

Coalition Letter Opposing SB 451

5/13/2019

Dear Chair Burdick and Members of the Senate Committee on Rules,

We ask that you oppose passage of **Senate Bill 451**, which awards renewable energy credits for the creation of electricity from municipal solid waste (MSW) incineration.

1. **Covanta Marion’s incineration of MSW generated 160,843 metric tons of carbon dioxide equivalents – the 20th highest emission rate of facilities in Oregon with air quality permits.** Covanta Marion’s MSW incinerator in Brooks, Oregon, produced **74,424 metric tons of anthropogenic carbon dioxide equivalents (mtCO₂e)** in 2017, plus another **86,419 mtCO₂e** that were biogenic.¹

a. **BURNING PLASTICS IS BURNING FOSSIL FUELS.** The **74,424 metric tons of carbon dioxide equivalents** was emitted largely because a very significant portion of the incinerated waste was plastic that was derived from fossil fuels.

2. **Oregon should not be importing infectious medical waste from other states and serving as their dumping ground in the name of “Renewable Energy Credits.”** An increasing amount of plastic is coming to the incinerator from medical waste imported from California and Washington (approximately 10,000 tons annually and potentially increasing up to an agreed upon upper limit of 25,000 tons in future years). The upper limit of 25,000 tons of imported medical waste would equal almost 1/6 of the total municipal solid waste (about 153,000 tons) that was burned in the Brooks incinerator in 2017.

3. **Covanta Marion incinerator generates more CO₂ than a modern landfill.** Extrapolating from estimates² by DEQ of anthropogenic landfill gas (110,611 mtCO₂e) emitted into the air from Coffin Butte Landfill over the entire lifetime of waste dumped there in 2015, it is estimated that if the same amount of MSW were sent to the Landfill as waste burned at the incinerator in 2017, it would have only generated about 45,495 mtCO₂e of anthropogenic greenhouse gas over its lifetime in the Landfill. That is **tens of thousands of metric tons of anthropogenic carbon dioxide equivalents more from the incinerator** than for an equivalent amount of MSW sent to the landfill.

4. **The term SKY-FILL describes how incineration of MSW releases greenhouse gas and air toxics to our airshed immediately.** Nearly **100% of the carbon is burned and released immediately. Landfilling sequesters about 75%.** Depending on the estimation method³ used, 74.5% to 81.4% of the carbon in the waste taken to a modern landfill, such as Coffin Butte Landfill, remains sequestered virtually forever, whereas the same carbon would nearly all be released as greenhouse gases if incinerated at the waste incinerator in Brooks.

5. **Covanta Marion incinerator takes up renewable energy credits that should go to clean energy sources.** The relative convenience of incineration of waste serves as a disincentive to the pursuit of zero waste through reduction, reuse, recycling, and composting. These zero waste methods would be far more beneficial to the environment and actually reduce greenhouse gases significantly compared to incineration or landfilling.

6. **The Covanta Marion incinerator clearly emits more very toxic material (heavy metals, bio-accumulative organic toxins, dioxins, and other toxics)** than would occur with a zero waste approach. ORS 469A.025 states, “Electricity generated from the direct combustion of biomass may not be used to comply with a renewable portfolio standard if any of the biomass combusted to generate the electricity includes wood that has been treated with chemical preservatives such as creosote, pentachlorophenol or chromated copper arsenate.” However, nearly any product manufactured in the world (except more obviously dangerous items such as those with readily detectable amounts of radioactivity, for example) can potentially become part of the waste fuel used by the incinerator. This includes the treated wood products (biogenic carbon) that are prohibited from biomass electricity generation facilities and many more materials that either contain toxins or from which toxins (such as dioxins) can be produced via combustion.

7. **Incineration is not the most economical approach to waste management.** A combination of zero waste methods plus landfilling any residuals would be more economical than incineration – especially considering the rapidly rising fees that the citizens of Marion County pay to have their waste incinerated as the incinerator needs more maintenance.

Incineration fees will continue to rise as the value of the incinerator’s main by-product (electricity) decreases with the introduction of more solar and wind energy.

8. **Giving renewable energy credits to Covanta Marion is antithetical to the Clean Energy Jobs bill.** From an economic perspective the waste incinerator provides a few dozen jobs locally and sends millions of dollars in profits out of state. Conversely, just one recycling facility in Salem provides hundreds of jobs and keeps the majority of its funding circulating in the local economy. By focusing on zero waste methods rather than incineration, many more jobs could be created locally — far more than the total number of jobs provided at the incinerator.

Renewable energy credits for solar and wind projects would also lead to more jobs than giving credits for the production of electricity by the incinerator.

9. **The claim by the waste incineration industry that incineration is a “net reducer of greenhouse gases compared to the alternatives” is totally misleading⁴** because it overlooks the option to use zero waste methods of waste management and also significantly overstates the greenhouse gas effects of landfilling by using greenhouse gas emission figures for generic landfills. The latter are much greater than the actual greenhouse gas emissions per ton of waste for Coffin Butte Landfill, which uses modern methods to manage greenhouse gases and actually has electricity generated from most of the methane it produces. In addition, its claim of “greenhouse gas avoidance” from truck fuel used going to a landfill and metals recovered would only amount to a few thousand mtCO₂e in Marion County – not nearly enough to offset its own greenhouse gas production.

10. **Covanta’s air toxic pollution is also an Environmental Justice issue because of community reports that air toxics and drifting ash negatively and disproportionately harm downwind communities in Woodburn and NE Salem.** According to the US EPA, the neighborhoods within a 7-mile radius around the Covanta waste incineration facility are in the 88th percentile for cancer and respiratory risks (using National Air Toxics Assessment data). Furthermore the US EPA lists the area’s demographics indicators for minority (86th percentile), low-income (70th percentile) and linguistically isolated populations (88th percentile) for an overall Demographic Index in the 83rd percentile compared to other areas in Oregon. The DEQ Review Report⁵ for Covanta states that the facility emits between 13-15 tons of

hydrogen chloride annually, a corrosive air pollutant that results in acid rain and is a respiratory irritant. Incineration of plastics⁶ such as PVC may result in releases of Hydrogen chloride. **Covanta is a contributing factor to the health risks endured by the surrounding community.**⁷

Our Conclusion: There are yet other environmental and societal costs of incinerating waste that would require a lengthy dissertation to cover, but what we have already presented here is sufficient to warrant a vote against SB 451. **It emits over 160,000 tons of greenhouse gas annually, burns plastics that are derived from fossil fuels, emits toxins, is an environmental justice concern, puts carbon into the air rather than sequestering it, is not the best choice economically, and is antithetical to the Clean Energy Jobs bill.**

A “no” vote will reserve renewable energy credits for truly renewable sources of energy, such as wind and solar.

Footnotes

1. 2017 - Greenhouse Gas Emissions From Facilities Holding Air Quality Permits:

<https://www.oregon.gov/deq/aq/programs/Pages/GHG-Emissions.aspx>

The waste incinerator in Brooks is listed as “Covanta Marion, Inc.” and is the 20th facility listed in the 2017 table. The Coffin Butte Landfill is the 74th facility listed (under “Valley Landfills, Inc.”). Additional gases from the Landfill are included under Pacific Northwest Generating Cooperative, which is 85th on the list and is the company that produces electricity from Coffin Butte Landfill methane. The carbon dioxide by-product produced from the burning of the methane gas at the Cooperative is treated as biogenic due to its use for electricity production.

2. Using Oregon-specific waste data and an EPA modeling tool, DEQ staff estimated that for the approximately 407,000 tons of municipal solid waste disposed of in the Coffin Butte Landfill in 2015, approximately 110,611 mtCO₂e of methane will escape to the atmosphere, uncaptured over the current and future decades. DEQ emphasizes that this is a rough approximation and that significant uncertainty in landfill dynamics makes it impossible to precisely estimate either gas generation or emissions. Since the landfill received about 407,000 tons of waste per year in that year and the waste incinerator received about 153,000 tons of MSW plus 14,400 tons of medical and specialty waste (total of 167,400 tons) in 2017, the fraction 167,400/407,000 was multiplied times the estimated total methane escaping into the air from the Landfill to get an estimate of what an additional 167,400 tons of waste would have produced in anthropogenic greenhouse gas had it been diverted from the incinerator to the Landfill. (167,400/407,000 times 110,611 equals 45,495.)

3. The scientific article at the following website explains how the figures of 74.5% and 81.4% carbon sequestration in landfills were deduced:

https://19january2017snapshot.epa.gov/www3/epawaste/consERVE/tools/warm/pdfs/ICF_Memo_Carbon_Sequestration_in_Landfills.pdf

4. The Energy Justice Network lists in the link below the arguments presented by the incinerator industry that compare incineration favorably against landfills with regard to greenhouse gas production. Then it systematically states why those arguments favoring incineration are misleading. <http://www.energyjustice.net/incineration/climate>

5. DEQ Review Reports for Covanta

https://www.oregon.gov/deq/FilterPermitsDocs/245398CovantaMarion_RRb.pdf

6. <http://apps.sepa.org.uk/spripa/pages/substanceinformation.aspx?pid=5>
 7. US EPA EJScreen Data accessed 2/17/2019. <https://www.epa.gov/ejscreen>
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