CALIFORNIA COMPOST COALITION

July 2019 | Vol. 6, Issue 7 Sustainable Organics Recycling

Heavy-Duty Solutions For Short-Lived Climate Pollutants and Near-Zero NOx Now

CARB held a series of Workshops in June and July on the development of the Fiscal-Year 2019-2020 Funding Plan for Low Carbon Transportation Incentives, with $447 million revenue generated by the Cap-and-Trade program, named the Greenhouse Gas Reductions Fund. The Air Quality Improvement Program (AQIP), valued at $48 million, is funded by DMV fees to address criteria pollutants such as NOx. With 90% of funding coming from the Greenhouse Gas Reductions Fund, you would think that the lowest carbon intensity fuel, based upon a lifecycle analysis with the cleanest emissions, such as the use of RNG coupled with the near-zero NOx engine, would get priority funding. Instead, CARB staff plans to discontinue any more vouchers for these heavy-duty fleet programs that have been worth $45,000 per vehicle. After spending $57 million on over 2,000 heavy duty vehicles last year, the CEC will not spend another cent on natural gas vehicles of their $277.5 million budget. CARB will be using GHG dollars to fund zero NOx light-duty ZEVs, instead of funding heavy-duty carbon neutral near-zero NOx fleets. ZEVs are being picked as a technology winner for a battery of issues that cannot charge the heavy-duty fleet for at least a decade.

CEC does plan to spend $25 million on low carbon fuel production using 2018/2019 dollars, and CalRecycle may fund 2 to 3 biomethane projects with up to $9 million. Referencing the 2019 CARB adopted carbon intensity values, these fuels will be 'carbon neutral' or 'carbon negative', reducing diesel carbon intensity from 100% to 125%, while ZEVs are at 30.18 carbon intensity and only reducing by 70%. "Zero Emission Vehicles (ZEVs) are not zero tailpipe emissions for greenhouse gases" has been chanted by our industry in the halls of the Cal-EPA buildings during the CARB hearings on funding low carbon transportation programs. A coalition of leading organizations, Bioenergy Association of California, Trillium, California Natural Gas Vehicle Coalition, and Clean Energy along with the California Compost Coalition and Clean Fleets Advocates are working to clean California's air and meet greenhouse gas emission reduction goals and have strongly opposed any attempt by CARB to circumvent state statute, legislative intent behind the statute, and CARB-adopted policies to unilaterally defund near-zero NOx heavy-duty vehicle programs. These vehicles have a proven track-record as a significant, cost-effective, emissions reduction strategy now, but still need additional support from the HVIP program to become fully commercialized. The industry has made huge CNG fleet investments, based upon CARB's several commitments to advance the deployment of, and turnover toward, near-zero trucks from the existing diesel fleets, as a mechanism to help support the State Implementation Plan. Our state suffers from the worst air quality in the nation, with federal ozone deadlines looming for the South Coast AQMD and the SJVAPCD. For California to reach federal ozone attainment goals by 2023, or accomplish even more ambitious federal ozone targets by 2031, California must adopt a more inclusive, broad, performance-based air-quality strategy. The solid waste and recycling industry of 15,000 heavy-duty vehicles uses about 150 million gallons of fuel each year. The Edgar Institute has projected that 80 percent of the industry's heavy-duty fleets have the potential to upgrade to CNG near-zero engines by 2025. As part of the SB 1383 regulations, RNG procurement could lead to 47 million gallons of use for a fleet of 8,000 heavy duty vehicles. With SB 1383, the solid waste industry is poised to be a fuel producer and user, offering a closed loop system.

From the diesel-impacted ports of California to the DAC-laden Central Valley, a network of RNG facilities and RNG fueling stations for near-zero NOx heavy-duty vehicles, which collect and transport organic materials across California, should be funded to significantly reduce greenhouse gases and criteria pollutants. Using the CalEnviroScreen scale and comparing to a year 2000 baseline, the organic recycling industry can deliver vast co-benefits to DACs. Referring to the centerfold graphics, deploying near-zero NOx emission engines has a 90% reduction. Recycling trucks and transfer trailers using carbon negative fuel have a 100% reduction from diesel, produced from zero waste at Net-Zero GHG facilities. Organic compost use decreases pesticide use by over 99%. Being a Zero Hero with clean fleets and facilities is not cheap and should receive priority incentives from the Cap-and-Trade revenues, recognizing the numerous co-benefits to DACs.

Budget Update

Low Carbon Transportation

The state budget was enacted before the July 1, 2019 deadline with a Cap-and-Trade Expenditure Plan for the 2019-20 fiscal year that is turning into a slush fund for high-speed rail and clean water in the Central Valley. The plan would allocate $1.387 billion in Cap-and-Trade revenues to the following focused investments:

- $550 million to the Air Resources Board for low carbon transportation
- $25 million to CalRecycle for waste diversion
- $28 million for heathy soils
- $34 million for dairy methane reduction
- $0 million for low carbon fuel production at the CEC

The Governor's proposed Cap-and-Trade spending plan for CalRecycle's funding is just $25 million, where the industry has been demanding $100 million to $200 million per year to fund the SB 1383 infrastructure projects. So far, CalRecycle has received $111 million of the $6.1 billion that have been appropriated. According to the recently released 2019 Annual Report on the Cap-and-Trade Proceeds, compost and anaerobic digestion facilities continue to be one of the most cost-effective GHG programs, while the grants awarded by CalRecycle continue to show that disadvantaged communities (DAC) are receiving benefits or co-benefits 84% of the time. CEC will no longer pursue low carbon fuel production from this fund. As CARB prepares their Investment Plan for 2019-2020, staff is proposing to no longer fund vouchers for the CNG Fleet that uses the near-zero NOx engines, even using RNG fuel.

With a disappointing execution from CARB to fund the RNG/near-zero NOx fleet, there have been attempts in the legislature this year to allocate fair share funding with SB 44 (Skinner), but it has been turned into a study bill to pursue technically-feasible and cost-effective programs on both accounts, which the RNG/near-zero NOx wins every day. AB 753 (Garcia) tried to allocate money but was held in Committee. We must strike back next year!

Bill Watch

SB 44 (Skinner)

TOPIC: No later than January 1, 2021, and at least every five years thereafter, CARB in consultation with CALTRANS, and CEC, and in collaboration with relevant stakeholders, shall update the state board's 2016 mobile source strategy to include a comprehensive strategy for the deployment of medium-duty and heavy-duty vehicles in the state for the purpose of bringing the state into compliance with federal ambient air quality standards and reducing motor vehicle greenhouse gas emissions from the medium-duty and heavy-duty vehicle sector. CARB shall recommend reasonable and achievable goals for reducing emissions from medium-duty and heavy-duty vehicles by 2030 and 2050, respectively, as part of the comprehensive strategy based on factors that include, but are not limited to, the State's overarching emissions reduction goal, the goals established in the California Sustainable Freight Action Plan, technological feasibility, and cost-effectiveness. There were hopes that his bill would have allocated Cap-and-Trade money to a heavy-duty CNG fleet transition from diesel to RNG fuel with low-NOx engines, but turned into a study bill to prove what can be shown today.

STATUS: July 9 - Do pass and re-refer to Assembly Appropriations Committee. (Ayes 9. Noes 2.)

SB 210 (Leyva)

TOPIC: This bill would require the state board, in consultation with the bureau and other specified entities, to implement a pilot program that develops and demonstrates technologies that show potential for readily bringing heavy-duty vehicles into an inspection and maintenance program. The bill would require the State Board, no later than 2 years after the completion of the pilot program, to develop and implement a Heavy-Duty Vehicle Inspection and Maintenance Program for nongasoline heavy-duty onroad motor vehicles, as specified. CleanFleets has been opposing this concept for years, where now the CNG Heavy Duty fleet with the near-zero NOx engine will be included in the program with inspections every four years.

STATUS: July 9 - Do pass and re-refer to Assembly Appropriations Committee. (Ayes 8. Noes 3.)

AB 1406 (O'Donnell)

TOPIC: Alternative and Renewable Fuel and Vehicle Technology Program. This bill would require the CEC until January 1, 2024, to allocate no less than 10% of the moneys available for allocation as part of the program for alternative fuel and advanced technology vehicles.

STATUS: July 2 - Read second time and amended. Re-referred Senate Transportation Committee

AB 753 (Eduardo Garcia)

TOPIC: This bill would require the CEC to make available of the moneys for allocation as part of the Alternative and Renewable Fuel and Vehicle Technology Program, specified percentages for projects to produce alternative and renewable low-carbon fuels in the State to research, develop, produce, and deploy innovative and emerging fuels.

STATUS: June 25 - In Senate Transportation Committee: Hearing postponed by committee.

AB 1046 (Ting)

TOPIC: This bill would require CARB to develop a plan to provide for the continuous funding of the Clean Vehicle Rebate Project, and would authorize securitized revenues to establish a continuous funding source for the Clean Vehicle Rebate Project. AB 40 (Ting) would have gotten rid of the combustion engine by 2040, but is now only a study concept.

STATUS: July 5 - Read second time and amended. Re-referred Senate Transportation Committee

SB 667 (Hueso)

TOPIC: Greenhouse gases: recycling infrastructure and facilities. This bill would require CalRecycle, on or before January 1, 2021, to amend a 5-year needs assessment to support innovation and technological and infrastructure development, in order to meet specified organic waste reduction and recycling targets, as provided. The bill would require CalRecycle, on or before June 1, 2021, to develop financial incentive mechanisms, including, among other mechanisms, loans and incentive payments to fund and accelerate public and private capital towards organic waste diversion and recycling infrastructure.

STATUS: July 1, 2019 - Read second time in Assembly Appropriations Committee

Deploying a Near-Zero NOx Fleet Running on Carbon Negative Fuel Produced at Net-Zero GHG Facilities

A 30,000 ton per year anaerobic digestion renewable natural gas (AD-to-RNG) project can be designed without a PUC pipeline as a community-scale model, and can serve a population of approximately 100,000 people. This model can produce 400,000 diesel gallon equivalents per year of RNG with a default carbon intensity of neutral to 0.0 g CO2e/MJ, and could file for a site-specific intensity as low as negative 105 g CO2e/MJ, for a fleet of 50 heavy-duty trucks. The solid waste and recycling industry of 15,000 heavy-duty vehicles uses about 150 million gallons per year of fuel and can produce its own fuel.

The CEC found this business model attractive: franchised organic feedstocks are taken to an AD facility, is co-located where the captive fleet is parked and fueled, in a community-scale system that could be replicated throughout California. CCC and CleanFleets.net co-authored a white paper for the CEC, "**Biomethane Transportation Fuel Powering the Solid Waste Industry: Community- Scale Distributed Fuel Production Facilities**".

CARB needs to understand that this community-scale model is at the intersection of AB 32, SB 32, and the former Governor's **Five Pillars** that California will: (Pillar 1) reduce today's petroleum use in cars and trucks by up to 50%; (Pillar 2) increase from one-third to 50% of our electricity derived from renewable sources; (Pillar 3) double the efficiency savings from existing buildings and make heating fuels cleaner; (Pillar 4) reduce the release of methane which includes diverting organics from the landfill by 2025; and (Pillar 5) manage farms, rangelands, forests, and wetlands so that they can use compost and store carbon. Organic power has been deemed one of the most cost-effective GHG reduction strategy that bonds all Five Pillars together and where 84% of CalRecycle grants have benefitted disadvantaged communities (DACs). The CA Legislative Analyst's Office determined the cost of organics grants to be at just $9/ton of GHG reduction while the overall average is $57/ton. Incentives for electrification for public fleets in DACs and modernization is costing $414/ton to $725/ton.

CalEnviroScreen Methodology: CalEnviroScreen is used to help identify California communities that are disproportionately burdened by multiple sources of pollution. Disadvantaged communities in California are specifically targeted for investment of proceeds from the State's Cap-and-Trade program. The **graphic on the next page** displays the relatively lower pollution burdens that the new community-scale, 'carbon neutral and negative', near-zero emissions, at Net-Zero facilities system may pose relative to a 2000 year base line. Direct hauling of garbage to a landfill with diesel vehicles (done dirt cheap!) is an outdated model that the organics recycling industry is not using. The DAC stakeholders have the opportunity to adopt this new model and the benefits that can be realized in their community using their own wasted materials.

The **Short-Lived Climate Pollutant Plan (SLCP)** was adopted on March 23, 2017 and the **2017 Scoping Plan Updates** were adopted by CARB December 14, 2017. The community-scale anaerobic digestion facilities model is at the intersection of the SLCP, SB 32, SB 1383 and the **Governor's Five Pillars** where the RNG produced at these anaerobic digestion facilities has been deemed to be carbon negative and – when utilized in CNG trucks with the near-zero emissions – will be a game changer today by reducing heavy-duty diesel emissions now while striving for zero waste. Another huge game changer is the Federal EPA Food Recovery Hierarchy striving to feed hungry people first, where CalRecycle and the industry have embraced programs coupled with AB 1826 outreach. SB 1383 will require that 20% of edible food be recovered by 2025 resulting in approximately 49,500 tons that year being rescued, or 270,000 pounds resulting in 225,000 meals per day. CalRecycle awarded $575,000 as part of the organics infrastructure grants and another $20 million for the food waste prevention and reuse grants, which will benefit DACs.

Independent Study Confirms Emissions Performance of Cummins Westport ISX12N Natural Gas Engine

Cummins Westport was pleased to announce in September 2018 that an independent third-party study on the Cummins Westport ISX12N 400 hp natural gas engine has demonstrated that the engine meets and exceeds the California Air Resources Board's ("CARB") optional Low NOx standard of 0.02 g/bhp-hr. The study was carried out by The University of California, Riverside College of Engineering Center for Environmental Research and Technology, with funding provided by the South Coast Air Quality Management District, the California Energy Commission, and Southern California Gas Company. It confirms that natural gas engine technology provides one of the cleanest available options for on-highway transportation.

Engine testing was performed on a chassis dynamometer, with test cycles representative of operation in California's South Coast Air Basin. Results showed that the ISX12N 400 hp engine met and exceeded the target NOx emissions throughout a range of duty cycles. When the engine operates on renewable natural gas, there are significant reductions in greenhouse gas emissions. In addition to providing air quality and greenhouse gas benefits, the ISX12N can also take advantage of low natural gas prices and available incentive funds.

"Cummins Westport is proud to offer a viable, present-day solution to clearing the air, while giving customers the reliable performance they expect for their trucking applications," said Bart van Aerle, President of Cummins Westport. "This study further confirms that the ISX12N, like the L9N natural gas engine, is one of the cleanest and economical options available for truck fleets today."

ZERO HERO PROGRAMS OF THE RECYCLING INDUSTRY

READVANTAGING COMMUNITY-SCALE SYSTEMS

THROUGH SUSTAINABLE FACILITY, FUEL, FLEET, FEEDSTOCKS & FARMING

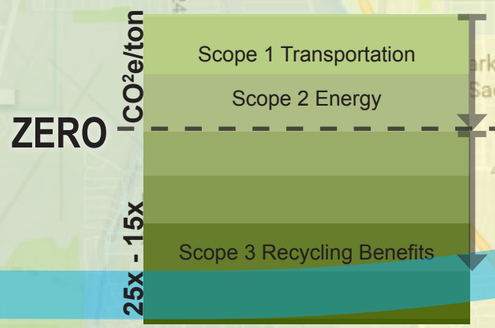
Edgar & Associates

California Compost Coalition

NET ZERO FACILITIES

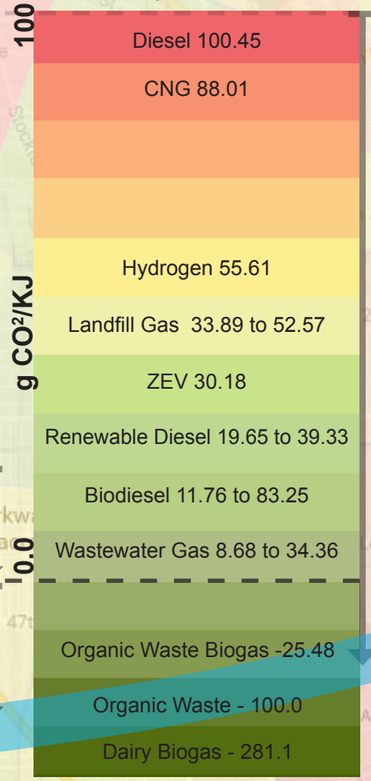
Greenhouse Gases

The Net Zero Facilities in recycling sector including material recovery facilities processing recyclable materials, compost facilities, anaerobic digestion facilities, and biomass conversion facilities. The new composting facilities are covered aerated static pile systems using the best available control technologies and the anaerobic digestion facilities are enclosed closed-loop system without high temperature incineration. The avoided GHG emissions for these facilities compared to landfilling fully offset the project emissions including collection, hauling, processing activities and the landfilling of residuals. Landfills and garbage Transfer Stations are in the waste sector and are not Net Zero Facilities.



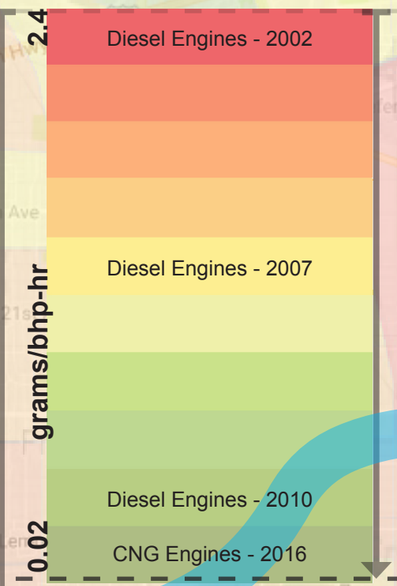
CARBON NEGATIVE FUEL

Carbon Intensity Transportation Fuel



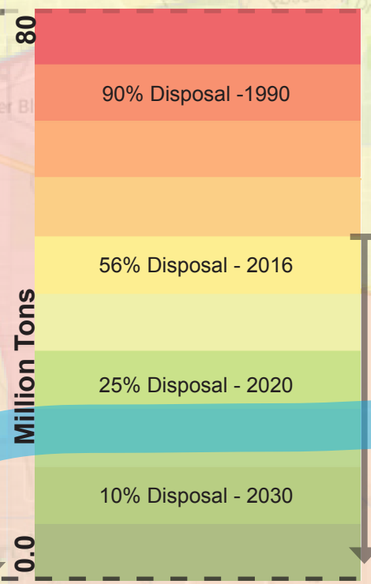
NEAR ZERO FLEET

Heavy-Duty Vehicle NOx Emissions



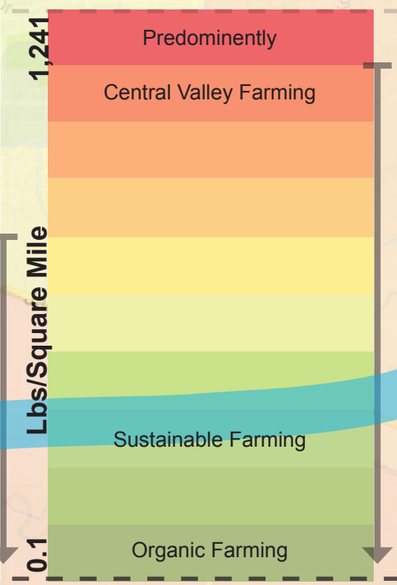
ZERO WASTE

Disposal Solid Waste Tons



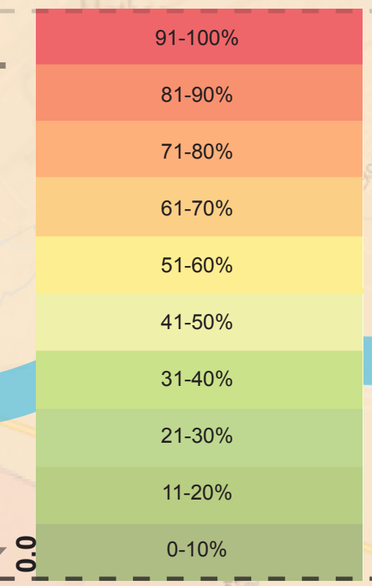
ZERO PESTICIDE USE

Pounds of selected active ingredients



DISADVANTAGED COMMUNITIES

CalEnviro Screen 3.0 results



ZERO

Community-Scale Carbon Negative Near Zero Emissions at Net-Zero Facilities

The Short-Lived Climate Pollutant Plan (SLCP) was adopted on March 23, 2017 and the SB 32 Scoping Plan Update with 2030 goals is being consider by CARB on June 23, 2017. The community-scale anaerobic digestion facilities model is at the intersection of the SLCP, SB 32, and the Governor's Five Pillars that California will: (Pillar 1) reduce today's petroleum use in cars and trucks by up to 50%; (Pillar 2) increase from one-third to 50% our electricity derived from renewable sources; (Pillar 3) double the efficiency savings from existing buildings; (Pillar 4) reduce the release of methane which includes diverting organics from the landfill by 2025; and (Pillar 5) manage farms, rangelands, forests and wetlands so that they can use compost and store carbon. RNG produced at these anaerobic digestion (AD) facilities has been deemed to be carbon negative and when utilized in CNG trucks with the near zero emissions will be a game changer today by reducing heavy duty diesel emissions now while striving for zero waste. The digestate can be composted to produce organic materials to reduce pesticide and fertilizer use to produce healthy soils. A 25,000 ton per year, or 100 tons per day, AD-to-RNG project is designed as a community-scale model, and can serve a population of approximately 100,000 people. This model can produce 333,000 diesel gallon equivalents per year of RNG with a carbon intensity of negative 22.9 g CO2e/MJ for a fleet of 45 heavy-duty trucks with near-zero NOx emissions.

AB 32 Scoping Plan 2014 Update Waste Sector

Net-Zero GHG Emissions from the Waste Sector by 2030. Reduce Scope 1 emissions with alternative fuels. Reduce Scope 2 emissions with roof-top solar and on-site bioenergy. Avoid Scope 3 GHG emissions with recycling and composting. To achieve Net-Zero, the direct GHG emissions from the Waste Sector would have to be fully offset by avoided GHG emissions. Avoided GHG emissions are reductions in life-cycle GHG emissions that would occur because waste is shifted from landfilling to alternative non-disposal pathways. Most material recovery facilities are 15 to 25 times offset over their GHG emissions.

NET ZERO NOW

LCFS Pathway CARB Certified Carbon Intensities

The wide range of carbon intensities is due to the lifecycle emissions methodology of the Low Carbon Fuel standard (LCFS); variation of feedstock types, origin, raw material production, processing efficiencies, and transportation all contribute to the producers' fuel pathway carbon intensity. The certification of carbon negative fuel for the production of renewable natural gas (RNG) from organic waste anaerobic digestion is based on the biogenic feedstocks of food waste and green waste, and the avoided methane emissions from the landfilling of the material. The CNG truck collect food waste to make RNG.

OFF DIESEL

CARB and EPA certified ISL G NZ (8.9) L CNG engines

In 2015, Cummins Westport certified the world's first heavy-duty engine at near-zero-emission levels (90 percent below the existing federal standard) for Class 7 refuse trucks and will be available for Class 8 transfer trucks in 2018. To complement the NOx reductions provided by this landmark engine, conventional (fossil) natural gas provides significant GHG reduction benefits. However, renewable natural gas with carbon negative fuel completes the game changing proposition by providing the lowest carbon intensity of any heavy duty transportation fuel available in the market today.

KNOCK OFF NOx

90% or more Waste Reduction from Landfills and Incineration

Zero Waste is a goal that is ethical, economical, efficient and visionary, to guide people in changing their lifestyles and practices to emulate sustainable natural cycles, where all discarded materials are designed to become resources for others to use. Communities that have a Zero Waste goal and are working towards or have reduced their waste to landfill, incineration and the environment by 90% or more. Dozens of large cities have adopted zero waste goal by 2025. California is at a 45% recycling rate as compost facilities are curtailed by NIMBYism.

OFF LANDFILLS

Healthy Soils Initiative with Compost Use

Communities near agricultural fields, primarily farm worker communities, may be at risk for exposure to pesticides. Drift or volatilization of pesticides from agricultural fields can be a significant source of pesticide exposure. The use of most synthetic pesticides and fertilizers is prohibited from organic production. Organic farming with certified organic compost use and a zero pesticide goal makes healthy soils. The multiple co-benefits of enhanced soil organic matter on our agricultural lands, include improved water retention, soil stability and nutrient use efficiency to reduce fertilizer use.

OFF PESTICIDES

CalEnvironScreen 3.0 Cap-and-Trade Investments

The California Communities Environmental Health Screening Tool (CalEnviroScreen) helps us to address environmental threat challenges. The objective in developing this tool is to use it to assist California communities by directing state and potentially local government resources toward a common purpose: the revitalization of disadvantaged communities and the pursuit of environmental justice. Cap-and-trade proceeds have funded projects where over $3.3 billion has been appropriated with 50% of the funding benefitting DACs and 34% located in DACs.

GREENING YOUR COMMUNITY

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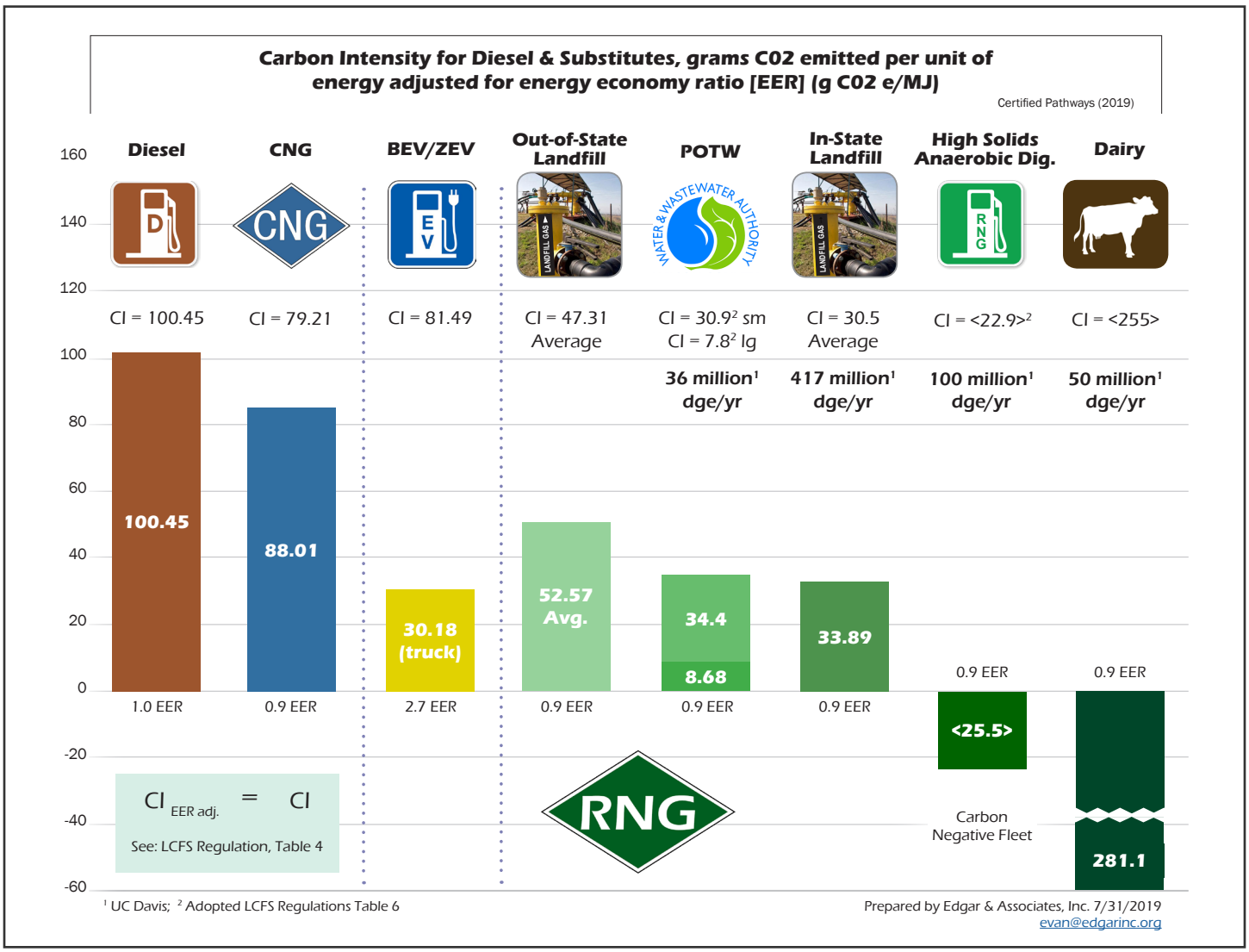
Version 2.1 7/31/19

Refuse Fleets Winning the Race to Carbon Neutral CI

The Low Carbon Fuel Standard (LCFS), which sets annual carbon intensity (CI) standards, takes into account the GHG emissions associated with all of the steps of producing, transporting, and consuming a fuel—also known as a complete lifecycle. The wide range of carbon intensities is due to variations in feedstock types, origin, raw material production processing efficiencies, and transportation, all of which contribute to an individual producer's fuel pathway CI.

Replacing diesel with a lowest CI fuel should receive priority funding from CARB, when allocating GHG dollars. The solid waste industry has made great strides developing the CNG infrastructure and purchasing CNG fleets to get off diesel, as CARB has insisted for years. The industry had viewed CNG as bridge fuel to be replaced by renewable natural gas (RNG) with much lower CIs, such as the case with current RNG use in California. Referencing the 2019 CARB Certified Pathways, out-of-state landfill gas averages 52.57 CI while in-state landfill gas averages 33.89 CI and can produce up to 417 million dge/year. Wastewater RNG has been 8.68 CI for larger facilities and 34.4 CI for smaller facilities and can produce up to 36 million dge/year, with some individual pathways heading toward carbon negative CI. Anaerobic digestion RNG is now certified as 'carbon neutral' with specific pathway development to 'carbon negative' CI, and has the ability to produce 100 million dge/year. Dairy RNG can produce 50 million dge/year deep into 'carbon negative' CI.

Out-of-state landfill gas RNG is now being viewed as a bridge fuel, as in-state RNG is being developed. The solid waste industry is racing to 'carbon neutral' CI for their RNG fleet by 2025, with full implementation of SB 1383. Meanwhile ZEVs have a 38.9 CI and will not reach carbon neutral CI until 2045, when the California grid is expected to be carbon-free. Refuse fleets may be winning the race, but are losing the funding to ZEVs, as near-zero NOx is not enough.



HVIPed Up

Both the CEC and CARB have HVIPed up this year in not further investing in the heavy-duty fleet transition from diesel to CNG with RNG fuel and near-zero NOx engines. After spending $57 million on over 2,000 heavy duty vehicles last year, CEC will not spend another cent of their $277.5 million budget on natural gas vehicles. CARB held a series of Workshops in June and July on the development of the Fiscal-Year 2019-2020 Funding Plan for Low Carbon Transportation Incentives with $447 million revenue generated by the Cap-and-Trade program named the Greenhouse Gas Reductions Fund, and the Air Quality Improvement Program (AQIP) valued at $48 million and funded by DMV fees. With 90% of funding coming from the Greenhouse Gas Reductions Fund, you would think that the lowest carbon intensity fuel with the cleanest emissions, such as the use of RNG coupled with the near-zero NOx engine, would get priority funding. Instead, CARB staff HVIPed Up and will discontinue any more vouchers for these heavy-duty fleet program that have been worth $45,000 per vehicle.

Instead, CARB staff is giving priority to zero-emission vehicles (ZEV) with reductions at the tail pipe and will not consider lifecycle analysis. The more we stand up and say 'ZEVs are not zero emissions', the more tone deaf and agitated CARB staff become. Comments were submitted on July 30, 2019, with the draft document to be released in September 2019, and will be heard at the CARB board meeting on October 24-25, 2019. We have been in coalition with Bioenergy Association of California, Clean Energy, and others over the years, and need to have more refuse haulers come to the table to turn staff around this year. CARB staff is defiant with their marching order to fund ZEVs, at the expense of biomethane and any further development of the CNG infrastructure in the name of 'fracking'. The environmental community has teamed up with DAC groups, as they fear that combustion engines, regardless of cost-effectiveness in the near-term to reduce NOx now, are represented by this heavy-duty sector.

SB 1383 Regs - RNG Use

Procurement of Recovered Organic Waste Products is being proposed in Article 12, as authorized in SB 1383. Recognizing the importance in developing RNG demand, compost use, and bioenergy from wood chips, CCC has been out in front supporting the inclusion in the regulation. CalRecycle has presented a fair share calculation with flexibility of procuring these bio-products with a focus on RNG, where up to 47 million gallons of diesel gallon equivalents of RNG could be used each year that could fuel 8,000 CNG refuse trucks, of the State 15,000 refuse fleets. Requiring, through a written contract, that a direct service provider to the jurisdiction procure recycled organic waste products and provide written documentation of such evidence to the jurisdiction. This will allow the jurisdiction to delegate the RNG use to the local franchise hauler, and fulfill the procurement requirement. This is an elegant community-scale fit where the franchise holder could produce and utilize their own RNG without the need for expensive and restrictive pipeline injection, but could also draw from a pipeline at a CNG fueling station where RNG isn't being produced.

LCFS Amendments

CARB adopted LCFS Amendments in 2018 that weakened the program by lowering the carbon intensity target from 10% to just 7.5% by 2020, thereby reducing RNG demand and the value of the LCFS credits. However, CARB decided to accelerate the 2030 target to 20% reduction in carbon intensity. CARB also took away the 'carbon negative' fuel intensity in the Look-Up Tables for AD biomethane and will now have to perform the time consuming and expensive Tier 2 pathway process. By default, The Temporary Fuel Pathway is conservative, and will be 'zero', which is still 'carbon neutral' and far better than ZEVs and hydrogen, but not default 'carbon negative' after January 1, 2019. Because SB 1383 is mandating organic waste diversion, 'additionality' no longer holds true for avoiding methane at a landfill. Because of this, the RNG from AD can't count the avoided methane emissions and maintain the 'carbon negative' status. Having a guaranteed higher tip fee from the organic waste that can be taken to the bank is preferable over the volatile RINs and the LCFS market.

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 must have registered in the Recycling and Disposal Reporting System (RDRS) 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 in the Coastal Hearing Room of the Cal/EPA Building. The YouTube link of the workshop is posted here: https://www.youtube.com/watch?v=OyLejNKr10o&feature=youtu.be The Reporting deadlines by reporting entity for 2019 (third and fourth quarters) are listed here: https://www.calrecycle.ca.gov/docs/cr/swfacilities/rdrs/2019reportingdeadlines.pdf

CALIFORNIA COMPOST COALITION

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
Atlas Disposal
Burrtec 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
Northern Recycling Compost
Phoenix Energy
Quackenbush Mt. Compost
Recology Blossom Valley Organics
Recology Feather River Organics
Recology Jepson Prairie Organics
ReFuel Energy Partners
Soiland Co, Inc.
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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CCC Member News

TRILLIUM Love's RNG

Trillium, member of the Love's Family of Companies, is a leading developer of alternative-fueling systems. Trillium's fuels include Compressed Natural Gas (CNG), Renewable Natural Gas (RNG), Hydrogen, and Electric Vehicle (EV) Charging infrastructure. Trillium also offers a new business line, Power Up, providing innovative energy solutions to work in concert with our core products, which include Solar installations, Microgrids, and On-Site Generation.

For over two decades, Trillium has exceeded Customer expectations by delivering superior quality, reliability, and dependability at more than 200 alternative fueling stations nationwide. Trillium specializes in designing, building, and operating these facilities, and provides 24/7 maintenance services for various types of professional fleets. Combined, Love's Travel Stops and Trillium own 65 public-access CNG facilities.

Trillium CNG
A Love's Company

Renewable Natural Gas (RNG), or Biomethane, is a naturally-occurring gas released by decomposing organic matter. When left uncaptured and released into the environment, methane's global warming potential is more than 20 times that of carbon dioxide (CO_2). However, capturing RNG generated by anaerobic digestion or other means and using it as an alternative transportation fuel efficiently eliminates these harmful emissions. Making RNG available to the transportation industry will enable the United States to achieve a near-zero carbon footprint in the transportation supply chain.

RNG's negative carbon footprint, long supply curve, and positive air and water quality helps CNG users, refuse fleets, farms and municipalities capture energy from waste in the most environmentally and economically responsible manner available. Whether you want to install a private fueling station for your fleet or partner with Trillium to provide a public-access fueling station, we have a turnkey model for installing alternative-fueling infrastructure that covers everything from concept through completion, so you can focus on your core business.

Trillium is offering a new CNG fueling option for small fleet operators interested in reducing GHG and tailpipe emissions. Our economical, modular fueling systems are ideal for first-time customers looking for a low-risk, competitive entry into utilizing an alternative fuel vehicle fleet. Trillium joined the California Compost Coalition and CleanFleets.net to offer the private, independent waste hauler an optimal solution to fuel their refuse fleet and assist the anaerobic digester operators in finding an off-take agreement for their surplus fuel. Working in coalition on State policy, Trillium believes that there needs to be CNG fleets using RNG fuel with the near-zero NOx engine to fulfill the State air quality objectives, as well as the short-live climate pollution strategies to divert organic wastes from landfills.

Trillium's experienced engineering team customizes the modular fueling unit based on the Customer's daily schedule and refuse fleet fueling needs. The result is a cost-efficient station design, running on only the highest quality products and parts. From concept through commissioning, Trillium's small-scale station design carries the nearly three decade reputation for quality, performance, and service they are known for nationwide.

With multiple options available, an energy-efficient and economical CNG station design is now possible for fleets of any size. Trillium's modular compression packages function as a permanent fueling solution with the flexibility of a mobile pad installation. All of our designs can be fully integrated with Trillium's 24/7 monitoring services, including immediate reporting on faults and performance.