

Alternative Technology Advisory Subcommittee
Los Angeles County Solid Waste Management Committee/
Integrated Waste Management Task Force

Minutes for November 21, 2019

Los Angeles County Public Works
900 South Fremont Avenue
Alhambra, CA 91803

SUBCOMMITTEE MEMBERS PRESENT:

Steve Cassulo, Waste Connections
Tim Hall, California Department of Resources Recycling and Recovery (CalRecycle) *
Wayde Hunter, North Valley Coalition of Concerned Citizens, Inc.
Daniel De La Cruz, Los Angeles County Department of Public Health
Ron Kent, rep by Paul Ghougassian, Southern California Gas Company
Ben Lucha, City of Palmdale
Kevin Mattson, Waste Management *
Mark McDannel, County Sanitation Districts of Los Angeles County
Mike Mohajer, Los Angeles County Integrated Waste Management Task Force
Christopher Sheppard, Los Angeles County Public Works
Eugene Tseng, rep by Vincent Holguin, Gabrielino-Tongva Tribe

SUBCOMMITTEE MEMBERS NOT PRESENT:

Chris Coyle, Republic Services – Sunshine Canyon Landfill
Alex Helou, City of Los Angeles
Kay Martin, rep by Jim Stewart, Bioenergy Producers Association +
Rob Williams, UC Davis Policy Institute for Energy, Environment and the Economy

OTHERS PRESENT:

Tracy Anthony, Alternative Resources, Inc. (ARI)
Paul Galindo, Go-Green
Eli Cortez, Go-Green
Josh Mills, Republic
Margarita Quiroz, Los Angeles County Public Works
Elizabeth Zaragoza, Los Angeles County Public Works
Jennifer Rodriguez, Los Angeles County Public Works
Michelle Dewey, California Department of Resources Recycling and Recovery (CalRecycle) *

* Designates participants over the telephone

I. CALL TO ORDER

Mr. Sheppard called the meeting to order at 10:06 a.m.

II. APPROVAL OF MINUTES FROM SEPTEMBER 19, 2019 MEETING

A motion to approve the minutes from the September 19, 2019 meeting was made by Mr. Mohajer and seconded by Mr. Hunter. The motion passed unanimously.

III. PRESENTATION BY INLAND EMPIRE RESOURCE RECOVERY & GO-GREEN CONSULTANTS – PAUL GALINDO

Mr. Galindo from Go-Green presented on their potential project development in California. Currently, they are working on a project with Inland Empire Resource Recovery to construct an anaerobic digester in the City of San Bernardino. The anaerobic digester will digest fats, oils, and greases (FOGs) and pre-processed food slurries. A prototype of the anaerobic digester is currently running to collect data to ensure proper processing of food waste when the facility is complete. The facility is about 70 percent complete.

Additionally, Go-Green is working with the City of Palmdale to develop the Palmdale Organics Management/Energy Center (POM/EC). POM/EC will include a materials recovery facility to pre-process food waste, green waste, and woody waste to remove contaminants. POM/EC will also include technology to convert these wastes into electricity, compressed natural gas, fuel, soil amendments, biochar, and nutrient rich fertilizer. Go-Green plans to create biogas, biosolids, and liquid fertilizer at POM/EC. Go-Green has other facilities throughout the country that sell the certified liquid fertilizer.

Go-Green is considering incorporating biomass gasification at POM/EC to create liquid fuel for vehicles. Go-Green has a demonstration biomass gasification site in Kansas. The biomass gasification system requires a feedstock with a moisture content of 35 percent and up to ten percent of the feedstock can be tires.

Mr. Ghougassian asked if the renewable natural gas (RNG) produced at POM/EC will be used to produce electricity. Mr. Galindo answered that although Go-Green would prefer to sell RNG from POM/EC, they are considering producing electricity because the City of Palmdale expressed a desire to purchase electricity. Mr. Ghougassian asked if the facility in San Bernardino has an interconnection with the RNG pipeline. Mr. Galindo responded that the facility produces electricity instead of injecting RNG into the pipeline. Mr. Galindo added that Go-Green is considering accepting additional types of feedstock and creating an integrated process to keep tipping fees low.

Mr. McDannel asked about the nature of agreements or contracts between the City of Palmdale and Go-Green for POM/EC. Mr. Galindo responded that Go-Green has a public-private partnership and have created a cost recovery mechanism for

the City of Palmdale. Since the City of Palmdale does not generate a lot of waste, the City of Palmdale will receive a percentage of the tipping fee of waste coming from outside of the area. Mr. Galindo added that they currently have a mid-term agreement with the City of Palmdale and are working on finalizing a memorandum of understanding (MOU), expected to be completed at the end of the month.

Mr. Galindo stated that Go-Green would use the Monsal wet anaerobic digestion system for food waste, which is also used at a facility in Salt Lake City, Utah. Mr. Galindo stated the facility in Utah processes over 385,000 tons of waste per year and produces 17.5 megawatts of renewable energy.

Mr. Coyle asked what the proposed capacity is for the San Bernardino Facility. Mr. Galindo responded that currently, they are looking for a minimum of 65 tons per day of food waste and about 90 tons per day of green waste but are prepared to increase the capacity up to 1,500 tons per day.

Mr. Ghougassian asked how much power or renewable natural energy or gas would be produced if POM/EC processed 2,000 tons per day. Mr. Galindo responded that he was not sure but that Go-Green was considering the option of producing RNG to be converted into liquid fuel. Mr. Cortez mentioned that they have a proactive relationship with SoCalGas to look at POM/EC to determine if there would be a benefit to connecting POM/EC to the pipeline.

Mr. Holguin asked how much POM/EC would cost and how long it would take to construct. Mr. Galindo responded that constructing the food waste digester would take about a year and constructing the green waste digester would take about 18 months. Mr. Galindo added that the estimated cost of POM/EC is about \$150 million.

IV. UPDATE ON CONVERSION TECHNOLOGY POLICY AND LEGISLATION

Mr. Sheppard stated that CalRecycle released a third formal draft of SB 1383 Organic Waste Disposal Reduction Regulations in October 2019. Staff to the Task Force reviewed the regulations and submitted comments to CalRecycle. CalRecycle will finalize and adopt the regulations in 2020.

Mr. Sheppard mentioned that in October 2019, the Board of Supervisors passed a motion requesting that the County pursue legislation relating to funding for recycling infrastructure.

V. UPDATE ON CONVERSION TECHNOLOGY EVENTS/MEETINGS/OUTREACH ACTIVITIES

Mr. Sheppard mentioned that members can find out about upcoming events in the Conversion Technology Newsletter. He noted that several events are coming up. Mr. Sheppard stated that anyone who would like to sign up for the newsletter should let staff know. He also commented that the newsletter is published on a

regular basis and includes updates on legislation, policies, projects, and events related to conversion technologies.

VI. UPDATE ON CONVERSION TECHNOLOGY PROJECT DEVELOPMENT

An update was provided by Ms. Anthony of Alternative Resources, Inc. (ARI) on conversion technology project development:

- ARI prepared an analysis of conversion factors for anaerobic digestion of organic waste and generation of RNG.
- ARI commented on a performance metric for electricity generation for plasma gasification of municipal solid waste (MSW).
- ARI updated the Grant and Financial Incentives Summary Table and researched and reported on the status of end product research activities.
- In response to Public Works (PW) review comments on the CT Facility Sizing Sheet, ARI revised the supporting economic model and included various sensitivity analyses for residual disposal, throughput availability, interest rates, grants, private equity contributions, and equipment costs.
- Clements Environmental responded to PW comments on permitting flow charts prepared for composting, anaerobic digestion, biomass gasification, and MSW gasification.
- UltraSystems Environmental, Inc., and ARI provided information on the benefits of RNG.

VII. DECEMBER SUBCOMMITTEE MEETING

The Subcommittee unanimously voted on not having a meeting in December 2019.

VIII. PUBLIC COMMENTS

No public comment.

IX. ADJOURNMENT

The meeting adjourned at 10:48 a.m. The next ATAS meeting is tentatively scheduled for Thursday, January 16, 2020, at 10:00 a.m., in Conference Room B of Public Works Headquarters.