

WOODAGEDDON

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Sustainable Organics Recycling

Going Deep Without Moving the Sticks

[Deep Decarbonization in a High Renewables Future](#), published by the California Energy Commission in March 2019, provides pathways to have the electrical grid become 'carbon neutral' by 2045, while squeezing out biomass energy and petroleum products by 2030. A feature-length documentary, [BURNED: Are Trees the New Coal?](#), takes an unwavering look at the story of how woody biomass has become the fossil-fuel industry's renewable green savior. *BURNED* proclaims to tell the story of the accelerating destruction of our forests for fuel and probes the policy loopholes, huge subsidies, and blatant greenwashing of the burgeoning biomass electric power industry. The film imitates the California politico, which interweaves tree huggers, the escalating energy-policy disputes, climate change strategies, and the conflict between green jobs and bark-beetled trees. California has become the Deep Green State, but does not want to move the 147 million dead trees, sticks, and wood chips to bioenergy.

When former Governor Brown signed SB 100 into law in 2018 to get to 60% renewable energy by 2030, he issued his Executive Order that requires the State to reach 'zero-carbon' electricity by 2045. Gov. Gavin Newsom parlayed this into the California budget, which includes the allocation of \$1.5 million toward a study to, "identify strategies to decrease demand and supply of fossil fuels." The provision marks the first step to be diesel-free by Newsom's 2030 goal. An interagency State team, led by the California Environmental Protection Agency will develop the scope of the study to, "evaluate pathways to achieve a carbon neutral economy by 2045, manage the decline of in-state production as the State's fossil fuel demand decreases, and assess potential impacts to disadvantaged and low-income communities and strategies to address those impacts." Workshops are underway.

CARB and the Energy Commission are already moving

beyond the CNG platform, even when using RNG and near-zero NOx engines, to electrify the transportation sector and go deep, but are moving faraway to 2045 to achieve carbon neutrality. The organic waste processors and collection companies are Net-Zero Now and could utilize carbon-neutral RNG industry-wide by 2025, should incentives continue from CARB and CEC on HVIP and biofuel production.

Going deep decarbonization means pushing the biomass from the grid to the tank for low-carbon biofuels, or making hydrogen via a gasification process to charge fuel cell-powered heavy-duty trucks, which is more than a generation away. The Gas Technology Institute published [Low-Carbon Renewable Natural Gas from Wood Waste](#) in February 2019. The typical plant, based upon Stockton-located demonstrations, would cost \$340 million and use 945 tons per day of wood waste to produce a fuel with a carbon intensity from 2.65 to 16.8 (over 83% less carbon than diesel). Large-scale biomass gasification development, either for RNG or hydrogen, would be Sierra Clubbed out of the State. Without the State incentives for RNG, industry can easily default to renewable diesel now with over 60% GHG reductions, but without the near-zero NOx reduction of the RNG engines.

California is letting 2045 climate change policies get in the way of greenhouse gas reductions today. The latest Intergovernmental Panel on Climate Change Report stressed that just over a decade is all that remains to stop irreversible damage from climate change. With time running out, a Hail Mary pass to 2045 is going deep too late, where instead we need to move the sticks up the field, out of the forest and landfills, and into community-scale BioMAT. We need to move the organic waste out of the landfill and fund a heavy-duty carbon-neutral near-zero NOx fleet today. We are going deep now!!!

Bankrupted!!!

The Legislature will reconvene from their Summer Recess on Monday without a bioenergy bill in play this year. As California strives to be carbon neutral by 2045, bioenergy production that actually solves short-term climate pollutant problems is now being squeezed out of future plans. We had an early attempt with AB 144 (Aguiar-Curry) to develop a Scoping Plan for all organic waste in the urban, ag, and forest sectors. The bill would have provided recommendations on policy and funding to support closing the loop on carbon-neutral organic waste management practices, but that was held in Committee back in May. AB 1583 (Eggman) is still in search of a funding mechanism to establish an Organic Waste Recycling Incentive Program, but it is highly unlikely it would include any bioconversion technologies or bioenergy gasification projects.

California lawmakers and Governor Gavin Newsom, did however, successfully pass a \$21 billion wildfire bill on July 12, 2019, offering the State's big investor-owned utilities a lifeline against following Pacific Gas & Electric into bankruptcy if they are hit with multibillion-dollar wildfire liabilities this year. Both houses cleared the two-thirds majority necessary for an "urgency bill," that will go into effect as soon as possible. This is because AB 1054 (Holden) is meant to start providing Southern California Edison and San Diego Gas & Electric a financial backstop for the possibility of major fires being caused by their equipment this fire season, which has already begun. AB 1054 creates two separate funding mechanisms for utilities facing wildfire liabilities. The foremost is a \$10.5 billion "liquidity fund," paid for by an existing \$2.50-per-month charge on customers' bills, which would offer utilities short-term loans, repayable in full, to cover ongoing wildfire costs, but not bioenergy production.

[SB 54 \(Allen, Skinner, & Wiener\)](#)

TOPIC: Recycling: Would establish the California Circular Economy and Plastic Pollution Reduction Act, which would require the department, in consultation with the State Water Resources Control Board, and the Ocean Protection Council to adopt regulations to source reduce and recycle 75% of single-use packaging and products sold or distributed in California by 2030.

STATUS: Do pass Appropriations on May 23, 2019. Read second time and amended. Re-referred to Appropriations Committee on July 10, 2019.

[AB 1080 \(Gonzalez\)](#)

TOPIC: Companion bill with SB 54.

STATUS: In Appropriations Committee: Set, first hearing. Hearing canceled at the request of author.

[SB 667 \(Hueso\)](#)

TOPIC: Greenhouse Gases: Requires CalRecycle by January 1, 2020, to develop a five-year strategy to meet the State's organic waste and diversion goals by supporting organic waste infrastructure development, and by June 1, 2021, to coordinate with the Treasurer's Office on developing financial incentives for instate recycling infrastructure. It also, requires the Treasurer to coordinate with Nevada, Oregon, and Washington on infrastructure financing to support regional recycling needs and infrastructure.

STATUS: Read second time and amended. Re-referred to Appropriations Committee on July 1, 2019.

[AB 144 \(Aguiar-Curry\)](#)

TOPIC: Organic Waste: Requires the Strategic Growth Council to develop a scoping plan for the State to meet its organic waste management mandates, goals, and targets. It would also require the scoping plan to include among other things, recommendations on policy and funding support for closing the loop on carbon-neutral or carbon-negative organic waste management practices.

STATUS: In Appropriations Committee – Held under submission May 16, 2019.

[AB 1228 \(Calderon\)](#)

TOPIC: Compostable Cutlery. This bill would allow a credit against those taxes on January 1, 2020, and before January 1, 2025, in an amount equal to 20% of the costs paid or incurred during the taxable year by the qualified taxpayer for the purchase of compostable cutlery.

STATUS: May 1 – Re-refer to Committee of Revenue and Tax.

[AB 1583 \(Eggman\)](#)

TOPIC: Requires the department, upon appropriation by the Legislature, to establish a Paper Recycling Incentive Program that makes incentive payments to in-state processors of waste paper and to establish an Organic Waste Recycling Incentive Program that makes incentive payments to in-state organic waste recycling facilities that process organic waste collected from municipal sources. The bill would require the department to convene a Statewide Commission on Recycling Markets and Curbside Recycling.

STATUS: Do pass and re-refer to Appropriations Committee on July 10, 2019.

[SB 44 \(Skinner\)](#)

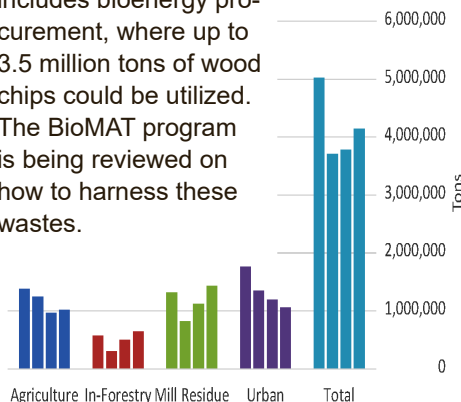
TOPIC: Medium-duty and heavy-duty vehicles: Comprehensive strategy. The California Clean Truck, Bus, and Off-Road Vehicle and Equipment Technology Program, upon appropriation from the Greenhouse Gas Reduction Fund, funds zero- and near-zero-emission truck, bus, and off-road vehicle and equipment technologies and related projects. This bill would require CARB no later than January 1, 2021, to develop a comprehensive strategy for the deployment of medium-duty and heavy-duty vehicles in the State that results in bringing the State into compliance with federal ambient air quality standards, a reduction of motor vehicle greenhouse gas emissions by 40% by 2030, and reduction of motor vehicle greenhouse gas emissions by 80% by 2050, as specified.

STATUS: From committee: Do pass and re-refer to Appropriations Committee on July 8, 2019.

Chips Down 40%

SB 498 (Lara, 2014) required 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 2016 shows the amount of wood chips used across 22 biomass plants decreased from 5.02 million tons in 2015 to 3.71 million tons, with the urban sector drying up from 1.76 million tons in 2015 to just 1.35 million tons, losing 410,000 tons in just one year. The SB 498 annual reporting for 2017 shows the amount of wood chips used across 24 biomass plants decreased from 3.71 million tons in 2016 to 3.63 million tons, with the urban sector going from 1.35 million tons in 2016 to 1.19 million tons, losing another 157,000 tons. The [SB 498 annual reporting for 2018](#) shows the amount of wood chips used across 25 biomass plants increased from 3.63 million tons in 2017 to 4.15 million tons, surging in the forest and mill waste sector due to SB 859. However, the urban sector went from 1.19 million tons in 2017 to just 1.06 million tons, losing another 130,000 tons. The urban sector is down 700,000 tons over 3 years, losing 40% since 2015.

Meanwhile, SB 1383 is being phased in, where 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. With a huge push by the Bioenergy Association of California, SB 1383 regulations now includes bioenergy procurement, where up to 3.5 million tons of wood chips could be utilized. The BioMAT program is being reviewed on how to harness these wastes.



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 3.5 million tons of wood chips (up to 261 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 will not.

BioMAT Program Review

The Bioenergy Feed-in Tariff Program (BioMAT) is a tariff program for small bioenergy renewable generators less than 5 MW in size. The BioMAT program offers up to 250 MW to eligible projects through a fixed-price standard contract to export electricity to California's three large investor owned utilities. Electricity generated counts toward the utilities' RPS targets. Small-scale bioenergy projects can be procured in three categories: Category 1) Urban Waste - 110 MW, Category 2) Dairy and Ag - 90 MW, and Category 3) Forest - 50 MW. Today, there are 28 projects amounting to 44.7 MW with 8 being operational. Another 205 MW is needed.

PG&E tried unilaterally to walk away from the BioMAT program in late 2017 to frustrate developers, and their bankruptcy proceedings spooked investors this year to further slow down the program. Program Review has been underway since late 2018, where a workshop held on July 19, 2019 included topics such as BioMAT contract production requirements and facility operations, BioMAT pricing modification options, and BioMAT eligibility and emissions modeling potential.

SB 1383 Regulations

CalRecycle extended the period for submitting formal comments from July 3 to July 17, 2019. This was intended to provide stakeholders additional time to review the regulatory text. The full text of the regulation as originally proposed, including the newly proposed changes clearly indicated is available on the SB 1383 Rulemaking website at: <https://www.calrecycle.ca.gov/Laws/Rulemaking/SLCP/>.

No substantive changes have been made to the draft regulatory text that was posted on June 17th, other than what we wanted. Regulations are expected to be adopted in late 2019 or early 2020, and will become effective in 2022. On July 30, 2019, CalRecycle released the [Draft Program EIR](#) for the adoption of the SB 1383 Regulations. During the review period, CalRecycle will hold a hearing on August 20, 2019 at 1:00 pm to present the Draft Program EIR and receive comments, with September 13, 2019 being the last day to file comments. This 513 page document dives deeply into the impacts and mitigation measures to implement SB 1383.

AB 901 Regulations

Starting July 1, 2019, CalRecycle transitioned away from the current Disposal Reporting System (DRS) to a brand-new Recycling and Disposal Reporting System (RDRS). Entities that are required to report were required to register in the Recycling and Disposal Reporting System by April 30, 2019. CalRecycle hosted workshops on March 20 and 21 to help businesses understand the new system. On July 8, 2019, CalRecycle hosted a Reporting Requirements Workshop. Another set of Workshops are planned on September 9th in Sacramento from 8 am to 2 pm at Cal-EPA, and on September 18th at Diamond Bar from 1 pm to 5 pm.

The Reporting deadlines by reporting entity for 2019 (third and fourth quarters) are listed here:

<https://www.calrecycle.ca.gov/docs/cr/swfacilities/rdrs/2019reporting-deadlines.pdf>

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.

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Agromin
American Refuse
Atlas Disposal
Burrtrec Waste Industries
Caglia Environmental
California Waste Recovery Systems
California Wood Recycling
CleanFleets.net
Clean Fleets Advocates
Clover Flat Compost
Cold Canyon Compost
GreenWaste Recovery
Marin Sanitary Service
Mt. Diablo Resource Recovery
Napa Recycling Compost
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Phoenix Energy
Quackenbush Mt. Compost
Recology Blossom Valley Organics
Recology Feather River Organics
Recology Jepson Prairie Organics
ReFuel Energy Partners
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Sonoma Compost
Trillium CNG
Tracy Material Recovery Compost
Upper Valley Recycling
Vision Recycling
Zanker Road Resource Management
Z-Best Compost Facility
Zero Waste Energy Development
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Agromin's Wood is too Good to Waste

[Agromin](#) began as a small soils company, serving Ventura County since 1972. Agromin would take tree trimmings and turn them into mulch. In 1990, California Wood Recycling was formed to take advantage of the growing opportunity under AB 939 to recycle this tree waste. When the company acquired Agromin in 1994, Agromin was recycling 10,000 tons of green waste per year from one city (Ventura). Today, Agromin processes more than 600,000 tons of urban wood and green waste per year and services more than 200 California communities.

Agromin manufactures earth-friendly soil products for farmers, landscapers, gardeners, and homeowners, while using a safe, natural, and sustainable process to transform the material into premium soil products. Agromin's premium soil products containing wood chips can be found in landscapes along free-ways, on municipal sites, in school, parks and community gardens, museums, and hotels—just about anywhere where quality soil amendments are needed. Agromin has developed over 200 eco-friendly products to serve these markets including:

- Agriculture – OMRI Compost; fertilizer blends and mulch programs to create healthy soil.
- Commercial Landscape & Turf – soil amendments, soil blends, barks and mulches, and proprietary biochar blends.
- Retail – customer specific blends, high-speed bagging capacity, and large retail distribution.
- Waste to Energy – bioenergy, anaerobic digestion; gasification; RNG, renewable hydrogen.

Agromin Wood Products include: Agromin Play Fiber is 3/8"-2" minus elongated blunt or soft chopped ends of 100% virgin wood. Agromin's play-

ground chips are considered among the safest wood products available for the playground environment, as they contain no recycled content that may include metal or toxic residues. Playgrounds, parks, or pathways covered with Agromin Play Fiber are wheelchair accessible and meet ADA, ASTM, and CPSC playground surfacing standards when installed and maintained properly. ES-2 Mulch is Agromin's 100% recycled wood mulch and is ideal for cooling the root zone,

reducing moisture loss, controlling erosion, and preventing weed growth. ES-2 Mulch is perfect for all orchard applications and public works, as it is Environmentally Safe (ES) and meets California Department of Transportation specifications. Uniform in

size, ES-2 Mulch is an environmentally sound way to add a finishing touch to any landscape.

Contributing To A Cleaner Environment: Agromin's soil products contribute to a greener world by conserving water, preventing erosion, reducing harmful Green House Gas (GHG) emissions, and decreasing the use of oil-based fertilizers and chemicals. Since its inception, Agromin has been responsible for diverting over 6 million tons of green materials out of landfills. Agromin's diversion and conversion of organics is the equivalent of removing CO2 emissions from 1,927,767 cars annually. Agromin is continually seeking new ways to create products that lead to healthy soil and lays the groundwork for a sustainable future.

Education and Public Service: Agromin is doing its part in helping schools educate students about healthy soils, climate change, and conservation. Agromin regularly conducts field trips at its locations and donates soil to dozens of school gardens and nonprofit organizations.

