

US EPA ARCHIVE DOCUMENT



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The ClimateTrust



AIR POLLUTION CONTROL DISTRICT



Lessons Learned – 2012 BAP

- Need to Increase Focus on Wastewater and Solid Waste Sectors
- Need to Increase Focus on Potential for Low Carbon Fuels from Organic Waste
- Need to Identify Cross-Sector Opportunities
- Need to Increase Focus on Financing



Waste Sector Opportunities

- CA landfills 37 million tons/year
 - Including 16 million tons of organic material that could be used to produce bioenergy
- Reaching 75% diversion goal = cutting additional 22 million tons of landfill disposal / year
 - Would cut ghg emissions by 20-30 million metric tons CO₂e, not including fossil fuel displacement



Wastewater Treatment Plants

- 557 WWTP's in CA = 4th largest emitter of methane and 3rd largest emitter of nitrous oxides
- 42 large WWTP's have anaerobic digestion facilities, but don't beneficially use the biogas
- 97 WWTP's have no anaerobic digestion onsite
- CEC estimates that WWTP's could produce an additional 95 MW with existing capacity and 450 MW on with other uses



No-Carbon Fuels

- CA could generate an additional 5,000 MW of electricity from organic waste OR
- Produce **1.67 billion gallons** of low- and no-carbon fuels
- Transportation fuels from wastewater treatment gas and diverted organic waste are **carbon negative**
- Fuel from WWT gas is -65.3 grams CO₂e/MJ
- Fuel from diverted organic waste is -15 grams CO₂e/MJ



Cross Sector Challenges

- Wastewater sector is not capped and has no offset protocols under AB 32
- Solid waste sector isn't in the transportation fuel business and there are cheaper ways to divert landfill waste
- Air quality rules are leading to more biogas flaring
- Current incentives and regulations are not coordinated across sectors



Financing Across Sectors

- Current programs need increased focus on bioenergy
 - AB 118 (transportation fuels)
 - EPIC (clean electricity funding)
 - Carbon offset protocols
- Need \$2-3 billion in additional infrastructure financing to capture bioenergy potential of organic waste
- Cap & Trade revenues, state purchasing requirement, guaranteed carbon value, green infrastructure bank



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