr. Davidson said tribal council may refer the standard clause to their general counsel if they are uncomfortable with the language.

Mr. Vaughn noted the need for a comma between "of" and "or" in the first sentence and to replace "of" with "or" in the second sentence. With that said, Mr. Vaughn made a motion to accept the Standard Limited Waiver of Sovereign Immunity Clause, as amended. Mr. Montana seconded the motion. Motion was approved 4-0.

b. Announcements No announcements aside from happy New Year to all and thanks for getting us this far along!

7) Set time and location for next meeting

The next meeting will be held on Wednesday, January 25, 2017, at 9:00 AM at the Hualapai Health Department, Peach Springs.

8) Adjourned at 11:25 AM

Hualapai Tribal Utility Authority (HTUA) Meeting Minutes

January 30, 2017, 9:36 AM to 11:15 AM, Hualapai Health Department, Peach Springs.

Board members:

Charles Vaughn, Chairman – present

Joe Montana, Vice-Chairman – present

Jamie Navenma, Secretary – present

Rory Majenty – absent

Support personnel:

Kevin Davidson, Planning Director

Patrick Black, Fennemore Craig (via telephone)

Lauren Ferrigni, Fennemore Craig (via telephone)

1) Call to Order

2) Roll Call

3) Review and Approval of Minutes from December 29, 2016, meeting

Mr. Vaughn made a motion to approve the December 29, 2016, meeting minutes, as presented. Motion seconded by Mr. Montana. Motion carried 3-0-1.

4) FY 2017 Budget Request and status of appeal to Finance Committee and pending Council

action Mr. Davidson said he has a tentative meeting with the Budget Committee on February 1, 2017, after the tribal council meeting and invited interested HTUA board members to attend.

5) Review and possible action on revised Standard Limited Waiver of Sovereign Immunity

Clauses Mr. Davidson said that Tribal Council approved the standard clause for the limited waiver of sovereign immunity at its January 7, 2017, Regular Meeting provided that the language in the standard clause also is reviewed by the tribe's attorney, Gallagher and Kennedy. On January 18, 2017, Tribal Council reviewed the memo by Gallagher and Kennedy with members of the HTUA Board and the tribe's

attorney to discuss the standard clause. The standard clause adopted by Resolution No. 09-2017 was found to be too broad in that the “one-size fits all” approach is not appropriate for all contracts and the limitation on monetary damages should also be addressed. To that end, the tribe’s attorney has recommended four categories of standard contract clauses beginning with no limited waiver of sovereign immunity up to limited waivers for loan agreements, bonds and notes, and other financial contracts. In addition, a provision for consultation prior to litigation of non-financial contracts should also be considered by the tribe. Mr. Vaughn asked if Mr. Black had also reviewed the Gallagher and Kennedy memo. Mr. Black said the legal memo provides options on the limited waiver based on the type of vendor or contract. For example, the categories begin with no limited waiver for small contracts through limited waivers of various degrees including, declaratory and injunctive relief, with or without consideration for monetary damages, and lastly HTUA assets. These standard clauses may also provide a starting point for negotiations with counter-parties. The third standard clause provides declaratory and injunctive relief, with consideration for monetary damages not to exceed the value of the contract. Any modification of the standard wording must be approved by tribal council.

Mr. Vaughn asked if the HTUA could select the appropriate clause based upon the type of contract. Mr. Davidson replied yes. The second standard clause, which provides declaratory and injunctive relief, without consideration for monetary damages, is being presented to UniSource as part of the environmental funding agreement for the Grand Canyon West power line Environmental Assessment. The revised agreement also replaces State Court with Hualapai Tribal Court. The reason for this action is that tribal council rejected the environmental funding agreement at the January 7, 2017, Regular Meeting.

Mr. Vaughn asked how a breach of contract would be remedied by using the first standard contract clause since there is no mention of a hearing process. Mr. Davidson replied that the effect of the language should be similar to the tribe’s standard professional services contract which allows for a hearing in tribal court but does not mention sovereign immunity, so no waiver can be inferred. Mr. Black noted the broader scope of Gallagher and Kennedy’s memo and the need to protect tribal sovereignty. However, the tribe through the HTUA, must now deal with utility companies and federal contractors who will require some type of waiver of the tribe’s sovereign immunity.

Mr. Vaughn asked how each clause will be implemented. Mr. Davidson said clauses one through three would be for service contracts and the fourth clause would be used for a loan application. Mr. Black said the standard clauses in the proposed resolution should not be seen to tie the HTUA Board's hands. It should not take too much additional effort to modify one of the standard clauses for a particular counter-party and then have the revised language presented to tribal council for consideration. Mr. Vaughn noted the resolution should include Hualapai Tribal Court. Mr. Black said the issues are separate and may require two resolutions. The resolution can note Hualapai Tribal Court and Hualapai Tribal Law as the preferred jurisdiction and law. Mr. Navenma added that choice of jurisdiction and law will be based on the contracts such as it has been so far with previous state and federal contracts (Hoover power allocations). Mr. Black noted that placing the contract in the jurisdiction of tribal court would effectively negate the need for the limited waiver of sovereign immunity amendment recently added to the Hualapai Constitution. Mr. Black said he will add an opening "Whereas" to the resolution mentioning tribal court. Mr. Vaughn requested tribal court be the first forum for hearing. By consensus, the HTUA Board approved the language of the resolution and subsequent presentation to tribal council.

6) Project Updates

a. Proposed Power Line to Grand Canyon West

- i. Review and possible action on Environmental Review Funding Agreement with UniSource** Mr. Black said, based on tribal council denial of the first funding agreement on January 7, 2017, he presented UniSource with a revised contract with new language based upon the recent Gallagher and Kennedy memo. As noted above, the UniSource contract now contains a standard clause for declaratory and injunctive relief, without monetary damages, and replaces state court and law with tribal court and law. Even though state law applies in this case, tribal law and federal law were added to Section 8.3 on the advice of Gallagher and Kennedy. The tribe's obligation under the contract is to pay its bills to UniSource and provide staff support. UniSource has the contract under review and will most likely reject it. The Tenney Ranch Road option, also known as the Alternative B route, would not require significant UniSource involvement. The contract's status will most assuredly be discussed at the next HTUA Board meeting with possible input from Gallagher and Kennedy.

ii. **Consultants for USDA loan** Mr. Davidson reported that both Cobb Consulting and T&D Services + Q-Spec have been notified of the HTUA's budgetary constraints and are waiting for the notice to proceed once the constraints have been resolved.

iii. **Diamond Bar Road Studies** Mr. Davidson said there have been no additional updates from Hualapai Public Works since the last HTUA Board meeting on December 29, 2016.

b. Follow up on Post-2017 Hoover power allocation and contracting

Mr. Davidson said that Western is still preparing the final benefit arrangement contract between the tribe and the Pechanga Band of Luiseno Indians from Temecula, California.

7) Other Matters (Planning)

a. **Follow-up on 2017 Arizona Tribal Energy Association meeting** Mr. Davidson reviewed three of the noteworthy presentation made at the annual ATEA meeting beginning with the status of 2025 Colorado River Storage Project (CRSP) hydropower allocation managed by the Salt Lake City Area/Integrated Projects (SLCA/IP) marketed by Western. There are no proposed changes to the marketing area or allocation of power to existing customers nor will there be a new power pool created to serve new customers given the output at Glenn Canyon Dam. The new contracts will commence on October 1, 2024, and expire on September 30, 2057. The contracts will be distributed for review shortly, with the hope of having them executed by September of 2017.

The second presentation was from Mr. Chris Deschene. Director of DOE's Office of Indian Energy. His office focuses on bringing strategic energy solutions to tribes and Alaskan native villages. This comes in the form of educational, technical and financial assistance, including \$7.0 million in technical assistance and \$7.7 million in deployment over the past few years. The office has developed a strategic roadmap to 2025, developed several working groups, and conducted several conference. Mr. Deschene is concerned that his office's good work will be dismissed by the new administration. Mr. Davidson said he would like to write a support letter for transmittal to the Energy and Natural Resources Committee and the Presidential Transition Team to retain the Office of Indian Energy and Mr. Deschene as its director.

Another presentation of interest was made by E3, a California company focusing on energy and environmental economics. The presentation focuses on battery storage where innovation has been driven by the desire for lower cost storage and the increased use of renewable energy whose output is intermittent by nature. The extensive presentation provides a good background on the technologies, trends in battery development and costs, and a case study. Mr. Vaughn noted the need for the HTUA to make a renewable energy public presentation and explain how the utility grid helps levelize the power flow from these intermittent resources and the need for type of back-up power source. Mr. Navenma said that the load and time of use should also be addressed in the presentation.

b. Trip to Temecula, California, to meet with Pechanga Band of Luiseno Indians Mr. Davidson referred to the e-mail from Breann Nu'uhiwa, Associate Advocate General of the Pechanga Indian Reservation, inviting the HTUA to Temecula on March 14, 2017. The Board will check calendars and confirm.

c. Announcements Mr. Davidson said he received an application for the HTUA Board from Dr. Garth Daniels of Salt Lake City, Utah. The application will be forwarded to the Tribal Council Chairman for review.

8) Set time and location for next meeting

The next meeting will be held on Wednesday, February 22, 2017, at 9:00 AM at the Hualapai Health Department, Peach Springs.

9) Adjourned at 11:15 AM

Hualapai Tribal Utility Authority (HTUA) Meeting Minutes

February 22, 2017, 9:15 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

Rory Majenty – present (via telephone)

Support personnel:

Kevin Davidson, Planning Director

Patrick Black, Fennemore Craig (via telephone)

Lauren Ferrigni, Fennemore Craig (via telephone)

Bob Becherer, TTG (via telephone)

Lou Schmitt, TTG (via telephone)

1) Call to Order

2) Roll Call

3) Review and Approval of Minutes from January 30, 2017, meeting

In reference to page 3 of the minutes, Mr. Vaughn asked if an outside entity, such as UniSource, would ask for a limited waiver of sovereign immunity even if the contract required the case be heard in tribal court. Also, why did UniSource reject the limited waiver of sovereign immunity proposed to them? Mr. Davidson replied the limited waiver was only for declaratory and injunctive relief, not monetary damages. Mr. Black added that having a case heard in tribal court amounts to no waiver of sovereign immunity. Mr. Vaughn advised the process follow the Hualapai Law and Order Code which begins with applying tribal law and then has options for the use state law and federal law. Mr. Navenma made a motion to approve the January 22, 2017, meeting minutes, as presented. Motion seconded by Mr. Montana. Motion carried 3-0-1.

4) Status FY 2017 Budget Request Mr. Davidson reviewed the outcome of the Gaming Budget meeting held on February 6, 2016, and said Council would like to have the principals meet (Finance Committee, HTUA Board, members of the Grand Canyon Resort Corporation (GCRC) board and management) to discuss the power line and review the project's cash flow. Mr. Vaughn said the memo to be presented to the Finance Committee should discuss the need to bring power to Grand canyon West (GCW) to support the future residential community and supply power to pump water from the Colorado River. Mr. Vaughn advised that the project flow charts provided by TTG be simplified. Mr. Schmitt said he would revise them accordingly. The HTUA budget request should also be simplified to show the major expenditures by category vs. each line item within each category. Mr. Davidson said he would revise the budget table.

5) Project Updates

a. Proposed Power Line to Grand Canyon West

i. Environmental Review Funding Agreement with UniSource Mr. Davidson reviewed the outcome of February 20, 2017, teleconference with UniSource. As expected, UniSource has rejected the revised contract language which replaces state law and state court with tribal law and tribal court. Mr. Black said that UniSource also rejected the contract because it did not allow for recovery of monetary damages. However, UniSource is not opposed to the HTUA procuring its own NEPA consultant to perform the Environmental Assessment (EA) on an alternate route such as the one that uses Tenney Ranch Road. Soliciting for these professional services directly will give the HTUA leverage over the chosen consultant who will be offered the tribe's standard professional services contract which preserves sovereign immunity and the use of tribal law in tribal court. The Tenney Ranch Road option, also known as the Alternative B route under the UniSource procurement, would not require significant UniSource involvement, outside of procuring an interconnection agreement. However, if the Tenney Ranch Road option proves problematic, then the tribe will most likely have to approach UniSource to study the Pierce Ferry/Diamond Bar Road option which will require entering into a similar funding agreement as the one that was rejected.

Mr. Vaughn asked about the other advantages of using the Tenney Ranch Road alternative. Mr. Becherer replied that: 1) the tribe would administer the consultant contract and not have to pay UniSource for management costs, 2) save construction costs by not having to re-build the UniSource power line along Pierce Ferry Road and then pay UniSource the gross-up tax once the power line is rebuilt, and 3) can work directly with the BLM. Mr. Vaughn asked if UniSource would reject the findings of the EA if the HTUA administers the process. Mr. Davidson said the EA would be procured using the tribe's procurement procedures which include Indian Preference. Each consultant who bid on the UniSource procurement would be sent the HTUA's RFP. The NEPA process will follow the BLM's and tribe's rules (HERC). Mr. Black added that the HTUA requires an agreement with UniSource to connect to the Dolan Springs sub-station (i.e., interconnection agreement) and would look into it.

Mr. Vaughn asked about the Federal Energy Regulatory Commission's (FERC) review of the new 69 KV power line. Mr. Black said a 69 KV power line is typically considered "sub-transmission" and should not be subject to FERC review. Mr. Vaughn asked about FERC's review of a distribution line vs. a transmission line. Mr. Black replied that the power flow is one-way on a distribution line. However, if the power line accommodates two-way flow, for instance connecting a solar array along its route that delivers power to both Grand Canyon West and UniSource, then it could be argued it is a transmission line and subject to FERC review and if determined to be transmission the line would be opened up to serving land owners along its route. The Arizona Corporation Commission (ACC) defines a transmission line as being 115 KV or larger.

Mr. Majenty asked if the power was used to pump water from the Colorado River, even if the take out point was in Peach Springs (Diamond Creek), would the power line be considered a transmission line? Mr. Black said where the power is used on the reservation is not an issue. If the HTUA were to operate Mohave Electric Cooperative's grid in Peach Springs, it would be no different than supplying power to the mini-grid at Grand Canyon West.

Moving back to the cost of constructing the power line using the Tenney Ranch Road alternative, Mr. Schmitt said the route, even though some six miles longer, would cost an estimated \$3 million less than building the power line along the Pierce Ferry/Diamond Bar Road

route. Mr. Vaughn asked if UniSource is likely to ask for a similar contract to connect to the Dolan Springs sub-station as they did for the NEPA consultant contract which included the use of state court and state law and a limited waiver of the tribe's sovereign immunity. Mr. Black said that an on-going agreement for the long-term purchase of power from UniSource would most likely require a similar agreement as the environmental consultant contract. This contract is different than obtaining permission to connect to the Dolan Springs which most likely will not require such an agreement.

Mr. Vaughn asked what action items the HTUA should consider in regard to the power line project. Mr. Black advised the HTUA rule on UniSource's contract counter-offer as presented and then decide whether or not the HTUA should procure the NEPA consultant directly to perform the EA. Mr. Davidson said that by choosing just the Tenney Ranch Road option and the no-action alternative, the EA should be less expensive because the pedestrian survey along the Pierce Ferry/Diamond Road route will be removed. However, it would be wise to have that route included in the RFP as a bid additive in the event that the Tenney Ranch Road alternative proves problematic. Mr. Becherer noted that parts of the canyon along the Tenney Ranch Road may prove difficult to construct a power line. Also, there are potential visual resource management issues with the BLM and need to traverse about one-half of a mile of private land at the reservation boundary, which could be bypassed.

Mr. Majenty asked about the HTUA's procurement process for the NEPA consultant. Mr. Davidson said the EA would be procured using the tribe's procurement procedures which include Indian Preference. Each consultant who bid on the UniSource procurement would be sent the HTUA's RFP. Mr. Vaughn asked if the UniSource procurement could be used "as is." Mr. Davidson said it is unlikely because UniSource used their procurement procedures instead of the tribe's. Mr. Davidson will verify this question with the tribe's Grants and Contracts office.

By consensus, the HTUA Board recommended the UniSource contract be rejected and that the HTUA procure a NEPA consultant to perform the power line EA with a focus on the Tenney Ranch Road alternative.

ii. **Cash Flow Analysis 2011 vs. 2017** Mr. Schmitt briefly reviewed the cash flow analysis for the power line that was requested by tribal council on February 6, 2017. In brief, the pay-back period is between 7 and 11 years depending upon the cost of diesel fuel, with the higher the cost of diesel fuel the shorter the pay-back period.

iii. **Diamond Bar Road Studies** Mr. Davidson said there have been no additional updates from Hualapai Public Works since the HTUA Board meeting briefing by Mr. Wisely on December 29, 2016.

b. Hydropower contracts with Western

i. **Review Draft Salt Lake City Area/Integrated Projects contract, 2024 – 2057** Mr. Davidson referenced the draft contract from SLCA/IP which is basically an extension of the existing hydropower agreement the tribe entered into in 2005. Western will not increase the power or energy delivery to existing customers nor will it create an additional customer pool given that the Colorado River system is under stress due to drought. The contract still allows tribes which are not able to receive power directly to enter into a benefit arrangement with another utility which can take the power directly. This would allow the tribe to continue the benefit arrangement it has with Navajo Tribal Utility Authority (NTUA) provided the NTUA offers a benefit arrangement for the new contract. Mr. Davidson said the current contract value for the hydropower is generous to the point where Western is losing money on the deal, so new contracts will likely be worth less to customers. The draft contract does not contain a dispute resolution clause tailored for tribes, so it would be appropriate to have the HTUA comment on this and request language similar to that which was added to the 2016 Boulder Canyon Power contracts be inserted into the SLCA/IP contract. Comments are due by April 4, 2017. Mr. Black added that the HTUA should consider a benefit arrangement because it may be more profitable than having to pay wheeling charges to bring power from Glenn Canyon Dam to the Hualapai Reservation. Given that this is the first time the HTUA Board has seen the contract, Mr. Vaughn asked that the contract be tabled until the next meeting. By consensus the Board agreed to table the contract review until the next HTUA Board meeting.

- ii. **Follow up on Post-2017 Hoover power allocation and contracting** Mr. Davidson said that Western is still reviewing the final benefit arrangement contract between the tribe and the Pechanga Band of Luiseno Indians from Temecula, California.

c. **Community Wi-Fi**

- i. **Proposal by Mural Project for free 4G LTE service to Peach Springs homes with students** Mr. Davidson said he had been contacted in January by Mr. Chad Hamill, Vice President of Native American Initiatives and Associate Professor, Applied Indigenous Studies, regarding an opportunity for the tribe to receive free wireless communication service from Mural, a company which has implemented wireless communications in sub-Saharan Africa and in Southeast Asia. The free wireless service would be provided to households with students attending school or in college so that they may continue their education when at home. Mr. Martin Casado and Mr. Brian Shih of Mural met with Mr. Davidson, Mr. Zacherson, IT manager for Grand Canyon Resort Corporation (GCRC) as well as Mr. Mikel Allen and Mr. Sean Hargreaves of the tribe's IT division to discuss the system's set up in late January. The attendees agreed that the existing radio tower on Honaga Hill would carry the transmitter for the first phase of the pilot program with the second phase transmitter placed atop the water tank located south of the intersection of Buck and Doe Road and Highway 66. Implementation should take about three months.

Mr. Majenty asked how much the equipment would cost and will it use the 100 Mbps of capacity that GCRC has at the Honaga Hill location. Also, will this new wireless service be in competition with Frontier Communication's service? Mr. Davidson said the equipment is being provided free of charge by Mural and that Mr. Zacherson considers the Honaga Hill site a good location because GCRC supplies that location for the benefit of Peach School Elementary School. As for competition with Frontier Communications, the free service will most likely be viewed as such but the system is designed for education purposes only (search filters implied). Mr. Vaughn asked Mr. Davidson to check the status of permit for the existing radio tower to see if it is in order.

- ii. **Council direction on February 4, 2017, and HTUA's role in implementation** Mr. Davidson said he and Mr. Hamill discussed the matter with tribal council at their February 4, 2017, meeting

and council gave permission for Mr. Davidson to proceed with implementing the wireless communication system and also directed the HTUA to assume the long-term maintenance responsibility for the wireless system. To do so the HTUA must expand its mission, currently described in Section 108 of the HTUA Ordinance, to include telecommunications. Mr. Davidson presented a red-line version of the ordinance showing the recommended textual changes to accommodate telecommunications and the companion resolution to be presented at the March 4, 2017, tribal council meeting. Mr. Montana asked that the HTUA's mission also be expanded to provide electric, water and wastewater services beyond the narrow confines of Grand Canyon West and be applied reservation-wide (Sections 104, 107, etc.). Doing so will indicate to tribal members that the HTUA was not just created to serve the interests of Grand Canyon West. Mr. Black noted that sub-section 107.a.5 allows for the expansion of the service area. Mr. Vaughn recommended that reference to "Grand Canyon West" be replaced with "other tribal lands" to make the service area clear in Section 107, etc. The ordinance should be forward-looking. Mr. Majenty made a motion to replace references to "Grand Canyon West" with "Hualapai Reservation and other tribal lands," and to also add telecommunications to the HTUA mission as defined in the HTUA Ordinance. Mr. Montana seconded the motion. Motion carried 4-0.

- iii. **Contract development** Mr. Davidson said he is working Mr. Shih on the contract to create sole-source, zero-dollar-value-contract and should have it ready for review by the tribe's Grants and Contracts Office shortly. Mr. Majenty asked how Mural benefits from the deal. Mr. Davidson said Mr. Casado, the founder of Mural, is looking to give back to his home state after having a rewarding and profitable career in information technology. Mr. Majenty advised the system have a firewall to keep students away from certain web sites.

6) **Other Matters (Planning)**

- a. **Trip to Temecula, California, to meet with Pechanga Band of Luiseno Indians** Mr. Davidson referred to the e-mail from Breann Nu'uhiwa, Associate Advocate General of the Pechanga Indian Reservation, inviting the HTUA to Temecula on March 14, 2017. Mr. Davidson said he will confirm the trip to Temecula with Ms. Nu'uhiwa after today's Board meeting and arrange for travel. Mr. Majenty said he will provide a van for transportation.

- b. Announcements** Mr. Davidson noted a Western webinar on February 23, 2017, to discuss Hoover's operations and a public meeting with the Arizona Department of Water Resources at Mohave Community College on February 28, 2017, to discuss the mounting groundwater crisis facing Hualapai and Sacramento Valleys largely due to the increased pumping of groundwater for industrial-scale agricultural pursuits (alfalfa). There could be some negative impact to the depth of the water table under the Hualapai trust lands around Clay Springs Road. Mr. Montana said the springs in the area could also be negatively affected as the water table is drawn down along the perimeter of the Hualapai Valley.

Mr. Montana reviewed a new solar technology which can be set up by individual home owners in their back yard and simply plugged into their home. The solar array tracks the sun and then folds up at night, somewhat like a flower. Mr. Montana said the devices may be deployed in en masse and used for a community-scale solar array. Mr. Davidson said he sent an e-mail inquiry to the company's US distributor in Boston, MA.

Mr. Davidson presented Mr. Vaughn with the recommendation letter to Senator Lisa Murkowski, chair of Energy and Natural Resource Committee, asking that she consider retaining Mr. Chris Deschene as head of the Office of Indian Energy under the Department of Energy. Mr. Vaughn asked that the Hualapai Tribal Council Chairman Clarke sign the letter being this is a government-to-government request. Mr. Davidson said he would revise the letter and present it to Chairman Clarke for his signature.

8) Set time and location for next meeting The next meeting will be held on Thursday, March 16, 2017, at 9:00 AM at the Hualapai Health Department, Peach Springs.

9) Adjourned at 11:00 AM

Hualapai Tribal Utility Authority (HTUA) Meeting Minutes

March 16, 2017, 9:15 AM to 11:05 AM, Hualapai Health Department, Peach Springs.

Board members:

Charles Vaughn, Chairman – present

Joe Montana, Vice-Chairman – present (via telephone)

Jamie Navenma, Secretary – present

Rory Majenty – absent

Support personnel:

Kevin Davidson, Planning Director

Patrick Black, Fennemore Craig (via telephone)

Lauren Ferrigni, Fennemore Craig (via telephone)

Bob Becherer, TTG (via telephone)

1) Call to Order

2) Roll Call

3) Review and Approval of Minutes from February 22, 2017, meeting

Mr. Vaughn requested the minutes be tabled until the next meeting. Meeting minutes tabled by consensus.

4) Status FY 2017 Budget Request Mr. Davidson said he has been unsuccessful in scheduling a meeting with the Finance Committee to discuss the budget appeal to allow the HTUA to hire additional consultants to help with the power line project. He did note that draws on the account have been relatively light in the first quarter with only travel expenses and the purchase of an Eaton Gateway PXM 2000 data card to monitor the generator loads at Grand Canyon West. Mr. Vaughn asked why this data card was needed. Mr. Becherer replied that the loan application to USDA requires this type of detailed information to determine electrical consumption. This detailed data will also help operations and maintenance of the system. Mr. Vaughn said the electrical load and usage projections should take into account future development which will be made possible by the pending Hualapai water rights

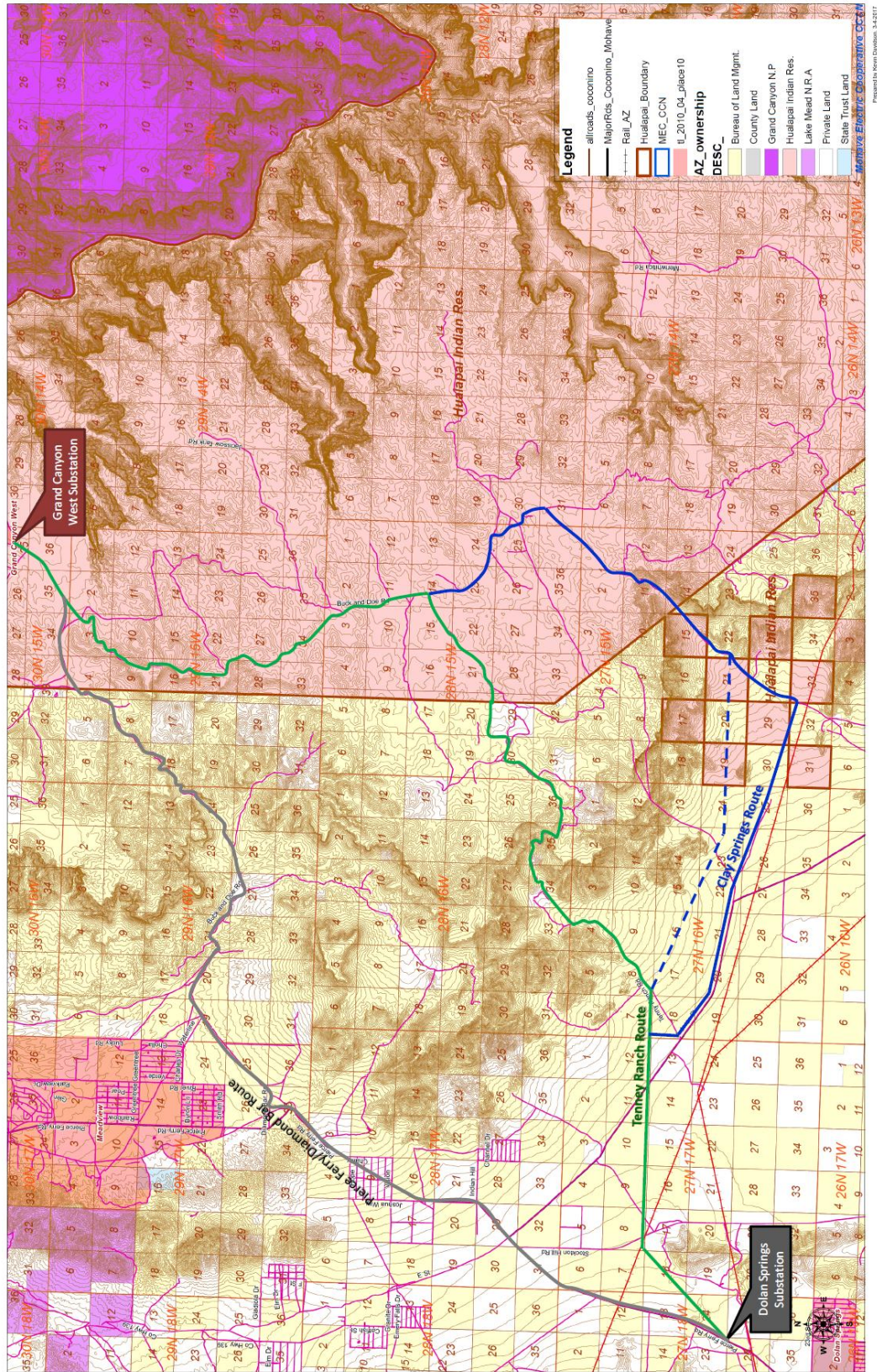
settlement. For example, a new resort hotel, residential community, golf course and support services should be considered. Mr. Becherer said he reviewed the Grand Canyon West Master Plan and estimated the power demand to be 6.5-7.0 MWs. A 2,500 HP load for the water pumping system is also anticipated in the load calculations. The current load is about 500 KW. Mr. Vaughn asked if all of the land uses shown in the master plan were accounted for in the demand calculation. Mr. Becherer recited the six major new developments (two hotels, golf course, RV park, welcome center, new residential community) and expansion of existing facilities (Skywalk, Guano Point, Western Town and airport).

5) Project Updates

a. Proposed Power Line to Grand Canyon West

- i. Procurement of consultant to perform Environmental Assessment** Mr. Davidson reviewed the draft RFP which follows the tribe's standard professional services RFP along with insight taken from UniSource's original RFP from September of 2016. Both Mr. Becherer and Ms. Darling of UNSE recommended the bid additive (Pierce Ferry/Diamond Bar route) be omitted given the extra work it may entail. The two new routes run generally east of the Dolan Springs substation to Tenney Ranch Road and up to Buck and Doe Road then north to Grand Canyon West or further east to Clay Springs Road, up to Buck and Doe Road and then north to Grand Canyon West (see map). Mr. Vaughn asked about the number of switchbacks on the routes. Mr. Becherer, having driven most of both routes, noted numerous switchbacks on Tenney Ranch Road whereas Clay Springs Road only has one significant switchback. Mr. Montana said there was a grave site and natural springs along the Clay Springs route so these areas should be avoided. Mr. Davidson said he will show the proposed power line route to the Hualapai Cultural Department to get their input. Mr. Vaughn asked how the power line would be routed and whether it would go through land depressions and the like. Mr. Becherer replied the power line would generally follow along the shoulder of the roadway; however, he would prefer to make the route as straight as possible to avoid extra guy poles and line length which will increase the construction cost. Mr. Becherer said he drove the Clay Springs route Monday and stopped 2.5 miles short of Buck and Doe Road due to poor road conditions. Mr. Vaughn also advised the consultants avoid placing the power line near grave sites and springs. Mr. Davidson said the Clay Springs Road route was suggested by Councilman Bravo at the last tribal council meeting.

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



- ii. **Staking of alternate routes by Certified Federal Surveyor** Mr. Davidson stated the power line route (P-Line) should be surveyed and staked prior to having the NEPA consultant walk the route and possibly wander off the alignment. Mr. Becherer recommended the P-line survey also be done before the Environmental Assessment (EA) is contracted. The P-line survey should reveal which of the alternate routes (Tenney Ranch Road or Clay Springs Road) is preferable, thereby allowing the RFP for the EA to be narrowed to focus on the preferred route and save the HTUA both time and expenses. Mr. Becherer also advised the BLM's Kingman Field Office be involved in helping to select the P-line route. Mr. Vaughn suggested Hualapai Cultural be given the alternate routes for their cursory review and also have their staff available to walk with and monitor the survey crew's work in the field.
- iii. **Right-of-Way application and Plan of Development for BLM** Mr. Davidson said he recently talked to Mr. Andy Whitefield at BLM regarding the SF-299 application for the right-of-way across BLM land and drafting the Plan of Development (POD) which describes the power line design and construction in detail. Mr. Whitefield said that now that the HTUA is creating these two documents instead of UniSource, he would assist Mr. Davidson in their development. Mr. Vaughn asked if the SF-299 must be submitted and approved prior to performing the P-Line survey. Mr. Davidson said he would inquire further with Mr. Whitefield on this topic.
- iv. **Interconnect agreement with UniSource for Dolan Springs substation** Mr. Black briefly reviewed the 75-page Large Generator Interconnection Agreement (LGIA) provided by UniSource. UniSource has yet to create a "wires-to-wires" interconnection agreement where they make a physical connection with another utility company, so the HTUA will be working with UniSource on a new type of agreement. Some of the language in Section 18 of the LGIA relates to indemnity which is problematic because the tribe does not indemnify. Also, dispute resolution is to be handled with binding arbitration via the American Arbitration Association. This language is likely to come up in the power sales and wheeling agreements between the HTUA and UniSource. This language should be cleared with tribal council prior to moving ahead with the project. Mr. Black said he will have a memo for the HTUA to review at their next board meeting prior to going to tribal council. Mr. Vaughn added that given the recent negative experience with arbitration, tribal council may not want to consider arbitration again. Mr. Black

recommended a presentation to tribal council explaining the HTUA's contracting options with UniSource. Mr. Davidson suggested the presentation to tribal council be peer-reviewed by the tribe's attorney.

Mr. Davidson asked Mr. Becherer to present his cost comparisons between electricity from the existing diesel generation and the proposed 69 KV line. Given the cost of the loan over 40 years (about \$610,000 per year), depreciation, line maintenance and UniSource's likely charge of 10 cents per KWhr, the electricity from the 69 KV line is estimated to be 42 cent per KWhr. The cost of electricity from the diesel generators with maintenance costs and the price of fuel at \$2.25 per gallon is 27 cents per KWhr. This price inversion has been caused by the steep decline in diesel fuel, the increase in the generator efficiency, and the increased cost of the power line. Mr. Becherer said that as Grand Canyon West uses more electricity and the price of diesel fuel increases over time, the two costs will converge with the 69 KV power being less expensive in the long run. Mr. Vaughn asked what the cost is expected to be to re-build the diesel generators. Mr. Becherer said he is working on the estimate with the Caterpillar representative.

b. Hydropower contracts with Western

- i. Review Draft Salt Lake City Area/Integrated Projects contract, 2024 – 2057** Mr. Black reviewed the draft contract and noted the new sections on environmental attributes (Section 13) and credit worthiness (Section 15). There is also an inconsistency in the term which creates a time gap between the start of the new contract in 2024 and the ending of the current SLCA/IP contract in late 2017. The two contracts should join seamlessly. Mr. Black advised that the HTUA request Western to add a dispute resolution clause akin to Section 20.4 of the recently concluded and well-vetted Boulder Canyon Project Electric Service Contract for Hoover power. This clause addresses sovereign immunity and litigation in a federal court of competent jurisdiction. In addition, Section 12 of the contract requires an Integrated Resource Plan (IRP) be prepared but does not offer an exemption for tribes who enter into a benefit arrangement with another utility who would typically be expected to prepare the IRP.

- ii. **Follow up on Post-2017 Hoover power allocation and contracting** Mr. Davidson said that Western is still reviewing the final benefit arrangement contract between the tribe and the Pechanga Band of Luiseno Indians from Temecula, California.

c. Community Wi-Fi

- i. **Proposed amendments to HTUA Ordinance and council action on March 4, 2017** Mr. Davidson said the Council agreed to add telecommunications to the scope of the HTUA Ordinance but not the expansion of utility services throughout the reservation and trust lands, outside of Grand Canyon West. Mr. Davidson also said the Council was concerned with the ability of the HTUA to deal in both real and personal property (Sections 203.B.5 and B.6, respectively) without a dollar cap. Mr. Davidson suggested a \$50,000 cap for each may ease council's concerns. Mr. Davidson said a special election is required to lease tribal land if the value exceeds \$50,000 (Article V.n, Hualapai Constitution). Mr. Vaughn said the \$50,000 cap on personal property would not be sufficient to purchase a service truck for a line crew. Mr. Navenma agreed and suggested the cap be raised to \$250,000. Mr. Davidson added that council must approve the HTUA's annual budget where such purchases will most likely be detailed and justified.
- ii. **Status of contract with Mural** Mr. Davidson said the attorneys for Mural are reviewing the draft contract. In addition, Mural is investigating the FCC license requirements for the 4G wireless system.

6) Other Matters (Planning)

- a. **Recap of meeting with Pechanga Band of Luiseno Indians Tribal Utility Authority** Mr. Vaughn said he was impressed by the ability and forward-looking nature of the Pechanga Tribal Utility Authority. Their use of diesel back-up generation and the creation of a condemnation ordinance to acquire Southern California Edison's distribution system was also noteworthy and could be used as a model for the HTUA to acquire MEC's infrastructure in Peach Springs. Mr. Navenma was impressed by Pechanga's efforts to train their tribal members to develop a skilled workforce and by their exceptional level of community involvement and participation in council meetings

b. Announcements Mr. Davidson noted the Cost of Service bids and Community-Scale Solar Feasibility study bids are due on March 24, 2017, and will be presented to the HTUA for evaluation shortly thereafter.

8) Set time and location for next meeting The next meeting will be held on Thursday, April 20, 2017, at 9:00 AM at the Hualapai Health Department, Peach Springs.

9) Adjourned at 11:05 AM

Hualapai Tribal Utility Authority (HTUA) Meeting Minutes

April 27, 2017, 9:10 AM to 11:45 AM, Hualapai Cultural Department, Peach Springs.

Board members:

Charles Vaughn, Chairman – present

Joe Montana, Vice-Chairman – present

Jamie Navenma, Secretary – present

Rory Majenty – absent

Support personnel:

Kevin Davidson, Planning Director

Dawn Hubbs, Cultural Resources Director

Lauren Ferrigni, Fennemore Craig (via telephone)

Bob Becherer, TTG (via telephone)

Lou Schmitt, TTG (via telephone)

1) Call to Order

2) Roll Call

3) Review and Approval of Minutes from February 22, 2017, and March 16, 2017, meetings

Looking at page 2 of the minutes Mr. Vaughn asked how much the cost would be to build the power line along the Pierce Road/Diamond Bar Road route. Mr. Becherer said even though the route is shorter than both the Tenney Ranch Road or Clay Springs Road proposals, it may cost more than \$14 million to construct given that the tribe will be paying to re-build UniSource's active power line for some ten miles and also pay a tax gross-up fee to Unisource of at least one million dollars. Mr. Vaughn asked if Mr. Davidson had researched the permit and lease site status of the radio tower on Honaga Hill in Peach Springs. Mr. Davidson replied he had located the EA but had not confirmed if the General Permit was approved by tribal council. Radio towers operated by the tribe typically do not have leases. Mr. Vaughn asked Mr. Davidson if he attended the Arizona Department of Water Resources (ADWR) meeting held in Kingman on February 28, 2017. Mr. Davidson said did not attend the meeting but noted that ADWR is holding a series of meetings with stakeholders in areas of the state where groundwater pumping is

putting the aquifers at risk. At the meetings, ADWR provides information on current water demand and also asks participants to brainstorm on water conservation measures. Some 15 years ago, ADWR was actively promoting the Rural Watershed Initiative which had a similar focus. Mr. Montana asked if the support letter to retain Mr. Deschene as head of the Office of Indian Energy was transmitted to the Department of Energy. Mr. Davidson replied that Chairman Clarke signed the letter in early March and it was mailed shortly thereafter. Mr. Vaughn entertained a motion to approve the meeting minutes of February 22, 2017. Mr. Navenma made a motion to approve the minutes as written. Mr. Montana seconded the motion. Motion carried 3-0-1.

Mr. Vaughn asked Mr. Davidson if he had consulted with the Hualapai Cultural staff on the power line routes as noted on page 2 of the March 16, 2017, minutes. Mr. Davidson said he had discussed the Tenney Ranch Road and Clay Springs Road routes with Ms. Hubbs, Tribal Historic Preservation Officer for the Hualapai Tribe, and a presentation is scheduled under Item agenda no. 5.a.iii. Neither route has been field surveyed. In regard to the draft interconnect agreement discussed on page 4 of the minutes, Mr. Vaughn asked if Fennermore Craig had discussed the draft language with UniSource. Ms. Ferrigni replied that they had not yet done so. In regard to the use of arbitration to settle disputes between the tribe and UniSource, Mr. Vaughn asked if the tribe would have an opportunity to select an arbitrator based upon the arbitrator's record of decisions. Ms. Ferrigni said that one option would be for the tribe and UniSource to mutually agree on the selection of a single arbitrator. In the event that the tribe and UniSource cannot come to an agreement, another option would be for the tribe would select an arbitrator, UniSource to select an arbitrator and then the two arbitrators to select a third arbitrator to form a panel. Mr. Vaughn asked what would happen if either party declines to go to arbitration. Ms. Ferrigni replied that mediation could be pursued. The next option is litigation. In the event that the parties cannot resolve a dispute through mediation and do not wish to submit to arbitration, that leaves the parties with the remaining route of litigation for resolving disputes. With no further comments on the meeting minutes for March 16, 2017, Mr. Vaughn entertained a motion. Mr. Montana made a motion to approve the minutes as presented. Mr. Navenma seconded the motion. Motion carried 3-0-1.

4) Status FY 2017 Budget Request Mr. Davidson said he has been unsuccessful in scheduling a meeting with the Finance Committee; however, he did present the revised cash flow analysis to the Finance Director and noted that the existing diesel generator set costs less to operate in the near term

than building a 69 KV new power line. The power line does become more economical as the load at Grand Canyon West grows and the cost of diesel fuel rises over time.

5) Project Updates

a. Proposed Power Line to Grand Canyon West

- i. Project schedule and consultant budget** Mr. Davidson reviewed the project tasks and cost for each prepared by Mr. Schmitt of TTG/IMEG. The project Gantt chart extends through the end of 2018 with the total cost is \$501,170 for both TTG's services and that of third-party consultants to perform tasks as follows: 1) preliminary power line survey = \$80,000, 2) environmental assessment (EA) = \$150,000, and 3) final power line survey and preparation of written legal description = \$125,000. These three tasks equate to \$355,000 or over 70 percent of the budget. Mr. Vaughn asked about the cost of services charged by TTG. Mr. Becherer explained that TTG would only charge for hours billed to the project. The routes would be flown with a helicopter to determine the most likely one or two to further study. This approach is less costly than walking each route. Ms. Hubbs asked if the pedestrian survey would be omitted. Mr. Becherer replied it would be part of the EA. The aerial reconnaissance will be used to determine which route should be staked by the surveyor so the route can be easily walked by the environmental consultant who will perform the EA. As sensitive sites are discovered during the survey, the power line route will be adjusted to avoid the sites. This approach is in line with Hualapai Cultural Resources expectations for the project. Mr. Navenma noted these engineering costs cover the scope of work and seem to fall in-line with other similar projects. The Board, by consensus, agreed that these cost estimates should be used when discussing the HTUA's budget amendment request with the Finance Committee.
- ii. Comparison of costs between existing diesel generation and new 69 KV power line** Mr. Vaughn noted the lower cost of operating the existing diesel electric generation plant in the short term and as compared to building a new 69 KV power line. The review prepared by Mr. Becherer seems adequate.

iii. Class I review of archeological sites along alternate power line routes Ms. Hubbs referred to the maps displayed on the conference table which depicted the Tenney Ranch Road and Clay Springs Road routes to Grand Canyon West. The Tenney Ranch route has not been surveyed by the Cultural Resources Department. Ms. Hubbs suggested that Mr. Bungart, a former employee of the Cultural Resource Department, would be a good resource for the HTUA to employ to perform additional survey work. Mr. Vaughn asked about cultural sites in the area. Ms. Hubbs noted that this part of the state has multiple historic trails and trading routes that were used by tribes. The proposed route from the Dolan Springs substation crossing BLM lands (see map) is a new path and has not been surveyed. Given the high density of artifacts in the Hualapai Valley, this route is likely to pass through historic sites. Many archeological sites were discovered during the field work performed for the Hualapai Valley Solar Project proposed in 2009.¹ However, these sites have not been mapped. The Clay Springs Road, off-reservation, has not been surveyed and neither route which occurs on the Hualapai Reservation has been fully surveyed; however, Buck and Doe Road has been surveyed. Mr. Vaughn asked about the presence of historic buildings along the routes. Ms. Hubbs said she would look into the route in more detail once one is selected.

Ms. Hubbs noted the proposed power line route crosses existing transmission line rights-of-way (Western) with route option running parallel to the Arizona Public Service (APS) right-of-way for some distance. Mr. Davidson said he has contacted Ms. Wilcox at Western and sent her a sketch showing the proposed crossing at the corners of Sections 8 and 18 (T27N, R17W), some 2.5 miles northeast of the UniSource sub-station. The application is fairly straightforward and should not require extensive effort to complete (refer to sample in agenda packet). The longer of the two Clay Springs routes utilizes a portion of the one-mile-wide BLM designated “368” energy corridor. This area is much broader than the 200-plus-foot wide rights-of-way for the Western and the APS transmission lines which run through the center of the BLM corridors.

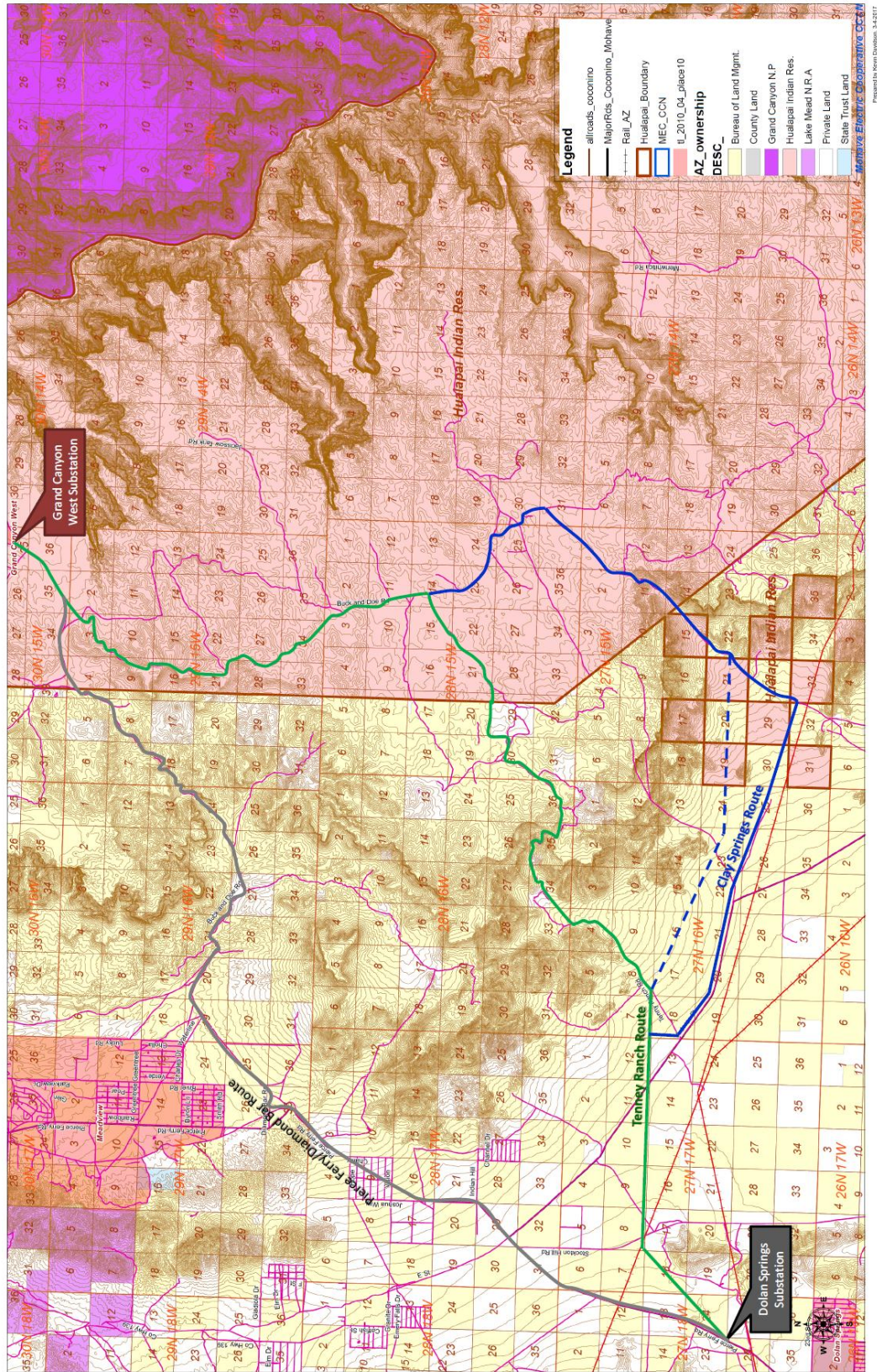
iv. Status of Right-of-Way application and Plan of Development for BLM Mr. Davidson said he met with Mr. Andy Whitefield at BLM on April 18th regarding the SF-299 application for the right-of-way across BLM land and the drafting the Plan of Development (POD) which describes

¹ Hualapai Valley Solar Project consisted of 340 MW Concentrating Solar Power (CSP) plant covering over six square miles adjoining the southeast portion of the Red Lake Playa.

the power line design and construction in detail. Mr. Whitefield said that he would like the application submitted to the BLM in May so his office can budget time in FY 2018 to review the documents prepared by the tribe's yet-to-be-determined environmental consultant.

Mr. Vaughn noted that the example SF-299 and POD for the Golden Valley 69KV line seem to have extra material not relevant to the tribe's pending application. Mr. Davidson said he would work with Mr. Whitefield and Mr. Becherer to customize the application to fit the tribe's project. Mr. Davidson added that the power will cross private property in either Section 13 or 19, T27N, R17W and require that the tribe obtain an aerial easement from the landowner. These private lands are owned by Pierce Ferry, LLC and EB Acquisitions, LLC both of Las Vegas, Nevada.

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



v. Interconnect agreement with UniSource for Dolan Springs substation Ms. Ferrigni began her review of UniSource's Open Access Transmission and Tariff (OATT), via the nine-page memo prepared by Fennermore Craig, by stating that UniSource has yet to create a "wires-to-wires" interconnection agreement where the company makes a physical connection with another utility company, so the HTUA will be proposing new language to UniSource on this new type of agreement. As noted at the March 16, 2017, HTUA Board meeting, indemnification is an issue for tribes because it can be considered an infringement on sovereign immunity. Ms. Ferrigni said that indemnity is often negotiated so the contract clearly identifies the responsibilities of each party. The UniSource clause provides for mutual or reciprocal indemnification which is beneficial to both parties vs. one-way indemnification. Mr. Vaughn asked who would be responsible for broken power poles. Mr. Davidson referred to page 9 of the Fennermore Craig memo noting either party would be responsible for paying the cost for direct damage they may cause to the other party. Ms. Ferrigni added that damages cover actual costs such as non-payment for services. Neither party pays for indirect damages incurred by the other party.

In regard to insurance coverage, Ms. Ferrigni noted that the Large Generator Interconnection Agreement (LGIA) requires the tribe have a significant amount of insurance coverage (automobile, workmen's compensation, etc) in addition to general liability insurance which is all that that is required to enter into a Small Generator Interconnection Agreement (SGIA) with UniSource. Mr. Vaughn asked Mr. Davidson if the insurance premium quoted by The Mahoney Group covers the substation interconnection as well as the new power line. Mr. Davidson said he would check on the insurance coverage. Ms. Ferrigni briefly reviewed the Force Majeure clause and noted that each party is required to notify the other of any instances of disruption of service and perform corrective action. The clause is standard and should be considered acceptable to the tribe.

Ms. Ferrigni next referred to the dispute resolution clause which requests the two parties meet to discuss the issue at hand prior to invoking arbitration. Arbitration should only be chosen if it is agreeable to both parties. Under LGIA, if arbitration is not agreeable to the either party, then the dispute will be settled by litigation; however, in the language of the SGIA, parties may request that Federal Energy Regulatory Commission's (FERC's) Dispute Resolution Service (DRS) settle the issue. Ms. Ferrigni recommended the tribe's draft interconnect agreement pattern

itself after the language of the SGIA. Mr. Vaughn asked if the DRS process is binding. Ms. Ferrigni replied that the DRS process, by itself, would not be binding on the tribe and UniSource. Only if the tribe and UniSource establish a written and signed settlement agreement through the DRS or an alternative mediation process will it be binding on the parties. Mr. Vaughn asked how the parties would select a mediator. Ms. Ferrigni said she would do more research on the selection process.

Ms. Ferrigni stated that the governing law provisions, in both the LGIA and SGIA, require the use of state law at the point in which the interconnection is made to resolve disputes. However, given that the tribe is developing a new agreement, the tribe can request Hualapai Law and Hualapai Court. Mr. Vaughn asked if UniSource's standard clause would place the case in Mohave County Superior Court. This venue could be problematic for the tribe. Ms. Ferrigni said that the governing law provision is different than the choice of venue where the case will be heard. Mr. Vaughn requested that the contract clearly state the location of the court and the choice of governing law. This would most likely be an Arizona State Court and Arizona State Law.

To conclude, Ms Ferrigni reviewed tribal sovereign immunity. Neither the LGIA nor SGIA mention sovereign immunity. If UniSource requests a waiver of sovereign immunity greater than the tribe is likely to grant, then this should be discussed with tribal council before the project proceeds to the next step, e.g. surveys, environmental analysis, etc. The HTUA may request the contract include a limited waiver of sovereign immunity as discussed in previous board meetings.

b. Hydropower contracts with Western

- i. Follow up on Post-2017 Hoover power allocation and contracting** Mr. Davidson said that the Bureau of Reclamation has made comments on the draft benefit arrangement contract between the tribe and the Pechanga Band of Luiseno Indians from Temecula, California. Section 16 deals with disputes between the two tribes. Mr. Vaughn advised that the resolution period be increased from 30 to 60-days to read as follows: "If the dispute is not resolved within 60 days after the meeting and conferring, the Tribal Contractor and the Power Recipient will proceed to

arbitration.” Mr. Vaughn also asked if Pechanga has any issue with the new Bureau of Reclamation language in Section 8.1 regarding the penalties Pechanga would have to pay if they are unable to schedule the power. Mr. Davidson said he would follow up with Ms. Nu'uhiwa at Pechanga.

c. Community Wi-Fi

- i. Status of contract with Mural** Mr. Davidson said the Peach Springs Unified School District and Grand Canyon Resort Corporation have a dispute over another issue and this may prevent the use of the school’s communications infrastructure to set up the wi-fi system.

6) Other Matters (Planning)

- a. Review and possible action on bids for Cost of Service Study for HTUA electric service (BIA grant)** Mr. Davidson briefly reviewed the four bids for the Cost of Service study. Intergrupp (82.3 points) and Baker Tilly (82.1 points) are in a virtual tie for first place based upon the composite ranking from six reviewers. Mr. Becherer added that Intergrupp provided a very thorough proposal including a detailed discussion on Grand Canyon West. Their Canadian origin may be a drawback having not dealt with many American Indian tribes. By consensus the HTUA board members recommended to tribal council that Intergrupp perform the Cost of Service study.
- b. Review and possible action on bids for Community-Scale Solar Array Feasibility Study for Peach Springs (BIA grant)** Mr. Davidson briefly reviewed the four bids for the Community-Scale Solar Array Feasibility study. Rock Gap Engineering (85.8 points) leads Baker Tilly (81.2 points) based upon the composite ranking from five reviewers. Mr. Davidson was concerned that Rock Gap may lack some of the financial analysis expertise that was shown by Baker Tilly and third-ranked ABB Power Consulting who also submitted an addendum lowering their bid amount by \$10,000 to allow for the System Impact Study required by Mohave Electric Cooperative (MEC). Mr. Vaughn and Mr. Navenma were impressed by Rock Gap’s technical knowledge in siting and designing a solar facility. Mr. Montana preferred Baker Tilly. After additional discussion and by consensus the HTUA board members recommended to tribal council that Rock Gap Engineering perform the Community-Scale Solar Array Feasibility Study.

c. **Announcements** No announcements.

8) **Set time and location for next meeting** The next meeting will be held on Wednesday, May 24, 2017, at 9:00 AM at the Hualapai Health Department, Peach Springs.

9) **Adjourned at 11:45 AM**

Hualapai Tribal Utility Authority (HTUA) Meeting Minutes

May 25, 2017, 9:25 AM to 10:35 AM, Hualapai Health Department, Peach Springs.

Board members:

Charles Vaughn, Chairman – present

Joe Montana, Vice-Chairman – present

Jamie Navenma, Secretary – present

Rory Majenty – absent

Support personnel:

Kevin Davidson, Planning Director

Patrick Black, Fennemore Craig (via telephone)

Lauren Ferrigni, Fennemore Craig (via telephone)

Bob Becherer, IMEG (via telephone)

1) Call to Order

2) Roll Call

3) Review and Approval of Minutes from April 27, 2017, meeting

In reading page 7 of the minutes, Mr. Vaughn asked if the insurance quote provided by the Mahoney Group covered the improvements that would be made by the HTUA inside the UniSource sub-station.

Mr. Davidson said he would confirm that with Ms. Sharp.¹ Mr. Vaughn entertained a motion to approve the meeting minutes of April 27, 2017. Mr. Navenma made a motion to approve the minutes as written. Mr. Montana seconded the motion. Motion carried 3-0-1.

4) Project Updates

a. Proposed Power Line to Grand Canyon West

¹ In an e-mail dated May 2, 2017, Ms. Sharp noted that the improvements within the substation would be covered in the insurance quote.

i. Review and possible action on bids for reconnaissance flight along proposed route Mr.

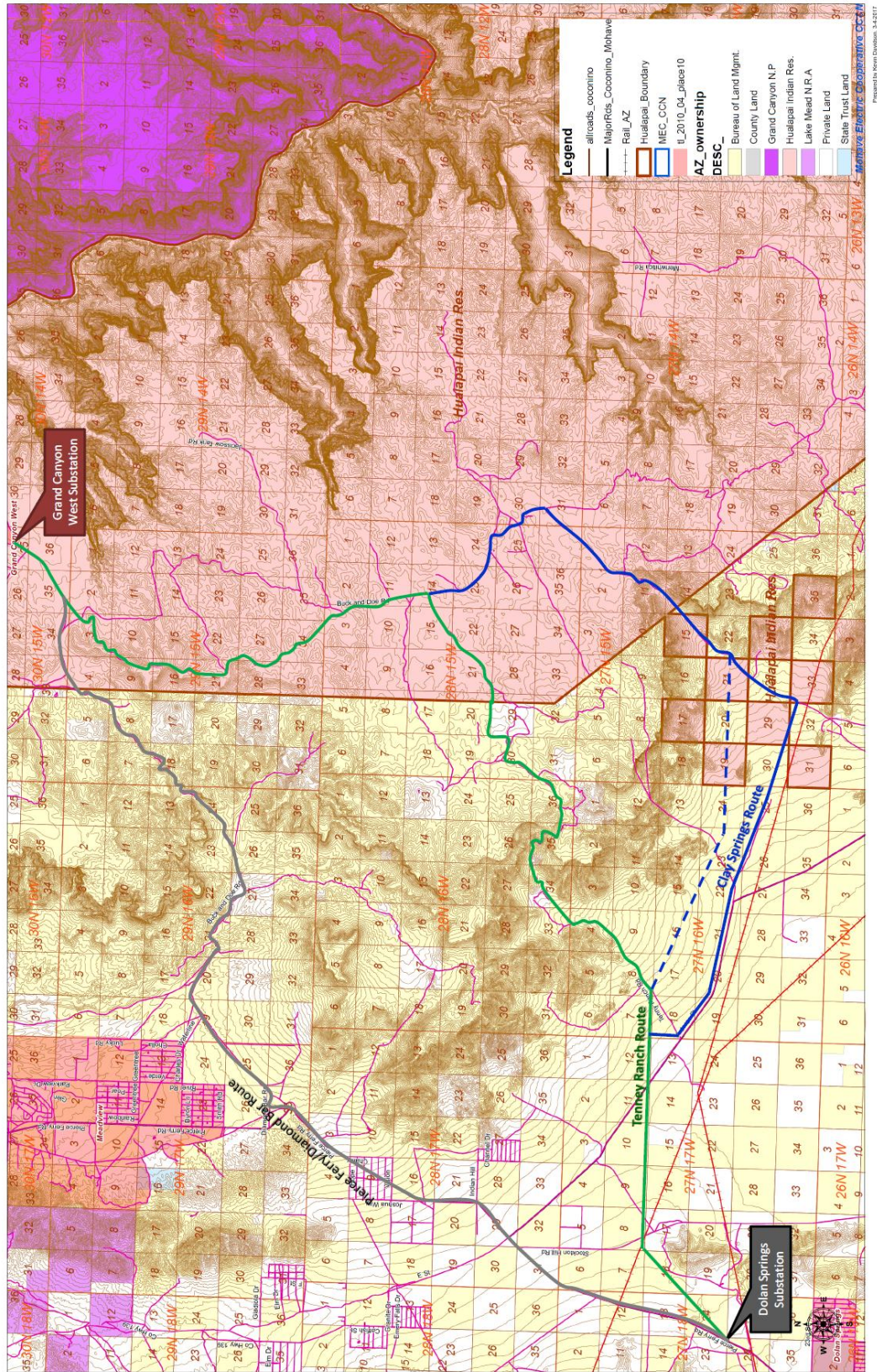
Davidson reviewed bids from Papillion, Maverick and Sundance with Maverick at \$1,200 per hour and Papillion at \$1,250 per hour of flight time. Mr. Becherer noted that Papillion has the most experience of the three operators in that they currently work with UniSource on their power line surveys and they have a good understanding of the HTUA's request. Mr. Vaughn requested that a member from the Hualapai Cultural Department be included in the flight in addition to Mr. Becherer and a second engineer from IMEG. Mr. Davidson said he would contact Ms. Dawn Hubbs at the Cultural Department to see who she recommends. Mr. Montana said that \$1,200 per hour is in line with what the Hualapai Natural Resources Department pays for helicopter surveys. The Board, by consensus, selected Papillion to perform the helicopter survey.

ii. Additional information on archeological sites along alternate power line routes As noted in Ms. Hubbs presentation at the April Board meeting, there is a high density of artifacts in the Hualapai Valley near Red Lake. The sub-route, which utilizes a portion of the one-mile-wide BLM designated "368" energy corridor, passes through a dozen or so of these historic sites and should likely be avoided (see map on page 3). Many archeological sites were discovered during the field work performed for the Hualapai Valley Solar Project proposed in 2009.² Mr. Vaughn commented that traditional camp sites would have been located near a water source, such as a drainage. Mr. Becherer asked Mr. Davidson for general locations of these cultural sites in preparation for the flight.

iii. Review of Right-of-Way application and Plan of Development for BLM Mr. Davidson reviewed the SF-299 application for the right-of-way across BLM land and the Plan of Development (POD) which describes the power line design and construction in detail that was submitted to Mr. Andy Whitefield at the BLM's Kingman Field Office on May 23rd. Mr. Whitefield will provide a courtesy review to the HTUA in anticipation of the formal application which will be submitted by the HTUA in June. This is the first step of the BLM's NEPA review.

² Hualapai Valley Solar Project consisted of 340 MW Concentrating Solar Power (CSP) plant covering over six square miles adjoining the southeast portion of the Red Lake Playa.

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



iv. Draft Interconnect agreement with UniSource for Dolan Springs substation Mr. Black stated the draft contract between the tribe and UniSource is derived from language in UniSource's Large Generator Interconnection Agreement (LGIA) and the Small Generator Interconnection Agreement (SGIA) because UniSource has yet to create a "wires-to-wires" interconnection agreement where the company makes a physical connection with another utility company. By choosing this approach, the tribe will be proposing both familiar language and new language to UniSource to create this contract. The Board will have a chance to offer input on the draft contract prior to submittal to UniSource.

To address sovereign immunity, Mr. Black suggested that the board select one of the four options offered by Gallagher and Kennedy in January (no waiver, declaratory and injunctive relief only, monetary damages specified in the contract, or collateral of HTUA for re-payment of debt), with monetary damages specified in the contract being the likely option.

Mr. Black continued with a review of the mediation process offered by the Federal Energy Regulatory Commission's (FERC) Dispute Resolution Service (DRS). The DRS will act as an intermediary for disputes. Mr. Black asked if the Board prefers arbitration or litigation after mediation has run its course. The arbitration clause from the tribe's attorney may be employed if the parties cannot agree on an arbitrator, each party will select an arbitrator, and the arbitrators will select the sole arbitrator to resolve the dispute. Mr. Vaughn opined that the party which drafted the contract, which appears to be the tribe in this case, may not be looked upon favorably by a court during litigation. Mr. Black said that the draft contract he is preparing is based upon language taken from UniSource's Open Access Transmission and Tariff (OATT), namely the LGIA and SGIA. Mr. Vaughn recommended that tribal council also review the draft language prior to transmitting to UniSource to review. Mr. Black said he is concerned that the "back and forth" nature of such a process may weaken the tribe's position in the negotiation and eventually lead to a rejection by both parties. Mr. Black said he would prefer to have the Board review the draft, then have it reviewed by Council with help of the tribe's attorney, have it approved by Council, and then transmit it to UniSource. UniSource will make comments, send them to the Board, who will then review and comment. If agreeable to the Board, the Board will recommend approval to Council who will review and hopefully grant final approval. Mr. Montana asked for multiple drafts to review.

Mr. Vaughn noted that past tribal councils have had an issue with arbitration. Mr. Black said he would provide language in the draft contract describing alternate ways for dispute resolution and varying degrees of limited waivers of sovereign immunity.

b. Hydropower contracts with Western

- i. Follow up on Post-2017 Hoover power allocation and contracting** Mr. Davidson said the benefit arrangement contract between the tribe and the Pechanga Band of Luiseno Indians from Temecula, California is ready for signature and that he has received an invitation from Ms. Nu'uhiwa at Pechanga to have a signing ceremony in Temecula in early June.

c. Community Wi-Fi

- i. Status of contract with Mural** Mr. Davidson noted that tribal council met with representatives of Mural and Northern Arizona University to discuss the internet issue with the Peach Springs Unified School District and Grand Canyon Resort Corporation. Obtaining the school district's support for the FCC license is critical for the success of the community wi-fi program and may be forthcoming provided that the community wi-fi program does not utilize the existing E-Rate funded internet service provided to the school district.

d. Cost of Service Study and Community-Scale Solar Array Feasibility Study (BIA grants)

Mr. Davidson informed the Board that both contracts are in review by the Grants and Contracts officer and should be signed by June 1st.

5) Other Matters (Planning)

- a. Announcements** Mr. Davidson noted that the grand opening for the much anticipated Hualapai Youth Camp will be on May 30th.

6) Set time and location for next meeting The next meeting will be held on Wednesday, June 21, 2017, at 9:00 AM at the Hualapai Health Department, Peach Springs.

7) Adjourned at 10:35 AM

Hualapai Tribal Utility Authority (HTUA) Meeting Minutes

June 21, 2017, 10:25 AM to 1:00 PM, Hualapai Health Department, Peach Springs.

Board members:

Charles Vaughn, Chairman – present

Joe Montana, Vice-Chairman – present

Jamie Navenma, Secretary – absent

Rory Majenty – present

Support personnel:

Kevin Davidson, Planning Director

Patrick Black, Fennemore Craig (via telephone)

Lauren Ferrigni, Fennemore Craig (via telephone)

Bob Becherer, IMEG (via telephone)

1) Call to Order

2) Roll Call

3) Review and Approval of Minutes from May 25, 2017, meeting

Mr. Vaughn entertained a motion to approve the meeting minutes of May 25, 2017, with minor corrections. Mr. Montana made a motion to approve the minutes as written. Mr. Vaughn seconded the motion. Motion carried 2-0-0-1, with Mr. Majenty not voting.

4) Project Updates

a. Proposed Power Line to Grand Canyon West

- i. Review of June 2nd reconnaissance flight along proposed routes** Mr. Davidson said the flight lasted approximately 90 minutes and covered both proposed routes between Grand Canyon West and the Dolan Springs substation. The Clay Springs route has cultural sites in the vicinity of Sections 14 and 15, T27N, R15W. Mr. Vaughn asked if a tribal member participated in the

June 2, 2017, helicopter reconnaissance flight of the proposed power line routes. Mr. Davidson said that Dawn Hubbs, Tribal Historic Preservation Officer, was on the helicopter flight. Mr. Vaughn is concerned that some cultural sites may be overlooked without the participation of a tribal member.

Mr. Becherer said the flight was most productive with both routes posing challenges but none which are insurmountable. Mr. Vaughn asked about the difficulty of placing power poles on steep terrain. Mr. Becherer said power poles can be moved off of the roadway shoulder and span a few hundred yards to avoid switchbacks. The Tenney Ranch route, which is emerging as the preferred route, would require three to four of these long-span steel poles. Mr. Becherer is working with the Cultural Department to identify known cultural sites in an effort to avoid re-routing the power line. Mr. Vaughn asked about the difficulty posed by roadway switchbacks in Section 35 of T28N, R16W. This can be re-examined on the ground. Mr. Montana asked about ease of access to the long-span poles which are to be located beyond the roadway. Mr. Becherer said at least two of the long-span poles require the construction of a new access road. These poles will be set by helicopter and also maintained by helicopter if needed. These measures should not pose an overwhelming obstacle to building the power line.

Mr. Majenty asked about the location of the planned substation at Grand Canyon West next to the "green" water tank. Mr. Becherer said the substation and power lines would be within 100 yards of Diamond Bar Road. The 69 KV power line would be above-ground entering the substation and then emerge as a stepped-down 20.8 KV above-ground power line with spans of 330 to 350 feet. The line would then dip below ground some 400 feet away from the transformer that serves the Western Town and make the interconnection at this point on the 20.8 KV mini-grid (see p. 3 for new location of interconnection). Mr. Vaughn advised the substation be located further south along Buck and Doe Road near the existing 400,000 gallon water storage tanks, just east of Buck and Doe Road. This location would be more in compliance with the Grand Canyon West Master Plan that seeks to move development back from the canyon rim and make the facility less susceptible to a bio-terrorist attack. Mr. Davidson will send Mr. Becherer this location to review. Mr. Becherer said It should not be a problem re-locating the substation to this new location.

Mr. Majenty would also like to ensure the new power line will tie into the new visitor center planned along Diamond Bar Road, south of the Western Town, near the Buck and Doe Road intersection. What is the estimated cost to build the power line? Mr. Becherer estimated some \$14 million which includes engineering and design costs. Mr. Majenty noted Grand Canyon Resort Corporation is facing a \$75,000 per generator re-build cost in 2018, so the tribe should move the power line project forward. Mr. Becherer asked to review the plan showing the locations of the proposed water treatment and pumping facility at Grand Canyon West.

ii. **Additional information on archeological sites along alternate power line routes** As noted in Ms. Hubbs presentation at the April Board meeting, there is a high density of artifacts in the Hualapai Valley near Red Lake. Ms. Hubbs is reviewing the waypoints from the June 2nd flight and will note additional conflicts between the power line route and known cultural sites.

iii. **Status of Right-of-Way application and Plan of Development for BLM** Mr. Davidson reviewed the SF-299 application for the right-of-way across BLM land and the Plan of Development (POD) which describes the power line design and construction in detail that was submitted to Mr. Andy Whitefield at the BLM's Kingman Field Office on May 23rd. Mr. Whitefield provided comments to the HTUA on June 6th and these have been reviewed and commented on by Mr. Becherer. Mr. Davidson will re-submit the updated Plan of Development to BIA shortly.

Mr. Becherer said the annual costs to operate the power line and purchase electricity from UniSource are estimated to be \$1.3 to \$1.6 million. This variation is largely based on the USDA loan terms (interest rate and length of payback) and 10 cent per KWhr cost of electricity. The cost of electricity from the existing generators is between \$800,000 and \$1.5 million per year which accounts for the cost of diesel fuel and generator maintenance. The cost to run the generators is more sensitive to electric load growth, which will require more frequent maintenance and possibly purchasing a new generator which will increase the annual operating costs.

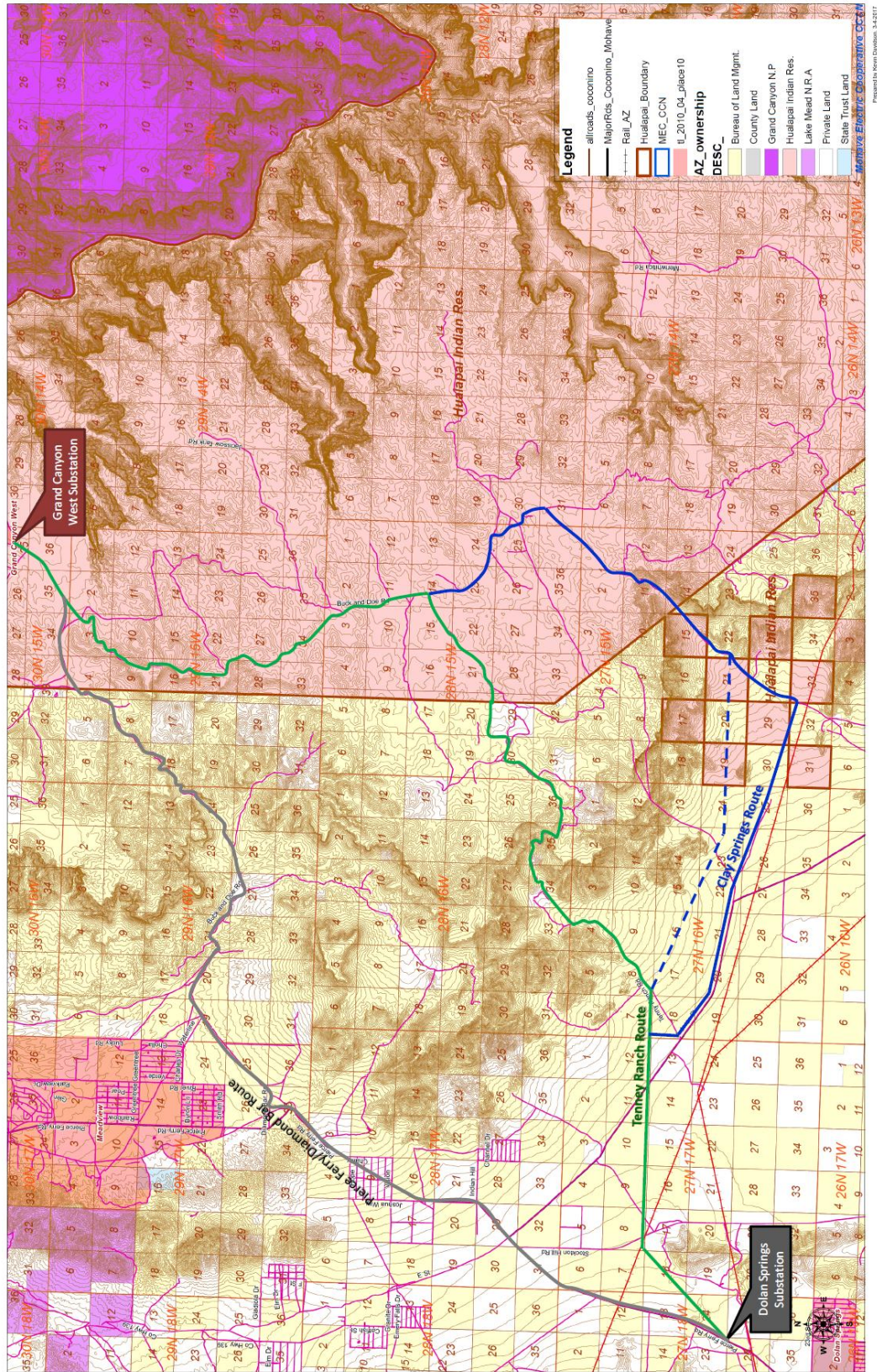
Mr. Davidson said the tribe may have to bear the full cost of building the power line because the USDA grant funds may be swept on October 1, 2017. The grant funds have not been obligated because the NEPA review has not been performed. Mr. Vaughn asked if the EA could be

completed by October 1, 2017. Mr. Davidson was not optimistic given the six to seven months time frame offered by the consultant bids in 2016. The pre-construction steps include having tribal council review and approve the draft interconnection agreement for submission to UniSource, request an amendment to the HTUA FY 2017 budget to include a line item for the NEPA consultant and a surveyor to stake the power line route, and then procure each. This will take at least 60 days. Mr. Black added the EA must also be done in conjunction with the Construction Work Plan and the Long-Range Financial Forecast to complete the USDA loan application. Mr. Becherer said the approval of pre-construction activities are proving to be the biggest obstacle. Having InterGroup, the consultant tasked to perform the Cost of Service Study, review the electrical load profile and usage would be helpful.

Mr. Majenty asked if a tribal referendum vote is required before the tribe applies for the USDA loan. It would be good to review the project with tribal members to gain support. Mr. Vaughn added that high voter participation rates required by the Hualapai Constitution, coupled with the question of limited waivers of sovereign immunity, have effectively tied the tribe's hands and prevented it from entering into larger contracts.

- iv. Review and possible action on draft interconnect agreement with UniSource at Dolan Springs substation** Ms. Ferrigni began the review of the draft contract by discussing Article 12.13 – Limited Waiver of Sovereign Immunity and the two options based upon the January 19, 2017, Gallagher and Kennedy memo to tribal council. Option One provides for a limited waiver of sovereign immunity, but only to the extent of acknowledging that declaratory and injunctive relief and specific performance are the sole remedies available to the plaintiff in the event that the HTUA were to breach its obligations under the Interconnection Agreement. This means that under Option One, no monetary damages would be recoverable by UniSource in the event of a breach by the HTUA. Option Two also provides for a limited waiver of sovereign immunity, but would alternatively allow for the recovery of monetary restitution or compensatory damages in an amount specified in the contract. However, no monetary awards for consequential, incidental or punitive damages are allowed.

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



Mr. Majenty asked if the term of the contract could be 99 years to match the right-of-way request made to the BLM. Mr. Black said the interconnection contract could be for 99 years. Mr. Majenty asked if the HTUA could purchase electricity directly from Western Area Power Administration to transport over the power line to Grand Canyon West. Mr. Black replied that the new power line is a private distribution line so it would not qualify. This designation also makes it exempt from the Open Access Transmission Tariff. With power flowing only one-way, in this case from the UniSource grid to Grand Canyon West, the power line can be classified as a distribution line. If power flows both ways, then it can be considered a transmission line and subject to Federal Energy Regulatory Commission's (FERC) rules on open access. Mr. Majenty noted a planned residential community by a Las Vegas developer along the power line that could lead to an increase in power demand. Mr. Black said it could be possible to have agreement with UniSource to provide for this extra load by allowing UniSource to place a 20.8 KV under-build line on the 69 KV line poles. The proposed 69 KV line is planned to carry eight megawatts of capacity, not enough to provide for additional residential loads along its route. Today's peak load at Grand Canyon West should be 600 KWs. This output will be determined when the new data card is installed on the Caterpillar generators. The data card is still on order, however. Mr. Becherer noted the urgent need to provide this data for both the cost of service study and the long-range financial forecast.

Mr. Vaughn asked if the color of the metal poles could be non-intrusive. Mr. Becherer replied that the color would be appropriate for the environment and the conductors would be non-reflective. Moving back to the topic of discussion on recommending Option One or Two to tribal council, Mr. Davidson asked what the pleasure of the Board is. Mr. Vaughn asked Ms. Ferrigni which option, in her opinion, would have the highest level of success with UniSource. Ms. Ferrigni recommended Option Two which has agreed upon monetary limits for restitution or compensatory damages written into the contract. Looking at Article 3.2, Mr. Vaughn asked about the appropriate length of time for the initial term and the automatic renewal term. If 25 years is chosen for the initial term, would it be expected to have 25 years for the automatic renewal? Ms. Ferrigni will look into the amount of time expected in the automatic renewal.

Moving on to Article 10 – Disputes, Ms. Ferrigni reviewed the three options available. The language is based upon the provisions taken from UniSource's Small Generation Interconnect

Agreement and the Gallagher and Kennedy memo. All dispute resolution options begin with a meeting between the parties to engage in a good faith effort to resolve the dispute. If a resolution is not forthcoming within 14 days, then parties proceed to mediation. Such mediation may be performed by FERC's Dispute Resolution Service or the American Arbitration Association. Mr. Vaughn asked if FERC's mediation is non-binding. Ms. Ferrigni said the process is non-binding. However, the process may be binding if agreed to by both parties and the mediation process results in a written and signed settlement agreement. In regard to the selection of arbitrators, Mr. Vaughn asked if the tribe could review the bios of those in consideration. Ms. Ferrigni said the selection process is addressed in Article 10.5 of Option Two and 10.4 of Option Three. Under Option One, if mediation fails, then parties may pursue arbitration or litigation. Mr. Vaughn raised his concern from previous meetings that the tribe's position is more likely to be ruled against since the tribe drafted the contract. Mr. Black replied that the tribe has taken language from UniSource's existing Small Generation Interconnect Agreement for much of this new contract. Ms. Ferrigni continued the comparison of options and stated that for Option Two, if mediation fails, the parties may go to binding arbitration upon mutual consent. If not, the parties may litigate. Option Three allows either party to call for binding arbitration if mediation fails but does not have an option for litigation. Mr. Majenty made a motion to recommend to tribal council that Option Two be inserted into Article 10 of the draft Interconnection agreement. Mr. Montana seconded the motion. Motion carried 3-0-1.

Mr. Davidson asked if the Board would like to consider the two options for Article 12.13. Mr. Majenty asked Ms. Ferrigni about the likelihood of UniSource accepting Options One or Two. Ms. Ferrigni opined that UniSource will most likely favor Option Two because it specifies monetary damages. Mr. Majenty made a motion to recommend to tribal council that Option Two be inserted into Article 12.13 of the draft Interconnection agreement. Mr. Montana seconded the motion. Motion carried 3-0-1.

b. Cost of Service Study

- i. Presentation by Patrick Bowman of Intergroup** Mr. Davidson said that Intergroup has begun work on the Cost of Service study and Mr. Patrick Bowman is present today to provide his update. This study will focus on Peach Springs and determine the feasibility of the HTUA

operating the electric service in the Peach Springs area instead of Mohave Electric Cooperative. Service at Grand Canyon West will also be considered in the report but to a lesser degree. The studies performed in 2007 and 2009 will be referenced by Intergruop as part of the analysis. Mr. Majenty asked if the electric rates are higher in Peach Springs than they are in the rest of MEC's service area. Mr. Bowman said MEC's rates are the same across their service area which includes Bullhead City. Mr. Bowman added that the tribe's cost to acquire the MEC infrastructure in Peach Springs will be higher than the \$500.00 per person estimate from previous studies. This is based upon Intergruop's experience with remote, rural electric distribution systems. Mr. Bowman asked if the HTUA is considering only one electric service meter at Grand Canyon West or multiple service meters to serve different loads and possibly different customers. Mr. Davidson said he foresees only one commercial customer – Grand Canyon Resort Corporation at Grand Canyon West – but possibly a dozen or more sub-meters, one at each load center. These service connections would be added to the rate structure.

Mr. Bowman noted that some 90 percent of a utility's costs are fixed, e.g. power purchases, wheeling charges, third-party contracts, maintenance of the system (mini-grid at Grand Canyon West), etc. The electricity rates will be driven by these fixed costs. One of the key missing pieces in determining these costs is to ascertain from MEC the value of their distribution system in Peach Springs as well as the balance of their CC&N on the reservation. Obtaining this dollar value and also what MEC pays for operations and maintenance is critical for the accuracy of the cost of service study and will also provide the tribe with a price point to begin to negotiate the buyout offer with MEC. Mr. Davidson asked if the HTUA should present these questions through a formal letter to the General Manager or take a more informal approach through the engineering staff that he is working with on another project. Mr. Bowman advised the approach be strategic and well timed. Mr. Davidson opined that MEC is most likely subsidizing this part of their service area with the revenue they receive from the more densely populated and higher energy using customers in the Mohave Valley and Bullhead City areas, so divesting this part of their service area to the HTUA may be agreeable to MEC. Mr. Vaughn asked about the recent power line upgrades between Valle Vista and Hackberry. These upgrades occurred last year and should allow more power to flow and increase reliability for customers.

Mr. Bowman said he requires more detailed data on the actual generator output at Grand Canyon West. Mr. Majenty asked if he would like to take a tour of GCW to see the generators; however, Mr. Bowman replied that he just requires a one-line diagram. Mr. Vaughn asked about the recent efforts by APS to have the Arizona Corporation Commission to pass the “anti-solar” tariff which would increase the electric rates for home-owners with net-metered solar arrays that are supposedly not paying their fair share for their utility’s operations and maintenance. Mr. Bowman noted that utilities want to recover their costs through rates.

Mr. Vaughn asked if the community-scale solar array will work in Peach Springs. Mr. Bowman replied that it should when connected to one of the larger 24.9 KV distribution lines. Mr. Vaughn asked if the placement of distributed solar generation on individual buildings would also work. Mr. Bowman said this not a new concept and it should be quite viable in Peach Springs. Mr. Davidson added that each building should have at least 200 amp service connection.

c. Community-Scale Solar Array Feasibility Study

- i. Review of meeting and field trip with Tom Mason of Rock Gap Engineering on June 14th** Mr. Davidson said that he met with Mr. Tom Mason of Rock Gap Engineering, Ms. Bravo from Natural Resources and two representatives of Mohave Electric Cooperative on June 14th to review the three candidate sites, the first being at the east end of Nelson Road, the second south of the Buck and Doe water and the third next to the well site near mile post 96 on Route 66. Mr. Vaughn asked how the costs of the array would be passed on to the customers. Mr. Davidson said he is hopeful the project will be partially funded by a DOE grant of up to 50% of the installation cost. The cost to build the array would either be passed on to the customers through rates or absorbed by the HTUA (tribe). Mr. Vaughn was also concerned the array south of the Buck and Doe water tank would be seen from the Peach Springs Cemetery. Mr. Davidson said the rolling terrain may be able to hide the array from view.

- d. Community Wi-Fi** Mr. Davidson noted that tribal council met with representatives of Mural and Northern Arizona University to discuss the internet issue with the Peach Springs Unified School District and Grand Canyon Resort Corporation. Obtaining the school district’s support for the FCC license is critical for the success of the community wi-fi program and may be

forthcoming provided that the community wi-fi program does not utilize the existing E-Rate funded internet service provided to the school district.

5) Other Matters (Planning)

- a. Nextera proposal for utility-scale solar array along APS 500 KV line in District 3** Mr. Davidson said he was recently approached by NextEra with a 3,200 acre site to accommodate a 200 MW to 400 MW solar array along the APS 500 KV line. The site is adjacent Route 18 near mile post 3. This could be up to a billion dollar investment. Such a proposal requires a special vote of the eligible tribal members per Article IV (lease over 1,000 acres) and Article XI (development of natural resource worth over \$50,000) of the Hualapai Constitution. In addition a NEPA analysis, most likely an environmental impact statement will be required. Mr. Majenty requested that Mr. Davidson vet the proponent prior to their formal presentation to the HTUA Board.
- b. Holland Consulting proposal for Renewable-Powered Micro-Grids for Remote Communities** Mr. Davidson briefly reviewed the proposal by Holland Consulting to help the tribe install a small solar array (25 KW) at a remote location, possibly at the Youth Camp. Even though the Youth Camp is connected to the grid, it does suffer from power outages. The proposal also includes an internet-based funding mechanism named “blockchain” that seems more economical than going through a conventional lender. Mr. Davidson said he will follow-up on the proposal.
- c. Announcements** Mr. Davidson noted that Sandra Begay-Campbell of Sandia National Labs will be visiting Peach Springs on July 14, 2017. Also, the HTUA has been invited to the inaugural Tribal Power Exchange Summit on July 17, 2017, at Chemehuevi. And, Western is looking to increase hydropower rates by 20% and has sent out a formal notice for the meetings to discuss proposed rate increase.

6) Set time and location for next meeting The next meeting will be held on Wednesday, July 19, 2017, at 9:00 AM at the Hualapai Health Department, Peach Springs.

7) Adjourned at 1:00 PM

Hualapai Tribal Utility Authority (HTUA) Meeting Minutes

August 16, 2017, 3:15 PM to 5:05 PM, Hualapai Health Department, Peach Springs.

Board members:

Charles Vaughn, Chairman – present

Joe Montana, Vice-Chairman – present

Jamie Navenma, Secretary – present

Rory Majenty – present

Support personnel:

Kevin Davidson, Planning Director

Lauren Ferrigni, Fennemore Craig (via telephone)

Bob Becherer, IMEG (via telephone)

Patrick Bowman, Intergroup, Inc (via telephone)

1) Call to Order

2) Roll Call

3) Review and Approval of Minutes from June 21, 2017, meeting

Mr. Vaughn noted on page two of the minutes that the threat posed to the water tanks should be defined as bioterrorism and should also note Mr. Becherer's opinion in locating the new sub-station next to the existing water storage tanks, just east of Buck and Doe Road, should not pose an issue. Mr. Vaughn entertained a motion to approve the meeting minutes of June 21, 2017, with the above noted corrections. Mr. Navenma made a motion to approve the minutes with corrections. Mr. Vaughn seconded the motion. Motion carried 4-0.

4) Project Updates

a. Proposed Power Line to Grand Canyon West

- i. **Budget Amendment Request to Council** Mr. Davidson reviewed the Tribal Council's budget amendment meeting of August 8th where the HTUA was given an additional \$165,000 to award the contracts necessary to begin the environmental review, financial forecast, construction work plan and surveying necessary to build the power line to Grand Canyon West. Part of this amount will be dedicated to pay for IMEG's contract amendment through December 31st. Mr. Davidson said he and Mr. Becherer will finish drafting the RFPs for the power line survey and environmental review before the next HTUA Board meeting.
- ii. **Draft Interconnect agreement with UniSource and possible action on revision to Section 3.2**

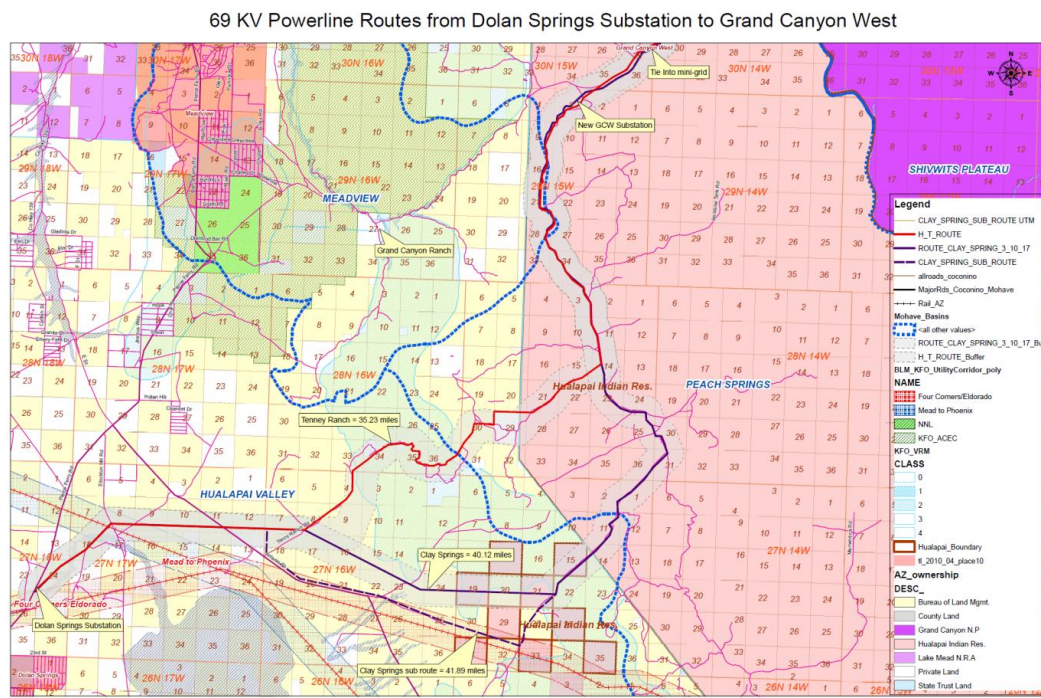
Ms. Ferrigni reviewed the proposed amendment to Article 3.2 – Term of Agreement: "This agreement shall become effective on the Effective Date and shall remain in effect unless terminated in accordance with Article 3.3 of this Agreement." The reduced wording simplifies the language from that previously approved by the HTUA. Mr. Majenty asked if this simplification of language, which omits the term period in years, and allows for a perpetual term, is common for these types of contracts. Ms. Ferrigni said she consulted with Mr. Black and found this is common language.

Moving to Section 10.1 of Dispute Resolution, Mr. Vaughn questioned the meaning of "by way of illustration and not by way of limitation, compelling compliance with any provision hereof that requires a consent prior to Party's undertaking a certain action," that refers to requests for interim relief. Ms. Ferrigni noted this is language taken from the Gallagher and Kennedy memo of January regarding sovereign immunity. This term indicates that parties acknowledge that disputes may include a request for interim relief. For example, a party may request an order allowing it to perform an action under the Agreement that would otherwise require the other party's consent.

Mr. Vaughn asked if there is wording that can be added to the Limited Waiver of Sovereign Immunity Section 12.13 to support the tribe's position. Are there any state laws that are in conflict with the tribe? Ms. Ferrigni stated the limited waiver language is standard and should be contained in the contract. The amount of restitution and compensatory damages will be limited to the amount shown in Section 12.13. Contract law is governed by state law. Moreover, under Arizona law, limitations on remedies in agreements are generally enforceable. For the

question of conflicts with state laws, Ms. Ferrigni said she will consult with Mr. Black. Mr. Vaughn said he was also concerned that UniSource will have the advantage during a dispute because the tribe has drafted the contract. Ms. Ferrigni replied that the contract utilizes much of UniSource's standard contract language, taken from other, similar contracts. To help alleviate this concern, a provision can be included stating that the parties agree that all parties and their counsel participated in the negotiation and drafting of the agreement, and as such, the terms of the agreement shall be considered to have been drafted by all of the parties. Mr. Vaughn made a motion to table the contract to allow board members to prepare comments and send them to Mr. Davidson by September 1, 2017. Mr. Majenty seconded the motion. Motion passed 4-0.

- iii. **Status of Right-of-Way application and Plan of Development for BLM** Mr. Davidson said the revised SF-299 application for the right-of-way across BLM land and the Plan of Development (POD) which describes the power line design and construction in detail will be re-submitted to Mr. Andy Whitefield at the BLM's Kingman Field Office in the following week. Mr. Davidson also noted that Councilman Clay Bravo is looking forward to seeing, if not requesting, the analysis of the Clay Springs route as part of the environmental assessment for the power line route. Mr. Becherer said that IMEG has prepared a set of detailed maps showing this route as well.



b. Cost of Service Study

- i. Progress to Date** Mr. Bowman of Intergroup began his presentation by noting that the studies performed in 2007 and 2009 were too optimistic in predicting load growth in Peach Springs (9.6 GWHrs predicted vs. 6.9 GWHrs actual) and most likely underestimated the amount of capital replacement costs and all operational costs needed to run an electric utility. Mohave Electric Cooperative's rates have increased over the past eight years which should help a future HTUA electric rate structure stay competitive; however, MEC has also made significant capital improvements in the Peach Springs area over the past eight years which will no doubt increase the buy-out costs for the HTUA to acquire the electrical infrastructure. In 2009, buy out costs were estimated to raise HTUA electric rates by five percent over MEC rates. The 17-page memo details the amount of resources required to purchase power, ensure capital reinvestment, account for depreciation and otherwise operate the HTUA. To keep electric rates the same as MEC's, Mr. Bowman said the HTUA annual budget would be limited to \$194,000 to cover operations (\$110,000), capital replacement (\$70,000) and reserves (\$14,000), the first two of which are most likely insufficient. Mr. Davidson asked if a budget of \$300,000 per year would be sufficient to operate the HTUA.

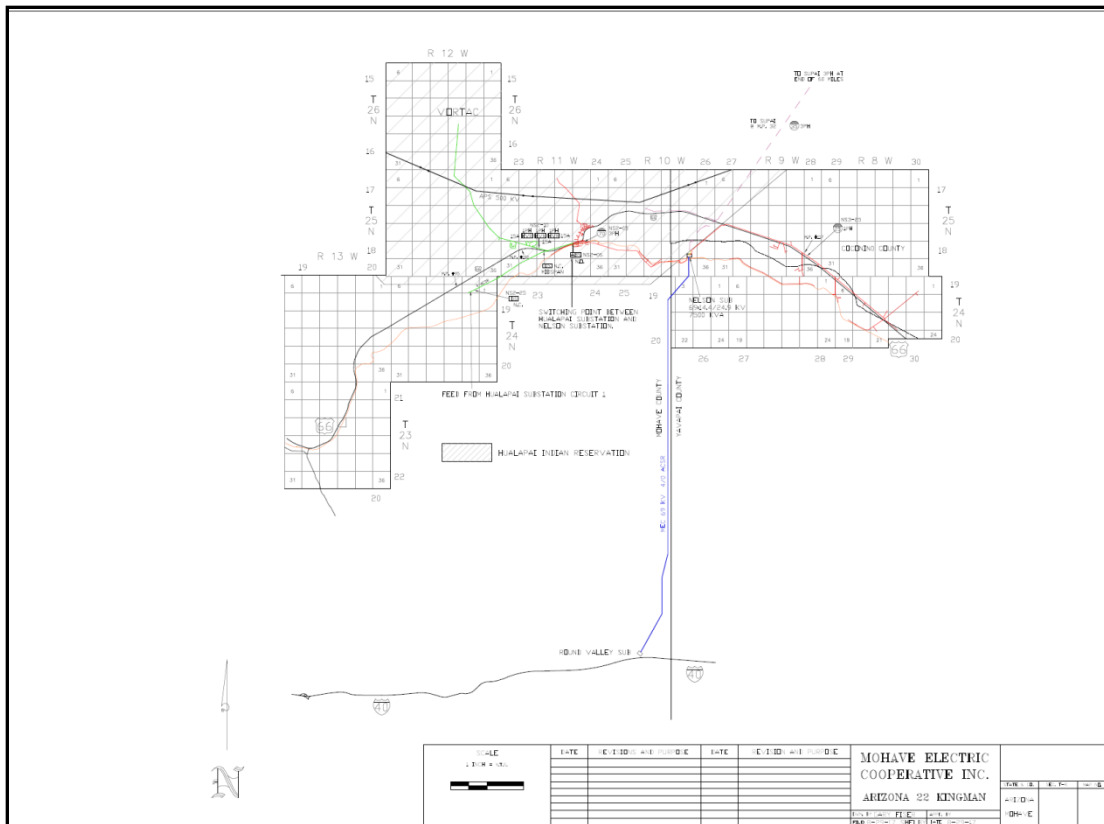
Mr. Vaughn noted that because assets are nearing their maximum age, as stated in the memo, what would be the cost to replace them. Mr. Bowman replied that the HTUA will pay for the assets either at the front end or the back end. If the assets are near the end of their life, MEC will likely accept a lower buy-out offer; however, the HTUA will have to make the investment to keep the system running. If MEC has made substantial investment over the past several years, then the HTUA will pay a higher buy-out cost but not have to place as much money into its capital replacement budget.

Mr. Majenty asked what the costs would be for office staffing, payroll, etc. Mr. Bowman said the 2009 study provided a fairly accurate estimate for these costs alone. Mr. Majenty advised the operational budget be doubled. Mr. Bowman said the next step in the study is to acquire the book value of the MEC facilities, their operational costs and power purchase costs. In addition, Intergroup will contact other small utility companies in the United States to obtain information on their operational costs, including power purchase costs, and capital expenses.

Mr. Majenty recommended that Intergruop also look at Unisource's operations in Mohave County. Unisource's infrastructure has been prone to avian damage. Mr. Vaughn opined that line men would most likely have to be sub-contracted by the HTUA rather than be HTUA employees.

Mr. Davidson noted that two of the comparable small utilities – Farmers Electric Cooperative of Iowa at 12.74 cents/KWhr and Douglas Electric Cooperative of South Dakota at 11.6 cents/KWhr - had electric rates that were 15% to 20% higher than MEC's. To help lower the HTUA's future electric rates, Mr. Bowman said the Cost of Service study should also look at delivering the hydro-power allocations to the HTUA vs. having a less lucrative bill credit or benefit arrangement with third-party utilities as is now the case. The analysis assumes that the HTUA can purchase power at the same rate as MEC and does not include the wheeling cost that MEC would charge the HTUA to bring electricity over its transmission lines to Peach Springs.

Mr. Vaughn asked how many of the electrical "brown-outs" and "black-outs" can be attributed to failure along MEC's 69 KV power line from the Round Valley Substation operated by APS to the Nelson Substation operated by MEC, a distance of over 20 miles (see map). Mr. Bowman said the Cost of Service study has yet to investigate the reliability issues from Round Valley to Nelson and ways to improve the infrastructure. These improvements should be identified and recommended to MEC regardless of whether the HTUA takes over ownership of the electric distribution system on the reservation. Mr. Davidson said that if the HTUA assumes control of the electric distribution system on the reservation and a power outage occurs due to a failure on the MEC or APS distribution system, the HTUA would most likely be blamed for it. Mr. Montana emphasized the need for back-up generators to keep Peach Springs on-line during power outages. Mr. Vaughn said that "black-outs" occur far too frequently in the community. Mr. Bowman asked if the tribe has contacted the Arizona Corporation Commission (ACC) regarding the situation in Round Valley. The ACC applies a higher level of regulation to APS operations so customer complaints should receive more attention and result in corrective actions. Mr. Vaughn asked if the cause of the outages at the Round Valley substation are recorded and reported to the ACC. Mr. Davidson said he will follow-up with the ACC.



In regard to electric distribution system reliability, Mr. Vaughn asked how the electric lines and substations can be protected from lightning strikes. Mr. Becherer said lightning protection for power lines and substations is relatively inexpensive and easy to install. Most systems are protected by standard methods such as installation of lightning rods in sufficient number to provide a “cone of protection” that includes all parts of substation equipment and ancillary items. Power lines are protected by the zero voltage conductor-run at the top of the pole. This conductor is grounded at each pole thereby providing the desired protection. There are also expensive options for protecting equipment. These include ion emitting devices and similar techniques. These, however, are not often used. Mr. Navenma said the long response times by MEC and APS are one reason the power outages take a long time to correct. Both protection of the electric distribution system from weather events and ways to decrease response times should be addressed in the Cost of Service study. Some of these issues may be solved by a fully operational HTUA which is located a shorter distance from the problem area.

For the next steps in the Cost of Service Study, Mr. Bowman said he will: 1) acquire the capital and operational costs for the electrical distribution system on the reservation from MEC, and 2)

obtain capital and operational costs from similar sized utilities mentioned in the 17-page memo. In addition, the ACC will be contacted to investigate the type of outages at the Round Valley Substation.

c. Community-Scale Solar Array Feasibility Study

- i. Progress to Date and Site investigation by Rock Gap Engineering** Mr. Davidson said that he met with Mr. Tom Mason of Rock Gap Engineering, Mr. Jamie Floyd of ATEK Electric and Mr. Michael Brungard of RPA Engineering on August 1st to conduct a second visit to the most promising two of the three sites that were first visited on June 14th by himself, Mr. Mason, Ms. Bravo and Mr. Williams and Mr. Sinclair of MEC. The first site is at the east end of Nelson Road, about one quarter mile from the reservation boundary (left photo). The second site is south of State Route 66 (between mile posts 101 and 102) and north of the BNSF rail road near the West Peach Springs signal (right photo).



Mr. Mason believes that the Nelson site, although not the preferred site by MEC due to its location between the Nelson substation and the main load in Peach Springs, could accommodate a small (1 MW) merchant power plant to serve the Lhoist lime plant, with any profits from the sale of electricity being used to subsidize the operation of the community-scale solar array located at the West Peach Springs signal where the main load in Peach Springs lies between the solar array and the Nelson Substation. The consultants are optimistic about both sites given that they are flat, with minimal need to grade or remove vegetation, have a three-phase (24.9 KV) power line nearby and have no issues with topography or trees casting shadows on the array in early morning or late afternoon. Mr. Vaughn said given the high electric load at the Lhoist lime plant, estimated to be 6 MW, a 1 MW array may only be adequate to power their

office and lights. Mr. Davidson noted that 1 MW is a fair amount of power and is three to four times the amount of power that the Hualapai Lodge/Diamond Creek Restaurant uses during the peak period. A 1 MW solar power supply should help Lhoist offset its peak demand as well as reduce its overall consumption from MEC.

- d. **Community Wi-Fi** Mr. Davidson noted that the Peach Springs Unified School District will soon conduct a Board meeting to discuss writing a letter to the Federal Communications Commission in support of the tribe's effort to bring wi-fi to Peach Springs. Obtaining the school district's support for the FCC license is critical for the success of the community wi-fi program and may be forthcoming provided that the community wi-fi program does not utilize the existing E-Rate-funded internet service provided to the school district.

5) **Other Matters (Planning)**

- a. **Nextera proposal for utility-scale solar array along APS 500 KV line in District 3** Mr. Davidson said that both NextEra representatives were unavailable for today's meeting so he plans to invite them to the next Board meeting in September. Relating to Mr. Majenty's request that Mr. Davidson vet the proponent prior to their formal presentation to the HTUA Board, Mr. Davidson said NextEra's credentials are impressive and referenced the literature in the agenda packet.
- b. **Follow-up on Tribal Power Exchange (TPX) Summit on July 17, 2017** Mr. Davidson briefly reviewed the meeting in Chemehuevi regarding the management of the Hoover power allocation. Aside from TPX members not being offered a lucrative deal from their local utility companies, Mr. Davidson relayed to the board that the power exchange offers a good chance to network with tribal utilities and learn more about industry trends and terminology.
- c. **Cost Effective Energy Storage for Hoover Dam** To follow up on trends in power generation, Mr. Davidson reviewed the Los Angeles Department of Water and Power (LADWP) proposal to use renewable energy to power a pumped water storage project between Lake Mohave and Lake Mead. During the day when there is an oversupply of electricity generated from solar power plants, LADWP would purchase this low-cost power (sometimes at no cost) and use it to pump water from Lake Mohave up to Lake Mead via a new pipe line, possibly through the Lake Mead

National Recreation Area or adjoining lands in Mohave County. During the peak power demand, typically in the early evening, the water would be released through Hoover Dam to generate additional electricity and increasing the monetary value of LADWP's Hoover allocation. The proposal is still preliminary but does illustrate the value of providing electricity during peak demand and the low cost of electricity when solar power plants are over-producing and putting more power onto the grid than is needed to a point where utilities and merchant power plants will sell the power at little or no cost.

- d. **Discussion and possible action on recommendation to Tribal Council on re-appointment of Board members or possible replacement candidates (Section 202.b.3, HTUA Ordinance).** Mr. Davidson distributed Bill Cyr's application for membership on the HTUA Board and resume. Given the lateness of the hour, Mr. Vaughn asked the board to review the material and discuss at the next board meeting.

- e. **Announcements** Having none himself, Mr. Davidson asked for announcements. No announcements.

6) Set time and location for next meeting The next meeting will be held on Wednesday, September 13, 2017, at 9:00 AM at the Hualapai Health Department, Peach Springs.

7) Adjourned at 5:05 PM

Hualapai Tribal Utility Authority (HTUA) Meeting Minutes

September 13, 2017, 9:08 AM to 11:55 AM, Hualapai Health Department, Peach Springs.

Board members:

Charles Vaughn, Chairman – present

Joe Montana, Vice-Chairman – present

Jamie Navenma, Secretary – present

Rory Majenty – absent

Support personnel and guests:

Kevin Davidson, Planning Director

Andy Whitefield, BLM, Kingman Field Office (via telephone)

Lauren Ferrigni, Fennemore Craig (via telephone)

Patrick Black, Fennemore Craig (via telephone)

Patrick Bowman, Intergroup, Inc (via telephone)

Tom Mason, Rock Gap Engineering (via telephone)

Shaun Tsabetsaye, NextEra Energy (via telephone)

Bill Cyr, candidate for HTUA Board (via telephone at 11:00 AM)

1) Call to Order

2) Roll Call

3) Review and Approval of Minutes from August 16, 2017, meeting

Mr. Vaughn entertained a motion to approve the meeting minutes of August 16, 2017, as written. Mr. Montana made a motion to approve the minutes. Mr. Navenma seconded the motion. Motion carried 3-0-1.

4) Project Updates

a. Proposed Power Line to Grand Canyon West

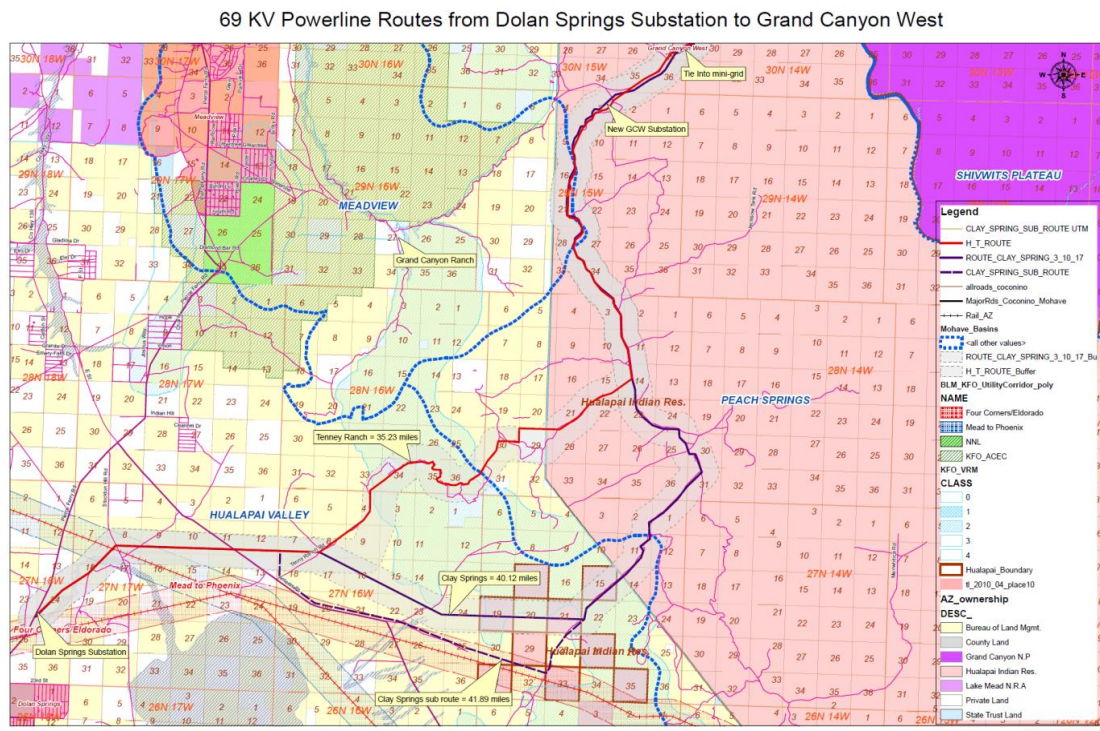
i. Draft Interconnect agreement with UniSource and possible action on revision to Section 3.2

Mr. Davidson introduced the draft contract by saying the Board had tabled it at their August meeting to give more time for review. Under Default, Section 7.6.1, Mr. Vaughn questioned if 20 days was adequate time for a defaulting party to begin work on curing a problem once it had been given notice by the non-defaulting party. Mr. Black replied that 20 days was taken from UniSource's standard contract language so it should be adequate. Mr. Vaughn was concerned the HTUA Board may not be able to meet this time line if it were the defaulting party and if we should ask for additional time. Mr. Black suggested additional time for notice in Section 7.6.1.

In regard to Section 3.2, Mr. Black advised the language be open-ended without a termination date. Mr. Vaughn asked if Section 3.3.3 was written with residential service in mind, given that the power line will be physically disconnected. Mr. Black replied that the language also applies to commercial customers. Mr. Vaughn asked if the termination provisions are adequate for the HTUA. Mr. Black said he would provide a new red-line draft of the contract for the next HTUA Board meeting. Mr. Vaughn asked if last's month questions on any conflicts state law had been addressed. Mr. Ferrigni said yes and that a state court would be unlikely to award a higher dollar amount for damages than those specified in Section 12.13 of the contract. Contract interpretation is governed by State law. Courts have consistently held that limitations on remedies provided for in a contract are generally enforceable. Typically, such provisions are not enforceable only where a Court finds that the provision violates legislation or public policy. Public policy consideration looks at whether enforcement would be injurious to the public welfare. Courts are hesitant to declare contract provisions invalid based on public policy grounds.

Mr. Vaughn asked if the wording in Section 12.13 that omits consequential, incidental, special and punitive damages from the remedy amount is common for arbitration. Mr. Black said the language on what may constitute damages is common for arbitration, mediation and in a court of law. Mr. Montana asked if we have determined the amount of monetary damages. Mr. Black said this dollar amount will be negotiated with UniSource. Mr. Vaughn requested the contract be tabled for the review until the next Board meeting. Mr. Montana seconded the motion. Motion passed 3-0-1.

- ii. **Status of Right-of-Way application and Plan of Development for BLM** Mr. Davidson said the revised SF-299 application for the right-of-way across BLM land and the Plan of Development (POD) which describes the power line design and construction in detail was re-submitted to Mr. Andy Whitefield at the BLM's Kingman Field Office on September 1, 2017. Mr. Whitefield said the SF-299 and POD are in review and he will follow-up with Mr. Davidson in more detail after the Board meeting; however, there are no apparent defects in the application and proposal that would prevent the project from moving forward.



- iii. **RFPs for power line survey and environmental assessment** Mr. Davidson said the RFP for the survey was published earlier this week with bids due on October 13, 2017. The RFP requests the bidders break out the additional cost of surveying the Clay Springs route in addition to the Tenney Ranch Road route which is the shorter of the two. Mr. Vaughn questioned the need to survey the Clay Springs route. Mr. Davidson replied that Councilman Clay Bravo is looking forward to seeing, if not requesting, the analysis of the Clay Springs route as part of the environmental assessment for the power line route, so such analysis may help the HTUA's future efforts in general. The tribe typically request three alternatives when performing an environmental review under the Hualapai Environmental Review Code. Mr. Vaughn asked if the BLM has such a requirement for public lands. Mr. Davidson will follow-up with the BLM. Mr.

Montana asked if a route deviation, for example going around a cultural site, could be counted as an alternate route. There should be extra money in the consultant's budget to go around these sites.

Mr. Davidson next referred to the draft RFP for the environmental review of the power line in the packet for the Board's review. The RFP also includes the Clay Springs route as part of the analysis and asks for the cost breakdown for adding the route. In addition, the Hualapai Cultural Resources Department (HCRD) and Tribal Historic Preservation Officer (THPO) have asked that they be hired to perform the cultural survey of the new power line route on the reservation. The consultant would sub-contract this portion of the work to the HCRD and the THPO. By consensus, the HTUA Board gave approval to publish the RFP.

b. Cost of Service Study

- i. Progress to Date** Mr. Bowman of Intergroup began his presentation by reviewing the three tasks from last month's Board meeting: 1) follow-up with MEC on their Operations & Maintenance (O&M) costs, 2) review O&M costs of comparable small-scale utilities, and 3) review MEC's reliability issues and see if the HTUA could enhance system reliability by operating the electric distribution system. For the first item, MEC is still collecting data and is asking for additional payment to do so. Mr. Davidson said this is an issue for the Board to act upon and the question is next on the agenda. For the second task, Mr. Bowman said of the five utilities referenced in the 17-page memo included in the Board's agenda packet, the Pleasant Hill Community Line offers the best comparison to the HTUA being about 80 percent of the size of the HTUA's potential service area. Pleasant Hill operates approximately 30 miles of power line without full-time staff, has no debt and offers similar electricity rates as those currently charged by MEC. The other four utilities have full-time staff and charge much higher rates. Pleasant Hill's annual expense for operations, mostly power purchases, and capital replacement is \$240,000 per year. Given the HTUA's annual budget limitation of \$170,000 to keep electricity rates comparable to MEC's, the HTUA is not economically sustainable without a significant budget increase which will come mostly from a rate increase to its customers and probably with no better service than customers currently receive from MEC. Mr. Vaughn said that customer service is the main issue given the long lead-times needed to access and then repair damage to

remote sub-stations and power lines many being on poorly maintained roads or even trails. Mr. Bowman asked if the HTUA could solve the reliability issues if it owned and operated the distribution system. Most likely not if electricity rates cannot be increased to cover additional capital improvements and have repair crews on stand-by.

To follow-up on the cause of system failures not attributed to MEC, Mr. Bowman reviewed information from APS on their Round Valley Substation that showed only 12 outages over a 10 year period. The average outage lasted less 60 minutes, with the exception of one outage attributed to Western which lasted 20 hours in January of 2010. This data shows that most of the reliability issues that result in power outages lasting hours at a time can be attributed to MEC. Filing a complaint with the ACC may be the next logical step. In conclusion, Mr. Bowman said purchasing the distribution system from MEC will not solve the reliability issue. Mr. Vaughn advised we discuss the reliability issues formally with MEC and see if MEC can supply Peach Springs with electricity from the Kingman Substation in instances when the Nelson and Round Valley Substations are off-line. Does the HTUA want to acquire the distribution line from these substations and then provide power to customers living off of the reservation? Mr. Mason noted that the community-scale solar array he is helping design (see below) could help in reducing the number of brown-outs and possible black-outs if they occurred during the day. Mr. Davidson advised the HTUA to think strategically because he and Mr. Mason are also looking at negotiating a favorable PPA with MEC and would not want to have it fall through due to long-standing issues that could be dealt with at a later date.

- ii. **Request to use HTUA funds to pay MEC for data needed to complete Cost of Service Study** Mr. Davidson noted that MEC is requesting \$6,100 to pay for the data request for their electrical distribution system information (book value, cost of power delivery, operational costs) on the Hualapai Reservation, namely Peach Springs. Mr. Vaughn made a motion to approve the budget expense request to complete the cost of service study. Mr. Montana seconded the motion. Motion approved 2-1-1, with Mr. Vaughn voting “no” citing the political environment that the HTUA would be thrust into.

c. Community-Scale Solar Array Feasibility Study

- i. Progress to Date and Draft Power Purchase Agreement** Mr. Mason reviewed the sites and noted that each had good solar potential. His team will soon be applying for a permit to perform the soils testing for each site. Mr. Davidson said the THPO's review of the project locations showed no cultural sites. Given the reliability issues with MEC, Mr. Vaughn asked if the solar array could help reduce brown-outs if they occurred at night. Mr. Mason said "no." Mr. Davidson said the community-scale solar array is designed to supply that part of the Peach Springs community that lies east of the MEC switch in Chinatown. This is most of the load on the reservation.

Moving to the review of the draft Power Purchase Agreement (PPA), Mr. Vaughn said it should contain a provision for early termination. To this, Mr. Black said the PPA should also address sovereign immunity and clarify that electricity is being sold at the wholesale rate. Mr. Mason noted that the draft PPA was based upon the one signed between the Northern Pueblos Housing Authority and Kit Carson Electric Cooperative of New Mexico. Mr. Vaughn said the acreage of the project and value of the lease should be evaluated in light of the limits of the Hualapai Constitution. Mr. Black said given the small size of the lease area value, it should fit within the limits of the tribe's Constitution and not trigger a referendum vote. The PPA will be between the HTUA and MEC with the HTUA owning the solar array. Mr. Vaughn said the \$250,000 liability limit prescribed in Article XVI should be addressed as well in case the tribe seeks financing for the solar array. Mr. Black said he would review this provision of the Constitution. Mr. Mason concluded by saying the PPA's price will include an escalation clause to be adjusted every five years. Mr. Black said tying the escalation clause to the Consumer Price Index is an acceptable means of determining the dollar amount for the five-year adjustment.

d. Community Wi-Fi

- i. Exploration of New Internet Service with ACC Communications to provide Wireless Telecommunications for Peach Springs** To follow-up on the quest to bring more internet service to Peach Springs in general and to Hualapai students in particular, Mr. Davidson has contacted ACC Business, the wholesale provider of AT&T, to look at the possibility of tapping the

transcontinental fiber optic line that passes through the reservation. ACC Communications has asked the tribe to sign a non-binding service contract so they can begin the engineering assessment for making a physical connection between the fiber optic line and the tribe. If the construction cost is too high, the tribe may back out of the deal. Ms. Ferrigni noted that the language in the standard contract requires the use of New York State law and only provides for binding arbitration which is contrary to tribal sovereignty. Do the existing internet contracts with Frontier and Wecom have a “first right of refusal” provision which requires the tribe to still conduct business with these providers?

Mr. Black suggested the HTUA perform a cost benefit analysis between 1) the existing internet service provided by Frontier and Wecom, 2) the cost the tribe would pay for early contract termination with these two providers, and 3) the new cost of the ACC Business contract including cost to make the physical connection to the fiber optic line. Mr. Vaughn asked who would perform O&M on the new system. Mr. Davidson said the O&M would be under the purview of the HTUA. Also, Mr. Davidson noted that the Frontier contract is year to year, with the next term due for renewal on January 10, 2018. The two Wecom contracts have a 50% of the remaining value buyout clause. Both contracts will terminate in March of 2020. Estimated buyout amounts if terminated in October are \$171,825 and \$150,800 for GCRC’s operations in Peach springs and Grand Canyon West, respectively. Mr. Vaughn recalled a small building that was located west of his corral just north of town. The building was removed but the foundation remains. This structure may be associated with AT&T’s operations. Mr. Davidson said he will prepare the cost benefit analysis for the next HTUA Board meeting and then present it to tribal council in November.

5) Other Matters (Planning)

- a. **Presentation by NextEra for utility-scale solar array along APS 500 KV line** Mr. Davidson introduced Mr. Shaun Tsabetsaye, of Zuni Pueblo, project manager for NextEra’s Tribal Renewable Energy Development Program. Mr. Tsabetsaye began by saying that NextEra has in operation nearly 46 GWs of energy producing facilities in 30 states and Canada and had \$16.2 billion in annual revenue in 2016. NextEra is seeking to partner with a Native American tribe on a renewable energy venture. Mr. Tsabetsaye has provided public outreach and cultural

consultations to tribes, including work with the Penobscot Nation and Colorado River Indian Tribe on locating transmission lines. NextEra will cover the full costs of power plant development and can finance its own projects. NextEra invested some \$30 billion in energy development in 2016.

For tribal projects, NextEra offers to lease tribal lands and also make royalty payments to the tribe. Having direct access to an electrical transmission line is critical to siting these energy production facilities. For sizing and locating a solar facility, NextEra typically requires seven acres per each MW of capacity. NextEra is proposing a 200 MW facility, possibly in two, 100 MW phases on the Hualapai Reservation and adjoining trust lands. The first location is on Hualapai Tribal Trust Sections 29 and 31 of T27N, R15W along Clay Springs Road. The project's land area would be two-fifths Hualapai and three-fifths BLM (Section 30, T27N, R15W and Sections 25 and 36, T27N, R16W). The site offers good access to Western's Mead-Liberty 345 KV and Mead-Phoenix 500 KV transmission lines as well as Arizona Public Service's Eldorado-Moenkopi 500 KV transmission line, the latter traversing Trust Section 31. Even though the site has good access to transmission and is on level terrain, it is not ideal from a permitting point of view because NextEra would also have to navigate through the BLM's permitting process in addition to the tribe's permitting process.

Mr. Tsabetsaye reviewed the Plain Tank site next. This site has good access to the APS 500 KV transmission line and also has suitable topography for a solar array. The site is preferred by NextEra because the land is wholly on the reservation. Mr. Vaughn asked Mr. Tsabetsaye about his experience with tribes and how he and NextEra have handled the issue of visual blight. Mr. Tsabetsaye said that the visual impacts of renewable energy development on the land are difficult to mitigate, especially for wind farms. NextEra must consider a tribe's concerns on visual impacts and on the history of the site. NextEra will defer to the tribe's wishes on whether or not to develop a renewable energy project on its lands.

Mr. Tsabetsaye next reviewed pre-construction, construction and operations of a solar farm. Pre-construction activities would include assessing value of the land and then negotiating a lease with the tribe. Part of the land value assessment includes placing solar monitoring station(s) on the land to determine potential solar productivity of the site, with 12 to 18 months

of monitoring recommended. The solar productivity potential would be used to calculate lease payments to the tribe. Mr. Vaughn asked how the solar farm would benefit the tribe beyond just receiving lease payments. Mr. Tsabetsaye said NextEra could make royalty payments to the tribe based upon annual energy production. Hualapai could also entertain an ownership interest in the solar farm to take part of the profits; however, a 100 MW to 200 MW facility which is estimated to cost between \$160 million and \$260 million dollars to construct, is an amount which is typically beyond the ability of most tribes to buy into. On a more modest scale, NextEra could construct a 1 MW community-scale solar array as part of the overall solar project and give it to the tribe to operate.

Mr. Vaughn asked how the tribe's disputed location for its western boundary line would impact the solar array proposal in the Clay Springs area. The Tribe's claim to the BLM sections in this area could be an issue on whose jurisdiction the land is actually under. Mr. Tsabetsaye said locating the solar farm along Clay Springs road is problematic given the mixed ownership with BLM and subjecting a lease agreement to two different jurisdictions. Mr. Vaughn asked if NextEra had encountered any issues with other tribes when proposing energy projects on their reservations. Mr. Tsabetsaye noted that Hualapai would be the first tribe that NextEra will work with on developing a utility-scale renewable energy project. However, he is currently working with the Hualapai THPO on mitigation for the Perrin Ranch wind farm in Coconino County. Mr. Black commented that NextEra is a successful solar developer and has a good reputation in the energy industry.

To conclude the review of potential sites on Hualapai, Mr. Tsabetsaye turned to the site on Route 18. The site has good access to the APS 500 KV line and is on rolling terrain with sparse vegetation. This site is, however, located in prime pasture area for Grazing District No. 3. Each of the three sites would include at least 3,000 acres. Mr. Vaughn noted the limitation in the Hualapai Constitution (Article V, Section N) that requires a referendum vote if the tribe seeks to enter into a lease of tribal lands involving more than 1,000 acres or with a value of more than \$50,000. Given the high percentage of voter participation required to approve such a lease, the project may not be able to proceed beyond this point in pre-construction activities. Mr. Tsabetsaye said a letter of intent from the tribe to start the process and set-up the solar monitoring stations would be an appropriate next step. Once the solar data has been analyzed,

a discussion could be had on the lease arrangement. Mr. Davidson advised that the parties arrange for a field trip to visit these three sites as precursor to drafting a letter of intent. Mr. Davidson will set the field trip up before the next HTUA Board meeting.

- b. Discussion and possible action on recommendation to Tribal Council on re-appointment of Board members or possible replacement candidates (Section 202.b.3, HTUA Ordinance)** Mr. Davidson introduced Mr. Bill Cyr who is applying for a position on the HTUA Board. Mr. Cyr noted he had 10 years of experience in managing the Aha-Macav Power System (AMPS) and five years operating the Fort Mojave Tribal Utility Authority. He helped turn both utilities around by improving service, lowering customer's rates and was able to make AMPS debt-free. He also worked with Western on building a 69 KV power line to Needles, California. Prior to employment with the Fort Mojave Indian Tribe (FMIT), he spent 22 years with Maine Public Service Company as an engineer to eventually become Senior Vice-President of engineering and operations.

Mr. Vaughn asked how much water the South Point/Calpine power plant used for electric generation. Mr. Cyr said the power plant is a combined-cycle natural gas turbine plant with water for the steam turbine heated by natural gas combustion. The power plant is located on the FMIT Reservation and land is leased by the tribe. Mr. Vaughn asked how much of the power plant's revenue the FMIT received. He would like to know the arrangement in order to help structure a lease/royalty payment for Hualapai with a would-be power producer. Mr. Cyr said he has success in negotiating contracts advantageous to tribes. He also noted that the stipulations in the fiber optic contract with AT&T may have to be accepted by the tribe in order to receive the benefit of greatly enhancing access to the internet in Peach Springs.

Mr. Cyr also noted he had a dozen years of experience in developing solar arrays on Indian lands. Mr. Vaughn asked Mr. Cyr about new solar energy technologies that allow the photovoltaic cells to be placed on trees and other vertical structures found in a community. Mr. Cyr said he had seen such applications on light poles.

In regard to the Cost of Service Study being performed by Intergroup, Mr. Cyr said he was able to successfully negotiate the purchase of some of MEC's assets within AMPS service area. He

also knows Mr. Tyler Carlson, CEO of MEC. Mr. Cyr would like to help the HTUA provide electric service to the residents of Peach Springs and at Grand Canyon West. The HTUA should be not be hesitant to use the tribe's sovereign immunity in contract negotiations. Mr. Montana opined that Mr. Cyr would make a good general manager for the HTUA as well. By consensus, the Board recommended Mr. Cyr to Chairman Clarke for appointment to the HTUA Board. Mr. Davidson will follow-up with Chairman Clarke and schedule the confirmation hearing at the next regular council meeting on October 7, 2017.

Mr. Davidson asked the HTUA Board members if they have any objection to having Mr. Montana and Mr. Majenty reappointed to the HTUA Board. Hearing no objections, Mr. Davidson said he would present their re-appointment requests to tribal council at their next regular meeting on October 7, 2017.

c. Hoover FAX and Technical Review Committee Mr. Davidson noted the Hoover Dam Technical Review Committee is meeting as we speak at the Spillway House. The meeting covers the Bureau of Reclamation's FY 2017 accomplishments and plans for FY 2018. Western will also present a budget update and potential rate changes for FY 2018 and FY 2019.

d. Announcements Mr. Davidson announced the Department of Energy, Office of Indian Energy is having their annual program review in November where each tribe's renewable energy achievements are highlighted. The event allows tribes to network, share experiences and learn from each other in developing renewable energy projects. No other announcements.

6) Set time and location for next meeting The next meeting will be held on Wednesday, October 18, 2017, at 9:00 AM at the Hualapai Health Department, Peach Springs.

7) Adjourned at 11:55 AM

Hualapai Tribal Utility Authority (HTUA) Meeting Minutes

October 18, 2017, 9:10 AM to 12:10 PM, Hualapai Health Department, Peach Springs.

Board members:

Charles Vaughn, Chairman – present

Joe Montana, Vice-Chairman – present

Jamie Navenma, Secretary – present via telephone

Bill Cyr - present

Rory Majenty – absent

Support personnel and guests:

Kevin Davidson, Planning Director

Tom Mason, Rock Gap Engineering

Lauren Ferrigni, Fennemore Craig (via telephone)

Patrick Black, Fennemore Craig (via telephone)

Bob Becherer, IMEG (via telephone)

1) Call to Order

2) Roll Call

3) Review and Approval of Minutes from September 13, 2017, meeting

In reviewing the discussion on tapping the AT&T fiber optic line for Ethernet service, Mr. Vaughn said the HTUA must first discuss the terms and conditions of the existing AT&T right-of-way and asked for a copy of the existing right-of-way agreement. Mr. Davidson said the offer from ACC Business to tap the AT&T fiber optic would be a wholesale contract with the tribe; however, the contract requires that Frontier Communication be the “last mile” provider. The HTUA may consider becoming the last mile provider or Competitive Local Exchange Carrier (CLEC). Mr. Black said becoming a CLEC would require the HTUA demonstrate some capacity to serve customers. This may require the HTUA to submit to the Arizona Corporation Commission’s (ACC) authority and infringe upon the tribe’s sovereign immunity. The Federal Communication Commission (FCC) regulates CLEC’s wheeling costs to prevent price gouging. Mr. Cyr advised the tribe not submit to the jurisdiction of the ACC. The Fort Mohave Tribal Utility

Authority has “last mile” provider status without oversight from the ACC. Mr. Vaughn advised we have Chairman Clarke send a letter to AT&T asking for the existing right-of-way agreement. Mr. Black added that the FCC has regulatory authority for fiber optic communications and the ACC oversees telecommunications in Arizona. Given these limitations, the tribe should look for other options to provide community wi-fi. Mr. Vaughn entertained a motion to approve the meeting minutes of September 13, 2017, as written. Mr. Montana made a motion to approve the minutes. Mr. Navenma seconded the motion. Motion carried 3-0-1.

4) Project Updates

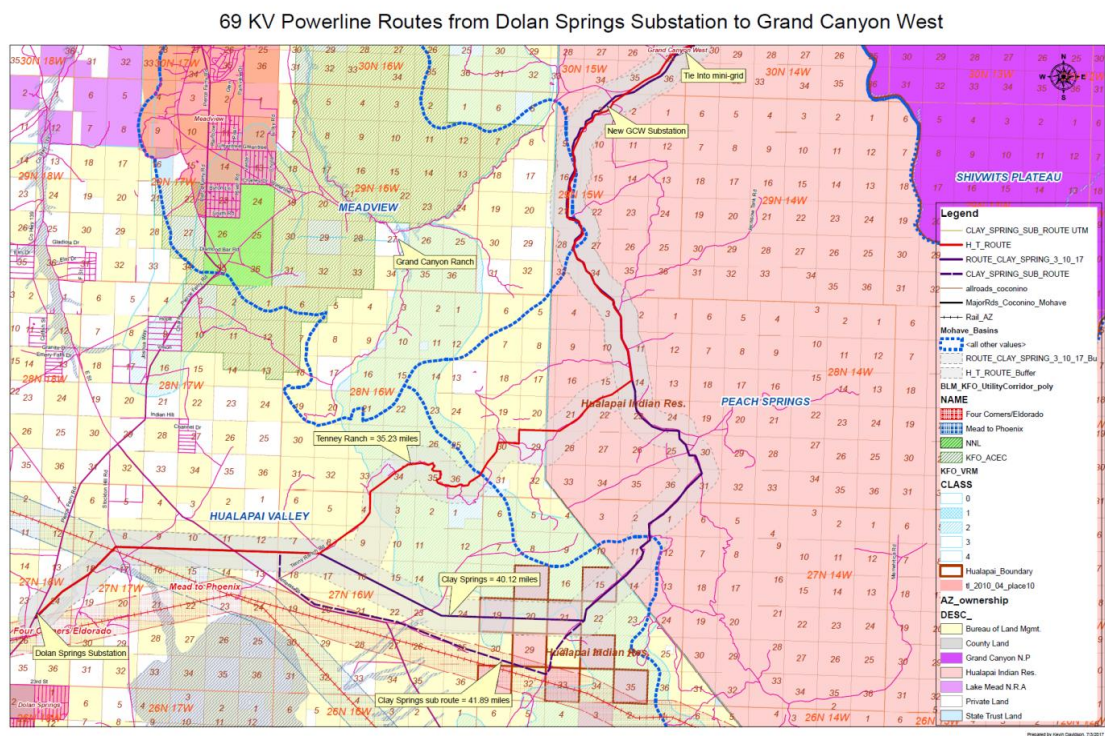
a. Proposed Power Line to Grand Canyon West

- i. Draft Interconnect agreement with UniSource and possible action** Mr. Davidson introduced the draft contract by saying the Board had tabled it at their September meeting to allow Mr. Black and Ms. Ferrigni to draft additional language, to wit, new Section 12.14. Ms. Ferrigni said the new section makes it clear that both parties contributed to the writing of agreement, have had it reviewed by their respective counsels, enter into it of their own free will, and will not construe the agreement against the other party. Mr. Vaughn said he liked the new language in Section 12.14. Mr. Black also pointed out minor changes to Section 3.2 and 3.3. Mr. Cyr asked if UniSource has seen the contract. Mr. Black replied that the contract will be sent to UniSource once the HTUA and Council agree to the draft.

Mr. Cyr asked about the urgency and sequence of presenting items to tribal council for approval. Mr. Davidson said the draft interconnection agreement is the most urgent, then the surveying and the environmental contracts. Mr. Cyr asked about the source of funding for the power line. Mr. Davidson replied the funding will be coming from a RUS/USDA grant, a RUS/USDA loan and possibly tribal cash. Mr. Vaughn noted that tribal council may show hesitation in approving a contract which contains a limited waiver of sovereign immunity. Mr. Cyr noted that Aha Macav Power Service (AMPS) has agreed to limited waivers of sovereign immunity to do business with outside power providers.

In regard to the 69 KV power line, Mr. Vaughn said this higher voltage is required to make Grand Canyon West a viable option as a water take out point for the yet to be settled Hualapai water rights case (Senate Bill 1770 has been introduced by John McCain and Jeff Flake). Mr. Vaughn also noted the ongoing northern border issue with the National Park Service and language in S.1770 which could affect the design of the take out point. Mr. Vaughn's preference is to have the take out point be at Grand Canyon West vs. Diamond Creek to reduce the cost of the project and deliver the water directly to the major user on the reservation. Mr. Cyr made a motion to approve the draft agreement and forward it to tribal council so they in turn may authorize the HTUA to transmit it to UniSource. Mr. Montana seconded the motion. Motion passed 4-0-1.

- ii. **Update on Right-of-Way application and Plan of Development for BLM** Mr. Davidson said in order for the BLM to process the tribe's SF-299 application for the right-of-way and the Plan of Development (POD), which describes the power line design and construction in detail, the tribe must enter into a cost reimbursement agreement with BLM. Mr. Whitefield has prepared the agreement and estimates the amount to be \$33,723. Mr. Cyr asked about funding sources. Mr. Davidson said this will be paid for by the tribe. By consensus, the Board forwarded the cost reimbursement agreement with BLM to council for consideration.



iii. Review and possible action on bids for power line survey Mr. Davidson referred to the five bids received on RFP for the survey of the power line route to Grand Canyon West from Hunter/Atwell, Wilson & Company, Taney Engineering, Rick Engineering and Goldtooth Precision Solutions (GPS), with GPS having the lowest bid amount. Mr. Cyr asked if the survey is necessary to establish the route for the environmental consultant to follow. Mr. Davidson said the need for the preliminary survey was discussed with IMEG after the bids were received in 2016 when UniSource was managing the project and each interviewee expected the route to be marked. Mr. Vaughn asked Mr. Becherer if the surveyor must have experience in marking a power line. Mr. Becherer replied that having experience with linear infrastructure is the perquisite whether it is a power line, pipeline or roadway. Mr. Becherer said the surveyor the tribe selects should have enough staff to perform the survey in a timely manner so as not to slow down the field work by the environmental consultant. Mr. Vaughn asked if GPS has enough staff to meet the tribe's time line. Mr. Becherer said they appear to be a small outfit and he has concerns. Mr. Vaughn said GPS should stand behind their bid promise, regardless. Mr. Black suggested an in-person interview and Mr. Cyr requested a reference check of each bidder's clients. Mr. Davidson noted that GPS will be using their own unmanned aircraft (drone) to aerial photograph the routes. This may be a significant cost savings vs. contracting with an aerial reconnaissance company using manned aircraft. The board directed Mr. Davidson to set up interviews with GPS and Taney Engineering on Monday, October 30, 2017.

iv. Review and possible action on bids for environmental services for power line Mr. Davidson next referred to the four bids received from SWCA, Transcon, Tierra Right-of-Way, and Westland for the environmental review of the power line. Given that the bids were received less than 48 hours before the meeting, the Board directed Mr. Davidson to invite the top three bidders to an in-person interview on Monday, October 30, 2017.

b. Cost of Service Study

i. Progress to Date Mr. Davidson gave an overview of new information on MEC's electrical distribution system on the Hualapai Reservation which includes the book value of the capital, cost of power delivery, and operational costs. This information was obtained with the HTUA's \$6,100 payment to MEC. The original electrical distribution system dates from 1947, with

several line extensions over the years, most notably the construction of the 70-mile power line between the Nelson Substation and the Havasupai Reservation in 1981. The gross book value is estimated to be \$5,164,173.33 which includes structures (poles), assemblies (anchors, cross-arms, insulators, switches, etc), circuits (lines), transformers, regulators and meters. The average cost of monthly maintenance, based on the past 20-months, is \$5,521.42. MEC's cost of bringing energy and transmission to Hualapai in 2016 was \$543,801.73 and \$4,869.62, respectively.

Mr. Cyr said the consultant's use of comparables from other small utilities throughout the nation may not be relevant to the HTUA, nor is looking at the original HTUA feasibility studies from 2007 and 2009. The Cost of Service study should address the HTUA's unique situation and provide the best strategy for the HTUA to move forward to become a distribution utility. The study should take into account future electrical loads, as well as forecasts for expenses and revenues. Mr. Vaughn said the HTUA's taking over of the electrical distribution system in Peach Springs before we deal with the cause of the power outages, which appear to be mostly off-reservation, is putting the cart before the horse. Mr. Cyr said one way to improve reliability of service is to have multiple transmission lines serving the community. In regard to the cost of power for the HTUA, these amounts will be likely lower than what MEC is currently paying for electricity. Providing power to Peach Springs should be developed as a pilot project so the HTUA can gain experience and leverage future capital.

Mr. Cyr added that Western Area Power Administration has an obligation to serve tribes. Mr. Davidson asked if that obligation would go so far as building a substation on one of their high-voltage transmission lines. The new power line to Grand Canyon West will cross under both the Mead-Phoenix (500 KV) and Mead-Liberty (345 KV) power lines and could obviate the need to tap into UniSource's grid. Mr. Davidson said a Western substation in the Hualapai Valley would also allow the tribe to construct a utility-scale solar array on its trust lands south of Clay Springs. Mr. Vaughn said that the Hualapai perspective on the power issue is somewhat different.

Mr. Montana noted MEC's attempt to abandon its infrastructure within the Hualapai portion of its CC&N, namely the 70-mile line to the Havasupai Reservation. Mr. Vaughn reiterated that reliability of service must be solved before the HTUA takes over the distribution system. Mr. Cyr

emphasized that having electricity come from multiple sources/lines will provide system redundancy.

c. Community-Scale Solar Array Feasibility Study

- i. Presentation by Mr. Mason** Mr. Mason began his presentation by saying that Rock Gap Engineering is the only Native American-owned company that designs and constructs large-scale energy projects. The solar feasibility study will be integrated into the upcoming DOE grant application which may be used by the tribe to off-set up to \$1 million in construction costs. The key elements for a successful solar project include: 1) abundant sunlight – 8.5 kWh/day/square meter, 2) adequate land area, 3) access to electrical transmission, 4) low project costs, 5) a Power Purchase Agreement (PPA) with a buyer, 6) cultural appropriate land site, and 7) allocation of benefits to the tribe. Mr. Davidson said the first site considered was the area next to the Hwy 66 Mile Post 96.4 pump house. This site has access to a three-phase power line and is adjacent to two of the largest users of electricity on the reservation - the well field and the Music Mountain School which now houses Grand Canyon Resort Corporation's headquarters. However, the site may not be in line with MEC's expectations of having most of the load between the solar array and the nearest substation. The site will also require additional land clearing to make suitable for construction. Mr. Vaughn asked if the study will be considering a location in the Truxton Triangle which is just across the highway to the west. Mr. Davidson said this property had not yet achieved trust status when the project began, so no.

The second site is located along Nelson Road, just west of the Hualapai Reservation's southeastern boundary with the Lhoist Lime Plant. Mr. Mason noted the site has adequate land area (7-acres), good access to three-phase transmission, should not have high construction costs and may be culturally appropriate given the findings of the Tribal Historic Preservation Office. However, the site is next to the Nelson substation with the electric load centered to the west in Peach Springs, so a PPA may not be readily forthcoming from MEC. On the other hand, the site is about one half mile from the lime plant, so it may be possible to negotiate a PPA with Lhoist to sell them electricity. Mr. Cyr asked if emissions from the lime plant would affect the array by causing residue to accumulate on the solar modules. Also, is Lhoist open to a PPA? Mr. Vaughn said sometimes emissions from the plant roll into Peach Springs. Mr. Davidson said the plant's

emissions should be under the jurisdiction of ADEQ. The biggest source of air pollution is most likely from the vehicles driving on the adjoining gravel road and kicking up dust. To limit dust, the road may be treated with magnesium chloride, akin to the application on Buck and Doe Road adjoining the Westwater solar array.

The third site, and most likely candidate for the array, is west of Peach Springs along the railroad at BNSF's West Peach Springs Signal. Mr. Davidson said the site may be obscured from view when standing in the Peach Springs cemetery, some 2,000 feet away and on the opposite side of the railroad tracks, because the railroad bed is raised above the Truxton Wash flood plain and prevents the viewer from seeing the land where the array will sit. However, the array will be visible from Highway 66 on either side of Mile Post 102. Mr. Mason said this site has similar attributes as the second site; however, a PPA may still be an issue, even though it fits MEC's sequence of array-load-substation, the price MEC is willing to pay the tribe makes the project unfeasible without significant grant support. Mr. Vaughn asked if the site requires much grading. Mr. Mason said the site's gentle downward slope from north to south will actually help the array's output. The Nelson site is nearly flat.

To continue with the PPA, MEC is asking for the size of the array to be no more 500 KW and that the PPA be priced at no more than \$30/MWh. MEC's restrictions put a severe financial restraint on the economic model and makes either a fixed-tilt or tracking array unfeasible, with paybacks estimated at 48 years and 39 years, respectively. This is longer than the warranty on the solar modules or PPA which are typically 25 years each. A third-party investor could be sought who can take advantage of the federal tax credits for solar. Given these limitations, Mr. Cyr said that a community-scale solar array placed "in front of the meter," may not make sense, and that placing solar arrays on individual roof tops may make more sense because MEC offers a net-metering program for solar arrays that are placed "behind the meter."

Mr. Mason said the DOE's 50/50 matching grant would make the community-scale project somewhat more palatable, by reducing the construction cost some 50%. Increasing the array's size to 1 MW will reduce the payback to 30 years or less depending upon the use of a fixed-tilt or a tracking array. Increasing the PPA's value to \$60/MWh will reduce the payback 15.14 years using the fixed-tilt array and 12.26 years using tracking technology. Adding the DOE's matching

grant would reduce the payback time frames by half. If the Lhoist is open to negotiating a PPA at \$75/MWHR, a 1 MW tracking array without a DOE grant, would see a return on investment in less than 10 years. Mr. Vaughn asked if the Nelson site could provide electricity at the proper voltage to the mine. Mr. Mason replied that the electric voltage could be stepped up to meet their needs. Mr. Davidson asked if the language in the draft PPA he presented at the September Board meeting would be appropriate to for Lhoist? Mr. Black said that the ACC is looking to phase out net-metering. The \$30/MWh offer from MEC is typical of the current power market, with some PPAs being lower still. Mr. Vaughn noted the benefits of producing the power locally and not supplying it to MEC.

d. Community Wi-Fi

Given the above discussion on determining the status of the AT&T right-of-way as a prerequisite to entering into a contract with ACC Business for Ethernet service, this item was continued to a later Board meeting.

5) Review of FY 2017 Budget and FY 2018 Budget Request (Planning)

- a. Expenditures to date** Mr. Davidson said the HTUA has spent \$138,747.36 as of October 9, 2017. These have largely been payments for professional services related to the power line to Grand Canyon West.
- b. Expenses for FY 2018** Mr. Davidson reviewed the proposed HTUA budget for 2018 with funds set aside for a General Manager (\$64,824) legal counsel (\$90,000), engineering consultants (\$351,100), and training for linemen apprenticeship program (\$20,000). The Finance Department asked for the budgets early this year so the draft budget showing a total request of \$668,015.04 was submitted on October 13, 2017. Mr. Cyr asked if the HTUA had a source of revenue. Mr. Davidson a new solar array could be a future source of revenue for the HTUA. Currently, the benefit arrangements with Navajo Tribal Utility Authority and Pechanga Tribal Utility Authority for the tribe's two WAPA hydropower allocations are deposited into the General Fund. Given the uncertainty of the contract awards, the HTUA's 2018 budget may be

modified. The HTUA Board may consider the budget again at their October 30, 2017, meeting after interviewing the prospective bidders and making a selection

6) Other Matters (Planning)

- a. Preparation of Annual Report to Tribal Council per Section 110, HTUA Ordinance** Mr. Davidson will have the draft annual report ready for the HTUA to review at their November Board meeting.
- b. Distribution of WAPA Contract 17-SLC-0817** Mr. Davidson will bring the WAPA contract to the meeting on October 30, 2017.
- c. Announcements** Mr. Davidson announced the DOE will be holding their annual program review of tribal renewable energy projects in Denver from November 13th to the 17th. No other announcements.

7) Set time and location for next meeting The next meeting will be held on Wednesday, November 15, 2017, at 9:00 AM at the Hualapai Health Department, Peach Springs.

8) Adjourned at 12:10 PM

Hualapai Tribal Utility Authority (HTUA) Interview Minutes

October 30, 2017, 9:05 AM to 3:30 PM, Hualapai Cultural Department, Peach Springs.

Board members:

None Present

Support personnel and guests:

Kevin Davidson, Planning Director

Bob Becherer, IMEG

Mike Jackson, IMEG (via telephone for Survey interview with Taney Engineering).

- 1) Interview prospective NEPA consultants for new power line to Grand Canyon West
 - a. 9:00 AM to 10:00 AM – SWCA
 - b. 10:00 AM to 11:00 AM – Transcon
 - c. 11:00 AM to 12:00 PM – Tierra Right-of-Way
- 2) Lunch Break/Discussion - 12:00 PM to 1:15 PM – Recommendation to select Tierra Right-of-Way.
- 3) Interview prospective Survey consultants for new power line to Grand Canyon West
 - a. 1:15 PM - Taney Engineering
 - b. 2:15 PM - Goldtooth Precision Solutions (cancelled)
 - c. 3:15 PM to 3:30 PM – Discussion - Recommendation pending telephone interview with Goldtooth Precision Solutions on October 31st.

Appendix B: Right-of-way application and Plan of Development

APPLICATION FOR TRANSPORTATION AND
UTILITY SYSTEMS AND FACILITIES
ON FEDERAL LANDS

FORM APPROVED
OMB Control Number: 0596-0082
Expiration Date: 1/31/2017

FOR AGENCY USE ONLY

Application Number

Date Filed

3. Telephone (area code)
(928) 769-1310

Applicant

Authorized Agent

NOTE: Before completing and filing the application, the applicant should completely review this package and schedule a preapplication meeting with representatives of the agency responsible for processing the application. Each agency may have specific and unique requirements to be met in preparing and processing the application. Many times, with the help of the agency representative, the application can be completed at the preapplication meeting.

1. Name and address of applicant (include zip code)

Hualapai Indian Tribe
P.O. Box 179
Peach Springs, AZ 86401

2. Name, title, and address of authorized agent if different from item 1 (include zip code)

Hualapai Tribal Utility Authority
P.O. Box 179
Peach Springs, AZ 86401

4. As applicant are you? (check one)

- a. ☐ Individual
b. ☐ Corporation*
c. ☐ Partnership/Association*
d. ☐ State Government/State Agency
e. ☐ Local Government
f. ☒ Federal Agency

* If checked, complete supplemental page

5. Specify what application is for: (check one)

- a. ☒ New authorization
b. ☐ Renewing existing authorization No.
c. ☐ Amend existing authorization No.
d. ☐ Assign existing authorization No.
e. ☐ Existing use for which no authorization has been received *
f. ☐ Other*

* If checked, provide details under item 7

6. If an individual, or partnership are you a citizen(s) of the United States? ☐ Yes ☐ No

7. Project description (describe in detail): (a) Type of system or facility, (e.g., canal, pipeline, road); (b) related structures and facilities; (c) physical specifications (Length, width, grading, etc.); (d) term of years needed; (e) time of year of use or operation; (f) Volume or amount of product to be transported; (g) duration and timing of construction; and (h) temporary work areas needed for construction (Attach additional sheets, if additional space is needed.)

Construction of the 35-mile 69 kV distribution line will begin at the existing UniSource 69 KV Substation located on Pierce Ferry Road, just north of Dolan Springs, and end at the terminus of the Grand Canyon West radial power distribution system approximately five miles from the Hualapai Reservation's western boundary which is shown on the accompanying map. In addition, the project will upgrade and expand the UniSource existing Dolan Springs substation.

Single wood pole structures, approximately 55 feet in height, will be used for most of the alignment with steel poles used at pivot points and for longer spans. The power line will proceed northeast of the Dolan Springs Substation across BLM land, cross under the Western transmission lines and then proceed due east to Tenney Ranch Road. The power poles will be generally placed along the shoulder of Tenney Ranch Roadway and then along the shoulder of Buck and Doe Road to the new substation (see map). Poles will be approximately 300 feet to 350 feet apart depending on the terrain. Approximately twelve square feet of soil will be disturbed at each wooden pole site, and slightly more at steel pole sites; however, pole placement will require equipment to be positioned in a 40' to 50' radius around each pole in most cases. The power poles will carry 48 strands of fiber optic cable to connect to the existing fiber optic cable system at Grand Canyon West. See Plan of Development for additional information.

8. Attach a map covering area and show location of project proposal

9. State or Local government approval: ☐ Attached ☐ Applied for ☒ Not Required

10. Nonreturnable application fee: ☐ Attached ☐ Not required

11. Does project cross international boundary or affect international waterways? ☐ Yes ☒ No (if "yes," indicate on map)

12. Give statement of your technical and financial capability to construct, operate, maintain, and terminate system for which authorization is being requested.

The Hualapai Tribe formed the Hualapai Tribal Utility Authority (HTUA) in September of 2014 as an entity of the tribal government. The tribe currently has TTG/IMEG under contract to provide engineering support for the design and construction of the project. In 2014, the tribe applied for and received a USDA/RUS/High Energy Cost Grant in the amount of \$1,881,130 to pay for the construction of that portion of the power line that will serve the residential units at Grand Canyon West and now seeks to apply for a USDA/RUS loan to fund the balance of the project. To be eligible for the loan, the tribe recently amended its constitution to allow tribal council the ability to grant limited waivers of sovereign immunity to enter into such loan contracts. The tribe also has a \$50,000,000 annual operating budget, thanks largely to the success of Grand Canyon West, and can supplement the financing for the power line.

13a. Describe other reasonable alternative routes and modes considered.

Option 1 would build 21.4 miles of 69 kV distribution line from a new switch station adjacent to the intersection of Pierce Ferry Road and Diamond Bar Road to the Grand Canyon West radial power distribution system. The second option would extend the existing Mohave Electric Coop 24.9 KV line from Peach Springs (see attached Answers to Questions)

b. Why were these alternatives not selected?

The first alternative traverses the Joshua Tree Forest ACEC and the Joshua Tree National Natural Landmark where the substation would also be constructed. The second alternative does not provide sufficient power to Grand Canyon West (see attached Answers to Questions)

c. Give explanation as to why it is necessary to cross Federal Lands.

The route between the Dolan Springs sub-station on Pierce Ferry Road and the Hualapai Reservation consists of both checker-boarded public/private land and blocks of publically held land.

14. List authorizations and pending applications filed for similar projects which may provide information to the authorizing agency. (Specify number, date, code, or name)

The tribe has no active applications with the BLM.

15. Provide statement of need for project, including the economic feasibility and items such as: (a) cost of proposal (construction, operation, and maintenance); (b) estimated cost of next best alternative; and (c) expected public benefits.

The objective is to connect Grand Canyon West community and main tourist destination to the regional electrical grid operated by UniSource Energy Services. Doing so will reduce the current electrical costs from an estimated 30 cents per kilowatt hour (KWHr) from diesel generation to less than 8 cents per KWHr (see attached Answers to Questions)

16. Describe probable effects on the population in the area, including the social and economic aspects, and the rural lifestyles.

The new power line, allowing for full build-out of Grand Canyon West by 2035 (300-room hotel, 240 single-family homes, 55 multiple-family units, RV park), could more than double traffic flows along Diamond Bar Road from some 1,500 trips per day in 2015 to approximately 3,000 per day. (see attached Answers to Questions)

17. Describe likely environmental effects that the proposed project will have on: (a) air quality; (b) visual impact; (c) surface and ground water quality and quantity; (d) the control or structural change on any stream or other body of water; (e) existing noise levels; and (f) the surface of the land, including vegetation, permafrost, soil, and soil stability.

Air pollutants generated during construction would consist of dust from construction activities and construction vehicle emissions. Therefore, short-term and localized impacts on ambient air quality in the project area may be expected during construction. (see attached Answers to Questions)

18. Describe the probable effects that the proposed project will have on (a) populations of fish, plantlife, wildlife, and marine life, including threatened and endangered species; and (b) marine mammals, including hunting, capturing, collecting, or killing these animals.

However, the increased volume of traffic along Diamond Bar Road will heighten the probability of collisions between automobiles and wildlife. Raptors are likely to be attracted to the increased "road kill." (see attached Answers to Questions)

19. State whether any hazardous material, as defined in this paragraph, will be used, produced, transported or stored on or within the right-of-way or any of the right-of-way facilities, or used in the construction, operation, maintenance or termination of the right-of-way or any of its facilities.

"Hazardous material" means any substance, pollutant or contaminant that is listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. 9601 et seq., and its regulations. The definition of hazardous substances under CERCLA includes any "hazardous waste" as defined in the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6901 et seq., and its regulations. The term hazardous materials also includes any nuclear or byproduct material as defined by the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 et seq. The term does not include petroleum, including crude oil or any fraction thereof that is not otherwise specifically listed or designated as a hazardous substance under CERCLA Section 101(14), 42 U.S.C. 9601(14), nor does the term include natural gas.

None

20. Name all the Department(s)/Agency(ies) where this application is being filed.

Bureau of Land Management, Kingman Field Office.

I HEREBY CERTIFY, That I am of legal age and authorized to do business in the State and that I have personally examined the information contained in the application and believe that the information submitted is correct to the best of my knowledge.

Signature of Applicant

Kevin A. Davidson

Digitally signed by Kevin A. Davidson
DN: cn=Kevin A. Davidson, o=Kingman Field Office, ou=BLM, email=kevin.davidson@blm.gov, c=US
Date: 2017.08.23 17:29:53 -0700

Date

08/23/2017

Title 18, U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious, or fraudulent statements or representations as to any matter within its jurisdiction.

GENERAL INFORMATION
ALASKA NATIONAL INTEREST LANDS

This application will be used when applying for a right-of-way, permit, license, lease, or certificate for the use of Federal lands which lie within conservation system units and National Recreation or Conservation Areas as defined in the Alaska National Interest Lands Conservation Act. Conservation system units include the National Park System, National Wildlife Refuge System, National Wild and Scenic Rivers System, National Trails System, National Wilderness Preservation System, and National Forest Monuments.

Transportation and utility systems and facility uses for which the application may be used are:

1. Canals, ditches, flumes, laterals, pipes, pipelines, tunnels, and other systems for the transportation of water.
2. Pipelines and other systems for the transportation of liquids other than water, including oil, natural gas, synthetic liquid and gaseous fuels, and any refined product produced therefrom.
3. Pipelines, slurry and emulsion systems, and conveyor belts for transportation of solid materials.
4. Systems for the transmission and distribution of electric energy.
5. Systems for transmission or reception of radio, television, telephone, telegraph, and other electronic signals, and other means of communications.
6. Improved right-of-way for snow machines, air cushion vehicles, and all-terrain vehicles.
7. Roads, highways, railroads, tunnels, tramways, airports, landing strips, docks, and other systems of general transportation.

This application must be filed simultaneously with each Federal department or agency requiring authorization to establish and operate your proposal.

In Alaska, the following agencies will help the applicant file an application and identify the other agencies the applicant should contact and possibly file with:

Department of Agriculture
Regional Forester, Forest Service (USFS)
Federal Office Building,
P.O. Box 21628
Juneau, Alaska 99802-1628
Telephone: (907) 586-7847 (or a local Forest Service Office)

Department of the Interior
Bureau of Indian Affairs (BIA)
Juneau Area Office
Federal Building Annex
9109 Mendenhall Mall Road, Suite 5
Juneau, Alaska 99802
Telephone: (907) 586-7177

Department of the Interior
Bureau of Land Management
222 West 7th Avenue
P.O. Box 13
Anchorage, Alaska 99513-7599
Telephone: (907) 271-5477 (or a local BLM Office)

U.S. Fish & Wildlife Service (FWS) Office of the Regional Director 1011 East Tudor Road Anchorage, Alaska 99503 Telephone: (907) 786-3440	National Park Service (NPA) Alaska Regional Office, 2225 Gambell St., Rm. 107 Anchorage, Alaska 99502-2892 Telephone: (907) 786-3440
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Note - Filings with any Interior agency may be filed with any office noted above or with the Office of the Secretary of the Interior, Regional Environmental Office, P.O. Box 120, 1675 C Street, Anchorage, Alaska 99513.

Department of Transportation
Federal Aviation Administration
Alaska Region AAL-4, 222 West 7th Ave., Box 14
Anchorage, Alaska 99513-7587
Telephone: (907) 271-5285

NOTE - The Department of Transportation has established the above central filing point for agencies within that Department. Affected agencies are: Federal Aviation Administration (FAA), Coast Guard (USCG), Federal Highway Administration (FHWA), Federal Railroad Administration (FRA).

OTHER THAN ALASKA NATIONAL INTEREST LANDS

Use of this form is not limited to National Interest Conservation Lands of Alaska.

Individual department/agencies may authorize the use of this form by applicants for transportation and utility systems and facilities on other Federal lands outside those areas described above.

For proposals located outside of Alaska, applications will be filed at the local agency office or at a location specified by the responsible Federal agency.

SPECIFIC INSTRUCTIONS
(Items not listed are self-explanatory)

- 7 Attach preliminary site and facility construction plans. The responsible agency will provide instructions whenever specific plans are required.
- 8 Generally, the map must show the section(s), township(s), and range(s) within which the project is to be located. Show the proposed location of the project on the map as accurately as possible. Some agencies require detailed survey maps. The responsible agency will provide additional instructions.
- 9, 10, and 12 The responsible agency will provide additional instructions.
- 13 Providing information on alternate routes and modes in as much detail as possible, discussing why certain routes or modes were rejected and why it is necessary to cross Federal lands will assist the agency(ies) in processing your application and reaching a final decision. Include only reasonable alternate routes and modes as related to current technology and economics.
- 14 The responsible agency will provide instructions.
- 15 Generally, a simple statement of the purpose of the proposal will be sufficient. However, major proposals located in critical or sensitive areas may require a full analysis with additional specific information. The responsible agency will provide additional instructions.
- 16 through 19 Providing this information in as much detail as possible will assist the Federal agency(ies) in processing the application and reaching a decision. When completing these items, you should use a sound judgment in furnishing relevant information. For example, if the project is not near a stream or other body of water, do not address this subject. The responsible agency will provide additional instructions.

Application must be signed by the applicant or applicant's authorized representative.

EFFECT OF NOT PROVIDING INFORMATION: Disclosure of the information is voluntary. If all the information is not provided, the application may be rejected.

DATA COLLECTION STATEMENT

The Federal agencies collect this information from applicants requesting right-of-way, permit, license, lease, or certification for the use of Federal lands. The Federal agencies use this information to evaluate the applicant's proposal. The public is obligated to submit this form if they wish to obtain permission to use Federal lands.

SUPPLEMENTAL

NOTE: The responsible agency(ies) will provide instructions	CHECK APPROPRIATE BLOCK	
I - PRIVATE CORPORATIONS	ATTACHED	FILED*
a. Articles of Incorporation	<input type="checkbox"/>	<input type="checkbox"/>
b. Corporation Bylaws	<input type="checkbox"/>	<input type="checkbox"/>
c. A certification from the State showing the corporation is in good standing and is entitled to operate within the State	<input type="checkbox"/>	<input type="checkbox"/>
d. Copy of resolution authorizing filing	<input type="checkbox"/>	<input type="checkbox"/>
e. The name and address of each shareholder owning 3 percent or more of the shares, together with the number and percentage of any class of voting shares of the entity which such shareholder is authorized to vote and the name and address of each affiliate of the entity together with, in the case of an affiliate controlled by the entity, the number of shares and the percentage of any class of voting stock of that affiliate owned, directly or indirectly, by that entity, and in the case of an affiliate which controls that entity, the number of shares and the percentage of any class of voting stock of that entity owned, directly or indirectly, by the affiliate.	<input type="checkbox"/>	<input type="checkbox"/>
f. If application is for an oil or gas pipeline, describe any related right-of-way or temporary use permit applications, and identify previous applications.	<input type="checkbox"/>	<input type="checkbox"/>
g. If application is for an oil and gas pipeline, identify all Federal lands by agency impacted by proposal.	<input type="checkbox"/>	<input type="checkbox"/>
II - PUBLIC CORPORATIONS		
a. Copy of law forming corporation	<input type="checkbox"/>	<input type="checkbox"/>
b. Proof of organization	<input type="checkbox"/>	<input type="checkbox"/>
c. Copy of Bylaws	<input type="checkbox"/>	<input type="checkbox"/>
d. Copy of resolution authorizing filing	<input type="checkbox"/>	<input type="checkbox"/>
e. If application is for an oil or gas pipeline, provide information required by item "I - f" and "I - g" above.	<input type="checkbox"/>	<input type="checkbox"/>
III - PARTNERSHIP OR OTHER UNINCORPORATED ENTITY		
a. Articles of association, if any	<input type="checkbox"/>	<input type="checkbox"/>
b. If one partner is authorized to sign, resolution authorizing action is	<input type="checkbox"/>	<input type="checkbox"/>
c. Name and address of each participant, partner, association, or other	<input type="checkbox"/>	<input type="checkbox"/>
d. If application is for an oil or gas pipeline, provide information required by item "I - f" and "I - g" above.	<input type="checkbox"/>	<input type="checkbox"/>

*If the required information is already filed with the agency processing this application and is current, check block entitled "Filed." Provide the file identification information (e.g., number, date, code, name). If not on file or current, attach the requested information.

NOTICES

Note: This applies to the Department of Agriculture/Forest Service (FS)

This information is needed by the Forest Service to evaluate the requests to use National Forest System lands and manage those lands to protect natural resources, administer the use, and ensure public health and safety. This information is required to obtain or retain a benefit. The authority for that requirement is provided by the Organic Act of 1897 and the Federal Land Policy and Management Act of 1976, which authorize the secretary of Agriculture to promulgate rules and regulations for authorizing and managing National Forest System lands. These statutes, along with the Term Permit Act, National Forest Ski Area Permit Act, Granger-Thye Act, Mineral Leasing Act, Alaska Term Permit Act, Act of September 3, 1954, Wilderness Act, National Forest Roads and Trails Act, Act of November 16, 1973, Archeological Resources Protection Act, and Alaska National Interest Lands Conservation Act, authorize the Secretary of Agriculture to issue authorizations or the use and occupancy of National Forest System lands. The Secretary of Agriculture's regulations at 36 CFR Part 251, Subpart B, establish procedures for issuing those authorizations.

BURDEN AND NONDISCRIMINATION STATEMENTS

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0596-0082. The time required to complete this information collection is estimated to average 8 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720- 2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call toll free (866) 632-9992 (voice). TDD users can contact USDA through local relay or the Federal relay at (800) 877-8339 (TDD) or (866) 377-8642 (relay voice). USDA is an equal opportunity provider and employer.

The Privacy Act of 1974 (5 U.S.C. 552a) and the Freedom of Information Act (5 U.S.C. 552) govern the confidentiality to be provided for information received by the Forest Service.

7. *Project description (describe in detail): (a) Type of system or facility, (e.g., canal, pipeline, road); (b) related structures and facilities; (c) physical specifications (Length, width, grading, etc.); (d) term of years needed; (e) time of year of use or operation; (f) Volume or amount of product to be transported; (g) duration and timing of construction; and (h) temporary work areas needed for construction (Attach additional sheets, if additional space is needed.)*

Construction of the 35-mile 69 kV distribution line will begin at the existing UniSource 69 KV Substation located on Pierce Ferry Road, just north of Dolan Springs, and end at the terminus of the Grand Canyon West radial power distribution system approximately five miles from the Hualapai Reservation's western boundary which is shown on the accompanying map. In addition, the project will upgrade and expand the UniSource existing Dolan Springs substation.

Single wood pole structures, approximately 60 feet in height, will be used for most of the alignment with steel poles used at pivot points and for longer spans. The power line will proceed northeast of the Dolan Springs Substation across BLM land, cross under the Western transmission lines and then proceed due east to Tenney Ranch Road. The power poles will be generally placed along the shoulder of Tenney Ranch Roadway and then along the shoulder of Buck and Doe Road to the new substation (see map). Poles will be approximately 300 feet to 350 feet apart depending on the terrain. Approximately twelve square feet of soil will be disturbed at each wooden pole site, and slightly more at steel pole sites; however, pole placement will require equipment to be positioned in a 25' radius around each pole in most cases. The power poles will carry 48 strands of fiber optic cable to connect to the existing fiber optic cable system at Grand Canyon West.

The HTUA requests a 99 year term for this 24-hour, 365-days per year facility. The power line's circuit should carry up to 7 MWs of capacity delivering as much as 61 GWhrs of energy per year. Construction time should take 6 months with staging areas confined to 5-10 acres of BLM lands adjoining Pierce Ferry Road and Tenney Ranch Road and another 5-10 acres along Buck and Doe Road within the reservation. These areas shall have security fencing and security lighting as needed.

12. *Give statement of your technical and financial capability to construct, operate, maintain, and terminate system for which authorization is being requested.*

The Hualapai Tribe formed the Hualapai Tribal Utility Authority (HTUA) in September of 2014 as an entity of the tribal government. The tribe currently has TTG/IMEG under contract to provide engineering support for the design and construction of the project. In 2014, the tribe applied for and received a USDA/RUS/High Energy Cost Grant in the amount of \$1,881,130 to pay for the construction of that portion of the power line that will serve the residential units at Grand Canyon West and now seeks to apply for a USDA/RUS loan to fund the balance of the project. To be eligible for the loan, the tribe recently amended its constitution to allow tribal council the ability to grant limited waivers of sovereign immunity to enter into such loan contracts. The tribe also has a \$50,000,000 annual operating budget, thanks largely to the success of Grand Canyon West, and can supplement the financing for the power line.

13a. Describe other reasonable alternative routes and modes considered.

The first route considered would build 21.4 miles of 69 kV distribution line from a new switch station adjacent to the intersection of Pierce Ferry Road and Diamond Bar Road to the terminus of the Grand Canyon West radial power distribution system approximately five miles from the Hualapai Reservation's western boundary which is shown on the accompanying map. In addition, the project would upgrade 12.5 miles of existing 12.5 KV, electric utility-owned above-ground power line along Pierce Ferry Road. This 12.5kV upgraded line would be constructed as an under build below the new 69 KV line that would serve the new switch station mentioned above, and ultimately the HTUA substation at GCW. Because the new 69 kV line with its 12.5kV under build would parallel the existing roadway, little to no clearing of vegetation will be required, few new access roads would be required, and line inspection will be by motor vehicle.

The second option would extend the existing Mohave Electric Cooperative (MEC) 24.9 KV line which serves the Very High-frequency Omni-directional Radio Ranging/Tactical Aircraft Control (VORTAC) navigation site located some ten miles west Peach Springs and just north of Buck and Doe Road would cost some \$150,000 per mile or \$6.75 million to cover the forty five miles to GCW. In addition to the cost of the line extension to Grand Canyon West, MEC would have to upgrade its 69 KV transmission line between the Round Valley substation (Interstate 40) and the Nelson substation, located just east of the reservation boundary, and the substation transformers and also upgrade the 20 miles of 24.9 KV line between the Nelson substation and the VORTAC site. The preliminary estimated cost for the upgrade is \$7,650,000 (John Williams, Line Extension Supervisor Engineering Services Coordinator, MEC). This power line would be a radial line and subject to same reliability (outage) issues as the current electric line serving Peach Springs. In addition, MEC would have to perform a feasibility study, power flow study, and system impact study to determine what load level could be served at Grand Canyon West to determine the exact level of required electrical line improvements. Because the load is not within MEC's certificated service area, MEC would require a borderline service agreement and Arizona Corporation Commission (ACC) approvals prior to delivering electric service to Grand Canyon West. Constructing a new 69 KV from the Nelson substation to Grand Canyon West would add at least another **\$10 million** to the project.

13b. Why were these alternatives not selected?

The first alternative traverses the Joshua Tree Forest ACEC and the Joshua Tree National Natural Landmark where the substation would also be constructed. This route is not preferred by the Friends of Arizona Joshua Tree Forest as noted at the 10/18/2016 HTUA Board meeting. The route also crosses a substantial portion of the BLM's Class II view shed. In addition, because of the shared 69/12.5kV line along Pierce Ferry Road, this route is more expensive than other alternatives.

The second alternative does not provide sufficient power to Grand Canyon West, would cost considerably more to upgrade the circuit from 24.9 KV to 69 KV as compared to constructing the proposed power line and would still provide less reliable service than is expected from UniSource.

13c. Give an explanation as to why it is necessary to cross Federal Lands.

The route between the Dolan Springs sub-station on Pierce Ferry Road and the Hualapai Reservation consists of both checker-boarded public/private land and blocks of publically held land.

14. *List authorizations and pending applications filed for similar projects which may provide information to the authorizing agency. (Specify number, date, code, or name)*

The tribe has no active applications with the BLM.

15. *Provide statement of need for project, including the economic feasibility and items such as: (a) cost of proposal (construction, operation, and maintenance); (b) estimated cost of next best alternative; and (c) expected public benefits.*

The objective is to connect the Hualapai Tribe's Grand Canyon West community and main tourist destination to the regional electrical grid operated by UniSource Energy Services. Doing so will reduce the current electrical costs from an estimated **30 cents per kilowatt hour (KWHr)** from diesel generation to less than eight cents per KWHr from Unisource which equals a savings of some **\$1 million per year**. The estimated cost to construct is \$14,000,000 with annual operations estimated at approximately \$600,000 (insurance, maintenance, power purchase, and depreciation) not including debt service.

With the completion of paving on the final 9.5 mile portion of Diamond Bar Road in August of 2014, tourist volumes have increased 20 percent in 2015, topping one million visitors in December (Grand Canyon Resort Corp). This volume was sustained in 2016 and reached over 1.1 million visitors. Such an increase in visitation creates an additional need for employees and facility use, including housing at Grand Canyon West. The new master plan for Grand Canyon West calls for the creation of a sustainable community for employees and additional tourism venues making the West Rim a second population center on the Hualapai Reservation for tribal members and their families.

This project will enable the Hualapai Tribe to generate more revenue, reduce operating costs, and provide a higher quality of life for those employed at Grand Canyon West by creating additional housing options nearby. Overcoming the high energy costs associated with development in this region of the Reservation will enable the tribe to fulfill its future growth plans for Grand Canyon West.

16. *Describe probable effects on the population in the area, including the social and economic aspects, and the rural lifestyles.*

The new power line, allowing for full build-out of Grand Canyon West by 2035 (300-room hotel, 240 single-family homes, 55 multiple-family units, RV park), could more than double traffic flows along Diamond Bar Road from some 1,500 trips per day in 2015 to approximately 3,000 per day. Many of the new residential trips will most likely be confined to Grand Canyon West during the weekdays. These flows will increase peak hour volumes but may not change from Level of Service B to LOS C. Peak hour two-way traffic volumes may reach 440 trips before the roadway is considered to operate at LOS C (FDOT, Systems Planning Office). This increase in traffic flow will increase noise and accidents including collisions with livestock.

The new power line, allowing more growth to take place at Grand Canyon West, would have a direct socioeconomic impact on Dolan Springs by increasing tourist traffic through the community. As stated in the 2002 FEIS, "bus tours on their way to GCW often stop in Dolan Springs for food, souvenirs, and other goods and services. According to several companies that book group tours out of Las Vegas, the number of offered tours to GCW would significantly increase if Diamond Bar Road were paved (Aschenbach 1998)." This would likely be true if additional venues were added to Grand Canyon West which would be made possible by having an additional and more robust source of electricity. Additionally, the 2002 FEIS predicted that "the business income would likely increase in proportion to the number of tour buses or autos going to or from GCW. Therefore, potential revenue to individual business owners could increase six fold within ten years of project completion to \$600,000 annually." These values may double with the build-out of Grand Canyon West.

"If businesses expand and new businesses open in response to increased traffic through Dolan Springs, additional employees would be hired to serve their customers. In a town with a relatively high unemployment rate and limited local employment opportunities, this would provide a measurable socioeconomic benefit." Even though employment on Indian reservations favors tribal members, it is likely that GCW employees will live in Dolan Springs. Over 400 employees at Grand Canyon West live off of the reservation.

Short-term construction jobs for the proposed power line may be available to local residents; however, it is anticipated that a sufficient Hualapai labor force exists to fill the majority of these jobs that UniSource may offer. "Dolan Springs may profit to a small degree from increased transaction, privilege, use and severance tax (sales tax) paid directly to the County and reimbursed to the County from the State."

Meadview, located west of Grand Canyon West and north of Diamond Bar Road, may see little impact from new development outside of providing additional housing opportunities for GCW employees. Some additional automobile traffic visiting Grand Canyon West may continue on to Lake Mead and patronize Meadview businesses.

17. *Describe likely environmental effects that the proposed project will have on: (a) air quality; (b) visual impact; (c) surface and ground water quality and quantity; (d) the control or structural change on any stream or other body of water; (e) existing noise levels; and (f) the surface of the land, including vegetation, permafrost, soil, and soil stability.*

Air pollutants generated during construction would consist of dust from construction activities and construction vehicle emissions. Therefore, short-term and localized impacts on ambient air quality in the project area may be expected during construction. The impact on air quality along Diamond Bar and Pierce Ferry Roads may be slightly degraded due to the increased vehicular trips.

The power line along Tenney Ranch Road would cross through the middle portion of the Class II Visual Resource Management (VRM). This road is infrequently travelled so the impact to visual resources would be less appreciated as if it were located on a more frequented route.

Estimated impacts on surface water drainages by the proposed power line are expected to be minimal. The placement of power poles within the FEMA flood hazard zone (Section 18, T27N, R17W) does not require notification of the U.S. Army Corps of Engineers as indicated by RUS (reference e-mail). However, before commencing power line construction, the Hualapai Tribe will obtain any appropriate certifications and permits required under Sections 401, 402, and 404 of the Clean Water Act and comply with all conditions of those authorizations.

The power line is not expected to increase the noise level along its route. During the construction phase, ambient noise levels in portions of the project area would be higher than normal because of construction vehicles and equipment operation. This would be a short-term direct impact lasting only as long as each segment of construction. Noise levels would increase along Diamond Bar and Pierce Ferry Roads largely due to the increase in automobile traffic visiting the new venues at Grand Canyon West made possible by the increased electrical service provided by the new power line.

Vegetation characteristics change with elevation. Native grasses, blackbrush, cacti and creosote (Mohave Desertscrub) give way to juniper and pinyon (Great Basin Conifer Woodland) as the route climbs up to Buck and Doe Road. This route does not impact the Joshua tree forest.

18. Describe the probable effects that the proposed project will have on (a) populations of fish, plant life, wildlife, and marine life, including threatened and endangered species; and (b) marine mammals, including hunting, capturing, collecting, or killing these animals.

No impact is expected on marine animals or wildlife. Big game species known to occur in the area are javelina, mule deer, elk, desert bighorn sheep, and mountain lion. Introduced species in the project corridor include cattle and horses. However, the increased volume of traffic along Diamond Bar Road will heighten the probability of collisions between automobiles and wildlife. Raptors are likely to be attracted to the increased "road kill." In addition, raptors will also be apt to sit on the new power poles along the new route and use them as hunting platforms putting small animals at a disadvantage.

19. State whether any hazardous material, as defined in this paragraph, will be used, produced, transported or stored on or within the right-of-way or any of the right-of-way facilities, or used in the construction, operation, maintenance or termination of the right-of-way or any of its facilities. "Hazardous material" means any substance, pollutant or contaminant that is listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. 9601 et seq., and its regulations. The definition of hazardous substances under CERCLA includes any "hazardous waste" as defined in the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6901 et seq., and its regulations. The term hazardous materials also includes any nuclear or byproduct material as defined by the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 et seq. The term does not include petroleum, including crude oil or any fraction thereof that is not otherwise specifically listed or designated as a hazardous substance under CERCLA Section 101(14), 42 U.S.C. 9601(14), nor does the term include natural gas.

None

Dolan–Grand Canyon West 69-kV Power Line Project

Draft Plan of Development

September 18, 2017

The Hualapai Tribal Utility Authority proposes to construct a new Dolan-Grand Canyon West 69-kV power line in a new 100 foot wide right-of-way (ROW) with 25 foot wide access roads and establish ROW where such roads would be outside of the power line ROW

This plan is submitted to the Bureau of Land Management (BLM) by the Hualapai Tribal Utility Authority (HTUA) as part of the application (SP-299). The HTUA requests, 1) authorization of new access roads, and 2) a short term right-of-way for laydown areas and construction areas outside of the existing rights-of-way. Short term right-of-way permit would include an additional 50 feet either side of the permanent power line ROW and an additional 25 feet either side of the permanent 25 foot wide access road ROW.

The source of the electricity will be from UniSource's Dolan Springs Substation. UniSource will install the meter at the substation. The existing UniSource Dolan Springs Substation may have to be expanded to contain both the new circuit breaker for the new power line as well as for 69kV meter. Unisource will determine the extent of the expansion on their fee property because they will be building and owning these facilities. Given the configuration of the existing power lines adjacent to the substation, the new power line may exit the substation underground, traverse beneath Pierce Ferry Road, travel north some 600 feet, and then rise on a pole east of Pierce Ferry Road in Section 24, T27N, R18W from which the power line will then continue northeast along the pathway described below. The "dip" under Pierce Ferry Road will require further analysis during the design phase.

PURPOSE AND NEED FOR THE FACILITY (Project Description)

The goal of constructing the 35-mile long, 69 kV distribution line is to connect the Hualapai Tribe's Grand Canyon West community, and the tribe's main tourist destination, to the regional electrical grid. UniSource Energy Services provides the nearest connection to a 69 kV circuit. Doing so will reduce the current electrical costs from an estimated 30 cents per kilowatt hour (KWHr) from diesel generation to less than eight cents per KWHr from Unisource which equals a savings of some \$1 million per year in fuel costs. The estimated cost to construct the power line and associated switch gear is \$14,000,000 with annual operations estimated at approximately \$600,000 (insurance, maintenance, power purchase, and depreciation) not including debt service.

With the completion of paving on the final 9.5 mile portion of Diamond Bar Road in August of 2014, tourist volumes have increased 20 percent in 2015, topping one million visitors in December of that year (Grand Canyon Resort Corp). This volume was sustained in 2016 and reached over

1.1 million visitors. Such an increase in visitation creates an additional need for employees and facility use, including housing at Grand Canyon West. The new master plan for Grand Canyon West calls for the creation of a sustainable community for employees and additional tourism venues making the West Rim a second population center on the Hualapai Reservation for tribal members and their families.

This project will enable the Hualapai Tribe to generate more revenue, reduce operating costs, and provide a higher quality of life for those employed at Grand Canyon West by creating additional housing options nearby. Overcoming the high energy costs associated with development in this region of the reservation will enable the tribe to fulfill its future growth plans for Grand Canyon West.

The HTUA requests a 99 year term for this 24-hour, 365-days per year facility. The power line's circuit should carry up to 7 MWs of capacity delivering as much as 61 gigawatt hours GWhrs of energy per year to Grand Canyon West.

Right-of-Way Location:

The Dolan to Grand Canyon West 69-kV Power line originates at the Dolan Springs Substation on Pierce Ferry Road, Township 27 North, Range 18 West, Section 23, then proceeds northeast under the Mead-Phoenix and Mead-Liberty transmission lines where it then heads due east to Tenney Ranch Road, follows the roadway alignment to Buck and Doe Road crossing onto the Hualapai Reservation at Township 28 North, Range 15 West, Section 20 then follows Buck and Doe Road northerly, terminating some 35 miles north east from the Dolan Springs Substation in Township 30 North, Range 15 West, Section 25, Hualapai Reservation, Arizona.

Of the 35 miles of new power line ROW, approximately 100 feet cross private land, 19 miles cross BLM land, and 16 miles crosses Hualapai Reservation.

The legal description by land status is as follows:

BLM:	T27N, R18W, Sec 24 T27N, R17W, Sec 7, 8, 9, 10, 11, 12, 18 T27N, R16W, Sec 4, 7, 8, 9 T28N, R16W, Sec 25, 33, 34, 35, 36 T28N, R15W, Sec 19, 20, 30, 31
Private:	T27N, R18W, Sec 13, 23 T27N, R17W, Sec 19 T28N, R16W, Sec 34
Tribal:	T28N, R15W, Sec 2, 3, 10, 11, 14, 15, 20, 21, 22, 28 T29N, R15W, Sec 2, 3, 9, 10, 16, 21, 22, 27, 28, 34 T30N, R15W, Sec 25, 35, 36

The HTUA will maintain a permanent 100 foot wide (50 feet on each side of the centerline) power

line and 25 foot wide (12.5 feet wide on each side of the centerline) access road ROW, after construction has been completed.

Short term right-of-way permit (a.k.a. temporary use permits) would include an additional 50 feet either side of the permanent power line ROW and an additional 25 feet either side of the permanent 25 foot wide access road ROW. At angle structures, where the power line changes direction, a radius of 150 feet from the base of the structure would include both permanent power line easements and temporary use permit areas.

Design Factors:

The project electrical facilities will be designed to meet or exceed the requirements of the current edition of the National Electrical Code and National Electrical Safety Code.

The new line will be single-circuit, using one conductor per phase with three phases in a vertical configuration. The conductor size will be 4/0 (.563" diameter) non-specular (non-reflective), aluminum and steel reinforced. Ground clearance of the conductor will be a minimum 22 feet at 176 degree F (max. conductor operating temperature). The overhead ground wire above the phase conductors will be 0.504 inch diameter OPGW (central core optical ground wire with aluminum clad steel outer wires and 48 optical fiber central core). Energy from lightning strikes will be transferred through this overhead ground wire, to adjacent structures, and to ground. Underground segments of the power line will also be protected from lightning by means of arrestors at the terminal points of underground sections.

The new poles will be 55 foot Douglas fir, Class 2, wooden poles. Span lengths will be approximately 300 to 350 feet. Where long spans across difficult terrain are required, structures will be weathering steel monopoles, approximately 60 to 90 feet tall (depending on terrain and span length). (See diagrams in Exhibit A)

Dead end and turning structures will be comprised of single wooden poles or steel monopoles, 50 to 90 feet in height, depending on terrain and span length. Wood poles will be dark brown in color and steel poles will be Cor-Ten with an iron-oxide patina (rust) finish. All structures will use brown or grey porcelain insulators. This color palette will blend with the surrounding visual aesthetic.

This 69kV circuit will be designed to stay within the NESC clearance distances from overhead wires (both energized and non-energized). The maximum blowout is the greatest displacement, horizontally (out) from the conductor centerline, and occurs near the location of maximum sag (usually mid-span where exposed to the specified steady wind load for a given area). The amount of blowout varies greatly on the structure location and geometry, wire type, and installation tension, all of which are determined during design. Blowout calculations will be provided for all areas of conductor crossings. The 69 kV will cross under the 500 kV Mead-Phoenix and 345 kV Mead-Liberty transmission lines near the tower where blowout is at its minimum and where the power line is afforded the greatest clearance between the transmission lines above and earth below. Western's required clearance between the 500 kV conductor and the 69kV conductor under-build is 11.9'. The required clearance between the 345 kV conductor and the 69kV conductor under-

build is 8.8' (see Exhibit C, e-mail correspondence and diagram from April 20, 2017),

On BLM administered public lands, structure/conductor configurations will be built in accordance with standards outlined in the latest version of "Suggested Practices for Raptor Protection on Powerlines," Raptor Research Foundation, Inc. This standard will also be used on the reservation.

Additional Component – Access Road ROW Location:

The use of existing roads will be required to gain access to the route of the power line as well as to temporary use areas. The route will be constructed near or adjacent to Pierce Ferry Road, Antares Road (crossing point), Tenney Ranch Road and Buck & Doe Road.

Access roads may require widening in some areas to accommodate construction equipment. In some areas along Tenney Ranch Road, the poles will likely be set by using helicopters. A cut and fill method can be used for some roadway improvements. In many cases, access road improvements could be limited to small scale grading by bulldozer. Equipment movement along the sides of access roads may result in vehicle parking alongside access roads near structures, in order not to impede public use of access roads. If these areas are outside the maximum radius distance from structures that are identified as areas in which significant disturbance will occur, these areas can be identified, marked, and reviewed by the BLM for approval. The following procedure is suggested: the corners of these areas would be marked by stake or steel post, or other sufficient means and the BLM will be notified for review and approval at least five working days prior to such use of the areas. All equipment and vehicles would park within the marked boundaries of these areas.

Approximately twelve miles of the power line crossing BLM ground between the Dolan Springs Substation and the lower part of Tenney Ranch Road is relatively flat (less than 12 percent slope) and sparsely vegetated. It is not advisable to blade new access roads for the power line. The power line can be constructed by driving along the power line route line without grading a new access road. There will be very little access required along the power line route once it is built. Barring a pole failure or some other major event, the power line will be left undisturbed for a decade or more between maintenance calls.

It is anticipated that access roads with sharp angle turns will encounter tire rutting and crushed vegetation in an approximate 30 foot radius area at the turn. This will result from longer vehicles (tractor-trailer rigs, pole haulers, etc) swinging wide on the exterior angle and/or cutting across on the interior angle in order to move through sharp turns on access roads. It is anticipated that these areas will be held to a minimum since pole setting on very restricted areas will be by helicopter. Where slopes exceeds 12% to 15% access road widths will be vary from 30-50 feet. Precise pole locations will be determined in the NEPA document with pole placed on the high ground and spans increased in these areas to minimize access roads to each pole. Exact pole locations in steep terrain will be added as an addendum to the POD.

Additional Component – Temporary Use Areas Needed

Temporary use permit areas will be required for construction activities such as contractor staging

areas and lay down areas. Total acreage can be forwarded to BLM when survey data has been collected. Temporary use permit areas will include 1) an additional 50 feet either side of the permanent power line ROW and 2) an additional 25 feet either side of the permanent 25 foot wide access road ROW for sections where a 50 ft. wide area for the road is not within the 150 ft. power line ROW (width of temporary and long-term access rights-of-way combined). This is to ensure adequate space for staging poles, conductor reels, large equipment, and for turning long vehicles. These areas will also be needed to allow vehicles to maneuver and to pass one another.

Staging areas will serve as a reporting location for workers, parking area for vehicles, and equipment and material storage. Staging areas will be fenced. New poles and structures will be delivered to and stored at the staging areas until their movement to the proper locations (in the ROW) for imminent erection. The materials will be stored and structures assembled within the power line ROW and this could extend into additional temporary use permit areas.

One staging area is anticipated near the Dolan Springs Substation on Pierce Ferry Road, and a second area is anticipated near the intersection of Antares and Tenney Ranch Roads. The staging area was selected because it keeps the large pole delivery trucks from traveling on the less developed roadways. The contractor will off-load the poles and equipment and transport them with smaller hauling vehicles to their points of installation. The exact location of the staging areas will be selected by the power line construction contractor. Other staging areas will likely be on reservation lands along Buck and Doe Road.

Governmental Agency Involvement:

The Hualapai Tribal Utility Authority will apply for a right-of-way permit from the Bureau of Land Management and will also file a right-of-way map and companion resolution with Bureau of Indian Affairs for that part of the power line crossing Hualapai Reservation and Hualapai trust lands. The HTUA is not required to obtain state or local permits.

Construction of the Facilities:

Construction of the 35-mile 69 kV distribution line will begin at the existing UniSource 69 KV Substation located on Pierce Ferry Road, just north of Dolan Springs, and end at the HTUA's substation that will serve the Grand Canyon West radial power distribution system located approximately five miles from the Hualapai Reservation's western boundary and which is shown on the accompanying map. In addition, the project will upgrade and expand the UniSource existing Dolan Springs substation.

Single wood pole structures, approximately 55 feet in height, will be used for most of the alignment with steel poles of vary heights used at pivot points and in locations with longer spans. The power line will proceed northeast of the Dolan Springs Substation across BLM land, cross under the Western transmission lines and then proceed due east to Tenney Ranch Road. The power poles will be generally placed along or near the shoulder of Tenney Ranch Road and then along the shoulder of Buck and Doe Road to the new substation located near the existing water storage tanks at Grand Canyon West (see map). Poles will be approximately 130 feet to 330 feet apart depending on the terrain.

Approximately twelve square feet of soil will be disturbed at each wooden pole site, and slightly more at steel pole sites; however, pole placement will require equipment to be positioned in a 40' to 50' radius around each pole in most cases. The power poles will carry 48 strands of fiber optic cable to connect to the existing fiber optic cable system at Grand Canyon West. The fiber optic cable is anticipated to be fully utilized by the tribe's operations.

Construction time should take 6 months with staging areas confined to 5-10 acres of BLM lands adjoining Pierce Ferry Road in the vicinity of Antares Road and 5-10 acres along Buck and Doe Road within the reservation. These areas shall have security fencing and security lighting as needed.

Construction of the power line will be done by a construction contractor. The number of workers and types of equipment required are identified in Exhibit B.

Power line construction normally follows a sequence of events consisting of access road improvement/construction, clearing and leveling structure sites, augering holes (including rock removal), assembling and erecting the structures, stringing, tensioning, clipping conductors, clean up and restoration. These events as well as other construction activities are described below:

Dolan Springs Substation Expansion: It is anticipated that the Dolan Springs Substation will be expanded to allow the installation for a 69kV circuit breaker and 69kV metering facilities, both of which serve the proposed power line. This circuit breaker and the metering facilities will be owned, operated, and maintained by UniSource. The layout and design will be determined by UniSource. The design of these new facilities has not yet been accomplished, but it is anticipated that the Substation will be expanded to the north of its present location if there is not adequate footprint for the new equipment within the Substation's existing fence line.

Access Roads: Constructing new roads and improving existing roads will be required for the project. Existing access roads will be re-bladed and/or bulldozed as necessary to make them usable by both the construction and maintenance crews and their equipment. Existing roads will require extension (as needed) to reach new pole sites, however, the majority of new road construction will be along the power line ROW. New roadbed will be created by blading to a width of 16 feet; no more than 12 feet in washes. After the project, road travel lanes will be reclaimed to a width of 12 feet.

Right-of-Way Clearing: The proposed project is located in an area with sparse vegetation. Clearing of natural vegetation will be required for construction purposes at each new structure site and at access roads, and may also be required in the long term for electrical safety, maintenance, and electrical reliability. If this becomes necessary vegetation within 25 feet of conductors will be removed or trimmed. At each structure site, an area will be disturbed by the movement of vehicles, disassembly or assembly of structure elements, necessary crane and auger equipment setup and maneuvers. In areas where the topography at the base of a structure has a slope greater than 4:1, an approximate 25 foot radius, or some 2,000 square feet may require soil cut and fill to level the area.

At the base of each structure an approximate 50 foot radius area will be required for heavy

equipment use. These are areas of temporary disturbance, except for the 25-foot radius blade cut around each pole structure, will remain disturbed so maintenance can be performed on the structures, except for areas in the canyon area of Tenney Ranch Road where long spans and steel poles may be used. Heavy equipment use is defined as an area where the ground is driven over, around, and parked upon such that most if not all of the vegetation can be crushed and the soil and rock structure of the area can be displaced or altered. This area will extend up to 25 feet beyond the 25 foot radius of bladed area for each pole. Disturbance will occur primarily during pole excavation, setting and again during the stringing of the conductors.

Foundation Excavation and Installation: In order to install the wood and steel pole structures, holes varying from 7'6" to 12'0" feet deep will be required. Width of the hole will be variable depending on the amount of rock, sand, or compacted soil encountered.

Vertical excavations for pole embedment will be made with power auger equipment. A vehicle-mounted power auger or backhoe will be used where soils permit. In heavy rock areas, the holes will be excavated by boring, drilling, blasting, or installing special rock anchors. All safeguards associated with using explosives will be employed. Blasting activities will be coordinated with the BLM, particularly for purposes of safety and protection of sensitive areas. It is anticipated that use of explosives will be either minor or not required. In extremely sandy areas, gelling or grouting agents can be used to stabilize the soil before excavation. Again, broad use of this technique is not anticipated. Spoil material (excavated soil) will be used for fill where suitable, and the remainder spread at the structure site in a manner that is consistent with the character of the surrounding landscape.

Pole structures will be direct-embedded with earth backfill. In a few instances it may be necessary to backfill with concrete. Foundation excavation and installation will require access to structure sites by a power auger or drill, crane, material truck, and possibly ready-mix concrete trucks. No washing of concrete equipment will occur on BLM public lands.

Pole Structure Assembly and Erection: Activities include: (1) mobilizing construction vehicles, equipment, and poles along either new or existing access roads to each structure site, and (2) assembling and erecting the structures. New structures and associated hardware will be delivered to each structure site by flatbed truck or pole hauler. Erection crews will assemble new structures on the ground within the power line ROW and the temporary use permit areas. Using a crane, crews will position the structures in the foundation holes and then backfill with either excavated material or (in a minimum of cases) with concrete. Placement activities on straight segments of the line can be accomplished using an approximate 50 foot radius at each structure which allows for equipment setup and turnaround, and material placement. Within an approximate radius of 50 feet from the base of the structure this area would be disturbed by heavy equipment use. Area further out to within an approximate 60 foot radius from the base of the structure would be considered disturbed by soil rutting and crushed vegetation. Activities beyond the 60 foot radius at the base of the pole may be impacted from vehicles turning or maneuvering. This disturbance would be temporary except for a 25 foot radius which would remain as residual impacts since those areas would likely remain disturbed due to maintenance activities. In steeper areas, additional ground disturbance would be required to create the 25-foot radius.

Conductor and Ground Wire Stringing: The construction contractor will establish conductor and OPGW (optical ground wire) pulling, tensioning and splicing sites along the proposed alignment. There will be a pulling point at each turning structure and at intervals of approximately 5,000 feet along the straight alignments. This is based on reel size for 4/0 conductor and is subject to change depending on standard capacity of the delivery reels of the selected cable manufacturer. Pulling sites are 100 feet wide, so disturbance should be contained within 60 foot radius/120 diameter area.

Reels of conductor and OPGW will be delivered to these designated areas. Where possible, level locations will be selected so little or no earth moving will be required. These sites may be approximately 400 feet long and 100 feet wide in line with the power line and approximately 300 feet long and 100 feet wide at turning structures. These areas will extend 300 feet by 100 feet beyond the corner poles but in line with the right of way from both directions. They may have to be cleared of vegetation and will be disturbed by the movement of vehicles and other activities. When these sites are located within the straight segments of the power line, they mainly occur within the permanent power line easement. Pulling, tensioning and splicing sites will be selected to avoid sensitive resources. Pulling, tensioning and splicing sites specifically at turning structures will mainly be located within the temporary use permit areas.

Crews then install insulators and sheaves in preparation for conductor pulling. The sheaves allow crews to install the pull ropes into place. Once the equipment is set up, a light-weight vehicle (could be a quad vehicle or a pickup size vehicle) will install the pull line from one pole structure to the next where access along the line is available. Where access is not available, installation of the pull line will be accomplished by helicopter. (This method is only anticipated in small portions of the canyon along Tenney Ranch Road). If an access road is within or directly adjacent to the power line, it can be used for installing the pull line. Once installed the pull line is used to pull the conductor through the sheaves on each pole. After the conductors are pulled into place, they are drawn to a pre-calculated sag and tension, and clamped to the end of each insulator. The final step of the conductor installation process is to remove the sheaves and install vibration dampers and accessories.

Prior to pulling and tensioning, workers will install temporary guard structures at road crossings and crossings of energized electric lines to prevent the pull line or conductors from sagging onto the roadway or other energized lines during the stringing operation.

Clearing and Removal: The construction contractor will ensure construction sites, material storage yards, and access roads are kept in an orderly condition during the construction period. Crews will collect waste construction materials and rubbish from all construction areas on a regular schedule, haul them away, and dispose of them at approved sites. All pole structure assembly and erection areas that are not needed for normal maintenance will be returned to their original contour and natural drainage patterns will be restored. The intent is to restore all construction areas to their original condition, where feasible.

Post Construction Reclamation Measures. Areas around the poles not required for maintenance and areas outside of the 12-foot wide access roads will be reclaimed. A reclamation plan will be developed by the Hualapai Tribal Utility Authority in association with the BLM.

Fire Protection: The construction contractor will take measures as necessary for prevention and suppression of fire on the ROW and adjacent public lands.

Construction Schedule: The start of construction depends on the availability of funding and upon authorization of all appropriate Agencies.

Resource Values and Environmental Concerns:

Environmental impacts and best management practices (BMPs) will be discussed in the NEPA document. All BMPs listed in the NEPA document will be included in the construction specifications.

In addition to the BMPs prescribed in the POD, the tribe will instruct its NEPA consultant to employ all known design features to reduce environmental impacts to reduce impacts of the power line on the environment precluding the need for the NEPA consultant to spend time and resources to analyze the impacts and propose mitigation knowing that BMPs are available upfront.

In an effort to mitigate any potential avian impacts, the design consultant shall employ where practical, Avian Protection Plan Guidelines April 2006 developed by The Edison Electric Institute's Avian Power Line Interaction Committee (APLIC) and U.S. Fish and Wildlife Service, as well as Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006, also developed by APLIC.

Best Management Practices identified in the NEPA document shall be incorporated by the design consultant into the transmission line construction specifications, drawings, and documents.

Aesthetic and visual impacts shall be limited, to the greatest extent practical, by limiting pole height, utilizing weathering steel poles (where required), limiting use of guy anchors, and matching structure, hardware and insulators colors to the background environment.

Arizona Department of Transportation (ADOT) has several manuals and documents regarding Best Management Practices that identify preferred construction means and methods. These areas, where applicable and practical (erosion control, road construction, etc.), will be incorporated into the transmission line design documents and construction specifications.

Sensitive environmental resources, as identified in the NEPA document shall be avoided, by limiting pole placements, increasing span length or re-routing the transmission corridor.

Land use decisions that affect the project will be described in the NEPA document.

A biological survey will be conducted as part of the NEPA process to determine if any sensitive species are present within the proposed project area and if there will be impact to these species. Appropriate measures will be instituted to remove or reduce effects to sensitive species.

Cultural and/or paleontological (if appropriate) resource surveys will be conducted as part of the NEPA analysis to determine if any sensitive resources are present within the proposed project area

and if there will be impacts to these resources. Appropriate measures will be instituted to remove or reduce effects to sensitive cultural and/or paleontological resources.

Operation and Maintenance:

The new power line will be designed, constructed, operated and maintained to meet the requirements of the National Electrical Code (NEC), National Electrical Safety Code (NESC), U.S. Department of Labor Occupational Safety and Health Standards, and other applicable standards.

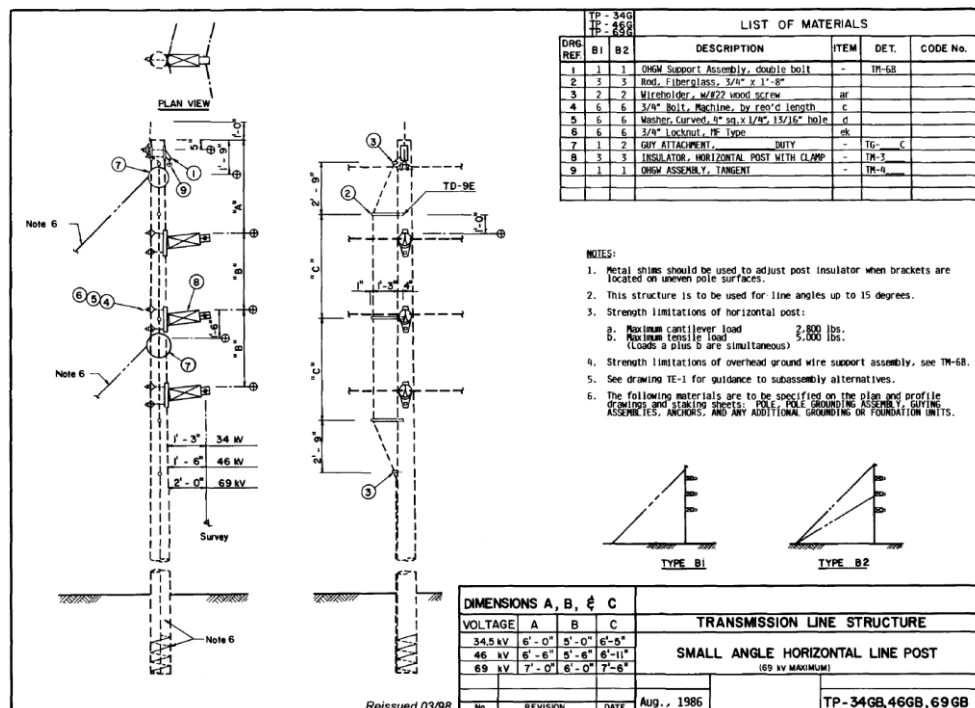
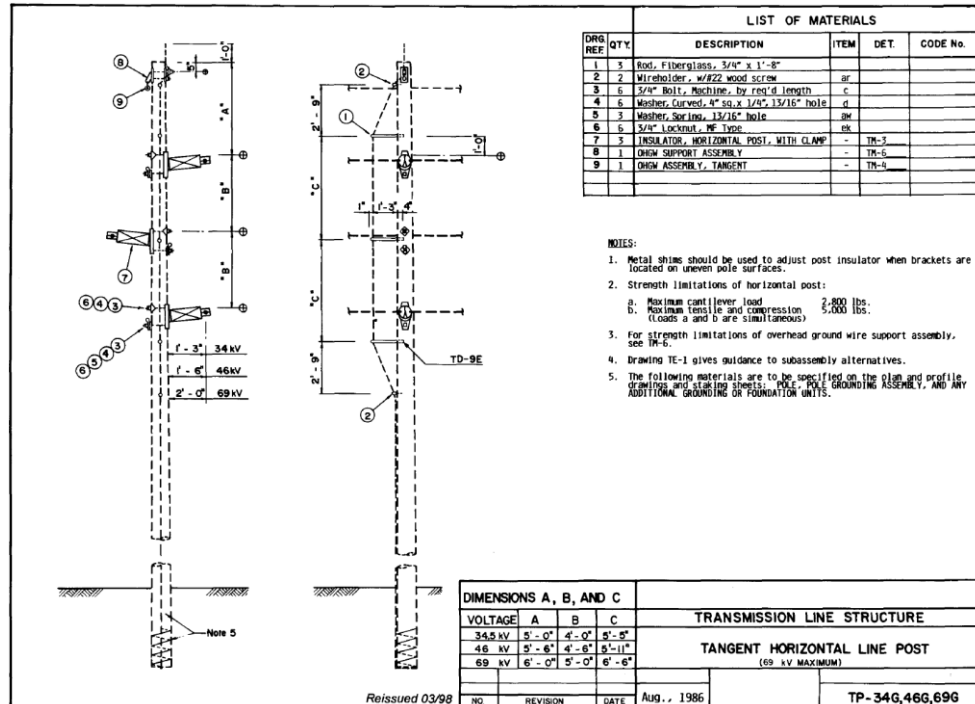
Inspections of the power line right-of-way and associated access roads will be conducted on a regularly scheduled basis. This may be done either by land based vehicles or by helicopter.

Maintenance activities, both emergency and planned, will be conducted by ground-based vehicles. This project will restore access points to each structure to ensure maintenance crews will have adequate access in the future.

Termination and Restoration:

Thirty days prior to termination or abandonment of the right-of-way, the Owner's Representative will contact the BLM Authorized Officer to arrange a joint inspection of the right-of-way. This inspection will be held to agree to an acceptable termination and rehabilitation plan. The plan shall include, but is not limited to, removal of facilities, drainage structures or surface material, re-contouring, top soiling or seeding. The BLM Authorized Officer must approve the plan in writing prior to commencement of any termination activities.

TYPICAL POLE AND INSULATOR DETAILS AND SPECIFICATIONS



TYPICAL POLE AND INSULATOR DETAILS AND SPECIFICATIONS

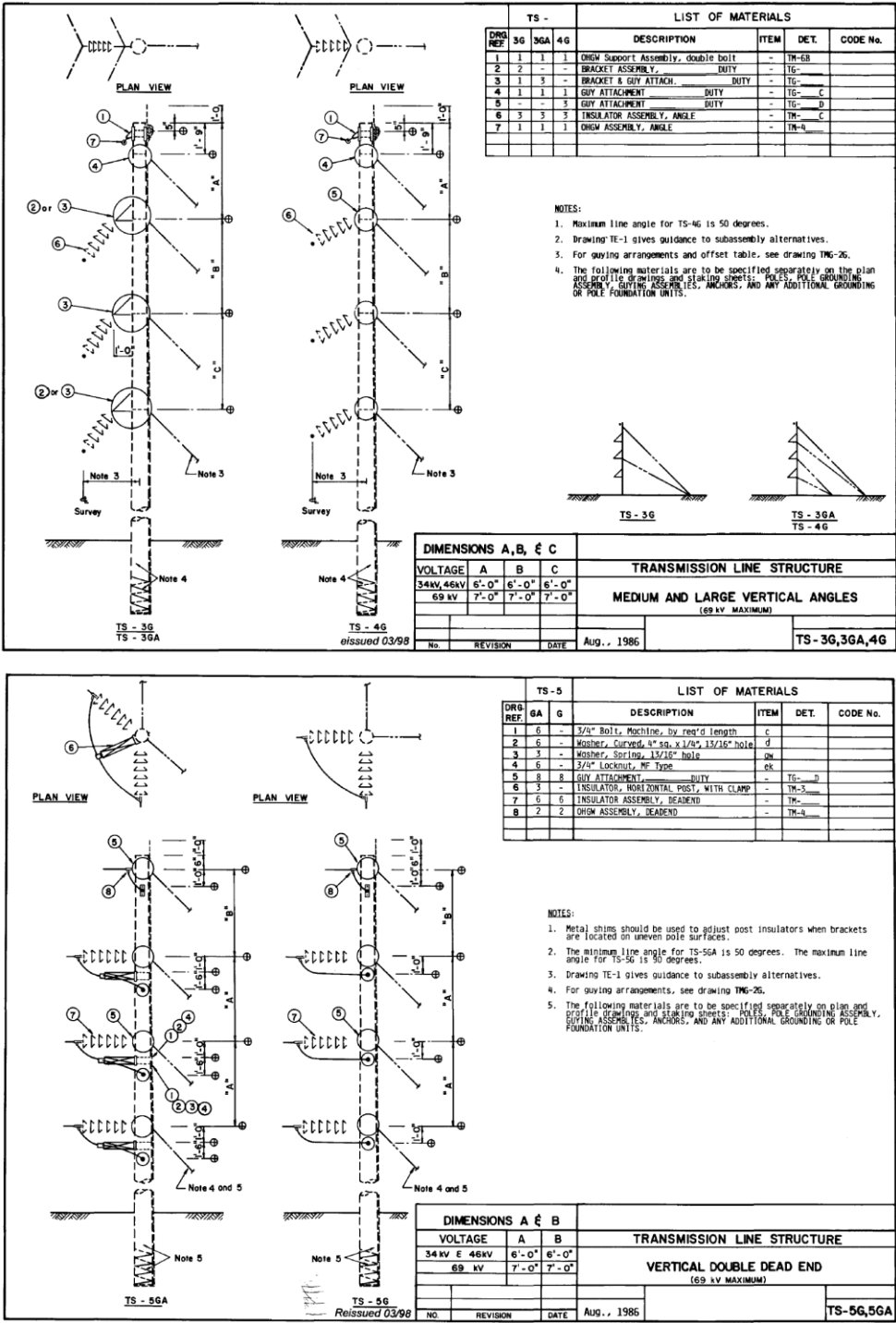


Exhibit B

TYPICAL ASSUMPTIONS FOR PERSONNEL AND EQUIPMENT REQUIRED

Tasks	Staffing	Equipment
Access roads, gates and clearing	2 to 4 equipment operators	1 motor grader; 1 pickup truck; 1 D9-bulldozer (tracked); 1 backhoe
Preparing structure sites, construction yard, wire handling site	8 to 12 laborers/equipment operators	1 dozer or motor grader; 2 pickup trucks
Materials hauling	4 to 8 laborers/equipment operators	1 to 2 tractor trailers; 1 to 2 tractor-mounted cranes; 1 to 2 pickup trucks; 1 to 2 flatbed trucks
Removal of existing structures	3 to 5 laborers/equipment operators	1 crane, 50- to 100-ton capacity; 2 flatbed trucks; 1 tractor trailer; 2 pickup trucks
Foundation excavation	4 to 8 laborers/equipment operators	2 tractors with augers; 2 pickup trucks; 1 backhoe; 1 compressor
Foundation setting	12 to 18 laborers/equipment operators	3 flatbed trucks; 3 crew pickup trucks; 3 air compressors; 3 hydro lifts
Concrete placement	4 to 5 laborers	2 cement mixer trucks; 1 pickup truck; 1 man haul
Structure assembly	6 to 12 linesmen/groundsmen and crane operators	1 to 3 hydraulic cranes; 4 to 6 pickup trucks; 1 to 3 flatbed trucks; 1 compressor
Structure erection	5 to 8 linesmen/groundsmen and crane operators	1 crane, 50- to 100-ton capacity; 2 pickup trucks
Wire stringing	15 to 20 linesmen/groundsmen	2 pullers; 2 tensioners; 4 reel stringing trailers; 1 materials truck; 2 dozers; 5 to 6 pickup trucks; 1 to 2 quads
Cleanup	2 to 4 laborers	1 bulldozer w/ripper (tracked vehicle); 1 grader; 1 front-end loader; 1 tractor/harrow/disk; 1 pickup truck

Exhibit C

Correspondence and Preliminary Layout for 69 kV line crossing WAPA Transmission Lines

From: [Gadd, Austin \(CONTR\)](#)
To: [Wilcox, Nancy \(CONTR\)](#); [Kevin Davidson](#)
Subject: RE: [EXTERNAL] Power line question from Hualapai
Date: Thursday, April 20, 2017 2:12:45 PM
Attachments: [image003.png](#)

The clearance will be based on the height of our lines at max sag at the point they intersect with the 69kV lines being underbuilt.

Required clearance between a 500kV conductor with a 69kV conductor under-build is 11.9'

Required clearance between a 345kV conductor with a 69kV conductor under-build is 8.8'

If you are adding the fiber as an OPGW above the conductors then the required clearances between the conductor and the OPGW are 11.3' and 8.2' for 500kV and 345kV respectively.

As Nan indicated previously, I will provide the LIDAR clearances at the locations indicated on the supplied map once an application for permit has been received.

It is also my assumption that you are not planning on putting your structures inside our ROW, so the 55' height of the structure should have no impact on the actual clearances. What will matter is the height of your conductors at minimum sag at the locations indicated on the map.

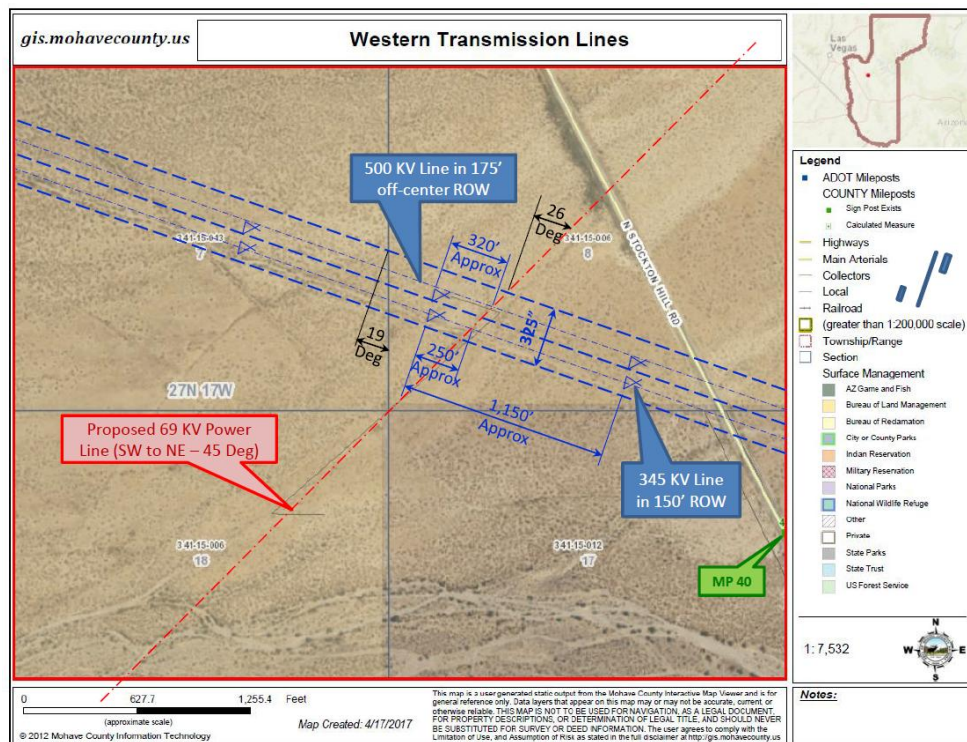
Thanks,

Austin Gadd | Electrical Engineer | A&E Technician II

CD&E Contractor

Western Area Power Administration | Desert Southwest Region

(O)602.605.2931 | (M)520.954.9815



Appendix C: Resolution for HTUA Ordinance amendment & Standard Contract Clause

HUALAPAI TRIBAL COUNCIL
RESOLUTION NO. 15-2017
OF THE GOVERNING BODY OF THE
HUALAPAI TRIBE OF THE HUALAPAI RESERVATION

(Standard Contract Clause Addenda for Hualapai Tribal Utility Authority)

WHEREAS, the Hualapai Tribe is a federally recognized Indian Tribe located on the Hualapai Indian Reservation in northwestern Arizona with authority vested in the Hualapai Tribal Council by the Constitution approved March 31, 1991, as amended; and

WHEREAS, on September 24, 2014, the Hualapai Tribe Council, via Resolution No. 63-2014 (Hualapai Tribal Utility Authority Ordinance), created the Hualapai Tribal Utility Authority (HTUA) as an institution of tribal government to acquire, construct, operate, maintain, promote, and expand electric power service, water service, and sewage service at Grand Canyon West and on such other locations within the Hualapai Reservation and on other tribal lands under the jurisdiction of the Hualapai Tribe as the Tribal Council may deem appropriate; and

WHEREAS, the Secretary of the Interior has recently concluded a Secretarial Election to add Section 3 to Article XVI the Constitution of the Hualapai Indian Tribe allowing for tribal entities formed and governed pursuant to ordinances of the Tribal Council the power to grant limited waivers of sovereign immunity with Tribal Council approval; and

WHEREAS, the HTUA will be entering to various types of contracts which may require different levels of limited of waivers of sovereign immunity, or forms of dispute resolution; and

WHEREAS, it is the standard policy of the Hualapai Tribe to make all agreements or contracts entered into with other parties subject to Hualapai Law, and that any action to enforce the terms or performance of such agreements or contracts be brought only in a Hualapai Tribal Court, based on sovereign immunity; and

WHEREAS, in instances where the HTUA will be entering into various types of contracts with parties who request that sovereign immunity be addressed, or desire some form of limited waiver of sovereign immunity in lieu of an express reservation of sovereign immunity, the Tribal Council and the HTUA have expressed a desire to develop relatively standard provisions addressing the issue of sovereign immunity and dispute resolution, to be used at the HTUA

and Tribal Council's discretion in accordance with the Constitution of the Hualapai Indian Tribe; and

WHEREAS, the standard addendum for contracts with Immaterial Amounts where the third-party contractor requires Sovereign Immunity be addressed reads as follows:

"The parties acknowledge and agree that the HTUA, as an agency of the Hualapai Tribe, is entitled to sovereign immunity, including without limitation sovereign immunity with respect to disputes and other matters arising in connection with this Agreement. Notwithstanding any provision herein to the contrary, the HTUA makes no waiver of its sovereign immunity, and no provision of this contract is intended to provide or otherwise imply a waiver of the HTUA's or the Hualapai Tribe's sovereign immunity. Nothing in any current or future attachments, exhibits, or amendments is intended to be construed as a waiver of the HTUA's or the Hualapai Tribe's sovereign immunity;" and

WHEREAS, the standard addendum for Non-Financial Contracts involving actions to be performed by the HTUA or payments made by the HTUA, a Limited Waiver for Enforcement and Declaratory and Injunctive Relief only, reads as follows:

"The parties acknowledge and agree that the HTUA, as an agency of the Hualapai Tribe, is entitled to sovereign immunity, including without limitation sovereign immunity with respect to disputes and other matters arising in connection with this Agreement. Notwithstanding the foregoing, the HTUA expressly grants a limited waiver of sovereign immunity for the limited purpose of, and solely to the extent of, acknowledging and agreeing that declaratory and injunctive relief and specific performance are the only remedies in the event that obligations of this Agreement are breached by HTUA. The parties acknowledge and agree that monetary damages are not available as a remedy in the event the obligations of this Agreement are breached by the HTUA. The parties acknowledge and agree that damages would not be an adequate remedy for non-compliance with this Agreement. This limited waiver shall not be construed to waive any immunity of the Hualapai Tribe, nor shall it be construed to extend any liability to any assets, revenues, or incomes of the Hualapai Tribe or those of the HTUA. Aside from the limited waiver expressly provide in this Section, nothing in this Agreement, or in any current or future attachments, exhibits, or amendments, is intended to be or shall be construed as a waiver of HTUA's or the Hualapai Tribe's sovereign immunity or an expansion of the limited waiver provided in this Section;" and

WHEREAS, the standard addendum for Non-Financial Contracts with standard provision as to Limited Waiver for Monetary Damages reads as follows:

“The parties acknowledge and agree that the HTUA, as an agency of the Hualapai Tribe, is entitled to sovereign immunity, including without limitation sovereign immunity with respect to disputes and other matters arising in connection with this Agreement. Notwithstanding the foregoing, the HTUA expressly grants a limited waiver of sovereign immunity for the limited purpose of, and solely to the extent of, acknowledging and agreeing that (a) except as provided in clause (b), declaratory and injunctive relief and specific performance are the only remedies in the event that obligations of this Agreement are breached by HTUA, and (b) monetary damages are not available as a remedy in the event the obligations of this Agreement are breached by the HTUA, except for restitution or compensatory damages in an amount not to exceed \$_____ (and in no event are monetary damages available for consequential damages, incidental damages, special damages, punitive damages, or other types of damages). If and to the extent that such monetary damages are awarded against the HTUA and such award becomes final and non-appealable, such award shall be payable out of only the assets, revenues, and income held by or in the name of the HTUA. No such award shall create any liability, obligation, or indebtedness of the Hualapai Tribe or be payable out of assets, revenues, or income of the Hualapai Tribe. The parties acknowledge and agree that damages would not be an adequate remedy for non-compliance with this Agreement. This limited waiver shall not be construed to waive any immunity of the Hualapai Tribe, nor shall it be construed to extend any liability to any assets, revenues, or incomes of the Hualapai Tribe. Aside from the limited waiver expressly provide in this Section, nothing in this Agreement, or in any current or future attachments, exhibits, or amendments, is intended to be or shall be construed as waiver of HTUA’s or the Hualapai Tribe’s sovereign immunity or an expansion of the limited waiver provided in this Section;” and

WHEREAS, the standard addendum for Loan Agreements, Bonds and Notes, and Other Financial Contracts with standard provision as to Limited Waiver reads as follows:

“The parties acknowledge and agree that the HTUA, as an agency of the Hualapai Tribe, is entitled to sovereign immunity, including without limitation sovereign immunity with respect to disputes and other matters arising in connection with the Credit Documents. Notwithstanding the foregoing, the HTUA expressly grants a limited waiver of sovereign

immunity for the limited purpose of, and solely to the extent of, acknowledging and agreeing that (a) the assets, revenues, and income held by or in the name of the HTUA constitute the only collateral security for repayment of advances made under (and payment of interest and other charges, expenses, fees accruing under) the Credit Documents, (b) declaratory and injunctive relief and specific performance are available as remedies in the event that obligations of the HTUA arising under the Credit Documents are breached by HTUA, and (b) monetary damages are not available as a remedy in the event the obligations of this Agreement are breached by the HTUA, except to the extent such damages are necessary for repayment of outstanding and unpaid principal and interest as provided in the Credit Documents (and in no event are monetary damages available for consequential damages, incidental damages, special damages, punitive damages, or other types of damages). If and to the extent that such monetary damages are awarded against the HTUA and such award becomes final and non-appealable, such award shall be payable out of only the assets, revenues, and income held by or in the name of the HTUA pledged as collateral in connection with the Credit Documents. No such award shall create any liability, obligation, or indebtedness of the Hualapai Tribe or be payable out of assets, revenues, or income of the Hualapai Tribe. This limited waiver shall not be construed to waive any immunity of the Hualapai Tribe, nor shall it be construed to encumber (or otherwise extend any liability to) any assets, revenues, or incomes of the Hualapai Tribe. Aside from the limited waiver expressly provide in this Section, nothing in the Credit Documents, or in any current or future attachments, exhibits, or amendments, is intended to be or shall be construed as a waiver of HTUA's or the Hualapai Tribe's sovereign immunity or an expansion of the limited waiver provided in this Section;" and

WHEREAS, standard language regarding dispute resolution involving Consultation prior to Litigation of Non-Financial Contracts reads as follows:

"The parties shall seek to resolve all claims or controversies or other matters in question between the parties arising out of, or relating to, this Agreement (a "Dispute") promptly, equitably, and in a good faith manner. Prior to filing any claim or controversy under this Agreement, the complaining party shall: (a) Provide written notice to the other party specifying with particularity the nature of the Dispute, the particular provisions of this Agreement that are at issue, and the proposed relief sought; (b) Initiate a consultation process for the parties to discuss in good faith the Dispute and seek an amicable resolution thereof; and (c) Continue such consultation for a period of at least thirty (30) days from the date that the notice required by this Section is received by the other party;" and

WHEREAS, these addenda and resolution replace the previously approved standard clause approved via Resolution No. 09-2017 on January 7, 2017; and

WHEREAS, that the HTUA recommended approval of the standard addenda options at the January 30, 2017, meeting of the Board of Directors, and referred the item to the Tribal Council for further action; and

NOW, THEREFORE BE IT RESOLVED that the Hualapai Tribal Council concurs with the decision of the HTUA and approves the Standard Contract Clause Addenda options for contracts and agreements.

C E R T I F I C A T I O N

I, the undersigned as Chairman of the Hualapai Tribal Council hereby certify that the Hualapai Tribal Council of the Hualapai Tribe is composed of nine (9) members of whom (9) Constituting a quorum were present at the **Regular Council Meeting** thereof held on this **4th day of February, 2017**; and that the forgoing resolution was duly adopted by the affirmative vote of **8 - in favor, 0 - opposed, 1 - excused**, pursuant to the authority of Article V, Section (a) of the Constitution of the Hualapai Tribe approved March 13, 1991, as amended.



Damon R. Clarke, Chairman, or
HUALAPAI TRIBAL COUNCIL

ATTEST:



Shanna Salazar, Administrative Assistant
HUALAPAI TRIBAL COUNCIL

HUALAPAI TRIBAL COUNCIL
RESOLUTION NO. 27-2017
OF THE GOVERNING BODY OF THE
HUALAPAI TRIBE OF THE HUALAPAI RESERVATION

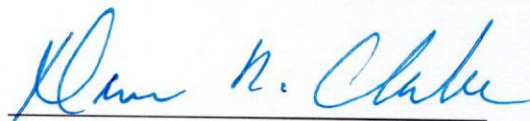
**(Amendment to Sections 101, 102, 104, 107, 108, 109, 203 and 209 Hualapai Tribal
Utility Authority Ordinance to include Telecommunications)**

- WHEREAS,** the Hualapai Tribe is a federally recognized Indian Tribe located on the Hualapai Indian Reservation in northwestern Arizona with authority vested in the Hualapai Tribal Council by the Constitution approved March 31, 1991, as amended; and
- WHEREAS,** authority is vested in the Hualapai Tribal Council by the Constitution approved March 31, 1991, as amended by the Hualapai Tribe, to establish the Hualapai Tribal Utility Authority (HTUA) and appoint Board members to carry out its mission to provide utility service for Hualapai Reservation and its trust lands; and
- WHEREAS,** on September 24, 2014, the Hualapai Tribal Council, via Resolution No. 63-2014, created the Hualapai Tribal Utility Authority (HTUA) as an institution of tribal government to acquire, construct, operate, maintain, promote, and expand electric power service, water service, and wastewater service at Grand Canyon West and on such other locations within the Hualapai Reservation and on other tribal lands under the jurisdiction of the Hualapai Tribe as the Tribal Council may deem appropriate; and
- WHEREAS,** the Hualapai Tribal Council has the authority under Section 108 of the HTUA Ordinance to enlarge or otherwise modify the mission(s) of HTUA as it deems appropriate; and
- WHEREAS,** the Hualapai Tribe has concluded that the HTUA should be responsible for the development and coordination of all telecommunications services within the Hualapai Reservation; and
- WHEREAS,** Sections 101, 102, 104, 107, 108, 109, 203 and 209 of the Hualapai Tribal Utility Ordinance must be amended to reflect the addition of telecommunications to the mission of the HTUA; and
- WHEREAS,** that the Hualapai Tribal Utility Authority recommends approval of the amendment to Sections 101, 102, 104, 107, 108, 109, 203 and 209 of the Hualapai Tribal Utility Authority Ordinance and refers the item to the Tribal Council for further action; and

NOW, THEREFORE BE IT RESOLVED that the Hualapai Tribal Council concurs with the decision of the HTUA and approves the amendment to Sections 101, 102, 104, 107, 108, 109, 203 and 209 of the Hualapai Tribal Utility Authority Ordinance to add telecommunications to the mission of the HTUA.


CERTIFICATION

I, the undersigned as Chairman of the Hualapai Tribal Council hereby certify that the Hualapai Tribal Council of the Hualapai Tribe is composed of nine (9) members of whom **(8)** Constituting a quorum were present at a **Regular Council Meeting** thereof held on this **4th day of March, 2017**; and that the forgoing resolution was duly adopted by the affirmative vote of **8 - in favor, 0 - opposed, 1 - excused**, pursuant to the authority of Article V, Section (a) of the Constitution of the Hualapai Tribe approved March 13, 1991, as amended.



Damon R. Clarke, Chairman,
HUALAPAI TRIBAL COUNCIL

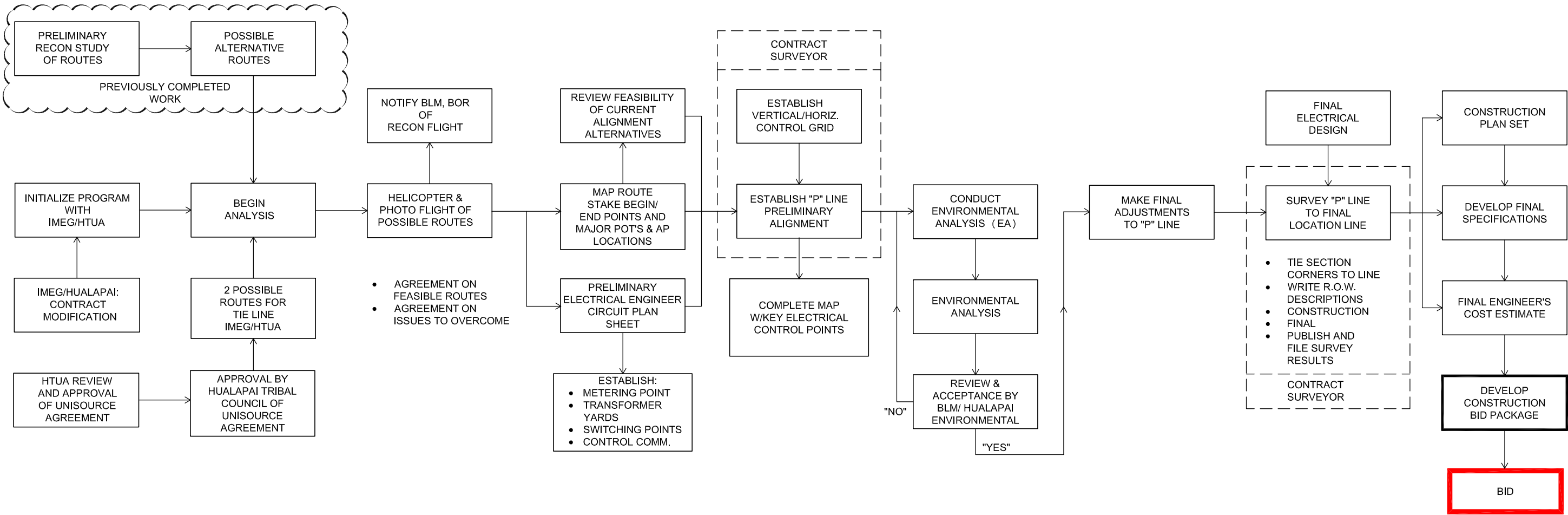
ATTEST:


Shanna Salazar, Administrative Assistant
HUALAPAI TRIBAL COUNCIL

Appendix D: Power line project Gantt chart through pre-development

REF: HUALAPAI TRIBE - GCN PHASE 1 OF REGIONAL GRID CONNECTION

PAGE 1 OF 1
L.A. SCHMITT, P.E.
DATED: 6-28-2017



PROJECT TIMELINE

VERIFY SCALE!
THESE PRINTS MAY BE
REDUCED. LINE BELOW
MEASURES ONE INCH ON
ORIGINAL DRAWING

MODIFY SCALE ACCORDINGLY!

REVISIONS			
NO.		DATE	BY

• STRUCTURAL

• MECHANICAL

• ELECTRICAL

• CIVIL

• INDUSTRIAL

4300 E. Miller Rd., Suite 122
Scottsdale, AZ, 85251
Phone: 602.371.1333
Fax: 602.371.0675

DRAWN BY: MG
CHK'D BY: LAS
APPR. BY: LAS
DATE: 6-28-17

Q.A. REVIEW
BY: _____
DATE: _____

PROJECT FLOW CHART

PROJECT MANAGEMENT

PROJECT NUMBER	2.06
SHEET NUMBER	1 of 1
DRAWING NUMBER	V-1.0

Appendix E: Presentations to HTUA Board

DRAFT PROPOSAL Blockchain-backed Renewable-Powered Microgrids for Remote Communities in Indian Country

March 2017

Huh?

Blockchain is a decentralized, crowd-managed & distributed database or digital time-stamped ledger that enables direct, immutable peer-to-peer transactions without the need for a *trusted* 3rd-party mediator (Hunt, 2016; Lehmann, 2016)

- Connected machines & validating nodes in this distributed ledger operate through agreed upon “trust protocols” or “consensus algorithms” whose requirements include:
 - Decentralized governance
 - Authentication & integrity
 - Privacy
- This results in a decentralized infrastructure for executing transactions & contracts between parties that is
 - Highly efficient
 - Scalable
 - Democratic
 - Trustworthy
 - Transparent
 - Tamper-proof
 - Independent of intermediaries
- First internet-wide payment system with little (down to fractions of pennies) or no fees

Proposed Discussion Topics

- Value Proposition
- Co-Op in a Box Concept
- Team
- Definitions
- Why is Blockchain Important?
- Why is Blockchain Well suited for distributed energy?
- Why is Blockchain potentially well suited for Indigenous American Communities?
- Track record
- Technical development history of Blockchain
- Proposed Technology Package
- Additional resources
- Next steps
- Contact info
- FAQs

Value Proposition

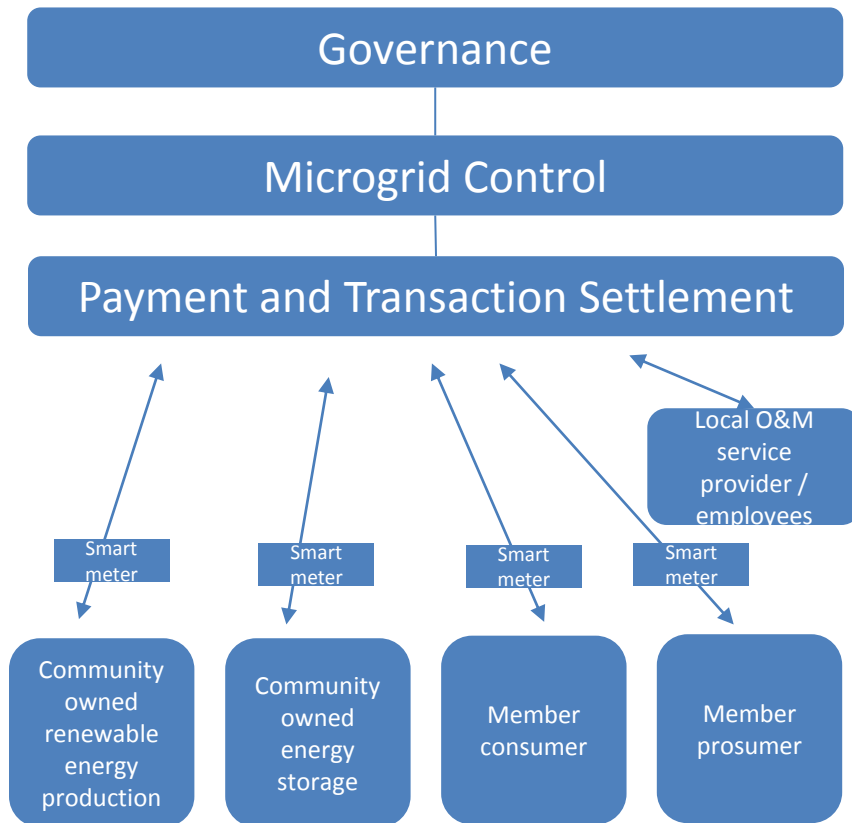
- In conjunction with Native American Tribes, the Team will design and implement a pilot for a rural microgrid business model
 - Leveraging cooperative, community-owned development and Ops/Maintenance for renewable energy infrastructure
 - Applying blockchain technologies to lower financing costs, ultimately providing access to low-cost renewable energy production
 - Use of blockchain's distributed ledger to handle the transactions among grid participants in a decentralized manner.
 - Use of blockchain-based software to generate tradable tokens from the flow of funds.
- Invitation to join in the conversation & help shape the dialogue
 - Even if you don't choose to be a part of the pilot
 - At this point, no fees are required, but we may embark on a discussion for "skin in the game"
 - No federal funding requested

We seek remote Native American Communities

- The collaborative team led by GE Power & MIT Media Lab seeks:
 - Small, remote Native American communities that
 - Are currently not served by the electrical grid, or are very poorly served by an unreliable electrical grid
 - Have a peak power demand of 25 kW – 125kW
 - Are on Reservation land

Co-op in a box concept

A system for developing and operating renewable microgrid infrastructure in rural communities, leveraging blockchain technologies to lower the perceived risk of investment for financiers through automated and secured payment flows



Decentralized Autonomous Energy Microgrid- DAEM (adapted from Decentralized Autonomous Organization)

- A self-governing renewable energy cooperative whose rules are embedded into the blockchain via smart contracts
- Control function dispatches and allocates renewable energy production to consumers to maximize value to community
- Consumption and production are recorded on a blockchain, along with payment transaction history
- Smart contracts at DAEM level automatically
 - execute payments for common expenses
 - distribute revenues among prosumers
 - settle financial obligations through direct deductions from community revenues, providing secured payment streams for investors
 - generate and distribute microloans for member-owned renewable energy



Team

- GE Power
 - Focus is now on solar
 - Reporting directly to CEO Jeff Immelt
- MIT Media Lab's Digital Currency Initiative (DCI) assembles experts in areas ranging from cryptography to economics to pursue research around innovation in digital currencies and blockchain technology.
 - DCI is exploring a project to bring affordable financing opportunities to communities building solar microgrid systems administered with blockchain technology
 - Team lead is Michael Casey of DCI & Nisha Desai of Aurora Clean Energy Partners.
- Wendolyn Holland of Holland Consulting,
- Potential for a few other NGOs
- Portfolio of Native American Communities

Definitions

- **Digital Currency** - an Internet-based form of currency or medium of exchange distinct from physical (such as bills & coins) that has properties similar to physical currencies, but allows for instantaneous transactions and borderless transfer-of-ownership.
- **Blockchain** – a shared digital ledger for recording transfers of digital currency and digital assets, as well as ownership claims to them, in a way that allows a distributed network of computers to validate the data in keeping with a secure system for reaching consensus.
- **Bitcoin** – a decentralized system that regulates the generation of units of a digital currency and verifies transfers of that currency, independently of both a central bank and financial institutions.
- **bitcoin** – (Lower case “b”) The actual currency units within the Bitcoin system.
- **Cryptocurrency** - a digital currency, such as bitcoin, that’s regulated via a decentralized system in which cryptographic techniques obviate the need for a central bank or other issuing institution.
- **Distributed energy** –Energy that is generated or stored by a variety of small, connected devices that can either be connected to the grid or not

Why should we care about Blockchain?

- Blockchain provides advantages to existing financial payment systems
 - It significantly lowers transaction costs, making small-scale digital payments viable that would be unprofitable & impractical for the existing inefficient banking system
 - It results in a clear, immutable chain of title and liens, creating a valuable, precisely time-stamped asset registry for managing collateral arrangements.
 - It produces a vast amount of fully validated information about usage & payments with great granularity & precision, a pool of trustworthy data that can be used to assess credit risk profiles of borrowers
 - It contains the capacity to execute contracts in an automated manner, without the need for third-party intervention.

Blockchain is well suited for distributed energy

- Microtransactions
- Disintermediation of banks and utilities
- Investor security via “smart property”
- Electricity = digitally measurable units of value

Why is Blockchain potentially well suited for Indigenous American Communities?

- A model built on ownership, independence
- Strong renewable resources
- Awareness of tribal utility as a key component of Tribal sovereignty
- Keep the funds in the Tribe
- This is a free offering – may be skin the game.
- A means of proving creditworthiness

Blockchain track record*

TransActive Grid, LO3 Energy & Consensus [Brooklyn Microgrid]

- An IoT (Internet of Things)-enabled, community-managed distributed energy system, w/ a hardware component that uses blockchain & smart contracts to allow peer-to-peer (P2P) electricity transactions between neighbors' smart meter wallets. Consensus, a studio developing applications on the Ethereum blockchain, is involved.

Bankymoon [South Africa]

- This South African bitcoin startup has built, in partnership w/ Consensus & IBM, a blockchain smart metering solution for power & utility grids. Consumers can top-up smart pre-paid meters by using digital currencies; the payment would be settled automatically thru mechanized smart contracts, which help to preclude late payments & decrease debt.

Grid Singularity [Developing Country Focus]

- Vienna-based firm, started by a few of Ethereum's core team members is experimenting with blockchain to validate energy transactions, w/ a focus on increasing the security of pay-as-you-go systems for solar in developing countries (e.g., M-Kopa in Kenya).

SolarChange

- Using "Solar-Coins" and a "Solar Wallet," this company aims to reward producers of solar power through the blockchain by awarding 1 Solar-Coins for every 1 Mw of green electricity produced, which can be held for value appreciation or converted to bitcoin.

Technical development history of Blockchain

- Claimed to represent “the second generation of the internet” (Tapscott 2016)
- Invented in October 2008 with the publication of “Bitcoin: A Peer-to-Peer Electronic Cash System,” a paper written by Satoshi Nakamoto

Additional resources

- Good intro: https://dealbook.nytimes.com/2014/01/21/why-bitcoin-matters/?_r=0
- Focus on benefits for the world's poorer populations: <http://techonomy.com/2016/03/blockchain-global-growth/>
- Investment market overview: http://www.cleantech.com/blockchain-meets-energy-state-of-the-market/?mkt_tok=eyJpIjoiWlRnNU9HVTNOemcxTldFMStlInQiOiJ5ZVpjNjdIbkVqUXZHZTFXOXNEUXdTcnkrZlIEdnRSRct1a25TYTJxMDZCczVzY2IjbCtlaTF5bVpOMG5Fa0ZVcTdFSStiQ1NUQUVzY1F5TDNVTG5tNzJQM3V4M00yYVRMWkNBOTIZd1lNaEMwSEVzaXpvUnhCek5jVWtoYytqNiJ9
- Sophisticated treatment (don't read this one 1st): <https://www.engerati.com/blogs/blockchain-utilities>

Next steps

- *For this project* – let's talk with the rest of the team
- *For your Tribe* – think about how this might foray into other industries: agriculture, transportation, fraud-free government benefits disbursements, improved access to credit & other transaction-based industries.

Contact info

Wendolyn.holland@gmail.com

202 412 1406

FAQs

Q1. Will it get hacked?

Q2. Isn't this just another White Man's scheme to get rich off the Indians?

Q3. Is a robust cell tower network required?

Q4. What's the downside?

Q5. I hear blockchain uses a lot of energy. Aren't you introducing a giant energy hog and trying to power it with renewable energy?

Q5. How will this work with our local utility, regulated or unregulated?

Q6. How is this regulated?



Hualapai

NextEra Energy Introduction and Proposed Solar Energy Center

Initial Meeting
July 19, 2017

Proprietary & Confidential Information





NextEra Energy Inc. (NYSE: NEE) is comprised of two strong businesses supported by our Core Values



- 90+ year track record
- 45,900 MW in operation
- Fortune 200 company (\$66.7B market cap)
- \$82.4B in total assets
- \$16.2B in revenue for 2016
- Credit Rating of A- (S&P) and Baa1 (Moody's)
- 14,700 employees



- One of the largest U.S. electric utilities
- 4.8 MM customer accounts
- 25,092 MW in operation



- U.S. leader in renewable generation
- Assets in 30 states and Canada
- Over 20,000 MW in operation

Core Values

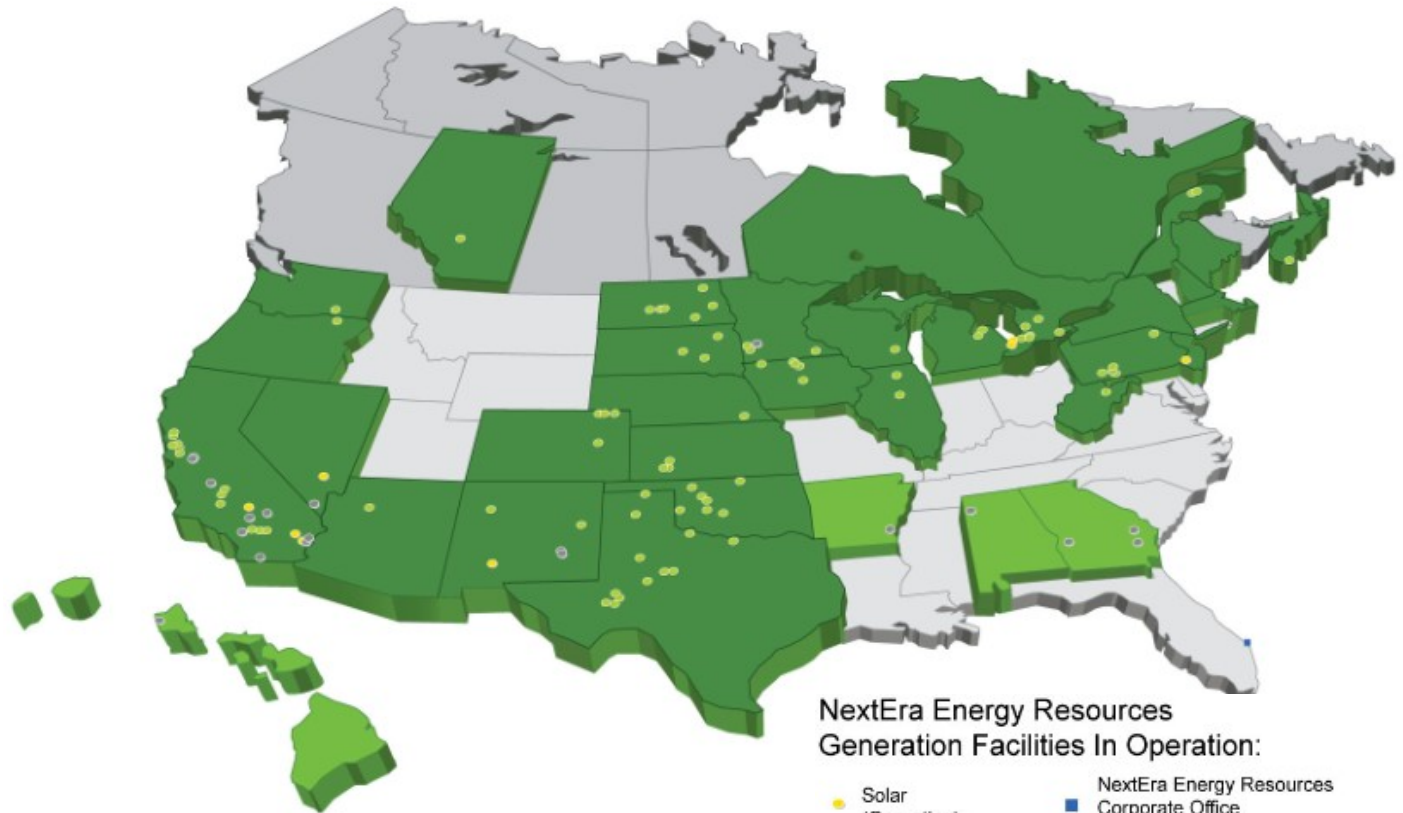
Commitment to Excellence / Do the Right Thing / Treat People with Respect





NextEra Energy Resources' generation portfolio consists of a diverse set of technologies positioned across North America

NextEra Energy Resources' Generation Portfolio



NextEra Energy Resources
Generation Facilities In Operation:

- Solar (Operating)
- Solar (Under Development)
- Wind (Operating)
- NextEra Energy Resources Corporate Office
- U.S. states and Canadian provinces with projects in operation
- U.S. states with solar projects under development





NextEra works proactively with Tribes to avoid/resolve issues and to support tribal economic and community needs

NextEra Tribal Relations Focus

- **Issue Avoidance/Resolution**
 - Early, direct tribal outreach on projects under development
 - Respect/respond to each Tribe's cultural concerns/needs
 - Work with Tribes on project involvement/community benefits
- **Tribal Community Support**
 - Support individual Tribes' needs
 - Support national/regional tribal efforts re: energy
- **Internal Education**
 - Cultural awareness and sensitivity
 - Tribal relations plans and policies
- **Business Development on Tribal Lands**
 - Tribal solar and wind projects
 - Tribal electric transmission and natural gas pipeline ROWs



NextEra Tribal Project Development Efforts

- **Solar**
 - Multiple Tribes in AZ, NM and NV
- **Wind**
 - Penobscot Alder Stream Wind Project (ME)
- **Transmission ROWs**
 - Colorado River Indian Tribes (AZ)
 - Penobscot Indian Nation (ME)
 - Ease-West Tie (Canada)

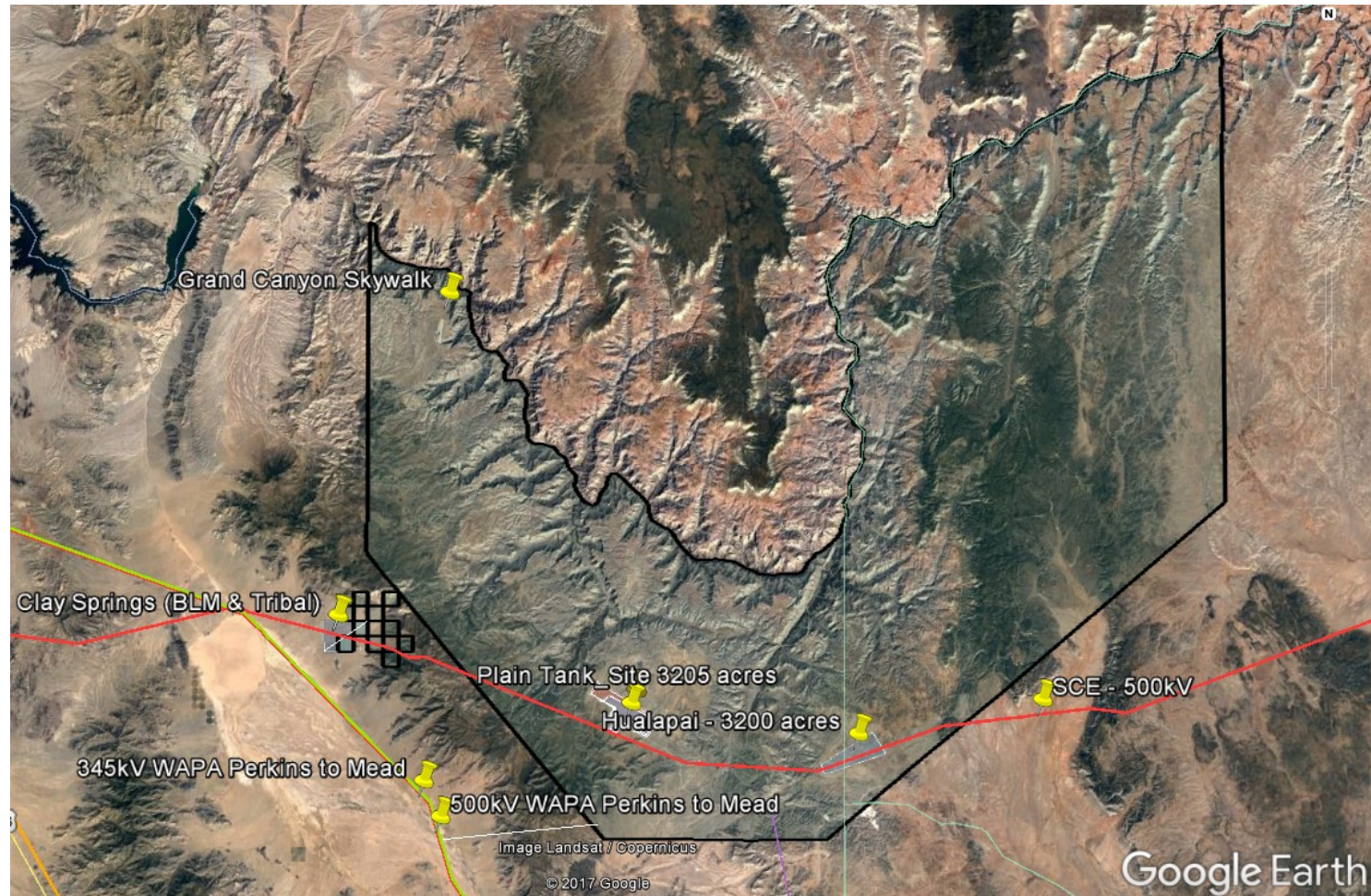


Why Consider NextEra?

- **NextEra has significant experience developing projects, finalizing Power Purchase Agreements and constructing and operating projects**
- **NextEra covers all development costs, leases land for projects, and can support tribal grant funding applications**
- **A single point of contact simplifies the process for Tribes**
- **Benefits to the Tribe typically include an option payment, annual lease payments based on acreage or royalty, potential job opportunities (construction and operations) and naming rights**
- **NextEra is focusing on work with a small number of Tribes in selected markets with high potential**

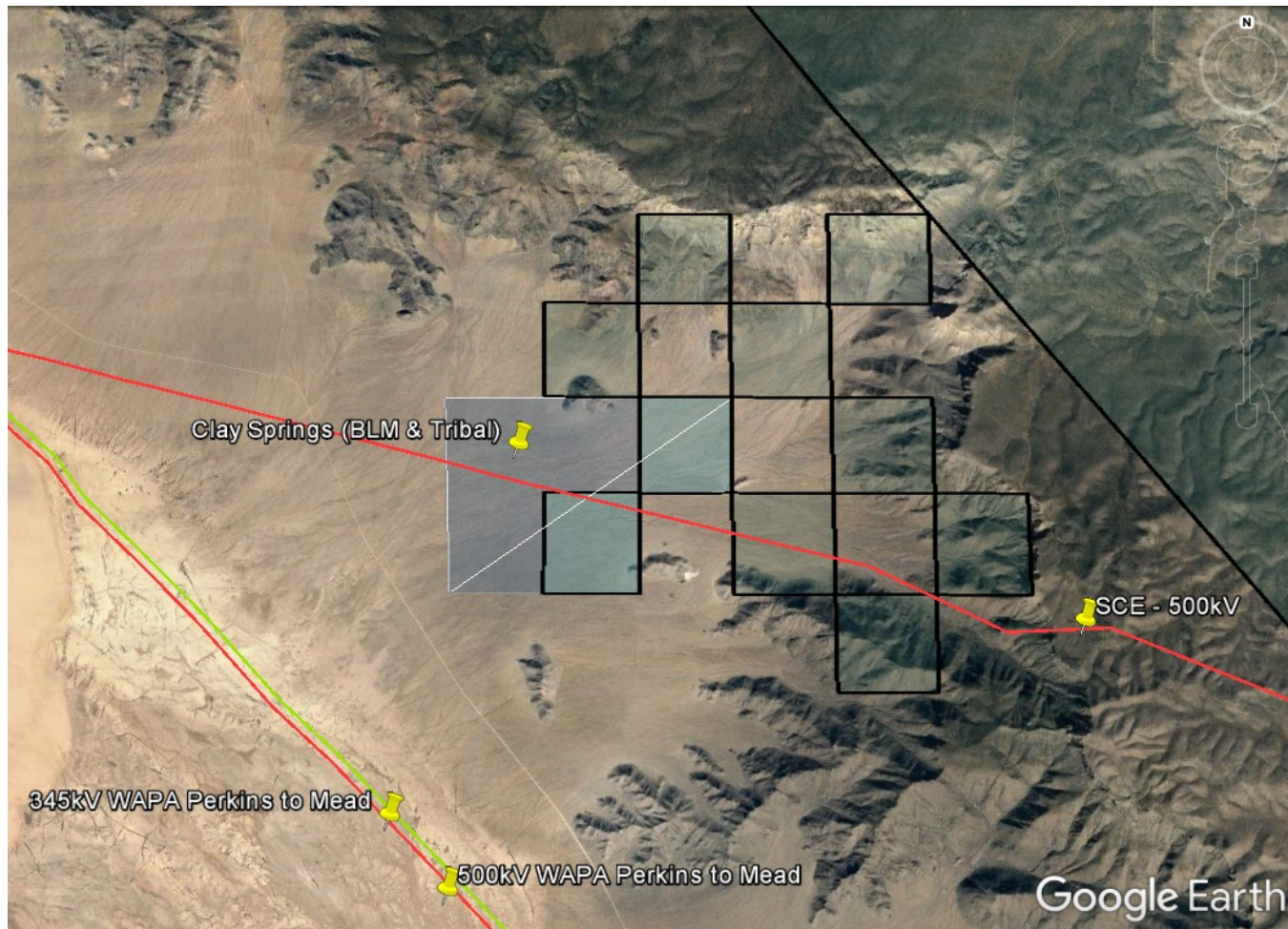


Hualapai Land – Utility Scale Solar





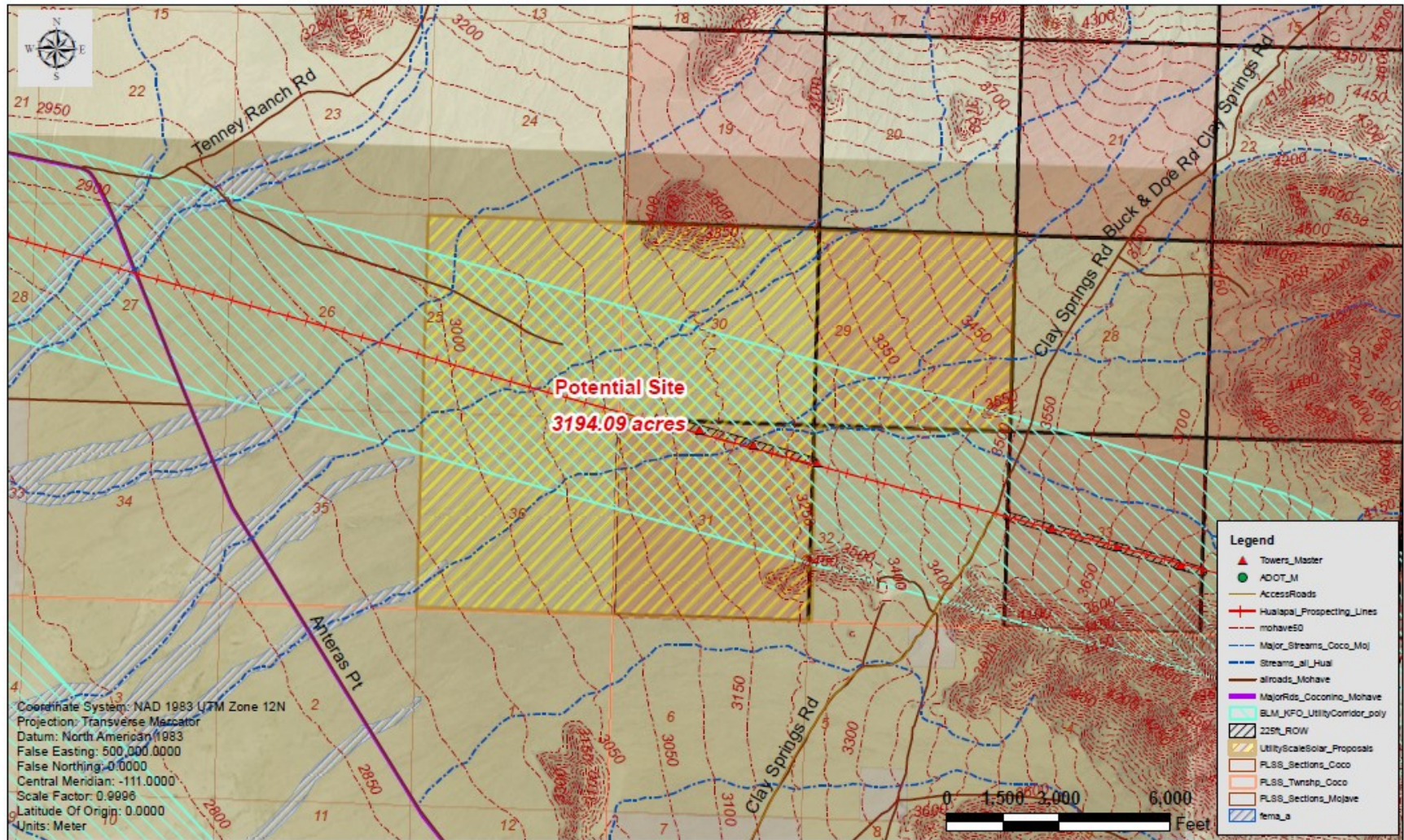
Hualapai Land – Site 1: Clay Springs





Hualapai Land – Site 1: Clay Springs

Utility-Scale Solar Facility Site overlain on Topography, Hydrology and Land Tenure



Drawn by: Kevin Davidson, 6/26/2017



Hualapai Land – Site 2: Plain Tank

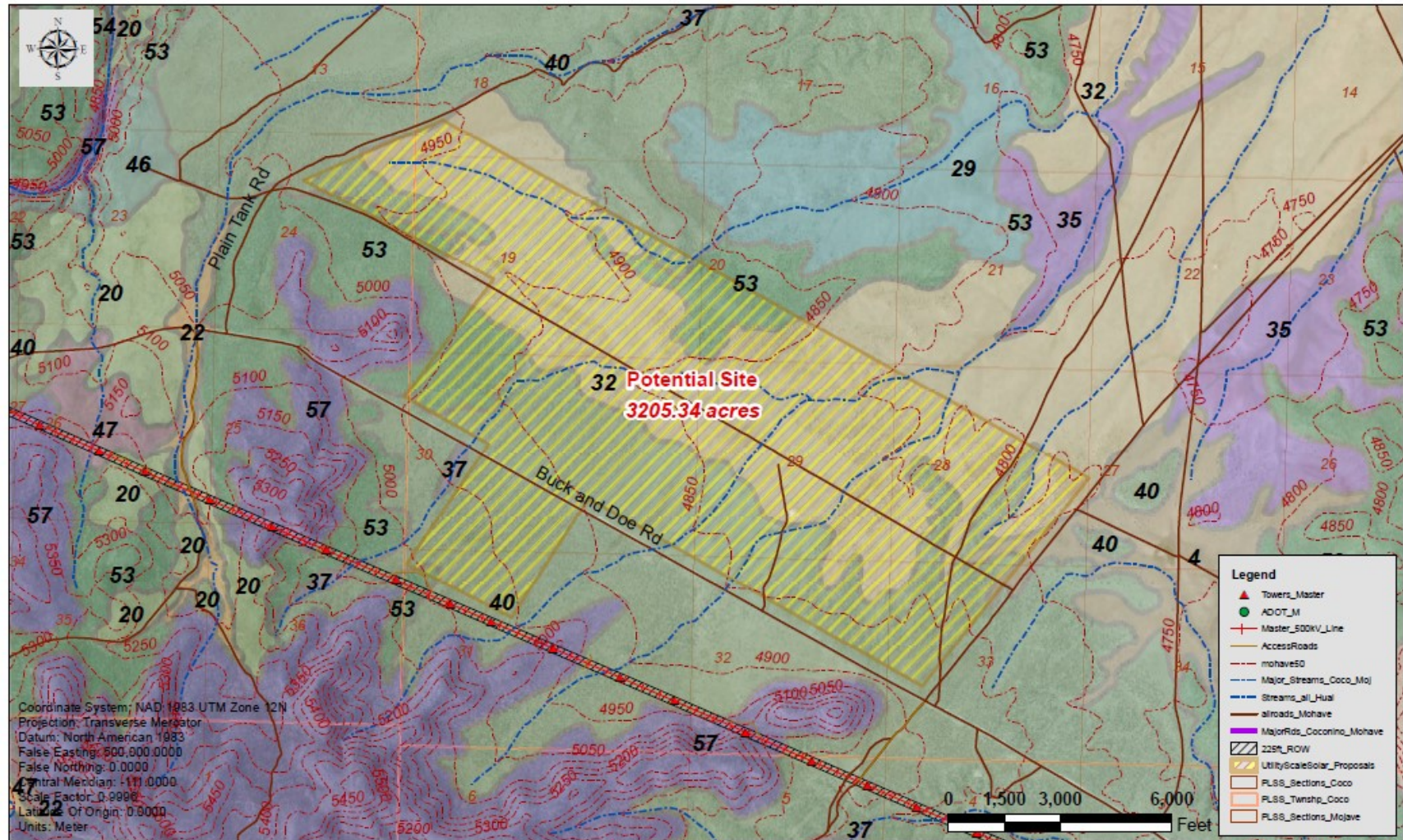
Site 2: Plain Tank





Hualapai Land – Site 2: Plain Tank

Utility-Scale Solar Facility Site overlain on Topography, Hydrology and Soil Types



Drawn by: Kevin Davidson, 6/26/2017



Hualapai Land – Site 3: RT18

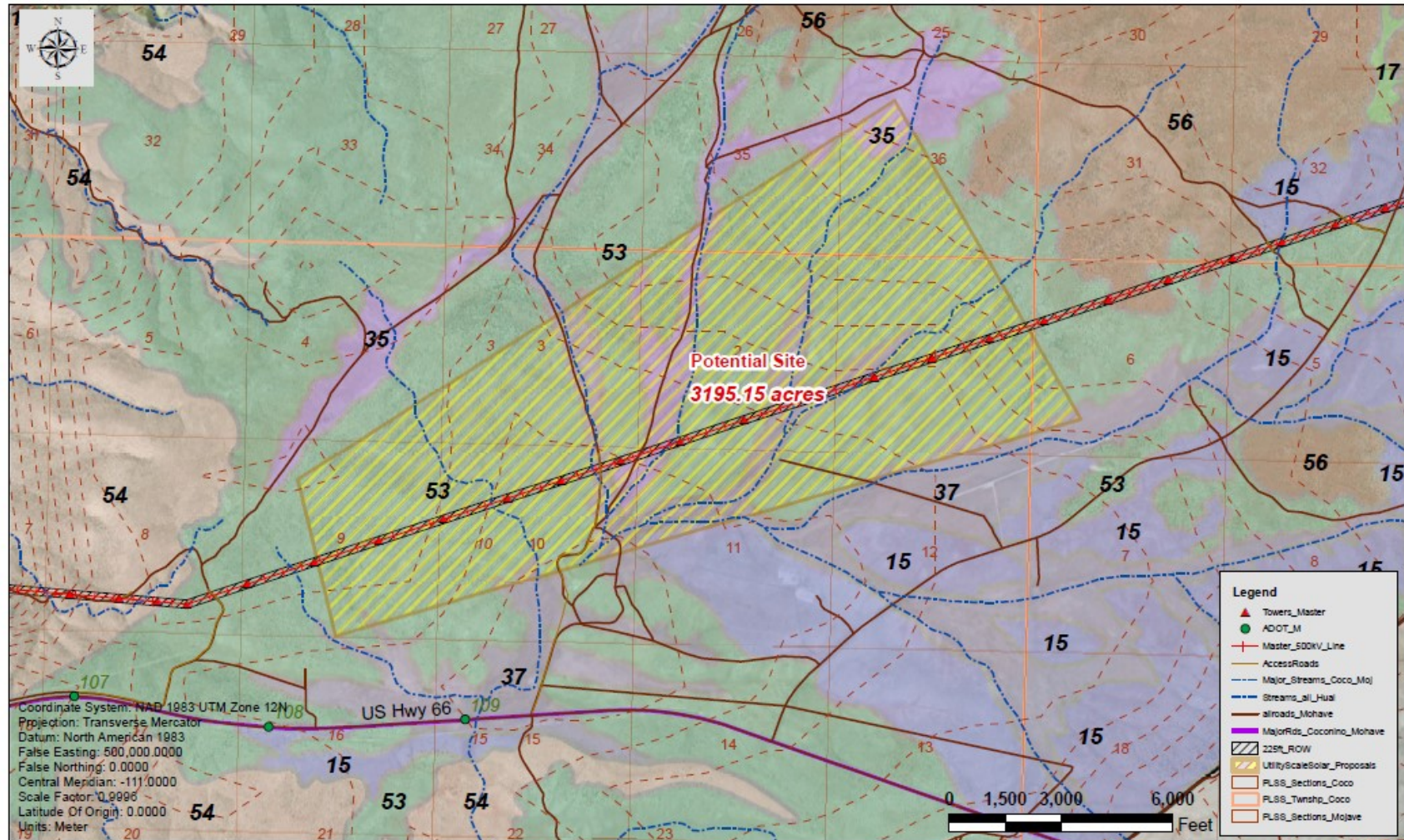
Site 3: RT18





Hualapai Land – Site 3: RT18

Utility-Scale Solar Facility Site overlain on Topography, Hydrology and Soil Types



Drawn by: Kevin Davidson, 8/26/2017



Potential Next Step

- Work toward a Letter of Intent for Land Lease Option
- Install Met Stations at two sites for data collection
- Determine compensation

Discussion and Q&A



Contact Information

Grant Rosenblum

Project Director, Solar Development

Grant.Rosenblum@NextEraEnergy.com

530-219-1232

Shaun Tsabetsaye

Project Manager, Tribal Relations

Shaun.Tsabetsaye@NextEraEnergy.com

(505) 450-3534