

# Grid Stability Stakeholder Meeting with Kauai Island Utility Cooperative

Date: April 1, 2009

## Attendees

### **Kauai Island Utility Cooperative Attendees:**

Carey Koide, *Kauai Island Utility Cooperative*

Ed Nakaya, *Kauai Island Utility Cooperative*

Jack Leavitt, *Kauai Island Utility Cooperative*

John Cox, *Kauai Island Utility Cooperative*

Michael Yamane, *Kauai Island Utility Cooperative*

Randy Hee, *Kauai Island Utility Cooperative*

Steve Rymsha, *Kauai Island Utility Cooperative*

### **SENTECH Hawai'i Team Members:**

Diane Zachary, *Kauai Planning & Action Alliance*

Rayne Regush, *Kauai Planning & Action Alliance*

Douglas Hinrichs, *SENTECH Hawai'i, LLC*

Jill Sims, *SENTECH Hawai'i, LLC*

## Notes

### **Goals**

- KIUC sees electric vehicles (EVs) coming onto grid at some point, but introduction and growth strategy is not clear.
  - How many models will be out there and how do they fit in with infrastructure?
  - Will charging at work drive up morning peak?
  - There are lots of technical issues to be addressed.
- Need to have multiple uses for bioenergy products to make biofuels/biomass work; all end use plants can use biodiesel by permit but infrastructure and quarterlies to handle biofuels will require work; KIUC is getting involved with Hawaii Bioenergy
- Grid is fairly smart right now but control with end users requires Advanced Metering Infrastructure (AMI)
- EPS Corp. helped with stability issues and analysis but never did determine if there is existing issue with limitations to grid that hinder integration of RE

### **Sandia Presentation**

- KIUC prefers PSSE Grid Modeling Tool
- Need detailed analysis of solar resources in specific planned areas to help eliminate long-term risk – can SAM Model provide this data?; Concentrating Solar Power (CSP) may require different data because radiation isn't average

### **Barriers**

- Loan availability is difficult now due to economic downturn
- Power Purchase Agreement (PPA) negotiations are hindered by legislation passed with avoided cost cap and current low prices

## **Grid Stability Stakeholder Meeting with Kauai Island Utility Cooperative**

Date: April 1, 2009

- Makes sense to work with organizations with large tax appetite - maybe transfer to flip arrangements where KIUC would purchase projects after tax benefits up?; should be able to get cheap money/loans on self built projects
- Available land is classified as Ag so have to work through Department of Land and Natural Resources (DLNR); some lands have water/flooding issue; large scale farming is difficult because land is divided for different uses but it could help with job creation
- KIUC takes avian issues very seriously because they are subject to Department of Justice prosecution
- Developers come to KIUC with very minimally developed project plans/Power Purchase Agreements (PPAs); KIUC has to reverse engineer rate of return for landowner projects
- Landowners expect very large returns but expectations are getting better; hydro projects do offer good returns
- Emissions concerns are less with naphtha than diesel
- Unclear what supplemental fuel can be for proposed 20 MW biomass plant

### **Proactive Strategies**

- County can help with building codes
- Need to understand end use of water, harvesting, and conduct more crop trials
- Many people want to model KIUC system for renewables but it is lots of work for them to get data together; they need to be involved in model validation and knowledge transfer; models need to be in program that KIUC can use