

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

Minutes for January 17, 2019

900 South Fremont Avenue
Alhambra, CA 91803

SUBCOMMITTEE MEMBERS PRESENT:

John Kaddis, Los Angeles County Department of Public Health
Tim Hall, California Department of Resources Recycling and Recovery (CalRecycle) *
Patrick Holland, rep by Clark Ajwani, Los Angeles County Department of Public Works
Wayde Hunter, North Valley Coalition of Concerned Citizens
Ron Kent, Southern California Gas Company
Mark McDannel, Los Angeles County Sanitation District
Chris Coyle, rep by Dennis Montano, Republic Services – Sunshine Canyon Landfill
Ben Lucha, City of Palmdale
Kevin Mattson, Waste Management
Mike Mohajer, Los Angeles County Integrated Waste Management Task Force

SUBCOMMITTEE MEMBERS NOT PRESENT:

Rob Williams, UC Davis Policy Institute for Energy, Environment and the Economy
Alex Helou, City of Los Angeles
Kay Martin, Bioenergy Producers Association
Eugene Tseng, UCLA Solid Waste Program

OTHERS PRESENT:

Tracy Anthony, Alternative Resources, Inc. (ARI)
Elijah Carder, Los Angeles County Department of Public Works
Carol Oyola, Los Angeles County Department of Public Works
Margarita Quiroz, Los Angeles County Department of Public Works
Kawsar Vazifdar, Los Angeles County Department of Public Works
Bernard Fenner, Harvest Energy
Thomas Gratz, Hitachi Zosen INOVA
Larry Condon, Harvest Energy
Gary Aguinaga, Harvest Energy
Evan Wahl, Harvest Energy
Patrick Holland, Los Angeles County Department of Public Works

* Designates participants over the telephone

I. CALL TO ORDER

Mr. Ajwani called the meeting to order at 10:11 a.m.

II. APPROVAL OF MINUTES FROM NOVEMBER 15, 2018 MEETING

A motion to approve the minutes from the November 15, 2018 meeting, as amended on Item VII, was made by Mr. Mohajer and was seconded by Mr. Kaddis. The motion passed unanimously.

III. PRESENTATION FROM HARVEST ENERGY

Mr. Fenner presented for Harvest Energy (HE), a company that processes organic waste streams to produce clean energy, organic fertilizers, and soil supplements. Mr. Fenner showed a video of a HE facility in northern Italy. The facility accepts 50,000 tons per year of organic waste, mostly food waste with about 20 percent green waste. The facility produces electricity that is sold through a power purchase agreement and compost that is sold to local farmers for \$10 per ton.

Mr. Fenner stated that HE works with another company, Hitachi Zosen INOVA (HZI), and introduced Mr. Thomas Gratz of HZI to continue the presentation. HZI has 80 facilities worldwide with capacities ranging from 5,000 to 300,000 tons per year. Mr. Gratz stated that HZI developed a facility in San Luis Obispo, California that will use their Kompogas high-solids anaerobic digestion technology. Mr. Gratz added that HZI owns, operates, and financed the construction of the facility, which is currently finishing the commissioning stage. Mr. Gratz mentioned HZI received grants from CalRecycle and the California Energy Commission for \$4 million each. The facility also qualified for the investment tax credit of 30 percent because the project generates renewable electricity.

Mr. Kent asked about tipping fees at the facility in Italy. Mr. Fenner answered that the facility generates two-thirds of revenue from tipping fees and one-third of its revenue from selling energy, and that the business model aims for facilities to have a tipping fee of \$80 per ton.

Mr. Kent asked if the presence of heavy metals in compost produced from the organic fraction of municipal solid waste (MSW) is a concern. Mr. Fenner replied that facilities can dedicate separate digesters for source-separated organic waste and the organic fraction of MSW. If heavy metals are found when the finished compost is tested, the compost produced from source-separated organic waste could still be used for agriculture and the compost from the organic fraction of MSW could be used as alternative daily cover at landfills instead. Mr. Fenner added that there are operating plants that digest the organic fraction of MSW, and in Spain the compost is used for agricultural operations.

Mr. Kent asked about the biogas upgrading process. Mr. Fenner said that siloxanes are removed from the biogas with selective membrane or scrubbing technologies. The upgraded biogas is combusted in a gas engine for combined heat and power. Mr. Kent also asked about the percentage of parasitic energy. Mr. Fenner answered that the parasitic energy is 20 percent.

Mr. Hunter asked about the minimum size for a facility. Mr. Fenner answered that the smallest facility built was 5,000 tons per year, but that he recommends a minimum facility size of 20,000 tons per year to be economically feasible.

Mr. Mohajer asked if the Kompogas technology could process plastic or carpet since CalRecycle includes these materials in the definition of organic waste in Senate Bill 1383 (SB 1383). Mr. Fenner stated that the technology can take in these materials, but they will not break down in the digester and will need to be removed from the compost. Mr. Fenner continued that, unlike with traditional wet digestion, these contaminants will not clog the Kompogas digester.

Mr. Kent asked if HE is considering adding gasification or pyrolysis to process contaminants. Mr. Fenner responded that they are not due to the high cost of these technologies. Mr. Aguinaga added that the amount of contaminants is only 5 percent, so the contaminants are currently sent to landfills.

IV. UPDATE ON CONVERSION TECHNOLOGY POLICY AND LEGISLATION

Ms. Vazifdar stated that CalRecycle released the first formal draft of the SB 1383 regulations and that the comment period would begin on January 18, 2019. She added that on January 22, 2019, CalRecycle will host a public meeting for the Notice of Preparation for the Environmental Impact Report to analyze the impact of regulations. Ms. Vazifdar also reported that CalRecycle released a Standardized Regulatory Impact Assessment (SRIA) considering the statewide cost and benefits of SB 1383. She stated the SRIA estimated the cost to implement the regulations to be \$20.9 billion statewide from 2019 to 2030, with the cost for local jurisdictions to be \$400 million in 2022 and to decrease to \$96 million per year thereafter. Ms. Vazifdar stated that the SRIA estimated that eighty to ninety new organic waste recycling facilities will be needed statewide at an estimated cost of \$2 billion. Ms. Vazifdar commented that staff believes the capital infrastructure cost was underestimated in the SRIA because collecting green waste and food waste together will require additional new facilities to replace existing chipping and grinding operations currently processing green waste.

Mr. Mohajer commented that the deadline for comments on the formal draft regulations is March 4, 2019.

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

Ms. Vazifdar mentioned the upcoming conferences:

- VerdeXchange Conference, January 27 – 29, 2019, Los Angeles, CA
- US Composting Council Compost 2019, January 28 – 31, 2019, Phoenix, AZ
- Zero Waste Symposium, February 12, 2019, San Diego, CA
- Rethink Methane Symposium, February 26 – 27, 2019, Sacramento, CA
- Biomass Conference, March 18 – 20, 2019, Savannah, GA
- BioCycle West Coast Conference, April 1 – 4, 2019, Portland Oregon

Mr. Mohajer added Southern California Waste Management Spring Conference will be held on March 5, 2019, at Sempra Energy Center, in Downey, CA.

Mr. Ajwani stated that Public Works is putting together two waste-related panels for VerdeXchange, one on organic waste that Mr. Holland will participate in and one on solid waste conversion that Mr. Coby Skye will moderate.

VI. UPDATE ON CONVERSION TECHNOLOGY PROJECT DEVELOPMENT

- Ms. Anthony stated that ARI continues to assist the Sheriff's Department with an in-vessel composting project at the Pitchess Detention Center. She also mentioned that ARI is preparing conversion technology outreach and education materials. Finally, Ms. Anthony stated that ARI is reviewing and will provide a summary of the California Environmental Protection Agency Assembly Bill 1045 report that provides recommendations to expedite the development of organic waste infrastructure in California.

Mr. Ajwani asked the subcommittee members if anyone had any project development updates. Mr. Mattson responded Anaergia had a groundbreaking ceremony for their bioenergy facility in Rialto last month. Mr. Mattson reported that Waste Management (WM) has an agreement with Anaergia to send 300 tons of pre-processed organic waste per day to the facility. Mr. Ajwani asked if the organic waste would be processed at the WM facility in Sun Valley, and Mr. Mattson replied that this is correct. Mr. Ajwani asked when WM would start processing organic waste. Mr. Mattson responded that they are working on permitting and anticipate beginning organic waste processing when Anaergia is ready to accept the material.

VII. PUBLIC COMMENTS

No public comment.

VIII. ADJOURNMENT

The meeting adjourned at 11:00 a.m. The next ATAS meeting is tentatively scheduled for Thursday, February 21, 2019, at 10:00 a.m., in Conference Room A.

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