

SHARON M. SUZUKI
President

July 14, 2015

Mr. Daniel E. Orodener
Executive Officer
Land Use Commission
State of Hawaii
P.O. Box 2359
Honolulu, Hawaii 96804-2359

LAND USE COMMISSION
STATE OF HAWAII
2015 JUL 22 A 7:24

Dear Mr. Orodener:

Re: Petition for Land Use Commission District Boundary Amendment for Property situated at Wailuku and Makawao Districts, Maui, Hawaii; Maui Electric Company, Limited; LUC Docket No. A97-722; TMK 3-8-03:23 and 24

Enclosed is the Seventeenth Annual Report of Maui Electric Company, Limited (original and one copy).

We would appreciate receiving a file stamped copy of the above. Enclosed is a stamped, self-addressed envelope for this purpose.

Thank you for your consideration and assistance in this matter.

Sincerely yours,

Enclosures

- cc. Leo R. Asuncion, Jr. - Office of State Planning (Acting Director)
Mary Lou Kobayashi - Office of State Planning (Planning Program Administrator)
William Spence - County of Maui Planning Department (Director)
Daniel E. Orodener - Land Use Commission (Executive Officer), pdf version

SEVENTEENTH ANNUAL REPORT OF MAUI ELECTRIC COMPANY, LIMITED

and

CERTIFICATE OF SERVICE

BEFORE THE LAND USE COMMISSION

OF THE STATE OF HAWAII

In the Matter of the Petition of)
 Maui Electric Company, Limited, a)
 Hawaii corporation)
)
)
 To Amend the Agricultural Land Use)
 District Boundary into the Urban)
 Land Use District for Approximately)
 65.7 acres of Land at Wailuku and)
 Makawao Districts, Island of Maui,)
 State of Hawaii, Tax Map Key No.)
 3-8-03:23 and 24)
 _____)

Docket No. A97-722

LAND USE COMMISSION
 STATE OF HAWAII
 2015 JUL 22 A 7:25

SEVENTEENTH ANNUAL REPORT OF MAUI ELECTRIC COMPANY

TO THE HONORABLE LAND USE COMMISSION OF THE STATE OF HAWAII:

COMES NOW MAUI ELECTRIC COMPANY, LIMITED, a Hawaii corporation, Petitioner herein, and pursuant to Condition No. 14 of the Findings of Fact, Conclusion of Law, and Decision and Order issued on June 22, 1998, hereby submits to the State Land Use Commission ("Commission") its seventeenth annual report of compliance with the conditions established by said approval as follows:

General Progress of the Project from June 2014 to May 2015:

On January 31, 2011, Maui Electric Company, Limited (“Maui Electric”) submitted a letter request to the Hawaii Public Utilities Commission (“Commission”) to open a new docket for the purposes of receiving filings, reviewing approval requests, and resolving disputes, related to Maui Electric’s plan to proceed with a competitive bidding process, including a request for proposal (“RFP”) to obtain up to 50 megawatts of renewable firm capacity generation resources on the island of Maui. On February 24, 2011, the Commission opened Docket No. 2011-0038, pursuant to its Framework for Competitive Bidding, to proceed with the competitive bidding process.

On July 11, 2013 the Commission ordered that the above described proceeding (Docket No. 2011-0038) be closed. On page 7 of Order No. 31357, the Commission states:

“Given MECO’s AOS (Jan. 30, 2013) and IRP Report (June 28, 2013), which detail the utility’s planning process for determining need for firm capacity, it appears that this RFP and proceeding governing such RFP process are premature. Accordingly, the commission determines that this proceeding shall be closed. The commission will consider future requests by MECO to open another proceeding to conduct an RFP for generation upon a demonstration of need and a plan focused on customer needs.”

To date, Maui Electric has been able to defer the addition of firm generation on Maui and subsequently has leased all but approximately 1.5 acres of the Waena property back to Hawaiian Commercial & Sugar Company (“HC&S”) on an interim basis, at no rent, for sugarcane cultivation.

General Progress of Renewable or Research & Development Projects:

1. Kaheawa Wind Power (“KWP”):
 - a. This 30 MW wind farm (“KWP-I”) is on-line and has been supplying electric power to Maui Electric since 2006.

- b. This 21 MW expansion of KWP-I (“KWP-II”) is on-line and has been supplying electric power to Maui Electric since July 2012.
- 2. Makila Hydro:
 - a. This 500 KW hydroelectric plant came on line in September 2006, but has operated intermittently at times due to operational challenges.
- 3. Auwahi:
 - a. This 21 MW wind farm on Ulupalakua Ranch is on-line and has been supplying electric power to Maui Electric since December 2012.
- 4. Biomass and Biofuels:
 - a. Maui Electric and Hawaiian Electric continue to monitor potential use of biofuels in Maui Electric’s generating units. In 2007 an initial short-term biodiesel test was successfully completed on several internal combustion engines and a combustion turbine at Ma’alaea Generation Station (“MGS”). In 2011 Maui Electric completed a long-term biodiesel demonstration on its diesel engine generating unit M12, which demonstrated successful utility-scale long-term operation using 100% biodiesel. A project report was submitted to the Commission in January 2012. Maui Electric continues to use biodiesel during start-up and shut-down operations in two of its largest diesel generating units at MGS.
- 5. Hydroelectric/Pumped Storage Hydroelectric (“PSH”):
 - a. In June 2012 a decision was made to cease work on the feasibility assessment of a utility-scale pumped storage hydroelectric system on the island of Maui. Three separate economic analyses were performed and all three concluded that pumped storage hydro is not cost-effective at the present time. In its Power Supply Improvement Plan (“PSIP”) filed with the Commission on August 26, 2014 as part of Docket No. 2011-0092, Maui Electric addressed PSH considerations in section J titled “Energy Storage for Grid Applications”. PSH was not included in the PSIP’s Maui Preferred Plan for the 2015-2030 timeframe. Maui Electric remains open to the development of cost-effective PSH that would benefit its customers.
- 6. Grid Integration:
 - a. Based on a proposal submitted to the United States Department of Energy (“USDOE”) in August 2007, the USDOE awarded \$7 million to a team led by the Hawaii Natural Energy Institute (“HNEI”) to develop and install a distribution-level automation solution that deploys and aggregates distributed generation (“DG”) including renewable energy, energy storage, and demand response technologies within a distribution system to achieve both distribution and transmission level benefits. Additional cost share funding was contributed by the various team partners including Hawaiian Electric, Maui Electric, and SRA International. The project was deployed in the Maui Meadows area and the

Wailea Substation on Maui. The installation of field equipment, smart meters, the distribution management system ("DMS"), and a 1 MW/1 MWH battery energy storage system ("BESS") in the Wailea Substation was completed in 2013. Subsequently the project was extended to allow for additional data collection and analysis, and concluded in October 2014.

- b. JUMP Smart Maui is collaboration between the Japanese Government, the State of Hawaii and various stakeholders. The project is looking to develop tools to reduce curtailment of excess wind energy through management of electric vehicles. Additionally, the management of load control devices and smart photovoltaic ("PV") systems will be tested to determine the feasibility of improving local power quality within circuits subject to high penetration of PV generation. The project was launched in the second half of 2013 and was initially scheduled to run through spring 2015. Subsequently the project was extended one year to March 2016. During this extended period the primary focus will be project demonstration.
- c. Demand Response ("DR") refers to mechanisms designed to manage customer consumption of electricity to support the reliable operation of the grid. Maui Electric plans to utilize DR to meet capacity and other grid service requirements. Maui Electric has proceeded with efforts to expedite the procurement of DR capacity on Maui. In particular, the Companies are initiating a potential study to assess the feasibility and potential capacity of a customer generator program. It is anticipated that this request along with expansion of the FastDR program would be part of the DR Application formally filed later this year for Maui. Additionally, efforts are underway to expand Grid Interactive Water Heater ("GIWH") deployments on Maui to provide both capacity and additional grid services.
- d. In partnership with HNEI, Maui Electric is participating in the Maui Advanced Solar Initiative ("MASI") project. The primary objective of the project is to study the use of smart inverter functionality over a smart grid network to manage the impact of a high penetration of distributed residential scale PV systems on the electric grid.
- e. In partnership with HNEI, Maui Electric is installing a 2MW/397kWh battery on Molokai which is planned to be operational in early 2016. This battery is to explore how energy storage may be used to address high PV penetration impacts on the system.

7. Photovoltaic:

- a. As part of the Sun Power for Schools program, Maui Electric, along with Hawaiian Electric and Hawaii Electric Light continue to install photovoltaic systems on public schools under their partnership with the State of Hawaii Department of Education.

- b. Net Energy Metering and Feed-in Tariff programs have enabled significant quantities of photovoltaic energy to be integrated into the grid. Maui Electric has consistently ranked within the top ten utilities in the nation for solar installed by the Solar Electric Power Association.
8. Ocean energy:
- a. In February 2008, Oceanlinx Limited, an Australian-based high-tech company, announced plans to provide electricity to Maui Electric. The project would be located offshore of Pauwela Point on the north coast of central Maui. Oceanlinx approached Maui Electric again in 2013, but the economics of the project are not in the best interest of the Maui customers.
9. Central Maui Landfill – Waste to Fuel:
- a. The County of Maui has selected Anaergia Inc. to convert waste streams from the Central Maui Landfill into natural gas and refuse derived fuel.
10. Central Maui Landfill - Wind Turbines:
- a. Maui Electric supported the County’s installation of a 26.7 KW wind turbine project at the Central Maui Landfill and approved the application for interconnection on April 11, 2014. Although the turbines are currently installed, the County is waiting on additional equipment to complete its installation and begin producing power.
11. Maui Resource Recovery Facility (*previously known as the Mahinahina Project*):
- a. The Maui Resource Recovery Facility is a proposed agricultural energy project to be located adjacent to the County of Maui's Lahaina Wastewater Reclamation Facility ("LWRF"). The project plan is to grow sorghum as an energy crop using reclaimed water produced at the LWRF. The crops are to be harvested and converted into a methane-rich gas. Maui Electric continues to be interested in working with the County of Maui and developer towards a project that is in the best interest of Maui Electric’s customers.

Report on Compliance with Conditions Imposed by Commission

The following states whether the conditions in the Land Use Commission approval have been met:

- 1. Petitioner shall participate in an air quality monitoring program, coordinated with and approved by DOH to monitor air quality impacts attributable to the operations of the Waena Generating Station. Mitigation measures for air quality impacts attributable to the operations of the Waena Generating Station shall be implemented by Petitioner if, based on applicable State

and Federal air quality standards, the results of the monitoring program warrant them.

Mitigation measures shall be developed in coordination with DOH and implemented by Petitioner.

Petitioner understands its obligation to comply with this condition.

2. Petitioner shall consult with DOH and, if necessary, Petitioner shall participate in a groundwater quality monitoring program in consultation with the county Department of Water and approved by DOH to monitor groundwater quality impacts directly attributable to the operations of the Waena Generating Station. Petitioner shall implement mitigation measures should the results of the monitoring program warrant them based on applicable State and Federal water quality standards. Mitigation measures shall be developed in coordination with DOH and implemented by Petitioner.

Petitioner understands its obligation to comply with this condition.

3. Petitioner shall provide at its own expense, adequate non-potable water source, storage, and transmission facilities and improvements to accommodate the proposed project. The non-potable water improvements shall meet all applicable County, State, and Federal standards and shall be consistent with the County of Maui adopted water use and development plan.

Petitioner understands its obligation to comply with this condition.

4. Petitioner shall consult with DOH and, if necessary, prepare a wastewater disposal plan subject to review and approval by DOH. Petitioner shall provide at its own expense adequate wastewater treatment, transmission and disposal facilities for wastewater directly attributable to the operations of the Waena Generating Station.

Petitioner understands its obligation to comply with this condition.

5. Petitioner shall establish appropriate systems to contain spills and prevent materials associated with heavy industrial uses attributable to the operations of the Waena Generating Station, such as petroleum products, chemicals or other pollutants, for leaching or draining into above ground or subsurface storm drainage collection areas. Based on applicable State and Federal standards, Petitioner shall use best management practices to minimize non-point source pollution into irrigation ditches. Petitioner shall consult with DOH and County Department of Public Works and Waste Management and obtain any permits required or construct improvements required for storm water discharge on the Property.

Petitioner understands its obligation to comply with this condition.

6. Petitioner shall consult with DOH regarding hazardous waste storage and, if necessary, prepare a hazardous waste storage plan.

Petitioner understands its obligation to comply with this condition.

7. Petitioner shall participate in the funding and construction of local and regional transportation improvements and programs attributable to the operations of the Waena Generating Station as determined by the State Department of Transportation (DOT) and the County of Maui.

Petitioner understands its obligation to comply with this condition.

8. Petitioner shall coordinate with the surrounding property owner to ensure that the proposed project will not adversely impact the use of cane haul roads and irrigation ditches or adversely impact the continued agricultural operation of adjoining sugar cane cultivation areas.

Petitioner understands its obligation to comply with this condition.

9. Petitioner shall participate in the pro rata funding and construction of adequate civil defense measures as determined by the State of Hawaii and County of Maui civil defense agencies.

Petitioner understands its obligation to comply with this condition.

10. Petitioner shall implement effective soil erosion and dust control measures during and after construction in compliance with the applicable rules and regulations of DOH and the County of Maui.

Petitioner understands its obligation to comply with this condition.

11. Should any human burials or any historic artifacts, such as charcoal deposits, stone platforms, pavings or walls be found, Petitioner shall stop work in the immediate vicinity and contact the State Historic Preservation Division (SHPD). The significance of these finds shall then be determined and approved by the SHPD and, if applicable, an acceptable mitigation plan shall be approved by the SHPD. The SHPD must verify that the fieldwork portion of the mitigation plan has been successfully executed prior to work proceeding in the immediate vicinity of the find. Burials must be treated under specific provisions of Chapter 6E, HRS.

Petitioner understands its obligation to comply with this condition.

12. Petitioner shall develop the Property in substantial compliance with the representations made to the Commission. Failure to so develop the Property may result in reversion of the Property to its former classification, or change to a more appropriate classification.

Petitioner understands its obligations to comply with this condition.

13. Petitioner shall give notice to the Commission of any intent to sell, lease, assign, place in trust, or otherwise voluntarily alter the ownership interests in the Property, prior to development of the Property.

Petitioner understands its obligation to comply with this condition.

14. Petitioner shall timely provide without any prior notice, annual reports to the Commission, the Office of Planning, and the County of Maui Planning Department in connection with the status of the subject project and Petitioner's progress in complying with the conditions imposed herein. The annual report shall be submitted in a form prescribed by the Executive Officer of the Commission.

Petitioner understands its obligation to comply with this condition.

Petitioner has filed Annual Reports with the Commission since 1999 and submits this Seventeenth Annual Report in compliance therewith.

15. The Commission may fully or partially release the conditions provided herein as to all or any portion of the Property upon timely motion and upon the provision of adequate assurance of satisfaction of these conditions by Petitioner.

Petitioner understands the Commission's authority in this condition.

16. Within 7 days of the issuance of the Commission's Decision and Order for the subject reclassification, Petitioner shall (a) record with the Bureau of Conveyances a statement that the Property is subject to conditions imposed herein by the Commission in the reclassification of the Property, and (b) shall file a copy of such recorded statement with the Commission.

(a) Petitioner has recorded a Notice of Imposition of Conditions by the

Land Use Commission pursuant to Commission Rule Section 15-15-92. The notice was dated June 25, 1998, and recorded in the Bureau of Conveyances of the State of Hawaii as Document No. 98-094602.

(b) A copy of the notice was transmitted to the Commission on July 1, 1998.

17. Petitioner shall record the conditions imposed herein by the Commission with the Bureau of Conveyances pursuant to Section 15-15-92 Hawaii Administrative Rules.

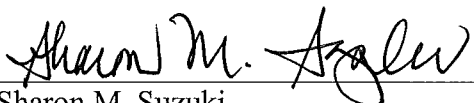
Petitioner has recorded a Document Listing Conditions to Reclassification of Land pursuant to Section 15-15-92 of the State of Hawaii Land Use Commission Rules. The document was dated July 23, 1998 and recorded in said Bureau of Conveyances as Document No. 98-112111. A copy of the document was transmitted to the Commission on August 4, 1998.

Conclusion

Efforts to comply with the remaining conditions shall begin when required as part of a permit requirement for construction.

Dated: Kahului, Hawaii, July 14, 2015.

MAUI ELECTRIC COMPANY, LIMITED
Petitioner

By: 
Sharon M. Suzuki
Its President

CERTIFICATION OF SERVICE

I hereby certify that due service of a copy of the within document will be made by depositing the same with the U.S. mail, postage prepaid, within (5) days of the date on this report, addressed to:

LEO ASUNCION, JR.
Acting Director
Office of State Planning
State of Hawaii
P.O. Box 2359
Honolulu, Hawaii 96804

BY MAIL

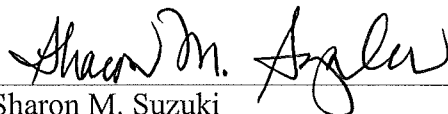
MARY LOU KOBAYASHI
Planning Program Administrator
Planning Division
Office of State Planning
State of Hawaii
P.O. Box 2359
Honolulu, Hawaii 96804

BY MAIL

WILLIAM SPENCE
Director
County of Maui Planning Department
2200 Main Street
One Main Plaza Building, Ste 315
Wailuku, Hawaii 96793

BY MAIL

Dated: Kahului, Hawaii, July 14, 2015.



Sharon M. Suzuki
President
MAUI ELECTRIC COMPANY, LIMITED