DOCKETED	
Docket Number:	19-SB-100
Project Title:	SB 100 Joint Agency Report: Charting a path to a 100% Clean Energy Future
TN #:	230955
Document Title:	GAIA Comments - Recommendation to exclude all forms of incineration of municipal solid waste and biomass from eligible electricity resources
Description:	N/A
Filer:	System
Organization:	GAIA
Submitter Role:	Public
Submission Date:	12/2/2019 2:30:54 PM
Docketed Date:	12/2/2019

Comment Received From: GAIA
Submitted On: 12/2/2019
Docket Number: 19-SB-100

Recommendation to exclude all forms of incineration of municipal solid waste and biomass from eligible electricity resources

Additional submitted attachment is included below.

Submitted to Electronic Docket on December 2, 2019

GAIA
California Communities Against Toxics (CCAT)

Re: Docket: 19-SB-100, SB 100 Joint Agency Report: Charting a path to a 100% Clean Energy Future

On behalf of GAIA and California Communities Against Toxics, we submit these comments to California Energy Commission, California Air Resources Board, and California Public Utilities Commission on the SB 100 Joint Agency Report. We are organizations and networks advancing solutions to waste and pollution.

We strongly urge that the upcoming SB 100 Joint Agency Report explicitly exclude all forms of incineration of municipal solid waste and biomass from eligible electricity resources under SB 100. This outcome would be achieved with the "No Combustion Scenario" presented by CARB at the Nov. 15, 2019 SB 100 Technical Workshop by eliminating resources that combust fuel. However, the "RPS+ Scenario" could potentially include both incineration and biomass as eligible electricity resources under SB 100, which would have serious health, environmental, and economic consequences in communities across the state.

As the California Environmental Justice Alliance wrote in comments[1] to this docket,

> "SB 100 presents a vital opportunity to mitigate the negative impacts of climate change and air pollution from fossil fuels in our communities. Disadvantaged communities, however, are still the least likely to benefit from California's transition to a clean energy future. Our communities suffer disproportionately from the impacts of our fossil fuel economy. California must prioritize environmental justice communities in the transition because our members need immediate, health, environmental, and economic benefits. We cannot leave these vital benefits up to chance. We must proactively plan for an equitable transition to a clean energy future that empowers those most impacted to lead."

Scope of these comments on incineration: waste combustion, gasification, pyrolysis, plasma, plastic-to-fuel

Many terms are used to describe combustion of waste, from the industry's 'waste to energy' to 'transformation' in California policy (PRCS 40201). "Incineration" is an umbrella term that commonly includes direct combustion and the related technologies of gasification, pyrolysis, plasma, and plastic-to-fuel (often called "conversion" in California), which heat waste to form gases or liquids and then combust those waste-derived gases or liquids.

Environmental injustice and climate pollution from incineration

To avoid exacerbating the existing health, climate, and socio-economic consequences of MSW and biomass incineration, these point sources of pollution must be excluded from eligible electricity sources under SB 100.

Waste incineration in any form remains the most carbon-intensive, toxic, and expensive way to dispose of waste and generate electricity, and continues to disproportionately impact environmental justice communities in California and across the nation. A 2019 report published by The New School found that 8 of 10 Municipal Solid

[1] https://efiling.energy.ca.gov/GetDocument.aspx?tn=230633&DocumentContentId=62242

Waste incinerators in the U.S. are located in communities of color and/or lower-income communities.[2] The two remaining incinerators in California are in the City of Long Beach and in Stanislaus County. Air pollutants from the incinerators contribute to and exacerbate cumulative impacts that exist in many environmental justice communities where the population is already overburdened and vulnerable.

Trash incineration produces large quantities of nitrogen oxides (NOx), lead, mercury, dioxins at a higher rate than coal, and emits greenhouse gases at an average rate that is 68 percent higher, per unit of energy delivered to the grid, than coal plants. The air emissions can cause cardiovascular risks, premature death, reproductive harm, and cancer, as well as respiratory diseases such as asthma. Even the most advanced pollution control devices can't eliminate toxic pollution, as approximately 30% of waste burned remains as fly ash, bottom ash, boiler ash, slag, and wastewater treatment sludge, poisoning the soil and groundwater, deposited in landfills for generations to come.[3]

California waste policy and energy policy should be complementary, not incompatible

To ensure that SB 100 energy policy does not undermine existing California waste reduction policy, the upcoming SB 100 report and future regulations must explicitly exclude municipal solid waste incinerators and biomass incinerators from consideration as eligible electricity resources under SB 100.

California waste hierarchy excludes energy recovery from waste as a policy objective, and California's 75 percent recycling goal does not include burning solid waste as fuel (incineration).[4] These policies provide a guidestar for California energy policy related to waste. If CEC, CARB, and CPUC were to include incineration as eligible electricity resources under SB 100, not only would the decades-old Long Beach and Stanislaus incinerators receive undue market advantages, energy policy would effectively undercut existing California waste policy and directly compete with waste reduction programs and infrastructure.

Existing laws also require CalRecycle to adopt regulations and requirements to achieve a 50 percent reduction in organic waste disposal by 2020 and a 75 percent reduction by 2025. To reach these California state policies, local jurisdictions are expanding waste reduction, source separation, and composting due to extensive benefits for the climate, public health, and the environment. As a result, cities and counties across California are establishing and scaling up these programs. Rather than the specter of increased incineration of organic waste, which is by far the largest category of waste in the state, we strongly support California's policy to reduce organics disposal which will be enhanced through increased separate collection and composting. Preventing food waste is the best option.

Biomass incineration

Including biomass conversion facilities, another kind of incinerators, as eligible electricity sources would cause additional consequences.

Biomass incineration, which uses organic feedstocks such as wood chips, construction debris, forest waste, agriculture waste and municipal waste, destroys resources that would better be conserved or recovered through composting. According to research by Partnership for Policy Integrity,[5] biomass burners pollute more per unit of energy than gas and are similar to coal, especially in the case of particulates and nitrogen oxides (NOx). Despite being major air polluters, biomass facilities are considered renewable and carbon-neutral, a conclusion receiving

[2] https://www.no-burn.org/failingincineratorsreport/
[3] http://www.no-burn.org/wp-content/uploads/GAIA-Facts-about-WTE-incinerators-Jan2018-1.pdf
[4] https://www.calrecycle.ca.gov/AboutUs/WhatWeDo/
[5] https://www.pfpi.net/air-pollution-2

increasing criticism by the scientific community,.[6] This is also contradicted by best practices in California for advancing zero waste alternatives to protect clean air, economy, public health, and environment.

Incineration in Europe is on the decline in policy and practice

The slide presentation[7] by Dr. Stephen R Kaffka for the SB 100 Technical Workshop on Nov. 15, 2019 (added to the SB 100 docket on Nov. 20) presents a misleading and incomplete picture of incineration in Europe on PDF page 28. Recent European Union regulations are undoing previous policies that had resulted in a surplus of incineration across Europe.

The revised EU Renewable Energy Directive was approved by the European Parliament and European Council in June 2018, and phases out subsidies for municipal solid waste incineration.[8] In the most recent move to push incineration away, the EU excluded waste-to-energy incineration from a list of economic activities considered 'sustainable finance', those that can make a substantial contribution to climate change mitigation and which do no significant harm to other environmental objectives such as transition to a circular economy, waste prevention and recycling.[9] Meanwhile, research from Zero Waste Europe[10] (GAIA's European branch) shows that while a new Copenhagen incinerator has gained attention for its ski slope, local governments will bear the burden of excess capacity, cost overruns, and choices that contradict the municipalities' own waste management and climate plans.

Furthermore, please note that Dr Kaffka's presentation slides neglected to mention the air pollution and public health impacts from the combustion of MSW or biomass material.

In conclusion, as reports about the failure of California's Cap & Trade program[11] indicate, sweeping policies must beware unintended consequences. We strongly urge CEC, CARB, and CPUC to take the necessary and bold action described in comments submitted to the docket by California Environmental Justice Alliance. We also urge your agencies to pay careful attention to the consequences of combustion-based electricity. As a state, we can and must pursue our 100% electricity goals through non-combustion sources of wind, water, and sunlight,[12] guided by justice and equity.

We welcome dialogue with your agencies as you develop the SB 100 Joint Agency Report.

Respectfully,

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[6] https://www.scientificamerican.com/article/congress-says-biomass-is-carbon-neutral-but-scientists-disagree/
[7] https://efiling.energy.ca.gov/GetDocument.aspx?tn=230803&DocumentContentId=62417
[8] https://zerowasteeurope.eu/2018/01/the-european-parliament-halts-perverse-subsidies-to-energy-from-mixed-waste/
[9] https://zerowasteeurope.eu/downloads/waste-to-energy-is-not-sustainable-business-the-eu-says/
[10] https://zerowasteeurope.eu/2019/11/copenhagen-incineration-plant/
[11] https://www.desmogblog.com/2019/11/21/jacobson-stanford-carbon-capture-fossil-fuels-renewables
[12] https://web.stanford.edu/group/efmh/jacobson/Articles/I/CaliforniaWWS.pdf