

**Senate Finance Committee**  
**June 13, 2019**

Chairman Dolan, Vice Chairman Burke, Ranking Member Sykes, and Members of the Senate Finance Committee, thank you for the opportunity to testify on Amended Substitute House Bill 166 (HB 166). My name is Carl Fernyak and I am an investor in RES Polyflow – a Brightmark Energy Company.

Brightmark Energy which recently acquired RES Polyflow of Chagrin Falls strongly supports the reinsertion of the language pertaining to post-use polymers and recoverable feedstocks that was recently removed in the Senate substitute bill. The language was co-authored with the Ohio Environmental Protection Agency (OEPA) to codify the agency's regulatory authority over plastics to fuels conversion facilities in Ohio. The provision will encourage new manufacturing and jobs growth in Ohio by exempting post-use plastics and other recoverable plastics from materials classified as solid waste. It also recognizes the recycling and recovery of plastics into valuable commodities such as plastic and chemical feedstocks, crude oil, lower carbon transportation fuels, or other valuable raw materials is a manufacturing process, not waste disposal.

While Brightmark Energy is committed to developing strong, sustainable plastics recycling programs, it is also true that not all plastics can be cost effectively recycled mechanically. However, innovation via advanced recycling and recovery technologies (e.g. chemical recycling) will help create the circular economy for plastics that society is demanding. These technologies can convert post-use plastics into raw materials, plastic and chemical feedstocks, as well as lower sulfur transportation fuels. Because these technologies produce liquid commodities, they open up vast new opportunities for end markets for post-use plastics, thus keeping them out of landfills or our oceans.

Currently the technologies closest to scaling are pyrolysis and gasification, and two of the leading pyrolysis companies in the world (Brightmark Energy and Vadxx Energy) are based here in Ohio. Pyrolysis technologies do not combust plastics, but rather heat the plastics, then melt and vaporize the plastics into gas vapors. This process occurs with no or low oxygen. The gas vapors are then condensed back into liquid hydrocarbons or chemicals that can be feedstocks for new plastics or lower sulfur transportation fuels. Commercialization of these technologies is relatively new. However, many state waste and recycling laws, such as Ohio's are decades old and only a few states have developed permitting frameworks to address these advanced recycling and recovery facilities. Unfortunately, states without definitions and a transparent framework in statute often default to existing regulatory schemes for transfer stations, waste treatment, or waste-to-energy. This is a huge deterrent to new investment and commercialization. These facilities do not handle mixed solid waste and do not dispose of their incoming material, but rather create valuable commodities from post-use plastics. By definition, receiving a plastics feedstock or raw materials and creating a valuable new product is "manufacturing" and these technologies should be regulated similar to other manufacturing facilities in Ohio.

To hasten the commercialization of these circular economy enabling technologies, we ask you and your colleagues in the Ohio Legislature to reinsert the aforementioned language that appropriately classifies these technologies as "manufacturing" where they will remain subject to both federal regulations and state regulations on air, waste, water etc. To be clear, this language was developed in consultation with and is supported by the OEPA. We seek nothing more than to simply codify the regulatory program these facilities will be subject to with this language and have had no opposition to these efforts prior to or since the House included the language in HB 166.

In closing, the economic opportunity is huge. Ohio is the number one producer of plastics in the United States and the American Chemistry Council estimates that if Ohio were to convert just 25% of the plastics that are currently landfilled in Ohio and neighboring states to petrochemicals and fuels that this activity would generate \$820 million in economic output each year (see attached fact sheet). Additionally, Ohio could power 330,000 cars per year just by converting its landfill bound plastics to lower sulfur transportation fuels.

We respectfully ask you to reinsert this language supported by Ohio EPA to update our waste laws and encourage this tremendous economic and environmental opportunity for Ohio.

# CREATING A MORE CIRCULAR ECONOMY FOR PLASTICS IN OHIO

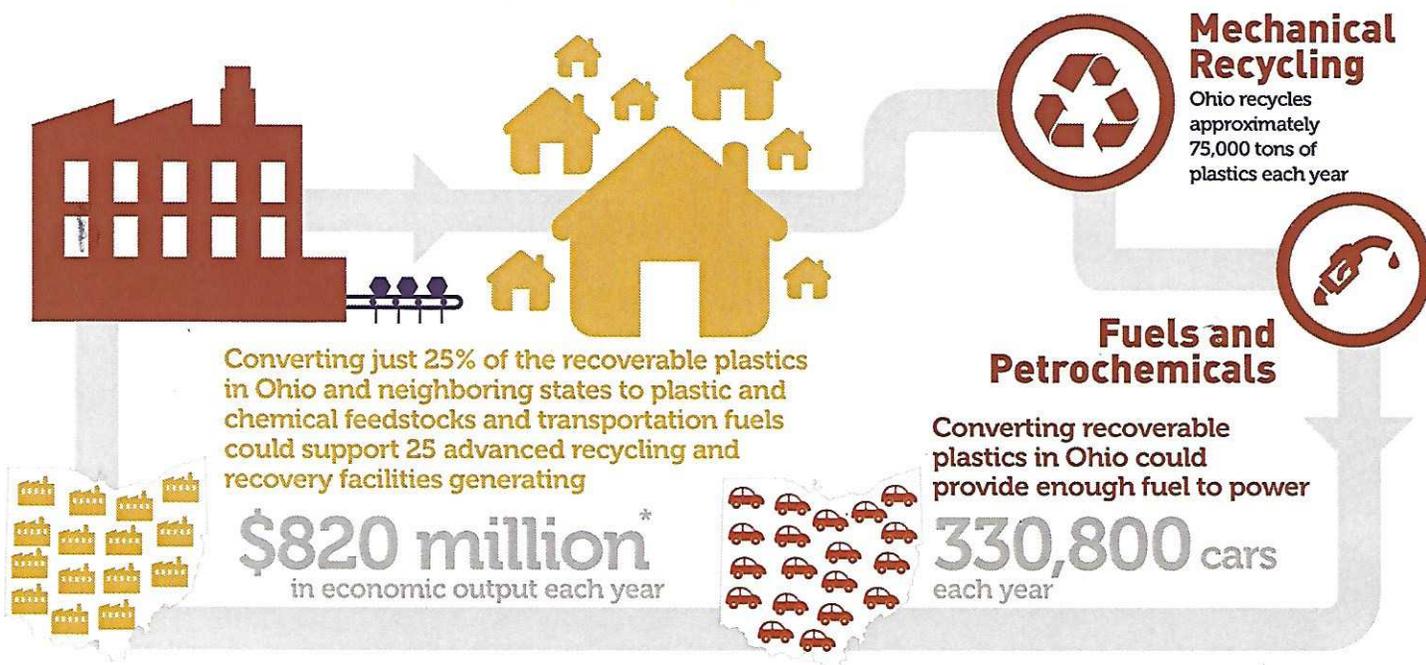


Chemistry is creating energy solutions for a strong, secure and sustainable future.

Chemistry is enabling a transition to a more circular economy for post-use plastics by transforming these materials into valuable feedstocks for new plastics and chemicals, other raw materials for manufacturing, and transportation fuels through advanced recycling and recovery technologies such as pyrolysis and gasification. Converting these abundant resources into new feedstocks and fuels complements existing mechanical recycling and reduces the amount of useful materials that would otherwise be sent to landfills.

Recycling rates in the U.S. are growing and must continue to do so, but unfortunately tons of valuable, recoverable post-use plastics and other materials are buried in landfills every day—wasting valuable resources for manufacturing. Advanced recycling and recovery facilities can process these post-use plastics into feedstocks for new plastics and chemicals or into transportation fuels that have lower emissions than conventional fuels.

## Chemistry is unlocking the energy in discarded materials:



## POLICYMAKERS SHOULD ENCOURAGE NEW OHIO MANUFACTURING BY:



Ensuring that post-use, recoverable plastics that are converted to plastic and chemical feedstocks, crude oil, lower carbon transportation fuels or other valuable raw materials via pyrolysis or gasification are not misclassified as solid waste.



Ensuring that advanced recycling and recovery facilities that process post-use, recoverable plastics into plastic and chemical feedstocks, crude oil, lower carbon transportation fuels or other valuable raw materials are regulated like other Ohio manufacturers.



Evaluating and implementing a Sustainable Materials Management (SMM) approach that incorporates life-cycle analysis-based decision making into Ohio's materials management and solid waste policies.