



May 10, 2017

House Committee on Energy and Environment
Oregon State Capital
900 Court Street NE
Room 347
Salem, Oregon 97301

Attn: Representative Ken Helm

Transmitted via email to: hee.exhibits@oregonlegislature.gov

Re: Testimony in Support of Senate Bill 334

Dear Committee Chair Helm and Members of the House Committee on Energy and the Environment:

This testimony is being submitted in support of Senate Bill 334. I am an environmental consultant and work to support global management of solid waste with an emphasis on sustainable measures, including biogas recovery and control. In this role, I have become knowledgeable about the different forms of energy we can harness from biogas, and I find renewable natural gas most promising. I wish to highlight the importance of landfills to the future of renewable energy in the State of Oregon and the ways in which waste can support Cleaner Air Oregon and the Oregon Clean Fuels Program.

Concerned by the emissions generated, we often argue against depositing materials in landfills, but in doing so, we may not fully consider the petroleum-based fuels these emissions can offset. I believe if landfill emissions were reframed as lost renewable natural gas, we would see a cultural shift toward approval of their recovery and reuse. For example, Metro, in the Portland region, disposed of 1.1 million tons of waste in 2009. This is comparable to throwing away more than 2 million gallons of diesel fuel equivalents in the form of renewable natural gas that could be used to heat a home, fire a boiler, or fuel fleets of transit buses, school buses, freightliners, and refuse collection and transfer trucks. Currently, the combination of refuse and recycling trucks that idle on my street in Portland combust diesel fuel and emit particulate matter when they could be fueled by renewable natural gas from dairies, wastewater treatment plants, and landfills, all while improving our local air quality and reducing "emissions" from these point sources. Neither technological nor economic barriers prevent these exciting, closed loop developments—only resistance to change and a dearth of information about the ready sources of renewable energy available to Oregonians.

Please keep in mind that our Department of Environmental Quality understands that 95 to 99 percent of the greenhouse gas emissions associated with a product, on a life cycle basis, are emitted from the product *before* it is disposed. It is becoming too expensive to seek to eliminate potential emissions from landfilled waste, as a majority of emissions are released before products are deemed waste and deposited at a landfill. It would be more practical to encourage beneficial reuse of disposed materials through market capitalization of biomethane without creating additional costs and emissions in the process.

With its three large, corporate-owned landfills, the State of Oregon has more than 400 years of permitted disposal capacity, without even considering the expected lifespans of numerous County and

smaller, privately owned facilities. Oregon's disposal capacity promises a bright future for renewable natural gas, and landfills play a key role in supporting the vision set forth by Senate Bill 334.

If we're able to exploit our renewable gas reserves by converting biogas to biomethane, we will encourage more use of this fuel in our State, in turn supporting local jobs, reducing harmful air toxins, cutting greenhouse gas emissions, and reducing dependence on heavy-to-transport, petroleum-based liquid fuels. A move to renewable natural gas supports Cleaner Air Oregon owing to its cleaner emissions profile and has the tangential benefit of transitioning more of our heavy-duty diesels to clean-burning renewable natural gas, which in turn, supports the Oregon Clean Fuels Program.

I appreciate the opportunity to provide testimony in support of Senate Bill 334. I would be delighted to provide additional information at your request.

LANDAU ASSOCIATES, INC.



Timothy P. Logan
Senior Scientist

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