

BRINGING A SEVERANCE TAX ON NATURAL GAS TO PENNSYLVANIA: WHO, WHAT, WHY, WHEN, AND HOW?

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I. INTRODUCTION

Natural gas production has been drastically increasing in the U.S. since the mid-2000s and is projected to keep increasing through 2040.¹ This boom in production has likely been influenced by increased accessibility to the natural gas-rich Marcellus Formation. The Marcellus Formation (also known as the Marcellus Shale) is an underground rock formation that spans southern upstate New York, eastern Ohio, the majority of Pennsylvania, and all of West Virginia.² As a result of its location atop this formation, the Commonwealth of Pennsylvania has seen an increase in natural gas drilling and production.³ Currently, Pennsylvania is the second largest producer of natural gas from shale.⁴ The state's location on top of the Marcellus Shale and its proximity to major natural gas markets in New York, New Jersey, Virginia, and New England has made it a prime target for natural gas companies.⁵

Many of the top natural gas producing states have enacted a severance tax that is levied on individuals and companies that extract natural gas from the earth within their territory.⁶ Pennsylvania, however, is not one of those states. In fact, it is the

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¹ U.S. ENERGY INFORMATION ADMINISTRATION, *Annual Energy Outlook 2015*, 20-21 (Apr. 2015), [http://www.eia.gov/forecasts/aeo/pdf/0383\(2015\).pdf](http://www.eia.gov/forecasts/aeo/pdf/0383(2015).pdf).

² Charles Abdalla & Joy Drohan, *Water Withdrawals for Development of Marcellus Shale Gas in Pennsylvania*, THE PENNSYLVANIA STATE UNIVERSITY COLLEGE OF AGRICULTURAL SCIENCES (2010), <http://extension.psu.edu/publications/ua460>.

³ *Id.*

⁴ U.S. ENERGY INFORMATION ADMINISTRATION, *Shale Gas Production* (Dec. 4, 2014), http://www.eia.gov/dnav/ng/ng_prod_shalegas_s1_a.htm [hereinafter *Shale Gas Production*].

⁵ Abdalla, *supra* note 2.

⁶ *Governor Wolf Proposes Education Reinvestment Plan Featuring Natural Gas Severance Tax*, OFFICE OF THE GOVERNOR OF PENNSYLVANIA (Feb. 11, 2015), <https://www.governor.pa.gov/governor-wolf-education-reinvestment-plan/>.

only state out of the top five natural gas-producing states that has not enacted such a tax.⁷ However, the state does allow the imposition by municipalities and counties of a so-called “impact fee” on natural gas extraction.⁸ However, the revenue the Commonwealth derives from the impact fee is well below what other natural gas producing states obtain from their respective severance taxes.⁹

Governor Tom Wolf and lawmakers from both parties have proposed that a severance tax on natural gas be enacted in the Commonwealth.¹⁰ The push for such a tax has become especially relevant in light of the state’s on-going budget impasse, which has been dragging on for over eight months at the time this Note was written.¹¹ At the heart of the impasse has been the desperate need for more education funding for the state’s public school districts.¹² Making the situation even more dire is the fact that until a budget is passed, education funds may not be disbursed to state public school districts. As a result, some school districts will have to borrow money in order to cover costs that they have incurred during the budget impasse.¹³ Even more distressing is the possibility that certain school districts in the state may have to close their doors if a budget is not passed soon.¹⁴

⁷ See *Shale Gas Production*, *supra* note 2; see also TEX. TAX CODE § 201.052; LA. REV. STAT. ANN. § 47:633 (2015); ARK. CODE ANN. § 26-58-111; OKLA. STAT. tit. 68, § 1001 (2015).

⁸ 58 PA. CONS. STAT. ANN. § 2302 (West 2012).

⁹ Jon Hurdle & Reed Frazier, *Feds Show Pennsylvania Gas Revenues Sharply Lower than Other Leading Producers*, STATEIMPACT (Aug. 21, 2015), <https://stateimpact.npr.org/pennsylvania/2015/08/21/feds-show-pennsylvania-gas-revenues-sharply-lower-than-other-leading-producers/>.

¹⁰ Jan Jarrett, *Top 5 Facts About Drilling and Taxes in Pennsylvania*, MULTI-STATE SHALE RESEARCH COLLABORATIVE (June 26, 2015), <http://www.multistateshale.org/top-5-facts-about-drilling-and-taxes-in-pennsylvania>.

¹¹ Karen Langley, *Pa. school boards group sues state over holdup of education funds*, PITTSBURGH POST-GAZETTE (Jan. 9, 2016), <http://www.post-gazette.com/news/education/2016/01/08/Pennsylvania-school-boards-group-sues-state-over-holdup-of-education-funds/stories/201601080217>.

¹² See *id.*

¹³ *Id.*

¹⁴ Mareesa Nicosia, *The Tenuous Fate of Pennsylvania’s Public Schools*, THE ATLANTIC (Oct. 13, 2015), <http://www.theatlantic.com/education/archive/2015/10/pennsylvania-budget-legislature-school-funding/409936/>.

The revenue generated from a severance tax on natural gas could provide revenue for the education funding that the Commonwealth so desperately needs, thus helping not only to remedy the current situation, but also to help prevent it from reoccurring in the future. However, despite this push for a severance tax, the state is still without such a tax as of the writing of this Note. Various iterations of such a tax have been proposed, yet none have been able to get the requisite support in the state General Assembly to become law. No one can seem to agree on what form the tax should take. This begs the question of “what is the best severance tax plan for Pennsylvania?”

This Note will attempt to answer that question. First, this Note begins with a basic description of the history of natural gas drilling in the Marcellus Shale, the basic mechanisms of severance taxes, and outlines the current situation regarding natural gas taxation in Pennsylvania. Next, we will introduce and analyze Governor Tom Wolf’s proposed severance tax, and also examine the severance tax schemes of four other natural gas producing states (Kentucky, Ohio, Wyoming, and North Carolina.) Finally, this Note examines the pros and cons of each tax scheme against one another in order to determine which tax scheme would be best for Pennsylvania, while taking into account several factors unique to Pennsylvania.

II. BACKGROUND ON THE USE OF SEVERANCE TAXES AND THE CURRENT SYSTEM IN PENNSYLVANIA

This section will first give a brief history of the production of natural gas in Pennsylvania. Second, it will examine the legal validity and constitutionality of the use of severance taxes by the states. Third, it will give a brief explanation of the components of a severance tax. Finally, it will describe the current state of taxation on natural gas production in Pennsylvania.

A. A Brief History of Drilling for Natural Gas

Drilling for natural gas in the Marcellus Shale is said to have first occurred in 1821, in Fredonia, New York.¹⁵ In Pennsylvania, drilling is cited as beginning in Titusville, Crawford County, with the creation of the country's first successful oil well revealing natural gas reserves, as well.¹⁶ However, drilling in the Shale did not start become to commercially feasible in Pennsylvania until 2003, when the use of a then-new extraction method, hydraulic fracturing ("fracking"), at a well in Washington County produced significant amounts of gas and made drilling in the Shale financially effective.¹⁷ Since that time, drilling in the Shale has steadily progressed to its current levels and has made Pennsylvania one of the top producing states of natural gas in the country.¹⁸

Along with the sheer size of the Shale, this increase in natural gas production is precisely what makes Pennsylvania such a strong candidate for a severance tax on natural gas. Pennsylvania is also a good candidate for such a tax because of its current budget woes. Many, including Governor Tom Wolf, have lauded a severance tax as one of the main mechanisms the state could use to address its budget shortfalls and also to restore much-needed education funding.¹⁹ Therefore, it would be a logical response to examine the feasibility of enacting a severance tax in the state.

B. The Constitutionality of Severance Taxes

In 1905, Texas became the first state to enact a severance tax and thereafter, other states began enacting their own

¹⁵ THE INSTITUTE FOR PUBLIC POLICY & ECONOMIC DEVELOPMENT AT WILKES UNIVERSITY, *Natural Gas: A Summary of the History, Uses, and Consumption with a Discussion on the Influence of Domestic Shale Drilling* 4 (Apr. 20, 2012), <http://www.institutepa.org/PDF/Marcellus/ngdhistory12.pdf>.

¹⁶ PENN FUTURE, *History of Drilling in Pennsylvania* (2015), <http://www.pennfuture.org/content.aspx?SectionID=218&MenuID=>

¹⁷ *Id.*

¹⁸ U.S. ENERGY INFORMATION ADMINISTRATION, *supra* note 4.

¹⁹ See Jan Jarret, *The Severance Tax & the Budget: On Our Backs Again?*, THIRD AND STATE (Nov. 11, 2015), <http://thirdandstate.org/2015/november/severance-tax-budget-flat-our-backs-again>.

severance taxes.²⁰ However, as early as 1922, the constitutionality of such taxes was challenged.²¹ The current view of the United States Supreme Court is that severance taxes are not *per se* unconstitutional under any provision of the Constitution.²² However, depending on the individual state’s formulation of a severance tax, there may be a potential that the tax may come into conflict with the Supremacy Clause²³ and/or the Commerce Clause²⁴ of the U.S. Constitution, and thus be unconstitutional if it does not meet the respective tests established for either clause.²⁵

In *Commonwealth Edison*, four coal companies from Montana and eleven of the companies’ utility customers (hereinafter “appellants”), brought suit against the State of Montana, alleging that the state’s severance tax on coal violated the Supremacy Clause and the Commerce Clause of the U.S. Constitution.²⁶ The appellants argued that the state’s tax violated the Commerce Clause, because the “Montana tax ‘discriminate[s] against interstate commerce’ because 90 [percent] of Montana coal is shipped to other States under contracts that shift the tax burden primarily to non-Montana utility companies and thus to citizens of other States.”²⁷

The Court stated that the proper test to determine if a state tax were valid under the Commerce Clause was to analyze if it “is applied to an activity with a substantial nexus with the taxing State, is fairly apportioned, does not discriminate against interstate commerce, and is fairly related to services provided by the State.”²⁸ The Court held that in the case of the severance tax, the nexus was present in the form of the coal extraction in the

²⁰ *A Quick History of American Severance Taxes*, WYOFILE (Feb. 8, 2009), <http://www.wyofile.com/a-quick-history-of-american-severance-taxes/>.

²¹ See *Heisler v. Thomas Colliery Co.*, 43 S. Ct. 83 (1922), *abrogated by* *Commonwealth Edison Co. v. Montana*, 453 U.S. 609 (1981).

²² See *Commonwealth Edison Co. v. Montana*, 453 U.S. 609 (1981), *reh’g denied*, 453 U.S. 927 (1981).

²³ U.S. CONST. art. VI, cl. 2.

²⁴ U.S. CONST. art. I, § 8, cl. 3.

²⁵ See 453 U.S. 609 (1981).

²⁶ *Id.* at 613.

²⁷ *Id.* at 617, 618.

²⁸ *Id.* at 617 (citing *Complete Auto Transit, Inc. v. Brady*, 97 S. Ct. 1076, 1079 (1977)).

state, and also that the fair apportionment prong was met.²⁹ The Court also held that there was no discrimination against interstate commerce, because the tax rate was the same whether the coal was to be shipped to somewhere in the state or somewhere outside of the state.³⁰

Finally, the Court held that the tax was valid under the “fairly related” prong of the test, because the tax was a general revenue tax used to support the state government of Montana.³¹ In relation to this prong, the appellants also argued that although the tax was a general revenue tax, it violated the Due Process Clause,³² because “the Montana tax is not fairly related to the additional costs the State incurs because of coal mining”³³ and that “the *amount* the State receives in taxes far exceeds the *value* of the services provided to the coal mining industry.”³⁴ The Court rejected this argument and stated that the Due Process Clause does not “stand as a barrier against taxes that are ‘unreasonable’ or ‘unduly burdensome.’”³⁵ Furthermore, the Court stated, “there is no requirement under the Due Process Clause that the amount of general revenue taxes collected from a particular activity must be reasonably related to the value of the services provided to the activity.”³⁶ As a result, the Court found that in the current case, the tax was not invalid under the Due Process Clause.

The Appellants also argued that the tax was invalid under the Supremacy Clause, because it “substantially frustrated” the intended purpose of the Mineral Lands Leasing Act of 1920.³⁷ Appellants contended that

the “economic rents” attributable to the mining of coal on federal land—*i. e.*, the difference between the

²⁹ *Id.* at 618.

³⁰ *Id.*

³¹ *Id.* at 621, 622.

³² U.S. Const. art. XIV, § 1.

³³ 453 U.S. 609, 621 (1981).

³⁴ *Id.*

³⁵ *Id.* at 621 (citing *Pittsburgh v. Alco. Parking Corp.*, 94 S. Ct. 2291 (1974); *A. Magnano Co. v. Hamilton*, 54 S. Ct. 599 (1934); *Alaska Fish Salting & By-Products Co. v. Smith*, 41 S. Ct. 219 (1921)).

³⁶ *Id.*

³⁷ *Id.*

cost of production (including a reasonable profit) and the market price of the coal—are to be captured by the Federal Government in the form of royalty payments from federal lessees. The payments thus received are then to be divided between the States and the Federal Government according to a formula prescribed by the Act. In appellants' view the Montana tax seriously undercuts and disrupts the 1920 Act's division of revenues between the Federal and State Governments by appropriating directly to Montana a major portion of the “economic rents.” Appellants contend the Montana tax will alter the statutory scheme by causing potential coal producers to reduce the amount they are willing to bid in royalties on federal leases.³⁸

However, the Court found this argument unpersuasive and determined that nothing in the statute's language nor anything in the legislative history indicated that Montana's tax “substantially frustrated” the intended goal of Congress in enacting the statute.³⁹

In addition, the Appellants also argued that the tax “substantially frustrated” national energy policies, which, Appellants claimed, “encourage[d] the production and use of coal, particularly low-sulfur coal such as is found in Montana.”⁴⁰ Once again, the Court found that, by examining several statutes, which were allegedly in support of their argument, that the Appellants cited, there was no indication that the tax substantially frustrated the language or intention of Congress.⁴¹ In fact, the Court found that statutory language contemplated the use of severance taxes by the states so clearly that such a tax would not be preempted.⁴² Ultimately, the Court found Montana's severance tax to be constitutionally valid. Generally, so long as a severance tax (on whatever type of natural resource, including

³⁸ *Id.*

³⁹ *Id.* at 633.

⁴⁰ *Id.*

⁴¹ *Id.* at 636.

⁴² *Id.*

natural gas) meets the requirements of the tests set out in *Commonwealth Edison*, such a tax will be upheld as constitutional. However, there have been instances where the Court has struck down similar taxes.⁴³

C. The General Mechanisms of Severance Taxes

Severance taxes are taxes that are imposed on certain resources (such as coal, oil, natural gas, minerals, etc.) that individuals or entities remove (or “sever”) from the earth within the territory of the jurisdiction that imposed the tax. There is no federal severance tax on natural gas, so severance taxes on natural gas are exclusively enacted by states (although as shown by Pennsylvania’s example, not every state has such a tax). Generally, there are three components of every severance tax. These are: (1) a tax base, (2) a tax rate, and (3) liability to pay the tax.⁴⁴

The tax base refers to the value that the tax rate will be applied to.⁴⁵ Usually, for severances taxes on natural gas this will be “either the volume or units of the natural gas extracted or the fair market value of the natural gas extracted.”⁴⁶ In addition to clarifying which value to use, states will also define how to calculate that value in the statute(s) establishing the tax.⁴⁷ For the tax rate, “either a certain percentage of the value of the tax base or a set monetary value per unit of natural gas” is specified.⁴⁸ Like the tax base, the rate will also be specified in the statute(s) enacting the tax.⁴⁹ Generally, the one who extracts the

⁴³ See *Maryland v. Louisiana*, 451 U.S. 725 (1981); *Exxon Corp. v. Eagerton*, 103 S. Ct. 2296 (1983).

⁴⁴ Ryan Pulver, *Sustainable Finance—A Blueprint for Severance Taxes in the Marcellus Shale*, 7 KY. J. EQUINE, AGRIC. & NAT. RESOURCES L. 297, 301 (2014).

⁴⁵ *Id.*

⁴⁶ *Id.*

⁴⁷ See KY REV. STAT. ANN. § 143A.020 (West 1980) (defining how “gross value” is to be calculated); N.C. GEN. STAT. ANN. § 105-187.78 (West 2015) (defining how “market value is to be calculated”); WYO. STAT. ANN. § 39-14-203 (West 2008) (defining how “fair market value” is to be calculated); See also OHIO REV. CODE ANN. § 5749.02 (West 2013) (defining the volume ratio to be used).

⁴⁸ PULVER, *supra* note 34.

⁴⁹ See KY REV. STAT. ANN. § 143A.020 (West 1980) (stating that there is a 4.5 percent tax rate on the “gross value” of natural gas extracted); OHIO REV. CODE ANN. § 5749.02 (West 2013) (setting the tax rate at 2.5 cents/thousand cubic feet of natural gas

gas will be the one liable for the payment of the severance tax.⁵⁰ This is usually also stated in the statute(s) enacting the tax.⁵¹ However, in some states courts have been called upon to clarify upon whom specifically the liability to pay the tax lies.⁵² Unlike the other two elements, the liability element is where the most difference among states can be seen, as states may use a variety of differing formulations to define who is liable to pay the severance tax.⁵³

D. The Current System of Taxation in Pennsylvania

As it now stands, Pennsylvania has no established severance tax on the extraction of natural gas at points within the state.⁵⁴ The state has a so-called “impact fee” on the drilling of gas in the Marcellus Shale that was established under a provision that is popularly called “Act 13.”⁵⁵ The impact fee differs from a true severance tax in that the impact fee is not imposed statewide. The statute enacting the impact fee clarifies that: (1) the imposition of the impact fee by a county or municipality⁵⁶ is optional,⁵⁷ and (2) only counties or municipalities that “[have] a spud unconventional gas well

extracted); WYO. STAT. ANN. § 39-14-204 (West 2008) (stating that the total tax rate is 6% of the “fair market value” of the natural gas extracted); N.C. GEN. STAT. ANN. § 105-187.77 (setting a progressively increasing rate that changes according to the dates specified in the statute).

⁵⁰ See PULVER, *supra* note 34.

⁵¹ See N.C. GEN. STAT. ANN. § 105-187.82; OHIO REV. CODE ANN. § 5749.02; KY REV. STAT. ANN. § 143A.010(4)(a) (West 2013); WYO. STAT. ANN. § 39-14-203 (c) (West 2008).

⁵² See *In re: Appalachian Land Co. v. EQT Production Co.*, No. 2013-SC-000598-CL, 2015 Ky. Lexis 1749, at *3-4 (Ky. Aug. 20, 2015); *Wyo. Dep’t of Revenue v. Exxon Mobile Corp.*, 150 P.3d 1216 (Wyo. 2007); see also *N & G Constr., Inc. v. Lindley*, 384 N.E.2d 704 (Ohio 1978).

⁵³ See PULVER, *supra* note 34, at 301.

⁵⁴ *Id.* at 298, 299.

⁵⁵ See 58 PA. CONS. STAT. ANN. § 2302 (West 2012).

⁵⁶ Under Pennsylvania law a municipality is defined as a city, borough, township, or town. See PA CONST. art. IX, § 14.

⁵⁷ 58 PA. CONS. STAT. ANN. § 2302(a) (West 2012); 58 PA. CONS. STAT. ANN. § 2302(a.4) (West 2012); see also *Ordinance No. 2 of 2012*, CENTRE COUNTY OF PENNSYLVANIA (Apr. 3, 2012), <http://centrecountypa.gov/DocumentCenter/View/57;BradfordCountyImpactFeeProgram>, BRADFORD COUNTY OF PENNSYLVANIA, <http://bradfordcountypa.org/Images/pdfs/Impact%20Fee%20Grant%20Guidelines%20and%20Application.pdf>; Letter from Charles Martoni, President of the Allegheny County Council to the Secretary of the Pennsylvania Public Utility Commission (Mar. 22, 2012) (all examples of a county’s adoption of the impact fee).

located within [their] borders” may enact the impact fee.⁵⁸ A severance tax, on the other hand, is a state tax. Therefore, it is mandatorily enacted for all counties and municipalities within the state, regardless of whether they have any natural gas wells within their borders and focuses on the individual taxpayer rather than on municipalities or counties.

The impact fee imposes fees on entities for each well they drill according to a complex fee schedule outlined in the enacting statute.⁵⁹ The fee schedule differs not only depending on the year, but also is tied to the average annual price of natural gas in the year in which the fee is imposed.⁶⁰ The revenue obtained from the fee is deposited into the “Unconventional Gas Well Fund”, which is administered by the Pennsylvania Public Utilities Commission.⁶¹ The fees are then disbursed in part directly to counties and municipalities that have chosen to impose the impact fee (for certain specified uses as outlined in the statute)⁶² or other specified state agencies.⁶³ The responsibility for the enforcement of the payment of the fee and also for making disbursements falls to the Pennsylvania Public Utilities Commission.⁶⁴

The Pennsylvania Supreme Court has upheld the constitutionality of the impact fee portion of “Act 13”.⁶⁵ However, the court struck down a provision of “Act 13” as unconstitutional that precluded municipalities from making zoning ordinances banning natural gas production.⁶⁶ Although the impact fee has been allowed to stand and continues to be used today, there have been serious concerns about how beneficial the impact fee is, especially when compared to a proper severance tax.

⁵⁸ 58 PA. CONS. STAT. ANN. § 2302(a) (West 2012).

⁵⁹ 58 PA. CONS. STAT. ANN. § 2302(b) (West 2012).

⁶⁰ *Id.*

⁶¹ 58 PA. CONS. STAT. ANN. § 2314 (West 2012).

⁶² 58 PA. CONS. STAT. ANN. § 2314 (c), (d), (g) (West 2012).

⁶³ 58 PA. CONS. STAT. ANN. § 2314 (c.1) (West 2012).

⁶⁴ 58 PA. CONS. STAT. ANN. § 2307 (West 2012).

⁶⁵ *See Robinson Twp., Washington Cty. v. Pennsylvania*, 83 A.3d 901 (Pa. 2013).

⁶⁶ *Id.* at 984, 985.

Since its imposition, the impact fee has brought in an average of approximately \$210 million per year.⁶⁷ This revenue, of course, looks significant compared to the amount of revenue (\$0) the state was receiving from “taxing” natural gas before the impact fee was implemented. However, it has been stated that, “[r]eplacing Pennsylvania’s impact fee with a modest 4 [percent] severance tax could generate \$1.2 billion annually by 2019-20, three times that of the current fee.”⁶⁸ More modest proposals estimate that if a tax were imposed using current production trends, it “would yield an expected \$923.62 million in revenue” for 2015.⁶⁹ Regardless of which estimate is used, it is clear that the revenue that could be generated from the use of a severance tax would greatly exceed that of the revenue currently produced by the impact fee.

Commentators have also identified the volatility of the impact fee’s rate, which is based on the annual price of natural gas (which fluctuates from year to year) to be a further hindrance on its effectiveness.⁷⁰ In comparison, a severance tax would provide a much more stable and predictable rate and level of revenue.⁷¹ Because of these clear benefits, including the greatly increased revenue needed by the state, several Pennsylvania lawmakers, and most recently the state’s Governor, have submitted proposals for the enactment of a state severance tax.

III. EXAMINING PENNSYLVANIA’S PROPOSED SEVERANCE TAX AND THE TAXES OF KENTUCKY, OHIO, NORTH CAROLINA, AND WYOMING.

⁶⁷ Marie Cusick, *Report: Pennsylvania’s effective tax rate on drillers is declining*, STATE IMPACT (Feb. 26, 2015), <https://stateimpact.npr.org/pennsylvania/2015/02/26/report-pennsylvanias-effective-tax-rate-on-drillers-is-declining/>.

⁶⁸ Michael Wood, *A Look at Other States Shows Marcellus Impact Fee Shortchanges Pennsylvanians*, PENNSYLVANIA BUDGET AND POLICY CENTER (Aug. 8, 2013), <http://pennbpc.org/look-other-states-shows-marcellus-impact-fee-shortchanges-pennsylvanians>.

⁶⁹ Angela Pachon & Dillon Weber, *A Tale of Two Taxes: Impact Fee and the Severance Tax in Pennsylvania*, KLEINMEN CENTER FOR ENERGY POLICY AT THE UNIVERSITY OF PENNSYLVANIA (Sept. 2, 2015), <http://kleinmanenergy.upenn.edu/policy-digests/tale-two-taxes-impact-fee-and-severance-tax-pennsylvania>.

⁷⁰ *Id.*

⁷¹ *Id.*

In this section, the proposed severance tax for Pennsylvania, as well as the severance tax schemes currently in place for the states of Kentucky, Ohio, North Carolina, and Wyoming, will be laid out, and their components will be examined. Each of the schemes examined use differing tax bases, rates, and have differing levels of liability. These states were chosen to provide a variety of different potential schemes for examination.

A. Pennsylvania's Proposed Tax

As stated above, various Pennsylvania lawmakers and other state governmental officials have submitted proposals for a severance tax on natural gas.⁷² However, none of these proposals have gained enough support to become law. Among the proposals, there are a plethora of different combinations of tax bases, tax rates, and tax liabilities, so there is no overarching consensus throughout the proposals on how each of these factors should be established and implemented.

Arguably, the most well known of these proposals is the one furthered by Pennsylvania's governor, Tom Wolf. Wolf made the enactment of a severance tax on natural gas a large part of his platform in the 2014 gubernatorial election, so it is likely that most Pennsylvanians are familiar with his proposed plan.⁷³ Because of this, the plan proposed by Governor Tom Wolf will be the plan that this note will examine.

Originally, Wolf advocated for a 5 percent tax on the extraction of natural gas.⁷⁴ However, most recently, Wolf has modified that proposal and has suggested a general tax of rate of 3.5 percent on natural gas extracted,⁷⁵ plus a rate of 4.7 cents per

⁷² See H.B. 500, 2015 Gen. Assemb., Reg. Sess. (Pa. 2015); H.B. 82, 2015 Gen. Assemb., Reg. Sess. (Pa. 2015); S.B. 415, 2015 Gen. Assemb., Reg. Sess. (Pa. 2015); S.B. 719, 2015 Gen. Assemb., Reg. Sess. (Pa. 2015).

⁷³ See *Severance Tax Projected To Generate Over \$1 Billion, Would Raise Hundreds of Millions For Education*, TOM WOLF FOR GOVERNOR (Sept. 20, 2014), <http://www.wolfforpa.com/sections/press-releases/severance-tax-would-generate-over-one-billion>.

⁷⁴ *Id.*

⁷⁵ Presumably, the base for the 3.5 percent rate would be the value of the gas extracted, since Wolf's plan also would enact a volume based tax of 4.7 cents/thousand cubic feet of gas extracted in addition to the 3.5 percent rate.

thousand cubic feet of natural gas. Also, Wolf would have the current impact fee remain in place, in addition to the tax.⁷⁶ Additionally, Wolf's proposed tax would include provisions that, "[a]llow drillers to deduct post-production costs" and would also "[g]uarantee leaseholders minimum 12.5 [percent] royalty payments."⁷⁷ Wolf also specified that the majority of proceeds from the tax would go specifically to education funding, and the rest of the revenue would be directed to economic development, the development of clean energy, and also towards the costs of overseeing the natural gas industry in the Commonwealth.⁷⁸

Unfortunately for Wolf, it seems that the enactment of such a tax is unlikely in the near future.⁷⁹ Wolf has made several budget proposals of the General Assembly over the course of the year (all of which were rejected) that included some sort of severance tax plan. But in the Governor's most recent proposal, there was no severance tax included, leading to the logical assumption that the Governor has abandoned the enactment of a severance tax for this year.⁸⁰ Additionally, it appears very unlikely that any of the pending bills in the General Assembly will be able to obtain enough support to pass in the near future. Thus, Pennsylvania's chances of enacting a severance tax this year are minimal.

Of course, this is not to say that a severance tax will *never* be adopted in Pennsylvania. Indeed, it seems likely that the Commonwealth will inevitably adopt such a tax in the future to raise additional revenue to aid ailing finances.⁸¹ However, it seems unlikely at this point that that time will be in the near future. Therefore, it is improbable that Pennsylvania will have enacted a severance tax by the time this Note is published, which means that, at this point, the only thing this Note can attempt to

⁷⁶ *Governor Wolf Submits Plan to Fix Deficit, Fund Education and Provide Property Tax Relief for Seniors, Disabled*, OFFICE OF THE GOVERNOR OF PENNSYLVANIA (Oct. 7, 2015), <https://www.governor.pa.gov/governor-wolf-submits-plan-to-fix-deficit-fund-education-and-provide-property-tax-relief-for-seniors-disabled/>.

⁷⁷ *Id.*

⁷⁸ Jarret, *supra* note 15.

⁷⁹ *See id.*

⁸⁰ *See id.*

⁸¹ *See* PULVER, *supra* note 34, at 325.

do is postulate what the best severance tax scheme would be for Pennsylvania.

B. A Survey of Other States' Severance Tax Schemes

i. Kentucky

Kentucky enacted its severance tax on natural gas, in its current form, in 1980.⁸² Under the Kentucky tax scheme, the tax base is the “gross value of the resource severed or processed.”⁸³ The statute defines “gross value” differently depending on a variety of different situations:

(5) “Gross value” is defined as follows:

(a) For natural resources severed and/or processed and sold during a reporting period, gross value is the amount received or receivable by the taxpayer;

(b) For natural resources severed and/or processed, but not sold during a reporting period, gross value shall be determined as follows:

1. If the natural resource is to be sold under the terms of an existing contract, the contract price shall be used in computing gross value; and

2. If there is no existing contract, the fair market value for that grade and quality of the natural resource shall be used in computing gross value;

⁸² KY REV. STAT. ANN. § 143A.010(a) (West 1980).

⁸³ *Id.*

(c) In a transaction involving related parties, gross value shall not be less than the fair market value for natural resources of similar grade and quality;

(d) In the absence of a sale, gross value shall be the fair market value for natural resources of similar grade and quality;

(e) If severed natural resources are purchased for the purpose of processing and resale, the gross value is the amount received or receivable during the reporting period reduced by the amount paid or payable to the taxpayer actually severing the natural resource;

(f) If severed natural resources are purchased for the purpose of processing and consumption, the gross value is the fair market value of processed natural resources of similar grade and quality reduced by the amount paid or payable to the taxpayer actually severing the natural resource.⁸⁴

As evidenced by the statute, Kentucky lawmakers have presented a detailed framework for calculating what the value-based tax base is. On one hand, this is helpful because with different calculation methods for different situations means that the gross value can be more accurately and precisely calculated for all taxpayers, because it covers more situations that taxpayers involved in the severing of natural gas would encounter. On the other hand, however, having so many different ways to calculate gross value may lead to confusion as to what method should be used for calculation purposes if the taxpayer either does not squarely fall into one category or if the taxpayer attempts to manipulate the system in such a way that they would be able to use the calculation that is more favorable to them. In turn, this might promote tax avoidance behavior.

⁸⁴ KY REV. STAT. ANN. § 143A.010(5) (West 1980).

The statute also stipulates that the tax rate is 4.5 percent of the gross value of the natural gas severed.⁸⁵ Once the gross value is calculated using one of the above-specified formulas, the amount owed as a result of the tax is determined by calculating what 4.5 percent of the gross value is. In regard to whom the liability to pay the tax extends, the statute states, “[t]he tax shall apply to all taxpayers severing and/or processing natural resources in this state, and shall be in addition to all other taxes imposed by law.”⁸⁶ This would appear to be straight forward, but recently the Kentucky Supreme Court was called upon to clarify who, under the statute, had the ultimate liability to pay the tax.⁸⁷ The court ultimately held that the one liable for paying the severance tax was the one actually severing the gas from the earth and then processing it. Mere royalty owners were not, in the absence of a valid contract stating otherwise, liable for payment of the tax.⁸⁸ This formulation is very straightforward and leaves little room for debate on where the tax liability falls. In that regard, it is favorable because it makes it unlikely that conflict will arise in relation to the tax.

The Kentucky tax scheme also provides for an exception to the tax for natural gas obtained via a “recovered inactive well.”⁸⁹ The statute defines a recovered inactive well as “a well that has been inactive for a consecutive two (2) year period or a well that has been plugged and abandoned, as determined by the Energy and Environment Cabinet, Division of Oil and Gas, and that resumes producing natural gas.”⁹⁰ In the case of gas recovered from qualifying wells, the taxpayer is allowed a credit for 4.5 percent of the gross value of the natural gas severed from the well.⁹¹ Essentially, this credit offsets the tax levied on the gas obtained from the well and makes it as if the taxpayer did not need to pay the tax.

ii. Ohio

⁸⁵ KY REV. STAT. ANN. § 143A.010(a) (West 1980).

⁸⁶ KY REV. STAT. ANN. § 143A.020(1) (West 1980).

⁸⁷ See 2015 Ky. Lexis 1749, at *3 (Ky. Aug. 20, 2015).

⁸⁸ *Id.* at *11.

⁸⁹ KY REV. STAT. ANN. § 143A.033 (West 1980).

⁹⁰ *Id.*

⁹¹ *Id.*

Ohio enacted its severance tax on natural gas (in its current form) in 2013.⁹² Unlike Kentucky’s tax scheme, Ohio uses volume of the resource severed as a tax base.⁹³ Ohio’s scheme specifies different volume-based tax rates for different types of natural resources (coal, salt, oil, etc.), but the rate for natural gas is set at two and a half cents per thousand cubic feet of gas.⁹⁴ Ohio also has an interesting exception to the tax that exempts

[t]he severance of natural resources from land or water in this state owned legally or beneficially by the severer, which natural resources will be used on the land from which they are taken by the severer as part of the improvement of or use in the severer’s homestead and which have a yearly cumulative market value of not greater than one thousand dollars.⁹⁵

It is important to note that this is a limited exemption because the exemption only applies to the first one thousand dollars of gas extracted; meaning that any value in excess of One thousand dollars would still be subject to the tax. This exception would seem to be targeted at taxpayers who are extracting natural gas but who do not intend to sell it or offer it for sale and extract it for their own personal use on their own property. This exception makes sense, because the taxpayers covered by the exception are presumably not seeking to get any commercial value from the gas. Furthermore, because the exemption amount is capped at one thousand dollars, the revenue the state loses due to this exception is minimal, so it does not compromise the revenue-raising potential of the tax as a whole. Finally, the one liable for paying the severance tax is the severer,⁹⁶ which is defined as “any

⁹² OHIO REV. CODE ANN. § 5749.02(A)(6) (2016).

⁹³ *Id.* § 5749.02(A).

⁹⁴ *Id.* § 5749.02(A)(6).

⁹⁵ *Id.* § 5749.03.

⁹⁶ *Id.* § 5749.02 (2016).

person who actually removes the natural resources from the soil or water in this state.”⁹⁷

iii. Wyoming

Wyoming enacted its natural gas severance tax (in its current form) in 2008.⁹⁸ Wyoming identifies the “value of the gross product” as the tax base.⁹⁹ The “value of the gross product” is defined as “mean[ing] fair market value as prescribed by W.S. 39-14-203(b), less any deductions and exemption allowed by Wyoming law or rules.”¹⁰⁰ Under the section mentioned, the tax base for natural gas is to be calculated “after the production process is completed.” The statute also clarifies that

[t]he production process for natural gas is completed after extracting from the well, gathering, separating, injecting and any other activity which occurs before the outlet of the initial dehydrator. When no dehydration is performed, other than within a processing facility, the production process is completed at the inlet to the initial transportation related compressor, custody transfer meter or processing facility, whichever occurs first.¹⁰¹

Mandating the “value of gross product” to be calculated *after processing* takes place prevents natural gas-severers from using the value of the gas before it is processed (which would presumably be lower because the gas would be in raw form and need further costs to be incurred to process it, thus making its value lower) as the tax base, thereby having to pay less tax and causing the state to lose out on that extra revenue.

⁹⁷ *Id.* § 5749.01(I).

⁹⁸ WYO. STAT. ANN. § 39-14-203 (2016).

⁹⁹ *Id.*

¹⁰⁰ *Id.* § 39-14-201(a)(xxix).

¹⁰¹ *Id.* § 39-14-203(b)(iv).

The tax rate specified is a total of 6 percent.¹⁰² Interestingly, the statute clarifies that this rate is a combination of “one and one-half percent (1.5 [percent]) imposed by the Wyoming constitution article 15, section 19 and the remaining amount imposed by Wyoming statute,”¹⁰³ meaning that the raw tax rate imposed by the statute itself is only 4.5 percent, while the other 1.5 percent is imposed by the Wyoming Constitution.¹⁰⁴ This distinction is important because the Wyoming Constitution requires that the 1.5 percent tax to be deposited into the “Permanent Wyoming Mineral Trust Fund”, which gives the Wyoming Legislature the power to prescribe how the money from the fund is to be spent or distributed.¹⁰⁵ The revenue resulting from the other 4.5 percent is not subject to that provision.¹⁰⁶ While, the severance tax statute specifies that all of the revenue from the severance tax will be placed into the Permanent Wyoming Mineral Trust Fund, the 4.5 percent resulting from the statute is, instead, put in a distribution account that is distributed to local governments, as calculated by the state treasurer.¹⁰⁷ While this distinction may seem minor, functionally it is important to note because it affects how the revenue from the tax is allocated.

One notable exception from paying the severance tax is

Natural gas which is vented or flared under the authority of the Wyoming oil and gas conservation commission and natural gas which is reinjected or consumed prior to sale for the purpose of maintaining, stimulating, treating, transporting or producing crude oil or natural gas on the same lease or unit from which it was produced has no value and is exempt from taxation.¹⁰⁸

¹⁰² *Id.* § 39-14-204(a).

¹⁰³ *Id.*

¹⁰⁴ WYO. CONST. art. 15, § 19.

¹⁰⁵ *Id.*

¹⁰⁶ *Id.*

¹⁰⁷ WYO. STAT. ANN. § 39-14-211(a), (e).

¹⁰⁸ *Id.* § 39-14-205(j).

This exception appears to have been carved out to exempt natural gas used only to aid in producing more natural gas from the same well. This is logical because such natural gas is not being sold and its sole purpose is to produce more gas, which will then be taxed. Therefore, the taxpayer, ultimately, is not able to use this exemption to avoid paying a substantial amount of tax on the gas it severs. Presumably, the gas covered by this exemption cannot be resold and loses all value after being used for producing more natural gas, meaning no tax could be levied. As the tax base is based on the value of the gas, and the gas has no value, there would be no amount to tax.

Under § 39-14-203(c)(ii), “any person extracting crude oil, lease condensate or natural gas and any person owning an interest in the crude oil, lease condensate or natural gas production to the extent of their interest ownership are liable for the payment of the severance taxes together with any penalties and interest.”¹⁰⁹ The Wyoming Supreme Court has further clarified that § 39-14-203(c)(ii) should be construed to mean “each owner is responsible for taxes to the extent of their ownership.”¹¹⁰ The court stated that while this means liability for the tax cannot merely be placed on the owner who actually physically severs the gas from the earth, it properly is to be allocated to all of the owners of the well/lease based pro rate on the percentage of their ownership interest.¹¹¹ This conception of tax liability is quite different from that of Kentucky and Ohio, as those states place liability specifically on the owner who physically severs the gas from the earth, only.¹¹² This means that, unlike Kentucky and Ohio, where the tax liability falls on only one taxpayer, tax liability under Wyoming’s laws may be split among several taxpayers, thus spreading the tax burden.

iv. North Carolina

¹⁰⁹ *Id.* § 39-14-203.

¹¹⁰ *Lance Oil & Gas Co. v. Wyo. Dep't of Revenue*, 101 P.3d 899, 907 (Wyo. 2004).

¹¹¹ *See id.*

¹¹² *See supra* Part III.b.i.ii.

North Carolina recently overhauled its severance tax system and introduced a new system effective July 1, 2015.¹¹³ Under the state’s new severance tax regime, the tax base is the “Delivered to Market Value” of the natural gas.¹¹⁴ This value is calculated “by subtracting the producer’s actual costs to deliver the gas to the market from the producer’s total gross cash receipts from the sale of the natural gas.”¹¹⁵ The statute states that

“costs to deliver the gas to the market” are the actual and reasonable costs incurred by the producer to get the gas from the mouth of the well to the first purchaser, except costs incurred in normal lease separation of the oil or condensate from the gas, and costs associated with insurance premiums on a facility used to deliver the gas to market. Costs to deliver the gas to the market include only the following¹¹⁶

The statute then lists the nine types of costs that may be subtracted.¹¹⁷

Until January 1, 2019, the tax rate on the Delivered to Market Value of natural gas severed is a flat 0.9 percent.¹¹⁸ However, the statute also provides that if a natural gas producer becomes designated a marginal gas well by the state Mining and Energy Commission, then the producer may elect to take advantage of the marginal gas rate, which is 0.4 percent (until January 1, 2019, and then increasing up to a maximum of 0.8 percent by January 1, 2021).¹¹⁹ Starting January 1, 2019, however, the gas rate is subject to increase and will be subject to

¹¹³ N.C. GEN. STAT. ANN. § 105-187.77 (2016).

¹¹⁴ *Id.* § 105-187.78(a).

¹¹⁵ *Id.*

¹¹⁶ *Id.*

¹¹⁷ *See id.* § 105-187.78(c)(1)–(9).

¹¹⁸ *Id.* § 105-187.77(e) (effective until Jan. 1, 2019).

¹¹⁹ *Id.* § 105-187.77(d) (effective until Jan. 1, 2019), (d) (effective Jan. 1, 2021).

increase again in January 2021 and again in January 2023, reaching a maximum possible rate of 9 percent in 2023.¹²⁰

North Carolina carves out a homestead exemption that is nearly identical to the one used by Ohio, discussed above. However, the North Carolina exemption amount goes up to \$1,200 in delivered-to-market value of gas extracted (whereas Ohio caps it at \$1,000 in “cumulative market value”). Also like Ohio, North Carolina states that any amount over the \$1,200 allowed will be subject to the tax.¹²¹

Like Kentucky and Ohio, liability for the tax under North Carolina’s system generally falls upon the person who physically removes the gas from the earth.¹²² The statute also has two unique provisions in comparison to the other state statutes examined above. First, the North Carolina tax statute contains a provision precluding cities or counties from imposing “a franchise, privilege, license, income, or excise tax” on the severance of natural gas in their jurisdiction.¹²³ Second, the statute specifically provides that the revenue from the tax is to be used

to provide revenue to administer and enforce the provisions of this Article, to administer the State's natural gas and oil reclamation regulatory program, to meet the environmental and resource management needs of this State, and to reclaim land affected by exploration for, drilling for, and production of natural gas and oil.¹²⁴

Including this section is interesting because it guarantees that revenue produced by the tax will be used essentially to cover both the financial and environmental costs incurred by the state because of natural gas producer activities in the state. However, it also restricts the effectiveness of the tax because its revenue can only be used for those purposes and not in other areas where

¹²⁰ *Id.* § 105-187.77(e) (effective until Jan. 1, 2019), (e) (effective Jan. 1, 2019 until Jan. 1, 2021), (e) (effective Jan. 1, 2021 until Jan. 1, 2023), (e) (effective Jan. 1, 2023).

¹²¹ *Id.* § 105-187.79; *see supra* Part II.b.ii.

¹²² *See id.* § 105-187.77.

¹²³ *Id.* § 105-187.85.

¹²⁴ *Id.* § 105-187.77(a).

the state may need tax revenue, such as education and transportation.

IV. ANALYZING WHAT KIND OF TAX SCHEME WOULD BE BEST FOR PENNSYLVANIA

A. *What the Basic Tax Structure Should Look Like*

As stated above, the crucial elements of any severance tax are: tax base, tax rate, and tax liability. Therefore, in order to begin, one must determine which metric would be best utilized for each of those elements in light of the unique needs and the current situation of the Commonwealth of Pennsylvania.

i. Tax Base

The Possibilities for determining the tax base, as determined by looking at the four states examined above, are generally either based on market value or volume. Of course, there are pros and cons to each metric. When the price of natural gas is high, using a market value based tax base would be very beneficial when the price of natural gas is high.¹²⁵ This is because if the tax base is based on how much gas is valued at, or sold for, then naturally when prices are high, market value will also be high. A higher tax base results in more revenue when the tax rate is applied. However, the opposite effect is also possible: when natural gas prices are low, market value will be low, thus resulting in less revenue.¹²⁶ Therefore, this creates an unpredictable tax base, and fluctuations in revenue over the years could result if the price of natural gas changes frequently and drastically.

Utilizing a tax base tied to volume, however, would provide more stability and predictability. Using a tax base calculated by volume means that the base is not affected by fluctuating natural gas prices.¹²⁷ This results in more accurate predictions of the amount of revenue a state would receive per

¹²⁵ Pulver, *supra* note 46, at 321-22.

¹²⁶ *Id.* at 322.

¹²⁷ *See id.*

year. Nonetheless, using a volume base would not allow the state to benefit from the high revenue produced in periods where the price of natural gas is high. Therefore, although the revenue from a volume-based system is predictable and stable, it may result in losing the potential for very high revenues during some periods.

The best choice of tax base for Pennsylvania, considering its current circumstances, would be a volume tax base. Pennsylvania is desperately in need of additional tax revenue, specifically for funding its ailing education system.¹²⁸ A volume tax base would allow the state to begin generating reliable revenue from the tax from its inception. It would guarantee that the state would receive steady revenue because there are many natural gas companies currently operating in Pennsylvania currently. This could lead to the assumption that these companies are presumably producing large amounts of natural gas, as Pennsylvania is the second largest producer of natural gas in the country.¹²⁹ A steady source of tax revenue from a new source is exactly what Pennsylvania needs right now. It would help to alleviate its budget woes for the current year and also help the state begin to mend its financial position, which has been deteriorating over the past few years.

While the state could possibly make more revenue using a market value base, it is not certain that it would get a steady source of revenue now or over the next few years if natural gas prices fluctuate or drastically drop in the future. Furthermore, because of Pennsylvania's rich natural gas resources, in the form of the desirable Marcellus Shale, it is reasonable to expect that more natural gas producers will be drawn to the state in the foreseeable future. Thus, as business activity in the state increases so will revenue from the severance tax.¹³⁰ On the other hand, if a market base was utilized, more producers would flock to the Commonwealth, and the price of natural gas could

¹²⁸ TOM WOLF FOR GOVERNOR, *supra* note 74.

¹²⁹ U.S. ENERGY INFORMATION ADMINISTRATION, *supra* note 4,

¹³⁰ See U.S. ENERGY INFORMATION ADMINISTRATION, *Profile Analysis, PENNSYLVANIA STATE PROFILE AND ENERGY ESTIMATES* (July 21, 2016), <https://www.eia.gov/state/analysis.cfm?sid=PA> [<https://perma.cc/2QL9-DFBV>]; see also MORNINGSTAR ENERGY OBSERVER, *Shale Shock* (Feb. 2014), http://marcelluscoalition.org/wp-content/uploads/2014/03/Morning-Star_EnergyObserverFebruary2014.pdf [<https://perma.cc/M2KU-ZU6X>].

plummet following the influx. The result would likely be that the Commonwealth would lose a great deal of revenue potential due to the lower price of gas. Conversely, a volume base would leave the state unaffected by such price variations, while actually being able to take advantage of any production increases. Therefore, overall, a volume base is ideal for Pennsylvania, because it would provide predictable, steady revenue for the state over the next few years.

ii. Tax Rate

However, without a tax rate, there is no way to determine what proportion of the base will be subject to the tax, therefore the next logical step is to determine what the tax rate should be. There are two possible tax rate structure choices: either a flat tax rate or a progressive rate. For tax rates, both the type and the actual numerical value of the rate, should “be largely a product of the state's need for revenue and disposition towards environmental protection.”¹³¹ A progressive rate structure, like North Carolina's, that starts at a very low rate (0.9 percent generally in that state's case) would be good for easing gas producers into the tax. It would also allow for a steady increase in tax revenue over the years and would possibly make it more palatable for producers to eventually be subject to a higher rate. This could be similar to North Carolina's projected possible high rate of 9 percent in 2023. There, it is likely that by 2023 producers will have become accustomed to paying the tax.

However, starting at a healthy flat rate would provide instant noticeable revenue for the state and would allow the state to receive a more predictable amount of revenue over the years to come. One of the problems with a flat tax rate is that it may eventually become too low to produce optimal revenue in the future, especially if it is used in conjunction with a volume based tax structure. This is because the base will not increase with natural gas prices, which means the flat rate will become less effective as prices increase. Thus, the state will miss out on the revenue obtained with a market price base. However, the

¹³¹ Pulver, *supra* note 45, at 323.

opposite is also true. If gas prices decline, the flat rate may cause companies to pay a substantially higher tax burden if the base is a market value base.

For Pennsylvania, a flat tax would currently be the most efficient rate. As stated above, Pennsylvania is in desperate need of revenue right now. Therefore, combining a volume based tax base with a flat tax would produce an even, predictable, and steady income, and those increases would be evidenced in the first year of implementation. If the state used a progressive rate, like North Carolina, it may be more beneficial long-term, but the state needs more tax revenue now instead of several years from now as would be the case should the state use a progressive tax rate.

The matter of the actual numerical rate is not as easy to determine, however. If the state uses a volume base, then it would impose a rate based on a price per unit of gas extracted. Looking at the rate Ohio uses may be helpful, because it has access to the Marcellus Sale just like Pennsylvania, and its production from the Shale has been increasing over the past few years.¹³² Although, determining the exact value that should be imposed per unit of natural gas extracted should be best left to the Pennsylvania General Assembly because it has the best resources and experts available to determine what rate would be best in light of Pennsylvania's needs.

iii. Tax Liability

Determining tax liability when it comes to paying a severance tax on natural gas can be done in several ways, but in the framework of the state tax systems examined in this Note, there emerge two general patterns: either make only the producer who physically extracts the gas from the earth liable,¹³³ or make every owner of the gas well or lease liable based on their pro rata

¹³² *Shale Gas Production*, *supra* Note 5.

¹³³ See KY. REV. STAT. ANN. § 143A.020 (2016); Appalachian Land Co., 468 S.W.3d at 844; see also OHIO REV. CODE ANN. § 5749.01(D) (2016); OHIO REV. CODE ANN. § 5749.02(a) (2016).

ownership interest they have in the well or lease.¹³⁴ Making the physical severer the only one liable is attractive because it makes determining liability straightforward. It would ease any administrative burdens on the state and taxpayers because determining who, or what entity, removed the gas would be readily apparent.

However, this has the effect of concentrating the tax burden on one individual or corporation, even though there may be several owners, persons, or entities involved in the severing process. Also, as in states like Kentucky, the tax liability may not be shifted to another or assumed by another party, and only the severer is liable and must be the one to pay the tax.¹³⁵ Under the Wyoming system, the tax burden would be shared between all owners in respect to their interests and would not place the tax burden all on one party. This system recognizes that several parties may be involved in the severing process.¹³⁶ Ultimately, it comes down to whether the state and taxpayers would favor more certainty in determining who is liable to pay an increased burden or more uncertainty in who will pay with the possibility of spreading the tax burden across multiple parties.

In Pennsylvania, natural gas utility companies are the main entities extracting of natural gas, and 10 of the 31 “are major distribution companies with gross revenues greater than \$40 million per year.”¹³⁷ This would imply that the companies producing the most gas in the state are these major distribution companies. Because of this, if Pennsylvania should adopt a liability system where only the severer pays the full tax, it seems unlikely that the major distribution companies would be negatively affected to such a great extent as to hinder business activities.

Also, as stated above, a liability system that makes the physical severer liable would create much less uncertainty about who would pay the tax and would also create less problems for

¹³⁴ See WYO. STAT. ANN. § 39-14-203(c)(ii) (2016); see also *Lance Oil & Gas Co.*, 101 P.3d at 907.

¹³⁵ See *Appalachian Land Co.*, 468 S.W.3d at 858.

¹³⁶ See *Lance Oil & Gas Co.*, 101 P.3d at 907.

¹³⁷ PENNSYLVANIA PUBLIC UTILITY COMMISSION, *Pennsylvania Gas Outlook Report* (June 2015), http://www.puc.state.pa.us/NaturalGas/pdf/Gas_Outlook_Report-2014.pdf [https://perma.cc/ES9V-GFMZ].

the state in having to fight battles with producers over who should pay what share if there were a system like that in Wyoming.¹³⁸ This also would be ideal because, as it stands now, with no budget passed and the poor financial position of Pennsylvania, it is not in the position to be needlessly wasting resources resolving claims of who is liable to pay the tax. Therefore, the most efficient system to use for Pennsylvania would be the system used by Kentucky or Ohio, where the one who physically severs the gas from the earth is simply the one who is liable to pay the full severance tax.

iv. Other Features

Although the three elements listed above are essential to any severance tax, there are other elements that states may choose to include in their statutes to better tailor them to their own needs. For example, North Carolina includes a specific purpose section in the statute establishing its severance tax, which specifies exactly where the tax revenue will go.¹³⁹ North Carolina's statute allocates most of the revenue from the tax to maintaining the regulatory systems for the natural gas companies, research into natural gas, and also towards environmental clean up that needs to take place as a result of the severance of natural gas.¹⁴⁰ Ideally, this would be a good tax regime for any state because the tax is put back into the natural gas industry and also helps to offset the environmental costs of allowing natural gas companies to operate in the state's territory.

However, in the case of Pennsylvania, the state needs the revenue from the tax to go to areas other than the narrow areas specified by North Carolina's statute. As stated above, Pennsylvania is in dire need of education funding at the moment.¹⁴¹ However, in the future it may be in need of tax

¹³⁸ See *Lance Oil & Gas Co.*, 101 P.3d at 907 (as an example of litigation undertaken to determine who exactly is liable for what share of Wyoming's severance tax).

¹³⁹ N.C. GEN. STAT. ANN. § 105-187.77(a) (2016).

¹⁴⁰ See *id.*

¹⁴¹ See LANGLEY, *supra* note 12.

revenue that it can allocate to a different area, so it would be best to leave the revenue allocation open to the legislature's discretion. This way allows the legislature to allocate the revenue where it needs to be for the year in question, so that the Commonwealth can avoid another situation like the current budget impasse and potential school shutdowns.

Another state-specific concern unique to Pennsylvania is the status of the impact fee that is currently in place. Governor Wolf's proposed severance tax plan would keep the impact fee in place in addition to imposing a severance tax.¹⁴² This could certainly be done in addition to imposing a regular tax. However, the fact that natural gas producers would have to pay both the severance tax and the impact fee would have to be taken into account when determining the tax rate. The impact fee would allow the state to raise more revenue, but it also could serve another important purpose by directly funding areas of the Commonwealth. The impact fee has an already established structure that specifies where the proceeds from the fee are to be allocated.¹⁴³ These areas include allocation back to the municipalities and counties where the impact fee is collected.¹⁴⁴

Some of the revenue is also allocated to certain state agencies specifically for the purpose of responding to environmental issues caused by natural gas production wells and issues in administering the fee's requirements.¹⁴⁵ This is useful because the impact fee essentially fulfills the same purpose as the requirement in North Carolina's statute for the allocation of the severance tax revenue¹⁴⁶ but without actually sacrificing any of the tax revenue. Like Wyoming's system, the allocation of the total revenue would be split between both specific and general purposes.¹⁴⁷ Under such a system, the majority of the revenue would still be allocated by the legislature to whatever purpose the legislature deems necessary while still having some revenue specifically set aside for environmental purposes and

¹⁴² See OFFICE OF THE GOVERNOR OF PENNSYLVANIA, *supra* note 77.

¹⁴³ 58 PA. CONS. STAT. ANN. § 2314 (c.1) (2016).

¹⁴⁴ *Id.*

¹⁴⁵ *Id.*

¹⁴⁶ See N.C. GEN. STAT. ANN. § 105-187.77(a) (2016).

¹⁴⁷ See Wyo. CONST. art. 15, § 19; WYO. STAT. ANN. § 39-14-204(a) (2016).

administering the impact fee program. In short, it would be the best of both systems.

Another factor the state would undoubtedly want to consider in crafting its own severance tax program would be what exceptions to the tax the state would want to carve out. Two of the four states analyzed, Ohio and North Carolina, carve out an exception for severers who use the natural gas severed to improve or maintain their homestead (which must be located on the land from which the gas is severed).¹⁴⁸ Both states also have a maximum for the amount obtained for such a use that can be excluded (\$1,000 in market value or \$1,200 in market value), and any amount that exceeds that maximum is subject to the tax.¹⁴⁹ As stated above, the \$1,000 and \$1,200 exclusions are just a drop in the bucket compared to the rest of the revenue that would be captured and subject to the tax.

This exclusion also makes sense because taxpayers meeting the requirements of the exclusion are using the gas for personal use and not for commercial purposes, so it is unlikely they are massive natural gas companies making millions of dollars who are able to better pay the tax.¹⁵⁰ So, allowing such an exemption would not make the state lose out on a substantial amount of revenue, but would give a tax break to those taxpayers not necessarily able to pay the tax and not actually selling natural gas.

V. CONCLUSION

At this point, it seems only a matter of time before the Commonwealth of Pennsylvania finally enacts a severance tax on natural gas. The state currently has an impact fee in place that provides some revenue from natural gas extractors, but the revenue received from the impact fee pales in comparison to the revenue the state could capture by enacting a true severance tax. Extra tax revenue is something the Commonwealth desperately needs at the moment, especially in light of the state's current

¹⁴⁸ OHIO REV. CODE ANN. § 5749.03 (West 2010); N.C. GEN. STAT. ANN. § 105-187.79 (2016).

¹⁴⁹ OHIO REV. CODE ANN. § 5749.03; N.C. GEN. STAT. ANN. § 105-187.79.

¹⁵⁰ See PENNSYLVANIA PUBLIC UTILITY COMMISSION, *supra* note 140.

budget stalemate and the possibility that some school districts may have to close due to lack of funding.

In crafting a severance tax, the state will have to make decisions on what metric to use for the tax's base, what rate to use for the tax, and on whom to place the liability to pay the tax. Also, it should consider any other relevant factors, such as exceptions to paying the tax or if there will be any specified areas or purposes for which the revenue is to be used. Also, the state will have to decide what to do with the current impact fee: keep it or abolish it.

In light of the state's current situation and needs, the most favorable tax base to use would be one based on volume because of that system's ability to be insulated from price fluctuations. The most favorable rate is not certain, but should be decided by the General Assembly using its vast resources and knowledge of the Commonwealth's needs. Finally, the tax liability should be on the person or entity that physically severs the gas from the ground.

Additionally, the state should include a homestead exception, exempting taxpayers up to a certain value for gas severed from and used to maintain or improve their homestead. Also, the state should leave the allocation of the revenue from the tax up to the General Assembly and not restrict it to any specific purpose so that the state legislature can allocate the income to areas where it feels it is most needed at the time (e.g., education). Finally, the state should keep the impact fee in addition to the severance tax, because revenue from the impact fee can be used to help not only the counties and municipalities where natural gas extraction is actually taking place, but also to help clean up or offset some of the environmental effects of the gas extraction process.

Ultimately, it will be up to the General Assembly to assess the situation in the Commonwealth and to decide what it believes to be the best framework for a severance tax. Hopefully the General Assembly will act quickly so that the state can start collecting the much-needed revenue from the tax and, as a result of the new influx of revenue, may prevent future budget crises ensuring that no school district in the state will be threatened with closing its doors due to lack of funding.

