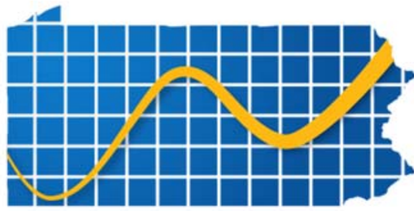

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June 1, 2015

Testimony of Michael Wood for joint hearing of the Senate Environmental Resources and Energy Committee and Senate Finance Committee

Good afternoon Senators,

Thank you for the opportunity to testify before you on the natural gas severance tax. The Pennsylvania Budget and Policy Center has spent a great deal of time studying severance taxes proposed in Pennsylvania and how these taxes operate in other states.

Here are some important lessons:

- Oil and gas development companies (those that would specifically be paying the severance tax) often pay little to no corporate income tax due to federal energy development tax incentives.[i] This is the case for the three largest gas producers in Pennsylvania in 2014. In its latest annual report, Range Resources (the number three PA-producer) indicates it is “currently not in a taxpaying position for federal income taxes,” and “we generally do not pay significant state income taxes due to our state net operating loss carryovers and our ability to follow the federal treatment of deducting IDC in most of the states in which we operate.”[ii] Number two PA producer, Cabot Oil and Gas, reports it paid no state income taxes in 2014. [iii] While the state’s largest gas producer, Chesapeake Energy, paid a combined federal and state effective income tax rate of only 1.5% in 2014.[iv] Added together, these three companies reported over $4 billion in net income in 2014. Considering the complex partnership agreements common in this industry where more of the income is taxed at Pennsylvania’s low PIT rate and our notoriously easy to skirt corporate net income tax system, the results are not surprising.
- Despite growing natural gas production, the rapid employment growth seen in this industry has plateaued since 2011. As fewer wells are being drilled, fewer workers are needed. Core employment, as defined by the Pennsylvania Department of Labor and Industry – and the only employment we can directly tie to activity in the industry, was approximately 33,000 in the third quarter of 2014.[v] This equals 0.54% of the state workforce and is slightly lower than the national average of 0.56%.[vi]
- Once resources are proven (a combination of geology and technology), price is the major driver of development – not taxes.
- While the industry will encourage states to keep oil and gas production taxes low in the name of competitiveness with other states (and to save producers money), the academic literature generally finds this type of competition to be unimportant.[vii] Actual experience shows that state tax policies make little difference in the development of these resources in one state over another. Headwaters Economics found that Montana offered tax rates of about half that of neighboring North Dakota, yet prodution has doubled in North Dakota from 2009 to 2012 and fell in Montana by 14% in that same period.[viii]

- Like hotel, car rental, and sales taxes in Florida and Nevada are paid by out-of-state tourists, severance taxes are often paid by out-of-state energy users. The conservative Tax Foundation, when doing its annual state and local tax burden study reassigns energy taxes from the state of collection to the the state of consumption. This regularly moves Alaska from being among the highest taxed states to the lowest in their rankings.[ix]
- Latest data from the U.S. Energy Information Administration (EIA) shows that if all the proposed tax were passed on to energy users that more than 90% of of a Pennsylvania severance tax would not be paid by Pennsylvania homeowners.[x] The tax's impact on gas prices paid by PA homeowners would be small, less than 2% at 2014 prices. This increase would be far smaller than the 28% decrease in consumer natural gas prices in Pennsylvnaia since 2008. As liquid natural gas shipping facilities come online in the next few years, the tax would be exported overseas to Europe and China.
- Pennsylvania consumers likely already pay severance taxes – to other states. Most of the oil and natural gas that is imported into Pennsylvania includes severance taxes, as all major oil and gas producing states – except Pennsylvania - have levy severance taxes on production.

Severance taxes are the norm in oil and gas producing states – in part due to the inability to generate income tax from these companies. Local property taxes on the value of production are also common. Pennsylvania has neither.

Even with the booms and busts inherant in the this industry, the oil and gas business continue to thrive in states that have severance taxes. Texas, Alaska, North Dakota, Oklahoma, Wyoming, and West Virginia, to name a few, tax oil and gas production with a severance tax and producers continue to prosper from the activity – AND produce revenue for their host state and local governments. These revenues are substiantial - in 2014, the Texas oil and gas industry paid $4.3 billion in property taxes, $3.9 billion in oil severance tax, and $1.9 billion in natural gas severance tax.[xi] There is no factual basis that the industry would somehow work differently in Pennsylvania and become unprofitable due to the tax.

Changing technology has made our impact fee outdated as wells are growing more efficient, and fewer wells are needed to meet a certain production level. With an effective rate below 2%, as calculated by the Pennsylvania Independent Fiscal Office,[xii] Headwaters Economics,[xiii] and ourselves,[xiv] the impact fee is far smaller than in other major producing states – meaning Pennsylvania citizens are getting less from this one-time development than other states. (See attachment A for a comparison of effective tax rates on shale gas.)

Without a tax, the activity of this industry will continue to privatize profits and socialize costs. While this is a great deal for the oil and gas industry, it is a bad deal for Pennsylvanians. The severance tax is an effective way of reducing externalities – where the price of a product doesn't include paying for all of the costs associated with that product.

Much like acid mine drainage, Pennsyvlania citizens will ultimately be on the hook for the remediation of this development, so the state should get a share of the income produced. Pennsylvania would be smart to set aside some of these funds for the future – for cleanup and reinvesting in affected local economies and workforces once the boom turns to bust.

Prices fluctuate, we know that. As recently as 2008, natural gas prices were in excess of $10 per thousand cubic feet (MCF).

Natural gas prices at many hubs in Pennsylvania are low due to oversupply and the inability to of the current pipeline system to move natural gas to higher priced markets. Both of these market failures are likely to fix themselves as demand grows due to exports and other uses of natural gas and pipeline expansions come online over the next couple of years. This should not be another, in a long line of excuses, to not enact a reasonable severance tax.

At 5% and 4.7 cents per MCF, the tax equals slightly less than 20 cents per MCF. The governor's proposal includes a price floor of $2.97 per MCF as a guard against excessively low prices. This is also done in Louisiana, which has a floor price of seven cents per MCF and resets its tax rate each year based on market prices the previous year.[xv]

For drillers, assuming they get a selling price of $2 per MCF, the governor's proposal would have an effective rate of 7.35%. This is lower than effective tax rates in Wyoming and New Mexico, are roughly equal to the rate in Texas.[xvi] For Pennsylvania consumers, the tax would amount to 1.7% of the $11.68 per MCF price they paid on average in 2014. As natural gas prices rise, the effective rate would drop.

Even under the current low price environment, gas drillers are doing alright financially. Many have hedges in place to guard against such price declines, and companies tell investors[xvii] that things are looking up. Energy analysts indicate that companies remain profitable[xviii] and are able to make more money than it costs to borrow – even with a severance tax. In the words of Bill Holland of SNL Energy, "While the $2.97 minimum built into the proposal will make it difficult for drillers to plan their tax burden and will eat into profits, it's not likely to drive drillers away from one of the most economical shale plans in North America." [xix]

Revenue estimates put forth by both the Wolf Administration and the Independent Fiscal Office have the total tax proceeds exceeding $1 billion by 2016-17, the first full fiscal year of collections. This includes the $225 million that is to be distrbuted (largely to host communities) as the impact fee which it replaces. The estimates in both cases seem reasonable.

The enactment of a natural gas severance tax, like the one proposed by Governor Wolf, is long overdue. Since the Marcellus Shale boomed in 2008, Pennsylvania has gone from being 15th largest producer in the US to the nation's 2nd largest natural gas producing state. If Pennsylvania were its own country, its 2014 production of over 4 trillion cubic feet of natural gas (conservatively worth $14 billion) would place it as the world's eighth largest producing nation – between Norway and Saudi Arabia.[xx] Certainly, no longer the infant industry as was recently claimed.

Had the Wolf proposal been in effect from 2011 to 2014, the state would have generated an additional $2.5 billion in tax revenue.[xxi] This recurring revenue source would have gone a long way toward filling the commonwealth's structural deficit which currently stands at least $1.5 billion for 2015-16.

A severance tax on natural gas is precisely the type of recurring revenue needed to diversify the state's revenue base and help it grow in tandem with state expenditures for critical services like schools, health care, and environmental protection.

Poll after poll shows wide public support for a severance tax. At a time when both the Governor and the House of Representatives have proposed increases in the sales and personal income taxes, voters will demand that drillers are part of the mix to help pay for the 2015-16 budget, and beyond.

[i] Taxpayers for Commonsense, *Understanding Oil and Gas Tax Subsides*, April 2014, http://www.taxpayer.net/images/uploads/Understanding%20Oil%20%20Gas%20Subsidies%282%29.pdf. For an interesting discussion from a conservative perspective on ending these subsidies, see Jerry Taylor and Peter Van Doren, "Eliminating Oil Subsidies: Two Cheers for President Obama," CATO Institute, May 3, 2011, http://www.cato.org/publications/commentary/eliminating-oil-subsidies-two-cheers-president-obama .

[ii] Range Resources 2014 Annual Report, Form 10K, page 37, http://services.corporate-ir.net/SEC/Document.Service?id=P3VybD1hSFIwY0RvdkwyRndhUzUwWlc1cmQybDZZWEprTG1OdmJTOWtiM2R1Ykc5aFpDNXdhSEEvWVdOMGFXOXVQVkJFUmlacGNHRm5aVDA1TkRJeE5qSXdKbk4xWW5OcFpEMDFOdz09JnR5cGU9MiZmbj1SYW5nZVJlc291cmNlc18xMEtfMjAxNDAyMjYucGRm.

[iii] Cabot 2014 Annual Report Form 10K, page 90, http://www.cabotog.com/wp-content/uploads/2013/03/COG-12.31.2014-10K.pdf.

[iv] Chesapeake Energy Corporation, 2014 Annual Report, Form 10K, page 96, http://services.corporate-ir.net/SEC/Document.Service?id=P3VybD1hSFIwY0RvdkwyRndhUzUwWlc1cmQybDZZWEprTG1OdmJTOWtiM2R1Ykc5aFpDNXdhSEEvWVdOMGFXOXVQVkJFUmlacGNHRm5aVDB4TURFd056RTRNQ1p6ZFdKemFXUTlOVGM9JnR5cGU9MiZmbj0xMDEwNzE4MC5wZGY=.

[v] Pennsylvania Department of Labor and Industry, Marcellus Shale Fast Facts, 1st Quarter 2015 Edition, April 2015, http://www.portal.state.pa.us/portal/server.pt?open=514&objID=1222103&mode=2.

[vi] Keystone Research Center analysis of Bureau of Labor Statistics Quarterly Census of Employment and Wages.

[vii] Numerous sources, including: Gerking, et al, *Mineral Tax Incentives, Mineral Production and the Wyoming Economy*, Wyoming Department of Administration & Information, December 2000, http://eadiv.state.wy.us/mtim/StateReport.pdf; Chakravorty, et.al, "State Tax Policy and Oil Production: The Role of the Severance Tax and Credits for Drilling Expenses," in *U.S. Energy Tax Policy*, Gilbert E. Metcalf, ed., 2011; Gabriel Lozada and Michael Hogue, *The Effect of Proposed 2009 Tax Changes on Utah's Oil and Gas Industry*, University of Utah, December 2008, http://content.csbs.utah.edu/~lozada/Research/Severance_Taxes/LozHog_Final.pdf; Headwaters Economics, *Energy Revenue in the Intermountain West*, Bozeman, Montana, October 2008, http://headwaterseconomics.org/pubs/energy/HeadwatersEconomics_EnergyRevenue.pdf.

[viii] http://headwaterseconomics.org/wphw/wp-content/uploads/state_lessons_for_subsidies.pdf

[ix] Elizabeth Malm and Gerald Prante, "Annual State and Local Tax Burden Ranking FY 2011," Tax Foundation, April 2014, http://taxfoundation.org/sites/default/files/docs/Burdens_2014_Final.pdf.

[x] PBPC analysis of U.S. Energy Information Administration data on "Pennsylvania Natural Gas Consumption by End Use," March 2015, http://www.eia.gov/dnav/ng/ng_cons_sum_dcu_spa_a.htm.

[xi] Texas Oil & Gas Association, New Record: Oil and Gas Industry Paid $15.7 Billion in Taxes and Royalties in 2014, Most in Texas History, February 24. 2015.

[xii] http://www.ifo.state.pa.us/download.cfm?file=/resources/PDF/SR2014-02.pdf

[xiii] http://headwaterseconomics.org/wphw/wp-content/uploads/State_tax_comparison_study.pdf

[xiv] http://pennbpc.org/pa-marcellus-impact-fee-comes-short

[xv] Louisiana Department of Natural Resources, "Louisiana Severance Tax," accessed May 2015, http://dnr.louisiana.gov/assets/TAD/data/severance/la_severance_tax_rates.pdf.

[xvi] See page 3 of Headwaters Economics and the Oklahoma Policy Institute, "Unconventional Oil and Natural Gas Production Tax Rates: How Does Oklahoma Compare to Peers?" August 2013, http://headwaterseconomics.org/wphw/wp-content/uploads/State_tax_comparison_study.pdf.

[xvii] In this investor presentation dated 5/27/2015, Range Resources highlights falling production costs, hedged prices, low break-even prices in the Marcellus, and increased demand for natural gas, http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9NTgyMTQ1fENoaWxkSUQ9Mjg4MzgzfFR5cGU9MQ==&t=1.

[xviii] Arjun Sreekumar, "IHS CERA 2015: Resilient Marcellus gas drillers are the 'problem': E&P Executive," *Platts*, April 22, 2015, http://www.platts.com/latest-news/natural-gas/houston/cera-2015-resilient-marcellus-gas-drillers-are-21334905.

[xix] Stephanie Ritenbaugh, "Pennsylvania lawmakers dig in on natural gas severance tax," Pittsburgh Post-Gazette, March 24, 2015, http://powersource.post-gazette.com/powersource/policy-

powersource/2015/03/24/Pennsylvania-lawmakers-dig-in-on-Marcellus-Shale-severance-tax/stories/201503240019.

[xx] PBPC comparison of production data reported to the Pennsylvania Department of Environmental Protection (DEP), https://www.paoilandgasreporting.state.pa.us/publicreports/Modules/DataExports/DataExports.aspx, to US Energy Information Administration international energy statistics, http://www.eia.gov/cfapps/ipdbproject/IEDIndex3.cfm?tid=3&pid=3&aid=1.

[xxi] PBPC calculations using natural gas production figures published by the Independent Fiscal Office, http://www.ifo.state.pa.us/download.cfm?file=/resources/PDF/Revenue_Proposal_Analysis_April2015.pdf.

Attachment A
http://headwaterseconomics.org/wphw/wp-content/uploads/State_tax_comparison_study.pdf

Figure 2: Effective Tax Rate on a Typical Unconventional Natural Gas Well After 10 Years of Production.