



Sierra Club Testimony before the House Committee on Appropriations

April 3, 2009

Good morning. My name is Thomas Au. I am here today on behalf of the Pennsylvania Chapter of the Sierra Club.

The Sierra Club was founded in 1892 to explore, enjoy, and protect our planet. The Sierra Club has about 27,000 Pennsylvania members. Nationally and locally, the Sierra Club has been a leader in conservation practices and environmental protection.

Fixing our economy, making us energy independent, transforming our energy future, slowing and ultimately reversing climate change and its consequences will require a clear agenda and aggressive timetable. Working with some of the world's top climate scientists, engineers, and energy experts, the Sierra Club has developed a Climate Recovery Agenda that will help our economy recover, reduce our dependence on foreign oil, cut carbon emissions 80 percent by 2050, and protect our natural heritage, communities, and country from the consequences of global warming.

The Sierra Club supports an energy policy that moves us towards the clean energy future. The Sierra Club recognizes that natural gas is an important transitional fuel as the United States moves away from fuels that emit large quantities of greenhouse gases to clean, affordable renewable energy sources. Natural gas, on average, is a cleaner source of energy than coal. For the equivalent amount of heat, natural gas produces about 45% less carbon dioxide during its combustion than coal. The United States will need to develop affordable natural gas supplies in the immediate future. However, that does not mean the Commonwealth government should subsidize the production of natural gas nor should the Commonwealth ignore the problems caused by natural gas exploration.

Natural gas drilling and production comes with a cost to the Commonwealth. The present gas rush in the Marcellus Shale will cause water pollution problems in our rivers and streams. According to a Reuters article published on March 20, 2009, Pennsylvania's top environmental official said on Friday that a natural gas drilling boom would inevitably result in some environmental damage including possible contamination of water supplies. Secretary Hanger admitted having problems controlling the environmental consequences of gas drilling. "You can't do a large amount of drilling and have zero impact," Mr. Hanger told Reuters. "There's going to be a lot of good that comes from drilling in Pennsylvania, but there are also going to be some problems."

There will be unavoidable and damaging environmental effects from gas drilling. Water quality is a major concern. Even the gas industry admits that it has not yet developed a feasible method to treat the salt and metals in flowback water and produced water from its production wells. Until then, wastewater will be sent to municipal sewage treatment plants, to be diluted and mixed with treated sewage flows. The industry recognizes that the present treatment plants do not remove the salts from water before discharging wastewater into our streams. Our freshwater river systems, the Allegheny, Monongahela, Susquehanna, and Delaware Rivers, do not have the assimilative capacity to absorb the heavy metals and brines in these waste streams. Although many companies are working on this problem, the technological solution may be years away.

Gas drilling also affects the surface of our land. Drilling pads, surface impoundments, access roads, and pipelines alter the landscape and have a lasting impact on our woods and wildlife habitat. Heavy rigs and tanker trucks damage our rural roads. Each community and municipality with gas exploration activities pays a price for this development which is not compensated by taxes.

In addition, accidents do happen. And when they happen, the cost of remediation is expensive, more than the \$2500 bond that an operator deposits for each well. Many projects are properly designed, and meet environmental requirements on paper. However, even when projects are designed correctly, accidents happen because people get lax and do not maintain equipment or structures, or do not follow the requirements rigorously. Human nature being as it is, people do tend to cut corners. Moreover, DEP does not have inspectors to visit these sites regularly. With thousands of permits issued in the past year, DEP cannot make all the necessary inspections, even if there is a complaint from a landowner.

The Sierra Club believes that a gas extraction tax is a proper tool for compensating the Commonwealth and local government for the long term damage done by gas exploration and drilling. We believe that a fair and reasonable tax, like those assessed in other gas producing states, is necessary to fund the Commonwealth government generally and the environmental programs and agencies which must deal with the problems created by gas drilling. We believe a portion of a gas severance tax must be dedicated to the Environmental Stewardship Fund and to the Pennsylvania Fish & Boat and Game Commissions to restore wildlife habitat and improve public access to public lands. A portion must be dedicated to help local governments impacted by natural gas drilling operations.

The gas industry is investing billions of dollars in the Marcellus Shale drilling and stands to make billions of dollars in profit. The industry will remain in Pennsylvania for the long term, regardless of the levy of a gas extraction tax or not. Drilling activity will not change due to environmental requirements either. The warning by some in the gas industry that a tax will drive exploration away from Pennsylvania, home of some 350 trillion cubic feet of Marcellus Shale gas, are unfounded. In fact, the Baker Hughes Rotary Rig Count, the industry's standard measure of active drilling operations for all 50 states, shows that drilling activity has not changed in Pennsylvania for the past six

months and has increased over the past year. As of March 27, 2009, the average active rig count in Pennsylvania is 27, the same number as it was in Sept. 2008; and more that rig count of 21 in March 2008. The limiting factor for gas drilling in the Marcellus Shale is not the number of permits that the state can issue, but the availability of drill rigs for exploration. Even if you opened the entire Commonwealth for drilling next year, the availability of drill rigs would limit exploration and production. A severance tax would neither slow nor increase exploration.

Gas exploration in and production from the Marcellus Shale in Pennsylvania will be going on for decades. Similarly, the environmental consequences of exploration and production will be with us for decades. Now you have the opportunity to take a significant step offsetting some of the costs that the Commonwealth must bear currently and in future years. We are still living with the legacy of oil and gas drilling from a century ago – thousands of abandoned well sites and oil and gas seeps, and denuded landscape. A severance tax would compensate the Commonwealth for mitigating the long term environmental damage. Gas drillers in the Marcellus Shale should not be given a tax holiday.