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

Minutes for October 18, 2018

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, Los Angeles County Department of Public Works
Wayde Hunter, North Valley Coalition of Concerned Citizens
Ron Kent, Southern California Gas Company *
Dennis Montano, Republic Services – Sunshine Canyon Landfill
Ben Lucha, City of Palmdale
Mike Mohajer, Los Angeles County Integrated Waste Management Task Force
Sam Shammas, Los Angeles County Sanitation District
James Stewart, Bioenergy Producers Association

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
Kevin Mattson, Waste Management
Mark McDannel, Los Angeles County Sanitation District
Eugene Tseng, UCLA Solid Waste Program

OTHERS PRESENT:
Sue Higgins, Alternative Resources, Inc. *
Clark Ajwani, Los Angeles County Department of Public Works
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
Sonia Terry, Public Citizen

* Designates participants over the telephone

I. CALL TO ORDER

Mr. Holland called the meeting to order at 10:06 a.m. and reminded everybody of the Great California Shakeout scheduled at 10:18 a.m. requiring everyone to stop, drop, and hold on.

II. APPROVAL OF MINUTES FROM SEPTEMBER 20, 2018, MEETING

A motion to approve the minutes from the September 20, 2018, meeting was made by Mr. Mohajer and was seconded by Mr. Hunter. The motion passed with two abstentions.

III. PRESENTATION FROM RON KENT WITH SOUTHERN CALIFORNIA GAS, REGARDING THE CALIFORNIA COUNSEL ON SCIENCE AND TECHNOLOGIES PIPELINE BIOMETHANE REPORT

Mr. Ajwani introduced presenter, Mr. Kent of Southern California Gas, who called into the meeting. He also introduced Mr. Carder, Public Works staff, who would give the presentation detailing its elements, with Mr. Kent giving the recommendations from Southern California Gas. Mr. Ajwani also mentioned that staff reached out to Ms. Julia Levin of Bioenergy Association of California to provide background information and she will call into the Task Force meeting at 1:00 p.m. for the presentation.

Mr. Ajwani gave some background regarding this project, which started in 2012 with Assembly Bill 1900, requiring the California Public Utilities Commission (CPUC) to adopt standards for in-state pipeline biomethane and adopt policies to promote production. He added after the bill was passed, the CPUC established standards for heating value and siloxane concentrations and other constituents of natural gas that would actually discourage injecting biomethane into the pipeline. An incentive program was developed in 2015, but the incentives did not come close to the costs of pipeline injection. Mr. Ajwani stated in 2016, Senate Bill 840 (SB 840) requested CPUC to reassess the standards. Additionally, Assembly Bill 2323 passed and required an increase of incentives for pipeline and biomethane from $1.5M to $3M for interconnection costs. Lastly, Mr. Ajwani mentioned Senate Bill 1383 (SB 1383) requiring CPUC and other state agencies to increase instate production and use of biomethane.

Mr. Carder spoke about the details of the study and report by the California Council on Science & Technology (CCST) completed per the request of SB 840 (2016) and the two main biomethane standards; minimum heating value of gas and the maximum siloxane concentration. He stated the existing state and local policy require the CPUC and gas utilities ensure that natural gas delivery is reliable and safe to head and combustion.

At 10:18 a.m., the scheduled Great Southern California Shakeout earthquake drill occurred and all attendees at ATAS meeting participated by getting under their respective tables until the drill was over.

Mr. Carder continued with the presentation, stating CCST recommended CPUC to initiate the regulatory proceeding to examine the option of lowering the heating value to 970 BTU, as long as the biomethane satisfies all other current requirements.

Mr. Carder also explained that siloxane is a compound that makes silicon, which is used on the human body in products such as shampoo and conditioner. When it is combusted, it becomes silica particles and the silica deposits can damage equipment resulting in carbon monoxide emissions. The current siloxane specification for biomethane injection into the pipeline is so minute, it can be below reliable detection limits. Therefore, regulation measurement error could cause a project not to be approved for injecting biomethane into pipelines. Mr. Carder also stated the California measurement specifications is .1 milligrams of siloxane and in the CCST Review, they identified almost all manufactures of the equipment that utilizes the gas, their requirements for siloxane is 4 or higher. However, there is no available public data to support these requirements. CCST suggests further tests be done.

Mr. Carder also stated that the building of new anaerobic digestion (AD) facilities will be essential to comply with the Greenhouse Gases emissions reductions and SB 1383 organic waste disposal reduction regulations. Mr. Carder added that lowering the heating value should facilitate more AD development, but it may be limited if siloxane specifications are unchanged. Mr. Carder continued with public health and safety concerns in that the state is to work with CPUC and utilities to develop guidelines for blending biomethane with pipeline gas. Lastly, Mr. Carder spoke about the economic barriers in which an estimated $2 to $3 billion is needed to develop sufficient organic waste recycling infrastructure to meet SB 1383 targets.

Mr. Kent stated that Southern California Gas agreed with the report and with reducing the heating value of biogas to 970 BTU. They believe that the 0.1 milligrams of siloxane should not be changed, and they support further studies. Mr. Kent stated they were working actively to promote biogas from a variety of sources and support the development of new technology.

Mr. Mohajer asked if biomethane was obtained from another state, would Southern California Gas still use the standard that California uses. Mr. Kent answered that they make certain of the quality of gas that comes into the state, but do not attempt to monitor equipment that is out of state. He added there needs to be some kind of certification process of what is being put in to the pipeline. Mr. Mohajer said it was his understanding that if biomethane comes in from out of state, for instance Texas, they do not have to meet the same requirement as

California. Mr. Kent agreed that there is a variety of standards for different states and since this is a young field, it needs to be sorted out with uniform standards developed.

Mr. Stewart commented that when 970 BTU biogas is commingled with natural gas, it is not 970 anymore, but more like 980. He added that one of the major problems for producers is how can they meet the same standards when most of the equipment is not capable of measuring a standard that low. Mr. Stewart asked if they were going to acknowledge. Mr. Kent responded he did not think so. However, they support further research to address. Mr. Stewart also asked what Southern California's Gas' policy was for the commingling and injection of renewable hydrogen or hydrogen in natural gas pipelines. Mr. Kent responded the standard is zero or very close to zero and that they are actively engaged in doing research to create the possibility of accepting hydrogen and believe in the future they will be taking 5 percent or even 10 percent or more of hydrogen into the pipes. However, that needs to be further researched and they need to acquire approval. Mr. Kent mentioned their pipeline intensity study with the University of Illinois, where they simulated 100 years of 100 percent hydrogen impact on pipes that already had cracks. They also studied pipe propagation. Mr. Stewart also commented the Los Angeles Harbor's new program would require something in the area of 57 metric tons of hydrogen per day and how that would be met. Mr. Kent responded he did not know, and the question needed to be directed to them. Mr. Stewart asked if Southern California Gas would not be the focus of providing that. Mr. Kent said they might be but was not sure and that they would be engaged in that discussion.

Mr. Holland asked Mr. Carder if the economic barriers that needed to be expanded were the report's opinion or staff opinion. Mr. Carder responded it was Public Works staff opinion.

Mr. Mohajer summarized that using biomethane is one of the marketing tools that came out of SB 1383, which allows using composting or AD for managing organic waste. Mr. Mohajer stated this study has gone on for several years, since 2012. Now the Sanitation District may be impacted because of the possibility of recycling 500 tons per day of food waste through AD. Mr. Mohajer added the that these biomethane standards are creating an obstacle to implementing SB 1383 legislature and suggests sending a letter to CalRecycle and California Air Resources Board (CARB) discussing the impact on organics disposal reduction and getting them more involved in biomethane injection discussion. Mr. Mohajer made a motion for Task Force to send a letter to CalRecycle and CARB and copying the governor, discussing concerns including if California-generated biomethane has to meet certain requirements, those same requirements should be applicable to the biomethane coming from out of state for the purpose of injection. Also, to come up with a proposal to assist the use of biomethane for injection into the pipelines. Mr. Wayde seconded the motion. Motion passed with one abstention.

Mr. Stewart commented that the new legislation requiring all electricity to be produced from renewable sources from California is creating a massive demand and need for renewable natural gas that cannot be met unless we gasify and upgrade the two injection standards.

IV. UPDATE ON CONVERSTION TECHNOLOGY POLICY AND LEGISLATION

Mr. Ajwani stated Senate Bill 1440 was approved by the governor in September. The law requires the CPUC and CARB to consider adopting specific biomethane procurement targets and goals for each gas corporation.

Mr. Ajwani also stated Assembly Bill 3187 was approved by the governor in September. Existing law requires the CPUC to consider options to promote in-state production and distribution of biomethane, including whether to allow recovery in rates of cost of investments to procure and install interconnection infrastructure and insure investments provide direct benefit to rate payers. He added this bill would require the CPUC to open a proceeding to consider those options no later than July 1, 2019.

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

Mr. Ajwani mentioned the upcoming conferences:

- Resource Recycling Conference, October 22 – 24, St. Louis, MO
- US Biogas 2018, November 5 – 6, San Diego, CA
- Southern California Waste Management Forum Annual Conference, November 14, Pomona, CA

Mr. Ajwani stated that Environmental Programs Division staff will give a presentation on organics pilot collection at the Southern California Waste Management Forum Annual Conference. Mr. Mohajer added that the entire afternoon of the conference will be on SB 1383.

VI. UPDATE ON CONVERSION TECHNOLOGY PROJECT DEVELOPMENT

Ms. Higgins gave update follow up from last month where Alternative Resources, Inc. (ARI) continues to do some economic modeling on a potential project for Interior Removal Specialist, Inc. (IRS). Early results presented last month showed negative cashflow results for small scale facility processing construction and demolition waste. Ms. Higgins stated ARI is collaborating with Public Works staff on modeling biomass gasification to electricity. Ms. Higgins stated ARI will continue looking into the different sensitivities; including the index of grant funding, higher tipping fees, larger compacities, and the impact of electricity sales price.

Mr. Ajwani then asked Mr. Montano if he had an update on the composting project in Orange County that was mentioned at last month's meeting. Mr. Montano commented that part of the South Coast Air Quality Management District (SCAQMD) Abatement Order was for Republic Services to develop a strategy for the purpose of increasing diversion of food waste and organic material from disposal at Sunshine Canyon Landfill. He added one of the key strategies was to do covered aerated static piles (CASP) to compost 75 tons of organic waste at the Agromin Chino Composting Facility. Mr. Montano said the latest update was that the facility expanded employee training to the new system; and the testing needed for different mixture percentages of green waste and food waste to meet AQMD and CUP conditions. Mr. Montano stated that during the wrap-up period, the CASP performed as expected and since the launch at the end of 2017 there has been a total of 2,772 tons of organic material being delivered through the CASP system. However, Mr. Montano stated the system is not at full capacity.

VII. PUBLIC COMMENTS

Mr. Stewart had a general comment about the tremendous work being done in San Joaquin Valley for use of both pyrolysis and gasification in addressing the agricultural waste problem they have for cellulosic material. Mr. Stewart added they see this as an opportunity to introduce gasification and pyrolysis into the state and to demonstrate to legislature, CalRecycle, and others that this is a viable alternative for meeting the state's long-term needs. He added that the California Energy Commission is in the middle of a grant program and there are at least a half a dozen projects that filed for grants under this program that involves gasification or pyrolysis and stated he is working on a project now.

VIII. ADJOURNMENT

The meeting adjourned at 11:00 a.m. The next ATAS meeting is tentatively scheduled for Thursday, November 15, 2018, at 10:00 a.m., in Conference Room B.

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