

Dear Chair Burdick, Vice-Chair Baertschiger Jr., and Members Boquist, Dembrow, and Roblan,

I'm writing to strongly recommend that you oppose passage of Senate Bill 451, and that you let it die in committee. The bill establishes eligibility for renewable energy certificates for pre-1995 facilities that generate electricity by incinerating municipal solid waste, if such facilities register with the Western Renewable Energy Generation Information System at any time. My recommendation is based upon the following:

1. Electricity produced by burning municipal solid waste was excluded from Oregon's Renewable Portfolio Standard (RPS) when it was adopted in 2007. Oregon's RPS originally required that 25 percent of the electricity Oregonians use come from new renewable resources by 2025 (the RPS now requires 50 percent be provided by renewables by 2040). "New" was defined as coming online in 1995 or later, and "renewables" were understood to be renewable because they were repeatedly and naturally replenished.

The Covanta Marion incinerator in Brooks met neither requirement: it began commercial operation in 1987, and the municipal and medical waste it burned was not naturally replenished. Thus, the electricity it produced was excluded from certification as renewable under the original Renewable Portfolio Standard.

2. Governor Kulongoski vetoed legislation -- HB 2940 -- in 2009, in part, because it removed the exclusion, and redefined the burning of waste as renewable. In his veto statement, Governor Kulongoski noted that "the legislature expressly excluded municipal solid waste from the RPS just two years ago. Adding municipal solid waste to the RPS is a step backward and one I cannot support." [1]

3. Governor Kulongoski signed compromise legislation -- HB 3674 -- in 2010 that, in part, allowed pre-1995 facilities that burn municipal solid waste to be used to comply with the RPS, but only if the owner or operator registered the generating facility with the Western Renewable Energy Generation Information System (WREGIS) before January 1, 2011. Covanta failed to register the Covanta Marion incinerator by the deadline specified. [2]

Given Covanta's failure to comply with the deadline clearly articulated in HB 3674, there is absolutely no reason why the electricity its Brooks incinerator produces should now become eligible for certification as renewable and applicable to the RPS, as is stipulated in SB 451.

4. Senate Bill 451's designation of waste incineration as renewable is an affront even more now in 2019, than it was in 2010. Each successive UN and other scientific report on the climate, biodiversity, equity and other inter-related crises we face, and our increasing experience with wildfires, droughts, floods, crop failures, etc. reveal that we need to rapidly transition to becoming a low carbon society based upon clean forms of energy, green jobs and production, fairness and equity, and low levels of waste, pollution, and global warming emissions. [3,4,5]

Senate Bill 451 takes us in exactly the opposite direction by (a) conferring false credibility (i.e.,

greenwashing) and unwarranted financial rewards to the outmoded, dirty, high-carbon technology the Covanta incinerator represents [6], and by (b) undermining the transition to the truly clean renewable energy technologies and comprehensive Green New Deal strategies, jobs and opportunities we urgently need [7,8].

On January 10 of this year, The Partnership for Policy Integrity and more than 600 groups affirmed the importance of both excluding waste burning from definitions of renewability, and embracing comprehensive Green New Deal policies and strategies. In a letter sent to Congress, the groups urged "'visionary and affirmative' climate action, including insuring that 'any definition of renewable energy must also exclude all combustion-based power generation, nuclear, biomass energy, large scale hydro and waste-to-energy technologies.'" [9]

Incineration of municipal waste [and medical waste] was also explicitly excluded from the definition of renewable energy in (a) the City of Portland and Multnomah County's unanimous June, 2017 resolution committing to a goal of 100% renewable electricity by no later than 2035 [10], and (b) the unanimous June, 2017 commitment by more than 250 mayors in the U.S. Conference of Mayors committing their communities to the goal of 100% renewable energy by 2035 [11].

5. Clean, truly renewable, low carbon technologies such as solar and wind produce zero global warming and pollutant emissions during their operation. In contrast, municipal waste incinerators burning fossil fuel based waste such as plastics, and biogenic waste produce high levels of both global warming gases and health and ecosystem impairing pollutants.

Based upon U.S. EPA data, waste-to-energy incinerators produce even more pollution and global warming emissions per unit of electricity produced than coal-fired power plants. [12] More specifically, the Energy Justice Network notes that "to make the same amount of energy as a coal power plant, trash incinerators release 28 times as much dioxin than coal, 2.5 times as much carbon dioxide, twice as much carbon monoxide, three times as much nitrogen oxides, 6-14 times as much mercury, nearly six times as much lead and 70% more sulfur dioxides" [13].

6. Some have suggested that SB 451 be amended so that renewable energy credits are issued only for burning the biogenic fraction of municipal waste (waste derived from living organisms, e.g., wood, paper, food waste), but not the anthropogenic fraction of the waste (waste derived from fossil fuels, e.g., plastics). This, too, should be rejected. Renewable energy credits should not be issued for burning either type of waste.

6a. Unlike clean, low-carbon, renewable technologies such as solar and wind which produce no greenhouse gas emissions, incineration of both anthropogenic and biogenic municipal waste produces high levels of such emissions.

As reported in a recent coalition letter [14] opposing renewable energy credits for burning waste, according to an Oregon DEQ listing of the reported greenhouse gas emissions of facilities with air quality permits, the Covanta Marion incinerator in Brooks "generated 160,843 metric

tons of carbon dioxide equivalents – the 20th highest emission rate" in Oregon. Of this, 74,424 metric tons of anthropogenic CO2 equivalents were emitted, and 86,419 metric tons of biogenic CO2 equivalents were emitted.

Burning biogenic wood waste emits even more CO2 than natural gas or coal per megawatt of electricity generated [15,16]. In part, as noted by the Partnership for Policy Integrity, this is because "wood inherently emits more carbon per Btu" than either natural gas or coal [16].

6b. Some argue that incinerating municipal biogenic waste such as wood is "carbon neutral," and thus deserving of renewable energy credits. But as articulated by the Energy Justice Network, burning biogenic wood:

"is not carbon neutral in a meaningful time-frame. The "it'll grow back" argument neglects the fact that it takes too long to recapture the CO2 that is instantly released from burning. With global warming already upon us, we cannot afford to be relying on fuels that release more CO2 than coal, then wait decades for nature to compensate. This is especially true in light of the need to avoid global warming tipping points (like the melting of ice sheets and arctic tundra) in the next 1-2 decades to avert catastrophic levels of warming. Studies have shown that it takes about 45-75 years of tree regrowth to just get the extra pulse of CO2 down to the level where it's just as bad as coal burning. In that time lag, real CO2 molecules in the atmosphere are heating up the planet, pushing us toward more and more tipping points" [15].

Both the Energy Justice Network [15] and the Partnership for Policy Integrity [16] present thorough examinations of the many assumptions that underlie the burning of wood as "carbon neutral" position, and present extensive evidence that the assumptions underlying the position are unwarranted in a time-frame meaningful to addressing our climate crisis.

6c. Unlike clean, low-carbon, renewable technologies such as solar and wind which produce no pollution, incineration of both anthropogenic and biogenic municipal waste produces high levels of many health and ecosystem impairing pollutants. Neither should be classified as a source for renewable energy credits.

The Partnership for Policy Integrity notes that "burning wood and other biological materials for energy emits as much or more pollution than burning fossil fuels, including coal" [17]. Pollutants such as "particulate matter (PM), nitrogen oxides (NOx), carbon monoxide (CO), sulfur dioxide (SO2), lead, mercury, and other hazardous air pollutants (HAPs). Hazardous air pollutants are a group of 187 toxics that according to EPA "are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects" " [17]. See also [18].

6d. Communities of color, low income individuals, and the young, old, and those suffering from disabilities are disproportionately affected by the health and ecosystem impairing pollutants produced by incinerating anthropogenic and biogenic municipal waste. Clean, low-carbon, renewable technologies such as solar and wind produce no such health and environmental justice issues, and indeed, occupy a prominent position within the emerging comprehensive

Green New Deal in simultaneously addressing climate, environmental justice, job, equity and other issues [7,8]. Incineration of anthropogenic and biogenic municipal waste do none of the preceding, and should clearly be excluded as qualifying for renewable energy credits.

Environmental justice concerns played a prominent role in the opposition by fifteen organizations including Oregon Physicians for Social Responsibility, The NAACP Portland Branch, and Neighbors for Clean Air to Metro's proposal to send 200,000 tons per year of its tri-county municipal waste to the Covanta Marion incinerator in Brooks [19]. Recognition of these concerns played a role in Metro's decision to abandon its proposal in August of 2017 [14,20].

In closing, much more could be said, but the conclusion is already crystal clear. As documented above, there is absolutely no justification for certifying that electricity produced by burning anthropogenic and biogenic municipal waste, or just the biogenic fraction of the waste, qualifies for renewable energy credits. To do so violates everything that science and our lived experience tells us we must urgently do to address the climate, biodiversity, equity and other inter-related crises we face.

Renewable energy credits should be authorized for only those technologies that are truly clean, low carbon, renewable, and sustainable, and which make a contribution to at least addressing the multiple crises we face. Electricity produced by the incineration of municipal solid and medical waste meets none of the preceding criteria.

Sincerely,

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Member (representing Oregon PSR), Metro HIA Stakeholder Advisory Group (10/16 - 8/17)

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