

Hualapai Tribal Utility Authority Board Meeting Minutes
Special Meeting- Solar RFP Review
September 10, 2019 @ 9:00AM
Hualapai Cultural Center



Item 1 – Call to Order

The meeting was called to order by Vice Chair Mr. Montana at 9:22 am.

Item 2 – Roll Call

1. Roll Call

Board Members

Charlie Vaughn, Chairman -- Present

Joe Montana, Vice Chairman -- Present

Lana Keller Robinett, Secretary –Present

Jason Davis, Treasurer -- Present

Rory Majenty -- excused

Support Personnel and Guest(s)

Bill Cyr, General Manager -- Present

Kevin Davidson, Planning Director –Present

Presenters:

- Indian Energy
- Solan
- Stockbridge
- Arizona Energy Pros
- AGM Energy Services

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Item 3 Review of August 28th tabled agenda items

a. RFP Summary Sheet/Bid Ranking

Mr. Cyr summarized the bid ranking summary sheets. Mr. Cyr explained that the first sheet summarized key facts such as the size and cost of the solar array, battery storage system and misc. items. Mr. Cyr pointed out that three of the bidders (Solon, Stockbridge, and Indian Energy) had proposed solar arrays and battery storage systems that were essentially the same size. The similarities of the three proposals were indicative that these three bidders have carefully reviewed the load data history provided allowing them to reach similar designs conclusions. These similarities should allow the board to focus on proposed costs and capabilities with some comfort that the proposed systems are designed for the requirements of GCW.

Bid ranking sheets of NREL, Mr. Montana and Mr. Cyr were included in Board package for review. All three ranked Indian Energy as the number one contender (Note: one ranking sheet had Indian Energy tied with Arizona Energy Partners.)

Mr. Cyr noted that Mr. Davidson had reached out to NREL for technical assistance in reviewing bids and that this technical help was very helpful and answered some of the key technical questions at hand.

Item 3 Review of August 28th tabled agenda items

b. Solar / Power Line comparison

Mr. Cyr went over a technical presentation that compared the solar option to the power line option. The presentation started with a review of various graphs showing average monthly energy consumption and energy demand at GCW. It was explained that bidders would use this information to size the proposed solar field. In addition, these same graphs could be used to help compare the solar option to the power line option. It was pointed out that both systems could meet the current

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power requirements at GCW but the power line could supply much more energy than the solar field without any additional capital cost whereas additional energy from a solar array would require additional capital expenditures beyond what is proposed in the RFP.

Key comparison factors were also discussed such as initial cost, visual appeal, environmental aspects, reliability, fire hazard, ability to serve future loads, power supply cost stability and the fact that the power line could be used to bring a high-speed fiber optic line to GCW.

Item 4 RFP submissions review / vendor presentations

- a. Solon
- b. Stockbridge
- c. Arizona Energy Pros
- d. AGM Energy Services
- e. Indian Energy

The above bidders provided visual and oral presentations to the Board. Mr. Davidson provided all Board members with a proposed list of questions for bidders. Drawing from Mr. Davidsons list all bidders were asked similar questions from the Board in the following areas

- How to improve upon or hide visual impact
- The ability of the system to be expanded to serve addition load at GCW
- Tilt or fixed
- Solar experience
- Ability to maintain frequency
- Maintenance requirements
- Expandability
- Ability to pump water from Colorado River at GCW
- Overall experience and experience with off-grid systems

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- Training of Hualapai staff to maintain
- Ability to work according to grant funding rules
- Integrating software
- How they arrived at system size

Key take away from these presentations were as follows:

- Three of the presenters had excellent presentation and appeared to have the necessary experience and staff to complete the project—Indian Energy, AGM and Solon. Stockbridge appeared to have the capabilities to complete project but did not present a very strong technical team. Arizona Energy partners had little to no experience in the scale required at GCW and the primary architect of the proposal was not in attendance
- The proposed systems for the most part would provide approximately 80 % of the energy requirements for GCW. The remainder of energy requirements would need to come from the existing diesels. Achieving a 95 % energy penetration would require additional capital expenditures of 40-50% more than currently proposed.
- The solar system, if size appropriately, could handle the pumping requirements and additional load; however, significant additional capital expenditures into additional solar arrays and batteries would be required.
- From an aesthetic point-of-view, beauty is in the eye of the beholder. Mitigation of the visual impact will add costs. Significant costs will occur as the solar field is placed further from existing mini-grid. Some solar power plant owners chose to showcase the solar plant to the public emphasizing the nature of the green energy produced.
- The proposed solar plants could be expanded relatively easily to accommodate future loads however significant capital costs will be required to accommodate any significant load growth.

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- All but Solon thought fixed solar was the appropriate design instead of a tracking array
- The solar system will be most efficient in the winter months which are co-incident with the peak loads at GCW.
- All indicated that local tribal staff could be trained to operate and maintain the system with occasional third-party help for any major technical issues
- The system will have a 25 year life and will require several battery change outs.
- Solar output from the array at the end of 25 years should be around 80% of the initial energy output capabilities.

5– Other

None

Item 6- Adjourn

The meeting concluded at approximately 2:15 PM.