

Code Red for Humanity

Global warming is dangerously close to spiraling out of control, the United Nations' Intergovernmental Panel on Climate Change (IPCC) reported, warning the world is already certain to face further climate disruptions for decades to come. Humans are "unequivocally" to blame. Rapid action to cut greenhouse gas emissions could limit some impacts, where the focus is being placed on reducing short-lived climate pollutants (SLCP), such as methane and black carbon. In order to bend the climate curve to delay further catastrophic events, methane and black carbon need to be targeted over the next 10 years. If not, deadly heat waves, gargantuan hurricanes, and other weather extremes, that are already happening, will only become more severe. News at 11 brings that to you every night.

Last year over 4.3 million acres burned from California wildfires, which generated more than 112 million metric tons of carbon dioxide and an untold amount of black carbon. The 2021 California wildfire season burned 2.1 million acres so far, with two major fires raging on. Greenhouse gas emissions from wildfires have been tracked separately when compared to anthropogenic sources, in large part due to 'carbon cycling', which is a burnt-out reason. With black carbon as an SLCP, there should be major concerns on these emissions. With a 'Code Red for Humanity' alarm, you would hope the State would answer this clarion call in the near-term, now, and count black carbon from fires as GHG emissions.

With a golden opportunity to address climate change, California Air Resources Board kicked off their 2022 Scoping Plan Third Update process with a series of staff-driven workshops. To be carbon neutral by 2045, CARB proposes to electrify the transportation sector and squeeze out renewable natural gas, bioenergy, and any type of combustion, sooner than is feasible. It was evident that CARB was going to leapfrog over 2030 goals with an electrification dream scheme to actually keep diesel fleets on the road for another 13 to 18 years (which emit black carbon). Heavy-duty electrification could possibly become viable a generation from now, as the waste industry has been phasing out diesel use since the early 2000s.

With a new sense of urgency in an alarming heat wave, Governor Newsom doubled down and requested CARB to evaluate pathways for the State to achieve carbon neutrality by 2035 and step up the pace to achieve zero carbon electricity by 2030. Syncing the time frames will force CARB to honestly model 2030 targets and utilize existing cost-effective programs that are carbon negative and carbon neutral now with a focus on reducing short-lived climate pollutants.

CARB held a workshop, Climate Change Scoping Plan Scenarios, on August 17, 2021, about how to model carbon neutrality by 2035 and 2045, and support the State's climate goals and rapid decarbonization of transportation fuels and energy. CARB needs to focus on the climate performance criteria, including lifecycle carbon intensity, ability to provide negative carbon emissions, and SLCP. The CARB Scenarios do not prioritize SLCP, such as methane and black carbon reductions. The presentation on vehicle electrification and petroleum reduction makes no distinction between diesel and other fuels, despite the fact that diesel is a significant source of black carbon emissions. The single biggest opportunity to reduce SLCP emissions in the transportation sector is to replace diesel with carbon negative RNG from organic waste in the near-term. Given the urgency of reducing SLCP emissions, this should be the highest focus in the transportation sector, and yet is not mentioned at all. Increasing use of RNG to reduce SLCP emissions should be an explicit goal of the transportation sector scenario planning. However, looking beyond CARB, with a huge budget surplus we were able to secure funding of \$180 million for composting in the San Joaquin Valley to phase out agricultural burning, \$160 million for CalRecycle to implement SB 1383, and \$50 million for healthy soils.

California is letting 2045 climate change policy goals get in the way of deep greenhouse gas reductions, instead of focusing on methane and black carbon reductions, and it appears that could continue, letting another crisis go to biomass waste. It took A Few Good Men and Women to issue the Code Red, and CARB 'Can't Handle The Truth'.

Trailer Bill Trash

Raking in surplus tax revenue, coupled with robust Cap-and-Trade auction proceeds, the State budget is awash with dollars, as the Legislature struggles with how to spend it all. With Woodageddon underway, we hope that more resources are allocated to bioenergy to provide a home for all forest, agricultural, and urban wastes. The 2021-2022 adopted budget provided a framework and is now being filled in with a series of budget trailer bills. SB 170 contains SB 1383 funding allocations of \$160 million for the following:

- \$20 million for organics infrastructure
- \$10 million for co-digestion at wastewater treatment facilities
- \$70 million for organics management
- \$60 million to help local jurisdiction
- \$50 million for the Healthy Soils program

CARB will be phasing out agricultural burning in the Central Valley over the next five years. Budget trailer bill, SB 129, was enacted last month, where \$180 million is being allocated to the San Joaquin Valley Air Pollution Control District to support incentives for alternatives to agricultural burning. With some inside lobbying, we were able to preserve composting as an option after having been written off.

More good news is that AB 322 (Salas) is on the Governor's Desk. This bill requires the California Energy Commission to consider allocating the Electricity Program Investment Charge (EPIC) funding in advanced technology biomass conversion. Plus, AB 843 (Aguiar-Curry) is moving forward, which allows community choice aggregators, such as Marin Clean Energy, to participate in the BioMAT program. The bad news is that AB 1086 (Aguiar-Curry) died in Appropriations, due to cost. This bill would have created an Organic Waste Scoping Plan for all urban, forestry, and agricultural waste.

[AB 843 \(Aguiar-Curry\)](#)

POSITION: Support

TOPIC: California Renewables Portfolio Standard Program: Renewable feed-in tariff: Bioenergy Market Adjusting Tariff program: Community choice aggregators. This bill would provide that the renewable feed-in tariff would apply to a qualifying electric generation facility that is developed to sell electricity to an electrical corporation, or for a bioenergy electric generation facility, to an electrical corporation, or a community choice aggregator within the electrical corporation's service territory.

This bill would authorize a community choice aggregator to submit eligible bioenergy projects for cost recovery pursuant to the BioMAT program, if open capacity exists within the 250-megawatt BioMAT program limit. This bill would additionally require that every kilowatthour of electricity purchased from a bioenergy electric generation facility count toward both the community choice aggregator's renewables portfolio standard procurement requirements and the bioenergy project procurement requirements of the electrical corporation whose service territory encompasses the community choice aggregator, and that the physical generating capacity of a bioenergy electric generation facility count toward the community choice aggregator's resource adequacy requirements.

STATUS: Enrolled to Governor

[AB 332 \(ESTM Committee\)](#)

POSITION: Support

TOPIC: Hazardous waste: Treated wood waste: Management standards. This bill would require a person managing treated wood waste to comply with the hazardous waste control laws or the management standards established in the bill, including standards for the reuse, storage, treatment, transportation, tracking, identification, and disposal of treated wood waste, as provided. This bill would limit those standards on treated wood waste that is hazardous only because of a preservative present in or on the wood, and that is not subject to the existing exemption for certain wood waste or to regulation as hazardous waste.

STATUS: Signed by the Governor on August 31, 2021

[AB 1086 \(Aguiar-Curry\)](#)

POSITION: Support

TOPIC: Organic waste: Implementation strategy. Existing law requires the Cal EPA, in coordination with specified State agencies, to develop and implement policies to aid in diverting organic waste from landfills through certain actions, and, in developing those policies, to promote a goal of reducing at least 5,000,000 metric tons of greenhouse gas emissions per year through the development and application of compost on working lands. Existing law requires the California Environmental Protection Agency and the Department of Food and Agriculture, with other specified State agencies, to, among other things, develop recommendations for promoting organic waste processing and recycling infrastructure statewide and to post those recommendations on the Cal EPA's website and update them annually.

This bill would request that the California Council on Science and Technology, in consultation with its academic and research partners and specified State agencies, undertake and, within 12 months of entering a contract, complete a report that provides an implementation strategy to achieve the State's organic waste, and related climate change and air quality, mandates, goals, and targets. If the council agrees to undertake and complete the report, the bill will require the council to provide the report to the relevant State agencies after peer review for one or more of the relevant State agencies to conduct at least one public meeting and publish the draft implementation strategy on its website. The bill would also require the council, if it agrees to undertake and complete the report, to submit the report to the Legislature. This bill would require the implementation strategy to include, among other things, recommendations on policy and funding support for the beneficial reuse of organic waste.

STATUS: Died in Senate Appropriations

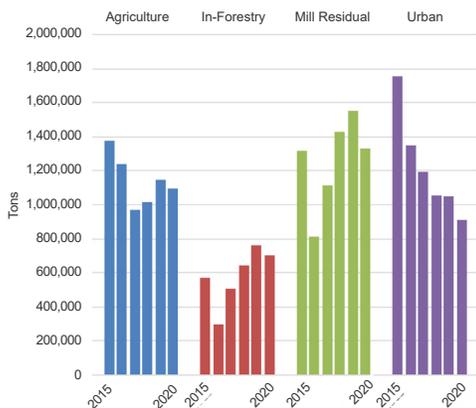
This is the third year in a row to attempt this, as more dead trees pile up in the forest, and with agricultural burning being phased out in 5 years. Plus, an additional 9.2 million tons of organic waste needs to be diverted for SB 1383.

Wood Chips Down

SB 498 (Lara, 2014) requires that the operator or owner of a biomass energy facility shall provide an Annual Report to CalRecycle regarding the total amount and type of biomass material accepted by the facility, starting with calendar year 2015 data. The [SB 498 annual reporting for 2020](#) and the graphic below shows 4.5 million total tons accepted in 2020, up from 4.1 million tons in 2019. The urban sector provided 1.76 million tons in 2015 and this has steadily declined to just 914,000 tons in 2020, a loss of 850,000 tons over 6 years, or 48%. We had hoped that those tons went to mulch or bulking agents, but they were probably disposed of.

When comparing CalRecycle Waste Characterization Studies, there were 2.68 million tons of urban wood waste disposed of in 2014, and 3.16 million tons disposed of in 2018, an increase of 18%, or 490,000 tons that could have been biomass fuel.

Meanwhile, as SB 1383 is being phased in, we have to make up for those 490,000 old biomass tons that were disposed of, plus 2.6 million tons of new wood waste will need to be diverted by 2022, and 3.9 million tons of new wood waste could be on the market in 2025. SB 1383 has organic product procurement options, and if all went toward bioenergy, 2.1 million tons could produce 237 MW and power 3.1 million homes.



AB 32 Biochar Use

CARB held a workshop on July 20, 2021, on Natural and Working Lands. CCC has strongly supported the inclusion of Natural and Working Lands in the 2022 Climate Change Scoping Plan and heavily participated in the draft 2030 Natural and Working Lands Climate Change Implementation Plan. CCC, with the Bio-energy Association of California, urged CARB to expand the focus of the Plan to also include opportunities to use biochar for permanent carbon sequestration on Natural and Working Lands.

The use of biochar is an important strategy to increase sequestration and reduce emissions from Natural and Working Lands. Biochar can be generated as a byproduct of gasification or pyrolysis of wood waste, or it can be the sole product. Once generated, it can be used to provide permanent carbon sequestration, or it can be used in a variety of ways, including water filtration. Given the enormous volume of organic waste that California must address, and the many beneficial end uses of biochar that can be generated from that waste, the Natural and Working Lands strategy should assess the net carbon benefits of different uses of biochar and recommend strategies to accelerate its production and use. CARB should include an assessment of:

- The lifecycle carbon analysis of different end uses of biochar.
- Strategies to accelerate market development for the most beneficial uses.
- Regulatory incentives such as carbon offset protocols and other incentives to accelerate biochar production and use.

DTSC-TWW

AB 332 took effect immediately on August 31, 2021, as an urgency statute with a 2/3 vote to return to the days of alternative management standards (AMS) for treated wood waste. Left in a lurch, when AMS expired last year, the industry scrambled. With 1.74 million tons of treated and painted wood waste disposed of in 2018, DTSC allowed an interim variance system, which is no longer in force. The wood preserving industry will need to report on the use of treated wood preservatives and the generation of treated wood waste trends.

EPIC BioMAT

The CPUC approved two important decisions on the BioMAT program and EPIC (Electricity Program Investment Charge) program last year, which has provided tens of millions of dollars to small-scale bioenergy projects. In summary, with the passage of AB 843, the BioMAT program can be expanded to community choice aggregators, such as Marin Clean Energy.

The BioMAT Decision

- Extends the program through the end of 2025 to get 12.77 cents per kilo-watt hours for biomass gasification facilities up to 3 MW.
- Increases delivery flexibility - first year
- Allows more contract changes over the life of the project.
- Extends the Commercial Operation date from 24 months to 36 months.
- Spreads program costs across all rate-payers, not just the purchasing IOU.

SB 1383 Regs – Bioenergy

Procurement of Recovered Organic Waste Products is being proposed in Article 12, as authorized in SB 1383.

Recognizing the importance in developing RNG demand and compost, CCC has supported the programs and the metrics in these regulations. The Bioenergy Association of California has fought hard to include bioenergy from wood chips in the regulations. CalRecycle has presented a fair share calculation with flexibility of procuring these bio-products. The per capita procurement target is 0.08 tons of organic waste per California resident per year. On or before January 1, 2022, CalRecycle will calculate the annual recovered organic waste product procurement target for each jurisdiction. One ton of organic waste recovered constitutes 650 kilowatt-hours of electricity derived from biomass conversion. With California's population projected to be 44 million in 2025, about 3.1 million tons of wood chips (up to 237 MW of bioconversion energy) would have to be procured by local government should compost, or RNG products not be an option. Bioenergy is carbon neutral, which will go toward the State goal to be carbon neutral by 2045. Racing to carbon neutrality, the role of bioenergy should get a boost, along with the resurgence of the BioMAT program, but likely will not.

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, anaerobic digestion, renewable natural gas, and biochar.

CCC Members

- Agromin
- American Refuse, Inc.
- Atlas Disposal Industries LLC
- BLT Enterprises of Fremont
- Burrtec Waste Industries, Inc.
- California Waste Recovery Systems
- Cedar Ave Recycling and Transfer
- Contra Costa Waste Service, Inc.
- Marin Sanitary Service
- Monterey Regional WMD
- Napa Recycling and Waste Services
- Northern Recycling Compost
- Peña's Disposal Service
- Pleasanton Garbage Service
- Quackenbush Mt. Compost
- Recology
- San Joaquin County Public Works
- Soiland Co., Inc.
- Tracy Material Recovery
- Vision Recycling
- Waste Connections - Cold Canyon
- WC Wood Industries
- Zero Waste Energy, LLC.

CCC Partners

- California Wood Recycling
- Clover Flat Compost
- GreenWaste Recovery
- ReFuel Energy Partners
- Resource Recovery Coalition of CA
- Sonoma Compost
- Synagro - South Kern
- Upper Valley Recycling
- Zanker Road Resource Management
- Z-Best Compost Facility
- Zero Waste Energy Development

CCC Technology Partners

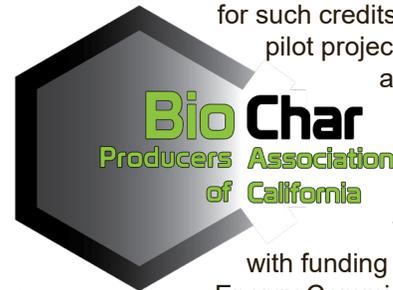
- CleanFleets.net
- Compost Manufacturing Alliance
- Engineered Compost Systems
- JRMA Architects Engineers
- Phoenix Energy
- Synergy Burcell Technologies LLC
- Schaefer Systems International, Inc.
- Yorke Engineering LLC

CCC Governmental Affairs

- Justin Malan, EcoConsult
- Neil Edgar, Edgar & Associates, Inc.
- Evan Edgar, Edgar & Associates, Inc.
- Sean Edgar, Clean Fleets Advocates

BPAC for Biochar

A cadre of CCC partners are launching the Biochar Producers Association of California (BPAC), as a Lobbying Coalition with the Fair Political Practices Commission this Fall. BPAC plans to be active with CDFA to continue to support the use of biochar, as new management practices will be considered in the Healthy Soils Program. When coupled with compost, biochar and compost can sequester carbon into the working lands of California. A recent [Lawrence Livermore Lab](#) report, released in January 2021, recognizes the use of compost and biochar as the most cost-effective carbon negative solutions to mitigate climate change.



BPAC plans to be active in biochar protocol development, where the Climate Action Reserve is taking a leadership role. In order to facilitate broad action on climate change, carbon markets have been developed that utilize greenhouse gas accounting and trading mechanisms to enable entities—whether governments, companies, or other institutions—to mitigate, or offset, the GHG emissions associated with their activities. Quantification of the persistent carbon component of biochar can facilitate the participation of biochar projects in carbon markets, providing an additional revenue stream to projects delivering greenhouse gas emissions reductions through carbon sequestration in the soil.

On July 7, 2021, The Climate Action Reserve developed a [Biochar Protocol](#) to address climate benefits from the production and use of biochar, which is capable of locking up carbon and keeping it from re-entering the atmosphere for centuries. Biochar production provides an opportunity

for the productive use of a variety of feedstocks that are otherwise considered waste biomass, including non-merchantable residues from timber harvests and fuel thinning. The development of the protocol was accompanied by a market analysis evaluating the potential scale of credits that can be produced from biochar and the anticipated demand for such credits. Additionally, several pilot projects will be developed alongside the protocol to test the viability of offset project requirements.

The Climate Trust, with funding from the California Energy Commission, assessed biochar in the [May 2014 Report – Carbon Market Investment Criteria for Biochar](#) Projects to determine its appropriateness as a carbon sequestration offset project. Biochar is an inert residue created by pyrolysis, the heating of organic material without oxygen, with the potential to rapidly capture large amounts of carbon. The Report describes what types of biochar projects can most readily qualify as high-quality greenhouse gas offsets for carbon market buyers and investors.

The American Carbon Registry (ACR) listed the Methodology for Emissions Re-ductions from Biochar Projects in March 2015 as inactive, essentially eliminating prospects for its approval as currently drafted. Biochar researchers around the globe largely agree on methods to estimate biochar carbon persistence utilized in the ACR methodology.

With over 10 years of protocol development by various groups, starting in 2010, it is time for the Climate Action Reserve to adopt the Biochar Protocol in April 2022. BPAC staff has applied to the Working Group with a robust upcoming schedule.