



August 1, 2013

Ms. Carol Mortensen, Director
Department of Resources Recycling and Recovery
1001 I Street
Sacramento, CA 95812

**RE: Draft Waste Sector Management Plan
Comments on the Recycling, Reuse and Remanufacturing Technical Paper**

The California Refuse Recycling Council (CRRC) is a statewide non-profit trade association comprised of over 120 companies involved in the collection and processing of materials that also operate approximately 20 compositing facilities, 50 material recovery facilities (MRFs), 35 construction and demolition debris processing facilities, and 12 landfills statewide. Our industry, in partnership with local government, has been instrumental in our state's efforts to attain the recycling mandate of 50% waste diversion from landfills, required by the California Integrated Waste Management Act of 1989 (AB 939), and will remain critical to the attainment of future greenhouse gas (GHG) reduction goals.

CRRC will be submitting comments on the 2013 Update to the AB 32 Scoping Plan. The 2013 Update provides a great opportunity to better integrate policies and programs across all sectors to achieve the most significant greenhouse gas reductions and other co-benefits. Whereas CRRC comments on this Technical Paper, our comments apply to the transportation and energy sectors as well. According to CalRecycle and CARB Recycling, Reuse and Remanufacturing Technical Paper, the "Waste Sector" includes all municipal and commercial solid waste-related activities (e.g., collection, processing, recycling, remanufacturing, treatment, or disposal) from generation to final disposition of the material within California. *The Overall Vision on the Plan* is to build infrastructure for a low-carbon system in California and improve the sustainability of the California infrastructure.

However, when reviewing the GHG inventory, which is labeled as the "Recycling & Waste" sector, the GHG inventory only includes landfill emissions and does not clearly allocate the rest of the recycling and compost system. The GHG inventory places the fleet GHG emissions in the transportation sector and places the processing GHG emissions in the electrical power sector.

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The avoided indirect GHG emissions from recycling and composting were brought into the 2008 Scoping Plan with the adopted measures such as mandated commercial recycling, anaerobic digestion and compost use, and those avoided GHG emissions need to be translated into programs to be included in the 2013 Scoping Plan. By considering the fleet and the processing facilities, the recycling and compost industry can build infrastructure for a low-carbon system in California and improve the sustainability of the California infrastructure to meet the goals of the 2013 Update and implement the Vision for 2020 and Beyond.

Reflecting on our comments submitted to the California Air Resources Board (CARB) in 2008, the “Waste Sector” as defined by the greenhouse gas inventory on includes landfill emissions, and is really just the “Landfill Sector”. By continuing to classify our industry as the “Waste Sector” or the “Waste and Recycling Sector” fails to acknowledge our collection fleet and our processing facilities. Below are our comments to CARB on the 2008 Scoping Plan.

From 2008 - Comment No. 1 – The “Recycling and Waste Sector” only includes landfilling and should be renamed the “Landfill Sector”:

CRRC has been active at separating the “Recycling and Waste” Sector at all CARB Workshops since recycling and composting are industrial activities upstream from landfill activities, following the hierarchy that waste should be reduced and recycled prior to landfilling. Waste should be a sector that only includes landfilling, where recycling is ubiquitous in all of the other sectors and need not be linked to landfilling. Recycling is part of the transportation with the collection of materials, industry with the processing of materials, commercial and residential activity with the generation of materials, electricity with the conversion of wood chips, and even the agricultural sector with composting.

The Figures and Tables only include emissions from landfills and does not include recycling. Recycling activity shows tremendous greenhouse gas benefits and is an alternative to landfilling. By commingling these activities into one sector, the report provide an erroneous perception of recycling where the actual numbers is just for emissions from landfills, and not recycling.

CRRC has the following comments specific to the Technical Paper:

Goals for 2035

Net-Zero is a new term defined by CalRecycle and CARB as a facility that has their direct emissions be off-set by avoided emissions. The equation is simple and is copied below:

$$\text{Net-Zero is (direct GHG – avoided GHG = 0)}$$

CalRecycle and CARB has a ***Vision for 2020 and Beyond*** that all “waste” facilities be Net-Zero by 2035. The typical company with a material recovery facility and a fleet emits 90% of their GHG emissions from their collection fleet, and 10% of their GHG emissions using electricity for processing their material. The material that is collected and processed and recycled can avoid 15 to 20 times more GHGs than what is emitted collecting and processing the materials, including the landfill emissions from the waste that is landfilled. The typical industry member with a material recovery facility and a fleet is Net-Zero today! CRRRC supports the goal for Net-Zero facilities.

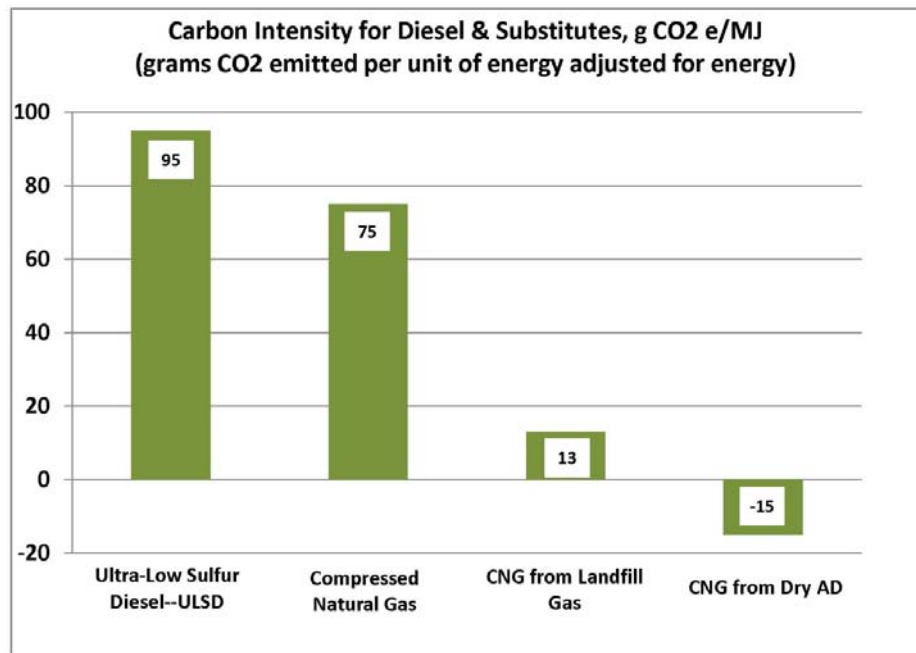
Section 11.A – Collection – *Discuss fleet emissions, CNG trucks, low carbon fuel, and carbon negative fleets*

CalRecycle and CARB promote the “Waste Sector” as including all municipal and commercial solid waste-related activities (e.g., collection, processing, recycling, remanufacturing, treatment or disposal) from generation to final disposition of the material within California. However, the carbon negative fleet to eliminate GHG emissions from collection activities and distributed biomass energy to neutralize GHG emissions from processing have been overlooked.

The solid waste, recycling and compost industry is a system which includes greenhouse gas (GHG) emissions from collection and processing with a company typically emitting 90% of their GHG from collection which is considered as Scope 1 direct emissions, and 10% of their GHGs as Scope 2 indirect emissions from the processing of the material. These GHG emissions are not allocated to the “Waste Sector” and are not landfill emissions. CARB has targeted the solid waste and recycling fleet for criteria pollutants reduction from diesel usage, and our industry has responded with newer trucks using CNG as the fuel of choice.

Today in California, there are over 15,000 refuse and recycling collection vehicles in California, with over 2,000 plus collection vehicles running on CNG, or about 13% of the fleet. The South Coast Air Quality Management District (SCAQMD) adopted Rule 1193 requiring the use of CNG vehicles for all new refuse and recycling contracts, and a five-year phase-in for current contracts. SCAQMD reports that today there are over 1,850 CNG vehicles in the district, with a projected 4,500 CNG vehicles by 2020. Using CNG fuel reduces GHG by 21% per truck compared to diesel as noted on the carbon intensity chart on the next page. Whereas the low carbon fuel standard only requires a 10% reduction in carbon intensity by 2020, switching to CNG fuel allows a 21% reduction per truck. With a dramatic transition underway from diesel to CNG vehicles, there will be a demand for renewable CNG (RNG). Using RNG from biomethane has been declared to be carbon negative (CNG from dry anaerobic digestion (AD) is minus 15) where a carbon negative fleet is possible.

CARB is supporting the concept of “zero emission vehicles” and needs to include the concept of “carbon negative fleets” into their dialogue.



Section 11.B – Processing – *Discuss relation to the 75% Plan and determine Programs Tons and GHG Avoidance per each Program*

Since the 75% Recycling Plan was released, CRRC has commented on the need to determine the tonnage amount and GHG reductions by the type of Program. The AB 32 Scoping Plan adopted measures by Program type as listed below, and the 5-Year Scoping Plan update and The 75% Recycling Plan should also list tonnage amounts by Program type. CRRC supports the estimate that 20 to 30 MMTCO₂e could be avoided due to recycling, and the model used to determine those benefits should be used in determining policy.

The 75% Recycling Plan needs to evaluate current programs and their effectiveness, and recommendations for changes to those programs. Understanding the job creation and GHG avoidance of each program type will allow both CARB and CalRecycle to target programs that are most effective and prioritize existing resources to best achieve their common goals of achieving a statewide 75% recycling goal and reducing GHG levels to 1990 levels by 2020. Mandatory Commercial Recycling as a program was adopted as a measure, to reduce GHG by 5 million metric tons of CO₂e. Anaerobic Digestion and Compost Use were adopted measures, to reduce GHG by 2 million metric tons of CO₂e each.

AB 32 Scoping Plans - Methane Capture and High Recycling/Zero Waste - (MMTCO2E in 2020)

Measure No.	Measure Description	MMTCO2E Reductions
RW-1	Landfill Methane Control (Discrete Early Action)	1
RW-2	Additional Reductions in Landfill Methane <ul style="list-style-type: none"> Increase the Efficiency of Landfill Methane Capture 	TBD
RW-3	High Recycling/Zero Waste <ul style="list-style-type: none"> Mandatory Commercial Recycling Increase Production and Markets for Organics Products Anaerobic Digestion Extended Producer Responsibility Environmentally Preferable Purchasing 	5 2 2 TBD TBD
	Total	10

Section IV.A - Funding

CRRC has provided comments on the **Cap-and-Trade Auction Proceeds Fiscal Years 2013-2014 through 2015-2016**. We are grateful for the Administration's leadership on climate change issues and look forward to working together to help achieve the goals of AB 32. CRRC strongly supports the Air Resources Board efforts to invest cap and trade proceeds into programs regarding funding remanufacturing recycled material programs.

Section V. Challenges to Meeting Goals

A. Short-Term

Comment [L1]: This seems light.

GHG emission reduction quantifications can be performed using default emission reduction factors in the Federal EPA WARM model on an interim basis. This should not deter CalRecycle/CARB from determine GHG avoidance and is considered the best practices in modeling. CRRC supports the estimate that 20 to 30 MMTCO2e could be avoided due to recycling, and the model used to determine those benefits should be used in determining policy.

B. Long-Term

The need to develop a sustainable low-carbon waste management system needs to include the fleet collection and processing facilities, where the fleet can move to CNG and reduce GHG emission by 21% per truck, and could eventually be carbon negative by making their own fuel using the anaerobic digestion process. Processing facilities are adding solar and carbon-neutral biomass gasification facilities to provide carbon neutral energy to power the MRFs. CRRC supports the goal for Net-Zero waste facilities in 2020 and 2035.

Should you have any questions, please contact me at (916) 444-2772.

Sincerely,

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cc: Scott Smithline, Policy Director, CalRecycle
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