

Submitter: Konstantinos Goulas

On Behalf Of:

Committee: House Committee On Climate, Energy, and Environment

Measure, Appointment or Topic: HB2960

Dear Chair Lively, Vice-Chairs Gamba and Levy, and Members of the House Committee On Climate, Energy, and Environment,

It is my honor to present this testimony in strong opposition to HB2960. My name is Konstantinos Goulas, and I work as an Assistant Professor of Chemical Engineering at Oregon State University. My expertise is in catalysis and reaction engineering and I have 17 years of experience in emissions control, catalysis and development of processes for the valorization of biomass and polymer waste. The present testimony is given on behalf of myself, not my employer.

While I feel there might be good intentions behind the proposed bill, I am of the opinion that the bill will create more problems than it solves. It has the potential to increase pollution due to increased landfilling, while the prohibition on advanced recycling will minimally impact CO₂ emissions associated with the life cycle of plastics. Moreover, forbidding investment in advanced recycling facilities in Oregon will place researchers, entrepreneurs and innovators in our State at a distinct disadvantage, by forbidding their engagement with the exciting opportunities that advanced recycling offers. Last, the bill has the potential to hurt Oregon farmers, by denying them a pathway to reduce their operating expenses in fuel.

Specifically, extensive research by multiple groups of researchers in the US has validated the use of chemical recycling as a method to convert plastic waste. The team of Benavides et al. from Argonne National Laboratory demonstrated that production of fuel as a method to treat non-recycled plastic waste decreases greenhouse gas emissions by about 10%, as well as landfilled waste.[1] Other researchers, from North Carolina State University, recommend a mixture of pyrolysis, advanced chemical recycling and traditional mechanical recycling as optimal for waste treatment. [2] Researchers from the National Renewable Energy Laboratory showed that glycolysis of PET waste is competitive with mechanical recycling [3]. Prohibiting the use of these technologies in the setting of our state will deprive us of ways to reduce waste and advance economic growth.

The passage of this bill will hurt a range of Oregonians, from farmers in Eastern Oregon to researchers and entrepreneurs in the Willamette Valley. Ongoing work in plastic waste-to-fuel enables farmers in Eastern Oregon to turn waste into fuel, reducing their operating costs. While mature chemical conversion technologies have significant advantages, exciting new research by teams in Oregon and nationwide promises to deliver processes competitive and superior to mechanical recycling. The

passage of this bill will harm their ability to translate their work into practice and prevent the creation of jobs in our state.

In summary, I encourage you to reject bill HB2960.

Respectfully submitted,
Konstantinos A. Goulas

References:

1. P.T. Benavides et al. Fuel 203 (2017) 11–22
2. L. Liu et al. Resources, Conservation & Recycling 205 (2024) 107531
3. Uekert, et al. ACS Sust. Chem. Eng. 11 (2023) 965-978