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COMPOST COALITION

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Zero Waste Energy Development
Zero Waste Energy, LLC

January 17, 2017

Mary Nichols, Chair
California Air Resources Board
1001 "I" Street
Sacramento, CA 95814

Re: Comments on Short-Lived Climate Pollutant Strategy

Dear Ms. Nichols;

The California Compost Coalition (CCC) is a statewide organization representing operators of permitted facilities involved in the processing and composting of green and food waste materials throughout California. On behalf of these companies, we respectfully submit the following comments on November 2016 draft of the Short-Lived Climate Pollutant Strategy. CCC supported SB 1383 (Lara) with respect to urban organics and landfills, and will not comment on the diary or the forestry sectors. CCC looks forward to the joint implementation of SB 1383 by CARB and CalRecycle in the regulatory process to divert 50% of all organics by 2020 and 75% of all organics by 2025.

CCC shares the overall vision and strategy set forth in the November 2016 draft of the Short-Lived Climate Pollutant Plan and request that his plan be linked to the 2030 Target Scoping Plan Update. Both of these plans need to develop a sustained funding mechanism to develop the multi-billion dollar infrastructure to develop over 100 facilities and to foster the use of compost on our working lands with a focus on irrigated croplands.

Composting and anaerobic digestion form the cement that binds the Governor's Five Pillars together. Eliminating organics from the landfills will mitigate methane generation as a short-lived climate pollutant to implement SB 1383 (Pillar 4), and instead, create biomethane power at anaerobic digestion facilities to generate more renewable energy to achieve the goals of SB 350 (Pillar 2) and carbon negative fuel for the CNG fleet that collects the organics and implements the Low Carbon Fuel Standard (Pillar 1) to displace diesel. The diverted food waste and digestate can be composted to sequester carbon and be integral to healthy soils (Pillar 5). Organic power and compost use have been deemed the most cost-effective greenhouse gas (GHG) reduction strategy that bonds all Five Pillars together. The California Legislative Analyst's Office determined the cost of composting and anaerobic digestion to be at just $9/ton of GHG reduction while the overall average is $57/ton.

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CCC has the following comments:

- **Support regulations adopted in 2018 to be poised for 2022 implementation in tandem with CalRecycle's Waste Characterization Study and the Fourth Assessment of California Compost and Mulch-Producing Infrastructure for 2017.**
- **Need to recognize Compost and Anaerobic Digestion as a Cost-Effectiveness Measure**
- **Overcome Barriers with a more robust AB 1045 process**
- **Increase tip fee on Cheap Landfills to fund Infrastructure**
- **Include green waste ADC in the disposal tons**
- **'Chip and grind' is not a biomass market – Need bioenergy and market development**

Support regulations adopted in 2018 (pg. 9):
CCC looks forward to the joint implementation of SB 1383 by CARB and CalRecycle in the regulatory process to divert 50% of all organics by 2020 and 75% of all organics by 2025. CCC supports the development of regulations by the end of 2018, while CalRecycle should be preparing the 2018 Solid Waste Characterization Study and the Fourth Assessment of California Compost and Mulch-Producing Infrastructure for 2017. CalRecycle will need to benchmark the infrastructure and compost use to fully evaluate the budget for the required programs changes that will need to take effect in 2022, when the regulations would be implemented.

Need to recognize Compost and Anaerobic Digestion as a Cost-Effectiveness Measure (pg. 13):
Anaerobic digestion and compost have been deemed the most cost-effective greenhouse gas (GHG) reduction strategy that bonds all Five Pillars together. The California Legislative Analyst's Office determined the cost of composting and anaerobic digestion to be at just $9/ton of GHG reduction while the overall average is $57/ton

Overcome Barriers with a more robust AB 1045 process (pg. 29):
CCC has been active in the AB 1045 (Irwin, 2015) process where the industry looks forward to the outcome of permit streamlining and increasing compost use. This report should include the AB 1045 process where CARB can work with the local air districts to recognize baseline conditions for organic waste management practices such as landfilling when adopting their local regulations and issuing permits. Some local air districts are treating new covered aerated static pile compost facilities using the best available control technologies as a new source where the permitting and cost of off-sets would stop the development of the facility. When applying for air permits, baseline conditions need to be recognized where the net benefit of both greenhouse gas reductions and criteria pollutants can be demonstrated when diverting food waste from landfills to composting and/or anaerobic digestion facilities.

Increase tip fee on Cheap Landfills to fund Infrastructure (pg. 29, pg. 74-75)
Inexpensive and abundant landfill capacity does make diverting organic materials relatively costly in some cases as clearly stated on Page 29. CCC also agrees with the report that there needs to be incentives to develop these composting and anaerobic digestion facilities. CalRecycle and CARB should invest in raising the landfill tip fee to discourage landfilling and provide revenue to fund the development of this critical infrastructure.

CalRecycle has estimated that that the state support at least $100 million per year for five years. With estimates of $2 to $3 billion needed over the next 5 years, and another $2 to $3 billion to 2025 to implement the organic waste diversion goals of SB 1383, the state should project out at least 10 years, and raise the minimum amount to at least $300 million per year for 10 years. A $10 per ton surcharge on landfill could raise $300 million in revenue each year that could be allocated to infrastructure development.

Include green waste ADC in the disposal tons (Appendix F – page 19):
Organic waste characterization listed in Table 20 needs to include the 1.3 million tons of green waste that was used for alternative daily cover ADC) in calendar 2014. Even though diversion credit is achieved, green waste ADC is still a methane producing material and needs to be included in the tonnage model to determine the waste diversion pathways and methane emission amounts.

'Chip and grind' is not a biomass market – Need bioenergy and market development (Appendix F – page 19):

From 2004 to 2014, approximately 1.5 million tons of years of urban lumber went to 'chip and grind' facilities to produce a wood chip that had been used for the traditional biomass energy market. The energy contracts for these facilities are being curtailed, and those that remain are obligated to accept forest wastes, further displacing urban wood chips. Composting can accept limited new tons of lumber as their C:N mix of carbon and nitrogen is in place with the current feedstock delivering system of urban green waste with branches and stumps. There need to be new markets for urban wood chips.

Table 21 has million tons of lumber being 'chip & grind' which only makes a wood chip and is not a market. Community-scale biomass gasification has a role to accommodate a limited amount of wood chips where each mega-watt can use about 10,000 tons per year of material. There will need to be 100 MW, or 50 community-scale biomass gasification facilities at 2 MW each, to accommodate 1 million tons of urban wood waste, with a costs of $6 million per 1 MW, or about $600 million in capital costs over the next 4 years. Table 21 needs to be revised to include biomass gasification to manage lumber and remove 'chip & grind' as that only makes a feedstock and is not a market.

Should you have any questions, please contact me at (916) 739-1200.

Sincerely,

Evan W.R. Edgar

Regulatory Affairs Engineer