



Marcellus Shale Update—June 2012

- The infrastructure build out of pipelines and gathering and processing systems in the Marcellus Shale is in great demand and required to support increased natural gas production. In Pennsylvania alone, 1,386 wells were drilled in the Marcellus Shale in 2010, 2,073 in 2011 and another 664 permits were issued in the first two months of 2012.¹ The need to process and transport natural gas is critical to the success of the producers/drillers; mid-stream MLPs stand to benefit significantly. Several of the larger and more sophisticated mid-stream companies are fully engaged to help the producers get their product to market. A number of large projects are underway to move the gas to where it is needed. For example:
 - **MarkWest Energy Partners, L.P. (MWE)**, the largest processor of natural gas liquids (NGLs) in the Marcellus, has been working with Range Resources (RRC), the largest driller in the region, to create solutions to process ethane from natural gas and transport the ethane to hubs in Sarnia, Ontario and Philadelphia PA. Ethane is a NGL used in the production of a variety of consumer plastics. The Mariner West pipeline to Ontario should be operational in the 2nd half of 2013 and should be scalable to 65,000 bbl/d. The Mariner East pipeline to Philadelphia is under negotiation with buyers in Europe to transport up to 90,000+ bbl/d. The targeted service date is estimated to be during the 1st half of 2014.
 - **Enterprise Products Partners L.P. (EPD)**, a major integrated mid-stream energy MLP has over \$7.0 billion in growth projects under construction currently throughout the US. The ATEX project will transport ethane and natural gas from the Marcellus shale over 1,200 miles to the Gulf coast with capacity of up to 165,000 bbl/d in 2014 growing to over 200,000 bbl/d by 2017. They are also increasing their processing ability in Texas to produce natural gas with specifications that will allow the gas to be shipped to foreign destinations including South America and Asia.
- The Marcellus Shale is among the most important regions igniting the US energy revolution. According to data gathered by Bloomberg from the U.S. Energy Department, the output in the Marcellus Shale doubled to a record 6.3 bcf/d in March 2011. This equates to almost two thirds the demand for the eastern US.² The mid-stream MLPs are well positioned to create the solutions necessary to process and transport this important energy resource for decades to come.



¹ Data from the Pennsylvania Department of Environmental Protection.

² Marcellus Gas Cuts Price Premiums to Decade Lows: Bloomberg 06-21-12.