



## The State of the Biomass

**The State of the Compost is healthy...**even as the five year regulatory maze process of both the State Water Board and CalRecycle comes to an end this year, with compost pads and plastic pond liners – coupled with contamination rates and food waste diversion dates – collide.

**The State of the Recycling needs a bale out and domestic market development...**after the port strike drove down commodity prices and increased storage costs. The State achieved a 50% statewide recycling rate, a 66% diversion rate, and exported nearly 18.6 million tons by sea to foreign markets, exposing our vulnerability to market fluctuations once again.

**The State of the Landfill is down in the dumps...**on the road to zero waste, having lost almost 30% during the recession, even with the recent uptick in disposal tonnages for the first time since 2005. CalRecycle will be hosting a workshop on March 17, 2015 highlighting recent reports.

**The State of the Biomass is shaky...**being abandoned as wind soared, solar beamed, and biogas emerged on the Renewable Portfolio Standard (RPS) stage. California is on track to meet the 33% RPS by 2020 with solar taking over as the new base load, and the Governor setting a goal of 50% RPS by 2030 in his State of the State speech. The biomass market has been relatively stable since 1998, with 33 plants averaging 600 megawatts (MW) of operating capacity, utilizing 5 million tons of wood chips from the urban, agricultural, and forest sectors. In 2014, five plants shut their doors, totaling 85 MW. With expiring power purchase agreements, another ten plants representing 276 MW and approximately three million tons in wood chips, including one million tons of urban sector wood chips, could close by 2020. Pricing that once averaged \$30 per bone dry ton will dip. The big biomass industry is once again heading off the cliff reminiscent of the mid-1990s when the Standard Offer No. 4 contracts, with high fixed energy prices, expired.

*When the chips are down... think gasification.*

New CCC member Chris Trott of CT Bioenergy Consulting (see page 4) was around back then and will try to keep us in the driver's seat with on-site and alternative options. Bright spots are emerging in the under 3 MW category.

The Governor's Clean Energy Jobs Plan and the Bioenergy Action Plan of 2012 set out to increase renewable energy capacity by 20,000 MW by 2020 including 12,000 MW of distributed generation and 8,000 MW of new large-scale plants. Bioenergy has the potential to provide 2,000 MW to 5,000 MW of this power, utilizing between 16 million to 40 million tons per year of biomass, when there approximately 36 million tons is technically available. After food waste,

lumber represents the next largest disposal amount with about four million tons per year still be buried in 2013 and two million tons needing to be diverted by 2020 where bioenergy should be the answer.

Large-scale biomass energy has been passed over by the \$1 billion cap-and-trade budget and left behind in the California Energy Commission \$120 million per year EPIC funding. AB 590 (Dahle) proposes to create the Biomass State Cost Share Account using cap-and-trade dollars to maintain the current level of biomass power and revitalize idle facilities in strategically located regions. The urban sector could be losing over one million tons of wood chips per year in biomass capacity while needing to ramp up to add two million per year diverted from the landfills by 2020, justifying large-scale biomass plants needing to be preserved.

When the chips are down...think gasification. Biomass conversion using gasification technologies is now defined in SB 498 where SB 1122 could bring on over 100 MW of bioenergy from 1.2 million tons wood chips at a start price of 12.77 cents per kilo-watt-hour (see page 3). Using your wood chips on-site for power and heat would save the uncertainty of the long haul and the shaky pricing.

## Governor's Vision Aligns with CCC

*"I propose ambitious goals to be accomplished within the next 15 years:*

*"Increase from one-third to 50 percent our electricity derived from renewable sources; Reduce today's petroleum use in cars and trucks by up to 50 percent...*

*"We must also reduce the relentless release of methane, black carbon and other potent pollutants across industries. And we must manage farm and rangelands, forests and wetlands so they can store carbon. All of this is a very tall order. It means that we continue to transform our electrical grid, our transportation system and even our communities."*

### Governor Brown - Inaugural Address - January 5, 2015

In an extraordinarily blunt declaration of his power, Gov. Gray Davis said in 1999 that it is the job of the Legislature "to implement my vision". Governor Davis was later re-called and Governor Schwarzenegger went on to sign AB 32. Governor Brown and the Legislature have the same vision when it comes to AB 32. Senate Pro-Tem Kevin De Leon, with many fellow legislators, introduced a package of bills. His SB 350 creates the Clean Energy and Pollution Reduction Act of 2015 by increasing the RPS by 30% by 2050, which will increase bioenergy generation.

Assemblymember Dahle tagged on with AB 590 to create the Biomass State Cost Share Account within the Greenhouse Gas Reduction Fund for the purposes of maintaining the current level of biomass power generation in the state and revitalizing currently idle facilities in strategically located regions, just as it was announced that there is a lot more money to be had. The Legislative Analyst Office released a review of cap-and-trade revenue and determined that the budgeted amount of \$1 billion could increase to an amount between \$2 billion and \$4 billion this year. The report says that the extra money could fund projects and programs already receiving funding and could be beneficial in part because "agencies already have experience developing and administering these programs and, thus, there may be

relatively little additional work needed to administer increased funding".

AB 119 (Eggman) is back this year where a sales and tax exclusion is proposed for projects that use process recycled feedstock, such as compost processing equipment, to provide financial incentives to purchase new equipment that could be electrified to further reduce GHG emissions.

There are four bills that would sequester compost and biochar to improve the health of California soils. Assembly Member Levine has witnessed the vast benefits of using compost on rangelands with empirical data monitored by UC Berkeley scientists for the break-out Marin Carbon Project. AB 761 (Levine) would take this concept statewide by deploying \$50 million in grants to fund projects that increase carbon sequestration in agricultural soils, improve water soil retention, and increase the resilience of working lands to climate change and drought.

AB 1247 (Irwin) promotes organic input materials for the production of food and fiber be funded, all or in part, by the Greenhouse Gas Reduction Fund which could also explicitly exclude sales tax on compost agricultural use. SB 367 (Wolk) would promote Carbon Projects by storing compost and biochar in the agricultural lands. This bill would enhance the long-term viability of California agriculture by supporting activities which reduce global warming impacts that may negatively impact it and the rest of the state and support California agriculture in pursuing reductions in greenhouse gas emissions and increased carbon storage in agricultural soils and woody vegetation. SB 367 (Allen) would require the environmental farming program, in addition to incentives, to provide low-interest loans, technical assistance, educational materials and outreach.

These bills are the centerpiece of our **Healthy Soils Campaign** the California Compost Coalition focused on late last year. **2015 is the International Year of Soils** and this is our year.

### [AB199 \(Eggman\)](#)

TOPIC: Sales and tax exclusion for projects that use process recycled feedstock such as compost processing equipment.

STATUS: Referred to Assembly Natural Resources.

**SUPPORT** – Feb. 12, 2015 CCC Executive Committee

### [AB 590 \(Dahle\)](#)

TOPIC: Create the Biomass State Cost Share Account within the Greenhouse Gas Reduction Fund for the purposes of maintaining the current level of biomass power generation in the state and revitalizing currently idle facilities in strategically located regions.

STATUS: May be heard in committee on or after March 27, 2015.

**WATCH** – March 12, 2015 CCC Action Item

### [AB 761 \(Levine\)](#)

TOPIC: Carbon Farming for \$50 million.

STATUS: May be heard in committee on or after March 28, 2015.

**WATCH** – March 12, 2015 CCC Action Item

### [AB 1247 \(Irwin\)](#)

TOPIC: Promotion of organic input materials for the production of food and fiber be funded, all or in part, by the Greenhouse Gas Reduction Fund.

STATUS: May be heard in committee on or after March 27, 2015.

**WATCH** – March 12, 2015 CCC Action Item

### [SB 350 \(De Leon\)](#)

TOPIC: Creates the Clean Energy and Pollution Reduction Act of 2015 by increasing the RPS by 30% by 2050, which will increase bioenergy generation.

STATUS: May be heard in committee on or after March 27, 2015.

**WATCH** – March 12, 2015 CCC Action Item

### [SB 367 \(Wolk\)](#)

TOPIC: Environmental farming program for greenhouse gases to promote Carbon Projects.

STATUS: May be heard in committee on or after March 27, 2015.

**WATCH** – March 12, 2015 CCC Action Item



### PUC Powers Up Bioenergy at 12.77 cents/kwh

On December 18, 2014, the California Public Utility Commission (PUC) ordered instituting rulemaking on the implementation of the Renewable Portfolio Standard (RPS) program. The PUC ruled that urban biomass going to gasification plants producing bioenergy qualify for SB 1122 (Rubio, 2012) funding with the initial bid pricing starting at 12.77 cents per kilo-watt-hour.

This was a huge win for distributed bioenergy projects within the boundaries of the major California utilities. CCC members have eight biomass plants under 3 MW entitled with another five in the entitlement process. A \$5 million CEC grant was just awarded to the North Fork gasification plant using forest waste.

SB 1122 required an incremental

250 mega-watt (MW) of renewable Feed-in Tariff procurement from small-scale bioenergy projects of under 3 MW in the urban, ag, and forest sectors. SB 1122 requires that each of California's three large investor owned utilities (PG&E, SCE, and SDG&E) procure a share of the statute's 250 MW requirement among the following three categories: (i) 110 MW from biogas from urban stream - wastewater treatment, municipal organic waste diversion, food processing, co-digestion, including biomass gasification. (ii) 90 MW from dairy and other agricultural bioenergy, and (iii) 50 MW from bioenergy using byproducts of sustainable forest management. A minimum of 80% of fuel must come from the selected category.

### Gasification is the New Biomass Conversion

Small-scale biomass "gasification" development has been underway for over 7 years in California dodging the draconian zero-emissions definitions that has been Plascoing the solid waste industry since 2002. Instead, distributed on-site renewable energy generation using biomass has been treated as "biomass conversion" by administrative fiat. It took SB 498 (Lara, 2014) with the County of Los Angeles backing to finally place gasification into definitive state law within Public Resources Code 40106 (a). "Biomass conversion" means the production of heat, fuels, or electricity by non-combustion thermal conversion technologies, such as gasification, using specific biomass feedstocks.

Biomass conversion allows the facility to be California RPS eligible and count towards 100% landfill diversion. Biomass conversion facilities are not required to obtain a solid waste facility permit from the local health department or the State, but may be inspected by the LEA for feedstock compliance.

The biomass conversion facility operator, in an annual report to the state, shall identify where the wood chips are received from. SB 498 regulations are not being proposed in the 2015 CalRecycle Rulemaking Calendar since the statute is clear.

#### Biochar GHG Protocol

Placer County Air Pollution Control District is sponsoring the development of a Biochar GHG Quantification protocol. The protocol is being moved ahead in parallel with the American Climate Registry Methodology for Biochar Projects. The County Air Pollution Control officers GHGRx Program is posted at <http://www.ghgrx.org/>. Once the protocol is adopted, Air Districts that are participating in the GHGRx Program will be responsible for certifying verifiers for projects in their jurisdictions. With CARB taking on black carbon from forest fires in 2015, the value of the off-sets can only increase with the use of biochar.



#### 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.

STATUS: Over 100 comments received have been summarized and will be responded to as part of the formal process. CalRecycle held a workshop to discuss the comments and potential revisions on March 3, 2015.

#### Waste Discharge Requirements for Composting Facilities – Regulatory Update

TOPIC: The State Water Resources Control Board (SWRCB) is continuing efforts to establish statewide regulations for composting facilities. The SWRCB officially released a Draft Environmental Impact Report (DEIR), including an economic analysis, on January 13, 2015. A public workshop was held on Friday, February 13, 2015 to provide information and receive comments on the DEIR and proposed WDRs; final comments on these documents were due by noon, March 2, 2015. The SWRCB plans to adopt these WDRs at their June 16, 2015 Board Meeting.

STATUS: CCC participated in several industry meetings at the end of February – culminating in a meeting with SWRCB staff – in an attempt to gain clarity on some of the specifics of the WDRs language, as well as work cohesively toward both a reasonable understanding of the content (of the over 600 pages in the DEIR) and workable, cost-effective measures.

#### Black Carbon Mitigation Plan

TOPIC: Short-Lived Climate Pollutants Comprehensive Strategy

CARB adopted the AB 32 Scoping Plan First Update in May 2014 which included a comprehensive strategy for mitigation of short-lived climate pollutants such as black carbon from diesel and forest fires. SB 605 (Lara, 2014) placed this strategy into statute with a due date by January 1, 2016.

STATUS: CARB staff is gearing up for a series of workshops starting this spring.

### **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, bioenergy, renewable natural gas, and biochar.

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  
Atlas ReFuel  
Caglia Environmental  
California Wood Recycling  
Cold Canyon Compost  
CT Bioenergy Consulting LLC  
Marin Sanitary Service  
Mt. Diablo Recycling  
Napa Recycling Compost  
Northern Recycling Compost  
Organic Waste Solutions  
Phoenix Energy  
Quackenbush Mt. Compost  
Recology  
Sonoma Compost  
Tracy Delta Compost  
Upper Valley Recycling  
Zanker Road Resource Management  
Z-Best Compost Facility  
Zero Waste Energy, LLC

#### **Executive Committee**

Bill Camarillo, *Agromin*  
Greg Kelley, *Northern Recycling Compost*  
Mike Madrigal, *Recology*  
Rachel Oster, *Recology*  
Will Bakx, *Sonoma Compost*  
Christy Pestoni Abreu, *UVR Compost*  
Michael Gross, *Z-Best Compost*

#### **Staff**

Neil Edgar, Executive Director  
Evan Edgar, Regulatory Affairs  
Monica White, Sustainability Advisor  
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#### **Legislative Affairs**

Justin Malan, EcoConsult  
Neil Edgar, Edgar & Associates Inc.

[www.californiacompostcoalition.org](http://www.californiacompostcoalition.org)

### Meet CT Bioenergy Consulting

Chris Trott, a California licensed forester with more than 35 years of experience in the forest products and bioenergy businesses, is managing partner of CT Bioenergy Consulting, and has joined CCC.

Over the past 25 years he worked as a fuel supply manager for nine different bioenergy facilities in California ranging in size from 10 MW to 50 MW, and represented various business trade groups (CA Organics Recycling Council, CA Biomass Energy Alliance, CA Forestry Association and more). Well known for his expertise in state regulations on air, renewable energy, and organic recycling, he has been active in state and federal policy issues dealing with the benefits of bioenergy since 1989. Chris has dedicated his career to designing programs that support the growth and success of both bioenergy and organic waste recycling business sectors.

Chris made the switch from marketing sawmill byproducts to buying boiler fuel in 1989 when he left Fibreboard Corporation and started as the fuel manager for Pacific-Ultrapower in Chinese Camp. With an eye on developing more sustainable supplies of urban-derived boiler fuel, he participated in AB939 development and implementation. During this time Chris became a supporter of expanding large and diverse markets for wood and green waste recycling, and it became clear that the overuse of wood and greenwaste as ADC was the biggest roadblock to growth of organic recyclers and bioenergy facilities. He lobbied Cal-EPA and CIWMB/CalRecycle through CORC and CBEA to tighten the regulations for wood and greenwaste use as landfill ADC. Chris hails last year's passage of AB 1594

as the light of day at the end of a long dark tunnel.

In addition to focusing on real (vs. "sham") recycling and reuse of organics to produce energy, Chris has worked to develop biochar marketing programs for use as an agricultural soil supplement, water filtration, and carbon sequestration. His proactive efforts also initiated a recycling program that transformed bioenergy bottom ash waste into road base and other valuable recycled products. He works closely with composters around California to make a marketable boiler fuel product out of compost overs, and closely follows

the development of CAPCOA's GHG Biochar Protocol as a potential revenue source for small biomass distributed generation facilities that are being considered under SB1122 implementation.

CT Bioenergy believes there are dramatic changes ahead for the renewable power business as evidenced by the recent and pending closure of many of California's legacy bioenergy plants (totaling 361 MW) whose utility power purchase contracts have or are coming to an end. These closures will dramatically reduce the demand for urban-derived boiler fuel products. In the face of these inevitable challenges, CT Bioenergy Consulting provides consulting services crafted to help waste recycling companies become more vertically integrated by utilizing their own feedstocks to produce more of their in-house energy needs, or discover alternative markets for their wood and green waste materials.

CT Bioenergy is honored to team with CCC to help pave the way for dramatic growth and success for California's legitimate organics recyclers.

