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ALAN M. ARAKAWA Mayor STEWART STANT Director MICHAEL M. MIYAMOTO Deputy Director



MICHAEL RATTE Solid Waste Division

ERIC NAKAGAWA, P.E. Wastewater Reclamation Division

TAMARA FARNSWORTH Environmental Protection & Sustainability Division

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OR TRANSMITTAL

COUNTY OF MAUI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

2050 MAIN STREET, SUITE 2B WAILUKU, MAUI, HAWAII 96793

July 16, 2018

Honorable Alan M. Arakawa Mayor, County of Maui 200 South High Street Wailuku, Hawaii 96793

For Transmittal to:

Honorable Elle Cochran Maui County Council 200 South High Street Wailuku, Hawaii 96793

Dear Councilmember Cochran:

ZINIS Date

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ICE OF THE MAYOR

PM 2:09

SUBJECT: STATUS UPDATE ON ANAERGIA SERVICES LLC PROJECTS (IEM-63)

In response to your July 2, 2018 request for status update on Anaergia Services LLC projects, we offer the following:

1. Please provide a map identifying the location of the Maui Resource Recovery Facility, LLC ("MRRF") project at the Central Maui Landfill.

Attached is a map showing the proposed location of the MRRF relative to the Central Maui Landfill. The project is not located within County property.

2. Identify which project milestones have been met, to date, for the MRRF project.

Article III and Article IX of the Contract should be read in conjunction as they relate to the various stages of project development and associated deadlines. Article III primarily describes pre-construction activities (environmental review, permits, etc.), while Article IX describes broad milestones and performance guarantees. Amendments 1 and 2 extended the pre-development deadline in Article III, based upon the County's determination that the Contractor has been diligently working on the required tasks. The Contractor's Report No. 53 (May-June 2018), attached for your reference, describes these activities in more detail.

3. Provide an explanation for any preliminary plans for the use of the dried sludge byproduct created by the Maui All Natural Alternative, LLC ("MANA")



Honorable Elle Cochran IEM Committee July 16, 2018 Page 2

project at the Wailuku-Kahului Wastewater Reclamation Facility.

The MANA project will dry the County's annual average of 24,000 tons of sludge and yield about 2,400 tons of byproduct that will meet EPA's criteria for Class A fertilizer. The high-heat drying process eliminates the pathogens. The byproduct leaving the drier will be in the form of a powder that can be mixed with water to form a liquid fertilizer. An additional step can be added if pellets are desired. The pellets are similar to the ones provided to Council Members.

Our first intent is to provide it to our County partners for use at their facilities, Parks being the biggest user. This is intended to offset the use of imported chemical fertilizers. Beyond that, we are looking into options to market the fertilizer. On Oahu, their service provider bags their product and markets it themselves. On Maui, our current contractor sells a combined sludge-greenwaste compost in bulk to local and off-island markets. Additional information in the form of responses from inquiries expressed in the Draft EIS are published in the FEIS, Appendix J: Pages 432-434.

4. Provide a copy of Exhibit G of Contract C6207, which includes the milestones of the MANA project, and identify which project milestones have been met, to date.

Exhibit G of Contract C6207 as defined in Section 2.8, Exhibits is "Design and Construction Management Process" and "shall be prepared by Provider and provided to COM prior to Conditions Precedent Termination Date in Section 2.9." The project is still in the Conditions Precedent stage and due to a recent challenge to the FEIS, the project will delay the provision of Exhibit G.

Should you have any questions, please contact me at ext. 8230.

Sincerely

STEWART'STANT, Director Department of Environmental Management



Maui Resource Recovery Facility

Report # 53 (May 10th- June 9th - 2018)



Background

Restructuring and review discussions were held during May 2017. Quantitative review by both COM-DEM and Maui Resource Recovery Facility (MRRF) on an agreed development approach with definable goals and milestones were to be met by MRRF over the next six months. Meeting these milestones would be the basis for future development and or contract negotiations beyond January 8th, 2018. Monthly reports focused on these milestones during the second half of 2017.

In a letter dated May 24th, 2017 Director Stant outlined these milestones. MRRF responded with its agreement to comply with these milestones. The agreement letter allows MRRF to continue to develop the project over the next 6 months with measurable and tangible deliverables that must be met.

Subsequently meetings with DEM and Mayor's office had the milestones changed to reflect a delivery of the first five items on or before November 1st, 2017. The exception is Item1 which is the leasing of land for the project site. MRRF has in place a Letter of Intent (LOI) with Alexander and Baldwin and optionality (Verbal discussions) to utilize A & B properties around the Central Maui Landfill site.

- Anaergia concluded discussions and milestones and agreed with the COM project milestone schedule for the next 6 months, and ratified with Mayor and reviewed with the Mayor, Director of Environmental Management, County Chief Corporation Counsel, County Deputy Corporation Counsel, Dr. Andrew Benedek CEO Anaergia, Arun Sharma Global Lead Build Own Operate Projects and Jeff Walsh Director of Business Development Anaergia Hawaii and Pacific. The meeting was held on Maui August 1st.
- Update and review meeting was held on November 16th with DEM Director, Corporation Counsel and the Mayor. Documentation for commercial obligations including Letters of Intent for Gas and Electricity Offtakes plus a Lease LOI was reviewed. The obligations were satisfied and Amendment 2 to the original MRRF contract was extended an additional 12 months from the effective date of Amendment 1.
- Amendment 2 fully executed and signed by all parties on November 29th, 2017.

Special Status Review and project restructuring has been completed.

Project Background

On January 8, 2014, MRRF entered into a contract with the County of Maui for the Maui Integrated Waste Conversion and Energy Project. This project entails installation and operation of a facility that will receive and handle the County's municipal waste, currently being delivered to the central Maui landfill. The facility will recover recyclable materials and create renewable

Maui Resource Recovery Facility Report # 53 (May 10th- June 9th - 2018)



fuels from the residual waste. Starting on the first effective date of the contract, January 9, 2014, MRRF commenced work on several project development and engineering activities.

Project Development

A complete project scope and different operational scenarios were evaluated by the Anaergia Team during a workshop at the Anaergia Carlsbad offices May 23rd to 26th, 2017. Review of the decline in recyclable market and lowering cost of energy combined with the increase in infrastructural cost, commodity inputs and labor cost were all part of the analysis. Additional analysis of doing landfill gas and wet fraction (diverting rest to landfill – the "bifurcation option"), realized economics for a bifurcation option was not feasible. Additionally, the Project Schedule was reviewed to comply with the COM milestone directive and agreed MRRF responses dated June 5th, 2017. Responses to the Key Milestones was reviewed with the County of Maui Director of Environmental Management and Staff on June 8th, 2017 and finalized with the Mayor and the Director of Environmental Management on August 1st. Bi-weekly reviews and meetings were planned for the balance of 2017 and completed. Please refer to project development section below. The bi-weekly meetings will continue throughout 2018.

Engineering, Procurement and Construction

MRRF will proceed with continued engineering review of a scaled "clean model" that when fully developed will provide up to 65% of MSW and Green waste diversion. The recommendation from the workshop and related analysis is to construct a facility for export of CNG or LNG fuel to sites on Maui for power generation. Potential off take with local utilities is also under consideration. Once fully completed, up to 7 MW of renewable energy or biogas equivalent will be available. Components of the MRRF are as originally contemplated with the original RFP to include:

- 1. Materials Recovery Facility to recover plastics, organics and paper.
- 2. Composting of green waste with digested organics and incorporating plans with existing green waste composting facility.
- 3. Sale of biogas to existing COGENS, New COGENS and or Utility scale reciprocating engines.
- 4. Sale of biogas derivatives such as Compress Natural Gas. (CNG)
- 5. Power generation at county site as contemplated previously.
- 6. Additional off take sites within the County DEM.
- 7. Initial discussions with State agencies including the Department of Transportation Airport Division.
- 8. Initial discussions and participation with MECO for RFP firm renewable generation.

Maui Resource Recovery Facility



Report # 53 (May 10th- June 9th - 2018)

1 Project Development (Permits and Approvals, Public Outreach, Contracts and Commercial Development)

1.1 Activities this month (May - June)

Project Permits/Approvals

- Initial review of EIS process with County. Determination of an EIS versus EA was finalized and an EIS will be the path for the process. The direct to EIS -Act 172 will be utilized and initial EISPN work, which is the initial step in the process, continues to be evaluated during the month June including legal review. This will provide the project public input and further transparency.
- Outreach meetings with EKO have begone and initial discussions regarding collaborations with composting of Green Waste are ongoing.

Background Permitting work past few months:

- An updated project permit and associated approvals schedule will be completed once initial off taker(s) have been secured. Initial review of EIS versus EA was completed. (see above). HRS 343(5) triggers for the project potentially include a Waste to Energy Facility plus Landfill activities status.
 - Meeting was held with DEM Staff and Corporation Council on November 2nd to review the permitting of Phase 1 of the project. A report to review the feasibility to permit the project in 2 phases;
 - Phase 1: Landfill Gas with project location on the Central Landfill site.
 - Phase 2 Organics including wet fraction and waste segregation on leased land adjacent to the landfill.
 - Update this month (see above); an all-inclusive EIS for the entire MRRF project. This would provide a more complete overall plan and afford participants to provide comment, advice and input for the entire project. Legal review in progress.
 - Internal review of Statutory permitting for State issuance of Air, Water and Waste. Received existing Covered Source Permit from COM for existing LFG phase and presently under review including modifications for gas treatment, compression, MRRF recovery and all potential emission points.



• Completed Legal review of regulatory action and PUC requirements for transportation of CNG and Natural Gas was completed. Initial draft of report completed and submitted to the County for review.

Possible Project Collaboration

Review and update with State of Hawaii for supply of up to 3 MW of CHP installations and the Kahului Airport. Public RFI was issued by State of Hawaii on January 2nd. MRRF participated in the RFI and submitted a proposal on February 2nd. (see above release of RFP is forthcoming)

Outreach

- Weekly calls and update meetings with the Director of the Department of Environmental Management; COM.
- Meetings with local off-takers for the project are ongoing including Airport DOTA, HECO and small commercial off-takers.
- Potential collaboration discussion and meeting held with EKO on May 7th and follow up email discussions.
- Support preparations for the June 19th meeting with COM- IEM committee as per their request for project contract review and update.
- DEM ongoing meetings (technical support from MRRF) with County Council members.
- Ongoing Outreach meetings with community at large planned for June and July.

Commercial Development: Contracts, Off-taker Agreements and Land Lease.

Contracts

- Weekly commercial and project meetings were conducted during the month with DEM
- Continued participation with DOTA Kahului Airport RFI and small off take development meetings.
- DOTA has informed us that an RFP process is forth coming possibly and due for release in June. We have been in contact with them and continue to monitor for the release and internal plan for resources to assist with the initial bid.
- Completed meetings with HECO self-bid HECO team including further discussions partnering as a fuel supplier for the MECO 40 MW RFP. The final RFP process is still under review by the PUC with respect to the utility being permitted to participate as a self-build participant within the framework of the RFP process. HECO fuel's group are reviewing the fuel specifications for a Central Maui Proposed Power Generation site of up to 8MW.



Ongoing discussions and meetings during the month include gas treatment, compression and storage equipment preliminary design to ascertain CAPEX and OPEX cost. Discussions also include co-digestion of food waste and energy crop and permitting.

• Additional meetings and conference calls were held over the past several weeks regrading Air permitting and EIS requirements.

Off-taker Agreements

- Completed LOI's for off-takers: Smaller scale biogas (RCNG) supply plus renewable energy. The total amount of committed LOI's is 3.05MW.
- Follow up meetings with CHP supplier and arranged the meetings with potential off takes (resorts) on Maui, December 12th 14th. Completed and CHP is currently reviewing options. These meetings and discussions are ongoing and include scheduling considerations for delivery of supply of RCNG and or power. The meetings will progress over the next few months.

Project Site Land Acquisition

• Negotiations with Alexander and Baldwin are completed and have a signed LOI for 15 acres of land in the Central Maui Landfill area. Legal review of lease to be completed by A & B legal team. Optionality for additional sites and or transferring of location is being discussed with A&B. These discussions are in progress.

1.2 Planned activities next month

- Ongoing update meetings with MECO including conference calls supporting the collaboration with via a RFP for supply of biogas. This is an ongoing process that will transpire over the next several months and within the framework of the PUC regulated Power Supply Integrated Plan (PSIP) including guidance for the RFP process. Next round of meetings is planned for July.
- Preparation and planning in anticipation of release of RFP for DOTA Kahului Airport selfgeneration
- Follow up meeting with CHP suppliers, and further discussion for supply of CNG off take opportunities for their clients. This is ongoing and in progress.
- Discussions with potential Refused Derived Fuel (by product) and meeting planned for late June.
- Next meeting with Maui EKO Systems scheduled for late June.
- Outreach to Pacific Bio-Diesel to understand their position regarding the future of Fats, Oils and Greases as part of the MRRF collaboration efforts with local suppliers.
- Secure offtake of recycle glass and collaborate with COM to pursue a recycle glass option.

Maui Resource Recovery Facility Report # 53 (May 10th- June 9th - 2018)



Public Outreach

- Continue to conduct meetings with off takers and provide presentations including term sheets. Continue to meet with separate off-takers this month. On going and in progress.
- Meeting with HC&S update land issues and water resources need for MRRF project and potential permitting issues. Completed the planned for May 8th and an update meeting is planned for July.
- Continuous updating State officials, County of Maui Mayor and County Council on project status.
- June 19th IEM meeting and update.
- Discussions with local PR firm to assist with outreach program are ongoing.

Project Site Land Acquisition

• Complete lease LOI for site near Central Maui Landfill.

2 Engineering, Procurement and Construction

2.1 Activities this month

Process Design

- Completed technology review and update with COM staff. This is in progress and ongoing as part of the initial scoping during the EIS process.
- Review of project schedule internally and will present to COM DEM in July.

2.2 Planned activities next couple month (June-July)

- Planned updated process and technology and follow up feedback from COM regarding process changes relating to feedstock intake. Next meeting is planned for June 26th, 2018.
- Working on Process Block Diagram and revised plant layout review planned for July.
- Ongoing discussions with MECO and DOTA (as per any additional request regarding the RFP).
- Negotiations for contract extension and bifurcation of MRRF contract.
- Ongoing commercial development with smaller off take LOI's. This includes consideration for manageable project design changes,
- Initial framework for EISPN and publication. In Progress.
- Follow up discussions with CHP supplier potential off takers.

Maui Resource Recovery Facility Report # 53 (May 10th- June 9th - 2018)



- Initial review of applicable permitting including scheduling and securing of consultants for the EISPN and related EIS.
- Initial scoping of Air permitting requirements. In progress.



