



NATURAL ENERGY LABORATORY OF HAWAII AUTHORITY

An Authority of the State of Hawaii attached to the Department of Business, Economic Development & Tourism

MEMORANDUM

TO: All NELHA Clients

FROM: Gregory P. Barbour, NELHA Executive Director

DATE: December 19, 2012

RE: Recent Developments

Aloha to all Clients during this festive Holiday Season! There have been several recent developments at NELHA that I would like to bring to your attention. Briefly:

- Infrastructure Improvement Projects: Governor Abercrombie has approved two important NELHA projects for inclusion into his Administration's budget that was sent to the Legislature earlier this week. The total amount of new projects is a little over \$12 million. If approved by the Legislature, these monies will fund two important capital improvement projects: 1) a road to connect our current entrance with the new planned entrance at Kaiminani Street and 2) a new seawater pipeline. As many of you know, when the Department of Transportation (DOT) completes the new Queen Kaahumanu divided highway we will only have direct access to the Southbound lanes. As part of their widening project, DOT has agreed to build a new 4 way fully signalized intersection at Kaiminani and the highway. The new road we will build road will connect Makako Bay Drive to the new intersection at Kaiminani. In addition, Governor Abercrombie has included funds to build a pipeline to connect the north and south seawater delivery systems. This will provide additional redundancy to our system in the unlikely event of a failure of either of the pumping systems. Both the road and new pipeline are currently in the design phase and construction could begin as early as next year for both important projects.
- Weather Station: We recently received funding from the National Renewable Energy Laboratory (NREL) in Boulder Colorado to develop a mini micro-grid in the Research Campus to allow them to analyze power generation and consumption. Part of this project is the construction of an scientific weather station in the Research Campus with a live feed to NREL offices in Boulder. According to Keith Olson, Chief Chemist at NELHA who has deployed the station: "This is not your "first" weather station variety. It has high quality sensors and is extremely accurate. I think many of the folks at NELHA will be able to take advantage of the new data for their projects and businesses. NREL's website is pretty awesome and you can graph NELHA historical data as well as compare

NELHA's climate to other NREL weather stations around the country." This data is now online and can be accessed via the NELHA website at www.nelha.org.

- Impacts of on the Fukushima Daiichi power plant discharge on the Greater Pacific Ocean region water quality. Many folks at NELHA have asked about the impacts of this event caused by the tsunami in Japan last year. We recently took advantage of an opportunity to participate in a no cost study the University of Hawaii was conducting regarding the impacts of this event. Based on water samples from our deep sea pipelines, the study found that Cesium 137 and Cesium 134 concentrations are well below EPA's drinking water limits. More detailed information regarding this study can be found in the manuscript by Kamenik, Dulaiova, Buesseler, Pike and Stastna titled: "*Far-field monitoring of the 134-Cs and 137-Cs in seawater in the North Pacific Ocean after Fukushima Daiichi nuclear power plant accident*". It was recently submitted for a special issue of the journal of Biogeosciences. For more information and the article see: http://www.biogeosciences-discuss.net/special_issue100.html

Happy Holidays and Best Wishes for 2013!