



September 2014

Sustainable Organics Recycling

The Power of Organics – Carbon Negative RNG

The true **Power of Organics** lies in the conversion of food waste and green waste into compressed renewable natural gas (RNG). At the last CARB workshop on Technology Assessment, staff failed to include RNG fuel, and instead are promoting electrification of heavy-duty truck fleets by 2024 because of key observations of the lack of biofuel supply and new transmission leakage rates. However, a 25,000-ton-per-year Anaerobic Digestion-to-Renewable Compressed Natural Gas (AD to RNG) project can be designed without a pipeline and the associated leakage, as a community-scale model and can serve a population of approximately 100,000 people as a distributed energy supply. This model can collect commercial food waste from all accounts and achieve a zero-waste goal while deploying a carbon negative fleet. The co-location of this type of AD to RNG facility where the fleet is parked is a natural fit by having RNG fuel demand on-site, producing 328,000 diesel gallon equivalents per year of RNG with a carbon intensity of negative 15 g CO₂e/MJ for a fleet of 35 heavy-duty trucks.

The U.S. Department of Agriculture released the “*Biogas Opportunities Roadmap*” which details how an additional 11,000 AD plants could create significant greenhouse gas emissions reductions by using waste-derived biogas to produce transportation fuel. Energy Vision, a national non-profit organization, released “*Turning Waste into Vehicle Fuel: Renewable Natural Gas (RNG) – A Step-By-Step Guide for Communities*”, a resource to help local leaders assess their waste conversion to RNG opportunities, working with both public and private fleets.

California Energy Commission prepared a *Technology Assessment* in 2014 that states that today’s potential supply of biomass resources could produce 2.2 billion gallons per

year of fuel where 24.7 billion gallons is projected to be used in 2014. Of the 2.2 billion gallons, UC Davis determined that 113 million gallons per year could be derived from food waste. The solid waste and recycling industry of 15,000 heavy-duty fleet uses about 150 million gallons per year of fuel. The Edgar Institute has projected that 80% of the industry’s heavy-duty fleet will be CNG by 2020, where 12,000 vehicles will be able to substitute 120 million gallons of diesel fuel with an equivalent amount of RNG.

CARB staff discounts the CNG/RNG fueling infrastructure while favoring electrification.

Surprisingly, CARB held a workshop, “*Transportation Fuels – Technology Assessment*” pushing to electrify the heavy-duty sector by 2024. Their key observation is that the biofuel supply is not expected to accommodate the long-term fuel demand across heavy-duty sectors. In a parallel move to significantly increase the carbon intensity of CNG due

to transmission leakage, CARB showed that the wells-to-wheels greenhouse gas emissions for electric vehicles are much lower than CNG. However, RNG’s CARB-verified carbon negative fuel finding was not included in the analysis. CARB staff discounts the CNG/RNG fueling infrastructure due to energy density and pipeline issues while favoring electrification for the heavy-duty sectors.

The solid waste and recycling collection industry has been in the process of a multi-billion dollar transition from diesel to CNG with a brighter future by making our own RNG from food waste to fuel a carbon negative fleet. The CARB Technology Assessment evaluation needs to fully understand this as the electrification of our fleet by 2024 to lower the carbon intensity by only 50% to 60% below diesel is a far cry from the verified carbon negative fleet using RNG. CARB must be pushed to use carbon negative RNG fuel and fully understand the **Power of Organics**.

Legislative Update

AB 1594 (Williams) – would eliminate the solid waste diversion credit for green waste used as Alternative Daily Cover (ADC) at a solid waste landfill. CalRecycle regulations (Title 14) contain an approved list of ADC materials, which includes processed green material. Jurisdictions currently receive landfill diversion credit for the use of green materials as ADC, which is a major barrier to compost facility development, due to its low cost and reduction of available feedstock supply.

AB 1594 passed off of the Senate and Assembly Floors at the end of session with minor amendments and has been enrolled to the Governor. Remaining local government amendments, exempting ADC green materials from the mandatory \$1.40 disposal fee surcharge, remained after they were added in Assembly Appropriations. CalRecycle policymakers have signaled that they may ask for a Governor's veto, as the disposal fee exemption creates bad precedent and policy at a time when they are looking to revamp the current Integrated Waste Management Account fee structure.

AB 1826 (Chesbro) – would establish a mandatory commercial organic waste diversion program, requiring businesses that generate a specified quantity of organic waste to arrange for recycling services. CCC has maintained a *Support, if amended* position in an effort to reduce current bill language thresholds for program enrollment

The CalRecycle compost grant applications submitted on July 1, 2014 are still being evaluated and scored by a CalRecycle review panel, based on the approved Organics Grant Program Scoring Criteria. Due to the extensive and thorough review needed for each of the 51 applications totaling \$118 million in requests, CalRecycle anticipates announcing the \$15 million of awards in October 2014 instead of September 2014, as the program is oversubscribed in the first year. With the transportation sector being brought into "cap and trade" starting January 1, 2015, the amount of revenue for cap and trade could triple, amounting to more CalRecycle grant money in next year's Governor's budget which is due in early January 2015.

– currently 8 cubic yards of organic waste in 2016, and 4 cubic yards in 2017, with a final goal of 1 cubic yard in 2019.

AB 1826 is on the Governor's desk awaiting his signature. On August 11, the bill moved off the Senate Floor and returned to the Assembly, where Senate amendments were concurred with and the bill was enrolled to the Governor on August 14.

SB 498 (Lara) – would revise the definition of the term "biomass conversion" to mean the production of heat, fuels, or electricity by the controlled combustion of, or the use of other noncombustion thermal technologies on, specified biomass materials. SB 498 passed off of the Senate and Assembly Floors at the end of session with minor, clarifying amendments and has been enrolled to the Governor.

SB 270 (Padilla) – would eliminate the distribution of single-use plastic bags at grocery stores and other retail establishments over the next two years. It also establishes requirements for reusable bags and prohibits stores from distributing reusable bags and recycled paper bags for less than \$0.10 per bag. While the bill grandfathers in ordinances that have been approved prior to September 1, 2014, it establishes a statewide standard for all other jurisdictions. SB 270 passed off of the Senate and Assembly Floors at the end of session amid heavy lobbying and intense debate, and has been enrolled to the Governor.

Bill Watch

[AB 1594 \(Williams\)](#)

TOPIC: Solid waste: recycling; diversion: green material. ADC

STATUS: 8/28/14 – Senate amendments concurred in.

LOCATION: Enrolled to Governor on Sept. 4.

CALENDAR: Sept. 30: Last day for Governor to sign or veto bills passed by the Legislature before Sept. 1 and in the Governor's possession on or after Sept. 1.

CO-SPONSORS: CCC/CAW

> **SUPPORT**

[AB 1826 \(Chesbro\)](#)

TOPIC: Solid waste: organic waste

STATUS: 8/14/14 – Senate amendments concurred in.

LOCATION: Enrolled to Governor on August 21.

CALENDAR: Sept. 30: Last day for Governor to sign or veto bills passed by the Legislature before Sept. 1 and in the Governor's possession on or after Sept. 1.

> **SUPPORT, if amended**

[SB 498 \(Lara\)](#)

TOPIC: Solid waste: biomass conversion.

STATUS: 8/20/14 – Assembly amendments concurred in.

LOCATION: Enrolled to Governor on August 25.

CALENDAR: Sept. 30: Last day for Governor to sign or veto bills passed by the Legislature before Sept. 1 and in the Governor's possession on or after Sept. 1.

> **WATCH**

Newly Adopted 2014 Industrial General Permit For Stormwater Dischargers

The rainy season is just around the corner and composters, et al should begin preparations by clearing drains and drainage channels of obstructions or debris, assure working pads are properly graded to prevent ponding, and review and communicate sampling procedures and parameters with responsible staff and your laboratory, to assure proper testing is conducted. This would also be an opportune time to start preparing for next year by finding appropriate training sessions and, perhaps, a qualified consultant to help review and revise your current program. **A completely new stormwater permit program is in your immediate future.**

On April 1, 2014, after years of delay, the California State Water Resource Control Board adopted the NPDES General Permit for Storm Water Dischargers Associated with Industrial Activities, NPDES No. CAS000001 to replace the current Industrial General Permit (IGP) instituted in 1997. The 2014 IGP will significantly increase the number of industries affected while imposing new and increased compliance requirements. The 2014 IGP implementation date is **July 1, 2015**, with specific documents to be uploaded to the state water board's Storm Water Multiple Application and Report Tracking System (SMARTS), making all reports readily available to the public.

Changes to the Industrial General Permit

Multiple changes have been made to the new IGP that will require your full attention: mandatory best management practices (BMPs); increased monitoring and sampling requirements; mandatory electronic reporting; required training for onsite staff and consultants; and a host of other measures that can have a

bearing on the ability of a facility to comply in a cost-effective manner. All currently compliant facilities are classified as "baseline" and subject to reduced requirements; minor violations and non-compliance can quickly escalate a site into Level 1 and on to Level 2, both with much higher bars for compliance.

BMPs: The 2014 IGP requires the implementation of numerous "minimum BMPs", including: good housekeeping requirements; preventative maintenance; material handling and waste management; erosion and sediment controls; and employee training programs. Additional "advanced BMPs", including exposure minimization, storm water containment, discharge reduction, and treatment control BMPs, must also be implemented as necessary to reduce or prevent pollutant discharge.

Monitoring and Sampling: The 2014 IGP has now combined two previous requirements into one new visual observation that is conducted at least once per calendar month during daylight hours of scheduled facility operating hours, and on days without precipitation. Additionally, sampling protocols under the 2014 IGP have been modified to increase the frequency of collecting and analyzing storm water samples.

Electronic Reporting: The discharger shall submit all plans, reports, and sampling and analytical results via SMARTS within 30 days of obtaining all results for each sampling event.

Required Training for Onsite Staff and/or Consultants: Level 1 and 2 dischargers will be required to retain staff or consultants who pass through Qualified Industrial Stormwater Practitioner (QISP) training to complete mandatory reporting and compliance activities.

TITLE 14/27

TOPIC: Revision to Compostable Materials & Transfer/Processing Regulations

CalRecycle is updating regulations to address a broad list of topics, mainly related to the expanding diversion of organic materials from landfills. Addition of new language regarding anaerobic digestion, and feedstock definitions, odors, permitting tiers, etc. at composting facilities. Allowable contamination in compost and mulch products remains the largest remaining unresolved issue.

STATUS: Final draft regulations have been published in October 2013. Economic analysis is underway.

Final informal meeting prior to formal rulemaking scheduled for September 25.

WASTE DISCHARGE REQUIREMENTS

Formal rulemaking has begun by the State Water Resources Control Board (SWRCB) to implement statewide Waste Discharge Requirements (WDRs) for composting facilities.

SWRCB intends to adopt a general order that would assist their regional boards in the regulation of composting facilities, which they have deemed a substantial threat to water quality.

STATUS: Final draft regulations have been published in August 2013. Economic analysis has been completed. The EIR process is underway, with release of a DEIR and General Order expected in Fall 2014.

CFDA RENDERING REGULATIONS

TOPIC: Clarification/revision of Agriculture Code regarding meat scraps collection by solid waste haulers

STATUS: Letter of petition to CFDA by Solid Waste Industry Group-led coalition

LOCATION: California Department of Food and Agriculture – Animal Health and Food Safety Services

CALENDAR: TBD

Clover Flat Approved As Energy Park

The California Compost Coalition (CCC) is a registered Lobbying Coalition with the Fair Political Practices Commission (FPPC), created in 2002 by a group of compost operators in response to demands for increased recycling of organic materials and production of clean compost and bioenergy.

The California Compost Coalition represents member organic material recyclers and compost operators with a unified statewide voice on many issues: product safety and standards, government regulations, environmental planning, and marketing.

Members

Agromin
Caglia Environmental
California Wood Recycling
Cold Canyon Compost
Mt. Diablo Recycling
Napa Recycling Compost
Northern Recycling Compost
Organic Waste Solutions
Phoenix Energy
Quackenbush Mt. Compost
Rainbow Environmental Services
Sonoma Compost
Tracy Delta Compost
Upper Valley Recycling
Zanker Road Resource Management
Z-Best Compost Facility

Executive Committee

Bill Camarillo
Agromin
Greg Kelley
Northern Recycling Compost
Will Bakx
Sonoma Compost
Christy Pestoni Abreu
Upper Valley Recycling
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www.californiacompostcoalition.org

It took five years to transform the Clover Flat Landfill into the 1.8 mega-watt Clover Flat Resource Recovery Park, with anticipation to turning the landfill into a recycling, compost and energy facility to comply with the passage of AB 32 and AB 341.

Upper Valley Recycling, a sister company of Clover Flat, owned and operated by CCC member, Bob Pestoni, will be increasing the food waste compost capacity in anticipation that CARB will initiate the elimination of organics from landfills starting in 2016, regardless of AB 1826 (Chesbro). The Use Permit and the mitigated Negative Declaration was adopted in December 2011 by the County Planning Commission. The Solid Waste Facility Permit Revision was approved by CalRecycle on July 21, 2014. The following AB 32 Recycling Plan has been incorporated into the new SWFP permit.



- Increase in-vessel commercial food waste composting operations to 8,000 tons per year.
- Add covered residential co-collected green waste and food waste composting
- Add a 1 mega-watt biomass conversion facility that uses clean processed wood chips in a gasification unit.
- Add a 0.8 mega-watt Jenbacher engine to convert landfill gas into energy.
- Add dry commercial waste processing at the on-site C&D MRF.

Upper Valley Recycling is shovel-ready for food waste composting starting now and has applied for a CalRecycle grant to buy the compost vessels. With over 51 projects asking for \$118 million in grant funding, where only \$15 million is available, it may take an act of God to get this project funded. **Shazam!**

Napa Recycling Crushes 6.0 Earthquake

The strongest earthquake in 25 years in Northern California struck on August 24, 2014, injuring dozens of people, damaging historic buildings in downtown Napa and turning fireplaces into rubble. The 6.0-magnitude quake struck just six miles southwest of Napa, near the home of Napa Recycling Compost. While the rest of Napa was cleaning up after Sunday's earthquake, dumping piles of broken dishes and glasses into garbage cans, the employees of Napa Recycling were mobilizing to receive the product of the disaster, as reported by the Napa Valley Register.

Tim Dewey-Mattia, recycling and public education manager at the company, said the first thing Napa Recycling did was send 30-yard debris boxes out to grocery stores such as Safeway, Lucky, and Browns Valley Market, noting those grocers were

"ground zero" in terms of destroyed food and perishable items.

Next, Napa Recycling started setting up public drop-off sites at schools and other areas for locals to leave earthquake debris. And did they ever. "It's been really busy," Dewey-Mattia said. He estimated that by Thursday morning, Napa Recycling had collected 1,300 tons of earthquake debris. That's 2.6 million pounds — "about four times the normal amount of garbage we service in a four-day time period." With Governor Brown declaring a state emergency, the solid waste facility permits in Napa have been able to accommodate the increase in tonnage with a focus on services and recycling by crushing the inert debris and harvesting the inordinate amount of e-waste and mattresses.