## PRESS RELEASE



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## Regional economists, engineers call tri-state petrochemical buildout "a non-starter"

Letter to Ohio, Pennsylvania, and West Virginia governors calls for more viable and sustainable job creation and economic development strategies

PITTSBURGH, Pennsylvania – Eight economists and engineers representing seven area universities and colleges as well as a former Pennsylvania Secretary of Environmental Protection have written a letter warning the governors of Ohio, Pennsylvania, and West Virginia that the Ohio Valley and Western Pennsylvania are not likely to see a major petrochemical industry buildout in the region nor the kind of job creation that some predict.

Citing a years-long trend of declining profit margins, greatly increased competition from new facilities in the Gulf Coast and China, and softening demand due to the economic slowdown and efforts to reduce greenhouse gas emissions and plastics pollution, the group explains that returns on investment are no longer sufficient to justify the risk investors would have to assume in order to construct more major petrochemical projects like the one currently under construction in Beaver County, Pennsylvania. As evidence they point to the cancellation of the ASCENT cracker plant in Wood County, West Virginia, the inability of the proposed Appalachian Storage Hub to attract investors, the failure by China to follow through on an announced investment of \$84 billion in regional petrochemical projects, and the recent indefinite postponement of a final investment decision on an ethane cracker plant proposed for Belmont County, Ohio.

The group, which includes faculty members from the University of Akron, Bethany College, Carnegie Mellon University, the Ohio State University, West Virginia University, and Youngstown State University as well as the West Virginia Center for Budget and Policy, also cites technological barriers to the creation of a petrochemical hub, which some people have claimed could rival that of the Gulf Coast.

Because natural gas does not contain a class of chemicals derived from oil called aromatics, which include benzene, toluene, and xylene, the region is unable to support the production of a large share of plastics products, which require those substances. And most of the demand for products that ethylene and polyethylene from the region can support is expected to arise in China and Asia where much of this region's output will be used rather than in domestic manufacturing.

In the face of these barriers, the group says economic development funds focused on developing the region's petrochemical industry are being squandered while better, more sustainable areas of opportunity are being neglected. They point to the rapidly expanding clean energy economy, which includes not only wind and solar power, but also energy efficiency and the electrification of transportation, which is responsible for the launch of the Lordstown Motors electric truck plant in Ohio.

One of those signing the letter, national energy analyst and former Pennsylvania Secretary of Environmental Protection, **John Hanger**, said, "Claims that petrochemical industry will revitalize Western Pennsylvania and its neighbors give people false hope that cruelly build only disappointment and frustration. Fortunately, there is powerful economic development alternative: retrofitting buildings for energy efficiency, building electric vehicles and their parts as well as manufacturing and installing wind, solar and battery storage."

**Ted Boettner**, Executive Director of the West Virginia Center on Budget and Policy agreed saying, "Instead of pursuing the false hope of a regional industrial phoenix based on shale development, policymakers and economic development officials should focus on providing a foundation upon which businesses and people can thrive, such as building a skilled and educated workforce, universal broadband, and investments that improve the quality of life in the region."

Amanda Weinstein, Associate Professor of Economics at the University of Akron observed, "Policymakers need to leverage the strengths and comparative advantages of each state to pave their own path forward in the growing green economy. In Ohio, we first need to eliminate the burdensome regulations and fees we've placed on sustainability and alternative energy industries. Ohio should utilize its higher education institutions to fund research and development into sustainability and fund job training so Ohio workers have the skills needed in the green economy. And we need to invest more in conservation and pollution mitigation to improve the quality of life in the state which likely has the greatest ability to produce jobs and promote economic success by making Ohio a nicer place to live and work."

James Van Nostrand, Professor and Director of the Center for Energy and Sustainable Development at the West Virginia University College of Law, concluded, "It's time for the region to stop staking its future on fossil fuels, which has no future. The fastest growing sector of the economy is clean energy – energy efficiency and renewables – and the region's efforts are better directed toward establishing policies that attract clean energy investments as well as the large employers who increasingly demand renewable sources of electricity for their energy needs."

While the letter is directed to the governors of Ohio, Pennsylvania, and West Virginia, the signers hope that policymakers at all levels of government will reassess and, where necessary, redirect their economic development efforts in light of their findings.

Others signing the letter are **Eric Beckman, PhD**, Professor of Engineering and Co-Director of the Mascaro Center for Sustainable Innovation at the University of Pittsburgh; **Wilfrid Csaplar, Jr**. PhD, Professor of Economics at Bethany College; **Nicholas Muller, PhD**, Associate Professor of Economics, Engineering, and Public Policy at Carnegie Mellon University; **Mark Partridge, PhD**, Professor, Swank Chair in Rural-Urban Policy at the Ohio State University; and **John B. Russo, EdD**, Founder and former Director of the Center for Working-Class Studies at Youngstown State University.

The text of the letter follows.

# # #

Dear Governors DeWine, Justice, and Wolf,

In Ohio, Pennsylvania, and West Virginia, our goals for economic growth and job creation are being undermined by the mistaken belief that the region's petrochemical and plastics manufacturing industries are poised to greatly expand and, in the process, generate large numbers of new jobs. In fact, no such expansion and jobs boom is likely. And, unless we adopt new and better development strategies, we risk squandering hundreds of millions of dollars in public funds in pursuit of a vision that will not materialize.

The recent cancellation of the ASCENT ethane cracker in Wood County, West Virginia, the indefinite postponement of a final investment decision on the proposed Belmont County, Ohio cracker, the failure of the proposed Appalachian Storage Hub (ASH) to attract private investors, and the failure by China to follow through on an announced investment of \$84 billion in the region are just the most visible signs that the vision of an economic renaissance driven by an expansion of petrochemicals and plastics manufacturing is an economic non-starter.

That is why we -- a group of economists, engineers, public policy analysts, and former policymakers who are affiliated with some of the region's leading institutions — have concluded that regional leaders need to explore more feasible and sustainable economic development strategies. Some of the reasons are contained in a recent study from the Institute for Energy Economics and Financial Analysis (IEEFA), which determined that a proposed cracker in Belmont County, Ohio has become too risky an investment to go forward. IEEFA has been joined in that conclusion by Moody's, Fitch's, and IHS Markit.

We also see additional economic and technological barriers, which are likely to outlast the current economic crisis and make the construction of more crackers in the Ohio Valley and Southwestern Pennsylvania highly unlikely. Consequently, projects that depend on a buildout of four to five crackers, including development of large natural gas liquids storage facilities such as the proposed ASH and a major expansion of the downstream plastics manufacturing sector, are also unlikely to be realized as are the jobs they are expected to provide.

At the same time that prospects in our region are dwindling, competition is growing rapidly elsewhere. In just the past two years, ethylene and polyethylene production capacity in the US has increased by 50 percent, principally along the Gulf Coast, creating a condition of oversupply that the IEEFA analysis doesn't see closing until 2026. The global buildout is even greater, with <a href="Wood Mackenzie forecasting">Wood Mackenzie forecasting</a> a "meteoric expansion" of ethylene capacity in China over the next five years. As a result, <a href="IHS Markit forecasts">IHS Markit forecasts</a> an imminent plunge in global cracker utilization rates.

Another discouraging factor is that, even before the recent coronavirus crisis and the associated economic slowdown, the financial condition of the region's gas drilling industry was dire. And the best cure for the industry's condition – a rise in natural gas prices – would further reduce the competitiveness of petrochemicals from the region by driving up the cost of the ethane feedstocks. Additional barriers are presented by questions about the speed of general economic recovery and whether global and domestic demand for plastics and chemicals will meet pre-crisis expectations.

These are just the economic conditions that are creating intolerable risks for prospective investors. There are additional factors as well. Petrochemical and plastics manufacturing are emissions-intensive activities that are vulnerable to government actions to reduce greenhouse gases, such as carbon taxes and caps, for which pressure is growing in the United States and globally. At the same time, the pace of growth in the plastics market is being thrown into question as national, regional, and local governments, including recently China, enact measures designed to reduce plastics consumption and pollution.

Meanwhile, the vision of our region becoming a petrochemical hub comparable to the Gulf Coast also faces severe technological challenges. Ethane from the Marcellus/Utica fields does not contain aromatics and other chemicals, which are essential components in the manufacture of many products. Most of the ethylene and polyethylene produced in this region is, therefore, likely to be shipped elsewhere – primarily China -- for manufacturing, which severely undercuts prospects for manufacturing job growth here.

Finally, health and environmental risks associated with a petrochemical buildout, can't be overlooked. In addition to being major emitters of greenhouse gases, ethane cracker plants, processing facilities, and downstream manufacturers are also emitters of fine particulate matter as well as volatile organic compounds (VOCs). Residents in our region already suffer higher than average rates of cancer, cardiovascular disease, upper respiratory disease, obesity, diabetes, and other conditions that make our region's population among the nation's most vulnerable to adverse health consequences from these substances.

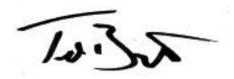
For these many economic, technological, environmental, and health reasons, we believe our states need more viable, just, and sustainable development strategies that create jobs and provide the tools and resources needed by workers and communities, especially those that have been disproportionately affected by deindustrialization, to successfully transition. One area of special promise is the clean energy economy - electric vehicles, energy storage, wind power, solar power, and energy efficiency -- which already employs more than 175,000 workers in Ohio, Pennsylvania, and West Virginia, three quarters of them in manufacturing and construction.

The clean energy economy offers large-scale, high-visibility opportunities, like the Lordstown Motors electric truck plant in Ohio as well as new opportunities for existing businesses in communities all over our region in fields like lighting, HVAC, construction, building maintenance, and energy efficiency retrofits. The construction of high-efficiency buildings and the retrofitting of existing buildings and homes generates knock-on benefits, including reduced demand for electricity, lower utility bills for ratepayers, greater comfort for workers and residents, and fewer greenhouse gas emissions.

We ask you to help stop the squandering of public funds and resources in pursuit of an imagined petrochemical boom. Instead our region's efforts should be focused on alternative economic development strategies, which can attract new businesses and expand opportunities for existing ones while creating new jobs up and down the skills ladder in communities throughout our region.

Thank you for your consideration.

Sincerely,



Ted Boettner
Executive Director
West Virginia Center on Budget and Policy

Wilfrid Csaplar, Jr. PhD Professor of Economics

**Bethany College** 

John Hanger, J.D.

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