

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

Minutes for January 21, 2021

WEB CONFERENCE

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

SUBCOMMITTEE MEMBERS PRESENT:

Steve Cassulo, Waste Connections
Michelle Dewey, California Department of Resources Recycling and Recovery (CalRecycle)
Wayde Hunter, North Valley Coalition of Concerned Citizens, Inc.
Ron Kent, rep by Paul Ghougassian, Southern California Gas Company
Ben Lucha, City of Palmdale
Kay Martin, rep by James Stewart, Bioenergy Producers Association
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, UCLA Solid Waste Program
Carolyn Watson, rep by Dorcas Dee Daniel-Lugo, Los Angeles County Department of Public Health

SUBCOMMITTEE MEMBERS NOT PRESENT:

Chris Coyle, Republic Services, Inc. – Sunshine Canyon Landfill
Alex Helou, City of Los Angeles
Rob Williams, UC Davis Policy Institute for Energy, Environment and the Economy

OTHERS PRESENT:

Christine Arbogast, Tetra Tech
Will Chen, County Sanitation Districts of Los Angeles County
Jean-Louis Kindler, Ways2H
Nam Doan, Los Angeles County Public Works
Carol Oyola, Los Angeles County Public Works
Jeffrey Zhu, Los Angeles County Public Works

I. CALL TO ORDER

Mr. Christopher Sheppard called the meeting to order at 10:03 a.m.

II. APPROVAL OF DECEMBER 17, 2020 SUBCOMMITTEE MINUTES

A motion to approve the minutes from the December 17, 2020, meeting was made by Mr. Mike Mohajer and seconded by Mr. Eugene Tseng. The motion passed with one abstention.

III. PRESENTATION – WAYS2H

Mr. Jean-Louis Kindler, CEO of Ways2H, gave a presentation on the company's gasification technology that can process medical waste, plastics, and other solid waste into renewable hydrogen with a net zero carbon footprint. Ways2H has been working on this technology for 20 years. Mr. Kindler stated that it is a thermochemical process that converts food waste, biomass, wood, green waste, and plastics into hydrogen rich syngas, inert ash and flue gas. The system can be used to provide decentralized power, such as in California where wildfires shut down centralized power plants. Mr. Kindler stated that Europe is implementing several measures to build hydrogen fuel production and distribution infrastructure. Only about four percent of hydrogen is currently produced from renewable sources.

Mr. Ben Lucha asked if Ways2H can control when the energy is generated such as during high peak demand times when there is not enough renewable energy available. Mr. Kindler responded that they can choose to send the hydrogen gas to a compressor to feed vehicle fueling stations or stationary fuel cells that generate power. Adequate hydrogen storage provides control over power generation.

Mr. Wayde Hunter asked what the feedstock is, how clean it must be, and what is the facility footprint. Mr. Kindler responded the system can handle a variety of feedstocks, which should have a moisture content of approximately 15 to 20 percent. Mr. Kindler stated that the processing units are typically installed at a transfer station and have a footprint of about 60 x 60 square feet, depending on the quantity of waste that needs to be processed and how the waste is stored on site.

Mr. Eugene Tseng asked about the gasification process. Mr. Kindler responded that 100 percent of the feedstock is injected into the reactor and heated using heat carrier circulation. The heat carriers are heated separately so the feedstock is not combusted. The resulting carbon char is burned to produce heat for the heat carriers. Ways2H is currently developing a system at a wastewater treatment plant in Japan to extract hydrogen from sewage sludge and they are also building another system in California with plans to deploy in May or June of this year.

Mr. Sheppard asked if they have a potential site in California. Mr. Kindler responded that they are currently in discussions with a municipality to install the system at a transfer station.

Mr. Tseng asked what type of preprocessing is used to produce homogeneous materials. Mr. Kindler responded there is no preprocessing and the system is designed to handle variations in feedstock quantity. Mr. Tseng asked if there are any issues with tar production. Mr. Kindler answered that since their process is running at 700 degrees, there is very little tar production. Mr. Tseng asked if they are melting the ash and Mr. Kindler responded they are not.

Ms. Michelle Dewey asked which feedstocks will be processed at the systems in California. Mr. Kindler responded that they will process what is allowed by CalRecycle.

Mr. Tseng commented that California Assembly Bill 1126 requires engineered municipal solid waste (MSW) facilities to use preprocessing to reduce the ash content, reduce the moisture content, and remove chlorinated plastics in the feedstock. Mr. Kindler said Ways2H will make certain that their system will only handle allowable waste.

IV. UPDATE ON CONVERSION TECHNOLOGY POLICY AND LEGISLATION

Mr. Nam Doan provided the following update:

- At the CalRecycle public monthly meeting on January 19, 2021, CalRecycle provided an update on the new SB 1383 webpage and will continuously release new information and resources on the webpage.
- CalRecycle is hosting a free webinar on Public Funding Resources for Recycling Manufacturers on January 25, 2021, from 9 a.m. – 3 p.m. CalRecycle will also host a webinar on private funding resources on February 11, 2021. An invitation for registration will be going out to those on the CalRecycle listserv.
- CalRecycle released the procurement calculator tool for Counties and Cities. A webinar on the procurement tool will take place on February 9, 2021, from 2 p.m. – 3 p.m.
- CalRecycle will host Regional and Statewide webinars on SB 1383 Q&A beginning in February. Each regional webinar will be three hours, and will cover collection, procurement, and edible food recovery requirements. The webinar for the Los Angeles and Orange County region will take place on February 10, 2021, from 1 p.m. – 4 p.m. Attendees are not limited to only attending their region's webinar and may also attend others.
- CalRecycle did not provide an update on Assembly Bill 341, Mandatory Commercial Recycling, or Assembly Bill 1826, Mandatory Commercial Organics Recycling, and will provide an update at the next monthly meeting.
- On December 17, 2020, the California Public Utilities Commission approved SoCalGas and San Diego Gas & Electric's request to offer a voluntary Renewable Natural Gas Tariff. The tariff includes both biomethane from anaerobic digestion and from non-combustion thermal conversion of biomass, so that all organic waste feedstocks and biogas sources will be eligible. The Tariff will create a

three-year pilot program and then re-assess to decide whether to make the voluntary tariff permanent.

Mr. Sheppard commented that this Legislative Session will be focusing on many COVID-related relief bills and that there may be fewer opportunities for additional bills related to solid waste. However, because of the Statewide Commission on Recycling, there will be various efforts to promote solid waste policies.

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

Mr. Doan mentioned the following conferences that are also listed in the Conversion Technology (CT) Newsletter.

- CalRecycle Webinar on Public Funding Resources for Recycling Manufacturers - held virtually on January 25, 2021.
- Verde Xchange 2021 - held virtually on January 25 – 26, 2021.
- COMPOST 2021 – held virtually on January 26 – 27, 2021.
- Virtual WASTECON - held virtually on January 26 – 28, 2021.
- International Biomass Conference & Expo – held virtually on March 15 – 17, 2021.
- Zero Waste Symposium – held virtually on February 9, 2021.
- CalRecycle Webinar on the Procurement Tool – held virtually on February 9, 2021.
- CalRecycle Webinar on SB 1383 Q&A Regional and Statewide for the Los Angeles and Orange County Region – held virtually on February 10, 2021.
- CalRecycle Webinar on Private Funding Resources – held virtually on February 11, 2021.
- International Biomass Conference & Expo – held virtually on March 15 - 17, 2021.
- SoCal Waste Management Forum Spring Conference – held virtually on March 24, 2021.

VI. UPDATE ON CONVERSION TECHNOLOGY PROJECT DEVELOPMENT

Ms. Christine Arbogast of Tetra Tech provided the following update:

- A Fact Sheet comparing the progress of AD in the European Union versus the United States was completed and sent to Public Works staff, who is reviewing and finalizing the Fact Sheet for distribution to the Task Force.
- Tetra Tech has provided Public Works staff with a topographic map for a potential alternative technology site in response to a request from a developer.

Mr. Sheppard commented that Public Works staff completed the review of the anaerobic digestion (AD) Fact Sheet, and it was disseminated to the Task Force yesterday. Mr. Mohajer stated he had several questions that need to be discussed in a public forum, so Mr. Sheppard suggested it be added as an item on next ATAS Agenda. Mr. Mohajer agreed.

Mr. Kevin Mattson of Waste Management (WM) gave an update on their Hitachi Zosen project in Lancaster. WM received clarification from the Department of Regional Planning and Public Works on their Conditional Use Permit modification and WM will be working with their consultants to submit their application. Mr. Sheppard commented that perhaps WM can also give a presentation to the ATAS on that facility as well.

VII. PUBLIC COMMENTS

No comments.

VIII. ADJOURNMENT

The meeting adjourned at 10:53 a.m. The next ATAS meeting is tentatively scheduled remotely for Thursday, February 18, 2021, at 10 a.m.