

Economic Development, Energy, Agriculture and Recreation Committee Meeting

Frederick Redell, PE Energy Commissioner, County of Maui August 30, 2016

Basic Common Objectives That All Parties Share

- Enhance renewable integration in an effort to achieve the State's 100% renewable energy goal.
- Stabilize and reduce electricity rates over time.
- Improve energy security and resiliency.

Currently-Installed Renewable Energy Projects

- 2.5 MW of installed capacity (PV) on various County properties
- Other smaller projects such as:
 - Wind turbines at Central Maui Landfill.
 - PV lighting in various locations.





Projects Under Contract Review

Renewable sludge drying/electricity generation.

Early Stage of Scoping Projects

- PV and battery 24-hour service to water supply.
- Wells/PV/battery/in-line hydro-efficient

pumping system for new wells.

Demand Response.

Efficiency Projects

- Pumps for pools with variable frequency drives (VFDs) and the like in the past.
- Pumping, waste water treatment plants, etc. continually doing projects that go unnoticed to be more efficient.
- Review for other opportunities.

County's Involvement in PUC Cases

- County is involved in several cases before the PUC in an effort to represent the interests of the County and residents.
- Most notably the County participates in the "Power Supply Improvement Plan" - a process for planning the path to 2045, include near-term action.
- Others where we are not official parties, we participate with public comments.

Guernsey Report

- > This was a review of ownership and business models for the utility.
- The review focused on municipal ownership, co-op ownership and independent system operator (ISO) and comparing them to the current investor-owned utility structure.
 - Result: ISO looks most attractive
 - ► Order of preference: ISO \rightarrow Co-op \rightarrow Municipal
- Next steps: determining future structures (utility ownership, asset ownership, operational management, regulation) for Maui, Molokai and Lanai and whether or not they may utilize the same system given their unique aspects.

Specific Study Paths

- Regulatory Structure Review
 - Review and study in detail the potential benefits of an Integrated Independent Power Supply Integrator & System Operator and look at portions of this concept that are already in law.
 - Frame this study with a particular interest in DER/DR and how it will shape the future of regulation.
- Business Model Structures
 - Review a services-oriented utility model.
 - Frame this study with a particular interest in DER/DR and how it will shape the future utility model.
- Business Ownership Structures
 - Review ways others can bring ownership of near-term assets to the grid in an effort to improve costs and decouple ownership from the planning process.
- Looking for ways for these next studies to be done in cooperation with HECO/MECO and with the Hawaii State Energy Office.

Other Opportunities for Near-Term Improvements and Projects

- Community Solar: work with the community to see if this can be a near-term vehicle to continue.
- Demand Response: be active in the PUC case and look for opportunities to help make the grid flexible at a low cost.
- Further review of co-ops by other parties: participate with community members interested pursuing co-ops to help form their concept and find beneficial aspects.
- Studying plan for electric vehicles for County: develop a plan to transform the County fleet to electric over a number of years.
 - Looking to leverage the Hawaii State Energy Office's capabilities to augment our efforts.