

From: Juliette Bohn [<mailto:jbohn@HWMA.net>]
Sent: Wednesday, October 09, 2013 10:18 AM
To: Franco, Jacques
Subject: waste management sector implimentation plan

Hello Jacques,

I hope you are well. Please find attached my review of the Waste Management Sector Implementation Plan. Please note, the feedback expressed in this document is based on my experience and knowledge in this field, and does not necessarily reflect the views of HWMA.

I have numbered the responses to each task as they are numbered in the September 17, 2013 version of the document pulled from the CalRecycle website. I have added a couple of new tasks under the permitting section, as well as **highlighted** the tasks that I think should be prioritized.

I look forward to following up with you on the next steps associated with this process. It is really exciting to see that CalRecycle and CARB are working together to assess the mutual benefits that can be achieved through waste management planning.

Sincerely,

Juliette

Juliette Bohn
Project Manager
Energy and Waste Management
Humboldt Waste Management Authority
1059 W. Hawthorne St.
Eureka CA, 95501
(707) 268-8680

Waste Management Sector Implementation plan

Category:

1. Emission Reduction Factors

- 1.a. Include emissions from compost process as well as avoided landfill emissions.
- 1.b. Important to included avoided landfill emissions as well as project emissions.
- 1.c Do they mean emissions reduction factors achieved by re-manufacturing paint vs. making it from scratch?
- 1.d. Which landfills? Old ones that are not well-lined, or modern engineered landfills? Small, rural landfills or large landfills?
- 1.e. Will transportation to these markets be included? Also, sentence is confusing.

2. Permitting

- 2.a. This objective is the most important of this section.

2.b. OK

2.c. Please do not spend money on this. Permitting is often a face to face endeavor that varies by region and personality. Some web-based tools may be useful, but I would not allocate moneys towards this work. Finding a way for the permittee to address concerns with the decisions and understanding of permitting agencies would be far more useful.

2.d. What do you mean “facilitating permits”?

2.e. (Not included in Draft document) Work with permitting agencies to develop performance-based standards that address specific environmental health and safety concerns without unnecessarily raising the cost of developing new facilities by requiring prescriptive measures or unnecessary additional infrastructure. Establish a mechanism for a case by case evaluation that is flexible in the method used to meet certain environmental health and safety standards.

2.f. (Again not part of original document) Work with the Regional Water Quality Control Boards to assess barriers to the use of digested materials on farmlands – either in the composted form or as a direct land application.

3. Funding and Incentives for Infrastructure

3.a. What does this mean? Does this include funding for new projects?

3.b. We have feed-in tariffs in California. What is meant by this? The real issues with feeding electricity into the grid are: 1. Cost, hassle, and delay associated with interconnection, 2. The low, fixed rates paid for renewable electricity, and 3. The inability for producers to sell to buyers other than the utility (i.e., direct access agreements). The existing feed-in tariffs are non-negotiable, and are geared towards the utility’s benefit. ONE HUGE LAST ISSUE is that the utilities are not willing to purchase more renewable electricity beyond the quantity needed to meet RPS. Therefore, all generators cannot sell onto the grid – just those who come on first and make it into the 33% rps portfolio needs. Additionally, the more power the utility is able to generate with large wind farms or solar fields, the less power they will buy from outside sources. IF the market were more open, a generator could sell to say a university or a city knowing that they had a buyer who was willing to commit to a certain price over a certain term. In this scenario – the utility can still be paid to manage the grid, provide transmission services and storage / balancing out services.

3.c. Check.

3.d. Check.

3.e. What does “expanded sustainable financing” mean? What is meant by Determining which offset protocols are viable for the processes listed? The protocols are clearly named and geared towards specific processes – what’s there to determine? I.e., there is a composting and anaerobic digestion protocol. If there is not one for recycling, ask CAR to develop one, or why they did not? A better question would be to determine how the waste management plan implementation legislation will impact the viability of acquiring carbon offset credits through the existing project offset protocols.

- what are “re-manufacturing incentive payments”?

3.f. THIS SHOULD BE AT THE TOP OF THE LIST.

3.g. Yes, but the incentives should be tiered based on overall process GHG emissions reductions. AD and gasification of woody biomass are not equal.

3.h. Check

3.i. This seems to be a pointless exercise. Costs of interconnection vary by project size and location. Instead, I would do a review of those projects which have successfully interconnected,

what it cost them, how long it took, and then use this feedback to get CPUC to mandate that utilities develop a short application process, a tiered and publicly-available interconnection study rate sheet, and commit to a timeline for reviewing interconnection studies. Just knowing what the costs were at some biomass facilities does not tell you anything about what the costs will be at future facilities.

3.j. Again, pointless. The real issues are 1.) the utility's acceptance of treated LFG into the grid (liability associated with carcinogens (e.g. vinyl chloride) that may be present in gas and not destroyed due to a non-working pilot light etc.), 2.) RPS credit for said gas, and the issues associated with Texas sending gas through the pipeline to count for RPS, undercutting the local landfills ability to sell their gas as they are required to meet different environmental and safety standards (commerce clause issue that forced the CPUC to eliminate LFG in the pipelines from RPS).

3.k. Check – an outside analysis specific to bioenergy projects would be illuminating.

3.l. Interesting idea, check.

3.m. Good one, this is definitely needed. Who will do the evaluating?

4. Public Acceptance

4.a. Very important – this should start immediately.

4.b. Who are they talking about here? Public agencies? Waste management companies? Seems like a really vague goal. Any project developer worth his/her pay will look at the processing options available through a simple internet search. Perhaps the CalRecycle website can be a clearinghouse for information on the “next generation of organic waste processing facilities”. Link to EPA and NREL docs, etc.

4.c. Check

4.d. Again, very important – I'd prioritize this one below the first one (4.a.)

5. Markets/Quality of Products

5.a. Check

5.b. Pre-processing equipment already exists. I am not sure if the goal of this one is to bring the cost down, or to find a solution that meets every criteria. There will always be trade-offs with pre-processing equipment and the pre-processing approach will vary based on the waste stream. Is the goal to provide a review of the available pre-treatment options? Some systems such as Zero Waste Energy's don't require pre-processing, but remove contaminants via screening at the end. Glass will not be an easy thing to remove.

5.c. THIS ONE IS EASY (scientifically speaking) / IMPORTANT.

5.d. This is the largest bang for your buck Move to top of list. IMPORTANTLY: do not limit to large commercial generators. This will reduce the economic viability of developing processing capacity for the organic waste as well as increase costs throughout the system. That is, with only a subset of the generators participating, the costs of collection will be higher as they cannot be spread over a larger base, and the cost of processing will be higher as it will be spread over fewer tons. MANDATE THAT ALL COMMERCIAL ORGANIC WASTE GENERATORS PARTICIPATE. It is not more difficult for a small generator of organic waste to separate this material into a separate bin for collection than a large generator.

5.e. Check. Good one.

5.f. check.

5.g. This is really important for waste management in general. Global nature of the market could present some challenges, but California is a large state, and if we can work with other states and or the manufacturers directly, this could be a huge help to increase recycling.

5.h. Check, good one.

5.i. This is very vague. Sounds like this is part of 4.a.

5.j. Check.

5.k. Check.

5.l. Check.

5.m. Check.

6. Sustainability

6.a. Very important. Also important for gaining upstream GHG reductions from remanufacture using recycled materials, and GHG emissions from compost use.

6.b. Check. I would change to say “recyclability and recycling markets for packing materials”

6.c. Check.

6.d. Check.

7. Research

7.a. Check.

7.b. Check.

7.c. Seems vague – some AD systems are proprietary, processes are different and meant to be optimized for different substrates and different value-drivers... I would more clearly identify what aspects of these processes you want to identify best management practices for. For example – odor reduction and containment.

7.d. Check.

7.e. Check.

7.f. Check.

7.g. Check.

7.h. This one seems tricky to me... I have seen a lot of variation in measurement techniques, and many factors can corrupt the data. Such as weather, current LFG gas well tuning, unknown hot spots where gas is escaping (i.e. where you are measuring may not tell you what is happening over the whole space...). This one is necessary, but designing the study to produce meaningful results is going to be tricky.

7.i. Methane capture at landfills? There is a lot of existing work on the best and most novel ways to do this. Conversion to LNG is also well understood. I think this is not needed.

8. Cap and Trade

8.a. VERY IMPORTANT!!

8.b. Check.

8.c. Check.

8.d. Check.

9. Regulatory/statutory

9.a. VERY IMPORTANT!!!

9.b. OK.

9.c. VERY, VERY IMPORTANT!!!!

