



The State of the Biomass

The State of the Biomass in 2015 was “shaky” at best. The State of the Biomass is now in a state of emergency. While the biomass market had been in slow decline since 2000, when there were 38 plants producing 835 megawatts (MW) of operating capacity, utilizing nearly 7 million tons of wood chips from the urban, agricultural, and forest sectors. The decline in capacity has accelerated, with 9 plant closures in 2014-15. Currently, 20 plants are in operation, using 3.9 million tons of fuel, with two plants due to close early this year, and another five plants with expiring power purchase agreements by 3rd quarter 2016. Investor-owned utilities are now purchasing wind and solar power at less than half the 10-12 cents/kW, following years of tax-subsidized development in those sectors.

Pricing that has recently averaged \$30 per bone dry ton (bdt) is continuing to erode, with many suppliers put on notice of new price schedules being implemented immediately. Biomass industry sources have indicated that – barring any other financial assistance – they would need to charge \$10/bdt. The slim profit center that once existed for woody material processing will become a cost burden, and worse, a shrinking option in the movement of materials for which alternative markets are not yet viable. With the available capacity continuing to shrink, many composters and processors are left with limited market options. With agricultural waste being able to be plowed under or burned in the fields and with forest slash unrecovered waiting for a miracle, urban wood waste has no where to go but to stay in the landfill or be used as ADC.

A limited amount of wood chips may be co-composted with biosolids or used for urban landscaping. Past efforts by the California Compost Coalition in 2007 with SB 1345 (Chesbro) promoted this CALTRANS market development bill that could have resulted in the use of over a million tons per year of mulch for erosion control and storm water pollution prevention.

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 approximately 36 million tons is technically available. After food waste, lumber represents the next largest disposal volume with 3.7 million tons per year still being buried in 2014 where bioenergy should seemingly be the answer. The Bioenergy Action Plan of 2012 needs a drastic update to address this disconnection and this latest emergency.

Urban wood waste has no where to go but to stay in the landfill or be used as ADC...

Large-scale biomass energy has been passed over by the \$3.1 billion cap-and-trade budget and left behind in the California Energy Commission EPIC funding. AB 590 (Dahle), which will not likely return in 2016, had proposed 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 will be losing over one million tons of wood chips per year of biomass capacity while needing to ramp up to divert 1.7 million new tons per year to meet AB 1826, justifying large-scale biomass plants needing to be preserved to sustain a volume market.

When the chips are down and out – do not ADC...think gasification. Biomass conversion using gasification technologies is now defined in SB 498 to be 100% renewable and 100% diversion and could bring on over 100 MW of bioenergy from 1.5 million tons wood chips at a floor price of 12.77 cents per kilo-watt-hour. Using your wood chips for on-site for power and heat would provide a value market and save the uncertainty of the long haul and the upside down pricing during this state of emergency.

CCC Working To Build Support for Biomass

As has been reported here over the last year, the biomass energy industry – one that has been integral to the continued flow of woody residuals from urban and agricultural sources, beyond the forest slash and lumber mills – is struggling to be valued for all of its environmental benefits beyond renewable energy production, reducing landfilling and open burning. Biomass energy production has continued to dwindle, with its contributions to achieving the Renewable Portfolio Standard (RPS) goals solely based on its now non-competitive electricity cost. California is on track to meet the 33% RPS by 2020 with solar taking over as the new base load, and the Governor leading establishment of a goal of 50% RPS by 2030, culminating in the signing of SB 350 (DeLeon). With solar power – subsidized with our tax dollars substantially over the last decade – costing generally less than half of the 10-12 cents per kilowatt for biomass, there is little memory of the genesis of the industry boom and its environmental value in benefitting air quality. In fact, the “clean air” lobby now cites air quality impacts in its opposition to biomass.

The biomass market has been somewhat stable since 1998, with an average of 33 plants producing 600 megawatts (MW) of operating capacity, utilizing nearly 7 million tons of wood chips from the urban, agricultural, and forest sectors. Currently, 20 plants are in operation, with two plants due to close early this year, and another five plants with expiring power purchase agreements by July 2016. Pricing that once averaged \$30 per bone dry ton is continuing to erode, with many suppliers put on notice of new price schedules being implemented immediately. With the available capacity continuing to shrink, many composters and processors are left with limited market options...and stockpiles of woody residuals clogging facilities which are increasingly likely to be used as ADC or landfilled.

Recently, the California Biomass Energy Alliance, the biomass industry association, has responded to this looming crisis by convening a broad-based group of urban, agricultural, and forestry stakeholders in the interest of developing a comprehensive strategy to pressure regulators into action. Specifically, the Governor has released an Emergency Proclamation related to forest health which requires: the Public Utilities Commission to work to extend contracts between utilities and biomass facility operators, and; provides funding – \$100 Million in the proposed Governor’s Budget – to be allocated towards managing forest thinning projects and other forest waste. While there is abiding hope that this will stimulate the re-opening of some closed plants and extend the life of existing ones, there is concern that urban and agricultural materials could be crowded out as market uncertainty lingers and biomass operators follow the trail of money flowing in with those tons from the forest.

The CA Compost Coalition Executive Committee enjoyed a robust meeting with over two dozen legislative officers for an interesting Lobby Day on January 20, 2016 supporting the Governor’s budget proposals for composting infrastructure development and seeking solutions to address the biomass crisis. We learned that AB 590 (Dahle) will not likely continue in 2016, and that the \$100 million for forest thinning to address the emergency, will not accommodate urban wood waste. We will continue to strive to provide support for feedstock equity in order to keep existing biomass plants open, potentially reopen closed operations, and aid development of new small-scale biomass gasification plants to reduce black carbon from agricultural burning, in order to reach SB 350 goals of 50% renewable power use by 2030...and AB 32 goals to mitigate climate change.

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

TOPIC: Makes greenhouse gas funds available to the California

Energy Commission to make monthly incentive payments to maintain the current level of biomass power generation in the state and to revitalize idle biomass facilities in certain regions.

STATUS: Held in Senate Appropriations committee under submission – Author has indicated he will not bring bill back in 2016.

[AB 1063 \(Williams\)](#)

TOPIC: This bill would increase the solid waste tipping fee from \$1.40 per ton to \$4 per ton beginning 1/1/2017 until 1/1/2022 CalRecycle required to use a minimum \$1.50 per ton to promote infrastructure development, which could develop up to \$30 million in grants and loans to develop composting facilities and other market incentive programs that promote the highest and best use of recovered materials. The bill would also establish a generator charge to augment the existing disposal fee which funds CalRecycle administrative costs.

STATUS: Held in Senate Environmental Quality Committee. **WATCH**

[AB 1103 \(Dodd\)](#)

TOPIC: This bill would establish statutory definition of food waste create a tracking, reporting, and vehicle registration system for any entity hauling food waste, whether it is a commercial entity or a self-hauler.

STATUS: Held in Senate Environmental Quality committee. **SUPPORT**

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

TOPIC: Agriculture Climate Benefits Act, would promote Carbon Farming projects, including carbon sequestration through compost and biochar use on ag lands. This bill would enhance the long-term viability of CA ag by supporting activities which reduce global warming impacts that may negatively impact it and the rest of the state and support CA ag in pursuing reductions in GHG’S and increased carbon storage in agricultural soils and woody vegetation.

STATUS: Held in Assembly Appropriations committee under submission. **SUPPORT**

BioMat for Biomass at 12.77 cents/kwh

Senate Bill 1122 (Rubio, 2012) amended the Public Utilities Code and adds an additional 250 mega-watt (MW) of capacity for PG&E, SCE and SDG&E to offer feed-in tariff power purchase agreements for eligible bioenergy projects. To implement SB 1122, the PUC recently established the Bioenergy Market Adjusting Tariff ("BioMAT Tariff"). The PUC ruled that urban biomass going to gasification plants qualify for SB 1122 funding with the initial BioMAT bid pricing starting at 12.77 cents per kilo-watt-hour starting February 1, 2016. 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 5 in the entitlement process. A \$5 million CEC grant was awarded to the North Fork with gasification technology provided by Phoenix Energy using forest waste, and will break

RPS by SB 498

Small-scale biomass gasification development has been underway for over 8 years in California dodging the draconian zero-emissions definitions that has been Plascoing the urban solid waste industry since 2002. Instead, distributed on-site generation has been treated as "biomass conversion" by administrative fiat. It took SB 498 (Lara, 2014) 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 of these specific feedstocks 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 do require reporting. SB 498 guidance has been released and became effective in 2015.

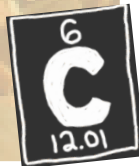
ground this spring to take some heat off the biomass emergency. SB 1122 requires 250 MW of renewable Feed-in Tariff procurement from small-scale bioenergy projects of under 3 MW from the urban, ag and forest sectors, among the following three categories: (i) 110 MW from biogas from urban stream - wastewater 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. Should 100 biomass gasification plants be built, only 1.5 million tons of biomass would be consumed per year, finding a value market for some of the 7 million tons of biomass that will be displaced from current bioenergy markets.

Black Carbon Mitigation Plan

CARB presented the draft strategy in September 2015, 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 study into statute with a due date by January 1, 2016.

Biochar GHG Protocol

In September 2015 Placer County Air Pollution Control District adopted a Biochar GHG Quantification protocol. The County Air Pollution Control officers GHGRx Program is posted at <http://www.ghgrx.org/>. Air Districts that are participating in the GHGRx Program will be responsible for certifying verifiers for biochar projects in their jurisdictions. With CARB taking on black carbon from forest fires in 2016, the value of the off-sets can only increase with the use of biochar.



SB 498 REPORTING

Operators of a biomass conversion facility are to submit an annual report to CalRecycle by April 1st of each year (starting 2016) containing specified information for the preceding year. The annual report provides details about each specific biomass facility's specific operations and sources. SB 498 guidance has been issued and there will be no regulations.

AB 901 REGULATIONS

Waste, recycling, and compost facilities, as well as exporters, brokers, and transporters of recyclables or compost will be required to submit information directly to CalRecycle on the types, quantities, and destinations of materials that are disposed of, sold, or transferred inside or outside of the state. CalRecycle also gains enforcement authority to collect this information. This will be a 2-year controversial regulatory process with the reporting starting in the first quarter of 2018. Biomass and food waste tons should be part of AB 901 reporting.

AB 199 REGULATIONS

Under the State Treasurer's Office, CAEATFA staff is developing regulations defining eligibility criteria which will be a regulatory process estimated to take up to 6 months, AB 199 offers financial assistance in the form of sales tax exemption on equipment purchases to businesses that process or utilized recycled feedstock, explicitly including organic materials and biomass. Simultaneously, applications that would have exhausted nearly all of the \$100 million annual allowance for the program is underway. Following stakeholder outcry, CAEATFA suspended further applications pending the development of regulations pursuant to AB 199 and agreed to work on legislation to extend the allowable amount of exemptions. AB 1683 (Eggman) has been introduced seeking to expand the program limits to \$200 million annually, with a provision for a rollover of unused funds in the preceding fiscal year.

The California Compost Coalition 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 & production of clean compost, bioenergy, renewable natural gas, and biochar.

CCC Members

- Agromin
- Atlas ReFuel
- Burrtec Waste Industries
- Caglia Environmental
- California Wood Recycling
- CleanFleets.net
- Clover Flat Compost
- Cold Canyon Compost
- CT Bioenergy Consulting LLC
- Harvest Tulare
- Harvest Lathrop
- Marin Sanitary Service
- Mt. Diablo Recycling
- Napa Recycling Compost
- Northern Recycling Compost
- Organic Waste Solutions
- Phoenix Energy
- Quackenbush Mt. Compost
- Recology Blossom Valley Organics
- Recology Feather River Organics
- Recology Jepson Prairie Organics
- Sonoma Compost
- Tracy Delta Compost
- Upper Valley Recycling
- Vision Recycling
- Zanker Road Resource Management
- Z-Best Compost Facility
- Zero Waste Energy Development
- Zero Waste Energy, LLC

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- Greg Kelley, *Northern Recycling Compost*
- Eric Potashner, *Recology*
- Rachel Oster, *Recology*
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- Neil Edgar, Edgar & Associates Inc.

CCC Members News

Meet Vision Recycling

Vision Recycling's motto is "Returning Organics Back To Local Soils". The company transforms yard trimmings, wood debris, and food waste into high-quality compost, mulch, decorative bark, and soil amendment products. The company also has a mobile grinding and screening service in the Bay Area and Central California for companies wishing short term processing facilitation.

The roots of Vision Recycling lend themselves to true recycling. In the early 90s the

company acquired equipment to convert the green waste generated

by the landscape firm's maintenance division into organic amendments used by the landscape construction division. Soon thereafter, Vision secured a contract with the County of Santa Cruz to process their organics material. And most recently a long term contract in 2010, with the Salinas Valley Solid Waste Authority.

Vision emerged in 1993 from a substantially sized local landscape company, Del Conte's Landscaping Inc., which has been ranked amongst the top 100 in the landscape industry.

The founder of both companies, Tom Del Conte, now has 40 years' experience as a landscape contractor and 20 years in the organics, composting and recycling industry. Tom was instrumental in the development of the Green Business requirements for landscapers. Tom sat on the county Green Business Advisory Council and has given talks to the Bay Friendly Certification classes.

Vision Recycling comes from the horticulture side of the waste stream as opposed to the garbage side,

utilizing sustainable solutions for its processing. Vision's staff sees the importance of transforming the waste into valuable resources that the local community can benefit from.

Vision currently operates seven facilities on a turn-key service basis, including their recent acquisition of an existing composting facility. The company also provides mobile services to many other landfill operations in all parts of Northern California. In total they now process

over 250,000 tons of feedstock per year.

The business model since 2003 has been

rather simple: the vision has been to endeavor to partner with local agencies who wish to have a top quality organics recycling operation within their own community. The synergies of this business model are staggeringly obvious. The Vision Recycling local model supports local commerce: it reduces trucking emissions and traffic, promotes "buying local", creates community pride for using home grown organics on a large scale, and ultimately reduces product price from both ends of the recycling circle.

In 2013 Vision began a new paradigm by opening two facilities in Newark and Livermore on Vision Recycling's own property. 2015 brought the opening of the new Vision composting facility in Benicia.

From the humble beginnings in 1993, filling landscape needs of converting green waste to a soil amendment, to creating retail centers in central California, to partnering with community agencies, the firm has maintained a solid business platform with innovative Visions!

