

A collage of images related to law and justice, including a scale of justice, a judge's gavel, and a computer keyboard, overlaid with a grid pattern.

JONES DAY
COMMENTARY

WEST VIRGINIA AND PENNSYLVANIA TAX POLICY FOR THE MARCELLUS AND UTICA SHALE FORMATIONS: ENSUING BORDER WARS?

In a tough economic climate where many states are cutting incentives and raising tax rates in an effort to increase revenue and close vast budget deficits, debate continues as to the extent that state and local taxation are affecting the exploration of natural gas from the Marcellus and Utica Shales. Such tax incentives may be overridden by logistical concerns such as access to production wells and ability to ship products to market via barge, rail, truck, and pipe. As the primary Marcellus Shale states, West Virginia and Pennsylvania are competing for the exploration, drilling, transportation, processing, and manufacturing of natural gas. The combined tax breaks and credits offered in West Virginia provide incentives for natural gas developers to extract natural gas in the state. In neighboring Pennsylvania, more than three years of legislative gridlock have given exploration companies a huge financial incentive to commence drilling operations in the Commonwealth.

BACKGROUND

The Marcellus Shale formation may contain the largest single natural gas deposit in North America, and it lies in close proximity to premium East Coast markets.¹ The Utica Shale, which underlies the Marcellus Shale by several thousand feet, is thicker than the Marcellus Shale and has the potential to be larger than any natural gas field known today. Less exploration and drilling has occurred in the Utica Shale, so estimates of the recoverable natural gas are still highly speculative, and it is unclear how this formation will respond to horizontal drilling and hydraulic fracturing. The Utica Shale also covers a wider area, including all of the Marcellus Shale states, but also covering portions of Ohio, Virginia, Kentucky, Tennessee, Lake Erie, Lake Ontario, and Ontario, Canada.² This increased territory means the potential for more states to vie for shale drilling industry resources in the near future.

MARCELLUS AND UTICA SHALE DEVELOPMENT: DEMAND AND INFRASTRUCTURE

Access to potentially huge unconventional gas and oil resources has created a paradigm shift in the U.S. energy supply, with the potential wealth of this resource drawing attention from exploration and production companies, as well as ancillary pipeline, distribution, processing, and manufacturing companies that support the natural-gas industry. However, demand for natural gas is essential to ensure that market prices remain stable and that shale-focused exploration continues on an aggressive path. Arguably, the industry is at a crossroads for infrastructure to support production. While commodity prices remain low, it is imperative that Pennsylvania and West Virginia develop additional markets and industrial consumers to purchase the new supply of natural gas and that downstream companies fortify the existing infrastructure to ensure an affordable delivery system.

INDUSTRY DEMAND ADAPTING TO BENEFITS FROM PLENTIFUL NATURAL GAS SUPPLY

In addition to local industrial and residential customers, large energy consumers are starting to relocate to the region to take advantage of the reduced costs of natural gas. As these energy consumers relocate, Pennsylvania and West Virginia have begun vying for this secondary boost to their economy and tax revenues. In addition to common energy-hungry industries such as steel production, electricity generation, and major manufacturing, other industries use the petrochemicals to create new products. Some natural gas, including much of the gas recovered from the Marcellus Shale, is “wet” gas. Wet gas includes petrochemicals, known as natural gas liquids (“NGLs”), in addition to methane. These NGLs include petrochemicals such as ethane, propane, and butane. NGLs must be removed in order to create “pipeline quality” methane, and at the same time, NGLs are useful in numerous applications. For example, polyethylene, a derivative of ethane extracted from wet gas, is an important raw material for the plastics industry.

Shell Chemicals Limited announced on June 6, 2011 that it will build a “world-scale” ethylene cracker in the Appalachian region.³ As a leader in gas technologies, Shell has an array

of long-term options to monetize natural gas. The location of Shell’s cracker facility will materially affect gas production and increase job growth in the selected state venue. Like Shell Chemicals, Dominion Resources, Inc. is proceeding with its next major project, the construction of a large natural gas processing and fractionation plant, in the Marcellus and Utica Shale regions.⁴ Dominion plans to locate the plant along the Ohio River in Natrium, West Virginia. The first phase of construction includes facilities that can process 200 million cubic feet per day of natural gas and fractionate 36,000 barrels per day of NGLs. The new facility is a response to the need for additional processing and fractionation capacity in the region. The rising price of oil and the low price of natural gas have shifted drilling activity in the Appalachian region from the dry gas areas to the wet gas areas, as producers look to capture the economic value of NGLs.

NATURAL GAS INFRASTRUCTURE STRAINED TO KEEP UP WITH PRODUCTION AND NEW DEMAND

Pipelines and storage are essential to creating new markets for natural gas. Existing pipelines are used to transport large volumes of gas across state lines and to high-demand end users. Infrastructure at the right scale from the wellhead to major transport pipelines needs to be built, but the topography of the Appalachian Basin is a major challenge. The sharp production increase is already stressing some existing Appalachian gathering and processing infrastructure, which was originally built to service relatively small, low-pressure gas wells. The production profiles of Marcellus wells are significantly different; their high initial production rates, high pressures, steep decline curves, and significant liquids production in some areas represent challenges for midstream infrastructure developers. Pending completion of an integrated multistate distribution system, additional storage capacity in Pennsylvania and West Virginia is important to the continued development of the Marcellus formation.

MARCELLUS SHALE DEVELOPMENT IN WEST VIRGINIA

West Virginia has been greatly affected by Marcellus Shale development. According to the West Virginia Department

of Environmental Protection, as of December 2011, approximately 2,290 Marcellus Shale wells had been drilled in the state.⁵ Also, West Virginia's underground natural gas storage capacity accounts for about 6 percent of the U.S. total.⁶ In addition to the natural gas produced in-state, West Virginia infrastructure handles three times that amount from out-of-state sources. West Virginia University's Bureau for Business and Economic Research credited Marcellus Shale gas and related industries in the state with creating 7,600 jobs and \$2.35 billion in business volume with \$14 million in taxes in 2009 alone.⁷

West Virginia is an important supplier to the Northeast during the winter months, when the demand for natural gas peaks. Natural gas is produced in 49 of West Virginia's 55 counties, through approximately 40,500 wells. The state is the largest producer of oil and natural gas east of the Mississippi River. It ranks 33rd in the nation for oil production and 11th for natural gas production.⁸

Unlike Maryland, New York, and Pennsylvania, which presently do not impose any extraction fee on the natural-gas industry, West Virginia imposes a hybrid severance tax of 5 percent of the wellhead value and 4.7 cents per 1,000 cubic feet ("MCF") extracted. Originally, West Virginia had only a value-based tax, but in 2005 it added the 4.7-cent volume-based tax in order to help correct a deficit in the state's workers' compensation fund.⁹ West Virginia does not allow any deductions for expenses relating to the transporting, cleaning, and manufacturing of the gas when it reaches the point of purchase. Ohio also imposes a severance tax of 2.5 cents per MCF.¹⁰

According to a recent study by the Marshall University Center for Business and Economic Research, West Virginia appears to place a higher tax burden on natural gas operators than five surrounding states.¹¹ The West Virginia Center for Budget & Policy responded to the Marshall University study by explaining that simply comparing the basic statutory rate is not enough. As with any tax system, the "effective rates" of taxation must be evaluated. The effective rate is the result calculated after deductions, limits, and credits. Using this method, West Virginia has an effective severance tax rate of 3.2 percent, well below the national average.¹² The

state revenue generated by West Virginia's severance tax is also well below that of other energy-intensive states and represents approximately 7 percent of West Virginia's total tax revenues—consistent with the percentage of state tax revenue generated by severance taxes in Texas, but sharply below that of Alaska (66.1 percent), New Mexico (17 percent), and Oklahoma (11.6 percent).¹³

As with any multistate or international business, taxes, labor and transportation costs, and other fees do play a part in where the drilling, extracting, and manufacturing of natural resources transpire. There are a variety of taxes and fees levied at the state and local levels that affect capital investment, including severance and production taxes; corporate net income taxes; real property taxes; sales and use taxes; employment taxes; and permits, bonds, and other environmental fees. Because of the type of shale formation and its location deep below the earth's surface, the exploration for and production of shale gas constitute an expensive and capital-intensive process. Efficient and cost-effective gathering, storage, and distribution of natural gas are important financial considerations, particularly when the 52-week commodity price range for natural gas is below \$4.00 per million British thermal units. Taxation is only one of many factors that determine where exploration and production companies will locate. The coal, oil, and gas industries are guided by the location of the reserves, access to markets, commodity prices, and technology. The natural-gas industry is geographically restricted despite mobile capital resources.

MARCELLUS ECONOMIC LEGISLATION PASSED IN WEST VIRGINIA

On March 12, 2011, the West Virginia legislature passed S.B. 465, the Marcellus Gas Manufacturing and Development Act (the "WV Marcellus Act"), aimed at encouraging continued growth in the natural-gas-production sector of the West Virginia economy. Passed with the specific purpose of improving economic opportunities for the citizens of West Virginia, the new law became effective on July 1, 2011, and could go a long way toward ensuring continued growth in the state's already strong natural gas sector.

In the legislative findings that accompanied the WV Marcellus Act, the West Virginia legislature found that the development of the shale will increase economic development opportunities in manufacturing, in the transmission of natural gas, and in the transportation of manufactured products. Already shale development has had a positive impact on the West Virginia economy. A recent West Virginia study found that for every dollar spent by the natural-gas industry in West Virginia in 2010, \$1.39 of total economic activity was generated.¹⁴ By 2020, development of the shale in West Virginia is expected to create approximately 17,000 jobs and generate \$2.9 billion in gross economic activity—\$1.6 billion in value added and \$1.3 billion in direct payments to households through royalties and industry payroll.¹⁵

In addition to studying the economic stimulus provided to West Virginia from the exploration and production of the Marcellus Shale, the West Virginia Center on Budget & Policy has championed the creation of a trust fund for further economic development and diversification funded by an increase in the state's coal and natural gas severance tax.

THE WEST VIRGINIA MARCELLUS GAS MANUFACTURING AND DEVELOPMENT ACT

The WV Marcellus Act amends the West Virginia Code to provide a variety of incentives to those companies tapping into the Marcellus Shale from locations inside West Virginia and to companies looking to expand into natural gas development. The commitment of the legislature to providing tax incentives demonstrates a key reason why producers in West Virginia are leading the way in the shale's development.

STRATEGIC RESEARCH AND DEVELOPMENT TAX CREDIT

As one incentive to continue growth in the shale-gas industry, the WV Marcellus Act redefines "research and development" for purposes of the state's strategic research and development tax credit. Previously limited to the design, refinement, and testing of products or manufacturing processes, eligible research and development costs now include those related to equipment. Under the revised

credit, natural gas producers and developers will be entitled to a credit equal to the greater of 3 percent of their annual combined qualified research and development expenditures or 10 percent of the excess of their annual combined qualified research and development expenditures over the base amount (an average of the three previous years of R&D expenditures). According to state senator Brooks McCabe, the passage of the R&D tax credit amendment, and the WV Marcellus Act in general, was intended to aid in "reinvigorating the chemical industry, reinvigorating the natural gas industry, putting in place business incentives that allow people to use more natural gas."¹⁶

ADDITIONAL ALTERNATIVE-ENERGY TAX CREDITS

The WV Marcellus Act also reinstates an alternative-fuel-vehicle credit that had expired in 2007. The WV Marcellus Act defines "alternative fuel" as compressed natural gas, liquefied natural gas and petroleum gas, ethanol, hydrogen, natural gas hydrocarbons, and electricity. The credit of up to \$7,500 for conventional vehicles and up to \$25,000 for large industrial vehicles is available for the purchase or conversion of dedicated or bi-fueled alternative-fuel motor vehicles.

For tax years 2011–2022, the WV Marcellus Act also creates a credit for the construction of alternative-fuel-vehicle infrastructure, including facilities used for storing alternative fuels, intended to encourage investment in the refueling stations necessary to support investment in alternative-fuel vehicles. For tax years 2011–2013, a credit is available for 50 percent of the total cost associated with the construction or purchase of the infrastructure, up to \$250,000. The base credit limit is increased by a 1.25 multiplier to up to \$312,500 for projects that are generally accessible for public use. After 2013, the amount of the credit declines until it expires.

MARCELLUS SHALE DEVELOPMENT IN PENNSYLVANIA

According to the Pennsylvania Department of Environmental Protection, as of September 30, exploration companies had drilled 1,454 new Marcellus wells in 2011, up from nearly 1,400 wells drilled in all of 2010. The Pennsylvania counties with the

most significant drilling activity include Bradford, Lycoming, Tioga, and Washington. A May 2010 industry study by the Penn State Department of Energy and Mineral Engineering estimated that the Marcellus industry could create as many as 200,000 new jobs in Pennsylvania by 2020.¹⁷ The income taxes generated from these jobs, along with the corporate income taxes paid by the drilling companies, are expected to produce approximately \$1.8 billion in new tax revenue over the next 10 years. Legislators are also eyeing this money to balance the state budget and address the numerous expenses facing Pennsylvania in the coming years.

MARCELLUS ECONOMIC LEGISLATION BOGGED DOWN IN PENNSYLVANIA

For more than three years, the Pennsylvania General Assembly has been debating legislation aimed at imposing an extraction tax on the development of the Marcellus Shale industry. In the 2010 legislative session, Pennsylvania lawmakers found themselves in a stalemate, with Democrats in the House passing what might have been a record-high severance tax nationally and Republicans in the Senate countering with a bare-minimum tax. This year, following elections that shifted control of both the House and the governorship to the Republicans, legislators from both parties seem prepared to work together to form a Marcellus Shale policy that stimulates growth in the Commonwealth while protecting the environment and providing needed resources for communities across Pennsylvania that are affected by the drilling boom.

PENNSYLVANIA MARCELLUS SHALE ADVISORY COMMISSION REPORT

Newly elected Governor Tom Corbett indicated that he would not announce any Marcellus Shale policies until his Marcellus Shale Advisory Commission (the “Commission”) completed its study of the industry in Pennsylvania. On July 22, 2011, the Commission released its much-anticipated report. The report includes 96 recommendations for legislative and regulatory action to promote and regulate the rapidly developing Marcellus Shale industry while maintaining infrastructure and protecting the environment and

human health. These recommendations are broken down into four major groups: infrastructure; public health, safety, and environmental protection; local impact and emergency response; and economic and workforce development.

In the report, the Commission backed the assessment of an impact drilling fee but placed the burden of proving the need for reimbursement on the counties and municipalities that sustain infrastructure damage. No portion of the proposed impact fee was dedicated to the protection of Pennsylvania’s natural resources or the funding of statewide programs. The Commission also backed the controversial land-use principle of “pooling,” which allows exploration companies to force landowners to lease the rights to their underground deposits if nearby owners voluntarily grant access to their property.

GOVERNOR CORBETT’S PROPOSED COUNTY-LEVEL IMPACT FEE

On October 3, 2011, Governor Corbett made the long-awaited announcement that he would support a county-level impact fee to offset the cost to localities resulting from increased drilling. The governor proposed a fee of \$40,000 in the first year, \$30,000 in the second year, \$20,000 in the third year, and \$10,000 in the fourth through 10th years, totaling \$160,000 in fees during the lifetime of a well, assuming the well produces an average of at least 90 MCF per day during that period. Governor Corbett would also give a fee credit of up to 30 percent for approved investments in natural gas use infrastructure, such as fueling infrastructure or public-transit vehicles.

In addition to endorsing an impact fee, Governor Corbett advocated the adoption of many of the Commission’s 96 recommendations, including the following:

- Increasing the well setback distance from private water wells from the current 200 feet to 500 feet, and to 1,000 feet from public water systems;
- Increasing the setback distance for wells near streams, rivers, ponds, and other bodies of water from 100 feet to 300 feet;

- Increasing well bonding from \$2,000 to up to \$10,000;
- Increasing blanket well bonds from \$25,000 to up to \$250,000;
- Expanding an unconventional gas operator's "presumed liability" for impairing water quality from 1,000 feet to 2,500 feet from a gas well and extending the duration of presumed liability from six months after well completion to 12 months;
- Enabling the Department of Environmental Protection to take quicker action to revoke or withhold permits for operators that consistently violate rules;
- Doubling penalties for civil violations from \$25,000 to \$50,000; and
- Doubling daily penalties from \$1,000 per day to \$2,000 per day.¹⁸

Besides these various legislative proposals, Governor Corbett highlighted the fact that more than 50 of the 96 Commission proposals were policy-oriented and could be accomplished within state agencies without any new legislation. These 50-plus proposals have the potential to significantly influence future Marcellus Shale development in Pennsylvania, particularly in the areas of environment, health, and safety. It remains to be seen how many of these proposals will be implemented under the governor's leadership.

Basing the fee on a county-level approach has been met with significant disagreement. Some opponents have observed that neighboring counties without Marcellus Shale gas reserves will experience residual impacts from drilling, but under the governor's proposal, they would not qualify for any direct impact-fee revenue. Other opponents have suggested that it will generate border wars among counties.

On the other hand, the governor has found many supporters of his plan. On October 18, 2011, the County Commissioners Association of Pennsylvania (the "Association") issued a press release expressing its full support for the county impact-fee proposal.¹⁹ While several technical matters remain under review with the administration, the Association expressed confidence that there was clear understanding of the issues and that these issues would be resolved as the legislation progressed.

THE BALL IS IN THE LEGISLATURE'S COURT

At the end of the 2011 session, two primary impact fee bills are working their way through the General Assembly—Senate Bill 1100 and House Bill 1950. SB 1100 was introduced by Senator Joe Scarnati on May 16, 2011. While SB 1100 claims to be an impact fee, it resembles a tax inasmuch as it varies with the price of natural gas. On November 15, 2011, the Senate passed SB 1100 and sent the bill to the House. The bill is currently under consideration by the House Finance Committee, which has not acted on it.

A competing measure was introduced in the House on November 1, 2011, as HB 1950. This bill closely follows Governor Corbett's October 2011 impact fee proposal. HB 1950 more closely resembles an impact fee than SB 1100 in several ways. First, while both bills charge a rate that decreases over the life of the well, HB 1950's fee is independent of the price of gas or the production of the well (assuming production exceeds an average of 90 MCF per day). Additionally, HB 1950's impact fee is collected by the local counties and distributed in part back to the state, unlike SB 1100, under which, although the majority of that revenue would also be returned to the locality, the fee itself is collected and distributed on a statewide basis. Although some additions were made as HB 1950 worked through the House, it passed the House on November 17, 2011, in largely the same form that it was introduced.

On December 7, 2011, the Senate Environmental Resources and Energy Committee took up consideration of HB 1950. The Senate committee deleted almost the entire text of the bill and replaced it with the language of SB 1100, which had previously passed the Senate. On December 14, 2011, the Senate passed HB 1950 as amended, and returned the bill to the House for its approval.

On December 20, 2011, in its last day in session before the holiday break, the House voted unanimously to non-concur on the Senate amendments to HB 1950. This vote forced the bill to a conference committee made up of two Republicans and one Democrat from each of the House and the Senate. The conference committee will attempt to arrive at a compromise. Any compromise impact fee bill that comes out of the conference committee will go directly to the floor of the House and the Senate, without any further committee input, and receive an “up or down” vote, with no opportunity for amendments.

The differences between the House and Senate versions of HB 1950 are significant, and compromise in the conference committee will not be easy, nor will it ensure passage through the House and the Senate. For example, while the House version of the bill starts at \$40,000 and collects \$160,000 over 10 years, as proposed by Governor Corbett, the Senate version of the fee starts at \$50,000 and collects \$360,000 over 20 years. Another fundamental difference is that in the House version, the fee is administered at the local level, with a portion of the revenue distributed to the Commonwealth, but in the Senate version, the fee is collected and administered on the state level.

Beyond just the administration of the fee, further disagreement exists as to how the revenue generated by the fee will be divided among state, county, and municipal governments. Under the House version of HB 1950, 25 percent of the impact fee would be distributed to the state; of the remainder, 36 percent would be retained by the host county, 37 percent by the municipalities where the drilling occurs, and 27 percent distributed to other municipalities within the host county. Of the 25 percent that is distributed to the state, 70 percent is allocated to the Pennsylvania Department of Transportation for various infrastructure projects and maintenance. The remaining state funds will be allocated to various environmental, health, and safety projects, with no planned allotment to the state General Fund. The Senate version of the bill more closely aligns with the desires of Pennsylvania Democrats, whose proposals have included broader distributions at the state level and significant allocations to the Commonwealth's General Fund.

In another significant difference, the Senate version of the bill attempts to recoup some of the revenues that have been lost during the past three years of debate by making the impact fee retroactive to 2010. The House version of the bill does not contain such retroactive provisions, and industry groups might challenge the constitutionality of such a retroactive fee. In the end, the extent of the revenue lost by the delayed impact fee legislation could vary greatly depending on the retroactive nature of any bill that is enacted.

CONCLUSION

Exploration in the Marcellus Shale formation continues to grow. Industry leaders are making aggressive capital investments in drilling exploration while commodity prices for natural gas remain low, hoping to generate over the long term a stronger internal rate of return on their investments.

Expected to yield enough natural gas to meet the country's needs for years to come, the development of the Marcellus Shale is certain to have profound economic effects. By passing the WV Marcellus Act, West Virginia is letting businesses know that the state is open for new investment and has a definitive plan in place to dedicate state revenues to the infrastructure necessary to promote continued growth of the industry. Pennsylvania lacks a similar certainty and predictability, both of which are necessary to optimal development of the industry in Pennsylvania.

As investors and companies look for opportunities in the Marcellus Shale, factors such as the capacity and condition of pipeline and highway infrastructure, along with cost and availability of labor, are critical to new shale gas development in both Pennsylvania and West Virginia. But another critical factor is the certainty of the laws affecting the industry. While West Virginia has set predictable business incentives through the WV Marcellus Act, the future of the law in Pennsylvania is still very much up in the air. For Pennsylvania to continue effectively competing with West Virginia for expanding shale investment, it must come to a resolution on these issues.

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