Before the

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Ohio House of Representatives
Agriculture and Natural Resources Committee
The Honorable David Hall
Chair

Proponent Testimony on:
House Bill 133

Presented by:
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Chairman Hall, Ranking Minority Member Fedor and members of the House Agriculture and Natural Resources Committee, thank you for the opportunity to offer proponent testimony in support of House Bill 133 – the Ohio Self-Help Bill.

I am Tom Stewart and I serve as the executive vice president of the Ohio Oil & Gas Association (OOGA), a trade association whose 1,400 members explore for, develop and produce Ohio’s crude oil and natural gas resources. (Figure 1) All people who explore for and produce oil and natural gas in Ohio are independent producers - defined as non-integrated companies whose livelihoods are exclusively derived from production of crude oil and natural gas at the wellhead.

The Legislation: House Bill 133 provides to Ohio what nearly every other oil and gas producing state with significant publically-owned properties already has – an orderly and transparent process to evaluate the energy potential of properties owned by the people. Then, if sensible, this legislation provides state authorities the necessary tools to harness that potential to generate revenues that can then be used to support those properties, even as the production increases the incremental energy supply available to Ohio consumers.

H.B. 133 creates a five member Oil and Gas Leasing Board (the Board), led by Ohio Department of Natural Resources (ODNR) officials, which is authorized to manage the leasing of oil and natural gas resources contained on state-owned properties. The Board is authorized to divide parcels of land and to further find value by separating leasing of oil and gas producing horizons based on a division of the geologic column. This is rational since the Board has specific expertise on the analysis of oil and gas potential including geologic and geophysical data; the process of oil and gas exploration and development, and the regulation of oil and natural gas drilling and production activity in Ohio.

H.B. 133 delegates to the Board the authority to receive nominations from interested parties; approve or deny lease agreements on all state-owned properties; and conduct sealed-bid auctions should they authorize that a property be offered for development.

The Board is chaired by the Chief of the ODNR-DMRM (the head of the oil and gas regulatory agency) and includes the Chief the Ohio Geologic Survey (the state’s geologist), two members of the oil and gas industry, and one member representing the public interest. The structure of the Board provides the requisite expertise to evaluate lease bids in order to assure that Ohio citizens receive the highest possible value. By utilizing such a Board, an open, transparent process is created to protect the public interest.

H.B. 133 specifically codifies into law several factors that the Board must consider while reviewing an initial lease nomination. These factors include the economic benefits of the lease, whether an oil or gas operation is compatible with current uses of the parcel to be leased, any objection submitted by the agency controlling the land, and any other factors that are deemed appropriate by the Board.
The legislation provides to the Board the authority to create rules and implement a process whereby persons are able to nominate acreage of interest for development. These rules include the creation of a competitive bidding process; procedures to create lease agreements protective of the public interest and mindful of the primary purpose of the land, including site-specific aesthetic and environmental concerns; and a process to determine lease payments and bonuses. Finally, the legislation directs the ODNR to maximize revenue from state-owned property and to use the proportional revenue to pay for capital projects and improvements within the state properties where the oil and gas exploration is taking place.

I feel it is important to note that despite claims by anti-oil and gas groups, nobody is advocating drilling oil and gas wells on properties that offer a unique experience of nature, long treasured by Ohio citizens for their significant and cultural contribution to Ohio’s heritage. An example would be the Hocking Hills State Parks – the Old Man’s Cave area. On the other hand, their suggestion that having oil and gas development in proximity to these special areas is somehow a shocking new threat that, if allowed, would desecrate the sanctity of the public trust is, at best, disingenuous. A map of the Hocking Hills State Parks clearly shows that these beautiful and pristine parks have long co-existed with substantive oil and gas development. It is time to reject hyperbole and, instead, seek common interest. (Figure 2)

Examples with Other States: Several oil and gas producing states currently receive substantial benefits from oil and gas leases on state-owned lands.

In 1976, Michigan become the first state to establish a land trust fund (the Michigan Natural Resources Trust Fund (MNRTF)) specifically subsidized by revenues generated primarily from oil and gas royalties and acreage bonuses generated from state-owned properties. Michigan had been leasing state-owned property since 1926, but now had a way to better direct the revenues to the public good. The Trust provides principal funding for land acquisition and enhancement of public recreational activities. In 1994, Michigan established the State Park Endowment Fund that distributes $10 million annually from the Trust Fund for the purpose of operation, maintenance and capital improvements benefiting Michigan state parks.

Since its inception, the Trust Fund has financed public improvements of nearly 1,500 projects with total appropriations of more than $650 million throughout the state. In May 2010, bidders paid $178 million for state land leases as part of a lease sale that generated more than eight times the record set in 1981 for leases and just $12 million less than what the state has collected over the previous 81 years. Additionally, in December 2010 the MNRTF recommended that $102 million in funds go towards 71 acquisition and 46 development projects for Michigan’s public recreation lands. Due to a record setting year of leasing activity in 2010, the Fund has distributed nearly $500 million in funds for acquisition and development projects.

Pennsylvania is another example of a state benefiting from oil and gas leasing on state-owned properties. In May 2010, the Pennsylvania Department of Conservation and Natural Resources signed a $6.15 million agreement with an oil and gas producer to develop Marcellus Shale natural gas resources on 1,500 acres under the Susquehanna River in Bradford County. The lease sale is separate from a 32,000 acre state forest offering that took place in January 2010 which generated $128.5 million to help close that state’s budget gap.

Drilling on state park property has been the norm in Oklahoma for decades. In 2007, the Oklahoma legislature refined the process by creating the Oklahoma State Park Trust Fund which provides a permanent source of funding for the parks. The fund is supported by revenue from mineral lease payments, seismograph fees and royalty payments generated at the parks. The Oklahoma Tourism and Recreation Commission can use five percent of the trust fund annually
for one-time capital upgrades and other improvements to preserve historical structures in the parks.

Closer to home, both Michigan and Pennsylvania have had for many years an open, orderly and transparent process to manage state-owned oil and natural gas resources. Ohio does not.

Much of the recent leasing activity in states such as Michigan, Pennsylvania, New York and West Virginia is related to the discovery of prolific natural gas reserves in geologic resource shale reservoirs – the Marcellus being the most publically referred to of late.

**What Does It Mean:** Ohio has the same potential found in our neighboring states. However, people interested in this subject invariably ask: What is the potential value of Ohio’s publically-owned reserves? It’s prudent to think about the answer in terms of conventional reserves before attempting to expand the concept to non-conventional shale potential. There are two things to consider:

1. The value of state-owned reserves and what those reserves will produce over time, and
2. The value a producer/bidder is willing to pay to the state for a lease parcel, usually on a value per acre basis, in order to acquire the rights to produce the oil and gas for a determined period of time pursuant to an oil and gas lease contract.

Oil and gas reserves are the quantity that one knows can be produced from a property over a reasonable period of time, at a known commodity price, using existing technology and with the assurance that sufficient wells will be drilled to access the resource.

For example, according to the U.S. Department of Energy, Ohio’s total proven reserves of natural gas are 896 billion cubic feet and 38 million barrels of oil. These reserve numbers have essentially stayed in that range for many years because Ohio producers continue to invest in drilling of new wells that replace what has been produced. New wells sustain the oil and gas reserve base.

So, what is important is that:

1. Reserve replacement takes place – producers drill new wells to replace depletion, and
2. Policy makers understand that reserves are not the sum total of what is in the ground but rather what is available under existing market conditions that control economic incentives to support sufficient drilling to access the resource.

Simply put, what matters most is what the reserves produce. Ohio’s proven reserves produce about 78 billion cubic feet of natural gas and 4.78 million barrels of crude oil per year. Recently, the gross wellhead value of Ohio production was $718 million, from which an estimated $108 million was paid to Ohio landowners in royalties.

To value the reserves on state-owned property, one must assume that producers will be allowed to engage in a drilling program, over time, which will generate the wells necessary to efficiently produce the reserves and effectively yield a production stream that generates consistent royalty income for the State of Ohio.

Oil and gas exploration and development is a rational process controlled by geology, economics and time.

To make an accurate valuation of economic value, reserve studies rely on geologic and reservoir information derived from wells drilled in the vicinity of a property that is being evaluated. There are very few (modern) wells drilled on state-owned property, so that
information is sketchy and, therefore, reserve calculations must rely on offsetting wells situated on private properties.

**An Overall State-Wide Evaluation:** Using the aforementioned fundamentals to qualify this discussion, on November 14, 2007 the Ohio Oil & Gas Association testified before the Ohio House Alternative Energy Committee (127 G.A.) in regard to state lands leasing in general. That testimony attempted to value the state’s productive potential. The conclusion was this:

The State of Ohio is the single largest property owner in Ohio with natural gas and crude oil reserve potential under its lands. Currently, the ODNR owns and manages more than 600,000 acres of land in 74 state parks, 20 state forests, 127 nature preserves and 120 wildlife areas. Many of these properties are located in areas of known natural gas and crude oil development.

Assume that 50 percent of the 600,000 acres are prospective for oil and natural gas development and for whatever reason half of that acreage is inaccessible, has deed restrictions or is otherwise too sensitive for development. Accounting for that, the assumption leaves 25 percent of state-owned property truly prospective and accessible - 150,000 acres.

That acreage would support a 200 well per year drilling program, to take place over a ten year period. Assuming average recoverable reserves of 150,000 Mcf per well using an average price of $8.00 per Mcf of natural gas equivalent, the result would generate lease bonus payments of $20 million; a royalty stream of $300 million based on a 12.5 percent royalty rate; and $6 million in free natural gas to the lessor based on 200 Mcf/year/well over ten years.

**Site Specific - Salt Fork Park:** In 2005, the Association requested a petroleum engineering study of Salt Fork State Park. In many ways Salt Fork is the poster child of state lands leasing. It is huge - consisting of 20,000 consolidated acres. The park exists within a known productive natural gas field that produces from the Silurian Clinton sandstone. Salt Fork is surrounded by mature wells with a known history of significant oil and gas resources. (Figure 3 and 4)

The James Engineering Study concluded the following based on $7.00 per Mcf of natural gas equivalents and estimating an average recoverable reserve per well of 185,800 Mcf natural gas equivalents. This production yield was based on an extensive database of existing offsetting wells. Therefore:

A 74 well drilling program using 12.5 percent royalty rate would produce approximately $12 million in royalty payments over time. The study did not calculate a per acre lease bonus. Based on the previous discussion and considering the fact that a producer could potentially access a contiguous lease block of 20,000 acres, we believe it is reasonable that an interested producer would pay an upfront $5 million lease bonus payment to access the Silurian Clinton sandstone reservoir.

In January 2009 the Ohio Division of Geological Survey (OGS) completed a rudimental evaluation of Salt Fork Park, requested by the Ohio State Park and Recreational Areas Study Committee. The OGS used slightly different well reserves - more generic in nature - and lower market commodity conditions. (The James Study had access to proprietary information and is reliable.) However, the OGS study affirmed the James Study in nearly every aspect.

Both the OGS and James studies evaluated oil and gas potential from only one oil and gas-bearing formation - the Silurian Clinton sandstone reservoir. However, there are multiple reservoir targets in this area, not the least of which is the potential arising from the very deep Ordovician Rose Run Sandstone and Beekmantown Dolomite. Recent drilling activity to these formations in
the Guernsey/Noble/Tuscarawas county area is yielding prolific oil and gas production, with each well exceeding in multiple folds the productive capacity of a Clinton well. That productive potential is significant, in fact it may be the true ultimate potential for this region, but the economic value is not factored in for purposes of the study. Neither study contemplated the potential of resource shale development, such as that derived from the Marcellus or Utica units. As can be seen from recent successes in Pennsylvania and West Virginia, the potential is significant.

The Game Changer: Recent evaluation of the resource shale play, just getting underway in Ohio, suggests that shale development will be a significant game changer for this state’s oil and gas production. As seen in neighboring states, leasing activity for the Utica and Marcellus shale formations has changed the leasing dynamic. Many companies are making substantial investments in Ohio to acquire a land position that includes the mineral rights to the resource shales. The result has been dramatic increases in lease bonus, acreage and other payments. Many state-owned properties are positioned to take advantage of this development. The state should expect a greater economic benefit from shale leasing when compared to a traditional leasing program focused on conventional resources.

Oil and gas producers across the country and in Ohio have been successfully completing oil and gas wells in shale reservoirs for well over 100 years. Ohio’s Upper Devonian shale has been a natural gas producing formation in several areas of the state. However, the shale is a dense formation with poor permeability. Oil and gas do not easily flow through it. Until recently this has limited access to the resource and the number of wells that have been drilled to the formation.

Like for many things, technology has dramatically changed this situation. The development of horizontal drilling technology has made it much more practical to drill horizontally-oriented well bores through the formation, dramatically exposing more of the reservoir rock face to the wellbore. Advances in well stimulation procedures are allowing the natural gas and crude oil to more easily flow through the shale rock and into the wellbore. A horizontal lateral well is essentially many wells within one well bore. The yield per well is many times more prolific than a conventional well.

The shale revolution began in the Barnett Shale field of North Texas nearly ten years ago and has expanded to include several major fields across the United States. (Figure 5) The Marcellus Shale spans across New York, Pennsylvania, and West Virginia. As it enters Ohio the Marcellus considerably thins and will likely be a significant resource only in the far-eastern counties. Even so, the Marcellus field today is considered to be one the largest natural gas fields in North America. (Figure 6 and 7)

The Utica Shale, however, has the possibility to be an economic game changer for Ohio. Unlike the Marcellus, the Utica formation extends across the state of Ohio. Testing and geology shows that the Utica is a thicker formation in several areas of Ohio and that it will primarily be a liquids play - a crude oil producer. In fact, many believe that the Utica is the source rock for oil produced from the Clinton sandstone. (Figure 8)

In a presentation to the oil and gas community two weeks ago, Larry Wickstrom, Chief of the Ohio Geologic Survey - the state’s geologist - presented his projections on the reserve potential of the Utica Shale. Mr. Wickstrom demonstrated calculations that showed if wells drilled to the Utica were able to recover only 1.2% of the oil and gas in place in the rock the Utica may yield 3.75 trillion cubic feet of natural gas and 1.31 billion barrels of oil. If the recovery yield were to increase to 5 percent (leaving 95% of the oil and gas in place) the oil production jumps to 5.5
billion barrels of oil and 15.7 trillion cubic feet of natural gas. Should these projections even remotely become reality, Ohio is primed to become a significant oil and gas producing state.

And, that scenario presents significant opportunity for state-owned property.

Often critics of opening state-owned property to oil and gas development say that even if drilling were allowed what would result would have negligible impact on energy costs and do nothing to lessen reliance on non-American sources of energy. Would this really make a difference?

We all know that the world price of crude oil has been escalating, driven by geo-political tensions and economic drivers such as the devalued dollar. Crude is a world-wide fungible commodity. The U.S. crude market is pegged to crude oil priced and traded at the New York Mercantile Exchange based on oil located at Cushing, Oklahoma; known as West Texas Intermediate (WTI). World oil is often pegged to crude traded at the London exchange, known as Brent crude. For the last several months WTI has been discounted to Brent by nearly $15 per barrel. There is a good explanation for this. Significant new supplies of crude oil being discovered and produced in the Williston Basin Bakken Shale and Eagle Ford Shale of South Texas have generated new oil supply in enough quantities as to cause American oil to be cheaper than world oil. The Utica Shale of Ohio has similar geologic characteristics to the Eagle Ford. New sources of American crude supplies are making a difference to American consumers. Ohio has new opportunities to participate in the production of reliable energy supplies. (see Figure 9)

Natural gas is priced based on North American sources of supply. Over time, the price of natural gas has generally tracked the price of crude oil on an energy equivalent (BTU) basis of six MCF of natural gas being equivalent to one barrel of oil. That is until now. The amount of new natural gas supply entering the marketplace has overwhelmed the marketplace, particularly in the industrial and temperature-sensitive northeast. As a result the average NYMEX price of natural gas has plummeted to 25% of the traditional gas to oil BTU price ratio. Otherwise, primarily because of new gas supplies from the resource shale fields, the Marcellus Shale being the most significant, natural gas which should be valued at $17 per MMBtu is instead about $4 per MMBtu. You have no rationale constituent that does not take great satisfaction in that fact. (see Figure 10)

The state of Ohio may very soon play a major role in these new developments, including the considerable economic benefits Ohio citizens will realize from oil and gas production on their public properties.

Take one more look at Pennsylvania. A recent report said that officials at the Pennsylvania Department of Conservation and Natural Resources have acknowledged that a shift is under way in how the conservation agency is funded. The governor’s latest budget proposal calls for the DCNR to rely more on royalties and lease payments from natural gas and oil producers and less on tax dollars. The budget proposal uses $65 million in revenues from the Oil and Gas Lease Fund generated from gas leases on state forest lands to offset the operating costs of the department. The portion of DCNR supported by the taxpayer-supported general fund would drop by nearly one-third. The result is that oil and gas revenues will account for 41 percent of the state parks budget and 25 percent of the state forests budget. Since it was created in 1955, the oil and gas fund has generated $160 million in rents and royalties for conservation purposes, including the purchase and development of eight state parks and portions of thirty other state parks.
At its core, H.B. 133 is about making the best use of our state’s resources, particularly during times of severe state budget distress. The State of Ohio is the largest landowner. The burden of maintaining state properties, particularly the state parks, is a festering and ever-expanding problem. Realizing the value these properties offer Ohio is not the single solution to the state’s funding issues. It is a component of an overall solution. As is evidenced in other states, this legislation creates a roadmap to provide tangible and substantial benefits to Ohio citizens for years to come.

Of all the energy source issues that have been recently debated at the Statehouse, the state lands leasing proposal is the only one that generates significant cash flow for the state, doesn’t require subsidies or mandates to make economic sense, and actually provides an immediate benefit to taxpayers. This is about the State doing something to help itself. For those reasons, we urge this committee to favorably report House Bill 133 to the House floor.

Respectfully submitted:

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Tom Stewart serves as the executive vice president of the Ohio Oil and Gas Association (OOGA), having been elected to that position in September, 1991. At OOGA, Stewart is director of staff, editor of the Association’s publications, serves as an industry spokesman to media outlets and other forums, and is an industry advocate as a registered legislative agent. Stewart represents his members’ interests in Columbus and Washington D.C.

Stewart serves as the Ohio associate representative to the Interstate Oil and Natural Gas Compact Commission (IOGCC) (http://www.iogcc.state.ok.us/). IOGCC is an organization of governors of the oil and natural gas producing states established to promote the conservation and efficient recovery of domestic oil and natural gas resources while protecting health, safety and the environment.

Stewart is an active participant with the Independent Petroleum Association of America (IPAA) (www.ipaa.org) and serves on the IPAA Environment and Safety Committee, the Communications Steering Committee, the Gas Pipeline Safety Sub-Committee and is an original member of the management team organizing the national BRIEF Project. http://www.energyindepth.org/

In December, 2001, Stewart was elected to the Board of the State Review of Oil and Natural Gas Environmental Regulations, Inc. (STRONGER) as one of three representatives for the U.S. oil and gas exploration and production industry. During 2003, Stewart served as chairman of the STRONGER Board. STRONGER is a non-profit organization created to administer and advance the state review process of the States’ oil and gas exploration and production waste management regulatory programs. STRONGER is stakeholder-driven process with equal representation from government, industry and the environmental community. STRONGER’s objective is to foster constant ongoing improvements in state oil and gas regulatory programs in order to protect human health, safety and the environment. http://www.strongerinc.org/

From August 2002 to November 2005, Stewart served as the secretary treasurer of the Liaison Committee of Cooperating Oil and Gas Associations. The Liaison is a national network organization of state and regional trade associations that represent the independent oil and gas exploration and production industry in the United States. Stewart was responsible for coordinating the organization’s efforts.

Prior to joining OOGA, Mr. Stewart has fifteen years of formal experience in the oil and gas industry as an oil and gas production supervision, oil and gas producer and provider of contract drilling services. He is the third generation of his family to engage in exploration, development and production of crude oil and natural gas.

The Ohio Oil & Gas Association is a statewide trade association with over 1,500 members who are actively involved in the exploration, development and production of crude oil and natural gas within the State of Ohio. Since 1947, the Association’s mission is to protect, promote, foster and advance the common interests of those engaged in all aspects of the Ohio crude oil and natural gas exploration and production industry.
Figure 1: Ohio Oil & Gas Development

Figure 2: Oil & Gas Development Within and Proximate to Hocking Hills State Park
Figure 3: Regional Oil & Gas Development, Salt Fork Park Region

Figure 4: Oil & Gas Development Within and Proximate to Salt Fork Park
Figure 5: U.S. Resource Shale Fields

Figure 6: Marcellus Shale
Figure 7: Marcellus Shale Thins Within Ohio - Impact Limited to Eastern Counties

Figure 8: Utica Shale - Impact Across Ohio
Figure 9: World Oil Prices – Last 24 Months

Figure 10: US Gas and Oil Prices (1995- Feb. 2011)