

## Paniolo Power Company to Issue a Pumped-Storage Hydro Request for Qualifications

(KAMUELA, HAWAII, July 31, 2014)—Paniolo Power Company, LLC, a subsidiary of Parker Ranch, Inc., has announced plans for a Request for Qualifications (RFQ) from engineering, procurement and construction (EPC) providers for a pumped-storage hydroelectric (PSH) system on Parker Ranch lands. The RFQ process will open in September.

This Request for Qualifications is the first potential project to emerge from the utility-grade integrated resource plan (IRP) initiated by Parker Ranch in 2013 and currently under development by a three-party consortium led by Siemens. The IRP is evaluating the merits of an innovative community-based energy solution for Greater Waimea and the Kohala Region as well as large-scale energy resources to possibly benefit the entire island of Hawaii.

The primary objective of Parker Ranch's IRP is to identify strategies to lower electricity rates for consumers and significantly increase the percentage of renewable energy in the generation mix. The energy planning effort with the Siemens-led consortium commenced in September 2013, eight months before the Public Utilities Commission (PUC) rejected all three of the Hawaiian Electric Companies' IRPs on April 28, 2014.

"We are nearing the completion of our IRP with Siemens," said Neil "Dutch" Kuyper, CEO of Parker Ranch. "What we're seeing is that hydro energy storage is a valuable contributor in many scenarios. The major capital expenditures associated with PSH, such as reservoirs and penstocks, can have useful lives of 100 years. The practice of running expensive oil-fired generators and curtailing renewable energy seems unfriendly to both ratepayers and the environment. Investing in assets that are capable of storing intermittent or otherwise curtailed forms of energy should be more beneficial to consumers and our air quality. It also seems more rational than spending costly capital on other types of utility assets, such as grid improvements or retrofitting fossil-fuel generation, given the amount of renewable energy curtailment apparently occurring."

"While we are currently focused on the concept of a community microgrid for Waimea and Kohala, we are evaluating concepts on multiple levels, from a community-wide solution to large-scale strategies which could benefit the entire island," said Kuyper.

Paniolo Power wants to quantify the capital costs and identify design requirements associated with a wide range of potential hydro-energy storage solutions, from 10-megawatts (MW) to as high as 200-MW.

"We believe that the best way to explore the merits of these storage options is to expose them to the marketplace of ideas and engage in serious dialogue to attract and inspire innovative solutions from local and global engineering and construction firms with expertise in this area," said Kuyper.

Kuyper noted Kauai Island Utility Cooperative (KIUC) recently reported that integrating pumped storage hydro into its system could increase that island's renewable energy penetration by 15 percent, making use of daytime solar energy that might otherwise be curtailed; it would also reduce Kauai's dependence on older, oil-based generation assets.

"This is a unique time in Hawaii's history," said Kuyper. "If the islands were to pursue generation portfolios with high penetrations of renewable energy sources, then storage could be instrumental in enabling us to boost those percentages even higher."

Pumped-storage hydro on Parker Ranch lands has the potential to provide up to five hours of firm, dispatchable power, which would enable load shifting and increase renewable penetration significantly. Wind and solar energy, that would otherwise be curtailed, would pump water to an upper reservoir. Releasing this water during the evening would generate power to meet the evening peak loads, which would further reduce or eliminate the need to run expensive oil-fired fossil generators during peak demand. Strategic investments in storage may produce better results than certain investments in the grid while also helping to address challenges posed by the so-called "duck curve" facing many utilities.

"The elevation change of 7,000 feet on Parker Ranch is a strategic asset," said Kuyper. "If an undersea cable is possible for Maui, perhaps it's possible for Hawaii Island in the long run. And if that is the case, Parker Ranch could enable a large-scale storage solution as part of an integrated statewide grid."

Paniolo Power will issue the Pumped-Storage Hydro RFQ in September and a subsequent Request for Information (RFI) to a select group of RFQ participants, once all responses have been evaluated. Wind, solar, geothermal and battery-storage RFQs are also being contemplated and would be announced separately.

To receive a copy of the PSH RFQ when it is released, prospective respondents may email Jonathan Mitchell, Manager of Corporate Development at Parker Ranch, at JMitchell@ParkerRanch.com.

## About Paniolo Power Company, LLC

Paniolo Power Company, LLC is a subsidiary of Parker Ranch, Inc., one of the largest and oldest cattle ranches in the United States. Paniolo Power was established in April 2014 to pursue community-based and reasonably-priced clean energy for the Waimea and Kohala communities as well as for Hawaii Island. Paniolo Power is leveraging Parker Ranch resources to develop affordable, renewable energy to increase Hawaii Island's energy security. To learn more, visit www.paniolopower.com.

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