

Senate Field Hearing
**“Shale Gas Development: Meeting the Transportation, Pipeline,
and Rail Needs to Renew American Manufacturing”**
Wednesday, April 11, 2012
Testimony of J. Keith Burdette

Mr. Chairman, Thank you very much. My name is Keith Burdette. I currently serve as Executive Director of the West Virginia Development Office and as a member of Governor Earl Ray Tomblin’s cabinet as the Secretary of the Department of Commerce. I am pleased that the United States Senate Commerce Committee and particularly the chairman, Senator Rockefeller would focus their attention on the opportunities associated with the development of Marcellus and Utica shale reserves located under much of West Virginia.

West Virginia is an energy state. We have a long, proud history of providing low cost, readily available energy to this country. It can be dangerous and dirty work, but we have provided the essential fuel for the economic engines of this nation since before West Virginia became a state. Our location, central to our nation’s population, makes our resources readily accessible to our nation’s consumers. While considered a coal state by most, our broad array of energy resources enables a per capita production of energy exceeded only by the state of Wyoming. We export two thirds of the electricity produced in West Virginia. We are number three behind Pennsylvania and Alabama in the amount of net electricity we put in the electricity grid. We are also active in renewable energy markets with 581 installed megawatts of wind power and 327 MW of hydro power. We remain active in oil markets. Our oil is paraffin based, suitable for refining into lubricating oils. But today, we are here to talk about another energy resource, natural gas. West Virginia is the only natural gas exporter among the eastern states. We have been a natural gas producer for 150 years. From 1906 to 1917 West Virginia was the leader in gas production in the United States. Given the advent of directional drilling, we have access to a new source of natural gas - Marcellus Shale.

The Marcellus resource generally extends from New York to Ohio. In West Virginia, most of our state overlies the Marcellus Shale. Marcellus Shale is a game changer for West Virginia. Geologists are concluding that the Marcellus resources could be the most significant shale play in the country. Before Marcellus, we were estimating our state natural gas recoverable resource at 3-5 trillion cubic feet. Now, that estimate could be increased by a factor of 10. Marcellus is located 5-6,000 feet below the surface. Marcellus wells are producing from our Northern Panhandle to McDowell, our southernmost county. Below the Marcellus at 10,000 feet we have the Utica Shale resource. This is undeveloped in West Virginia, but could share the same transportation/processing infrastructure being developed for the Marcellus. Most major oil and natural gas companies will be active in these shale plays in West Virginia.

The chemical industry in West Virginia has been our state's second largest employer next to coal. The first petrochemical plants in the US were built in West Virginia by Union Carbide, first at Clendenin on the Elk River and then at Blaine Island on the Kanawha River adjacent to South Charleston. South Charleston, as does Wilmington Delaware, bills itself as the Chemical Capital of the World. Chemical research continues to be a university focus through our university system.

The early days of the chemical industry focused on local raw materials and regional markets. Today, we are truly a global economy. We are not just competing with domestic industry, but we are competing with countries around the world, including Qatar, Indonesia, and Malaysia. For all industrial applications, the costs of energy is a critical determinate in whether or not your products can be competitive on the world market. Natural gas prices have had a history of dramatic fluctuations. Today's \$2.20 per MCF is an example. While industrial and residential customers are benefitting from low natural gas prices, we anticipate prices stabilizing in the \$4-\$5 range. Long term stable prices will send the market signals necessary for the orderly development of our natural gas resources.

West Virginia is home to 150 chemical and polymer manufacturing companies that employ over 12,000 workers. In fact, West Virginia is ranked 6th among states in the share of overall GDP that comes from chemical and polymers. Twenty-five percent of our international exports are chemical and polymers. Access to competitively priced natural gas brought these industries to West Virginia. With Marcellus, we can look to an expansion and diversification of our chemical industries.

Ethane is the building block for the plastics industry. Ethane, along with propane and butane, are the wet components of natural gas production. Conventional natural gas production has 3 percent ethane. Marcellus could have up to a 10 percent ethane content. In our earlier chemical industry history, we had ethane pipelines. We had a vibrant plastics industry. As ethane supplies dwindled those ethane transportation lines were taken out of service and much of the plastics industry moved to the Gulf Coast in response to cheaper natural gas and ethane costs. West Virginia and other Marcellus Shale states now have an opportunity to regain a competitive edge in the chemicals and plastics sectors. Since 2009, West Virginia has witnessed over \$3 billion of investments in natural gas infrastructure (pipelines and processing plants) to get the Marcellus to market. Even in a market in which a glut of cheap natural gas, production in the "wet" areas of the Marcellus continues. In one county of West Virginia, one company will spend \$750 million in production activities in the next 12 months.

For the past year our goal has been to attract an ethane cracker plant to West Virginia specifically and the region in general. . A cracker plant converts ethane into ethylene. A local supply of ethylene would dramatically impact transportation costs and create an economic climate that could allow for a rebirth of the plastics and chemical industry in our state and in this region of the country. With Shell recent announcement that they will explore building a cracker facility about 10 miles from the West Virginia border in southwest Pennsylvania, we believe the first important steps have been taken. We are convinced a second and possibly even a third facility can be built in our state. The impact could be huge. Just from an operational picture, a world class cracker will likely require an investment from \$3 billion to \$5 billion. It will take four years to design and build. At peak construction, between 7500

and 10,000 construction workers will likely be involved and 500 to 1000 permanent operation jobs. More important, the facility would serve like the anchor store in a manufacturing mall, attracting smaller manufacturers who can take advantage of low cost feedstock and transportation costs.

West Virginia is doing its part. Governor Tomblin and the West Virginia Legislature have passed legislation governing the regulation of horizontal shale drilling, because we understand the importance of regulatory certainty. We've developed appropriate incentives. We've taken the appropriate financial steps as a state to be competitive. We have lowered business taxes, improved our bond ratings, expanded our cash reserves and enhanced our business climate. West Virginia privatized our Workers Compensation program resulting in rates that are now 10% below the national average. Unlike 28 other states, we haven't borrowed funds from the federal government to pay unemployment benefits. Instead we have a stable fund with \$100 million in the bank. We are now considered the sixth best place in the world for oil and gas development, according to the Frazier Institute.

We have the building blocks, a trained chemical industry workforce, abundant supplies of ethane rich natural gas, and a robust infrastructure. There is still much to do. We need to expand the technical training that will be required for West Virginians to compete for the new manufacturing jobs that could be in our future. We need to develop storage opportunities and explore the creation of an ethane hub for this region of the country so that there is created a stable reliable supply of ethane long into the future. We need to be nimble and responsive to the changing economic opportunities around us.

West Virginia is looking forward to increased employment opportunities, new markets for domestic energy, and enhanced economic benefits to our citizens and communities. With increased natural gas development in West Virginia, we feel these developments are within our reach. I look forward to your questions.